

Eidgenössische Technische Hochschule Zürich Swiss Federal Institute of Technology Zurich

# **Courses in Autumn Semester 2021**

# **Agricultural Sciences Bachelor**

#### ▶ 1. Semester

#### **▶▶** First Year Examinations

Number	Title	Туре	ECTS	Hours				Lecturers
529-2001-02L	Chemistry I	0	4 credits	2V+2U				
529-2001-02 V	Chemie I Vorlesung im HG F1 mit Videoübertrag	gung ins HG	F3.	2 hrs	Tue	08-10	HG F1 HG F3	J. Cvengros
529-2001-02 U	Übungen:	-		2 hrs	Wed Thu	14-16 10-12	CHN C14 ETZ E8 ETZ H91	J. Cvengros, J. E. E. Buschmann, P. Funck, E. C. Meister, R. Verel
	Mi 14-16 für Umweltingenieurwissensc Do 10-12 für Agrar-, Lebensmittel-, Erc Fr 8-10 für Umweltnaturwissenschafter	dwissenscha	ften		Fri	08-10	HG G26.3 IFW A34 IFW B42 ETZ J91 IFW A36	
401-0251-00L	Mathematics I	0	6 credits	4V+2U				
401-0251-00 V	Mathematik I: Analysis I und Lineare A	lgebra		4 hrs	Mon Wed Thu	09-10 12-14 09-10	HG E7 HG E7 HG E7	F. Da Lio
401-0251-00 U	Mathematik I: Analysis I und Lineare A Groups are selected in myStudies. Die Übungen beginnen in der zweiten Mo 14-16 für Studiengänge Erd- und K Umweltnaturwissenschaften. Di 14-16 für Studiengänge Agrarwissel Lebensmittelwissenschaften.	Semesterwo Klimawissens nschaften bz	schaften bzw. zw.	2 hrs	Mon	14-16	CHN D44 CHN F42 ETZ E9 ETZ G91 ETZ H91 ETZ K91 HG F26.5 LFW C4	F. Da Lio
	Zusätzlich wird das Mathe-Lab (Präser 16-18 in CAB G 51 und Di 12-14 in HG		ngeboten: Mo	0	Tue	14-16	CAB G56 CLA E4 LFO C13 LFW C5 RZ F21	
551-0001-00L	General Biology I	0	3 credits	3V				
551-0001-00 V	Biologie I: Allgemeine Biologie I			3 hrs	Wed Fri	09-10 10-12	ML D28 ETF C1	<b>U. Sauer</b> , O. Y. Martin, A. Widmer
701-0243-01L	Biology III: Essentials of Ecology	0	3 credits	2V				
701-0243-01 V	Biologie III: Ökologie Vorlesung im HG F 1 mit Videoübertra	gung ins HG	F 3.	2 hrs	Mon	10-12	HG F1 HG F3	C. Buser Moser
701-0027-00L	Environmental Systems I	0	2 credits	2V				
701-0027-00 V	Umweltsysteme I			2 hrs	Tue	10-12	HG F7	C. Schär, N. Dubois, G. Velice
751-0013-00L	World Food System	0	4 credits	4V				
751-0013-00 V	Welternährungssystem (World Food S	ystem)		4 hrs	Mon Fri	14-16 08-10	CAB G61 CAB G61	A. K. Gilgen, J. Baumgartner, A. Bearth, R. Finger, M. Loessner, R. Mezzenga, B. Studer
351-1158-00L	Principles of Economics	0	3 credits	2G				
351-1158-00 G	Ökonomie In classroom, online via livestreaming (Einführungsvorlesung 22.9. sowie Galn classroom, online via livestreaming groups); 6 Präsenzveranstaltungen. Online via livestreaming or zoom and room, this will be recorded).	stvorlesung or zoom, not	10.11.). recorded (4	2 hrs	Wed	10-12	HG E41 LEE C104 LEE C114 LEE D101 LEE D105 ML D28 ML E12	U. Renold, T. Bolli, P. McDonald, M. E. Oswald- Egg, F. Pusterla
►► Additio	nal First Year Courses							
Number	Title	Туре	ECTS	Hours				Lecturers
751-0801-00L	Fundamentals of Microscopy and Pl Biology	ant O	1 credit	1V+2G				
751-0801-00 V	Grundlagen der Mikroskopie und Pflan Die genauen Unterrichtszeiten von ON werden von den Dozierenden kommun	ILINE - Verai	nstaltungen	1 hrs	Fri	13-14	ON LINE	E. B. Truernit

751-0801-00 G	Grundlagen der Mikroskopie und Pflanzenl Groups are selected in myStudies.	biologie		2 hrs	Mon/2w	12-14	LFW E11 LFW E11	E. B. Truernit
	Beginn der Lehveranstaltung in der zweite	n Samas	sterwoche			16-18	LFW E11	
	Bogini dei Echveranstanding in dei Ewene	11 0011100	stor woorlo			10-10	LFW E11	
					Tue/2w	12-14	LFW E11	
					100/200	12 17	LFW E11	
					Wed/2v	14-16	LFW E11	
					VVCG/2V	1 1 10	LFW E11	
						16-18	LFW E11	
						10-10	LFW E11	
					Thu/2w	12-1/	LFW E11	
					1110/211	12 17	LFW E11	
						14-16	LFW E11	
						14 10	LFW E11	
						16-18	LFW E11	
						10 10	LFW E11	
529-0030-00L	Laboratory Course: Elementary	0	3 credits	6P				
020 0000 002	Chemical Techniques	Ū	o orouno	٥.				
529-0030-00 P	Praktikum Chemie			6 hrs	17.01.	08-10	CHN E46	N. Kobert, A. de Mello,
	Vorwiegend BSc UWIS: Kurs 1				17.01	08-10	CHN D42	M. H. Schroth
	Vorwiegend BSc ERD, AGR, LM: Kurs 2				04.02.			
							CHN D44	
							CHN D46	
							CHN G22	
						13-15	CHN D42	
							CHN D44	
							CHN D46	
							CHN G22	
					19.01.		CHN E46	
					21.01.		CHN E46	
					24.01.	08-10	CHN E46	
					26.01.		CHN E46	
					28.01.		CHN E46	
					31.01.		CHN E46	
					02.02.	09-14	CHN E46	
					04.02.	13-17	CHN E46	
252-0839-00L	Informatics	0	2 credits	2G				
252-0839-00 G	Einsatz von Informatikmitteln			2 hrs	Mon	18-19	HG E19	L. E. Fässler, M. Dahinden
	Vorlesung: Fr 14-16 Uhr						HG E26.3	
	Individuelle Präsentation Projektaufgaben:	restliche	e Zeiten alle 2				HG E27	
	Wochen nach Voranmeldung				Thu	18-19	HG E19	
							HG E26.1	
							HG E26.3	
							HG E27	
					Fri	14-16	HG F7	
						16-18	HG E19	
							HG E26.1	
							HG E26.3	
							HG E27	

# ► Basic Courses (Second Year)

#### **▶▶** Examination Block

Number	Title	Type	ECTS	Hours				Lecturers
402-0063-00L	Physics II	0	5 credits	3V+1U				
402-0063-00 V	Physik II			3 hrs	Mon Wed	13-14 13-15	ML D28 HPH G2	A. Vaterlaus
402-0063-00 U	Physik II Fr 8-9 Uhr im Zentrum für UMNW Studiere	ende		1 hrs	Wed	15-16	HCI D4 HCI D6 HCI E8 HCI F2 HCI F8 HCI J8 HIL C10.2 HIL E5 HIT H42 HIT J51 HPK D24.2	A. Vaterlaus
					Fri	08-09	HG E21	
701-0071-00L	Mathematics III: Systems Analysis	0	4 credits	2V+1U				
701-0071-00 V	Mathematik III: Systemanalyse			2 hrs	Fri	10-12	ML D28	R. Knutti, S. Schemm, H. Wernli
701-0071-00 U	Mathematik III: Systemanalyse			1 hrs	Mon	11-12	CAB G57 CHN F46 HG E33.3 HG F26.5 HG G26.3 LEE D101 LEE D105 LEE E101 ML E12 ML F34 NO E11 NO E39	<b>L. Brunner</b> , S. Schemm P. Zschenderlein

401-0624-00 V	Mathematik IV: Statistik			2 hrs	Thu	08-10	ML D28	J. Ernest
401-0624-00 U	Mathematik IV: Statistik			1 hrs	Thu	10-11	ML F34	J. Ernest
	Groups are selected in myStudies.  Do 10-11 für Studiengang Lebensmittelwiss	canscha	fton			13-14	ML J34.1 HG E33.1	
	Do 13-14 für Studiengang Agrarwissensch		iteri.			16-17	NO C44	
	Do 16-17 für Studiengang Erd- und Klimaw	issensch	haften.			18-19	ON LINE	
	Fr 9-10 für Studiengang Umweltnaturwisse	enschafte	en.		Fri	09-10	CAB G59	
	Do 18-19 als Online-Übung ausschliesslich						LFW E13	
	welche nicht an den regulären Übungen in können.	Prasenz	telinerimen				ML F40	
752-4001-00L	Microbiology	0	2 credits	2V				
752-4001-00 V	•			2 hrs	Mon	08-10	ML D28	M. Ackermann, M. Schuppler,
	C							J. Vorholt-Zambelli
701-0501-00L	Pedosphere	0	3 credits	2V				
701-0501-00 V	Pedosphäre			2 hrs	Thu	10-12	HG G3	R. Kretzschmar
751-1311-00L	Introduction to Agricultural Management	t O	2 credits	2V				
751-1311-00 V	Einführung in das Agrarmanagement			2 hrs	Wed	08-10	CAB G61	R. Finger
752-6003-00L	Introduction to Nutritional Science	0	2 credits	1.5V				
	Only for Agricultural Science BSc.							
752-6003-00 V	Ernährungswissenschaft ■			1.5 hrs	Fri	08-10	HG F7	M. B. Zimmermann,
	Course is taught in English (M. Zimmerman	nn) and (	German (Ch.					C. Wolfrum
	Wolfrum)							
	Unregelmässige Lehrveranstaltung. Der Ku							
	der Vorlesung 752-6001-00 V Introduction							
	Die genauen Daten mit dem detaillierten Pr separat bekannt gegeben.	ogramm	i weraen					
- A!!4								
	ıral Sciences Basic Courses							
Number	Title	Туре	ECTS	Hours				Lecturers
751-8003-00L	Genetics in Agricultural Sciences Only for Agricultural Sciences BSc.	0	2 credits	2G				
	, ,			2 hrs	Thu	10-12	LFW C4	H. Pausch, B. Studer
751-8003-00 G								
751-8003-00 G								
► Agricultu	ıral Sciences Disciplines							
► Agricultu								
► Agricultu	ıral Sciences Disciplines	Туре	ECTS	Hours				Lecturers
► Agricultu ►► Agricul	iral Sciences Disciplines tural Economics	Type	ECTS 3 credits	Hours 2G				Lecturers
► Agricultu ►► Agricultu Number	tural Sciences Disciplines tural Economics Title Introduction to Microeconomics GESS (Science in Perspective):							Lecturers
► Agricultu ►► Agricultu Number	tural Sciences Disciplines tural Economics Title Introduction to Microeconomics GESS (Science in Perspective): This course is only for students enrolled in							Lecturers
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► Agricultu ►► Agricultu Number	tural Sciences Disciplines tural Economics  Title Introduction to Microeconomics GESS (Science in Perspective): This course is only for students enrolled in a Bachelor's degree programme.  Students enrolled in a Master's degree programme may attend "Principles of							Lecturers
► Agricultu ►► Agricultu Number	tural Sciences Disciplines tural Economics  Title Introduction to Microeconomics GESS (Science in Perspective): This course is only for students enrolled in a Bachelor's degree programme.  Students enrolled in a Master's degree programme may attend "Principles of Microeconomics" (LE 363-0503-00L)							Lecturers
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► Agricultu ► Agricult Number 363-1109-00L	Iral Sciences Disciplines tural Economics Title Introduction to Microeconomics GESS (Science in Perspective): This course is only for students enrolled in a Bachelor's degree programme.  Students enrolled in a Master's degree programme may attend "Principles of Microeconomics" (LE 363-0503-00L) instead.  Note for D-MAVT students: If you have already successfully completed "Principles of Microeconomics" (LE 363-0503-00L), then you will not be permitted to attend it				Tue	10-12	HG E5	Lecturers  M. Wörter, M. Beck
► Agricultu ► Agricult Number 363-1109-00L	Iral Sciences Disciplines tural Economics  Title  Introduction to Microeconomics GESS (Science in Perspective): This course is only for students enrolled in a Bachelor's degree programme. Students enrolled in a Master's degree programme may attend "Principles of Microeconomics" (LE 363-0503-00L) instead.  Note for D-MAVT students: If you have already successfully completed "Principles of Microeconomics" (LE 363-0503-00L), then you will not be permitted to attend it again. Einführung in die Mikroökonomie Zusätzliche (freiwillige) Termine für Übunge	<b>O</b>	3 credits	2G	Tue	10-12	HG E5	
► Agricultu ► Agricult Number 363-1109-00L	tural Sciences Disciplines tural Economics  Title  Introduction to Microeconomics GESS (Science in Perspective): This course is only for students enrolled in a Bachelor's degree programme.  Students enrolled in a Master's degree programme may attend "Principles of Microeconomics" (LE 363-0503-00L) instead.  Note for D-MAVT students: If you have already successfully completed "Principles of Microeconomics" (LE 363-0503-00L), then you will not be permitted to attend it again.  Einführung in die Mikroökonomie Zusätzliche (freiwillige) Termine für Übunge werden zu Beginn der Vorlesung bekanntge	<b>O</b> en zur Vegeben.	3 credits	2G 2 hrs	Tue	10-12	HG E5	
► Agricultu ► Agricult Number 363-1109-00L	tural Sciences Disciplines tural Economics  Title  Introduction to Microeconomics GESS (Science in Perspective): This course is only for students enrolled in a Bachelor's degree programme.  Students enrolled in a Master's degree programme may attend "Principles of Microeconomics" (LE 363-0503-00L) instead.  Note for D-MAVT students: If you have already successfully completed "Principles of Microeconomics" (LE 363-0503-00L), then you will not be permitted to attend it again.  Einführung in die Mikroökonomie Zusätzliche (freiwillige) Termine für Übunge werden zu Beginn der Vorlesung bekanntge  Microeconomics of the Agriculture and	<b>O</b> en zur Vegeben.	3 credits	2G	Tue	10-12	HG E5	
► Agricultu ► Agricultu Number 363-1109-00L	tural Sciences Disciplines tural Economics  Title  Introduction to Microeconomics GESS (Science in Perspective): This course is only for students enrolled in a Bachelor's degree programme.  Students enrolled in a Master's degree programme may attend "Principles of Microeconomics" (LE 363-0503-00L) instead.  Note for D-MAVT students: If you have already successfully completed "Principles of Microeconomics" (LE 363-0503-00L), then you will not be permitted to attend it again.  Einführung in die Mikroökonomie Zusätzliche (freiwillige) Termine für Übunge werden zu Beginn der Vorlesung bekanntge	O O o o o o o o o o o o o o o o o o o o	3 credits  orlesung  3 credits	2G 2 hrs	Tue	10-12	HG E5	
► Agricultu ►► Agricultu Number 363-1109-00L  363-1109-00 G  751-0903-00L	tural Sciences Disciplines tural Economics  Title  Introduction to Microeconomics GESS (Science in Perspective): This course is only for students enrolled in a Bachelor's degree programme.  Students enrolled in a Master's degree programme may attend "Principles of Microeconomics" (LE 363-0503-00L) instead.  Note for D-MAVT students: If you have already successfully completed "Principles of Microeconomics" (LE 363-0503-00L), then you will not be permitted to attend it again.  Einführung in die Mikroökonomie Zusätzliche (freiwillige) Termine für Übunge werden zu Beginn der Vorlesung bekanntge Microeconomics of the Agriculture and Food Sector Mikroökonomie des Agrar- und Lebensmitte	o ver	3 credits orlesung 3 credits	2 hrs 2 hrs 2 hrs				<b>M. Wörter</b> , M. Beck
► Agricultu ► Agricultu Number 363-1109-00L	tural Sciences Disciplines tural Economics  Title  Introduction to Microeconomics GESS (Science in Perspective): This course is only for students enrolled in a Bachelor's degree programme.  Students enrolled in a Master's degree programme may attend "Principles of Microeconomics" (LE 363-0503-00L) instead.  Note for D-MAVT students: If you have already successfully completed "Principles of Microeconomics" (LE 363-0503-00L), then you will not be permitted to attend it again.  Einführung in die Mikroökonomie Zusätzliche (freiwillige) Termine für Übunge werden zu Beginn der Vorlesung bekanntge Microeconomics of the Agriculture and Food Sector Mikroökonomie des Agrar- und Lebensmitte	o ver	3 credits  orlesung  3 credits	2 hrs				<b>M. Wörter</b> , M. Beck
► Agricultu ► Agricultu Number 363-1109-00L  363-1109-00 G  751-0903-00 V  751-0401-00L	tural Sciences Disciplines tural Economics  Title  Introduction to Microeconomics GESS (Science in Perspective): This course is only for students enrolled in a Bachelor's degree programme.  Students enrolled in a Master's degree programme may attend "Principles of Microeconomics" (LE 363-0503-00L) instead.  Note for D-MAVT students: If you have already successfully completed "Principles of Microeconomics" (LE 363-0503-00L), then you will not be permitted to attend it again.  Einführung in die Mikroökonomie Zusätzliche (freiwillige) Termine für Übunge werden zu Beginn der Vorlesung bekanntge  Microeconomics of the Agriculture and Food Sector Mikroökonomie des Agrar- und Lebensmitte Optimization of Agricultural Production	o ver zur Voegeben. W+	3 credits Orlesung 3 credits	2 hrs 2 hrs 2 hrs				<b>M. Wörter</b> , M. Beck
► Agricultu ► Agricultu Number 363-1109-00L 363-1109-00 G 751-0903-00 V 751-0401-00L	tural Sciences Disciplines tural Economics  Title  Introduction to Microeconomics GESS (Science in Perspective): This course is only for students enrolled in a Bachelor's degree programme.  Students enrolled in a Master's degree programme may attend "Principles of Microeconomics" (LE 363-0503-00L) instead.  Note for D-MAVT students: If you have already successfully completed "Principles of Microeconomics" (LE 363-0503-00L), then you will not be permitted to attend it again.  Einführung in die Mikroökonomie Zusätzliche (freiwillige) Termine für Übunge werden zu Beginn der Vorlesung bekanntge Microeconomics of the Agriculture and Food Sector Mikroökonomie des Agrar- und Lebensmitte Optimization of Agricultural Production Systems Optimierung landwirtschaftlicher Produktion Resource and Environmental	o ver zur Voegeben. W+	3 credits Orlesung 3 credits	2 hrs 2 hrs 2 hrs 2 hrs 2 hrs	Thu	08-10	LFW C1	M. Wörter, M. Beck S. Wimmer
► Agricultu ►► Agricultu Number 363-1109-00L  363-1109-00 G  751-0903-00 V  751-0401-00 G  363-0537-00L	tural Sciences Disciplines tural Economics  Title  Introduction to Microeconomics GESS (Science in Perspective): This course is only for students enrolled in a Bachelor's degree programme.  Students enrolled in a Master's degree programme may attend "Principles of Microeconomics" (LE 363-0503-00L) instead.  Note for D-MAVT students: If you have already successfully completed "Principles of Microeconomics" (LE 363-0503-00L), then you will not be permitted to attend it again.  Einführung in die Mikroökonomie Zusätzliche (freiwillige) Termine für Übunge werden zu Beginn der Vorlesung bekanntge Microeconomics of the Agriculture and Food Sector Mikroökonomie des Agrar- und Lebensmitte Optimization of Agricultural Production Systems Optimierung landwirtschaftlicher Produktion Resource and Environmental Economics	o ver	3 credits 3 credits 3 credits	2 hrs	Thu	08-10	LFW C1	M. Wörter, M. Beck S. Wimmer R. Huber
► Agricultu ► Agricultu Number 363-1109-00L 363-1109-00 G 751-0903-00 V 751-0401-00 G 363-0537-00L	tural Sciences Disciplines tural Economics  Title  Introduction to Microeconomics GESS (Science in Perspective): This course is only for students enrolled in a Bachelor's degree programme.  Students enrolled in a Master's degree programme may attend "Principles of Microeconomics" (LE 363-0503-00L) instead.  Note for D-MAVT students: If you have already successfully completed "Principles of Microeconomics" (LE 363-0503-00L), then you will not be permitted to attend it again.  Einführung in die Mikroökonomie Zusätzliche (freiwillige) Termine für Übunge werden zu Beginn der Vorlesung bekanntge Microeconomics of the Agriculture and Food Sector Mikroökonomie des Agrar- und Lebensmitte Optimization of Agricultural Production Systems Optimierung landwirtschaftlicher Produktion Resource and Environmental Economics Resource and Environmental Economics	o vegeben. W+ elsektors W+ elssystem W+	3 credits 3 credits 3 credits 3 credits	2 hrs	Thu	08-10	LFW C1	M. Wörter, M. Beck S. Wimmer
► Agricultu ► Agricultu Number 363-1109-00L  363-1109-00 G  751-0903-00 V 751-0401-00 G  363-0537-00L	tural Sciences Disciplines tural Economics  Title  Introduction to Microeconomics GESS (Science in Perspective): This course is only for students enrolled in a Bachelor's degree programme.  Students enrolled in a Master's degree programme may attend "Principles of Microeconomics" (LE 363-0503-00L) instead.  Note for D-MAVT students: If you have already successfully completed "Principles of Microeconomics" (LE 363-0503-00L), then you will not be permitted to attend it again.  Einführung in die Mikroökonomie Zusätzliche (freiwillige) Termine für Übunge werden zu Beginn der Vorlesung bekanntge Microeconomics of the Agriculture and Food Sector Mikroökonomie des Agrar- und Lebensmitte Optimization of Agricultural Production Systems Optimierung landwirtschaftlicher Produktion Resource and Environmental Economics	o vegeben. W+ elsektors W+ elssystem W+	3 credits 3 credits 3 credits 3 credits	2 hrs	Thu	08-10	LFW C1	M. Wörter, M. Beck S. Wimmer R. Huber
► Agricultu ► Agricultu Number 363-1109-00L 363-1109-00 G 751-0903-00 V 751-0401-00 G 363-0537-00L	Iral Sciences Disciplines tural Economics  Title  Introduction to Microeconomics GESS (Science in Perspective): This course is only for students enrolled in a Bachelor's degree programme.  Students enrolled in a Master's degree programme may attend "Principles of Microeconomics" (LE 363-0503-00L) instead.  Note for D-MAVT students: If you have already successfully completed "Principles of Microeconomics" (LE 363-0503-00L), then you will not be permitted to attend it again.  Einführung in die Mikroökonomie Zusätzliche (freiwillige) Termine für Übunge werden zu Beginn der Vorlesung bekanntge  Microeconomics of the Agriculture and Food Sector Mikroökonomie des Agrar- und Lebensmitte Optimization of Agricultural Production Systems Optimierung landwirtschaftlicher Produktior Resource and Environmental Economics Resource and Environmental Economics The lecture takes place in classroom, online	o vegeben. W+ elsektors W+ elssystem W+	3 credits 3 credits 3 credits 3 credits	2 hrs	Thu	08-10	LFW C1	M. Wörter, M. Beck S. Wimmer R. Huber
► Agricultu ►► Agricultu Number 363-1109-00L  363-1109-00 G  751-0903-00 V 751-0401-00 G  363-0537-00L  363-0537-00 G	tural Sciences Disciplines tural Economics  Title  Introduction to Microeconomics GESS (Science in Perspective): This course is only for students enrolled in a Bachelor's degree programme.  Students enrolled in a Master's degree programme may attend "Principles of Microeconomics" (LE 363-0503-00L) instead.  Note for D-MAVT students: If you have already successfully completed "Principles of Microeconomics" (LE 363-0503-00L), then you will not be permitted to attend it again.  Einführung in die Mikroökonomie Zusätzliche (freiwillige) Termine für Übunge werden zu Beginn der Vorlesung bekanntg.  Microeconomics of the Agriculture and Food Sector Mikroökonomie des Agrar- und Lebensmitte Optimization of Agricultural Production Systems Optimierung landwirtschaftlicher Produktion Resource and Environmental Economics Resource and Environmental Economics The lecture takes place in classroom, online recorded.	o via live	3 credits 3 credits 3 credits 6 3 credits ne 3 credits	2 hrs	Thu	08-10	LFW C1	M. Wörter, M. Beck S. Wimmer R. Huber
► Agricultu ►► Agricultu Number 363-1109-00L  363-1109-00 G  751-0903-00 V 751-0401-00 G  363-0537-00L  363-0537-00 G	Irral Sciences Disciplines tural Economics  Title  Introduction to Microeconomics GESS (Science in Perspective): This course is only for students enrolled in a Bachelor's degree programme.  Students enrolled in a Master's degree programme may attend "Principles of Microeconomics" (LE 363-0503-00L) instead.  Note for D-MAVT students: If you have already successfully completed "Principles of Microeconomics" (LE 363-0503-00L), then you will not be permitted to attend it again.  Einführung in die Mikroökonomie Zusätzliche (freiwillige) Termine für Übunge werden zu Beginn der Vorlesung bekanntge  Microeconomics of the Agriculture and Food Sector Mikroökonomie des Agrar- und Lebensmitte Optimization of Agricultural Production Systems Optimierung landwirtschaftlicher Produktion Resource and Environmental Economics The lecture takes place in classroom, online recorded.  Consumer Behaviour I Consumer Behaviour I Online-Veranstaltung: Diese Lehrveranstalta	o o o o o o o o o o o o o o o o o o o	3 credits 3 credits 3 credits a credits a credits a credits a credits	2 hrs 2 V 2 hrs	Thu Mon Wed	08-10 14-16 10-12	LFW C1  LFW B1  HG G3	M. Wörter, M. Beck S. Wimmer R. Huber L. Bretschger
► Agricultu ►► Agricultu Number 363-1109-00L  363-1109-00 G  751-0903-00 V 751-0401-00 G  363-0537-00L  363-0537-00 G	Iral Sciences Disciplines tural Economics  Title  Introduction to Microeconomics GESS (Science in Perspective): This course is only for students enrolled in a Bachelor's degree programme. Students enrolled in a Master's degree programme may attend "Principles of Microeconomics" (LE 363-0503-00L) instead.  Note for D-MAVT students: If you have already successfully completed "Principles of Microeconomics" (LE 363-0503-00L), then you will not be permitted to attend it again. Einführung in die Mikroökonomie Zusätzliche (freiwillige) Termine für Übunge werden zu Beginn der Vorlesung bekanntgt  Microeconomics of the Agriculture and Food Sector Mikroökonomie des Agrar- und Lebensmitte Optimization of Agricultural Production Systems Optimierung landwirtschaftlicher Produktion Resource and Environmental Economics Resource and Environmental Economics The lecture takes place in classroom, online recorded.  Consumer Behaviour I Consumer Behaviour I Online-Veranstaltung: Diese Lehrveranstalt grundsätzlich online statt. Die reservierten in	en zur Voegeben. W+ elsektors W+ essystem W+ e via live W tung find Räume I	3 credits 3 credits 3 credits a credits a credits a credits a credits	2 hrs 2 V 2 hrs	Thu Mon Wed	08-10 14-16 10-12	LFW C1  LFW B1  HG G3	M. Wörter, M. Beck S. Wimmer R. Huber L. Bretschger M. Siegrist, A. Bearth,
► Agricultu ►► Agricultu Number 363-1109-00L  363-1109-00 G  751-0903-00 V 751-0401-00 G  363-0537-00L  363-0537-00 G	Iral Sciences Disciplines tural Economics  Title  Introduction to Microeconomics GESS (Science in Perspective): This course is only for students enrolled in a Bachelor's degree programme.  Students enrolled in a Master's degree programme may attend "Principles of Microeconomics" (LE 363-0503-00L) instead.  Note for D-MAVT students: If you have already successfully completed "Principles of Microeconomics" (LE 363-0503-00L), then you will not be permitted to attend it again.  Einführung in die Mikroökonomie Zusätzliche (freiwillige) Termine für Übunge werden zu Beginn der Vorlesung bekanntg.  Microeconomics of the Agriculture and Food Sector Mikroökonomie des Agrar- und Lebensmitte.  Optimization of Agricultural Production Systems Optimierung landwirtschaftlicher Produktion.  Resource and Environmental Economics Resource and Environmental Economics Resource and Environmental Economics Consumer Behaviour I Consumer Behaviour I Consumer Behaviour I Donline-Veranstaltung: Diese Lehrveranstalt grundsätzlich online statt. Die reservierten is Studierenden auf dem Campus bestehen, u	en zur Voegeben. W+ elsektors W+ essystem W+ e via live W tung find Räume I	3 credits 3 credits 3 credits a credits a credits a credits a credits	2 hrs 2 V 2 hrs	Thu Mon Wed	08-10 14-16 10-12	LFW C1  LFW B1  HG G3	M. Wörter, M. Beck S. Wimmer R. Huber L. Bretschger M. Siegrist, A. Bearth,
► Agricultu ►► Agricultu Number 363-1109-00L  363-1109-00 G  751-0903-00 V  751-0401-00 G  363-0537-00L  363-0537-00 G	Iral Sciences Disciplines tural Economics  Title  Introduction to Microeconomics GESS (Science in Perspective): This course is only for students enrolled in a Bachelor's degree programme. Students enrolled in a Master's degree programme may attend "Principles of Microeconomics" (LE 363-0503-00L) instead.  Note for D-MAVT students: If you have already successfully completed "Principles of Microeconomics" (LE 363-0503-00L), then you will not be permitted to attend it again. Einführung in die Mikroökonomie Zusätzliche (freiwillige) Termine für Übunge werden zu Beginn der Vorlesung bekanntgt  Microeconomics of the Agriculture and Food Sector Mikroökonomie des Agrar- und Lebensmitte Optimization of Agricultural Production Systems Optimierung landwirtschaftlicher Produktion Resource and Environmental Economics Resource and Environmental Economics The lecture takes place in classroom, online recorded.  Consumer Behaviour I Consumer Behaviour I Online-Veranstaltung: Diese Lehrveranstalt grundsätzlich online statt. Die reservierten in	en zur Voegeben. W+ elsektors W+ essystem W+ e via live W tung find Räume I	3 credits 3 credits 3 credits a credits a credits a credits a credits	2 hrs 2 V 2 hrs	Thu Mon Wed	08-10 14-16 10-12	LFW C1  LFW B1  HG G3	M. Wörter, M. Beck S. Wimmer R. Huber L. Bretschger M. Siegrist, A. Bearth,

401-0624-00L Mathematics IV: Statistics

0

4 credits

2V+1U

751-5005-00 G	Agroecology and the Transition to Sustainal Online lecture: This lecture will primarily tak Reserved rooms will remain blocked on can follow the course from there.	e place	online.	2 hrs	Tue	18-19 19-20	CHN C14 CHN E42 CHN E46	M. Sonnevelt, M. Grant, S. E. Ulbrich, B. Wehrli
▶▶ Plant S	ciences							
Number	Title	Туре	ECTS	Hours				Lecturers
<b>751-3700-00L</b> 751-3700-00 V	Plant Ecophysiology Ökophysiologie Teile der Lehrveranstaltung wird in Englisch	<b>O</b> n gehalte	2 credits	<b>2V</b> 2 hrs	Thu	16-18	LFW C5	<b>M. Gharun</b> , M. Lehmann, A. Walter
<b>751-3401-00L</b> 751-3401-00 V	Plant Nutrition I Pflanzenernährung I	0	2 credits	<b>2V</b> 2 hrs	Tue	08-10	ML F36	E. Frossard
751-4108-00L	Innovation in Smart Farming Number of participants limited to 16.  A motivation letter must be submitted after the first lecture Monday 27.9. (maximum 100 words) until 29.9. to Achim Walter (Achim.Walter@usys.ethz.ch). A confirmation of the definitive participation in the course will be communicated on 1.10.	W+	3 credits	2G				
	The definitive registration for the course will be undertaken by the study secretariat.	1					. =	
751-4108-00 G	Innovation in Smart Farming			2 hrs	Mon	16-18	LFW B1	A. Walter
<b>751-4504-00L</b> 751-4504-00 G	Plant Pathology I Plant Pathology I	W+	2 credits	<b>2G</b> 2 hrs	Wed	14-16	LFW C5	B. McDonald
751-4801-00L	System-Oriented Management of	W+	2 credits	2G				
751-4801-00 G	Herbivore Insects Systembezogene Bekämpfung herbivorer Ir Does not take place this semester.	nsekten		2 hrs				to be announced
751-5003-00L	Sustainable Agroecosystems II	W+	2 credits	2V				
	Sustainable Agroecosystems II		_ 0.00.00	2 hrs	Thu/2w	14-18	LFW B1	K. Benabderrazik, M. Hartmann
751-4201-00L	Horticulture	W+	2 credits	2V				
751-4201-00 V	Hortikultur NB: Die Vorlesungen zum Thema Rebbau v unterrichtet.	werden i	in Französisch	2 hrs	Mon	10-12	LFW C5	C. Carlen, A. Bühlmann, A. Guyer, A. Näf, T. Verdenal
751-5005-00L	Agroecology and the Transition to Sustainable Food Systems	W	2 credits	2G				
751-5005-00 G	Agroecology and the Transition to Sustainal Online lecture: This lecture will primarily tak Reserved rooms will remain blocked on can follow the course from there.	e place	online.	2 hrs	Tue	18-19 19-20	CHN C14 CHN E42 CHN E46	M. Sonnevelt, M. Grant, S. E. Ulbrich, B. Wehrli
▶▶ Animal	Sciences							
Number	Title	Туре	ECTS	Hours				Lecturers
751-6101-00L	Anatomy and Physiology of Man and Animals I	0	2 credits	2V				
751-6101-00 V	Anatomie und Physiologie von Mensch und Gemäss speziellem Programm	Tier I		2 hrs	Wed	10-12	LFW C5	S. E. Ulbrich, T. Fleischmann, J. Müller
<b>751-7501-00L</b> 751-7501-00 V	Animal Housing and Behaviour Animal Housing and Behaviour	0	1 credit	1V 1 hrs	Thu/1	14-16	LFO C13	J. Müller, S. Goumon
<b>751-7101-00L</b> 751-7101-00 G	Applied Animal Nutrition Angewandte Tierernährung Zusätzlicher Termin (Betriebsbesuch) am E 30.11.2021.	<b>W+</b> Dienstag	2 credits gnachmittag	<b>2G</b> 2 hrs	Fri/2	08-12	ML F36	S. Müller, G. Bee, M. A. Boessinger, F. Leiber, F. Sutter
<b>751-7103-00L</b> 751-7103-00 V	Animal Feed and Feeding of Ruminants Futtermittel und Fütterung beim Wiederkäus		2 credits	<b>2V</b> 2 hrs	Tue	10-12	LFW B1	M. A. Boessinger
<b>751-6121-00L</b> 751-6121-00 V	Regulatory Physiology Regulationsphysiologie	W+	2 credits	<b>2V</b> 2 hrs	Wed	12-14	HG E22	S. E. Ulbrich, J. Müller, M. Saenz de Juano Ribes
751-5005-00L	Agroecology and the Transition to	W	2 credits	2G				
751-5005-00 G	Sustainable Food Systems Agroecology and the Transition to Sustainal Online lecture: This lecture will primarily tak Reserved rooms will remain blocked on can follow the course from there.	e place	online.	2 hrs	Tue	18-19 19-20	CHN C14 CHN E42 CHN E46	M. Sonnevelt, M. Grant, S. E. Ulbrich, B. Wehrli
► Methods								
Number	Title	Туре	ECTS	Hours				Lecturers
751-0441-00L	Scientific Analysis and Presentation of Data	0	2 credits	2G				
751-0441-00 G	Wissenschaftliche Datenauswertung und -p	räsenta	tion	2 hrs	Wed	08-10	HG E19	W. Eugster
751-1010-00L	Introduction to Scientific Methods Part	0	2 credits	4G				

II: Scientific Writing
Only for Agricultural Sciences BSc.

754 0206 001	Applied Loboratory Toolphigues in	odito 4D				A. Feurtey, A. K. Gilgen, M. Laub, A. Oberson Dräyer, B. Studer, F. Tamburini, D. J. Wüpper
751-1010-00 G	Wissenschaftliches Arbeiten Teil II: Wissenschaftliches S	chreiben 4 hrs	Tue	14-18	LFW B1	R. Kölliker, J. Anderegg,

						• • • • • • • • • • • • • • • • • • • •
751-0206-00L	Applied Laboratory Techniques in O 4 credits Agricultural Sciences The course is compulsory for students in 5th semester BSc Agricultural Sciences.	4P				
751-0206-00 P	Agrarwissenschaftliches Labor- und Methodenpraktikum  Die Lehrveranstaltung fängt in der zweiten Semesterwoche an.  Das allgemeine molekularbiologische Modul findet statt an 5  Freitagen in der ersten Semesterhälfte: von 8.00-10.00 und  16.00-17.00 im CHN F 42 statt, von 10.00-16.00 im CHN D 53.2.  Das angewandte Methodentraining findet in der vorlesungsfreien  Zeit statt, die genaue Daten werden von den  Gruppenverantwortlichen kommuniziert.	4 hrs	Fri/1	08-10 10-16 16-17	CHN F42 CHN D53.2 CHN E42	G. Broggini, M. Gharun, M. Hartmann, S. Neuenschwander, L. P. Schönholzer, B. Studer, S. Yates
	Folgende Gruppen werden voraussichtlich angeboten: 1. Plant Pathology; 2. Plant Nutrition; 3. Grassland Sciences; 4. Molecular Plant Breeding; 5. Sustainable Agroecosystems					

#### ► Electives

The electives listed are recommended. However, electives can be chosen from the complete course offer of the ETH Zurich and University of Zurich.

Number	Title	Type	ECTS	Hours				Lecturers
751-0903-00L	Microeconomics of the Agriculture and Food Sector	W	3 credits	2V				
751-0903-00 V	Mikroökonomie des Agrar- und Lebensmitte	lsektors	;	2 hrs	Thu	08-10	LFW C1	S. Wimmer
751-0401-00L	Optimization of Agricultural Production Systems	W	3 credits	2G				
751-0401-00 G	Optimierung landwirtschaftlicher Produktions	ssystem	ne	2 hrs	Mon	14-16	LFW B1	R. Huber
363-0537-00L	Resource and Environmental Economics	W	3 credits	2G				
363-0537-00 G	Resource and Environmental Economics The lecture takes place in classroom, online recorded.	via live	estreaming and	2 hrs	Wed	10-12	HG G3	L. Bretschger
752-2120-00L	Consumer Behaviour I	w	2 credits	2V				
752-2120-00 V	Consumer Behaviour I Online-Veranstaltung: Diese Lehrveranstaltu grundsätzlich online statt. Die reservierten F Studierenden auf dem Campus bestehen, un Lehrveranstaltung dort zu hören.	Räume l		2 hrs	Fri	14-16	HG G3	M. Siegrist, A. Bearth, A. Berthold
751-4108-00L	Innovation in Smart Farming Number of participants limited to 16.	W	3 credits	2G				
	A motivation letter must be submitted after the first lecture Monday 27.9. (maximum 100 words) until 29.9. to Achim Walter (Achim.Walter@usys.ethz.ch). A confirmation of the definitive participation in the course will be communicated on 1.10. The definitive registration for the course will be undertaken by the study secretariat.							
751-4108-00 G	Innovation in Smart Farming			2 hrs	Mon	16-18	LFW B1	A. Walter
751-4504-00L	Plant Pathology I	W	2 credits	2G				
751-4504-00 G	Plant Pathology I			2 hrs	Wed	14-16	LFW C5	B. McDonald
751-4801-00L	System-Oriented Management of Herbivore Insects	W	2 credits	2G				
751-4801-00 G	Systembezogene Bekämpfung herbivorer In Does not take place this semester.	sekten		2 hrs				to be announced
751-5003-00L	Sustainable Agroecosystems II	W	2 credits	2V				
751-5003-00 V	Sustainable Agroecosystems II			2 hrs	Thu/2w	14-18	LFW B1	<b>K. Benabderrazik</b> , M. Hartmann
751-7101-00L	Applied Animal Nutrition	W	2 credits	2G				
751-7101-00 G	Angewandte Tierernährung Zusätzlicher Termin (Betriebsbesuch) am D 30.11.2021.	)ienstag	ınachmittag	2 hrs	Fri/2	08-12	ML F36	<b>S. Müller</b> , G. Bee, M. A. Boessinger, F. Leiber F. Sutter
751-7103-00L	Animal Feed and Feeding of Ruminants		2 credits	2V				
751-7103-00 V	Futtermittel und Fütterung beim Wiederkäue	r		2 hrs	Tue	10-12	LFW B1	M. A. Boessinger
751-6121-00L	Regulatory Physiology	W	2 credits	2V				
	Regulationsphysiologie			2 hrs	Wed	12-14	HG E22	S. E. Ulbrich, J. Müller, M. Saenz de Juano Ribes
751-5005-00L	Agroecology and the Transition to Sustainable Food Systems	W+	2 credits	2G				

Online lecture: This lecture will primarily take place online. Reserved rooms will remain blocked on campus for students to follow the course from there.  101-0903-00 L The Sustainable Development Goals W+ 2 credits Book Club O1-0903-00 K The Sustainable Development Goals Book Club Online lecture: This lecture will take place online. Reserved rooms will remain reserved on campus for students to follow the course from there.  101-0903-00 K The Sustainable Development Goals Book Club Online lecture: This lecture will take place online. Reserved rooms will remain reserved on campus for students to follow the course from there.  101-0903-00 K The Sustainable Development Goals Book Club Online lecture: This lecture will take place online. Reserved rooms will remain lecture: This lecture will take place online. Reserved rooms will remain reserved on campus for students to follow the course from there.  101-0903-00 K The Sustainable Development Goals Book Club Type ECTS Hours  101-0903-00 K The Sustainable Development Goals Book Club Type ECTS Hours  102-01-01 Title Type ECTS Hours  103-01 Title Type ECTS Hours  103-01 The Sustainable Development Goals Type ECTS Hours  103-01 The Sustainable Development Goals Type ECTS Hours  104-02-01 The Sustainable Development Goals Type ECTS Hours  105-01 The Sustainable Development Goals Type ECTS Hours  105-01 The Sustainable Development Goals T									
Book Club 01-0903-00 K The Sustainable Development Goals Book Club 07-0903-00 K The Sustainable Development Goals Book Club 08-0903-00 K The Sustainable Development Goals Book Club 09-0903-00 K The Sustainable Goals Boo	751-5005-00 G	Online lecture: This lecture will primarily tak Reserved rooms will remain blocked on car	e place	online.	2 hrs	Tue		CHN E42	M. Sonnevelt, M. Grant, S. E. Ulbrich, B. Wehrli
Online lecture: This lecture will take place online. Reserved rooms will remain reserved on campus for students to follow the course from there.  Bachelor's Thesis  Jumber Title Type ECTS Hours Lecturers  51-1020-10L Bachelor's Thesis O 14 credits 30D  51-1020-10 D Bachelor-Arbeit 420s hrs Lecturers  Gricultural Sciences Bachelor - Key for Type  Compulsory E- Recommended, not eligible for credits  Jetting for credits and recommended Z Courses outside the curriculum  Eligible for credits  For Hours  Lecture P practical/laboratory course lecture with exercise exercise D diploma thesis seminar  Revision course / private study	701-0903-00L		W+	2 credits					
Itumber Title Type ECTS Hours  51-1020-10L Bachelor's Thesis 51-1020-10 D Bachelor-Arbeit  Compulsory  Compulsory  Heligible for credits and recommended  Eligible for credits  I E- Recommended, not eligible for credits  Z Courses outside the curriculum  Dr Suitable for doctorate  Rever for Hours  P practical/laboratory course independent project exercise exercise seminar  Rever for Hours  Rever	701-0903-00 K	Online lecture: This lecture will take place of will remain reserved on campus for student	nline. R		IS	Thu	18-20	CHN E46	B. B. Pearce, J. Ghazoul
51-1020-10 L Bachelor's Thesis 51-1020-10 D Bachelor-Arbeit  O 14 credits 30D 420s hrs  Lecturers  Gricultural Sciences Bachelor - Key for Type  Compulsory  Heligible for credits and recommended Heligible for credits  Dr Suitable for doctorate  Gey for Hours  I lecture Heligible for credits  I p practical/laboratory course Hecture with exercise Exercis	► Bachelo	r's Thesis							
gricultural Sciences Bachelor - Key for Type  Compulsory Heligible for credits and recommended Heligible for credits  Icey for Hours  I lecture  I lecture with exercise exercise seminar  En Recommended, not eligible for credits  Z Courses outside the curriculum  Dr Suitable for doctorate  P practical/laboratory course independent project  diploma thesis  R revision course / private study	Number	Title	Туре	ECTS	Hours				Lecturers
Agricultural Sciences Bachelor - Key for Type  Compulsory  Heligible for credits and recommended  Eligible for credits  Dr Suitable for doctorate   Electure  I lecture with exercise exercise seminar  Recommended, not eligible for credits  Dr Suitable for doctorate  E- Recommended, not eligible for credits  Dr Suitable for doctorate  P practical/laboratory course independent project diploma thesis  R revision course / private study	751-1020-10L	Bachelor's Thesis	0	14 credits	30D				
Compulsory  E- Recommended, not eligible for credits  Z Courses outside the curriculum  Bligible for credits  Dr Suitable for doctorate  Electure  I lecture with exercise exercise seminar  Recommended, not eligible for credits  E- Recommended, not eligible for credits  Z Courses outside the curriculum  Dr Suitable for doctorate  P practical/laboratory course independent project  diploma thesis  R revision course / private study	751-1020-10 D	Bachelor-Arbeit			420s hrs				Lecturers
Eligible for credits and recommended   Z   Courses outside the curriculum   Dr   Suitable for doctorate	Agricultural S	Sciences Bachelor - Key for Type							
Eligible for credits  Dr Suitable for doctorate  Exercise	0	Compulsory			E-		Recommen	ded, not eligible	e for credits
lecture   P practical/laboratory course   lecture with exercise   A independent project   exercise   D diploma thesis   seminar   R revision course / private study	W+	Eligible for credits and recommended			Z		Courses ou	tside the curric	ulum
lecture P practical/laboratory course lecture with exercise A independent project exercise D diploma thesis seminar R revision course / private study	W	Eligible for credits			Dr		Suitable for	doctorate	
lecture with exercise exercise exercise seminar  A independent project D diploma thesis R revision course / private study	Key for Hours	S							
exercise D diploma thesis seminar R revision course / private study	V	lecture			Р		practical/lab	oratory course	
seminar R revision course / private study	G	lecture with exercise			Α		independen	t project	
	U	exercise			D		diploma the	sis	
colloquium	S	seminar			R		revision cou	ırse / private st	udy
	K	colloquium							

ECTS

European Credit Transfer and Accumulation System
Special students and auditors need special permission from the lecturers.

# **Agricultural Sciences TC**

Detailed information on the programme at: www.didaktischeausbildung.ethz.ch

#### ► Educational Science

Number	Title	Type	ECTS	Hours				Lecturers
851-0240-00L	Human Learning (EW1) This lecture is only apt for students who intend to enrol in the programs "Teaching Diploma" or "Teaching Certificate". It is about learning in childhood and adolescence.	Ο	2 credits	2V				
851-0240-00 V	Menschliches Lernen (EW1)			2 hrs	Tue	18-20	HG F1	E. Stern
851-0242-06L	Cognitively Activating Instructions in MINT Subjects Enrolment only possible with matriculation in Teaching Diploma or Teaching Certificate (excluding Teaching Diploma Sport).	W	2 credits	2\$				
	This course unit can only be enrolled after successful participation in, or during enrollment in the course "Human Learning (EW 1)".							
851-0242-06 S	Kognitiv aktivierender Unterricht in den MIN Unregelmässige Lehrveranstaltung; für eine Semesterplanung wird um frühe Anmeldung Erscheinen zum ersten Lehrveranstaltungst	reibung und pe	gslose ersönliches	2 hrs	Wed	18-20	ML H41.1	R. Schumacher
851-0242-07L	Human Intelligence Enrolment only possible with matriculation in Teaching Diploma or Teaching Certificate (excluding Teaching Diploma Sport). Number of participants limited to 30. This course unit can only be enrolled after successful participation in, or during enrollment in the course "Human Learning (EW 1)".	W	1 credit	18				
851-0242-07 S	Menschliche Intelligenz Unregelmässige Lehrveranstaltung. An zwei Terminen findet die Lehrveranstaltu TeilnehmerInnen statt und an den übrigen Teinem Teil der Studierenden (Kleingruppen) gemeinsam vereinbart.	ermine	n nur mit	14s hrs	Wed	16-18	ML F40	E. Stern
851-0242-08L	Research Methods in Educational	w	1 credit	2S				
	Science Number of participants limited to 30 This course unit can only be enrolled after successful participation in, or during enrollment in the course "Human Learning (EW 1)".							
851-0242-08 S	Forschungsmethoden der empirischen Bildu Unregelmässige Lehrveranstaltung.	ingsfors	chung	21s hrs	Wed	12-15	LFW C1	<b>P. Edelsbrunner</b> , T. Braas, C. M. Thurn
	Zwei obligatorische Präsenztermine: 29.09. An den übrigen Terminen nur mit einem Tei (jeweils mit 1-2 Kleingruppen).							
851-0240-22L	Coping with Psychosocial Demands of Teaching (EW4 DZ)  Number of participants limited to 20.	W	2 credits	35				
	The successful participation in EW1 ("Human Learning") and EW2 ("Designing Learning Environments for School") is recommended, but not a mandatory prerequisite.							
851-0240-22 S	Bewältigung psychosozialer Anforderungen DZ)	im Lehi	beruf (EW4	3 hrs	Tue	09-12	HG E33.1 HG F26.5 HG G26.1	<b>U. Markwalder</b> , S. Maurer, S. Peteranderl
851-0242-11L	<b>Gender Issues In Education and STEM</b> <i>Number of participants limited to 30.</i>	W	2 credits	2\$				
	Enrolment only possible with matriculation in Teaching Diploma or Teaching Certificate (excluding Teaching Diploma Sport).							
	Prerequisite: students should be taking the course 851-0240-00L Human Learning (EW1) in parallel, or to have successfully completed it.							
851-0242-11 S	Gender Issues In Education and STEM ■			2 hrs	Thu	10-12	LEE C114	M. Berkowitz Biran, T. Braas

## ► Subject Didactics and Professional Training

Important: You can only enrole in the courses of this category if you have not more than 12 CP left for possible additional requirements.

Number	Title	Туре	ECTS	Hours	Lecturers
751-9020-00L	Teaching Internship Including Examination Lessons Agricultural Science The teaching internship can just be visited is all other courses of TC are completed. Repetition of the teaching internship is excluded even if the examination lessons are to be repeated.	<b>W</b>	6 credits	13P	
751-9020-00 P	Unterrichtspraktikum mit Prüfungslektionen	Agrarwi	ssenschaft D	Z 180s hrs by appt	. G. Kaufmann

#### ► Further Subject Didactics

For students enrolled from HS 2019: The courses offered here are credited under the category «Subject Didactics and Professional Training».

Number	Title	Туре	ECTS	Hours	Lecturers
751-9005-00L	Mentored Work Specialised Courses in the Respective Subject with an Educational Focus Agricul. Sc A	0	2 credits	4A	
751-9005-00 A	Mentorierte Arbeit fachwissenschaftliche Vopädagogischem Fokus Agrarwissenchaft A		ı mit	60s hrs by appt.	<b>G. Kaufmann</b> , K. Koch, U. Lerch

Agricultura	al Sciences TC - Key for Type		
0	Compulsory	E-	Recommended, not eligible for credits
W+	Eligible for credits and recommended	Z	Courses outside the curriculum
W	Eligible for credits	Dr	Suitable for doctorate

Key for He	ours			
V	lecture	P	practical/laboratory course	
G	lecture with exercise	A	independent project	
U	exercise	D	diploma thesis	
S	seminar	R	revision course / private study	
K	colloquium			

ECTS European Credit Transfer and Accumulation System

Special students and auditors need special permission from the lecturers.

# **Agroecosystem Sciences Master**

- ► Major in Animal Sciences
- **▶▶** Disciplinary Competences

# ▶▶▶ LivestockSystems

Number	Title	Туре	ECTS	Hours				Lecturers
751-6501-00L	Ruminant Science (HS)	W+	4 credits	4G				
751-6501-00 G	Ruminant Science			4 hrs	Wed	10-12 14-16	LFW C11 LFW C11	<b>K. Giller</b> , M. Terranova, U. Witschi
′51-6601-00L	Pig Science (HS)	W+	2 credits	2V				
51-6601-00 V	Pig Science (HS) Does not take place this semester.			2 hrs				to be announced
51-6001-00L	Forum: Livestock in the World Food System	W+	2 credits	1S				
51-6001-00 S	Number of participants limited to 20. Forum: Livestock in the World Food System Durchführung gemäss speziellem Programr			1 hrs	Wed	08-10	LFW C1	S. Meese
►►► Livest	ock Biology							
lumber	Title	Туре	ECTS	Hours				Lecturers
′51-7211-00L	Ruminal Digestion	W+	1 credit	1G				
'51-7211-00 G	Ruminal Digestion Does not take place this semester. Diese LV wird im HS21 nicht als Einzelvera die Inhalte sind jedoch Teil von 751-6501-00			1 hrs				not available
751-6113-00L	Endocrinology and Biology of Reproduction	W+	3 credits	2G				
751-6113-00 G	Endocrinology and Biology of Reproduction			2 hrs	Thu	12-14	LFW C11	<b>S. E. Ulbrich</b> , S. M. Bernal Ulloa
<b>751-7310-00L 7</b> 51-7310-00 V	Bioactive Food and Feed Components	W+	2 credits	<b>2V</b> 2 hrs	Tue	00.10	LEW C11	V Ciller
51-7310-00 V	Bioactive Food and Feed Components Online lecture: This lecture will take place of will remain reserved on campus for students from there.				rue	08-10	LFW C11	K. Giller
01-0263-01L	Seminar in Evolutionary Ecology of Infectious Diseases	W+	3 credits	2G				
701-0263-01 G	Seminar in Evolutionary Ecology of Infectious	ıs Disea	ises	2 hrs	Tue	16-18	CHN F42	R. R. Regös, S. Bonhoeffer
▶▶▶ Livest	ock Genetics							
Number	Title	Туре	ECTS	Hours				Lecturers
′51-6243-00L	Breeding and conservation of Animal Genetic Resources	W+	2 credits	2V				
'51-6243-00 V	Züchtung und Erhaltung tiergenetischer Res Die Lehrveranstaltung besteht aus regelmäs ersten Semesterhälfte und aus einem Block Januar 2022.	ssigen L	.V in der	2 hrs	Mon/1 25.01. 26.01.	14-16 08-18 08-18	NO E39 CHN F42 CHN F42	H. Signer-Hasler, C. Flury, S. Neuenschwander
<b>751-6305-00L</b> 751-6305-00 G	Livestock Breeding and Genomics Livestock Breeding and Genomics	W	3 credits	3G 3 hrs	Fri	09-12	LFW C11	P. von Rohr
	ology Competences ods for Scientific Research							
Number	Title	Туре	ECTS	Hours				Lecturers
′51-3801-00L	Experimental Design and Applied Statistics in Agroecosystem Science	W	3 credits	2G				
′51-3801-00 G	Experimental Design and Applied Statistics Science Course will be held in German unless there who ask for English lecturing. Handouts are	are stud	dents present ish. Students	2 hrs	Thu	10-12	HG E19	A. Hund, W. Eugster, C. Grieder, R. Kölliker
	should be aware that in addition to 2 weeks the course there are 3-5 hours per week of necessary to fulfill the targets of this course	ndividu						
751-6127-00L	Practical Course in Microscopy of Functional Histology	W+	3 credits	6P				
		l Histol	ogy	90s hrs				not available
	Practical Course in Microscopy of Functional Does not take place this semester.							
51-6127-00 P	Does not take place this semester.  Practical Course Epigenetics	W+	3 credits	6P				
'51-6127-00 P	Does not take place this semester.		3 credits	<b>6P</b> 90s hrs				not available

Number	Title	Type	ECTS	Hours	Lecturers
▶ <b>▶▶</b> Projec	ct Management for Scientific R	Researc	h		
<b>751-6003-01L</b> 751-6003-01 P	Training Course in Research Groups (Small) Training Course in Research Groups (Sm Durchführung in Semesterferien, darf nich kombiniert werden	,	3 credits	6P 90s hrs	S. M. Bernal Ulloa, S. Neuenschwander, H. Pausch, M. Saenz de Juano Ribes S. E. Ulbrich
751-6003-00 P	Durchführung in Semesterferien, darf nich kombiniert werden	ht mit 751		180s hrs	S. M. Bernal Ulloa, S. Neuenschwander, H. Pausch, M. Saenz de Juano Ribes, S. E. Ulbrich

Number	Title	Туре	ECTS	Hours				Lecturers
51-6001-00L	Forum: Livestock in the World Food System Number of participants limited to 20.	W+	2 credits	15				
′51-6001-00 S	Forum: Livestock in the World Food System Durchführung gemäss speziellem Programm			1 hrs	Wed	08-10	LFW C1	S. Meese
751-5201-10L	Tropical Cropping Systems, Soils and Livelihoods This course has been restructured due to Covid-19 restrictions, part I (2 CP) takes place in Autumn 2021, part II (3 CP) in Spring 2022, with an excursion/fieldwork. For more information, please contact the lecturer: kenza.benabderrazik@usys.ethz.ch	W+	2 credits	2G				
751-5201-10 G	Tropical Cropping Systems, Soils and Liveli This has been restructured due to Covid-19 excursion/field work will take place in spring information, please contact the lecturer: kenza.benabderrazik@usys.ethz.ch	restrict	*	2 hrs	Thu 23.09.	08-10 08-10	CHN G22 CHN E42	J. Six, K. Benabderrazik

# ► Major in Plant Sciences

# ►► Disciplinary Competences ►► Agronomy and Plant Breed

Number	Title	Type	ECTS	Hours				Lecturers
751-4104-00L	Alternative Crops	W+	2 credits	2V				
751-4104-00 V	Alternative Crops			2 hrs	Wed	16-18	LFW C5	A. Walter, K. Berger Büter
751-3603-00L	Current Challenges in Plant Breeding Number of participants limited to 15.	W+	2 credits	2G				
751-3603-00 G	Current Challenges in Plant Breeding This course is composed by two parts: - a compulsory information event, in which the task assignment will take place from 14.00- 2021.	17.00 oi	n 5. Novembe	2 hrs <i>r</i>	05.11. 27.01.	14-17 08-18	n /a CAB G51	B. Studer, A. Hund
	- a seminar, in which the group tasks will be takes place on 27. January 2022.	presen	ted, which					
751-4704-00L	Weed Science	W+	3 credits	2G				
751-4704-00 G	Weed Science			2 hrs	Thu	14-16	LFW B3	B. Streit, U. J. Haas
▶▶▶ Crop l	Health							
Number	Title	Туре	ECTS	Hours				Lecturers
751-5121-00L	Insect Ecology The number of participants is limited to 30.	W+	2 credits	2V				
751-5121-00 V	Insect Ecology			2 hrs	Tue	14-16	LFW B3	C. De Moraes, M. Mescher N. Stanczyk
751-4811-00L	Alien Organisms in Agriculture Number of participants limited to 30.	W+	2 credits	2G				
751-4811-00 G	Alien Organisms in Agriculture			2 hrs	Tue	08-10	CAB G59	J. Collatz, M. Meissle
701-0263-01L	Seminar in Evolutionary Ecology of Infectious Diseases	W+	3 credits	2G				
701-0263-01 G	Seminar in Evolutionary Ecology of Infectiou	s Disea	ises	2 hrs	Tue	16-18	CHN F42	R. R. Regös, S. Bonhoeffe
751-4506-00L	Plant Pathology III Number of participants limited to 20.	W+	2 credits	2G				
751-4506-00 G	Pflanzenpathologie III			2 hrs	Tue	10-12	LFW E15	M. Maurhofer Bringolf
►►► Agricu	ılture and Environment							
Number	Title	Туре	ECTS	Hours				Lecturers
751-5101-00L	Biogeochemistry and Sustainable Management	W+	2 credits	2G				
751-5101-00 G	Biogeochemistry and Sustainable Managem Does not take place this semester.	ent		2 hrs				W. Eugster, V. Klaus
751-3405-00L	Chemical Nature of Nutrients and their	W+	4 credits	4G				

Availability to Plants: The Case of **Phosphorus** 

Number of participants limited to 15. Priority will be given to students in

Agricultural Sciences

751-3405-00 G Chemical Nature of Nutrients and their Availability to Plants: The 56s hrs

Case of Phosphorus

The lectures will spread over 13 Friday mornings in the autumn semester. The lecture will be organized in Eschikon, in the Group of Plant Nutrition at the Experimental station Eschikon, 8315 Eschikon-Lindau.

E. Frossard, L. P. Schönholzer, M. Wiggenhauser

The location of the experimental station Eschikon is given at http://www.ias.ethz.ch/researchstation/eschikon.

751-5125-00L Stable Isotope Ecology of Terrestrial 2 credits 2G **Ecosystems** 

Number of participants limited to 20.

**R. A. Werner**, N. Buchmann, A. Gessler, M. Lehmann 14.01.- 08-18 751-5125-00 G Stable Isotope Ecology of Terrestrial Ecosystems ■ LFW B2 2 hrs 21.01. This block course takes place on 14 January 2022 to 21 January

#### **▶▶** Methodology Competences

#### ▶▶▶ Seminar in Plant Sciences

Number	Title	Type	ECTS	Hours				Lecturers	
751-5115-00L	Current Aspects of Nutrient Cycle in Agro-Ecosystems	W+	2 credits	18					
751-5115-00 S	Current Aspects of Nutrient Cycle in Agro- Excursion) Does not take place this semester.	Ecosyste	ems (with	18s hrs				E. Frossard	
751-4003-01L	Current Topics in Grassland Sciences (HS)	W+	2 credits	28					
751-4003-01 S	Current Topics in Grassland Sciences Online lecture: This lecture will take place will remain reserved on campus for studen from there				Mon	16-18	LFW C1	A. K. Gilgen	

#### ▶▶▶ Design, Analysis and Communication of Science

Number	Title	Type	ECTS	Hours				Lecturers
751-3801-00L	Experimental Design and Applied Statistics in Agroecosystem Science	0	3 credits	2G				
751-3801-00 G	Experimental Design and Applied Statistics Science Course will be held in German unless there who ask for English lecturing. Handouts are should be aware that in addition to 2 weeks the course there are 3-5 hours per week of necessary to fulfill the targets of this course	e are stude e in Engl s of prese f individu	dents present lish. Students ence during		Thu	10-12	HG E19	A. Hund, W. Eugster, C. Grieder, R. Kölliker
751-5201-10L	Tropical Cropping Systems, Soils and Livelihoods This course has been restructured due to Covid-19 restrictions, part I (2 CP) takes place in Autumn 2021, part II (3 CP) in Spring 2022, with an excursion/fieldwork. For more information, please contact the lecturer: kenza.benabderrazik@usys.ethz.ch	W+	2 credits	2G				
751-5201-10 G	Tropical Cropping Systems, Soils and Live This has been restructured due to Covid-1: excursion/field work will take place in sprin information, please contact the lecturer: kenza.benabderrazik@usys.ethz.ch	9 restrict		2 hrs	Thu 23.09.	08-10 08-10	CHN G22 CHN E42	J. Six, K. Benabderrazik

#### ► Major in Agriculture Economics

#### **▶▶** Disciplinary Competences

#### ▶▶▶ Decision Making and Management

Number	Title	Туре	ECTS	Hours				Lecturers
363-0403-00L	Introduction to Marketing	W+	3 credits	2G				
363-0403-00 G	Introduction to Marketing The lecture takes place in classroom, only zoom and recorded.	ine via live	estreaming or	2 hrs	Tue	14-16	HG E5	<b>S. Brüggemann</b> , F. von Wangenheim
751-2205-00L	Management for Enterprises in the Agr Food-Chain II	ri- W+	2 credits	2G				
751-2205-00 G	Management for Enterprises in the Agri-F	ood-Chair	n II	2 hrs	Mon	08-10	NO C44	M. Weber
►►► Resou	ırce Economics and Agricultu	ral Poli	icy					
Number	Title	Туре	ECTS	Hours				Lecturers
751-2903-00L	Evaluation of Agricultural Policies	W+	3 credits	2G				
751-2903-00 G	Evaluation of Agricultural Policies			2 hrs	Thu	16-18	ML J34.3	R. Huber, R. Finger, C. Schader

<b>701-1651-00L</b> 701-1651-00 G	Environmental Governance Environmental Governance	W	6 credits	<b>3G</b> 3 hrs	Tue	10-13	CHN E46	E. Lieberherr
	opment and International Policy	,						
Number	Title	Type	ECTS	Hours				Lecturers
751-2103-00L	Socioeconomics of Agriculture	W+	2 credits	2V				
751-2103-00 V				2 hrs	Tue	08-10	LFW B3	S. Mann
851-0626-01L	International Aid and Development Number of participants limited to 60	W+	2 credits	2V				
	Prerequisites: Basic knowledge of economics							
851-0626-01 V	International Aid and Development			2 hrs	Tue	12-14	IFW A32.1	K. Harttgen, I. Günther
860-0023-00L	International Environmental Politics Particularly suitable for students of D-ITET, D-USYS	W+	3 credits	2V				
860-0023-00 V	International Environmental Politics			2 hrs	Mon	16-18	HG F3	T. Bernauer
►► Method	ology Competences							
▶▶▶ Metho	ds in Agricultural Economics							
Number	Title	Туре	ECTS	Hours				Lecturers
363-0305-00L	Empirical Methods in Management	W+	3 credits	2G	147	4		0.711
363-0305-00 G	Empirical Methods in Management The lecture takes place in classroom, online zoom and recorded.	e via live	streaming or	2 hrs	Wed	14-16	HG E1.1	S. Tillmanns
363-0585-00L	Intermediate Econometrics	W+	3 credits	2V	т	4440	155.0444	O Marillanana Frantsa
363-0585-00 V	Intermediate Econometrics	\A/ -	2 aradita	2 hrs	Tue	14-16	LEE C114	G. Masllorens Fuentes
751-0423-00L	Risk Analysis and Risk Management in Agriculture	W+	3 credits	2G				
751-0423-00 G	Risk Analysis and Risk Management in Agr	iculture		2 hrs	Thu	14-16	ML J34.3	R. Finger
751-1573-00L	Dynamic Simulation in Agricultural and Regional Economics	W+	2 credits	2V				
751-1573-00 V		ional Ed	onomics	2 hrs	Fri/1	08-12	HG D3.1	B. Kopainsky
363-0541-00L	Systems Dynamics and Complexity	W	3 credits	3 <b>G</b>				
363-0541-00 G	Systems Dynamics and Complexity Lecture: Thursday, 08-10 h Exercises: Tuesday, 12-13 h The lecture takes place in classroom, online zoom and recorded.	e via live	estreaming or	3 hrs	Tue Thu	12-13 08-10	HG D1.2 HG D1.2	F. Schweitzer
401-0647-00L	Introduction to Mathematical Optimization	W	5 credits	2V+1U				
401-0647-00 V	Introduction to Mathematical Optimization			2 hrs	Tue	16-18	HG F5	D. Adjiashvili
401-0647-00 U	Introduction to Mathematical Optimization Groups are selected in myStudies. Wed 12-13 or Wed 16-17			1 hrs	Wed	12-13 16-17	HG D1.2 IFW A36 ON LINE	D. Adjiashvili
363-0565-00L	Principles of Macroeconomics	W	3 credits	2V				
363-0565-00 V	Principles of Macroeconomics Di 16-18 im ETA F 5 mit Videoübertragung The lecture takes place in classroom, online zoom and recorded.			2 hrs	Tue	16-18	ETA F5 ETF E1	JE. Sturm
►►► Projec	et Management and Communica	ation o	of Science	•				
Number	Title		ECTS	Hours				Lecturers
751-5201-10L	Tropical Cropping Systems, Soils and Livelihoods This course has been restructured due to Covid-19 restrictions, part I (2 CP) takes place in Autumn 2021, part II (3 CP) in Spring 2022, with an excursion/fieldwork. For more information, please contact the lecturer: kenza.benabderrazik@usys.ethz.ch	W+	2 credits	2G				
751-5201-10 G	Tropical Cropping Systems, Soils and Liveli This has been restructured due to Covid-19 excursion/field work will take place in spring information, please contact the lecturer:	restricti		2 hrs	Thu 23.09.	08-10 08-10	CHN G22 CHN E42	J. Six, K. Benabderrazik
	kenza.benabderrazik@usys.ethz.ch							
► Professio	onal Internship							

751-0210-00 P Berufspraktikum ■

B. Dorn

Diese LV beinhaltet das gesamte Berufspraktikum:
- Vorbereitung
- Praktikumsaufenthalt
- Nachbereitung und Präsentation

Der Agro-Tag II zur Präsentation des Berufspraktikums findet am Freitag 29.10.2021 vom 13.15 - 16.30 Uhr statt.

#### ► Minors

#### **▶▶** Agricultural Economics and Policy

Number	Title	Type	ECTS	Hours				Lecturers
<b>751-2903-00L</b> <b>751-2903-00</b> G	<b>Evaluation of Agricultural Policies</b> Evaluation of Agricultural Policies	W	3 credits	<b>2G</b> 2 hrs	Thu	16-18	ML J34.3	R. Huber, R. Finger, C. Schader
751-2205-00L	Management for Enterprises in the Agri- Food-Chain II	W	2 credits	2G				
751-2205-00 G	Management for Enterprises in the Agri-Foo	od-Chair	n II	2 hrs	Mon	08-10	NO C44	M. Weber
<b>751-2103-00L</b> 751-2103-00 V	Socioeconomics of Agriculture Socioeconomics of Agriculture	W	2 credits	<b>2V</b> 2 hrs	Tue	08-10	LFW B3	S. Mann
751-1573-00L	Dynamic Simulation in Agricultural and Regional Economics	W	2 credits	2V				
751-1573-00 V	Dynamic Simulation in Agricultural and Reg	ional Ed	onomics	2 hrs	Fri/1	08-12	HG D3.1	B. Kopainsky
751-0423-00L	Risk Analysis and Risk Management in Agriculture	W	3 credits	2G				
751-0423-00 G	Risk Analysis and Risk Management in Agr	iculture		2 hrs	Thu	14-16	ML J34.3	R. Finger
<b>363-0305-00L</b> 363-0305-00 G	Empirical Methods in Management Empirical Methods in Management The lecture takes place in classroom, online zoom and recorded.	<b>W</b> e via live	3 credits estreaming or	<b>2G</b> 2 hrs	Wed	14-16	HG E1.1	S. Tillmanns
851-0626-01L	International Aid and Development Number of participants limited to 60 Prerequisites: Basic knowledge of	W+	2 credits	2V				
054 0000 04 1/	economics			0.1	_	40.44	IEIN/ A 00 4	<b>14 11</b> 44 1 0 " 11
851-0626-01 V	International Aid and Development			2 hrs	Tue	12-14	IFW A32.1	K. Harttgen, I. Günther
►► Agricult	ture and Environment							
Number	Title	Туре	ECTS	Hours				Lecturers
751-5101-00L	Biogeochemistry and Sustainable Management	W	2 credits	2G				
751-5101-00 G	Biogeochemistry and Sustainable Managen Does not take place this semester.	nent		2 hrs				W. Eugster, V. Klaus
751-3405-00L	Chemical Nature of Nutrients and their Availability to Plants: The Case of Phosphorus Number of participants limited to 15. Priority will be given to students in Agricultural Sciences	W	4 credits	4G				
751-3405-00 G	Chemical Nature of Nutrients and their Avai Case of Phosphorus The lectures will spread over 13 Friday more semester. The lecture will be organized in Each Item of Plant Nutrition at the Experimental station Eschikon-Lindau. The location of the experimental station Esch http://www.ias.ethz.ch/researchstation/esch	nings in Eschikon n Eschik chikon is	the autumn n, in the Group on, 8315					E. Frossard, L. P. Schönholzer, M. Wiggenhauser
751-5125-00L	Stable Isotope Ecology of Terrestrial Ecosystems  Number of participants limited to 20.	W	2 credits	2G				
751-5125-00 G	Stable Isotope Ecology of Terrestrial Ecosy This block course takes place on 14 Januar 2022.			2 hrs	14.01 21.01.	08-18	LFW B2	R. A. Werner, N. Buchmann A. Gessler, M. Lehmann
►► Agrono	my and Plant Breeding							
Number	Title	Туре	ECTS	Hours				Lecturers
<b>751-4104-00L</b> 751-4104-00 V	Alternative Crops Alternative Crops	W	2 credits	<b>2V</b> 2 hrs	Wed	16-18	LFW C5	A. Walter, K. Berger Büter
	Current Challenges in Plant Breeding							,

2 hrs

05.11. 14-17 n /a 27.01. 08-18 CAB G51

B. Studer, A. Hund

751-3603-00 G Current Challenges in Plant Breeding
This course is composed by two parts:
- a compulsory information event, in which the preparation and task assignment will take place from 14.00-17.00 on 5. November

-a seminar, in which the group tasks will be presented, which takes place on 27. January 2022.

►► Crop He	ealth							
Number	Title	Туре	ECTS	Hours				Lecturers
751-5121 <b>-00</b> L	Insect Ecology	W	2 credits	2V				
751-5121-00 V	The number of participants is limited to 30. Insect Ecology			2 hrs	Tue	14-16	LFW B3	C. De Moraes, M. Mescher, N. Stanczyk
751-4811-00L	Alien Organisms in Agriculture Number of participants limited to 30.	W	2 credits	2G				
751-4811-00 G	Alien Organisms in Agriculture			2 hrs	Tue	08-10	CAB G59	J. Collatz, M. Meissle
701-0263-01L	Infectious Diseases	W	3 credits	2G	_	40.40	01111540	<b></b>
	Seminar in Evolutionary Ecology of Infection			2 hrs	Tue	16-18	CHN F42	R. R. Regös, S. Bonhoeffer
	Number of participants limited to 20.	W	2 credits	2G	Tuo	10.12	1 EW E46	M Maurhafar Bringalf
	Pflanzenpathologie III			2 hrs	Tue	10-12	LFW E15	M. Maurhofer Bringolf
►► Data Sc	ience and Technolgy for Agrice	ultura	Science					
Number	Title	Туре	ECTS	Hours				Lecturers
	Environmental Systems Data Science Environmental Systems Data Science	W+	3 credits	2G 2 hrs	Tue	08-10	CHN D44 CHN D46 CHN F42 CHN G22	<b>L. Pellissier</b> , J. Payne, B. Stocker
					21.09.	08-10	HG D1.1	
401-6215-00L	Using R for Data Analysis and Graphics (Part I)		1.5 credits	1G				
	Using R for Data Analysis and Graphics (Pa			14s hrs	Tue/1	14-16	CAB G11	M. Mächler
01-6217-00L	(Part II)		1.5 credits	1G				
01-6217-00 G	Using R for Data Analysis and Graphics (Pa	•		14s hrs	Tue/2	14-16	CAB G11	M. Mächler
'51-5510-00L	Introduction to Agricultural Robotics Number of participants limited to 20.	W+	3 credits	2G				
751-5510-00 G	Introduction to Agricultural Robotics Students should preferably have basic know programming	vledge d	of computer	2 hrs	Mon	12-14	LFW C1	S. Mintchev
701-0951-00L	GIS - Introduction into Geoinformation Science and Technology Number of participants limited to 50. Waiting list will be deleted October 8th, 2021.	W+	5 credits	2V+3P				
701-0951-00 V	GIST - Einführung in die räumlichen Informa und -technologien Online-Veranstaltung: Diese Lehrveranstalt grundsätzlich per ZOOM statt. Die reservier die Studierenden auf dem Campus bestehe Lehrveranstaltung dort zu hören.	ung find rten Räu	et ıme bleiben für		Fri	10-12	CHN E46	M. A. M. Niederhuber
701-0951-01 P	GIST - Einführung in die räumlichen Informa und -technologien Für die Übungen müssen die Studierenden Zeitfenster aufgeteilt werden. Zur Verfügung - 14 und Fr 14 - 16 Uhr. Bei Bedarf auch M Zuteilung wird in der ersten Semesterwoche Übungsbetreuung im NO D39 wie auch ON	auf vers g stehen lo 10 - 1: e durchg	schiedene n: Dienstag 12 2. Eine	3 hrs	Mon Tue Fri	10-12 12-14 14-16	NO D39 NO D39 NO D39	M. A. M. Niederhuber
651-4031-00L	Geographic Information Systems Number of participants limited to 60.	W+	3 credits	4G				
651-4031-00 G	Geographic Information Systems			4 hrs	Wed/2	08-12	HG E26.1 HG E26.3	<b>A. Baltensweiler</b> , M. Hägeli- Golay
►► Functio	ning of Soil Systems							
Number	Title	Туре	ECTS	Hours				Lecturers
′51-5101-00L	Biogeochemistry and Sustainable Management	W	2 credits	2G				
751-5101-00 G	Biogeochemistry and Sustainable Managen Does not take place this semester.	nent		2 hrs				W. Eugster, V. Klaus
751-5115-00L	Current Aspects of Nutrient Cycle in	w	2 credits	1S				

751-5115-00 S	Current Aspects of Nutrient Cycle in Agro-E Excursion)  Does not take place this semester.	cosyste	ms (with	18s hrs				E. Frossard
751-3405-00L	Chemical Nature of Nutrients and their Availability to Plants: The Case of Phosphorus Number of participants limited to 15. Priority will be given to students in Agricultural Sciences	W	4 credits	4G				
751-3405-00 G	Chemical Nature of Nutrients and their Avai Case of Phosphorus The lectures will spread over 13 Friday mor semester. The lecture will be organized in E of Plant Nutrition at the Experimental station Eschikon-Lindau. The location of the experimental station Eschttp://www.ias.ethz.ch/researchstation/esch	nings in Eschikon n Eschik chikon is	the autumn a, in the Group con, 8315					E. Frossard, L. P. Schönholzer, M. Wiggenhauser
′51-5125-00L	Stable Isotope Ecology of Terrestrial Ecosystems  Number of participants limited to 20.	W	2 credits	2G				
′51-5125-00 G	Stable Isotope Ecology of Terrestrial Ecosy: This block course takes place on 14 Januar 2022.			2 hrs	14.01 21.01.	08-18	LFW B2	R. A. Werner, N. Buchmann, A. Gessler, M. Lehmann
01-0533-00L	Soil and Water Chemistry	W	3 credits	2G				
'01-0533-00 G	Boden- und Wasserchemie			2 hrs	Wed	14-16	CHN F46	<b>R. Kretzschmar</b> , D. I. Christl, L. Winkel
701-0535-00L	Environmental Soil Physics/Vadose Zone Hydrology	W	3 credits	2V+1U				
01-0535-00 V	Environmental Soil Physics/Vadose Zone H	ydrolog	y	2 hrs	Wed	16-18	CHN E46	A. Carminati, P. U. Lehmann Grunder
'01-0535-00 U	Environmental Soil Physics/Vadose Zone H	ydrolog	у	1 hrs	Wed	18-19	CHN E46	A. Carminati, P. U. Lehmann Grunder
<b>701-1343-00L</b> 701-1343-00 V	Soil-Plant Water Relations Soil-Plant Water Relations	W+	3 credits	<b>2V</b> 2 hrs	Fri	10-12	ML H41.1	A. Carminati
751-5201-10 G	Livelihoods This course has been restructured due to Covid-19 restrictions, part I (2 CP) takes place in Autumn 2021, part II (3 CP) in Spring 2022, with an excursion/fieldwork. For more information, please contact the lecturer: kenza.benabderrazik@usys.ethz.ch Tropical Cropping Systems, Soils and Liveli	hoods		2 hrs	Thu	08-10	CHN G22	<b>J. Six</b> , K. Benabderrazik
31-3201-10 G	This has been restructured due to Covid-19 excursion/field work will take place in spring information, please contact the lecturer: kenza.benabderrazik@usys.ethz.ch	restrict		21113	23.09.	08-10	CHN E42	J. SIA, N. Bellabuellazik
►► Genera	Crop Science							
Number	Title	Туре	ECTS	Hours				Lecturers
<b>'51-4104-00L</b> '51-4104-00 V	Alternative Crops Alternative Crops	W	2 credits	<b>2V</b> 2 hrs	Wed	16-18	LFW C5	A. Walter, K. Berger Büter
′51-3603-00L	Current Challenges in Plant Breeding	W	2 credits	2G				
′51-3603-00 G	Number of participants limited to 15.  Current Challenges in Plant Breeding This course is composed by two parts: - a compulsory information event, in which the task assignment will take place from 14.00-2021.			2 hrs	05.11. 27.01.		n /a CAB G51	B. Studer, A. Hund
	- a seminar, in which the group tasks will be takes place on 27. January 2022.	e presen	ted, which					
′51-5121-00L	Insect Ecology The number of participants is limited to 30.	W	2 credits	2V				
	Insect Ecology			2 hrs	Tue	14-16	LFW B3	C. De Moraes, M. Mescher, N. Stanczyk
751-4811-00L	Alien Organisms in Agriculture Number of participants limited to 30.	W	2 credits	2 <b>G</b>	Tuo	00 40	CAR CEO	L Collete M. Meissle
	Alien Organisms in Agriculture	10/	2 oro-414 -	2 hrs	Tue	08-10	CAB G59	J. Collatz, M. Meissle
7 <b>01-0263-01L</b> 701-0263-01 G	Seminar in Evolutionary Ecology of Infectious Diseases Seminar in Evolutionary Ecology of Infection	<b>W</b> us Disea	3 credits	2G 2 hrs	Tue	16-18	CHN F42	R. R. Regös, S. Bonhoeffer
751-5101-00L	Biogeochemistry and Sustainable	W	2 credits	2G			=: 1 <u>=</u>	
	Management Biogeochemistry and Sustainable Managem		z creuits	2 hrs				W. Eugster, V. Klaus
751-3405-00L	Does not take place this semester.  Chemical Nature of Nutrients and their	w	4 credits	4G				

	Availability to Plants: The Case of Phosphorus Number of participants limited to 15. Priority will be given to students in Agricultural Sciences							
751-3405-00 G	Chemical Nature of Nutrients and their Avi Case of Phosphorus The lectures will spread over 13 Friday mosemester. The lecture will be organized in of Plant Nutrition at the Experimental static Eschikon-Lindau. The location of the experimental station Eschtp://www.ias.ethz.ch/researchstation/esc	ornings in Eschikor on Eschik schikon is	the autumn n, in the Group con, 8315					E. Frossard, L. P. Schönholzer, M. Wiggenhauser
751-5125-00L	Stable Isotope Ecology of Terrestrial Ecosystems  Number of participants limited to 20.	W	2 credits	2G				
751-5125-00 G	Stable Isotope Ecology of Terrestrial Ecos This block course takes place on 14 Januar 2022.	•		2 hrs	14.01 21.01.	08-18	LFW B2	R. A. Werner, N. Buchmann A. Gessler, M. Lehmann
751-5115-00L	Current Aspects of Nutrient Cycle in Agro-Ecosystems	W	2 credits	1S				
751-5115-00 S	Current Aspects of Nutrient Cycle in Agro- Excursion)  Does not take place this semester.	Ecosyste	ems (with	18s hrs				E. Frossard
751-4003-01L	Current Topics in Grassland Sciences (HS)	W	2 credits	28				
751-4003-01 S	Current Topics in Grassland Sciences Online lecture: This lecture will take place will remain reserved on campus for studer from there.			2 hrs s	Mon	16-18	LFW C1	A. K. Gilgen
751-4506-00L	Plant Pathology III  Number of participants limited to 20.	W	2 credits	2G				
751-4506-00 G	Pflanzenpathologie III			2 hrs	Tue	10-12	LFW E15	M. Maurhofer Bringolf
′51-5510-00L	Introduction to Agricultural Robotics Number of participants limited to 20.	W+	3 credits	2G				
751-5510-00 G	Introduction to Agricultural Robotics Students should preferably have basic kno programming	owledge o	of computer	2 hrs	Mon	12-14	LFW C1	S. Mintchev
▶▶ Non-Ru	minant Science							
Number	Title	Туре	ECTS	Hours				Lecturers
<b>751-6601-00L</b> 751-6601-00 V	Pig Science (HS) Pig Science (HS) Does not take place this semester.	W	2 credits	<b>2V</b> 2 hrs				to be announced
751-6243-00L	Breeding and conservation of Animal Genetic Resources	W	2 credits	2V				
751-6243-00 V	Züchtung und Erhaltung tiergenetischer R. Die Lehrveranstaltung besteht aus regelm ersten Semesterhälfte und aus einem Blod Januar 2022.	ässigen l	LV in der	2 hrs	Mon/1 25.01. 26.01.	14-16 08-18 08-18	NO E39 CHN F42 CHN F42	H. Signer-Hasler, C. Flury, S. Neuenschwander
751-6001-00L	Forum: Livestock in the World Food System Number of participants limited to 20.	W	2 credits	18				
751-6001-00 S	Forum: Livestock in the World Food Syste Durchführung gemäss speziellem Program			1 hrs	Wed	08-10	LFW C1	S. Meese
751-6127-00L	Practical Course in Microscopy of Functional Histology	W	3 credits	6P				
751-6127-00 P	Practical Course in Microscopy of Function	nal Histol	ogy	90s hrs				not available
	Does not take place this semester.							
	Does not take place this semester.  les of Livestock Systems							
►► Principl	•	Туре	ECTS	Hours				Lecturers
►► Principl	les of Livestock Systems Title Breeding and conservation of Animal	Type	ECTS 2 credits	Hours 2V				Lecturers
►► Principl Number 751-6243-00L	les of Livestock Systems	W essource	2 credits n LV in der		Mon/1 25.01. 26.01.	14-16 08-18 08-18	NO E39 CHN F42 CHN F42	Lecturers  H. Signer-Hasler, C. Flury, S. Neuenschwander
►► Principl Number 751-6243-00L	les of Livestock Systems  Title  Breeding and conservation of Animal Genetic Resources  Züchtung und Erhaltung tiergenetischer R Die Lehrveranstaltung besteht aus regelm ersten Semesterhälfte und aus einem Blod	W essource	2 credits n LV in der	2V	25.01.	08-18	CHN F42	H. Signer-Hasler, C. Flury,
►► Principl Number 751-6243-00L 751-6243-00 V	les of Livestock Systems  Title  Breeding and conservation of Animal Genetic Resources  Züchtung und Erhaltung tiergenetischer R. Die Lehrveranstaltung besteht aus regelm ersten Semesterhälfte und aus einem Blod Januar 2022.  Practical Course in Microscopy of	W essource ässigen l ckkurs an	2 credits  n LV in der n 2526.	2V 2 hrs	25.01.	08-18	CHN F42	H. Signer-Hasler, C. Flury,

3 credits

W+

90s hrs

3G

not available

751-6129-00 P Practical Course Epigenetics

Does not take place this semester.

751-6305-00L Livestock Breeding and Genomics

751-6305-00 G	Livestock Breeding and Genomics			3 hrs	Fri	09-12	LFW C11	P. von Rohr
751-6113-00L	Endocrinology and Biology of Reproduction	W+	3 credits	2G				
51-6113-00 G	Endocrinology and Biology of Reproduction			2 hrs	Thu	12-14	LFW C11	<b>S. E. Ulbrich</b> , S. M. Bernal Ulloa
▶ Rumina	int Science							
umber	Title	Туре	ECTS	Hours				Lecturers
51-6501-00L	Ruminant Science (HS)	W	4 credits	4G				
51-6501-00 G	Ruminant Science			4 hrs	Wed	10-12 14-16	LFW C11 LFW C11	K. Giller, M. Terranova, U. Witschi
	•	W	1 credit	1G				
51-7211-00 G	Ruminal Digestion Does not take place this semester. Diese LV wird im HS21 nicht als Einzelvera die Inhalte sind jedoch Teil von 751-6501-0							not available
51-6001-00L	Forum: Livestock in the World Food System	W	2 credits	18				
51-6001-00 S	Number of participants limited to 20. Forum: Livestock in the World Food System Durchführung gemäss speziellem Programi			1 hrs	Wed	08-10	LFW C1	S. Meese
51-6243-00L	Breeding and conservation of Animal Genetic Resources	W	2 credits	2V				
51-6243-00 V	Züchtung und Erhaltung tiergenetischer Res Die Lehrveranstaltung besteht aus regelmä- ersten Semesterhälfte und aus einem Block Januar 2022.	ssigen L	.V in der	2 hrs	Mon/1 25.01. 26.01.	14-16 08-18 08-18	NO E39 CHN F42 CHN F42	H. Signer-Hasler, C. Flury, S. Neuenschwander
► Safety a	and Quality in Agri-Food Chain							
umber	Title	Туре	ECTS	Hours				Lecturers
51-6001-00L	Forum: Livestock in the World Food System Number of participants limited to 20.	W	2 credits	1S				
51-6001-00 S	Forum: Livestock in the World Food System Durchführung gemäss speziellem Programm			1 hrs	Wed	08-10	LFW C1	S. Meese
52-2122-00L	Food and Consumer Behaviour	W	2 credits	2V				
52-2122-00 V	Food and Consumer Behaviour Online lecture: This lecture will primarily tak Reserved rooms will remain blocked on can follow the course from there.			2 hrs	Mon	10-12	LFW B1	M. Siegrist, C. Hartmann
52-5111-00L	Gene Technology in Foods	W	3 credits	2V				
52-5111-00 V	Gene Technology in Foods Online lecture: This lecture will primarily tak Reserved rooms will remain blocked on can follow the course from there.			2 hrs	Thu	16-18	LFV E41	F. Constancias, G. Broggini A. Greppi, F. Orelli
52-2307-00L	Nutritional Aspects of Food Composition and Processing	W	3 credits	2V				
52-2307-00 V	Nutritional Aspects of Food Composition an	d Proce	ssing	2 hrs	Wed	08-10	LFW C5	B. E. Baumer, J. M. Sych
	Bioactive Food and Feed Components Bioactive Food and Feed Components Online lecture: This lecture will take place o will remain reserved on campus for students from there.				Tue	08-10	LFW C11	K. Giller
► Transdi	sciplinarity for Sustainable Dev	elopr/	nent					
umber	Title	Туре	ECTS	Hours				Lecturers
01-1551-00L	Sustainability Assessment Number of participants limited to 35.	W	3 credits	2G				
	Waiting list will be deleted October 1st, 2021.							
	No enrollment possible after October 1st, 2021.							
)1-1551-00 G	Sustainability Assessment			2 hrs	Fri	10-12	CHN G42	P. Krütli, D. Nef
Electives					,		,	
	e courses can be chosen from the entire cou				ch as well	as from t	he course prog	
lumber	Title	Type	ECTS	Hours				Lecturers

Number	Title	Type	ECTS	Hours				Lecturers
	Course Catalogue of ETH Zurich							
701-3001-00L	Environmental Systems Data Science	W+	3 credits	2G				
701-3001-00 G	Environmental Systems Data Science			2 hrs	Tue 21.09.	08-10	CHN D44 CHN D46 CHN F42 CHN G22 HG D1.1	L. Pellissier, J. Payne, B. Stocker

751-5510-00L	Introduction to Agricultural Robotics Number of participants limited to 20.	W+	3 credits	2G				
751-5510-00 G	Introduction to Agricultural Robotics Students should preferably have basic know programming	vledge c	of computer	2 hrs	Mon	12-14	LFW C1	S. Mintchev
751-5005-00L	Agroecology and the Transition to Sustainable Food Systems	W+	2 credits	2G				
751-5005-00 G	Agroecology and the Transition to Sustaina Online lecture: This lecture will primarily tak Reserved rooms will remain blocked on car follow the course from there.	e place	online.	2 hrs	Tue	18-19 19-20	CHN C14 CHN E42 CHN E46	M. Sonnevelt, M. Grant, S. E. Ulbrich, B. Wehrli
701-0903-00L	The Sustainable Development Goals Book Club	W+	2 credits					
701-0903-00 K	The Sustainable Development Goals Book Online lecture: This lecture will take place of will remain reserved on campus for student from there.	nline. R		2s hrs	Thu	18-20	CHN E46	B. B. Pearce, J. Ghazoul
► Master's	Thesis							
Number	Title	Туре	ECTS	Hours				Lecturers
751-1030-00L	Master's Thesis Only students who fulfill the following criteria are allowed to begin with their master thesis: a. successful completion of the bachelor programme; b. fulfilling of any additional requirements necessary to gain admission to the master programme.	0	30 credits	64D				
751-1030-00 D	Master-Arbeit ■			900s hrs				Lecturers
	Permission from lecturers required for all st	udents						
Agroecosyste	em Sciences Master - Key for Type							
0	Compulsory			E-		Recommen	ded, not eligible	e for credits
W+	Eligible for credits and recommended			Z			tside the curric	
W	Eligible for credits			Dr		Suitable for	doctorate	
	5							
•				Р		practical/lab	oratory course	
V	lecture					•	•	
V G	lecture with exercise			Α		independen	t project	
G U	lecture with exercise exercise			A D		independen diploma the	t project sis	
V G U S	lecture with exercise			Α		independen diploma the	t project	

**ECTS** 

European Credit Transfer and Accumulation System
Special students and auditors need special permission from the lecturers.

# **Applied Geophysics Master**

Courses at ETH Zurich only take place in Spring Semester.

0	Compulsory	E-	Recommended, not eligible for credits
W+	Eligible for credits and recommended	Z	Courses outside the curriculum
W	Eligible for credits	Dr	Suitable for doctorate
Key for	Hours		
Key for	Hours		
V	lecture	P	practical/laboratory course
G	lecture with exercise	A	independent project
	exercise	D	diploma thesis
U		I _	manifoliana anno anti-rata attualt.
U S	seminar	R	revision course / private study

ECTS European Credit Transfer and Accumulation System

Special students and auditors need special permission from the lecturers.

## **Architecture Bachelor**

#### ► First Year Examinations

#### **▶▶** Examination Block 1

Number	Title	Туре	ECTS	Hours				Lecturers
052-0603-00L	Structural Design I	0	2 credits	3 <b>G</b>				
052-0603-00 G	Tragwerksentwurf I Keine Lehrveranstaltung am 28.10. (Semin 16./23.12. (vor Schlussabgaben).		,	3 hrs	Thu	13-16	HCI G3	P. Block, J. Schwartz
	Die Vorlesung wird zweisprachig (Deutsch/	Englisch	) gehalten.					
052-0703-00L	Sociology I	W	2 credits	2V				
052-0703-00 V	Keine Lehrveranstaltung am 29.10. (Semin 17/24.12. (vor Schlussabgaben).		,	2 hrs	Fri 29.09.	10-12 15-16	HIL E1 HIL E7	C. Schmid, I. Apostol, N. Bathla, A. Hertzog-Frase
	ONLINE: Diese Lehrveranstaltung wird hau angeboten. Der reservierte Raum steht der zur Verfügung, um das Seminar von dort at	Studier	enden jedoch					
052-0901-00L	Building History I	0	2 credits	2V	F.:	00.40		0.11-1
052-0901-00 V	Baugeschichte I Keine Lehrveranstaltung am 29.10. (Semin 17/24.12. (vor Schlussabgaben).	arwoche	) sowie am	2 hrs	Fri	08-10	HIL E4	S. Holzer
►► Examin	ation Block 2							
Number	Title	Type	ECTS	Hours				Lecturers
052-0803-00L	History and Theory of Architecture I	0	2 credits	2V+2U				
052-0803-00 V	Architekturgeschichte und -theorie I Keine Lehrveranstaltung am 29.10. (Semin 17/24.12. (vor Schlussabgaben).	arwoche	) sowie am	2 hrs	Fri	14-16	HIL E4	M. Delbeke
052-0803-00 U	Grundlagen der Geschichte und Theorie de Keine Lehrveranstaltung am 29.10. (Semin			2 hrs	Fri 01.10.	16-18 16-17	HIL E4 HIL E6	T. Avermaete, M. Delbeke, L. Stalder, H. Teerds,
	17/24.12. (vor Schlussabgaben).		,		08.10.	15-18	HG E1.2	P. Ursprung
					15.10.	16-18	HIL E67	
					05.11.		HIL E67	
					03.12. 10.12.	16-18 16-18	HIL E67 HIL E67	
052-0601-00L	Building Materials I	0	2 credits	2V	10.12.	10 10	201	
052-0601-00L	Baumaterialien I	U	2 Credits	2 hrs	Thu	10-12	HIL E3	J. Pauli
332-0001-00 V	Keine Lehrveranstaltung am 28.10. (Semin 16./23.12. (vor Schlussabgaben).	arwoche	e) sowie am	21115	Tilu	10-12	THE ES	o. Faun
052-0701-00L	Urban Design I	0	2 credits	2V				
052-0701-00 V	Städtebau I Keine Lehrveranstaltung am 28.10. (Semin und 16.12. (vor Schlussabgaben).	arwoche	e) sowie am 9.	2 hrs	Thu	08-10	HPH G1	M. Wagner
052-0605-00L	Mathematics and Programming I	0	2 credits	2V				
052-0605-00 V	Mathematisches Denken und Programmier Keine Lehrveranstaltung am 28.10. (Semin 16./23.12. (vor Schlussabgaben).		) sowie am	2 hrs	Thu	16-18	HCI G7	B. Dillenburger
► Subjects	with Semester Grade							
Number	Title	Туре	ECTS	Hours				Lecturers
052-0501-00L	Design and Construction I Participation in the seminar week of the chair Deplazes (topic "Hybrid Modeling") from 2529.10.21, is mandatory! Project grading at semester end is based on the list of enrolments on 2.11.21 (valuation date) only. This is the ultimate deadline to unsubscribe or enroll for the studio.	0	8 credits	4V+10G	+2U			
052-0501-00 V	Entwurf und Konstruktion I Keine Lehrveranstaltung am 26.10. (Semin 14./21.12. (vor Schlussabgaben).	arwoche	) sowie am	4 hrs	Tue	08-12	HIL E4	A. Deplazes
052-0501-00 G	Entwerfen und Konstruieren I			10 hrs	Mon	10-12 10-18	HPH G1 HIL G41 HIL G61	A. Deplazes
					Tue	13-18	HIL G41 HIL G61	
052-0501-00 U	Konstruktion BUK I Keine Lehrveranstaltung am 20.9. (erster S (Seminarwoche) sowie 13./20.12. (vor Sch			2 hrs	Mon	08-10	HPH G1	D. Mettler, D. Studer
052-0503-00L	Architecture and Art I Project grading at semester end is based on the list of enrolments on 2.11.21 (valuation date) only. This is the ultimate deadline to unsubscribe or enroll for the studio.	0	8 credits	2V+6G+	1U			

052-0503-00 V	Architektur und Kunst I Keine Lehrveranstaltung am 27.10. (Semir 15./22.12. (vor Schlussabgaben). Die Vorlesung findet online statt, sie kann			2 hrs	Wed	08-10	ONA E7	K. Sander, T. Becker, E. Vonplon
052-0503-00 G	dem Hörsaal verfolgt werden. Architektur und Kunst I Keine Lehrveranstaltung am 27.10. (Semir 15./22.12. (vor Schlussabgaben). Die Zeichen-Übung wird online abgehalter.	narwoche	e) sowie am	6 hrs	Wed	11-18	HCI E380 HIL B18.2 HIL E48 ONA E16	K. Sander
	Ubungen erfolgen in Präsenz.					12-18	ONA E7 HCP E47.1 HCP E47.4 HIL E1 HIT J53 HPL D32 HPL D34	
052-0503-00 U	Einführung in perspektivisches Zeichnen / Keine Lehrveranstaltung am 27.10. (Semir 15./22.12. (vor Schlussabgaben).			1 hrs	Wed	10-11	ONA E7	H. E. Franzen
► Examinat	tion Blocks							
►► Examin	ation Block 1							
Number	Title	Туре	ECTS	Hours				Lecturers
<b>052-0607-00L</b> 052-0607-00 G	Structural Design III Tragwerksentwurf III Keine Lehrveranstaltung am 29.10. (Semir 17/24.12. (vor Schlussabgaben).	<b>O</b> narwoche	2 credits e) sowie am	<b>3G</b> 3 hrs	Fri 08.10.	13-16 13-16	HIL E3 HCP E47.4 n /a	J. Schwartz, P. Block
<b>052-0805-00L</b> 052-0805-00 V	History and Theory in Architecture III Geschichte und Theorie der Architektur III Keine Lehrveranstaltung am 28.10. (Semir 16./23.12. (vor Schlussabgaben). Im Anschluss an die Lehrveranstaltung wir Uhr) in Raum HIL E4 angeboten.		,	<b>2V</b> 2 hrs	Thu	13-15 14-15	HIL E4 HIL C10.2 HIL D60.1	L. Stalder
052-0635-00L	Mathematical Thinking and	0	2 credits	2V				
052-0635-00 V	Programming III  Mathematical Thinking and Programming I  No course on 29.10. (seminar week) and 1  critics).		.(before final	2 hrs	Fri	10-12	HIL E4	L. Hovestadt
	Teaching Languages are English and Gern	man.						
▶▶ Examin	ation Block 2							
Number	Title	Туре	ECTS	Hours				Lecturers
<b>151-8009-00L</b> 151-8009-00 G	Building Physics II Building Physics II No course on 25.10 (seminar week) as we 20.12.2021 (before final critics).	<b>O</b> II as 13.1	2 credits 2 and	<b>2G</b> 2 hrs	Mon	16-18	HIL E1	<b>J. Carmeliet</b> , M. Ettlin, A. Rubin
<b>052-0801-00L</b> 052-0801-00 G	Global History of Urban Design I Global History of Urban Design I No course on 28.10. (seminar week) 16./2. critiques).	<b>O</b> 3.12. (be	2 credits	<b>2G</b> 2 hrs	Thu	10-12	HIL E4	T. Avermaete
052-0707-00L	Urban Design III	0	2 credits	2V				
052-0707-00 V	Urban Design III No course on 28.10. (seminar week) 16./2-critiques).	3.12. (be	fore final	2 hrs	Thu	08-10	ONA E7	H. Klumpner, M. Fessel
▶▶ Examin	ation Block 3							
Number	Title	Туре	ECTS	Hours				Lecturers
<b>052-0807-00L</b> 052-0807-00 V	History and Theory of Architecture V Architekturgeschichte und -theorie V Keine Lehrveranstaltung am 28.10. (Semir 16./23.12. (vor Schlussabgaben).	<b>O</b> narwoche	2 credits e) sowie am	<b>2V</b> 2 hrs	Thu	08-10	HIL E4	P. Ursprung
<b>052-0651-00L</b> 052-0651-00 G	Building Process I Bauprozess I Keine Lehrveranstaltung am 28.10. (Semir 10. und 17.12. (vor Schlussabgaben).	<b>O</b> narwoche	2 credits e) sowie am	<b>2G</b> 2 hrs	Thu	12-14	HCI G7	A. Paulus
<b>052-0705-00L</b> 052-0705-00 V	Landscape Architecture I Landschaftsarchitektur I Keine Lehrveranstaltung am 29.10. (Semin 17/24.12. (vor Schlussabgaben).	<b>O</b> narwoche	2 credits e) sowie am	<b>2V</b> 2 hrs	Fri	08-10	HIL E3	D. Richter
<b>052-0609-00L</b> 052-0609-00 G	Energy- and Climate Systems I Energie- und Klimasysteme I Keine Lehrveranstaltung am 29.10. (Semin	<b>O</b> narwoche	2 credits e) sowie am	<b>2G</b> 2 hrs	Fri	10-12	HIL E3	A. Schlüter
052-0507-00L	17/24.12. (vor Schlussabgaben).  Architectural Technology V	0	2 credits	2V				

052-0507-00 V Konstruktion V 2 hrs Mon 10-12 HIL E3 **K. Z. Weber**, A. Thuy

Keine Lehrveranstaltung am 25.10. (Seminarwoche) sowie am 13./20.12. (vor Schlussabgaben).

Online-Veranstaltung: Diese Lehrveranstaltung findet grundsätzlich online statt. Die reservierten Räume bleiben für die Studierenden auf dem Campus bestehen, um die Lehrveranstaltung von dort zu verfolgen.

#### ► Architectural Design

#### ▶▶ Architectural Design (3. Semester)

Number	Title	Type	ECTS	Hours				Lecturers
052-0541-21L	Architectural Design III: Ideal Architecture, Storage (E.Christ/Ch.Gantenbein) Please register (www.mystudies.ethz.ch) only after the internal enrolment for the design classes (see http://www.einschreibung.arch.ethz.ch/desi gn.php). Students who do not wish to change the design class don't have to parcitipate in the internal enrolment.		14 credits	2V+14U				
	Project grading at semester end is based on the list of enrolments on 2.11.21, 24:00 h (valuation date) only. This is the ultimate deadline to unsubscribe or enroll for the studio.							
052-0505-00 V	Konstruktion III Kurssprachen: Deutsch und Englisch. Keine Lehrveranstaltung am 27.10. (Semina 15./22.12. (vor Schlussabgaben).	arwoche	e) sowie am	2 hrs	Wed	08-10	HIL E4	J. De Vylder
	Eine Lehrveranstaltung der Professuren im Architektur.	2. Jahr	Bachelor					
052-0505-00 U	Konstruktur. Konstruktion BUK III Keine Lehrveranstaltung am 26.10. (Semina 14./21.12. (vor Schlussabgaben).	arwoche	e) sowie am	2 hrs	Tue	08-10	HIL E3	D. Mettler, D. Studer
052-0541-21 U	Entwurf III: Ideale Architektur (E.Christ/Ch.C Kein Unterricht am 26./27.10. (Seminarwoc		ein)	12 hrs	Tue Wed	10-17 10-17	HIL F41 HIL F41	E. Christ, C. Gantenbein
052-0543-21L	Architectural Design III: House Behaviorology in Switzerland (Kaijima) Teaching languages are English and German.	W	14 credits	2V+14U				
	Please register (www.mystudies.ethz.ch) only after the internal enrolment for the design classes (see http://www.einschreibung.arch.ethz.ch/design.php). Students who do not wish to change the design class must not enrol.							
	Project grading at semester end is based on the list of enrolments on 2.11.21 (valuation date) only. This is the ultimate deadline to unsubscribe or enroll for the studio.							
052-0505-00 V	Konstruktion III Kurssprachen: Deutsch und Englisch. Keine Lehrveranstaltung am 27.10. (Semina 15./22.12. (vor Schlussabgaben).	arwoche	e) sowie am	2 hrs	Wed	08-10	HIL E4	J. De Vylder
	Eine Lehrveranstaltung der Professuren im Architektur.	2. Jahr	Bachelor					
052-0505-00 U	Konstruktion BUK III Keine Lehrveranstaltung am 26.10. (Semina 14./21.12. (vor Schlussabgaben).	arwoche	e) sowie am	2 hrs	Tue	08-10	HIL E3	D. Mettler, D. Studer
052-0543-21 U	Architectural Design III: House Behaviorolog (Kaijima)  No course on 26./27.10.21 (seminar week).		vitzerland	12 hrs	Wed	08-18	ONA G27	M. Kaijima
052-0545-21L	Architectural Design III: A Forest Bath (A.Spiro)  Please register (www.mystudies.ethz.ch) only after the internal enrolment for the design classes (see http://www.einschreibung.arch.ethz.ch/design.php).  Students who do not wish to change the design class don't have to parcitipate in the internal enrolment.		14 credits	2V+14U				

052-0505-00 V	Project grading at semester end is based on the list of enrolments on 2.11.21, 24:00 h (valuation date) only. This is also the ultimate deadline to unsubscribe or enroll for the studio. Konstruktion III		2 hrs	Wed	08-10	HIL E4	J. De Vylder
002 0000 00 V	Kurssprachen: Deutsch und Englisch. Keine Lehrveranstaltung am 27.10. (Seminarwoch 15./22.12. (vor Schlussabgaben).		21110	vvca	00 10	1112 24	o. De vyladi
	Eine Lehrveranstaltung der Professuren im 2. Jahr Architektur.	r Bachelor					
052-0505-00 U	Konstruktion BUK III Keine Lehrveranstaltung am 26.10. (Seminarwoch 14./21.12. (vor Schlussabgaben).	e) sowie am	2 hrs	Tue	08-10	HIL E3	D. Mettler, D. Studer
052-0545-21 U	Entwurf III: Ein Waldbad (A.Spiro) Kein Entwurfsunterricht am 26./27.10. (Seminarwo Einführung und Zwischenbesprechung: Erster Kurs		12 hrs	Tue Wed	10-17 10-17	HIL F61 HIL F61	A. Spiro
052-0547-21L	Architectural Design III: 333% (P)re- Zu-rich (J. De Vylder) Teaching languages are English and German.	14 credits	2V+14U				
	Please register (www.mystudies.ethz.ch) only after the internal enrolment for the design classes (see http://www.einschreibung.arch.ethz.ch/desi						
	gn.php). Students who do not wish to change the design class must not enrol.						
	Project grading at semester end is based on the list of enrolments on 2.11.21 (valuation date) only. This is the ultimate deadline to unsubscribe or enroll for the studio.						
052-0505-00 V	Konstruktion III Kurssprachen: Deutsch und Englisch. Keine Lehrveranstaltung am 27.10. (Seminarwoch 15./22.12. (vor Schlussabgaben).	e) sowie am	2 hrs	Wed	08-10	HIL E4	J. De Vylder
	Eine Lehrveranstaltung der Professuren im 2. Jahr Architektur.	r Bachelor					
052-0505-00 U	Konstruktion BUK III Keine Lehrveranstaltung am 26.10. (Seminarwoch 14./21.12. (vor Schlussabgaben).	e) sowie am	2 hrs	Tue	08-10	HIL E3	D. Mettler, D. Studer
052-0547-21 U	Architectural Design III: 333% (P)re-Zu-rich (J. D No course 26./27.10. (seminar week). Teaching languages are English and German.	e Vylder)	12 hrs	Tue Wed	10-18 08-18	HIL F41 HIL F41	J. De Vylder
►► Archite	ctural Design (from 5. Semester on)						
Number	Title Type	ECTS	Hours				Lecturers
052-1101-21L	Architectural Design V-IX: Falera Village W - Attempts after the Community of Fate (A. Caminada) Please register (www.mystudies.ethz.ch) only after the internal enrolment for the design classes (see http://www.einschreibung.arch.ethz.ch/desi gn.php).	14 credits	16U				
	Project grading at semester end is based on the list of enrolments on 2.11.21, 24:00 h (valuation date) only. This is the ultimate deadline to unsubscribe or enroll for the studio.						
052-1101-21 U	Entwurf V-IX: Falera, Dorf – Versuche nach der Schicksalsgemeinschaft (G.Caminada)   Permission from lecturers required for all students  Kein Unterricht am 26./27.10. (Seminarwoche).		16 hrs	Tue Wed	10-18 08-18	AGS E2 AGS E2	G. A. Caminada
052-1103-21L	Architectural Design V-IX: Small W Institutions (GD R. Tudó) Please register (www.mystudies.ethz.ch) only after the internal enrolment for the design classes (see http://www.einschreibung.arch.ethz.ch/design.php).	14 credits	16U				
	Project grading at semester end is based on the list of enrolments on 2.11.21, 24:00 h (valuation date) only. This is the ultimate deadline to unsubscribe or enroll for the studio.						

052-1103-21 U	Architectural Design V-IX: Small Institutions (GD Permission from lecturers required for all students No course on 26./27.10.2021.		16 hrs	Tue Wed	10-18 08-18	HIL F61 HIL F61	R. Tudó Gali
052-1105-21L	Architectural Design V-IX: (N.N.) W Please register (www.mystudies.ethz.ch) only after the internal enrolment for the design classes (see http://www.einschreibung.arch.ethz.ch/desi gn.php).	14 credits	16U				
	Project grading at semester end is based on the list of enrolments on 2.11.21, 24:00 h (valuation date) only. This is the ultimate deadline to unsubscribe or enroll for the studio.						
052-1105-21 U	Architectural Design V-IX: (N.N.) ■ Does not take place this semester. Permission from lecturers required for all students	3	16 hrs				not available
052-1107-21L	Architectural Design V-IX: Amplitude (Guestprof. M. Voser)  Please register (www.mystudies.ethz.ch) only after the internal enrolment for the design classes (see http://www.einschreibung.arch.ethz.ch/desi gn.php).	14 credits	16U				
	Project grading at semester end is based on the list of enrolments on 2.11.21, 24:00 h (valuation date) only. This is the ultimate deadline to unsubscribe or enroll for the studio.						
052-1107-21 U	Entwurf V-IX: Thema (Gastprof. M. Voser) ■ Permission from lecturers required for all students Kein Unterricht am 26./27.10. (Seminarwoche).	S	16 hrs	Tue Wed	10-18 08-18	HIL G61 HIL G61	M. Voser
052-1109-21L	Architectural Design V-IX: Meteora 05 - W Engenderings (L. Hovestadt) Please register (www.mystudies.ethz.ch) only after the internal enrolment for the design classes (see http://www.einschreibung.arch.ethz.ch/desi gn.php).	14 credits	16U				
	Project grading at semester end is based on the list of enrolments on 2.11.21, 24:00 h (valuation date) only. This is the ultimate deadline to unsubscribe or enroll for the studio.						
052-1109-21 U	Architectural Design V-IX: Meteora 05 - Engender Hovestadt) No course on 26./27.10. (seminar week).	rings (L.	16 hrs	Tue Wed	10-18 08-18	HIB E15 HIB E15	L. Hovestadt
052-1113-21L	Architectural Design V-IX: Borderline(s) W Investigation #6 Visibility (A. Theriot)  Please register (www.mystudies.ethz.ch) only after the internal enrolment for the design classes (see http://www.einschreibung.arch.ethz.ch/desi gn.php).	14 credits	16U				
	Project grading at semester end is based on the list of enrolments on 2.11.21, 24:00 h (valuation date) only. This is the ultimate deadline to unsubscribe or enroll for the studio						
052-1113-21 U	Architectural Design V-IX: Topic (A. Theriot) ■ Permission from lecturers required for all students No course on 26./27.10. (seminar week).	S	16 hrs	Tue Wed	10-18 08-18	HIL D15 HIL E65 HIL D15 HIL E65	A. Theriot
052-1115-21L	Architectural Design V-IX: Groundworks W (T. Emerson) Please register (www.mystudies.ethz.ch) only after the internal enrolment for the design classes (see http://www.einschreibung.arch.ethz.ch/desi gn.php).	14 credits	16U				
	Project grading at semester end is based on the list of enrolments on 2.11.21, 24:00 h (valuation date) only. This is the ultimate deadline to unsubscribe or enroll for the studio						

052-1115-21 U	Architectural Design V-IX: Topic (T. Emerson) ■ Permission from lecturers required for all students		16 hrs	Tue Wed	10-18 08-18	HIL F61 HIL F61	T. Emerson
052-1117-21L	No course on 26./27.10. (seminar week).  Architectural Design V-IX: What Counts? W — Metabolism II (A.Gigon)  Please register (www.mystudies.ethz.ch) only after the internal enrolment for the design classes (see http://www.einschreibung.arch.ethz.ch/desi gn.php).	14 credits	16U				
	Project grading at semester end is based on the list of enrolments on 2.11.21, 24:00 h (valuation date) only. This is the ultimate deadline to unsubscribe or enroll for the studio						
052-1117-21 U	Entwurf V-IX: Was zählt? Stoff-Wechsel II (A.Gigor No course on 26./27.10. (seminar week).	n) <b>=</b>	16 hrs	Tue Wed	10-18 08-18	HIL D15 HIL D15	A. Gigon
052-1119-21L	Architectural Design V-IX: Before the Collapse - Architecting (Eco)Systems (A. Brandlhuber)  Please register (www.mystudies.ethz.ch) only after the internal enrolment for the design classes (see http://www.einschreibung.arch.ethz.ch/desi gn.php).	14 credits	16U				
	Project grading at semester end is based on the list of enrolments on 2.11.21, 24:00 h (valuation date) only. This is the ultimate deadline to unsubscribe or enroll for the studio.						
052-1119-21 U	Architectural Design V-IX: Before the Collapse - Ar (Eco)Systems (A. Brandlhuber) ■ Permission from lecturers required for all students Teaching languages are English and German. No course on 26./27.10. (seminar week).	chitecting	16 hrs	Tue Wed	10-18 08-18	HIL F61 HIL F61	A. Brandlhuber
052-1121-21L	Architectural Design V-IX: Studio Seebach - Sensing Space (F.Persyn) Please register (www.mystudies.ethz.ch) only after the internal enrolment for the design classes (see http://www.einschreibung.arch.ethz.ch/desi gn.php).	14 credits	16U				
	Project grading at semester end is based on the list of enrolments on 2.11.21, 24:00 h (valuation date) only. This is the ultimate deadline to unsubscribe or enroll for the studio.						
052-1121-21 U	Architectural Design V-IX: Studio Seebach - Sensia (F.Persyn) ■  No course on 26./27.10. (seminar week).	ng Space	16 hrs	Tue Wed	10-18 08-18	ONA E25 ONA E25	F. Persyn
052-1123-21L	Architectural Design V-IX: Circular. From Material to Location (GD Boltshauser) Please register (www.mystudies.ethz.ch) only after the internal enrolment for the design classes (see http://www.einschreibung.arch.ethz.ch/desi gn.php.	14 credits	16U				
	Project grading at semester end is based on the list of enrolments on 2.11.21, 24:00 h (valuation date) only. This is the ultimate deadline to unsubscribe or enroll for the studio.						
052-1123-21 U	Architectural Design V-IX: Zirkulär. Vom Material z Boltshauser) ■ Permission from lecturers required for all students Keine Lehrveranstaltung am 26./27.10. (Seminarw	·	16 hrs	Tue Wed	10-18 08-18	HIL C40.1 HIL C40.1	R. Boltshauser
052-1125-21L	Architectural Design V-IX: Elemental Living (E. Mosayebi)  Please register (www.mystudies.ethz.ch) only after the internal enrolment for the design classes (see http://www.einschreibung.arch.ethz.ch/desi gn.php).	14 credits	16U				
	Project grading at semester end is based on the list of enrolments on 2.11.21, 24:00 h (valuation date) only. This is the ultimate deadline to unsubscribe or enroll for the studio.						

052-1125-21 U	Entwurf V-IX: Einfach Wohnen (E. Mosayebi) Permission from lecturers required for all stud No course on 26./27.10. (seminar week).			16 hrs	Tue Wed 22.09.	10-18 08-18 10-12 14-16	HIL F75 HIL F75 HIT H42 HIL E7	E. Mosayebi
					05.10. 12.10.	17-19 17-19	HIL E9 HIL E9	
052-1127-21L	Architectural Design V-IX: (Girot)  Please register (www.mystudies.ethz.ch) only after the internal enrolment for the design classes (see http://www.einschreibung.arch.ethz.ch/desi gn.php).	N	14 credits	16U	12.10.	17 10	THE ES	
	Project grading at semester end is based on the list of enrolments on 2.11.21, 24:00 h (valuation date) only. This is the ultimate deadline to unsubscribe or enroll for the studio.							
052-1127-21 U	Architectural Design V-IX: (Girot) ■ Does not take place this semester.			16 hrs				not available
052-1129-21L	Architectural Design V-IX: Structure and Napace - Negotiation on the Inventory (GD C.Menn)  Please register (www.mystudies.ethz.ch) only after the internal enrolment for the design classes (see http://www.einschreibung.arch.ethz.ch/design.php).	N	14 credits	16U				
	Project grading at semester end is based on the list of enrolments on 2.11.21, 24:00 h (valuation date) only. This is the ultimate deadline to unsubscribe or enroll for the studio.							
052-1129-21 U	Entwurf V-IX: Struktur und Raum - Verhandlu C. Menn) ■ Permission from lecturers required for all stuc Kein Unterricht am 26./27.10. (Seminarwoche	dents	Bestand (GD	16 hrs	Tue Wed	10-18 08-18	HIL F61 HIL F61	C. Menn
052-1131-21L	Architectural Design V-IX: Trust – Building Values (Prof. A. Fonteyne)  Please register (www.mystudies.ethz.ch) only after the internal enrolment for the design classes (see http://www.einschreibung.arch.ethz.ch/design.php).	N	14 credits	16U				
	Project grading at semester end is based on the list of enrolments on 2.11.21, 24:00 h (valuation date) only. This is the ultimate deadline to unsubscribe or enroll for the studio.							
052-1131-21 U	Architectural Design V-IX: Trust – Building Va Fonteyne) ■ Permission from lecturers required for all stud No course on 26./27.10. (seminar week).		Prof. A.	16 hrs	Tue Wed	10-18 08-18	ONA G23 ONA G23	A. Fonteyne
052-1133-21L	Architectural Design V-IX: Change: Towards Hydroscopic Design(A. Holtrop)  Please register (www.mystudies.ethz.ch) only after the internal enrolment for the design classes (see http://www.einschreibung.arch.ethz.ch/design.php).	N	14 credits	16U				
	Project grading at semester end is based on the list of enrolments on 2.11.21, 24:00 h (valuation date) only. This is the ultimate deadline to unsubscribe or enroll for the studio.							
052-1133-21 U	Architectural Design V-IX: Change: Towards Design(A. Holtrop) ■ Permission from lecturers required for all stud No course on 26./27.10. (seminar week).	•	copic	16 hrs	Tue Wed	10-18 08-18	HIQ C11 HIQ C11	A. Holtrop
052-1135-21L	Architectural Design V-IX: Hortus (GD A. V Deuber.) Please register (www.mystudies.ethz.ch) only after the internal enrolment for the design classes (see http://www.einschreibung.arch.ethz.ch/design.php).	N	14 credits	16U				
	Project grading at semester end is based							

on the list of enrolments on 2.11.21, 24:00 h (valuation date) only. This is the ultimate deadline to unsubscribe or enroll for the studio.

	studio.							
052-1135-21 U	Entwurf V-IX: Hortus (GD A. Deuber) ■ Keine Lehrveranstaltung am 26./27.10. (Sei	minarwo	oche).	16 hrs	Tue Wed	10-18 08-18	HIR C1 HIR C1	A. Deuber
052-1137-21L	Architectural Design V-IX: Story II - Unuseless Spaces (GD M. Conen)  Please register (www.mystudies.ethz.ch) only after the internal enrolment for the design classes (see http://www.einschreibung.arch.ethz.ch/design.php).	W	14 credits	16U				
	Project grading at semester end is based on the list of enrolments on 2.11.21, 24:00 h (valuation date) only. This is the ultimate deadline to unsubscribe or enroll for the studio.							
052-1137-21 U	Entwurf V-IX: Thema (GD M. Conen) ■ Permission from lecturers required for all sti Kein Unterricht am 26./27.10. (Seminarwood)			16 hrs	Tue Wed	10-18 08-18	HIL D15 HIL D15	M. Conen
052-1139-21L	Architectural Design V-IX: Climate Corridors Sarajevo Please register (www.mystudies.ethz.ch) only after the internal enrolment for the design classes (see http://www.einschreibung.arch.ethz.ch/desi gn.php). Teaching Languages: English and German Project grading at semester end is based	W	14 credits	16U				
	on the list of enrolments on 2.11.21, 24:00 h (valuation date) only. This is the ultimate deadline to unsubscribe or enroll for the studio.							
052-1139-21 U	Architectural Design V-IX: Climate Corridors Klumpner) ■ Permission from lecturers required for all strateching Languages: English and German. No course on 26./27.10. (seminar week).	udents	vo (H.	16 hrs	Tue Wed	09-18 10-18 08-18	ONA E16 ONA E25 ONA E25	H. Klumpner
052-1141-21L	Architectural Design V-IX: Interim, Forever (A.Caruso) Please register (www.mystudies.ethz.ch) only after the internal enrolment for the design classes (see http://www.einschreibung.arch.ethz.ch/desi gn.php).	W	14 credits	16U				
	Project grading at semester end is based on the list of enrolments on 2.11.21, 24:00 h (valuation date) only. This is the ultimate deadline to unsubscribe or enroll for the studio.							
052-1141-21 U	Architectural Design V-IX: Interim, Forever (No course on 26./27.10. (seminar week).	(A.Carus	so) <b>=</b>	16 hrs	Tue Wed	10-18 08-18	ONA E25 ONA E25	A. Caruso
052-1143-21L	Architectural Design V-IX: Topic (GD N.N.)  Please register (www.mystudies.ethz.ch) only after the internal enrolment for the design classes (see http://www.einschreibung.arch.ethz.ch/desi gn.php).	W	14 credits	16U				
	Project grading at semester end is based on the list of enrolments on 2.11.21, 24:00 h (valuation date) only. This is the ultimate deadline to unsubscribe or enroll for the studio.							
052-1143-21 U	Entwurf V-IX: Thema (GD N.N.)  Does not take place this semester.  No course on 26./27.10. (seminar week).			16 hrs				not available
052-1145-21L	Architectural Design V-IX: Voluptas S1E7 Repetition/Dfference (F.Charbonnet/P.Heiz)  Please register (www.mystudies.ethz.ch) only after the internal enrolment for the design classes (see http://www.einschreibung.arch.ethz.ch/design.php).	W	14 credits	16U				
	Project grading at semester end is based							

on the list of enrolments on 2.11.21, 24:00 h (valuation date) only. This is the ultimate deadline to unsubscribe or enroll for the studio. HII G61 052-1145-21 U Architectural Design V-IX: Voluptas S1E7 Repetition/Dfference 16 hrs Tue 10-18 F. Charbonnet. P. Heiz (F.Charbonnet/P.Heiz) ■ Wed 08-18 HIL G61 Permission from lecturers required for all students No course on 26./27.10. (seminar week) The studio will take place in room HIL G75 (Tuesday 8-18 h; Wednesday 10-18 h). 052-1147-21L NOTHING BUT FLOWERS - Nature and 14 credits 16U Territory in Zurich Please register (www.mystudies.ethz.ch) only after the internal enrolment for the design classes (see http://www.einschreibung.arch.ethz.ch/desi gn.php). Project grading at semester end is based on the list of enrolments on 2.11.21, 24:00 h (valuation date) only. This is the ultimate deadline to unsubscribe or enroll for the studio 052-1147-21 U Architectural Design V-IX: Nothing but Flowers - Nature and 16 hrs 10-18 ONA G35 M. Topalovic Tue Territory in Zurich (M.Topalovic) Wed 08-18 ONA G35 Permission from lecturers required for all students No course on 26./27.10. (seminar week). Architectural Design V-IX: Re-Use "selon W 052-1151-21L 14 credits 16U arrivage" (GD B. Buser) Please register (www.mystudies.ethz.ch) only after the internal enrolment for the design classes (see http://www.einschreibung.arch.ethz.ch/desi Teaching Language is German and English. Project grading at semester end is based on the list of enrolments on 2.11.21, 24:00 h (valuation date) only. This is the ultimate deadline to unsubscribe or enroll for the 052-1151-21 U Entwurf V-IX: Wiederverwendung "selon arrivage" (GD B. Buser) 16 hrs HIP C11 Tue 10-18 B. Buser Keine Lehrveranstaltung 26./27.10. (Seminarwoche). Wed 08-18 HIP C11 052-1181-21L Architectural Design V-IX: A House for 14 credits 16U 10'000 People (Ch. Kerez) Please register (www.mystudies.ethz.ch) only after the internal enrolment for the design classes (see http://www.einschreibung.arch.ethz.ch/desi gn.php). Project grading at semester end is based on the list of enrolments on 2.11.21, 24:00 h (valuation date) only. This is the ultimate deadline to unsubscribe or enroll for the 052-1181-21 U Architectural Design V-IX: A House for 10'000 People (Ch. Kerez) 16 hrs 10-18 HIL D15 C. Kerez Tue 08-18 HIL D15 Wed Permission from lecturers required for all students Kein Unterricht am 26./27.10. (Seminarwoche). 052-1111-21L **Architectural Design V-IX: Informal** 14 credits 16U Learning Spaces (M. Kaijima / F. Persyn) Please register (www.mystudies.ethz.ch) only after the internal enrolment for the design classes (see http://www.einschreibung.arch.ethz.ch/desi gn.php). Project grading at semester end is based on the list of enrolments on 2.11.21, 24:00 h (valuation date) only. This is the ultimate deadline to unsubscribe or enroll for the studio 052-1111-21 U Architectural Design V-IX: Informal Learning Spaces (M. Kaijima / 16 hrs 10-18 ONA E25 M. Kaijima, F. Persyn F. Persyn) Wed 08-18 ONA E25 No course 26./27.10.21 (seminar week).

#### ► Electives and Focus Works

#### **▶▶** Electives

#### ▶▶▶ Design and Architecture

Number	Title	Туре	ECTS	Hours				Lecturers
052-0511-00L	Planning Strategies for Complex Buildings Using the Example of Health Facilities (HS) This course (ends with «00L») can only be passed once! Please check this before signing up.	W	2 credits	2V				
052-0511-00 V	Planungsstrategien für komplexe Gebäude Gesundheitsbauten (HS) ■ Keine Lehrveranstaltung am 25.10.(Semina 13./20.12. (vor Schlussabgaben).			2 hrs	Mon	12-14	HIL E7	T. Guthknecht
052-0513-00L	Spatial Concepts in Film and Architecture (HS) This course (ends with «OOL») can only be passed once! Please check this before signing up.	W	1 credit	1V				
052-0513-00 V		Lehrver	anstaltung am	1 hrs	Thu/2w	18-20	HIL E1	M. Bächtiger Zwicky, A. Gigon
052-0521-00L	3D Scanning and Freeform Modeling (HS) Limited number of participants. Enrolment in agreement with the lecturer only (grueninger@arch.ethz.ch).	W	2 credits	<b>2</b> U				
052-0521-00 U	This course (ending with «00L») can only be passed once! Please check this before signing up.  3D Scanning and Freeform Modeling (HS) Permission from lecturers required for all statements. Keine Lehrveranstaltung am 25.10. (Semina 13./20.12. (vor Schlussabgaben).		) sowie am	2 hrs	Mon	14-16	HIL E65	A. Grüninger
052-0523-00L	360° - Reality to Virtuality (HS) This course (ending with «OOL») can only be passed once! Please check this before signing up. The number of participants is limited. Registration for participation in the course is required. Please contact the assistant, Adam Kiryk: kiryk@arch.ethz.ch	W	2 credits	2G				
052-0523-00 G	360° - Reality to Virtuality (HS) Permission from lecturers required for all st No course 25.10. (seminar week) as well as final critiques).		12. (bevore	2 hrs	Mon	12-14	HIL E65	K. Sander
052-0525-00L	Material-Workshop (HS) This course (ends with «00L») can only be passed once! Please check this before signing up.	W	3 credits	3G				
052-0525-00 G	Material-Werkstatt (HS) ■  Does not take place this semester.			3 hrs				A. Spiro
052-0535-00L	Model and Design (HS) Max.Teilnehmerzahl: 16 This course (ends with «OOL») can only be passed once! Please check this before signing up.	W	3 credits	4U				
052-0535-00 U			in den letzten	4 hrs	Thu	16-20	HIL B48	A. Tellini, K. Derleth
052-0537-00L	Free Drawing (HS) Number of participants limited to 35.  This course (ends with «OOL») can only be	W	2 credits	2V				
052-0537-00 V	passed once! Please check this before signing up.		) sowie am	2 hrs	Mon	16-18	HPT C103	M. Léonard-Contant
052-0549-00L	Hybrid Modeling: 3D-Printing for the Architectural Design (HS) This course (ends with «OOL») can only be passed once! Please check this before signing up.	W	2 credits	2S				
052-0549-00 S	Hybrider Modellbau: 3D-Druck für den Entw Keine Lehrveranstaltung am 25.10. (Semina 13./20.12. (vor Schlussabgaben).	urf (HS) arwoche	) sowie am	2 hrs	Mon	12-14	HIL E6 HIL G61	J. Benhamu Esayag
052-0517-21L	Theory and Practice: Heterotopia, Referential Space and Spatial Effects	W	2 credits	2G				

052-0517-21 G	Theorie und Praxis: Heterotopie, referenziel	ller Rau	m und	2 hrs	Mon	14-18	HCI J6	C. Posthofen, A. Brandlhuber
	Raumeffekte Kursdaten: Siehe Raumbelegungen!							
052-0533-00L	New Focal Points of Construction: Steel Constructions This course (ends with «OOL») can only be passed once! Please check this before	W	2 credits	2G				
052-0533-00 G	signing up.  Neue konstruktive Orte: Stahlbau  Keine Lehrveranstaltung am 20.9. (erster S 25.10. (Seminarwoche) sowie am 13. und 2 Schlussabgaben).	emester 10.12. (\	rtag), am ⁄or	2 hrs	Mon	10-12	HCI D2	I. von Meiss-Leuthold, D. Mettler, D. Studer
052-0569-21L	Lecture Series Design and Architecture: Architecture of	w	2 credits	1V				
052-0569-21 V	Ringvorlesungen finden an Dienstagen E4 statt (s. Raumreservationen!):			1 hrs	Tue	18-20	HIL E4	E. Christ, A. Caruso, C. Kerez E. Mosayebi
	28.09.21: Prof. Patrick Heiz 05.10.21: PD Dr. Erik Wegerhoff (HIL Tiefge Wegweisern folgen!) Keine Live-Übertragung. Aufzeich Webseite. 12.10.21: Prof. Mike Guyer 02.11.21: Prof. Freek Persyn 16.11.21: GD Roger Boltshauser 30.11.21: GD Angela Deuber 07.12.21. Prof. Alexandre Theriot	-						
063-0561-21L	Integrated Discipline HS21 in the Field of Design and Architecture (IEA)  Enrolling in this course is only possible on agreement with the lecturer and if you attend a design course (V-IX) at the same time.	f W	3 credits	2A				
063-0561-21 A	Integrierte Disziplin HS21 im Bereich Entwu (IEA)	ırf und A	rchitektur	2 hrs				Lecturers
052-0565-21L	Formalistic Analysis of the Architecture of the Neo-Liberal Ideology: Richti-Areal Number of participants limited to 15		2 credits	3G				
052-0565-21 G	This course is offered until end of FS22. Formalistische Analyse der Architektur der Richti-Areal Keine Lehrveranstaltung am 25.10. (Semina 13./20.12. (vor Schlussabgaben.		· ·	3 hrs	Mon	10-13	HCP E47.2	E. Christ, C. Portmann
052-0561-00L	Territories of Play - Surveying Architecture Through Gaming (HS) This course (with "00L" at the end) can only be passed once. Please check before signing up!	<b>w</b>	2 credits	2\$				
052-0561-00 S	Territories of Play - Surveying Architecture	Through	Gaming (HS)	2 hrs	Fri	16-18	HPL D34 ON LINE	<b>P. Heiz</b> , F. Charbonnet, F. Moura Veiga
052-0551-00L	The Architecture of Maintenance (HS) Is not offered in HS21.	W	2 credits	2G				
052-0551-00 G	The Architecture of Maintenance (HS) Does not take place this semester.			2 hrs				T. Emerson
052-0555-21L	Summer School: Under the Landscape - Young Makers Gathering	W	4 credits	6S				
052-0555-21 S	Summer School: Under the Landscape - Yo Summer School in Agrilia, Thirasia (Grieche 17.9.2021. Details s. Kursbeschrieb.			80s hrs				A. Spiro
►►► Histor	y and Theory of Architecture							
Number	Title	Туре	ECTS	Hours				Lecturers
052-0821-00L	Architecture and Photography (HS) A letter is requested with the preference for one of the groups until 17.9.21. For details see course description!	W	2 credits	4\$				
	This course (ending with «OOL») can only be passed once! Please check this before signing up.							

052-0821-00 S	Architecture and Photography (HS) Permission from lecturers required for all students The course is taught in two groups (Thursday and Friday English and German. Course data and place: see room reservation.		4 hrs	Thu Fri	16-20 14-18	HIL D60.1 HIL D60.1	T. Wootton
052-0847-00L	Experiments on the Spatial Perception and Spatial Cognition of Architects (HS) This course (ends with «00L») can only be passed once! Please check this before signing up.	redits	2\$				
052-0847-00 S	Experimente zur Raumwahrnehmung und zum räumliche Vorstellungsvermögen Architekturschaffender (HS) Keine Lehrveranstaltung am 25.10. (Seminarwoche) sow 13./20.12. (vor Schlussabgaben).		2 hrs	Mon	14-16	HIL E9	A. Gerber
)52-0813-21L	History, Criticism and Theory in W 2 cr Architecture: Things of Postmodernity	redits	<b>2</b> S				
052-0813-21 S	History, Criticism and Theory in Architecture: Things of Postmodernity Keine Lehrveranstaltung am 28.10. (Seminarwoche) sov 16. und 23.12. (vor Schlussabgaben).		2 hrs	Thu	16-18	HIL F10.3	D. Spina, L. Stalder
052-0815-21L		redits	2G				
052-0815-21 G	Other Institution, Part II (A. Stahl) Seminar Architekturkritik: Die andere Institution, Teil II (A Keine Lehrveranstaltung am 29.10. (Seminarwoche) sow 17. und 24.12. (vor Schlussabgaben).		2 hrs	Fri	12-14	HCP E47.1	<b>A. Stahl</b> , L. Stalder, V. Vilardebo Sacchetti
052-0817-21L	Theory of Architecture: What Drawings W 2 co	redits	28				
052-0817-21 S	The course is limited to 24 students.  Theory of Architecture: What Drawings Did and Do Permission from lecturers required for all students  No course on 29.10. (seminar week) and 17./24.12. (beficritiques).		2 hrs	Fri	12-14	HPL D34	C. Brothers, L. Stalder
052-0825-21L	Special Questions in History of Art and W 2 control Architecture: "Protect Us From What We Want"	redits	2\$				
052-0825-21 S	Spezialfragen zur Kunst- und Architekturgeschichte: "Pro From What We Want" Keine Lehrveranstaltung am 25.10. (Seminarwoche), son am 13./20.12. (vor Schlussabgaben).		2 hrs	Mon	16-18	HIL D60.1	B. Seidel, H. Romakin
)52-0827-21L	Seminar History and Theory of Urban Design: The City Lived - Unlocking a Multidisciplinary Discourse For students from the 3rd semester	redits	2\$				
052-0827-21 S	Seminar History and Theory of Urban Design: The City L Unlocking a Multidisciplinary Discourse Permission from lecturers required for all students No course on 28.10. (seminar week) and 16./23.12. (beforitics).		2 hrs	Thu	16-18	HIL E3	C. Nuijsink
052-0829-21L	History of Art and Architecture: W 2 content of Architecture  Not eligible as a Compulsory GESS Elective for students of D-ARCH.	redits	2\$				
052-0829-21 S	History of Art and Architecture: Exhibiting Architecture No course on 28.10. (seminar week) and 16./23.12. (beforitics).		2 hrs	Thu	12-14	HCP E47.1	A. Abhelakh
052-0833-21L	PhD Teaching: Beijing to Baghdad - W 2 co	redits	3S				
052-0833-21 S	PhD Teaching: Beijing to Baghdad - Commons/Communism/Communalism Block course, 3-4 days (during seminar week, 2529.10. Details will follow.		40s hrs				L. Stalder, F. Mari
052-0839-21L	Particular Questions in Architectural W 2 continuous Pressure Points - The Subjects of Race and Feminism	redits	28				
052-0839-21 S	Particular Questions in Architectural Theory: Pressure Pour The Subjects of Race and Feminism Online seminar: This seminar will primarily take place on Reserved rooms will remain available for students to folk seminar from there. No course on 25.10. and in the last two weeks of the ser room reservations).	nline. low the	2 hrs	Mon	12-14	HIL E10.1	R. Choi, L. Stalder
	History of Art and Architecture W 2 cm Kunst- und Architekturgeschichte ■ Does not take place this semester.		<b>2G</b> 2 hrs				P. Ursprung
052-0845-21L		redits	<b>2</b> U				

052-0845-21 U	(s. coiurse descroiption) Reflexionen über Ausstellungs- und Kunstp Künstlerische Recherche ■ Permission from lecturers required for all st Keine Lehrveranstaltung am 29.10. (Semin 17./24.12. (vor Schlussabgaben).	udents		2 hrs	Fri	14-16	HIL E7	L. Schädler Meiler, P. Ursprung
052-0835-21L	Summer School: Transects Through Alpine Water Landscapes (ETH-EPFL) For MSc ARCH students and Doctoral students.	W	2 credits	3K				
052-0835-21 K	Summer School: Transects Through Alpine (ETH-EPFL) Location: Villa Cassel, 3987 Riederalp, Kan Dates: 16-21 August, 2021		·	45s hrs				T. Avermaete
052-0851-21L	Topical Questions in History and Theory of Architecture: Gendering History. Women Travellers	W	2 credits	2\$				
052-0851-21 S	Topical Questions in History and Theory of Gendering History. Women Travellers No course on 25.10. (seminar week) and 16 critiques).			2 hrs	Thu	12-14	HIL E6	A. Hultzsch, L. Stalder
063-0861-21L	Integrated Discipline HS21 in the Field of History and Theory of Architecture (gta) Enrolling in this course is only possible on agreement with the lecturer and if you attend a design course (V-IX) at the same time.	· W	3 credits	2A				
063-0861-21 A	Integrierte Disziplin HS21 im Bereich Gesch Architektur (gta)	nichte un	d Theorie der	2 hrs				Lecturers
052-0853-21L	Architecture Beyond the Studio: Reflecting the Social and Cultural Dimensions of Design Proposals This course is offered until end of spring 2023 semester.	W	4 credits	<b>4</b> S				
052-0853-21 S	Architecture Beyond the Studio: Reflecting to Dimensions of Design Proposals No course on 25.10. (seminar week) as well (before final critiques). Co-Teaching open			4 hrs	Mon	08-12	HCP E47.4	<b>P. Ursprung</b> , B. Böhm, J. Kaçani
052-0855-21L	Summer School: On the Threshold - Guidebooks and Visions of Rome	W	2 credits	3S				
052-0855-21 S	Summer School: On the Threshold - Guidel Rome Date/Place: 25.71.8.2021, Rome	ooks an	nd Visions of	40s hrs				M. Delbeke
052-0823-21L	History of Art and Architecture: Life Without Buildings - Adam Szymczyk and gta Exhibitions	W	2 credits	2\$				
052-0823-21 S	History of Art and Architecture: Life Without Szymczyk and gta Exhibitions Keine Lehrveranstaltung am 25.10. (Semina 13. und 20.12. (vor Schlussabgaben)	_		2 hrs	Mon	10-12	HIL E5 HIL H40.9	P. Ursprung, F. Fischli, N. Olsen
▶▶▶ Lands	cape and Urban Studies							
Number	Title	Туре	ECTS	Hours				Lecturers
052-0713-21L	Serendipity: Sourced Waters Number of participants limited to 16 (due to technical equipment). Course language: English or/and German 23.09.2021: Introduction and final inscription!	W	2 credits	4G				
052-0713-21 G	Serendipity: Sourced Waters   0203.10.2021: Weekend workshop, all day (mandatory) [[if the current state of the pand to the pandemic and the current situation du course may be adjusted. It is unclear at the workshop can take place as planned. Likew in the laboratories will have to be adapted so on the rules and regulations.  No course on 28.10. (seminar week).	demic all uring the moment rise, the	lows]]. Due semester, the t whether the physical work	60s hrs	Thu 02.10. 03.10.	16-18 09-18 09-18	HIL H40.5 HIL H40.5 HIL H40.5	M. Vollmer
052-0715-21L	Topology: Deep Poly	w	2 credits	2U				
052-0715-21 U	Topology: Deep Poly ■ No course on 29.10. (seminar week) and 17 critics).	7./24.12.	(before final	2 hrs	Fri	12-14	HIL H40.8	M. Kaufmann
052-0717-21L	Territory of the City: Paris Number of participants limited to 12.	w	2 credits	2G				

052-0717-21 G	Territorium der Stadt: Paris Permission from lecturers required for all stude Keine Lehrveranstaltung am 25.10 (Seminarwo und 20.12. (vor Schlussabgaben).	ents oche) sowie an	2 hrs	Mon	14-16	HIL D60.1	G. Vogt
052-0723-21L	Sociology: African Urbanties - A W Research Seminar The number of participants is limited to 40.	2 credits	s 2S				
052-0723-21 S	Sociology: African Urbanties - A Research Sem No course on 29.10. (seminar week) and in the the semester (final critiques). ONLINE seminar: This seminar will primarily ta Reserved rooms will remain available for stude seminar from there.	e last two week ke place online	).	Fri	16-18	HCP E47.4	A. Hertzog-Fraser, N. Bathla, C. Schmid
052-0725-21L	ACTION! Beautiful Data - The Filmic Art W	2 credits	s 2U				
052-0725-21 U	of Numbers  ACTION! Beautiful Data - The Filmic Art of Num Permission from lecturers required for all stude No course on 25.10. (seminar week) and 13./2c critics).  Monday 11.10. and 1.11.21 a film is shown in 0 -21:00 h.	ents 0.12.(before fir		Mon	10-12	ONA E16	H. Klumpner, C. E. Papanicolaou
063-0761-21L	Integrated Discipline HS21 in the Field of W Landscape and Urban Studies (LUS)  Enrolling in this course is only possible on agreement with the lecturer and if you attend a design course (V-IX) at the same time.	3 credits	s 2A				
063-0761-21 A	Integrierte Disziplin HS21 im Bereich Landscha Studien (LUS)	aft und Urbane	2 hrs				Lecturers
052-0735-21L	Winter School: Metropolitan W Landscapes: Case Study Berlin- Brandenburg	4 credits	s 9S				
052-0735-21 S	Winter School: Metropolitane Landschaften: Ca Brandenburg 14 Tage Blockkurs vom 30.1.2022 bis 14.2.22.	·					G. Vogt
▶▶▶ Techn	ology in Architecture						
Number	Title Ty	pe ECTS	Hours				Lecturers
101-0587-00L	Workshop on Sustainable Building Certification Number of participants limited to 25	-	3 2G				
101-0587-00 G	Workshop on Sustainable Building Certification		2 hrs	Fri	10-12	HCP E47.1	D. Kellenberger
	Moisture Transport in Porous Media W	3 credits	. 20				
151-8015-00 G	Moisture Transport in Porous Media No course on 25.10 (seminar week) as well as		2 <b>G</b> 2 hrs	Mon	10-12	HIL E6	<b>J. Carmeliet</b> , L. Fei, J. Huang J. Zhao
	Moisture Transport in Porous Media	20.12.2021.	2 hrs	Mon	10-12	HIL E6	J. Carmeliet, L. Fei, J. Huang J. Zhao
101-0577-00L	Moisture Transport in Porous Media No course on 25.10 (seminar week) as well as  An Introduction to Sustainable  W	20.12.2021. 3 credits	2 hrs	Mon	10-12	HIL E6	
<b>101-0577-00L</b> 101-0577-00 G	Moisture Transport in Porous Media No course on 25.10 (seminar week) as well as  An Introduction to Sustainable Development in the Built Environment An Introduction to Sustainable Development in Environment  Building Process: Realization (HS) The course is limited to 40 students. Enrolment is only possible in agreement with the lecturer (eglin@arch.ethz.ch).  This course (ends with «00L») can only be passed once! Please check this before	20.12.2021.  3 credits the Built	2 hrs  2 G  2 hrs				J. Zhao
101-0577-00L 101-0577-00 G 052-0615-00L	Moisture Transport in Porous Media No course on 25.10 (seminar week) as well as  An Introduction to Sustainable Development in the Built Environment An Introduction to Sustainable Development in Environment  Building Process: Realization (HS) The course is limited to 40 students. Enrolment is only possible in agreement with the lecturer (eglin@arch.ethz.ch).  This course (ends with «00L») can only be	20.12.2021.  3 credits the Built  2 credits ents pace E-Stock. sentation) wird	2 hrs 2 G 2 hrs 2 hrs 2 hrs				J. Zhao
101-0577-00L 101-0577-00 G 052-0615-00L	Moisture Transport in Porous Media No course on 25.10 (seminar week) as well as  An Introduction to Sustainable Development in the Built Environment  An Introduction to Sustainable Development in Environment  Building Process: Realization (HS) The course is limited to 40 students. Enrolment is only possible in agreement with the lecturer (eglin @arch.ethz.ch).  This course (ends with «00L») can only be passed once! Please check this before signing up.  Bauprozess: Ausführung (HS) ■ Permission from lecturers required for all stude Einführung: 24.9. um 14:00 Uhr in HIB Open S, Präsenz am ersten Kurstag erforderlich! Struktur (Vorlesungen, Feldarbeit, Schlusspräs bekanntgegeben. Keine Lehrveranstaltung am 29.10. (Seminarw.)	20.12.2021.  3 credits the Built  2 credits  ents pace E-Stock. entation) wird	2 hrs 2 drs 2 hrs 2 hrs 2 hrs noch	Tue	16-18	HIL E4	J. Zhao  G. Habert, D. Kaushal
101-0577-00L 101-0577-00 G 052-0615-00L	Moisture Transport in Porous Media No course on 25.10 (seminar week) as well as  An Introduction to Sustainable Development in the Built Environment  An Introduction to Sustainable Development in Environment  Building Process: Realization (HS) The course is limited to 40 students. Enrolment is only possible in agreement with the lecturer (eglin@arch.ethz.ch).  This course (ends with «00L») can only be passed once! Please check this before signing up.  Bauprozess: Ausführung (HS) ■ Permission from lecturers required for all stude Einführung: 24.9. um 14:00 Uhr in HIB Open Spräsenz am ersten Kurstag erforderlich! Struktur (Vorlesungen, Feldarbeit, Schlusspräsbekanntgegeben. Keine Lehrveranstaltung am 29.10. (Seminarw 17./24.12. (vor Schlussabgaben).  Historical and Systematic Aspects of Acoustic Design in Architecture (HS) ITA Pool - information event on the courses offered at the institute ITA: Wednesday 8th September 2021, 10-11 h, ONLINE. ZoomLink: https://ethz.zoom.us/j/66588100789	20.12.2021.  3 credits the Built  2 credits  ents pace E-Stock. entation) wird	2 hrs 2 drs 2 hrs 2 hrs 2 hrs noch	Tue	16-18	HIL E4	J. Zhao  G. Habert, D. Kaushal

	An Example-Based Introduction into Buildin No course on 28.10. (seminar week) as we final critiques).  Works  see Architecture MSc "Focus Work"		'23.12. (before					
052-0915-21 V ▶▶ Focus	An Example-Based Introduction into Buildin No course on 28.10. (seminar week) as we final critiques).  Works		/23.12. (before					
	An Example-Based Introduction into Buildin No course on 28.10. (seminar week) as we final critiques).		23.12. (before					
			eology	2 hrs	Thu	16-18	HPV G5	L. Vandenabeele
052-0915-21L	An Example-Based Introduction into Building Archaeology This course is offered until end of HS22.	W	2 credits	2V	<del></del> .	46.4-	LIBY 6 =	
	Reparatur: Besser machen Keine Lehrveranstaltung am 29.10. (Semin 17./24.12. (vor Schlusabgaben).			2 hrs	Fri 08.10. 10.12.		HIB E52 HIL E67 HIL E67	S. Langenberg
052-0911-21L	ITA Pool - information event on the courses offered at the institute ITA: Wednesday 8th September 2021, 10-11 h, ONLINE. ZoomLink: https://ethz.zoom.us/j/66588100789		2 credits	2\$				
052 0044 041	Keine Lehrveranstaltung am 28.10. (Semin 16./23.12.21 (vor Schlussabgaben). ITA Pool Einführungsveranstaltung über die des Instituts ITA: 8.9.21, 10-11h, HIB Open Repair Making Things Better.	e angebo Space.	otenen Kurse	26				
052-0913-21 S	ITA Pool Introduction to courses within the institute ITA: 8.9.21, 10-11h, HIB Open Space.  Denkalpflege: Vermitteln & Ausstellen		N	2 hrs	Fri	14-16	HIL E9	S. Langenberg
052-0913-21L		W	2 credits	28				
063-0961-21 A	time.	malpfleg	e und	2 hrs				Lecturers
	Historic Building Research and Conservation (IDB) Enrolling in this course is only possible on agreement with the lecturer and if you attend a design course (V-IX) at the same			-				
063-0961-21L		Type W	3 credits	2A				Lecturer3
►►► HIStO Number	ric Building Archaeology and C		ECTS	Hours				Lecturers
	Climate Responsive Architecture with Hive		votice:	30s hrs				A. Schlüter
052-0639-00L	Hive	W	1 credit	2G				
063-0661-21 A	A Integrierte Disziplin HS21 im Bereich Techr Architektur (ITA)			2 hrs				Lecturers
063-0661-21L	Integrated Discipline HS21 in the Field of Technology in Architecture (ITA)  Enrolling in this course is only possible on agreement with the lecturer and if you attend a design course (V-IX) at the same time.	f W	3 credits	2A				
	G CAAD Practice:  Does not take place this semester.	-	_ 0.000	2 hrs				L. Hovestadt
052-0627-21 G	G CAAD Theory: Digital Epic - Creative Writin No course on 25.10. (seminar week) and 1: final critics).  CAAD Practice:			2 hrs	Mon	14-16	HIB E15	L. Hovestadt
	Writing for Architects ITA Pool - information event on the courses offered at the institute ITA: Wednesday 8th September 2021, 10-11 h, ONLINE. ZoomLink: https://ethz.zoom.us/j/66588100789	;				44.40	IIID 545	
052-0627-21L	Keine Lehrveranstaltung am 28.10. (Semin 10. und 17.12. (vor Schlussabgaben).	arwoche <b>W</b>	e) sowie am  2 credits	2G				
052-0625-00 G	Historische und Systematische Aspekte der Architekturentwurfs (HS)			2 hrs	Thu	12-14	HIL E7	J. Strauss

40s hrs

Lecturers

#### ► GESS Science in Perspective

#### **▶▶** Science in Perspective

see GESS Science in Perspective: Type A: Enhancement of Reflection Capability

Recommended GESS Science in Perspective (Type B) for D-ARCH.

#### **▶▶** Language Courses

see GESS Science in Perspective: Language Courses ETH/UZH

Architecture	Bachel	or - K	ey f	or T	Гуре
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0	Compulsory	E-	Recommended, not eligible for credits
W+	Eligible for credits and recommended	Z	Courses outside the curriculum
W	Eligible for credits	Dr	Suitable for doctorate

#### **Key for Hours**

V	lecture	Р	practical/laboratory course
G	lecture with exercise	A	independent project
U	exercise	D	diploma thesis
S	seminar	R	revision course / private study
K	colloquium		

ECTS European Credit Transfer and Accumulation System

Special students and auditors need special permission from the lecturers.

## **Architecture Master**

#### **▶** Core Courses

# ▶▶ Field of History and Theory of Architecture

Number	Title	Туре	ECTS	Hours				Lecturers
063-0801-00L	History of Art and Architecture VII: This core course (ending with «00L») can only be passed once! Please check before signing up. History of Art and Architecture VII: Does not take place this semester.	W	2 credits	2V 2 hrs				
	No course on 28.10. (seminar week) and 10 critiques).	6./23.12.	(before final					
063-0803-00L	History and Theory in Architecture IX (Ursprung) This core course (ending with «00L») can only be passed once! Please check before signing up.	W	1 credit	1V				
063-0803-00 V	History and Theory in Architecture IX (Ursp No course on 29.10. (seminar week) and 13 critiques).		(before final	1 hrs	Fri	08-09	HIL E1	P. Ursprung
063-0803-01L	History and Theory in Architecture IX (Avermaete) This core course (ends with «01L») can only be passed once! Please check this before signing up.	W	1 credit	1V				
063-0803-01 V	History and Theory in Architecture IX (Aver No course on 29.10. (seminar week) and 12 critics).		(before final	1 hrs	Fri	09-10	HIL E1	T. Avermaete, H. Teerds
063-0803-02L	History and Theory of Architecture IX (Gnehm) The course languages are German and English. This core course (ends with «O2L») can only be passed once! Please check this before signing up.	W	1 credit	1V				
063-0803-02 V	Architekturgeschichte und -theorie IX (Gneł Keine Lehrveranstaltung am 29.10. (Semir 17./24.12. (vor Schlussabgaben). Kurssprachen sind Deutsch und Englisch.	,	e) sowie am	1 hrs	Fri	12-13	HIL E8	M. Gnehm
063-0313-21L	History of Art and Architecture V: Caractère (Character) This course is full. Please do not enroll afte 9.9.2021. Thank you.	<b>W</b> r	1 credit	1V				
063-0313-21 V	History of Art and Architecture V: Caractère No course on 29.10. (seminar week) and 13 critics). The course is full. Please do not enroll after	7./24.12.	(before final	1 hrs	Fri	09-10	HIL C10.2	M. Delbeke, S. de Jong
▶▶ Field of	Historic Building Research and	d Con	servation					
Number	Title	Туре	ECTS	Hours				Lecturers
063-0901-00L	Construction History: The Construction Site and Its Technology This core course (ends with «OOL») can only be passed once! Please check this before signing up.	W	2 credits	2G				
063-0901-00 G	Konstruktionsgeschichte: Herstellungstechr Keine Lehrveranstaltung am 28.10. (Semin 16./23.12. (vor Schlussabgaben).			2 hrs	Thu	08-10	HIL E1	S. Holzer
063-0903-00L	Case Studies Construction History and Building Preservation (HS)  The number of participants is limited to 40.	W	4 credits	2G				
	This core course (ends with «00L») can only be passed once! Please check this before signing up.							
	Each enrolment requires an uninterrupted visit throughout the semester. Cancellation (incl. deletion of enrolment) is permitted until 26.9.21.		w- <del>-</del> -					
	Fallstudien Konstruktionsgeschichte und Ba			2 hrs	Fri/1	16-18	HIL E7	S. Holzer
063-0911-00L	Future Monuments This core course (ends with «OOL») can only be passed once! Please check this before signing up. ITA Pool Introduction to courses within the institute ITA: 8.9.21, 10-11h, HIB Open Space.	w	2 credits	2V				

Reine Leniveransialiung am 26. To. (Seminarwoone) und
16./23.12. (vor Schlussabgaben).

Number	Title	Type	ECTS	Hours				Lecturers
063-0701-00L	Methods of Urban Research This core course (ends with «OOL») can only be passed once! Please check this before signing up	W	2 credits	2G				
063-0701-00 G	Methoden der Stadtforschung Keine Lehrveranstaltung am 28.10. (Semina 16./23.12. (vor Schlussabgaben). ONLINE: Diese Lehrveranstaltung wird hau, angeboten. Der reservierte Raum steht den zur Verfügung, um das Seminar von dort au	otsächli Studier	ch online enden jedoch	2 hrs	Thu	14-16	HIL E1	C. Schmid, I. Apostol, N. Bathla, L. Howe, C. Ting
063-0703-00L	Architecture of Territory: Territorial Design in Histories, Theories and Projects This core course (ending with «OOL») can only be passed once! Please check before signing up.	W	2 credits	2V				
063-0703-00 V	Architecture of Territory: Territorial Design in and Projects No course on 28.10. (seminar week) 16./23. critiques).			2 hrs	Thu	10-12	ONA E7	M. Topalovic
▶▶ Field of	Technology in Architecture							
►► Field of Number	Title	Туре	ECTS	Hours				Lecturers
		Type W	ECTS 3 credits	Hours 3G				Lecturers
Number	Title  Computational Structural Design I Number of participants limited to 60. To participate in this course it is recommended that the student has previously taken the courses Tragwerksentwurf I-IV. This core course (ending with «00L») can only be passed once! Please check before	W						Lecturers

063-0607-00L	Energy- and Climate Systems III	W	2 credits	2V
	This core course (ending with «00L») can			

only be passed once! Please check before signing up.
ITA Pool - information event on the courses offered at the institute ITA: Wednesday 8th

September 2021, 10-11 h, ONLINE. ZoomLink: https://ethz.zoom.us/j/66588100789

063-0607-00 V Energy- and Climate Systems III
No course on 29.10. (seminar week) and 17./24.12.(before final

No course on 28.10 (seminar week) and no course on

2 hrs critiques).

**Urban Physics** 3 credits

3G 3 hrs HIL E9 Thu 13-16

08-10

HIL E7

Fri

A. Schlüter, C. Waibel

063-0601-00L Building Process: Economy

23.12.2021.

151-8007-00L

151-8007-00 G Urban Physics

ITA Pool - information event on the courses offered at the institute ITA: Wednesday 8th September 2021, 10-11 h, ONLINE. ZoomLink: https://ethz.zoom.us/j/66588100789

2 credits

**J. Carmeliet**, D. W. Brunner, A. Rubin, C. Schär, D. A. Strebel, H. Wernli, J. M. Wunderli, Y. Zhao

This core course (ends with «00L») can only be passed once! Please check this

before signing up

Keine Lehrveranstaltung am 29.10. (Seminarwoche) sowie am 17./24.12. (vor Schlussabgaben). Präsenz am ersten Kurstag erforderlich!

063-0611-00L	The Digital in Architecture II (Exercise) Prerequisite: Successful completion of the course "Structural Design VI" (063- 0606-00L), "Design III" (052-0541/43/45) or "Das Digitale in der Architektur" (063- 0610-00L). This core course (ending with «00L») can only be passed once! Please check before signing up.	W	2 credits	1V+2U				
	ITA Pool - information event on the courses offered at the institute ITA: Wednesday 8th September 2021, 10-11 h, ONLINE. ZoomLink: https://ethz.zoom.us/j/66588100789							
063-0611-00 V	The Digital in Architecture II No course on 28.10. (seminar week) 16./23. critiques).	.12. (be	efore final	1 hrs	Thu	16-17	HIB D13.1	J. Medina Ibañez
063-0611-00 U	The Digital in Architecture II (Exercise) No course on 28.10. (seminar week) 16./23. critiques).	.12. (be	efore final	2 hrs	Thu	17-19	HIB D13.1	J. Medina Ibañez
063-0417-01L	Architecture and Structure (HS) This core course (ends with «01L») can only be passed once! Please check this before signing up.	W	3 credits	3G				
	ITA Pool - information event on the courses offered at the institute ITA: Wednesday 8th September 2021, 10-11 h, ONLINE. ZoomLink: https://ethz.zoom.us/j/66588100789							
063-0417-01 G	Architektur und Tragwerk (HS) Keine Lehrveranstaltung am 28.10. (Semina 16./23.12. (vor Schlussabgaben).	arwoch	e) sowie am	3 hrs	Thu	16-19	HIL E8	J. Schwartz, U. Jaray Bergianti

### ► Architectural Design

consultation with the professorship). A student can only register once for a "Fachsemester" during the Master studies!

The application deadline is Wednesay, September 8, 2021, 8 p.m. You will receive a message about acceptance or rejection for the subject semester by Thursday, September 9, 2021, 2 p.m. at the latest. Students who have been rejected have the

Number	Title	Type	ECTS	Hours	Lecturers
	Choice of "Architectural Design" (from 05. Sem.) of the Bachelor course.				
063-0853-21L	Subject Semester HS21 in the Field of History and Theory in Architecture (gta, Prof. Ursprung)  Allocation only after consultation with the professor (meetings as required and after consultation with the chair).	W	14 credits	29A	
	The application deadline is Wednesday September 8, 2021, 8 p.m. You will receive a message about acceptance or rejection for the subject semester by Thursday, September 9, 2021, 2 p.m. at the latest. Students who have been rejected have the opportunity to choose a design class.				
	A student can only register once for a "Fachsemester" during the Master studies!				
063-0853-21 A	Fachsemester HS21 im Bereich Geschichte Architektur (gta Prof. Ursprung)  Permission from lecturers required for all sta Selbständige Arbeit.		eorie der	400s hrs by appt.	P. Ursprung, T. Avermaete, M. Delbeke
063-0855-21L	Subject Semester (Fachsemester) HS21 in the Field of History and Theory in Architecture gta(Delbeke) Allocation only after consultation with the professor (meetings as required and after	W	14 credits	29A	

#### opportunity to choose a design class. Subject Semester (Fachsemester) HS21 im Bereich Geschichte 400s hrs 21.09. 14-17 063-0855-21 A und Theorie der Architektur (gta Delbeke) ■ Permission from lecturers required for all students Self dependent work. Enrolment in agreement with the chair only.

HIT F12

M. Delbeke, T. Avermaete. P. Ursprung

#### 063-0953-21L Subject Semester HS21 in the Field of

Historic Building Research and Conservation (IDB, Prof Holzer)

A student can only register once for a "Fachsemester" during the Master studies!

Meetings as required and in consultation with the chair.

The application deadline is Friday September 3, 2021, 8 p.m. You will receive a message about acceptance or rejection for the subject semester by Thursday, September 9, 2021, 2 p.m. at the latest. Students who have been rejected have the opportunity to choose a design class.

063-0953-21 A Fachsemester HS21 im Bereich Denkmalpflege und Bauforschung (IDB, Prof. Holzer) ■

Permission from lecturers required for all students Selbständige Arbeit.

Belegung nur nach Absprache mit dem Professor. Besprechungen nach Bedarf und nach Absprache mit der 400s hrs by appt.

S. Holzer, T. Avermaete, M. Delbeke, P. Ursprung

A. Schlüter

#### 063-0655-21L Subject Semester (Fachsemester) HS21 W

in the Field of Technogy in Architecture (ITA, Prof. Schlüter)

A student can only register once for a "Fachsemester" during the Master studies!

The application deadline for this "Fachsemester" is Wednesday, September 1, 2021, 8 p.m. You will receive a message about acceptance or rejection for the subject semester by Friday, September 3, 2021, 2 p.m. at the latest. Students who have been rejected have the opportunity to choose a design class.

063-0655-21 A Subject Semester (Fachsemester) HS21 in the Field of Technogy 400s hrs in Architecture (ITA, Prof. Schlüter)

Permission from lecturers required for all students

14 credits 29A

14 credits

29A

14 credits

29A

#### 063-0857-21L Subject Semester (Fachsemester) HS21 W in the Field of History and Theory in

Architecture (Avermaete)

Enrolment in agreement with the chair only. Meetings as required and in consultation with the chair.

A student can only register once for a "Fachsemester" during the Master studies!

The application deadline is Wednesday 8th September 2021, 8 p.m. You will receive a message about acceptance or rejection for the subject semester by Thursday, September 9, 2021, 2 p.m. at the latest. Students who have been rejected have the opportunity to choose a design class.

063-0857-21 A Subject Semester (Fachsemester) HS21 in the Field of History

and Theory in Architecture (Avermaete) Permission from lecturers required for all students Self dependent work.

400s hrs by appt.

T. Avermaete, M. Delbeke,

P. Ursprung

#### 052-1201-21L **Preparation Semester Free Master** w 14 credits Thesis HS21

052-1201-21 A Vorbereitungssemester freie Master-Arbeit HS21 16 hrs Lecturers

#### ► Focus Work

Realization in the respective fields of the institutes. Definition of topics by professors, in consultation with the students. The content may also refer to an elective course.

16A

The performance assessment comprises either a purely written examination followed by an oral examination or a creative, manual or drawing work, including a description, followed by an oral examination.

At least one focus work is a written work followed by an oral exam. The written work fulfills the criteria of a scientific paper in a formal sense. In addition to the design, crafting or drawing part, it also includes a written description of the question, methodology and knowledge gained.

A creative, crafting or graphic focus work is shown in a public exhibition, a purely written focus work is accessible to the public.

#### ▶▶ Field of Historic Building Research and Conservation

Definition of topics by professors, in consultation with the students (student's proposal / content of an elective course).

Performance assessment: Purely written examination followed by an oral examination OR a creative, manual or drawing work, including a description, followed by an oral examination.

At least one focus work is a written work followed by an oral exam. The written work fulfills the criteria of a scientific paper in a formal sense. In addition to the design, crafting or drawing part, it also includes a written description of the question, methodology and possibly gained knowledge.

A creative, crafting or graphic focus work is shown in a public exhibition, a purely written focus work is accessible to the public. Information on exams and grades: Art. 29 of the MSc D-ARCH regulations.

Number	Title	Туре	ECTS	Hours	Lecturers
063-0951-21L	Focus Work HS21 in the Field of Historic Building Research and Conservation (IDB)	W	6 credits	13A	
063-0951-21 A	Vertiefungsarbeit HS21 im Bereich Denkma Bauforschung (IDB)	lpflege	und	180s hrs	Supervisors

#### ▶▶ Field of Design and Architecture

Definition of topics by professors, in consultation with the students (student's proposal / content of an elective course).

Performance assessment: Purely written examination followed by an oral examination OR a creative, manual or drawing work, including a description, followed by an oral examination.

At least one focus work is a written work followed by an oral exam. The written work fulfills the criteria of a scientific paper in a formal sense. In addition to the design, crafting or drawing part, it also includes a written description of the question, methodology and possibly gained knowledge.

A creative, crafting or graphic focus work is shown in a public exhibition, a purely written focus work is accessible to the public. Information on exams and grades: Art. 29 of the MSc D-ARCH regulations.

Number	Title	Туре	ECTS	Hours	Lecturers
063-0551-21L	Focus Work HS21 in the Field of Design and Architecture (IEA) For supervision in the field of "Model and Design" choose the Study Director.	W	6 credits	13A	
063-0551-21 A	Vertiefungsarbeit HS21 im Bereich Entwurf	und Arc	hitektur (IEA)	180s hrs	Supervisors

#### ▶▶ Field of History and Theory of Architecture

Definition of topics by professors, in consultation with the students (student's proposal / content of an elective course).

Performance assessment: Purely written examination followed by an oral examination OR a creative, manual or drawing work, including a description, followed by an oral examination.

At least one focus work is a written work followed by an oral exam. The written work fulfills the criteria of a scientific paper in a formal sense. In addition to the design, crafting or drawing part, it also includes a written description of the question, methodology and possibly gained knowledge.

A creative, crafting or graphic focus work is shown in a public exhibition, a purely written focus work is accessible to the public. Information on exams and grades: Art. 29 of the MSc D-ARCH regulations.

Number	Title	Туре	ECTS	Hours	Lecturers
063-0851-21L	Focus Work HS21 in the Field of History and Theory in Architecture (gta)	W	6 credits	13A	
063-0851-21 A	Vertiefungsarbeit HS21 im Bereich Geschic Architektur (gta)	hte und	Theorie der	180s hrs	Supervisors

#### ▶▶ Field of Landscape Architecture and Urban Studies

Definition of topics by professors, in consultation with the students (student's proposal / content of an elective course).

Performance assessment: Purely written examination followed by an oral examination OR a creative, manual or drawing work, including a description, followed by an oral examination.

At least one focus work is a written work followed by an oral exam. The written work fulfills the criteria of a scientific paper in a formal sense. In addition to the design, crafting or drawing part, it also includes a written description of the question, methodology and possibly gained knowledge.

A creative, crafting or graphic focus work is shown in a public exhibition, a purely written focus work is accessible to the public. Information on exams and grades: Art. 29 of the MSc D-ARCH regulations.

	<u> </u>							
Number	Title	Type	ECTS	Hours				Lecturers
063-0751-21L	Focus Work HS21 in the Field Landscape and Urban Studies (LUS)	W	6 credits	13A				
063-0751-21 A	Vertiefungsarbeit HS21 im Bereich Landsch Studien (LUS)	naft und	Urbane	180s hrs	5			Supervisors
103-0569-00L	European Aspects of Spatial Development	W	3 credits	2G				
103-0569-00 G	European Aspects of Spatial Development Online lecture: This lecture will primarily tak Reserved rooms will remain available for st seminar from there.			2 hrs	Tue	16-18	HIL D53	A. Peric Momcilovic

#### ▶▶ Field of Technology in Architecture

Definition of topics by professors, in consultation with the student's proposal / content of an elective course).

Performance assessment: Purely written examination followed by an oral examination OR a creative, manual or drawing work, including a description, followed by an oral examination.

At least one focus work is a written work followed by an oral exam. The written work fulfills the criteria of a scientific paper in a formal sense. In addition to the design, crafting or drawing part, it also includes a written description of the question, methodology and possibly gained knowledge.

A creative, crafting or graphic focus work is shown in a public exhibition, a purely written focus work is accessible to the public. Information on exams and grades: Art. 29 of the MSc D-ARCH regulations.

Number	Title	Type	ECTS	Hours			Lecturers
063-0651-21L	Focus Work HS21 in the Field of Technology in Architecture (ITA)	W	6 credits	13A			
063-0651-21 A	Vertiefungsarbeit HS21 im Bereich Technol (ITA)	ogie in c	ler Architektur	180s hrs			Supervisors
► Master's	Thesis						
Number	Title	Туре	ECTS	Hours			Lecturers
063-0141-00L	Master's Thesis Only students who fulfill the following criteria are allowed to begin with their master thesis: a. successful completion of the bachelor programme; b. fulfilling of any additional requirements necessary to gain admission to the master programme.	0	30 credits	40D			
200 0444 00 D	Ultimate deadline to unsubscribe or enroll for the Master Thesis is 17.11.2021.  Deleting a reservation after this date is prohibited.			40.1			
	Master-Arbeit			40 hrs			Lecturers
► Electives							
Number	Title	Туре	ECTS	Hours			Lecturers
101-0523-12L	Frontiers in Machine Learning Applied to Civil, Env. and Geospatial Engineering (HS21)  Number of participants limited to 21.	W	1 credit	2\$			
101-0523-12 S	Frontiers in Machine Learning Applied to Ci Geospatial Engineering (HS21) ■ Starting time: 13:45.	vil, Env.	and	2 hrs	Wed/2w 14-16	ON LINE	M. A. Kraus, E. Chatzi, F. Corman, O. Fink, I. Hajnsek M. Lukovic, K. Schindler, B. Soja, B. Sudret, M. J. Van Strien
► Seminar	Weeks						
Number	Title	Туре	ECTS	Hours			Lecturers
<b>051-0911-21L</b> 051-0911-21 A	Seminar Week Autumn Semester 2021 Seminarwoche Herbstsemester 2021 Seminarwoche vom 2529.20.2021. Die Programme werden zu Beginn des Sen	<b>W</b> nesters (	2 credits	<b>3A</b> 40s hrs			Lecturers
► GESS Sc	ience in Perspective	<u> </u>					
	see GESS Science in Perspective: Language Courses ETH/UZH						
	see GESS Science in Perspective: Type A: Enhancement of Reflection Capability						
	Recommended GESS Science in Perspective (Type B) for D-ARCH.						
	Inits for Additional Admission Fourses below are only available for MSc stude	-		niccion ro	ruiromonto		
Number	Title	Type		Hours	quirerrierris.		Lecturers
	Architectural Design V-IX (Part 1) Enrolment ONLY for MSc students with a decree declaring this course unit as an additional admission requirement.	E-	14 credits	16U			Lecturers
	Any other students (e.g. incoming exchange students, doctoral students) CANNOT enrol for this course unit.						
	Please register (www.mystudies.ethz.ch) only after the internal enrolment for the design classes (see http://www.einschreibung.arch.ethz.ch/design.php)						
052.1400 44 !!	Project grading at semester end is based on the list of enrolments on 2.11.21 (valuation date) only. This is the ultimate deadline to unsubscribe or enroll for the studio.			16 hr			Locturare
	Entwurf V-IX (Teil 1)  Architectural Design V IX (Part 2)	_	14 000001:40	16 hrs			Lecturers
υ <b>ວ∠-</b> 11U1-AAL	Architectural Design V-IX (Part 2) Enrolment ONLY for MSc students with a decree declaring this course unit as an	E-	14 credits	16U			

additional admission requirement.

Any other students (e.g. incoming exchange students, doctoral students) CANNOT enrol for this course unit.

Please register (www.mystudies.ethz.ch) only after the internal enrolment for the design classes (see http://www.einschreibung.arch.ethz.ch/design.php)

Project grading at semester end is based on the list of enrolments on 2.11.21, 24:00 h (valuation date) only. This is the ultimate deadline to unsubscribe or enroll for the studio..

052-1101-AA U Entwurf V-IX (Teil 2)

16 hrs Lecturers

0	Compulsory	E-	Recommended, not eligible for credits
W+	Eligible for credits and recommended	Z	Courses outside the curriculum
W	Eligible for credits	Dr	Suitable for doctorate
Key for	Hours		
V	lecture	P	practical/laboratory course
		'	
G	lecture with exercise	A	independent project
U	exercise	D	diploma thesis
S	seminar	R	revision course / private study
K	colloquium		

ECTS European Credit Transfer and Accumulation System

# **Atmospheric and Climate Science Master**

### ► Modules

## ▶▶ Weather Systems and Atmospheric Dynamics

Number	Title	Type	ECTS	Hours				Lecturers
701-1221-00L	Dynamics of Large-Scale Atmospheric Flow	W	4 credits	2V+1U				
701-1221-00 V	Dynamics of Large-Scale Atmospheric Flow			2 hrs	Wed	09-11	CHN E42	H. Wernli, L. Papritz
701-1221-00 U	Dynamics of Large-Scale Atmospheric Flow			1 hrs	Wed	11-12	CHN E42	H. Wernli, L. Papritz
<b>651-4053-05L</b> 651-4053-05 G	<b>Boundary Layer Meteorology</b> Boundary Layer Meteorology	W	4 credits	<b>3G</b> 3 hrs	Fri	08-10	CAB G51	M. Rotach, P. Calanca
▶▶ Climate	Processes and Feedbacks					12-13	CAB G61	
Number	Title	Туре	ECTS	Hours				Lecturers
701-1235-00L	Cloud Microphysics	W	4 credits	2V+1U				
701 1233 002	Number of participants limited to 16.  Priority is given to PhD students majoring in		4 ordans	2410				
	Atmospheric and Climate Sciences, and remaining open spaces will be offered to the following groups: - PhD student Environmental sciences - MSc in Atmospheric and climate science - MSc in Environmental sciences							
	All participants will be on the waiting list at first. Enrollment is possible until September 22nd, 2021. The waiting list is active until October 1st, 2021. All students will be informed on September 16th, if they can participate in the lecture.  The lecture takes place if a minimum of 5 students register for it.							
701-1235-00 V	Cloud Microphysics			2 hrs	Tue	10-12	CHN G22	U. Lohmann, N. Shardt
701-1235-00 U	Cloud Microphysics			1 hrs	Tue	12-13	CHN G22	U. Lohmann, N. Shardt
701-1251-00L	Land-Climate Dynamics Number of participants limited to 36. Priority is given to the target groups: - Master Environmental Science, - Master Atmospheric and Climate Science and - PhD D-USYS until September 20th,2021. Waiting list will be deleted September 27th,	W	3 credits	2G				
701-1251-00 G	2021. Land-Climate Dynamics			2 hrs	Tue 05.10.	14-16 14-16	CHN E42 HG E19	<b>S. I. Seneviratne</b> , R. Padrón Flasher
▶▶ Atmosr	pheric Composition and Cycles							
Number	Title	Typo	ECTS	Hours				Lecturers
		W	4 credits	2V+1U				Lecturers
	Aerosols I: Physical and Chemical Principles Aerosols I: Physical and Chemical Principle:		4 creaits	2 <b>v+10</b> 2 hrs	Mon	14-16	CAB G52	M. Gysel Beer, D. Bell,
701-1239-00 V	Acrosols I. I Trysical and Offerfical I findiple.	•		21113	WOII	14-10	OAD 032	E. Weingartner
701-1239-00 U	Aerosols I: Physical and Chemical Principles	3		1 hrs	Mon	13-14	CAB G52	M. Gysel Beer, D. Bell, E. Weingartner
701-1233-00L	Stratospheric Chemistry	W	4 credits	2V+1U				
701-1233-00 V	Stratospheric Chemistry			2 hrs	Thu	14-16	CHN F42	T. Peter, G. Chiodo
701-1233-00 U	Stratospheric Chemistry  Exercises start in the second week of the se	mester		1 hrs	Thu	13-14	CHN F42	T. Peter, G. Chiodo
▶▶ Climate	History and Paleoclimatology							
Number	Title	Туре	ECTS	Hours				Lecturers
651-4057-00L	Climate History and Palaeoclimatology	W	3 credits	2G				
	Climate History and Palaeoclimatology			2 hrs	Fri	10-12	ML F39	<b>H. Stoll</b> , I. Hernández Almeida H. Zhang
►► Hydrolo	ogy and Water Cycle							
Number	Title	Туре	ECTS	Hours				Lecturers
701-1251-00L	Land-Climate Dynamics Number of participants limited to 36. Priority is given to the target groups: - Master Environmental Science, - Master Atmospheric and Climate Science and - PhD D-USYS	W	3 credits	2G				

701-1251-00 G	Land-Climate Dynamics			2 hrs	Tue 05.10.	14-16 14-16	CHN E42 HG E19	<b>S. I. Seneviratne</b> , R. Padrón Flasher
701-1253-00L	Analysis of Climate and Weather Data	W	3 credits	2G				
701-1253-00 G	Analysis of Climate and Weather Data Does not take place this semester.			2 hrs				C. Frei
651-4053-05L	Boundary Layer Meteorology	W	4 credits	3G				
651-4053-05 G	Boundary Layer Meteorology			3 hrs	Fri	08-10 12-13	CAB G51 CAB G61	M. Rotach, P. Calanca
102-0468-10L	Watershed Modelling	W	6 credits	4G				
102-0468-10 G	Watershed Modelling Remark: New course replacing 102-0237- HS19) and 102-0468-00 Watershed Mode			4 hrs	Mon Wed	16-18 12-14	HIL E8 HIL E8	P. Molnar

#### **▶** Electives

The students are free to choose individually from the entire course offer of ETH Zürich and the universities of Zürich and Bern.

### **▶▶** Weather Systems and Atmospheric Dynamics

Courses are only offered in Spring Semester.

#### **▶▶** Climate Processes and Feedbacks

Number	Title	Type	ECTS	Hours				Lecturers
701-1221-00L	Dynamics of Large-Scale Atmospheric Flow	W	4 credits	2V+1U				
701-1221-00 V	Dynamics of Large-Scale Atmospheric Flow			2 hrs	Wed	09-11	CHN E42	H. Wernli, L. Papritz
701-1221-00 U	Dynamics of Large-Scale Atmospheric Flow			1 hrs	Wed	11-12	CHN E42	H. Wernli, L. Papritz
651-4057-00L	Climate History and Palaeoclimatology	W	3 credits	2G				
651-4057-00 G	Climate History and Palaeoclimatology			2 hrs	Fri	10-12	ML F39	H. Stoll, I. Hernández Almeida H. Zhang
701-1257-00L	European Climate Change	W	3 credits	2G				
701-1257-00 G	European Climate Change			2 hrs	Mon	10-12	LFO C13	C. Schär, J. Rajczak, S. C. Scherrer
►► Atmosp	heric Composition and Cycles							
Number	Title	Туре	ECTS	Hours				Lecturers
102-0635-01L	Air Pollution Control	W	6 credits	4G				
102-0635-01 G	Luftreinhaltung			4 hrs	Wed Fri	10-12 08-10	HIL E6 HIL E6	J. Wang, B. Buchmann
701-1235-00L	Cloud Microphysics Number of participants limited to 16.	W	4 credits	2V+1U				

Priority is given to PhD students majoring in Atmospheric and Climate Sciences, and remaining open spaces will be offered to the following groups: - PhD student Environmental sciences

- MSc in Atmospheric and climate science MSc in Environmental sciences

All participants will be on the waiting list at first. Enrollment is possible until September 22nd, 2021. The waiting list is active until October 1st, 2021. All students will be informed on September 16th, if they can participate in the lecture. participate in the lecture.

	students register for it.								
701-1235-00 V	Cloud Microphysics			2 hrs	Tue	10-12	CHN G22	U. Lohmann, N. Shardt	
701-1235-00 U	Cloud Microphysics			1 hrs	Tue	12-13	CHN G22	U. Lohmann, N. Shardt	
651-4053-05L	Boundary Layer Meteorology	W	4 credits	3G					
651-4053-05 G	Boundary Layer Meteorology			3 hrs	Fri	08-10	CAB G51 CAB G61	M. Rotach, P. Calanca	

### **▶▶** Climate History and Paleoclimatology

Two courses are offered in Autumn Semester at University of Berne. ETH courses are only offered in Spring Semester.

Number	Title	Type	ECTS	Hours				Lecturers
651-4041-00L	Sedimentology I: Physical Processes and Sedimentary Systems	W	3 credits	2G				
651-4041-00 G	Sedimentology I: Physical Processes and S	Sedimen	tary Systems	28s hrs	Tue/1 Wed/1	14-16 10-12	NO D11 NO D11	V. Picotti
651-4043-00L	Sedimentology II: Biological and Chemical Processes in Lacustrine and Marine Systems Prerequisite: Successful completion of the MSc-course "Sedimentology I" (651-	W	3 credits	2G				

	4041-00L).							
651-4043-00 G	Sedimentology II: Biological and Chemical F Lacustrine and Marine Systems	Process	es in	28s hrs	Tue/2 Wed/2	14-16 10-12	NO D11 NO D11	<b>V. Picotti</b> , A. Gilli, I. Hernández Almeida, H. Stoll
651-4901-00L	Quaternary Dating Methods	W	3 credits	2G				
651-4901-00 G	Quaternary Dating Methods			2 hrs	Tue 12.10.	08-10 08-10	NO E11 HPK D24.2	I. Hajdas, M. Christl, S. Ivy Ochs
▶► Hydrold	ogy and Water Cycle							
Number	Title	Туре	ECTS	Hours				Lecturers
651-4023-00L	Groundwater	W	4 credits	4G				
651-4023-00 G	Groundwater			4 hrs	Mon Thu	16-18 08-10	NO E39 NO C44	XZ. Kong, B. Marti
102-0287-00L	River Basin Erosion	w	3 credits	2G				
102-0287-00 G	River Basin Erosion Remark: Title until HS20: Fluvial Systems.			2 hrs	Thu	14-16	HIL E6	P. Molnar
701-0535-00L	Environmental Soil Physics/Vadose Zone Hydrology	W	3 credits	2V+1U				
701-0535-00 V	Environmental Soil Physics/Vadose Zone H	ydrolog	У	2 hrs	Wed	16-18	CHN E46	<b>A. Carminati</b> , P. U. Lehmann Grunder
701-0535-00 U	Environmental Soil Physics/Vadose Zone H	ydrolog	У	1 hrs	Wed	18-19	CHN E46	A. Carminati, P. U. Lehmann Grunder
651-2915-00L	Seminar in Hydrology	Z	0 credits	18				
651-2915-00 S	Seminar in Hydrology			8s hrs				P. Burlando, J. W. Kirchner, S. Löw, C. Schär, M. Schirmer, S. I. Seneviratne, M. Stähli, C. H. Stamm, University lecturers
860-0012-00L	Cooperation and Conflict Over International Water Resources Number of participants limited to 40. Priority for Science, Technology, and Policy MSc.	, ,	3 credits	2\$				
	This is a research seminar at the Master level. PhD students are also welcome.							
860-0012-00 S	Cooperation and Conflict Over International	Water I	Resources	2 hrs	Tue	12-14	LEE D105	<b>B. Wehrli</b> , T. Bernauer, E. Calamita, T. U. Siegfried

### **▶▶** Prerequisites

The definition of prerequisites is part of the admission procedure for the master studies. You are informed by the admission office as to what courses of the section «prerequisites» you have to catch up with. You are accredited for these courses in the electives block of the master studies.

Number	Title	Type	ECTS	Hours				Lecturers
701-0471-01L	Atmospheric Chemistry	W	3 credits	2G				
701-0471-01 G	Atmosphärenchemie			2 hrs	Wed	08-10	CHN F46	M. Ammann, T. Peter
701-0473-00L	Weather Systems	W	3 credits	2G				
701-0473-00 G	Wettersysteme			2 hrs	Wed	14-16	CHN E46	<b>M. A. Sprenger</b> , F. Scholder Aemisegger
701-0475-00L	Atmospheric Physics	W	3 credits	2G				
701-0475-00 G	Atmosphärenphysik Im Anschluss an die LV findet ein freiwillige Tutorial im gleichen Raum (CHN F46) statt.	es, einst	ündiges	2 hrs	Wed	10-12	CHN F46	U. Lohmann
701-0461-00L	Numerical Methods in Environmental Sciences	W	3 credits	2G				
701-0461-00 G	Numerische Methoden in der Umweltphysik			2 hrs	Thu	08-10	CHN E46	C. Schär
►► Additio	nal Electives ETH							
Number	Title	Туре	ECTS	Hours				Lecturers
651-4273-00L	Numerical Modelling in Fortran	W	3 credits	2V				
651-4273-00 V	Numerical Modelling in Fortran			2 hrs	Mon	16-18	NO C6	P. Tackley
701-1257-00L	European Climate Change	W	3 credits	2G				
701-1257-00 G	European Climate Change			2 hrs	Mon	10-12	LFO C13	C. Schär, J. Rajczak, S. C. Scherrer
701-1281-00L	Self-Learning Course on Advanced Topics in Atmospheric and Climate Science (HS)  Please contact one of the professors listed under prerequisites/notice if you plan to take this course.	W	3 credits	6A				
701-1281-00 A	Students are allowed to enroll in both courses 701-1280-00L & 701-1281-00L Self-learning Course on Advanced Topics in Atmospheric and Climate Science but have to choose different supervisors.  Self-Learning Course on Advanced Topics i Climate Science	n Atmos	spheric and	90s hrs	by app	ıt.		Supervisors

### **▶** Minors

## ▶▶ Minor in Physical Glaciology

Number	Title	Туре	ECTS	Hours				Lecturers
<b>101-0289-00L</b> 101-0289-00 G	Applied Glaciology Applied Glaciology	W	4 credits	<b>2G</b> 2 hrs	Wed	08-10	HIL E8	<b>D. Farinotti</b> , A. Bauder, M. Werder
551-4101-00L	Physics of Glaciers	w	3 credits	3G				W. Worder
	Physics of Glaciers		0 0.04.10	3 hrs	Mon	12-15	ML E12	<b>M. Lüthi</b> , F. T. Walter, M. Werder
551-4077-00L	Quantification and Modeling of the Cryosphere: Dynamic Processes (University of Zurich) No enrolment to this course at ETH Zurich. Book the corresponding module directly at UZH as an incoming student. UZH Module Code: GEO815	W	3 credits	1V				
	Mind the enrolment deadlines at UZH: https://www.uzh.ch/cmsssl/en/studies/appli cation/deadlines.html							
651-4077-00 V		ere: Dyr	namic	1 hrs				University lecturers
<b>651-1581-00L</b> 651-1581-00 S	Seminar in Glaciology Seminar in Glaciology Format and topics will be introduced in the september 2021. Attendence is required.	<b>W</b> first sess	3 credits	<b>2S</b> 2 hrs	Wed	16-18	HPK D3	A. Bauder
►► Minor ir	n Biogeochemistry							
Number	Title	Туре	ECTS	Hours				Lecturers
701-1313-00L	Isotopes and Biomarkers in Biogeochemistry	W	3 credits	2G				
'01-1313-00 G	Isotopes and Biomarkers in Biogeochemistr	У		2 hrs	Tue	14-16	CHN F42	C. Schubert, R. Kipfer
<b>701-1315-00L</b> 701-1315-00 G	Biogeochemistry of Trace Elements Biogeochemistry of Trace Elements	W	3 credits	<b>2G</b> 2 hrs	Tue	10-12	LFV E41	<b>A. Voegelin</b> , S. Bouchet, L. Winkel
	Water Resources and Drinking Water	W	3 credits	2G				
'01-1341-00 G	Water Resources and Drinking Water Online event: Will primarily take place online remain blocked on campus for students to fathere.			2 hrs	Fri	08-10	CAB G11	S. Hug, M. Berg, F. Hamme U. von Gunten
701-1346-00L	Carbon Mitigation Number of participants limited to 90. Priority is given to the target groups: Bachelor and Master Environmental Sciences and PHD Environmental Sciences until September 21st,2021. Waiting list will be deleted October 1st, 2021.	W	3 credits	2G				
701-1346-00 G	Carbon Mitigation			2 hrs	Mon	10-12	CHN C14	N. Gruber
►► Minor ir	n Global Change and Sustainab	ility						
Number	Title	Туре	ECTS	Hours				Lecturers
701-0015-00L	Transdisciplinary Research: Challenges of Interdisciplinarity and Stakeholder Engagement Number of participants limited to 20. Priority is given to PhD students D-USYS.  All participants will be on the waiting list at first. Enrollment is possible until 15	W	2 credits	28				
	September 2021. The waiting list is active until 17 September. All students will be informed on 19 September, if they can participate in the lecture.  The lecture takes place if a minimum of 12 students register for it.							
'01-0015-00 S	Transdisciplinary Research: Challenges of I Stakeholder Engagement Irregular course	nterdisc	iplinarity and	2 hrs	Wed/2	w 08-12	CHN K77	<ul><li>M. Stauffacher, C. E. Pohl,</li><li>B. Vienni Baptista</li></ul>
701-1551-00L	Sustainability Assessment	W	3 credits	2G				
	Number of participants limited to 35.							

	2021.							
701-1551-00 G	Sustainability Assessment			2 hrs	Fri	10-12	CHN G42	P. Krütli, D. Nef
860-0012-00L	Cooperation and Conflict Over International Water Resources Number of participants limited to 40. Priority for Science, Technology, and Policy MSc.	<b>w</b>	3 credits	2\$				
	This is a research seminar at the Master level. PhD students are also welcome.							
860-0012-00 S	Cooperation and Conflict Over International	Water I	Resources	2 hrs	Tue	12-14	LEE D105	<b>B. Wehrli</b> , T. Bernauer, E. Calamita, T. U. Siegfried
►► Minor iı	n Sustainable Energy Use							
Number	Title	Туре	ECTS	Hours				Lecturers
227-0731-00L	Power Market I - Portfolio and Risk Management	W	6 credits	4G				
227-0731-00 G	Power Market I - Portfolio and Risk Manage	ment		4 hrs	Tue	08-12	HG D7.1	D. Reichelt, G. A. Koeppel
<b>151-0209-00L</b> 151-0209-00 G	Renewable Energy Technologies Renewable Energy Technologies Online event: Will primarily take place online remain blocked on campus for students to fe there.				Tue	14-17	HG G5	A. Steinfeld, E. I. M. Casati
<b>052-0609-00L</b> 052-0609-00 G	Energy- and Climate Systems I Energie- und Klimasysteme I Keine Lehrveranstaltung am 29.10. (Semina 17/24.12. (vor Schlussabgaben).	<b>W</b> arwoche	2 credits e) sowie am	<b>2G</b> 2 hrs	Fri	10-12	HIL E3	A. Schlüter
► Seminars	s and Colloquia							
Number	Title	Туре	ECTS	Hours				Lecturers
<b>651-4095-01L</b> 651-4095-00 K	Colloquium Atmosphere and Climate 1 Colloquium Atmosphere and Climate Contact person: Dr. Hanna Joos (IAC) hann	<b>O</b> na.joos@	<b>1 credit</b> Denv.ethz.ch	1 <b>K</b> 1 hrs	Mon	16-18	CAB G11	H. Joos, H. Wernli, D. N. Bresch, D. Domeisen, N. Gruber, R. Knutti, U. Lohmann, T. Peter, C. Schär, S. Schemm,
<b>651-4095-02L</b> 651-4095-00 K	Colloquium Atmosphere and Climate 2 Colloquium Atmosphere and Climate Contact person: Dr. Hanna Joos (IAC) hann	<b>O</b> na.joos (	1 credit	<b>1K</b> 1 hrs	Mon	16-18	CAB G11	S. I. Seneviratne, M. Wild  H. Joos, H. Wernli, D. N. Bresch, D. Domeisen, N. Gruber, R. Knutti, U. Lohmann, T. Peter, C. Schär, S. Schemm, S. I. Seneviratne, M. Wild
<b>651-4095-03L</b> 651-4095-00 K	Colloquium Atmosphere and Climate 3 Colloquium Atmosphere and Climate Contact person: Dr. Hanna Joos (IAC) hann	<b>O</b> na.joos @	1 credit Denv.ethz.ch	1K 1 hrs	Mon	16-18	CAB G11	H. Joos, H. Wernli, D. N. Bresch, D. Domeisen, N. Gruber, R. Knutti, U. Lohmann, T. Peter, C. Schär, S. Schemm, S. I. Seneviratne, M. Wild
701-1211-01L	Master's Seminar: Atmosphere and Climate 1 Target groups only: Master Environmental Science Master Atmospheric and Climate Science	0	3 credits	28				
701-1211-01 S	Master's Seminar: Atmosphere and Climate Permission from lecturers required for all sta			2 hrs	Mon	08-10	ML F40	<b>H. Joos</b> , R. Knutti, A. Merrifield Könz, M. A. Wües
701-1211-02L	Master's Seminar: Atmosphere and Climate 2 Target groups only: Master Environmental Science Master Atmospheric and Climate Science	0	3 credits	28				
701-1211-01 S	Master's Seminar: Atmosphere and Climate Permission from lecturers required for all stu			2 hrs	Mon	08-10	ML F40	<b>H. Joos</b> , R. Knutti, A. Merrifield Könz, M. A. Wües
<b>701-1213-00L</b> 701-1213-00 G	Introduction Course to Master Studies Atmosphere and Climate Introduction Course to Master Studies Atmo			<b>2G</b> 30s hrs	16.09.	08-17	CHN C14	H. Joos, T. Peter
	3 day block course in the week before seme September 2021.  More information at http://www.iac.ethz.ch/edu/courses/master/courses/introduction-course.html.	ester, fro	om 15-17		17.09.		CHN C14	5555, 666
	. =:							

### ► Laboratory and Field Courses

### ► Master's Thesis

Number	Title	Гуре	ECTS	Hours	Lecturers
551-4275-00L	Master's Thesis Only students who fulfill the following criteria are allowed to begin with their master thesis: a. successful completion of the bachelor programme; b. fulfilling of any additional requirements necessary to gain admission to the master programme.	)	30 credits	64D	
	The master thesis is supervised by a professor of the D-ERDW or of the Institute for Atmosphere and Climate (IAC, D-USYS), a professor who teaches in the module subjects or a senior scientist who is on the list of "competent leaders of master theses" of the D-ERDW or of the D-USYS (associated with the IAC). http://www.iac.ethz.ch/edu/master/master-thesis.html				
651-4275-00 D	Master's Thesis Atmospheric and Climate Science	ence <b>•</b>		900s hrs by appt.	Lecturers

### **▶** Course Units for Additional Admission Requirements

Number	Title	Type	ECTS	Hours	Lecturers
701-0412-AAL	Climate Systems Enrolment ONLY for MSc students with a decree declaring this course unit as an additional admission requirement.	E-	3 credits	6R	
	Any other students (e.g. incoming exchange students, doctoral students) CANNOT enrol for this course unit.				
701-0412-AA R	Climate Systems Self-study course. No presence required. Please contact Prof. Sonia Seneviratne for	further i	nformation.	90s hrs	S. I. Seneviratne
701-0471-AAL	Atmospheric Chemistry Enrolment ONLY for MSc students with a decree declaring this course unit as an additional admission requirement.	E-	3 credits	6R	
	Any other students (e.g. incoming exchange students, doctoral students) CANNOT enrol for this course unit.				
701-0471-AA R	Atmospheric Chemistry Self-study course. No presence required. Please contact Prof. Markus Ammann or Pa further information.	rof. Thor	mas Peter for	90s hrs	M. Ammann, T. Peter
701-0475-AAL	Atmospheric Physics Enrolment ONLY for MSc students with a decree declaring this course unit as an additional admission requirement.	E-	3 credits	6R	
	Any other students (e.g. incoming exchange students, doctoral students) CANNOT enrol for this course unit.				
701-0475-AA R	Atmospheric Physics Self-study course. No presence required. Please contact Prof. Ulrike Lohmann for ful	rther info	ormation.	90s hrs	U. Lohmann
701-0473-AAL	Weather Systems Enrolment ONLY for MSc students with a decree declaring this course unit as an additional admission requirement.	E-	3 credits	6R	
	Any other students (e.g. incoming exchange students, doctoral students) CANNOT enrol for this course unit.				
701-0473-AA R	Weather Systems Self-study course. No presence required. Please contact Dr. Michael Sprenger for full	rther info	ormation.	90s hrs	<b>M. A. Sprenger</b> , F. Scholder- Aemisegger
701-0461-AAL	Numerical Methods in Environmental Sciences Enrolment ONLY for MSc students with a decree declaring this course unit as an additional admission requirement.	E-	3 credits	6R	
	Any other students (e.g. incoming exchange students, doctoral students) CANNOT enrol for this course unit.				

701-0461-AA R Numerical Methods in Environmental Sciences Self-study course. Limited presence required. Please contact Prof. Christoph Schär for further information. 90s hrs

C. Schär

701-0106-AAL Mathematics V: Applied Deepening of Mathematics I - III 3 credits 6R

Enrolment ONLY for MSc students with a decree declaring this course unit as an additional admission requirement.

Any other students (e.g. incoming exchange students, doctoral students) CANNOT enrol for this course unit.

701-0106-AA R Mathematics V: Applied Deepening of Mathematics I - III Self-study course. No presence required. Please contact Dr. Michael Sprenger for further information.

90s hrs

9R

M. A. Sprenger

701-0071-AAL Mathematics III: Systems Analysis

Enrolment ONLY for MSc students with a decree declaring this course unit as an additional admission requirement.

Any other students (e.g. incoming exchange students, doctoral students) CANNOT enrol for this course unit.

701-0071-AA R Mathematics III: Systems Analysis Self-study course. No presence required.

Please contact Prof. Reto Knuntti for further information.

120s hrs

R. Knutti, H. Wernli

Atmospheric	c and Climate Science Master - Key for Type		
Z	Courses outside the curriculum	W	Eligible for credits
Dr	Suitable for doctorate	0	Compulsory
W+	Eligible for credits and recommended	E-	Recommended, not eligible for credits

4 credits

<b>Key for Hou</b>	rs		
V	lecture	Р	practical/laboratory course
G	lecture with exercise	Α	independent project
U	exercise	D	diploma thesis
S	seminar	R	revision course / private study
K	colloquium		

**ECTS** European Credit Transfer and Accumulation System

## **Educational Science for Teaching Diploma and TC**

These are the general course offerings of the programmes Teaching Diploma (TD) - categories Educational Science and Compulsory Elective Courses - and Teaching Certificate (TC) - category Educational Science.

### ► Educational Science Teaching Certificate

Number	Title	Туре		Hours				Lecturers
851-0240-00L	Human Learning (EW1) This lecture is only apt for students who intend to enrol in the programs "Teaching Diploma" or "Teaching Certificate". It is about learning in childhood and adolescence.	0	2 credits	2V				
851-0240-00 V	Menschliches Lernen (EW1)			2 hrs	Tue	18-20	HG F1	E. Stern
851-0240-22L	Coping with Psychosocial Demands of Teaching (EW4 DZ) Number of participants limited to 20.  The successful participation in EW1 ("Human Learning") and EW2 ("Designing Learning Environments for School") is recommended, but not a mandatory	W	2 credits	3S				
851-0240-22 S	prerequisite.  Bewältigung psychosozialer Anforderungen DZ) ■	ı im Lehı	beruf (EW4	3 hrs	Tue	09-12	HG E33.1 HG F26.5 HG G26.1	<b>U. Markwalder</b> , S. Maurer, S. Peteranderl
851-0242-06L	Cognitively Activating Instructions in MINT Subjects Enrolment only possible with matriculation in Teaching Diploma or Teaching Certificate (excluding Teaching Diploma Sport).  This course unit can only be enrolled after successful participation in, or during enrollment in the course "Human Learning"	W	2 credits	28			110 020.1	
851-0242-06 S	(EW 1)".	e reibung g und pe	gslose ersönliches	2 hrs	Wed	18-20	ML H41.1	R. Schumacher
851-0242-07L	Human Intelligence Enrolment only possible with matriculation in Teaching Diploma or Teaching Certificate (excluding Teaching Diploma Sport). Number of participants limited to 30. This course unit can only be enrolled after successful participation in, or during enrollment in the course "Human Learning (EW 1)".	W	1 credit	1\$				
851-0242-07 S	Menschliche Intelligenz Unregelmässige Lehrveranstaltung. An zwei Terminen findet die Lehrveranstalt TeilnehmerInnen statt und an den übrigen einem Teil der Studierenden (Kleingruppen gemeinsam vereinbart.	Termine	n nur mit	14s hrs	Wed	16-18	ML F40	E. Stern
851-0242-08L	Research Methods in Educational Science Number of participants limited to 30 This course unit can only be enrolled after successful participation in, or during enrollment in the course "Human Learning (EW 1)".	W	1 credit	2\$				
851-0242-08 S	Forschungsmethoden der empirischen Bild Unregelmässige Lehrveranstaltung.  Zwei obligatorische Präsenztermine: 29.09. An den übrigen Terminen nur mit einem Te	und 17.	.11.	21s hrs	Wed	12-15	LFW C1	P. Edelsbrunner, T. Braas, C. M. Thurn
851-0242-11L	(jeweils mit 1-2 Kleingruppen).  Gender Issues In Education and STEM Number of participants limited to 30.  Enrolment only possible with matriculation in Teaching Diploma or Teaching Certificate (excluding Teaching Diploma Sport).  Prerequisite: students should be taking the course 851-0240-00L Human Learning (EW1) in parallel, or to have successfully completed it.	W	2 credits	28				
851-0242-11 S	Gender Issues In Education and STEM			2 hrs	Thu	10-12	LEE C114	<b>M. Berkowitz Biran</b> , T. Braas C. M. Thurn

Number	Title	Type	ECTS	Hours				Lecturers
351-0240-00L	Human Learning (EW1) This lecture is only apt for students who intend to enrol in the programs "Teaching Diploma" or "Teaching Certificate". It is about learning in childhood and adolescence.	0	2 credits	2V				
351-0240-00 V	Menschliches Lernen (EW1)			2 hrs	Tue	18-20	HG F1	E. Stern
851-0238-01L	Support and Diagnosis of Knowledge Acquisition Processes (EW3)  Enrolment only possible with matriculation in Teaching Diploma (except for students of Sport Teaching Diploma, who complete the sport-specific course unit EW3) and for students who intend to enrol in the "Teaching Diploma".		3 credits	3S				
	Prerequisites: successful participation in 851-0240-00L "Human Learning (EW1)".							
851-0238-01 S	Unterstützung und Diagnose von Wissense (EW3) ■ Bei grosser Anzahl an Teilnehmenden wir din zwei Gruppen stattfinden.	·		3 hrs	Tue	14-17	CHN D42 CHN D44	<b>P. Edelsbrunner</b> , J. Maue, C. M. Thurn
351-0242-01L	Coping with Psychosocial Demands of	0	3 credits	3S				
	Teaching (EW4) Enrolment possible with Teaching Diploma matriculation, except for students of Sport Teaching Diploma, who complete the sport specific course unit EW4.							
851-0242-01 S	Bewältigung psychosozialer Anforderungen Für eine reibungslose Semesterplanung wir Anmeldung und persönliches Erscheinen zu Lehrveranstaltungstermin ersucht.	rd um fri	ühe	3 hrs	Tue	09-12	HG E33.1 HG F26.5 HG G26.1	U. Markwalder, S. Maurer, S. Peteranderl
851-0240-15L	Designing Educational Environments in Physical Education (EW2 Sport) Compulsory course requirements for EW2 Sport: This course is required to be taken prior to EW4 Sport "Outdoor Education: Concepts and Practice" (851-0242-02L)	0	4 credits	2\$				
851-0240-15 S	Die Gestaltung schulischer Lernumgebunge Sport) ■ Unregelmässige Veranstaltung. Outdoor-Weekend: 2./3.10.2021 Das-Outdoor-Weekend muss vollumfänglic. max. 1 Absenz bei den übrigen Terminen	·	`	28s hrs	Tue	18-20	LEE D101	H. Gubelmann, R. Scharpi
351-0240-19L	Effective Learning Environments (EW 5) The successful completion of ALL modules relevant for the teacher's diploma is required for participation in this course.	W	1 credit					
851-0240-19 U	Lernwirksam unterrichten (EW 5) ■ Termin nach Vereinbarung Ort: RZ H 24			1s hrs				E. Stern
851-0242-07L	Human Intelligence Enrolment only possible with matriculation in Teaching Diploma or Teaching Certificate (excluding Teaching Diploma Sport). Number of participants limited to 30. This course unit can only be enrolled after successful participation in, or during enrollment in the course "Human Learning (EW 1)".	W	1 credit	15				
851-0242-07 S	Menschliche Intelligenz Unregelmässige Lehrveranstaltung. An zwei Terminen findet die Lehrveranstalt TeilnehmerInnen statt und an den übrigen i einem Teil der Studierenden (Kleingruppen gemeinsam vereinbart.	Termine	n nur mit	14s hrs	Wed	16-18	ML F40	E. Stern
351-0242-06L	Cognitively Activating Instructions in MINT Subjects Enrolment only possible with matriculation in Teaching Diploma or Teaching Certificate (excluding Teaching Diploma Sport).  This course unit can only be enrolled after successful participation in, or during enrollment in the course "Human Learning (EW 1)".	W	2 credits	2S				

851-0242-06 S	Kognitiv aktivierender Unterricht in den MIN Unregelmässige Lehrveranstaltung; für eine Semesterplanung wird um frühe Anmeldung Erscheinen zum ersten Lehrveranstaltungst	e reibung g und pe	gslose ersönliches	2 hrs	Wed	18-20	ML H41.1	R. Schumacher
851-0229-00L	Using Outdoor Education	W	1 credit	1S				
	Number of participants limited to 40.  Enrolment only possible with matriculation in Teaching Diploma Biology and							
351-0229-00 S	Geography.  Ausserschulische Lernorte nutzen ■  Das erste Treffen findet in der 1. Semesterv folgen.	voche s	tatt. Details	15s hrs				R. Schumacher, P. Faller
851-0242-08L	Research Methods in Educational Science	w	1 credit	2S				
	Number of participants limited to 30 This course unit can only be enrolled after successful participation in, or during enrollment in the course "Human Learning (EW 1)".							
851-0242-08 S	Forschungsmethoden der empirischen Bildt Unregelmässige Lehrveranstaltung.	ungsfors	schung	21s hrs	Wed	12-15	LFW C1	<b>P. Edelsbrunner</b> , T. Braas, C. M. Thurn
	Zwei obligatorische Präsenztermine: 29.09. An den übrigen Terminen nur mit einem Tei (jeweils mit 1-2 Kleingruppen).							
851-0242-11L	<b>Gender Issues In Education and STEM</b> <i>Number of participants limited to 30.</i>	W	2 credits	2S				
	Enrolment only possible with matriculation in Teaching Diploma or Teaching Certificate (excluding Teaching Diploma Sport).							
	Prerequisite: students should be taking the course 851-0240-00L Human Learning (EW1) in parallel, or to have successfully completed it.							
851-0242-11 S	Gender Issues In Education and STEM ■			2 hrs	Thu	10-12	LEE C114	<b>M. Berkowitz Biran</b> , T. Braas C. M. Thurn
351-0240-27L	Supervising and Assessing Matura Theses	W	1 credit	1V				
	Number of participants limited to 20.							
	Prerequisites: successful participation in 851-0240-00L "Human Learning (EW1)".							
851-0240-27 V	Betreuung und Bewertung von Maturaarbeit Teilnahme am ersten Termin sowie an zwer (abhängig vom Unterrichtsfach) obligatorisch	i Gastvo	rträgen	1 hrs	Wed/2v 29.09.		IFW D42 IFW D42	J. Maue
851-0228-00L	Formation of Knowledge in STEM Fields in Primary and Secondary School Enrolment only possible with matriculation in Teaching Diploma (excluding Teaching Diploma Sport). This course unit can only be enroled after successful participation in the course 851-0240-00L "Human Learning (EW 1)", and only after successful participation in, or imultaneous enrolment in the course 851-0242-01L Coping with Psychosocial Demands of Teaching (EW4).	w	2 credits	2\$				
851-0228-00 S	Die Bildung von Wissen in MINT Fächern au Sekundarstufe ■	uf der P	rimar- und	2 hrs	17.09. 18.09.		HG G26.1 HG G26.1	U. Markwalder
► Compuls	ory Elective Courses Teaching	Diplo	ma					
Number	Title	Туре	ECTS	Hours				Lecturers
351-0237-01L	Vocational Schools as Sites of Teaching and Learning I: Teaching Structure (University of Zürich) Enrolment only possible with Teaching Diploma matriculation.	W	3 credits	2\$				
	No enrolment to this course at ETH Zurich. Book the corresponding module directly at UZH as an incoming student. UZH Module Code: 090LLB1 (ATTENTION. Students of Sport Teaching Diploma enroll in course 090LLB1S)	<i>:</i>						

Mind the enrolment deadlines at UZH: https://www.uzh.ch/cmsssl/en/studies/appli cation/deadlines.html ("Registering for studies at more than one university, Teaching Diplom", Philosophische Fakultät) 851-0237-01 S Lehr- und Lernort Berufsfachschule, Teil 1: Unterrichtsgestaltung 2 hrs Thu 08-10 UNI 7H University lecturers (Universität Zürich) \*\*Kurs an der Universität Zürich\*\* 851-0237-02L Vocational Schools as Sites of Teaching W 3 credits 28 and Learning II: Providing Encouragement & Support (UZH)
Enrolment only possible with Teaching Diploma matriculation. No enrolment to this course at ETH Zurich. Book the corresponding module directly at UZH as an incoming student. UZH Module Code: 090LLB2 Simultaneous enrolment in course "Lehrund Lernort Berufsfachschule I: Unterrichtsgestaltung" (UZH Module Code: 090LLB1) is compulsory. Mind the enrolment deadlines at UZH: https://www.uzh.ch/cmsssl/en/studies/appli cation/deadlines.html ("Registering for studies at more than one university, Teaching Diploma", Philosophische Fakultät) 851-0237-02 S Lehr- und Lernort Berufsfachschule, Teil 2: Förderung und UNI ZH. 2 hrs Thu 10-12 University lecturers Unterstützung von Lernenden (UZH) \*\*Kurs an der Universität Zürich\* Cognitively Activating Instructions in 851-0242-06L 2 credits 25 MINT Subjects Enrolment only possible with matriculation in Teaching Diploma or Teaching Certificate (excluding Teaching Diploma Sport). This course unit can only be enrolled after successful participation in, or during enrollment in the course "Human Learning (EW 1)". 851-0242-06 S Kognitiv aktivierender Unterricht in den MINT-Fächern ■ 2 hrs Wed 18-20 MI H41.1 R. Schumacher Unregelmässige Lehrveranstaltung; für eine reibungslose Semesterplanung wird um frühe Anmeldung und persönliches Erscheinen zum ersten Lehrveranstaltungstermin ersucht. 851-0229-00L **Using Outdoor Education** 1 credit 18 Number of participants limited to 40. Enrolment only possible with matriculation in Teaching Diploma Biology and Geography. 851-0229-00 S Ausserschulische Lernorte nutzen ■ R. Schumacher, P. Faller 15s hrs Das erste Treffen findet in der 1. Semesterwoche statt. Details folgen. 851-0242-07L **Human Intelligence** w 1 credit 18 Enrolment only possible with matriculation in Teaching Diploma or Teaching Certificate (excluding Teaching Diploma Sport). Number of participants limited to 30. This course unit can only be enrolled after successful participation in, or during enrollment in the course "Human Learning (EW 1)". 851-0242-07 S Menschliche Intelligenz 14s hrs Wed 16-18 ML F40 E. Stern Unregelmässige Lehrveranstaltung. An zwei Terminen findet die Lehrveranstaltung mit allen TeilnehmerInnen statt und an den übrigen Terminen nur mit einem Teil der Studierenden (Kleingruppen). Termine werden gemeinsam vereinbart. 851-0242-08L **Research Methods in Educational** w 1 credit 25 Science Number of participants limited to 30 This course unit can only be enrolled after successful participation in, or during enrollment in the course "Human Learning

(EW 1)".

851-02/2-08 S	Forschungsmethoden der empirischen Bildu	ıngefore	chung	21s hrs	Wed	12-15	LFW C1	P. Edelsbrunner, T. Braas,
031-02-2-00 0	Unregelmässige Lehrveranstaltung.	ingalora	citatig	2131113	Wed	12-10	LIWOI	C. M. Thurn
	Zwei obligatorische Präsenztermine: 29.09. An den übrigen Terminen nur mit einem Teil (jeweils mit 1-2 Kleingruppen).							
851-0242-11L	<b>Gender Issues In Education and STEM</b> Number of participants limited to 30.	W	2 credits	2\$				
	Enrolment only possible with matriculation in Teaching Diploma or Teaching Certificate (excluding Teaching Diploma Sport).							
	Prerequisite: students should be taking the course 851-0240-00L Human Learning (EW1) in parallel, or to have successfully completed it.							
851-0242-11 S	Gender Issues In Education and STEM ■			2 hrs	Thu	10-12	LEE C114	M. Berkowitz Biran, T. Braas, C. M. Thurn
851-0240-27L	Supervising and Assessing Matura Theses Number of participants limited to 20.	W	1 credit	1V				
	Prerequisites: successful participation in 851-0240-00L "Human Learning (EW1)".							
851-0240-27 V	Betreuung und Bewertung von Maturaarbeit Teilnahme am ersten Termin sowie an zwei (abhängig vom Unterrichtsfach) obligatorisci	Gastvo	rträgen	1 hrs	Wed/2w 29.09.		IFW D42 IFW D42	J. Maue
851-0252-12L	The Science of Learning From Failure Number of participants limited to 60.	W	2 credits	28				
851-0252-12 S	The Science of Learning From Failure Groups are selected in myStudies. This seminar is an interactive course, thus a classroom participation are required, especial sessions are essential.			2 hrs	Mon	16-18	HG D3.3 HG E33.3	M. Kapur, E. Ziegler
	The course is held as 2 separate courses we of 30 students: one course in German and o							
Educational S	Science for Teaching Diploma and TC - k	(ey for	Туре					
0	Compulsory			E-	Re	commen	ded, not eligible	e for credits
	Eligible for credits and recommended			Z			tside the curricu	
W	Eligible for credits			Dr	Su	itable for	doctorate	
Key for Hours	S							
V	lecture			Р	pra	actical/lab	oratory course	
	lecture with exercise			Α	•	dependen	•	
	exercise			D		oloma the		
			1					
S	seminar			R	rev	ision coυ	ırse / private stu	ıdy

### ECTS

European Credit Transfer and Accumulation System
Special students and auditors need special permission from the lecturers.

# **Civil Engineering (General Courses)**

### ► Generally Accessible Seminars and Colloquia

Number	Title	Type	ECTS	Hours				Lecturers
101-1187-00L	Colloquium in Structural Engineering	E-	0 credits	1K				
101-1187-00 K	Kolloquium Baustatik und Konstruktion Programm nach Ankündigung.			8s hrs	26.10. 16.11. 30.11. 07.12.	17-19 17-19 17-19 17-19	HIL E3 HIL E3 HIL E3 HIL E3	W. Kaufmann, E. Chatzi, A. Frangi, B. Stojadinovic, B. Sudret, A. Taras, M. Vassiliou
101-1387-00L	Colloquia in Geotechnics	E-	0 credits	1K				
101-1387-00 K	Kolloquien in Geotechnik Die Veranstaltungen finden bis 4 mal pro S Vorankündigung statt. Da die Dozierenden aus dem In- und Ausl			12s hrs				A. Puzrin, G. Anagnostou I. Anastasopoulos
	Sprache Deutsch oder Englisch.	and Konn	men, ist die					
•	Sprache Deutsch oder Englisch. ring (General Courses) - Key for Type	and Komi	nen, ist die					
0	Sprache Deutsch oder Englisch.  ring (General Courses) - Key for Type Compulsory	and Komi	lien, ist die	E-				ole for credits
O W+	Sprache Deutsch oder Englisch.  ring (General Courses) - Key for Type Compulsory Eligible for credits and recommended	and Komi	Theri, ist tile	Z	Co	ourses ou	tside the curri	
O W+	Sprache Deutsch oder Englisch.  ring (General Courses) - Key for Type Compulsory	and Komi	lien, ist die		Co	ourses ou		
O W+	ring (General Courses) - Key for Type Compulsory Eligible for credits and recommended Eligible for credits	and Komi	lien, ist die	Z	Co	ourses ou	tside the curri	
O W+ W	ring (General Courses) - Key for Type Compulsory Eligible for credits and recommended Eligible for credits	and Komi	lien, ist die	Z	Co Su	ourses ou uitable for	tside the curri	iculum
O W+ W <b>Key for Hours</b>	Sprache Deutsch oder Englisch.  ring (General Courses) - Key for Type Compulsory Eligible for credits and recommended Eligible for credits	and Konn	lien, ist die	Z Dr	Co Su pro	ourses ou uitable for	tside the curri	iculum
O W+ W <b>Key for Hours</b> V G	Sprache Deutsch oder Englisch.  ring (General Courses) - Key for Type Compulsory Eligible for credits and recommended Eligible for credits	aria Korin	lien, ist the	Z Dr	pra ind	ourses ou uitable for actical/lab	doctorate  poratory cours t project	iculum
O W+ W <b>Key for Hours</b> V G	Sprache Deutsch oder Englisch.  ring (General Courses) - Key for Type Compulsory Eligible for credits and recommended Eligible for credits	aria Korin	lien, ist tile	Z Dr	pro inc	ourses ou uitable for actical/lab dependen oloma the	doctorate  poratory cours t project	ee

# **Civil Engineering Bachelor**

## ► First Year Compulsory Courses

#### **▶▶** First Year Examinations

In place of the German course 851-0703-03L Private Construction Law students can take the French course 851-0709-00L Introduction to Civil Law.

Number	Title	Type	ECTS	Hours				Lecturers
401-0241-00L	Analysis I	0	7 credits	5V+2U				
401-0241-00 V	Analysis I			5 hrs	Mon Wed	08-10 08-10	ETF C1 HPH G2	M. Akveld
401-0241-00 U	Analysis I Groups are selected in myStudies. Do 10-12 (ausser für Studiengang Umweltingenieurwissenschaften) oder Do 1- gemäss Gruppeneinteilung (Übungen 252-0			2 hrs	Thu/2w Thu	10-12 14-16	ETF C1 CHN D48 LFW E13 ML J34.3 CHN D48 LFW C1	M. Akveld
	entsprechend umgekehrt Do 10-12 oder Do 18). Zusätzlich wird ab der zweiten Semesterwoo gemeinsam für die Analysis I- und die Lineal angeboten. Das StudyCenter findet montags mittwochs von 16-18 Uhr statt. Infos zu den auf der Moodle-Seite der Vorlesung.	che ein re Algei s von 18	StudyCenter bra-Vorlesung 3-20 Uhr sowie			16-18	LFW E13 ML F40 ML H41.1 LFW C1 ML H41.1	
104 0444 001			F	01/-411				
<b>401-0141-00L</b> 401-0141-00 V	Lineare Algebra Lineare Algebra	0	5 credits	<b>3V+1U</b> 3 hrs	Wed Thu/2w	10-12 08-10	HPH G2 ETF C1	M. Akka Ginosar
401-0141-00 U	Lineare Algebra Groups are selected in myStudies. Übungen Do 12-13 oder Do 13-14 gemäss C Zusätzlich wird ab der zweiten Semesterwoc gemeinsam für die Analysis I- und die Lineal angeboten. Das StudyCenter findet montags mittwochs von 16-18 Uhr statt. Infos zu den auf der Moodle-Seite der Vorlesung.	che ein re Algei s von 18	StudyCenter bra-Vorlesung 3-20 Uhr sowie		Thu	12-13	CHN D42 CHN D48 HG E33.3 LFW C1 LFW E13 CHN D42 CHN D48 HG E33.3 LFW C1 LFW E13	M. Akka Ginosar
252-0845-00L	Computer Science I	0	5 credits	2V+2U				
252-0845-00 V	Informatik I			2 hrs	Mon	12-14	HG F1	C. Cotrini Jimenez, R. Sasse
252-0845-00 U	Informatik I Groups are selected in myStudies.			2 hrs	Thu	14-16	ETZ J91 HG E33.1 IFW C33 LFW C5 ON LINE CHN D46 ETZ G91 ETZ J91 HG E33.1 ON LINE	C. Cotrini Jimenez, R. Sasse
151-0501-00L	Mechanics 1: Kinematics and Statics	0	5 credits	3V+2U				
151-0501-00 V	Mechanik 1: Kinematik und Statik Vorlesung: Mo ETA F 5 mit Videoübertragung ins ETF B	≣ 1 und	HG E 5.	3 hrs	Mon	10-12	ETA F5 ETF E1 HG E5	E. Mazza
	Di ETA F 5 mit Videoübertragung ins ETF E In der ersten Semesterwoche fällt das Kolloo	1 und	HG E 3		Tue	14-15	ETA F5 ETF E1 HG E3	
	durch eine Doppelstunde Vorlesung Di 14-1				21.09.	14-16	ETA F5 ETF E1 HG E3	
151-0501-00 U	Mechanik 1: Kinematik und Statik Groups are selected in myStudies. Die Übungen finden ab der 2. Semesterwoch Mi 14-16 für Bauingenieurwissenschaften Do 08-10 für Maschineningenieurwissenscha			2 hrs	Wed	14-16	CHN E42 HG D5.1 HG G26.5 LFW E13 NO E11	E. Mazza
	Zusätzlich wird das Study Center angeboten ab der 3. Semesterwoche im HG E 1.2, wo obetreuten Lernens angeboten wird. Im Study Studierende Vorlesungsstoff vor- oder nacht lösen.	n: Donne die Mög v Cente	lichkeit des r können	n	Thu	08-10	NO E39 CAB G51 CHN D44 CHN D48 ETZ E7 ETZ E9 ETZ F91 ETZ G91 ETZ J91 ETZ K91 LFO C13 LFW B1 LFW B3 LFW C11 LFW C4	
							LFW C5	
6 <b>51-0032-00L</b> 651-0032-00 V	Geology and Petrography Geologie und Petrographie	0	4 credits	<b>2V+1U</b> 2 hrs	Fri	10-12	HPH G2	M. O. Saar, K. Rauchenstein

851-0703-03L	Groups are selected in myStudies. In Gruppen  Private Construction Law Only for Civil Engineering BSc, Spatial	W	2 credits	2V		14-16	HIL B18.2 HIL B21 HIL B21 HIL D10.2 HIL D10.2 HIL D53 HIL D53 HIL E10.1 HIL E5 HIL B18.2 HIL B18.2 HIL B21 HIL B21 HIL B21 HIL D10.2 HIL D10.2 HIL D53 HIL D53 HIL D53 HIL D53 HIL D53 HIL D53 HIL E5 HIL E5 HIL E5 HIL E5	
	Development and Infrastructure Systems MSc and UZH MNF Geographie/Erdsystemswissenschaften.							
851-0703-03 V	Privates Baurecht ■			2 hrs	Mon	16-18	HG F5	T. Ender, E. Rüegg
851-0709-00L	Introduction to Civil Law	W	2 credits	2V				
851-0709-00 V	Introduction au Droit civil Mit Erklärungen auch in italienischer Sprac	he.		2 hrs	Mon	18-20	HG F1	H. Peter
▶▶ Optiona	al Colloquia							
Number	Title	Туре	ECTS	Hours				Lecturers
151-0501-02L	Mechanics 1: Kinematics and Statics (Colloquium)	Z	0 credits	1K				
151-0501-02 K	Mechanik 1: Kinematik und Statik (Kolloquii Di 15-16 im ETA F 5 mit Videoübertragung 3	um) ins ETF	E 1 und HG E	1 hrs	Tue	15-16	ETA F5 ETF E1 HG E3	R. Hopf
	In der ersten Semesterwoche fällt das Kollo durch eine Doppelstunde Vorlesung Di 14-							

### ► Compulsory Courses 3. Semester

### ▶▶ Examination Block 1

Number	Title	Type	ECTS	Hours				Lecturers
401-0243-00L	Analysis III	0	3 credits	2V+1U				
401-0243-00 V	Analysis III			2 hrs	Tue	10-12	HPH G2	M. Akka Ginosar
401-0243-00 U	Analysis III Groups are selected in myStudies. Mi 9-10 für Studiengang Raumbezogene Ingenieurwissenschaften. Fr 12-13 oder Fr 13-14 für Studiengang Bauingenieurwissenschaften gemäss Grup	ppeneinte	eiluna.	1 hrs	Wed Fri	09-10 12-13 13-14	NO C6 HIT F31.2 HIT H42 HIT F31.2 HIT F32 HIT H42	M. Akka Ginosar
402-0023-01L	Zusätzlich wird das StudyCenter angebote dazu folgen (ab der zweiten Semesterwoche)	n: weiter	e Angaben 7 credits	5V+2U				
	Physics	U	/ credits	-				
402-0023-01 V	Physics			5 hrs	Wed Fri	10-12 09-12	HPH G3 HPH G3	S. Johnson
402-0023-01 U	Physics Do 8-10 für Studiengang Bauingenieurwiss Do 14-16 für Umweltingenieurwissenschaft		ten	2 hrs	Thu	08-10 14-16	HCI D4 HCI D6 HCI F8 HIL D60.1 HIT F31.1 HIT K51 HIT F31.2 HIT K51	S. Johnson
101-0203-01L	Hydraulics I	0	5 credits	3V+1U				
101-0203-01 V	Hydraulik I			3 hrs	Thu	10-13	HIL E1	R. Stocker

101-0203-01 U	Hydraulik I (in G) Übungen Mi 08-09 oder 09-10 Uhr für Bauir Umweltnaturwissenschaften Übungen Mi 12-13 oder 13-14 Uhr für Umweltingenieurwissenschaften	ng und		1 hrs	Wed 29.09.	08-09 09-10 12-13 13-14 08-10	HIL B18.2 HIL D60.1 HIL E5 HIL F10.3 HIL B18.2 HIL D60.1 HIL E5 HIL F10.3 HIL E9 HIL B21 HIL E9 HCI D8	R. Stocker
151-0503-00L	Dynamics	0	6 credits	4V+2U				
151-0503-00 V	•	0	,	4 hrs	Mon	14-16	HG F5	D. Kochmann
	The lectures will start in the 2nd week of the The Monday lectures are held in HG F 7 wit to HG F 5.  The Wednesday lectures are held in ML D 2 transmission to HCl G 7 (ETH Hönggerberg	th video 28 with	transmission		Wed	14-16	HG F7 HCI G7 ML D28	
151-0503-00 U	Dynamics Groups are selected in myStudies. The exercises will start in the 2nd week of the Thursday 8-10 for Mechanical Engineering - Friday 14-16 for Civil Engineering BSc  Zusätzlich wird das Study Center angeboter ab der 3. Semesterwoche im HG E 1.1, wo betreuten Lernens angeboten wird. Im Stud Studierende Vorlesungsstoff vor- oder nach lösen.	g BSc n: Monta die Mög ly Cente	ags 18-20 Uhr glichkeit des er können		Thu	08-10	CAB G59 CHN E42 CHN F46 CHN G42 CHN G46 HG E21 HG E33.1 HG E33.5 HG G26.3 HG G26.5 LFW E13 ML H41.1 ML J34.1 ML J34.3 ON LINE ON LINE	D. Kochmann
					Fri	14-16	ON LINE HIT F31.2 HIT H51 HIT J52 HIT J53 HIT K51 ON LINE	

### **▶▶** Examination Block 2

Number	Title	Туре	ECTS	Hours				Lecturers
101-0113-00L	Theory of Structures I Only for Civil Engineering BSc.	0	5 credits	3V+2U				
101-0113-00 V	Baustatik I			3 hrs	Tue	13-16	HIL E1	B. Sudret
101-0113-00 U	Baustatik I (in G)			2 hrs	Mon	10-12	HCI D6 HCI E2 HCI E8 HCI J8 HIL D60.1 HIT J53	B. Sudret

## ► Compulsory Courses 5. Semester

### ▶▶ Examination Block 3

Number	Title	Туре	ECTS	Hours				Lecturers
101-0315-00L	Geotechnical Engineering	0	5 credits	4G				
101-0315-00 G	Grundbau			4 hrs	Mon Tue	14-16 16-18	HCI G7 HIL E1	A. Puzrin
101-0135-01L	Steel Structures II	0	4 credits	4G				
101-0135-01 G	Stahlbau II Vorlesung: Mo 10-12 und Mi 8-10 Übungen: Mo 10-12 (alternierend mit Vorlesu Gruppen gemäss Angaben Dozent.	ıng). A	Aufteilung	4 hrs	Mon	10-12 08-10	HIL B18.2 HIL E10.1 HIL E4 HIL B21 HIL C10.2 HIL E3	A. Taras
101-0415-01L	Public Transport and Railways	0	3 credits	2G				
101-0415-01 G	Public Transport and Railways			2 hrs	Fri	12-14	HIL E1	A. Nash, H. Orth, S. Schrani
101-0031-01L	Systems Engineering	0	4 credits	4G				
101-0031-01 G	Systems Engineering Vorlesung: Donnerstag Übung: Montag Fragestunde: Wird in der ersten Vorlesung be	ekannı	tgegeben	4 hrs	Mon Thu	16-18 10-12	HIL E4 ETF C1	B. T. Adey
	Online lecture: This lecture will primarily take Reserved rooms will remain reserved on carr follow the course from there.							
102-0293-00L	Hydrology	0	3 credits	2G				

102-0293-00 G Hydrology 2 hrs Tue 14-16 HIL E4 **P. Burlando** 

Online event: This lecture will primarily take place online. Reserved rooms will remain blocked on campus for students to

follow the course from there.

Fyam	ination	Rinck	4

Number	Title	Туре	ECTS	Hours				Lecturers
101-0125-00L	Structural Concrete I	0	5 credits	4G				
101-0125-00 G	Stahlbeton I			4 hrs	Tue Wed	10-12 10-12	HIL E3 HIL B21 HIL C10.2 HIL D10.2 HIL D60.1 HIL E10.1 HIL E4 HIL E5	W. Kaufmann

#### **▶▶** Additional Compulsory Courses

Number	Title	Туре	ECTS	Hours				Lecturers
101-0007-01L	Project Work Conceptual Design	0	3 credits	3S				
101-0007-01 S	Entwurf/Projektarbeit Im Plenum: Mo 9-10 Gruppenarbeit: Do 14-16 oder Do 16-18 (nach Gruppeneinteilung).			3 hrs	Mon Thu		6 HIL E7	A. Taras, F. Ortiz Quintana
101-0615-01L	Materials Lab Exercises	0	4 credits	4P				
101-0615-01 P	Werkstoffe Laborpraktikum Permission from lecturers required for all stu	ıdents		4 hrs	Wed	14-16 14-18	HIL E10.1 HIL E4	R. J. Flatt, U. Angst, I. Burgert, D. Kammer, H. Richner, F. Wittel

#### ► Bachelor's Thesis

Number	Title	Туре	ECTS	Hours	Lecturers
101-0006-10L	Bachelor's Thesis	0	8 credits	17D	
101-0006-10 D	Bachelor-Arbeit ■			240s hrs by appt.	Lecturers

#### **▶** Recommended Courses

No specific courses offered in HS21.

### ► GESS Science in Perspective

see GESS Science in Perspective: Language Courses ETH/UZH

see GESS Science in Perspective: Type A: Enhancement of Reflection Capability

Recommended GESS Science in Perspective (Type B) for D-BAUG.

#### Civil Engineering Bachelor - Key for Type

0	Compulsory	E-	Recommended, not eligible for credits
W+	Eligible for credits and recommended	Z	Courses outside the curriculum
W	Eligible for credits	Dr	Suitable for doctorate

Kev	for	Hoi	ırs

-			
V	lecture	P	practical/laboratory course
G	lecture with exercise	A	independent project
U	exercise	D	diploma thesis
S	seminar	R	revision course / private study
K	colloquium		

ECTS European Credit Transfer and Accumulation System

## **Civil Engineering Master**

### ► Master Studies (Programme Regulations 2020)

#### ▶▶ 1. Semester

#### ▶▶▶ Seminar Work

Number	Title	Type	ECTS	Hours				Lecturers
101-0007-00L	Project Management for Construction Projects	0	4 credits	3S				
101-0007-00 S	Project Management for Construction Proje Online seminar: This seminar will primarily (Zoom). Reserved rooms will remain block students to follow the seminar from there. The only exception will be the SkyRail exer groups: 10.12. or 17.12. from 12-17) which face.	take pla ed on ca rcises in	mpus for December (2	3 hrs	Fri 10.12. 17.12.	13-16 11-17 11-17	HCI J7 HIT E51 HIT E51	J. J. Hoffman

### **▶▶▶** Major Courses

## ▶▶▶▶ Major in Construction and Maintenance Management

Number	Title	Type	ECTS	Hours				Lecturers
151-8011-00L	Building Physics: Theory and Applications Enrolment after agreement with the lecturer only.	W	4 credits	3V+1U				
151-8011-00 V	Building Physics: Theory and Applications Permission from lecturers required for all stu No course on 27.10.2021 (seminar week).	udents		3 hrs	Wed	13-16	HIL D10.2	A. Kubilay, X. Zhou
151-8011-00 U	Building Physics: Theory and Applications Permission from lecturers required for all students No course on 27.10.2021 (seminar week). Online event: This event will primarily take prooms will remain blocked on campus for students course from there	olace on		1 hrs	Wed	17-18	HIL D10.2	X. Zhou, L. D'Amato, A. Kubilay, A. Rubin, D. A. Strebel
066-0427-00L	Design and Building Process MIBS ITA Pool - information event on the courses offered at the institute ITA: Wednesday 8th September 2021, 10-11 h, ONLINE. ZoomLink: https://ethz.zoom.us/j/66588100789	W	2 credits	2V				
066-0427-00 V	Design and Building Process MIBS No course on 26.10. (seminar week).			2 hrs	Tue	08-10	HCP E47.2	A. Paulus
101-0427-01L	Public Transport Design and Operations	W	6 credits	4G				
101-0427-01 G	Public Transport Design and Operations			4 hrs	Mon Thu	14-16 08-10	HIL E10.1 HIL E10.1	F. Corman, F. Leutwiler
101-0509-00L	Infrastructure Management 1: Process	0	6 credits	3G				
101-0509-00 G	Infrastructure Management 1: Process Project: Mon 9-10 Lecture: Fr 10-12			3 hrs	Mon Fri	09-10 10-12	HIL E1 HIL F10.3	B. T. Adey
101-0517-10L	Construction Management for Tunneling	W	3 credits	2G				
	Baubetrieb im Untertagbau			2 hrs	Mon	14-16	HIL E1	H. Ehrbar
101-0524-00L	Lean, Integrated and Digital Project Delivery	W	4 credits	3G				
101-0524-00 G	Lean, Integrated and Digital Project Delivery	′		3 hrs	Mon 04.10. 11.10.	16-19 16-19 16-19	HPV G5 HIT E51 HIT E51	D. Hall
101-0577-00L	An Introduction to Sustainable Development in the Built Environment	0	3 credits	2G				
101-0577-00 G	An Introduction to Sustainable Development Environment	t in the I	Built	2 hrs	Tue	16-18	HIL E4	G. Habert, D. Kaushal
▶▶▶▶ Majo	r in Geotechnical Engineering							
Number	Title	Туре	ECTS	Hours				Lecturers
101-0317-00L	Tunnelling I	W+	3 credits	2G				

Number	Title	Type	ECTS	Hours				Lecturers
101-0317-00L	Tunnelling I	W+	3 credits	2G				
101-0317-00 G	Untertagbau I			2 hrs	Tue	10-12	HIL E7	G. Anagnostou, E. Pimentel
101-0357-00L	Theoretical and Experimental Soil	W+	6 credits	4G				

Mechanics
Prerequisites: Mechanics I, II and III.

The number of participants is limited to 60 due to the existing laboratory equipment! Students with major in Geotechnical Engineering have priority. Registrations will be accepted in the order they are received.

101-0357-01 G	Theoretical Soil Mechanics  Permission from lecturers required for all str		oil Maabaniaa	2 hrs	Tue	14-16	HIL E3	I. Anastasopoulos, R. Herzog, A. Marin, M. Schneider
101-0357-02 G	This course is offered together with Experin Experimental Soil Mechanics Permission from lecturers required for all str This course is offered together with Theoret	udents		2 hrs	Fri	10-12	HIL E7	I. Anastasopoulos, R. Herzog. E. Korre
101-0307-00L	Design and Construction in	W	4 credits	3G				
101-0307-00 G	Geotechnical Engineering Design and Construction in Geotechnical En Permission from lecturers required for all sti	•	ng ■	3 hrs	Wed	13-16	HCI J7	I. Anastasopoulos, A. Marin
101-0369-00L	Forensic Geotechnical Engineering Prerequisites: successful participation in "Geotechnical Engineering" (101-0315-00L) or an equivalent course.	<b>w</b>	3 credits	2G				
101-0369-00 G	Forensic Geotechnical Engineering Permission from lecturers required for all sta	udents		2 hrs	Mon	10-12	HIL E7	A. Puzrin
	Construction Management for Tunneling Baubetrieb im Untertagbau	W	3 credits	<b>2G</b> 2 hrs	Mon	14-16	HIL E1	H. Ehrbar
▶▶▶▶ Majo	r in Structural Engineering							
Number	Title	Туре	ECTS	Hours				Lecturers
101-0117-00L	Theory of Structures III	0	3 credits	2G				
	Theory of Structures III			2 hrs	Wed	14-16	HIL E3	B. Stojadinovic
101-0127-00L	Advanced Structural Concrete Advanced Structural Concrete	0	3 credits	<b>2G</b> 2 hrs	Thu	10-12	HIL E7	I Mata Falcán W Kaufmann
101-0127-00 G	Steel Structures III: Advanced Steel and		3 credits	2 nrs 2G	Thu	10-12	HIL E/	J. Mata Falcón, W. Kaufmann
101-0137-00L	Composite Structures	U	3 Credits	20				
101-0137-00 G	Steel Structures III: Advanced Steel and Co	mposite	Structures	2 hrs	Wed	10-12	HIL E3	A. Taras, U. Angst
	Structural Reliability and Risk Analysis	W	3 credits	2G				
101-0187-00 G	Structural Reliability and Risk Analysis			2 hrs	Fri	10-12	HCI J6	S. Marelli
	Structural Dynamics and Vibration Problems	W	3 credits	2 <b>G</b> 2 hrs	Tuo	16 10	HCI I6	M Vaniliau V Ntartimania
	Structural Dynamics and Vibration Problems		0		Tue	16-18	HCI J6	M. Vassiliou, V. Ntertimanis
<b>151-8015-00L</b> 151-8015-00 G	Moisture Transport in Porous Media Moisture Transport in Porous Media No course on 25.10 (seminar week) as well	<b>W</b> as 20.1	3 credits 2.2021.	<b>2G</b> 2 hrs	Mon	10-12	HIL E6	<b>J. Carmeliet</b> , L. Fei, J. Huang, J. Zhao
101-0167-01L	Fibre Composite Materials in Structural	W	3 credits	2G				
101-0167-01 G	Engineering Fibre Composite Materials in Structural Eng The lecture will primarily take place online. remain blocked on campus for students to fi there.	The rese	erved room wi	2 hrs	Wed	16-18	HIL E7	M. Motavalli
	Labor exercises at Empa according to a sep	parate p	rogram.					
101-0637-01L	Timber Structures I Remark: Students in Civil Engineering must enrol this course as a year course Timber Structures I+II.	<b>W</b> f	3 credits	2G				
101-0637-01 G	Holzbau I			2 hrs	Tue	08-10	HIL E6	A. Frangi, I. Burgert, G. Fink, R. Steiger
052-0609-00L	Energy- and Climate Systems I	W	2 credits	2 <b>G</b>	E:	10.40	Ш Го	A Coblüte
∪ວ∠-∪609-00 G	Energie- und Klimasysteme I Keine Lehrveranstaltung am 29.10. (Semina 17/24.12. (vor Schlussabgaben).	arwoche	e) sowie am	2 hrs	Fri	10-12	HIL E3	A. Schlüter
101-0617-02L	Computational Science Investigation for Material Mechanics		4 credits	2\$				
	Computational Science Investigation for Ma	terial Me	echanics	2 hrs	Wed	08-10	HIL E7	D. Kammer, F. Wittel
▶▶▶▶ Majo	r in Transport Systems							
Number	Title	Туре	ECTS	Hours				Lecturers
	Public Transport Design and Operations Public Transport Design and Operations	0	6 credits	<b>4G</b> 4 hrs	Mon Thu	14-16 08-10	HIL E10.1 HIL E10.1	F. Corman, F. Leutwiler
	Traffic Engineering Traffic Engineering	0	6 credits	<b>4G</b> 4 hrs	Mon Tue	16-18 16-18	HIL D10.2 HIL D10.2	A. Kouvelas
101-0417-00L	Transport Planning Methods	w	6 credits	4G		•	- · <b>-</b> · · •	
	Transport Planning Methods		2 2. 220	4 hrs	Mon Wed 22.09. 27.09. 29.09. 04.10. 06.10.	10-12 10-12 10-12 10-12 10-12 10-12 10-12	HIL F36.1 HIL F36.1 HCP E47.1 HIL F10.3 HCP E47.1 HIL F10.3 HCP E47.1	K. W. Axhausen

401-0647-00L	Introduction to Mathematical Optimization	W	5 credits	2V+1U				
401-0647-00 V	Introduction to Mathematical Optimization			2 hrs	Tue	16-18	HG F5	D. Adjiashvili
401-0647-00 U	Introduction to Mathematical Optimization Groups are selected in myStudies. Wed 12-13 or Wed 16-17			1 hrs	Wed	12-13 16-17	HG D1.2 IFW A36 ON LINE	D. Adjiashvili
103-0317-00L	Introduction to Spatial Development and Transformation Only for master students, otherwise a special permisson by the lecturer is required.	W	3 credits	2G				
103-0317-00 G	Introduction to Spatial Development and Tra	ansform	ation	2 hrs	Tue	10-12	HIL E6	M. Nollert, D. Kaufmann
151-0227-00L	Basics of Air Transport (Aviation I)	w	4 credits	3G				·
	Basics of Air Transport (Aviation I)	••	4 Orcuits	3 hrs	Wed	13-16	CAB G11	P. Wild
227-0523-00L	Railway Systems I	w	6 credits	4G				
	Eisenbahn-Systems I  Online-Veranstaltung: Diese Lehrveranstalt Der reservierte Raum bleibt für die Studiere Campus Zentrum bestehen, um die Lehrver hören.	ung find enden au	et online statt. If dem	4 hrs	Fri	08-12	LFW C1	M. Meyer
101-0509-00L	Infrastructure Management 1: Process	W	6 credits	3G	Maria	00.40		D.T. Adam
101-0509-00 G	Infrastructure Management 1: Process Project: Mon 9-10 Lecture: Fr 10-12			3 hrs	Mon Fri	09-10 10-12	HIL E1 HIL F10.3	B. T. Adey
363-1047-00L	Urban Systems and Transportation	W	3 credits	2G				
363-1047-00 G	Urban Systems and Transportation The lecture takes place in classroom, online zoom and recorded.	e via live	estreaming or	2 hrs	Thu	10-12	LFW B1	G. Loumeau
►►►► Majo	or in Hydraulic Engineering and	Wate	r Resourc	es Man	ageme	nt		
Number	Title	Туре	ECTS	Hours				Lecturers
101-0247-01L	Hydraulic structures II Information: Enrolment of Hydraulic Engineering II is not recommended without having attended Hydraulic Engineering (101-0206-00L) previously since Hydraulic Engineering II is strongly based on Hydraulic Engineering (101-0206-00L).	0	6 credits	4G				
101-0247-01 G	Wasserbau II Lehrsprache vorrangig Deutsch, ausgewähl Englisch.	lte Verai	nstaltungen in	4 hrs	Mon Thu	10-12 08-10	HIL E1 HIL E9	R. Boes
101-0267-01L	Numerical Hydraulics	0	3 credits	2G				
101-0267-01 G	Numerical Hydraulics			2 hrs	Mon	14-16	HIL E6	M. Holzner
102-0455-01L	Groundwater I	W	4 credits	3G				
102-0455-01 G	Groundwater I Excercises on Wednesdays, lecture on Frid	ays.		3 hrs	Wed/2w Fri	16-18 10-12	CHN F46 HIL E8	<b>J. Jimenez-Martinez</b> , M. Willmann
<b>101-0258-00L</b> 101-0258-00 G	River Engineering River Engineering	0	3 credits	<b>2G</b> 2 hrs	Wed	16-18	HIL E8	V. Weitbrecht, I. Schalko, K. Sperger
102-0468-10L	Watershed Modelling	W	6 credits	4G				
102-0468-10 G	Watershed Modelling Remark: New course replacing 102-0237-00 HS19) and 102-0468-00 Watershed Modelii			4 hrs	Mon Wed	16-18 12-14	HIL E8 HIL E8	P. Molnar
101-0250-00L	Solving Partial Differential Equations in parallel on GPUs		4 credits	3G				
	Solving Partial Differential Equations in para	allel on (	GPUs	3 hrs	Tue	13-16	HCI E8	L. Räss, S. Omlin, M. Werder
►►►► Majo	or in Materials and Mechanics							
Number	Title	Туре	ECTS	Hours				Lecturers
101-0677-00L	Concrete Technology	w	2 credits	2G				
101-0677-00 G	Concrete Technology			2 hrs	Mon	16-18	HIL E9	F. Constandopoulos, M. Bäuml, G. Martinola, T. Wangler
<b>151-8015-00L</b> 151-8015-00 G	Moisture Transport in Porous Media Moisture Transport in Porous Media No course on 25.10 (seminar week) as well	<b>W</b> as 20.1	3 credits 2.2021.	<b>2G</b> 2 hrs	Mon	10-12	HIL E6	<b>J. Carmeliet</b> , L. Fei, J. Huang, J. Zhao
<b>151-0353-00L</b> 151-0353-00 V	Mechanics of Composite Materials Mechanics of Composite Materials	W	4 credits	<b>2V+1U</b> 2 hrs	Thu	09-11	ML F38	P. Ermanni, G. Pappas, M. Sakovsky
151-0353-00 U	Mechanics of Composite Materials			1 hrs	Thu	11-12	ML F38	P. Ermanni, G. Pappas, M. Sakovsky
	Advances in Building Materials	W	4 credits	2G				
101-0617-01 G	Advances in Building Materials			2 hrs	Mon	14-16	HIL E7	R. J. Flatt, I. Burgert
101-0617-02L	Computational Science Investigation for	W	4 credits	2S				

#### ▶▶ 3. Semester

### **▶▶▶** Major Courses

### ▶▶▶▶ Major in Construction and Maintenance Management

Number	Title	Туре	ECTS	Hours				Lecturers
101-0549-00L	Selected Topics on Legal Aspects in Civil Engineering	W+	3 credits	2G				
01-0549-00 G	AK Baurecht			2 hrs	Wed	16-18	HIL E6	H. Briner, D. Trümpy
01-0587-00L	Workshop on Sustainable Building Certification Number of participants limited to 25	W+	3 credits	2G				
01-0587-00 G	Workshop on Sustainable Building Certificat	ion		2 hrs	Fri	10-12	HCP E47.1	D. Kellenberger
01-0507-00L	Infrastructure Management 3: Optimisation Tools	W+	6 credits	2G				
01-0507-00 G	Infrastructure Management 3: Optimisation Does not take place this semester.  Next time in HS22.	Tools		2 hrs				B. T. Adey
01-0520-00L	Project Management: Project Execution to Closeout	W+	4 credits	2G				
01-0520-00 G	Project Management: Project Execution to C Online event: Will primarily take place online rooms will remain blocked on campus for ste course from there.	(Zoom)	). Reserved	2 hrs	Fri	10-12	HCI J3	J. J. Hoffman
01-0608-00L	Design-Integrated Life Cycle Assessment	W	3 credits	2G				
01-0608-00 G	Design-Integrated Life Cycle Assessment Former title: Building Materials and Sustaina	ability		2 hrs	Tue	14-16	HPT C103	G. Habert
101-0577-00L	An Introduction to Sustainable Development in the Built Environment	0	3 credits	2G				
101-0577-00 G	An Introduction to Sustainable Development Environment	in the E	Built	2 hrs	Tue	16-18	HIL E4	G. Habert, D. Kaushal
101-0527-10L	Materials and Constructions	W	3 credits	2G				
01-0527-10 G	Materials and Constructions			2 hrs	Mon	08-10	HIL D10.2	G. Habert, D. Sanz Pont
►►►► Majo	r in Geotechnical Engineering							
lumber	Title	Туре	ECTS	Hours				Lecturers
<b>01-0329-00L</b> 01-0329-00 G	Tunnelling III Untertagbau III	W	4 credits	<b>2G</b> 2 hrs	Thu	10-12	HIL E6	<b>G. Anagnostou</b> , E. Pimente M. Ramoni
<b>01-0339-00L</b> 01-0339-00 G	Environmental Geotechnics Umweltgeotechnik	W	3 credits	<b>2G</b> 2 hrs	Tue	08-10	HIL E1	M. Plötze
01-0367-00L	Geotechnical Engineering in Transportation	W	3 credits	2G				
101-0367-00 G	Geotechnik der Verkehrswege			2 hrs	Fri	10-12	HIL E6	D. Hauswirth
►►► Majo	r in Structural Engineering							
lumber	Title	Туре	ECTS	Hours				Lecturers
01-0119-00L	Structural Masonry	W	3 credits	2G				
01-0119-00 G 01-0129-00L	Non Destructive Evaluation &	W	3 credits	2 hrs	Wed	12-14	HIL E7	N. Mojsilovic
01-0129-00 G	Rehabilitation of Existing Structures  Non Destructive Evaluation & Rehabilitation  Remark: Former title " Non Destructive Eval			2 hrs	Mon	10-12	HPL D32	E. Chatzi, B. Herraiz Gómez G. Kocur
01-0159-00L	Method of Finite Elements II	W	3 credits	2G				G. Rooui
	Method of Finite Elements II	••	J 0.34113	2 hrs	Thu	14-16	HPT C103	E. Chatzi, K. Tatsis
01-0189-00L	Seismic Design of Structures II	W	3 credits	2G				<u> </u>
	Seismic Design of Structures II	147	• ••	2 hrs	Thu	16-18	HIL E6	B. Stojadinovic
<b>01-0191-00L</b> 01-0191-00 G	Seismic and Vibration Isolation Seismic and Vibration Isolation	W	2 credits	<b>1G</b> 1 hrs	Wed/1	10-12	HCP E47.2	M. Vassiliou
01-0123-00L	Structural Design	W	3 credits	2G				
101-0123-00 G	Structural Design			2 hrs	Thu	10-12	HPT C103	<b>P. Ohlbrock</b> , P. Block, J. Schwartz
01-0121-00L	Fatigue and Fracture in Materials and Structures	W	4 credits	3G				
01-0121-00 G	Fatigue and Fracture in Materials and Struct The lecture will primarily take place online. I remain blocked on campus for students to fo there.	The rese		3 hrs	Tue	10-13	HCI J6	E. Ghafoori, A. Taras
	Remark: Includes a visit to Empa and labora at Empa laboratories.	atory tes	ts by student					

101-0169-00L	Timber Structures III  Prerequisite: Timber Structures I (101- 0168-00L). Students who have not completed Holzbau I require a special permission from the lecturer.	W	3 credits	2G				
101-0169-00 G	•	udents		2 hrs	Thu	08-10	HIL E7	<b>A. Frangi</b> , R. Jockwer, M. Klippel, R. Steiger
101-0120-00L	Structural Glass Design and Facade Engineering	W	3 credits	3G				
101-0120-00 G	Structural Glass Design and Facade Engine 1. half of the semester (weeks 1 to 7): lectu 2. half of the semester (weeks 8 to 14): group	res (the		3 hrs	Wed/1 Wed/2		HIL B21 HIL B21	VA. Silvestru
101-0139-00L	Scientific Machine and Deep Learning for Design and Construction in Civil Engineering	W	3 credits	4G				
101-0139-00 G	Scientific Machine and Deep Learning for D Construction in Civil Engineering 14-16 theory 16-18 group work	esign ar	nd	4 hrs	Mon	14-18	HPK D3	M. A. Kraus, D. Griego
►►►► Majo	or in Transport Systems							
Number	Title	Туре	ECTS	Hours				Lecturers
101-0469-00L	Road Safety	W	6 credits	4G				
	Strassenverkehrssicherheit: Grundlagen, W Verfahren			4 hrs	Fri	14-18	HIL F10.3	M. Deublein, P. Eberling
103-0417-02L	Methodology of Planning Research and Practice Only for master students, otherwise a special permisson by the lecturer is required.	W	3 credits	2G				
103-0417-02 G	Methoden der Planung in Forschung und P	raxis		2 hrs	Wed	14-16	HIL D60.1	A. Peric Momcilovic, T. B. Hug, R. Streit
<b>101-0491-00L</b> 101-0491-00 G	Agent Based Modeling in Transportation Agent Based Modeling in Transportation	W	6 credits	<b>4G</b> 4 hrs	Mon Tue	10-12 14-16	HPK D24.2 HPK D24.2	M. Balac
101-0492-00L	Microscopic Modelling and Simulation of Traffic Operations	W	3 credits	2G				
101-0492-00 G	Microscopic Modelling and Simulation of Tra	affic Ope	erations	2 hrs	Thu	10-12	HIL G15.4	M. Makridis
01-0367-00L	Geotechnical Engineering in Transportation	W	3 credits	2G			=-	
	Geotechnik der Verkehrswege			2 hrs	Fri	10-12	HIL E6	D. Hauswirth
01-0507-00L	Infrastructure Management 3: Optimisation Tools Infrastructure Management 3: Optimisation	<b>W</b> Tools	6 credits	<b>2G</b> 2 hrs				B. T. Adey
	Does not take place this semester. Next time in HS22.							
<b>101-0419-02L</b> 101-0419-02 G	Railway Infrastructures 2 Bahninfrastrukturen 2	W	2 credits	<b>2G</b> 2 hrs	Tue	16-18	HIL E6	<b>U. A. Weidmann</b> , P. Güldenapfel, M. Kohler, M. J. Manhart
►►►► Majo	r in Hydraulic Engineering and	Wate	r Resourd	es Man	ageme	nt		
lumber	Title	Туре	ECTS	Hours				Lecturers
101-0249-00L	Hydraulic Engineering: Selected Topics Prerequisites: 101-0247-01L Hydraulic Engineering II or equivalent course.	W	3 credits	2\$				
101-0249-00 S	Teaching language mainly English, selected in German. Former Title until HS19: Ausgewählte Kapit		•	2 hrs d	Thu	16-18	HIL E7	R. Boes
104 0000 001	Wasserbau (in German).	147	4 - 12:					
1 <b>01-0289-00L</b> 101-0289-00 G	Applied Glaciology Applied Glaciology	W	4 credits	<b>2G</b> 2 hrs	Wed	08-10	HIL E8	<b>D. Farinotti</b> , A. Bauder, M. Werder
1 <b>01-1249-00L</b> 101-1249-00 G	Hydraulics of Engineering Structures Hydraulics of Engineering Structures	W	3 credits	<b>2G</b> 2 hrs	Tue	16-18	HIL E8	I. Albayrak, F. Evers
<b>02-0215-00L</b> 02-0215-00 G	Urban Water Management II Siedlungswasserwirtschaft II	W	4 credits	<b>2G</b> 2 hrs	Tue	10-12	HIL E8	M. Maurer, P. Staufer
101-1250-00L	Management of Hillslope and Channel Processes	W	3 credits	2V	Tuo	14.10	UII =0	D. Biokonmann
	Wildbach- und Hangverbau			2 hrs	Tue	14-16	HIL E8	D. Rickenmann
	or in Materials and Mechanics							
Number	Title	Typo	ECTS	Hours				Lecturers

101-0639-01L	Science and Engineering of Glass and Natural Stone in Construction	W	3 credits	2G				
101-0639-01 G	Science and Engineering of Glass and Natu Construction	ral Ston	e in	2 hrs	Fri/1	08-12	HCI D4	F. Wittel, T. Wangler
101-0659-01L	Durability and Maintenance of Reinforced Concrete	W	4 credits	2V				
101-0659-01 V	Durability and Maintenance of Reinforced C	oncrete		2 hrs	Tue	14-16	HIL E5	U. Angst, Z. Zhang
101-0689-00L	Shrinkage and Cracking of Concrete: Mechanisms and Impact on Durability	W	3 credits	2V				
101-0689-00 V	Shrinkage and Cracking of Concrete: Mecha Durability	anisms a	and Impact on	2 hrs	Wed	10-12	HIL F10.3	P. Lura, M. Wyrzykowski
101-0637-10L	Wood Structure and Function Number of participants limited to 15.	W	3 credits	2G				
101-0637-10 G	Wood Structure and Function			2 hrs	Wed	16-18	HIT J52	I. Burgert, G. von Arx
101-0637-20L	Fundamentals of Wood Elaboration and Woodmachining	W	3 credits	2G				
	Holzbearbeitung und -verarbeitung			2 hrs	Wed	14-16	HIT J52	I. Burgert, M. Schubert
<b>101-0159-00L</b> 101-0159-00 G	Method of Finite Elements II Method of Finite Elements II	W	3 credits	<b>2G</b> 2 hrs	Thu	14-16	HPT C103	E. Chatzi, K. Tatsis
▶▶ Projects	5							
Number	Title	Туре	ECTS	Hours				Lecturers
101-0198-10L	Project on Construction Engineering Only for Civil Engineering MSc, Programme Regulations 2020.	W	11 credits	24A				
101-0198-10 A	Projektarbeit in Konstruktion ■			330s hrs	by appt.			Supervisors
101-0298-10L	Project on Hydraulic Engineering and Water Resources Management Only for Civil Engineering MSc, Programme Regulations 2020.	W	11 credits	24A				
101-0298-10 A	Projektarbeit in Wasserbau und Wasserwirts	schaft =		330s hrs	by appt.			Supervisors
101-0398-10L	Project on Geotechnical Engineering Only for Civil Engineering MSc, Programme Regulations 2020.	W	11 credits	24A				
101-0398-10 A	Projektarbeit in Geotechnik ■			330s hrs	by appt.			Supervisors
101-0498-10L	Project on Transport Systems Only for Civil Engineering MSc, Programme Regulations 2020.	W	11 credits	24A				
	Projektarbeit Verkehrssysteme ■			330s hrs	by appt.			Supervisors
101-0598-10L	Project on Construction and Maintenance Management Only for Civil Engineering MSc, Programme Regulations 2020.	W	11 credits	24A				
101-0598-10 A	Projektarbeit in Bau- und Erhaltungsmanage	ement =		330s hrs	by appt.			Supervisors
101-0698-10L	Project on Materials and Mechanics Only for Civil Engineering MSc, Programme Regulations 2020.	W	11 credits	24A				
101-0698-10 A	Projektarbeit Werkstoffe und Mechanik			330s hrs	by appt.			Supervisors
▶► Digitalis	sation Specific Courses							
Number	Title	Туре	ECTS	Hours				Lecturers
101-0524-00L	Lean, Integrated and Digital Project Delivery	W	4 credits	3G				
101-0524-00 G	Lean, Integrated and Digital Project Delivery	,		3 hrs	Mon 04.10. 11.10.	16-19 16-19 16-19	HPV G5 HIT E51 HIT E51	D. Hall
<b>101-0317-00L</b> 101-0317-00 G	Tunnelling I Untertagbau I	W	3 credits	<b>2G</b> 2 hrs	Tue	10-12	HIL E7	G. Anagnostou, E. Pimentel
	Structural Reliability and Risk Analysis Structural Reliability and Risk Analysis	W	3 credits	<b>2G</b> 2 hrs	Fri	10-12	HCI J6	S. Marelli
	Traffic Engineering	W	6 credits	4G				
	Traffic Engineering			4 hrs	Mon Tue	16-18 16-18	HIL D10.2 HIL D10.2	A. Kouvelas
	Transport Planning Methods Transport Planning Methods	W	6 credits	4G 4 hrs	Mon Wed 22.09. 27.09. 29.09. 04.10. 06.10.	10-12 10-12 10-12 10-12 10-12 10-12 10-12	HIL F36.1 HIL F36.1 HCP E47.1 HIL F10.3 HCP E47.1 HIL F10.3 HCP E47.1	K. W. Axhausen
101-0491-00L	Agent Based Modeling in Transportation	W	6 credits	4G				

101-0491-00 G	Agent Based Modeling in Transportation			4 hrs	Mon	10-12	HPK D24.2	M. Balac
101-0507-00L	Infrastructure Management 3: Optimisation Tools	W	6 credits	2G	Tue	14-16	HPK D24.2	
101-0507-00 G	Infrastructure Management 3: Optimisation Does not take place this semester.  Next time in HS22.	Tools		2 hrs				B. T. Adey
<b>101-0267-01L</b> 101-0267-01 G	Numerical Hydraulics Numerical Hydraulics	W	3 credits	<b>2G</b> 2 hrs	Mon	14-16	HIL E6	M. Holzner
<b>101-0159-00L</b> 101-0159-00 G	Method of Finite Elements II Method of Finite Elements II	W	3 credits	<b>2G</b> 2 hrs	Thu	14-16	HPT C103	E. Chatzi, K. Tatsis
101-0617-02L	Computational Science Investigation for Material Mechanics	W	4 credits	28				
101-0617-02 S	Computational Science Investigation for Ma	aterial M	echanics	2 hrs	Wed	08-10	HIL E7	D. Kammer, F. Wittel
101-0185-01L	CAD for Civil Engineers  Number of participants is limited to 30.  Point in time of enrolment of course is decisive.	W	2 credits	2G				
101-0185-01 G	CAD für Bauingenieure ■  Permission from lecturers required for all st	udents		2 hrs	Mon	13-16	HIT K52	KH. Hamel, F. Ortiz Quintana
101-0250-00L	Solving Partial Differential Equations in parallel on GPUs	W	4 credits	3G				
101-0250-00 G	Solving Partial Differential Equations in para	allel on (	GPUs	3 hrs	Tue	13-16	HCI E8	L. Räss, S. Omlin, M. Werder
101-0139-00L	Scientific Machine and Deep Learning for Design and Construction in Civil Engineering	W	3 credits	4G				
101-0139-00 G	Scientific Machine and Deep Learning for D Construction in Civil Engineering 14-16 theory 16-18 group work	esign a	nd	4 hrs	Mon	14-18	HPK D3	M. A. Kraus, D. Griego
101-0120-00L	Structural Glass Design and Facade Engineering	W	3 credits	3G				
101-0120-00 G	Structural Glass Design and Facade Engine 1. half of the semester (weeks 1 to 7): lectu 2. half of the semester (weeks 8 to 14): gro	res (the		3 hrs	Wed/1 Wed/2	14-16 14-18	HIL B21 HIL B21	VA. Silvestru
101-0509-00L	Infrastructure Management 1: Process	W	6 credits	3G				
101-0509-00 G	Infrastructure Management 1: Process Project: Mon 9-10 Lecture: Fr 10-12			3 hrs	Mon Fri	09-10 10-12	HIL E1 HIL F10.3	B. T. Adey
101-0492-00L	Microscopic Modelling and Simulation of Traffic Operations	W	3 credits	2G				
	Microscopic Modelling and Simulation of Tr			2 hrs	Thu	10-12	HIL G15.4	M. Makridis
	Structural Design Structural Design	W	3 credits	<b>2G</b> 2 hrs	Thu	10-12	HPT C103	P. Ohlbrock, P. Block, J. Schwartz
▶▶ Project	Based Courses							
Number	Title	Туре	ECTS	Hours				Lecturers
101-0509-00L	Infrastructure Management 1: Process	W	6 credits	3G				
	Infrastructure Management 1: Process Project: Mon 9-10 Lecture: Fr 10-12			3 hrs	Mon Fri	09-10 10-12	HIL E1 HIL F10.3	B. T. Adey
101-0249-00L	Hydraulic Engineering: Selected Topics Prerequisites: 101-0247-01L Hydraulic Engineering II or equivalent course.	W	3 credits	2\$				
101-0249-00 S	Hydraulic Engineering: Selected Topics Teaching language mainly English, selecter in German. Former Title until HS19: Ausgewählte Kapit Wasserbau (in German).		•	2 hrs	Thu	16-18	HIL E7	R. Boes
101-0608-00L	Design-Integrated Life Cycle Assessment	W	3 credits	2G				
101-0608-00 G	Design-Integrated Life Cycle Assessment Former title: Building Materials and Sustain	ability		2 hrs	Tue	14-16	HPT C103	G. Habert
<b>101-0329-00L</b> 101-0329-00 G	Tunnelling III Untertagbau III	W	4 credits	<b>2G</b> 2 hrs	Thu	10-12	HIL E6	<b>G. Anagnostou</b> , E. Pimentel, M. Ramoni
	Research-Focused Project Work Forschungsbezogene Projektarbeit ■	W	11 credits	<b>24A</b> 330s hrs				Supervisors
	Permission from lecturers required for all st		0 "					
101-0139-00L	Scientific Machine and Deep Learning for Design and Construction in Civil Engineering	W	3 credits	4G				

101-0139-00 G	Scientific Machine and Deep Learning for D Construction in Civil Engineering 14-16 theory 16-18 group work	esign ar	nd	4 hrs	Mon	14-18	HPK D3	M. A. Kraus, D. Griego
101-0357-00L	Theoretical and Experimental Soil Mechanics Prerequisites: Mechanics I, II and III.	w	6 credits	4G				
	The number of participants is limited to 60 due to the existing laboratory equipment! Students with major in Geotechnical Engineering have priority. Registrations will be accepted in the order they are received.							
101-0357-01 G	Theoretical Soil Mechanics ■ Permission from lecturers required for all sti This course is offered together with Experin		oil Mechanics	2 hrs	Tue	14-16	HIL E3	I. Anastasopoulos, R. Herzog A. Marin, M. Schneider
101-0357-02 G	Experimental Soil Mechanics  Permission from lecturers required for all sti This course is offered together with Theoret	udents		2 hrs	Fri	10-12	HIL E7	I. Anastasopoulos, R. Herzog E. Korre
101-0520-00L	Project Management: Project Execution to Closeout	w	4 credits	2G				
101-0520-00 G	Project Management: Project Execution to Online event: Will primarily take place online rooms will remain blocked on campus for st course from there.	e (Zoom	n). Reserved	2 hrs	Fri	10-12	HCI J3	J. J. Hoffman
101-0120-00L	Structural Glass Design and Facade Engineering	W	3 credits	3G				
101-0120-00 G	Structural Glass Design and Facade Engine 1. half of the semester (weeks 1 to 7): lecture 2. half of the semester (weeks 8 to 14): group	res (the		3 hrs		14-16 14-18	HIL B21 HIL B21	VA. Silvestru
101-0250-00L	Solving Partial Differential Equations in parallel on GPUs	W	4 credits	3G				
101-0250-00 G	Solving Partial Differential Equations in para	allel on (	GPUs	3 hrs	Tue	13-16	HCI E8	L. Räss, S. Omlin, M. Werder
101-0659-01L	Durability and Maintenance of Reinforced Concrete	W	4 credits	2V				
101-0659-01 V	Durability and Maintenance of Reinforced C	oncrete		2 hrs	Tue	14-16	HIL E5	U. Angst, Z. Zhang
	Concrete Technology Concrete Technology	W	2 credits	<b>2G</b> 2 hrs	Mon	16-18	HIL E9	F. Constandopoulos, M. Bäuml, G. Martinola, T. Wangler
<b>101-0427-01L</b> 101-0427-01 G	Public Transport Design and Operations Public Transport Design and Operations	W	6 credits	<b>4G</b> 4 hrs	Mon Thu	14-16 08-10	HIL E10.1 HIL E10.1	F. Corman, F. Leutwiler
101-0524-00L	Lean, Integrated and Digital Project Delivery	W	4 credits	3G				
101-0524-00 G	Lean, Integrated and Digital Project Delivery	y		3 hrs	Mon 04.10. 11.10.	16-19 16-19 16-19	HPV G5 HIT E51 HIT E51	D. Hall
101-0492-00L	Microscopic Modelling and Simulation of Traffic Operations	W	3 credits	2G				
	Microscopic Modelling and Simulation of Tra			2 hrs	Thu	10-12	HIL G15.4	M. Makridis
<b>101-0527-10L</b> 101-0527-10 G	Materials and Constructions  Materials and Constructions	W	3 credits	<b>2G</b> 2 hrs	Mon	08-10	HIL D10.2	G. Habert, D. Sanz Pont
101-0587-00L	Workshop on Sustainable Building Certification Number of participants limited to 25	W	3 credits	2G				
101-0587-00 G	Workshop on Sustainable Building Certifica	tion		2 hrs	Fri	10-12	HCP E47.1	D. Kellenberger
<b>101-0123-00L</b> 101-0123-00 G	Structural Design Structural Design	W	3 credits	<b>2G</b> 2 hrs	Thu	10-12	HPT C103	P. Ohlbrock, P. Block, J. Schwartz
	Numerical Hydraulics Numerical Hydraulics	W	3 credits	<b>2G</b> 2 hrs	Mon	14-16	HIL E6	M. Holzner
►► Master'	•							
Number	Title	Туре	ECTS	Hours				Lecturers
101-0010-10L	Master's Thesis Only for Civil Engineering MSc, Programme Regulations 2020.	0	20 credits	43D				
	Only students who fulfill the following criteria are allowed to begin with their master thesis: a. successful completion of the bachelor programme; b. fulfilling of any additional requirements necessary to gain admission to the master programme.							

## ► Master Studies (Programme Regulations 2006)

### ▶▶ 3. Semester

### ▶▶▶ Projects

Number	Title	Type	ECTS	Hours		Lecturers
101-0198-01L	Project on Construction Engineering Only for Civil Engineering MSc, Programme Regulations 2006.	W	9 credits	19A		
101-0198-01 A	Projektarbeit in Konstruktion ■			270s hrs	by appt.	Supervisors
101-0298-01L	Project on Hydraulic Engineering and Water Resources Management Only for Civil Engineering MSc, Programme Regulations 2006.	W	9 credits	19A		
101-0298-01 A	Projektarbeit in Wasserbau und Wasserwirts	schaft		270s hrs	by appt.	Supervisors
101-0398-01L	Project on Geotechnical Engineering Only for Civil Engineering MSc, Programme Regulations 2006.	W	9 credits	19A		
101-0398-01 A	Projektarbeit in Geotechnik ■			270s hrs	by appt.	Supervisors
101-0498-01L	Project on Transport Systems Only for Civil Engineering MSc, Programme Regulations 2006.	W	9 credits	19A		
101-0498-01 A	Projektarbeit in Verkehrssysteme ■			270s hrs	by appt.	Supervisors
101-0598-01L	Project on Construction and Maintenance Management Only for Civil Engineering MSc, Programme Regulations 2006.	W	9 credits	19A		
101-0598-01 A	Projektarbeit in Bau- und Erhaltungsmanage	ement =		270s hrs	by appt.	Supervisors
101-0698-01L	Project on Materials and Mechanics Only for Civil Engineering MSc, Programme Regulations 2006.	W	9 credits	18A		
101-0698-01 A	Projektarbeit in Werkstoffe und Mechanik			250s hrs	by appt.	Supervisors

#### ▶▶ Master's Thesis

Number	Title	Туре	ECTS	Hours		Lecturers
101-0010-00L	Master's Thesis Only for Civil Engineering MSc, Programme Regulations 2006.	0	24 credits	51D		
	Only students who fulfill the following criteria are allowed to begin with their master thesis: a. successful completion of the bachelor programme; b. fulfilling of any additional requirements necessary to gain admission to the master programme.					
101-0010-00 D	Master-Arbeit ■  Permission from lecturers required for all str			720s hrs	by appt.	Supervisors

#### **▶** Electives

The entire course programs of ETH Zurich and the University of Zurich are open to the students to individual selection.

#### **▶▶** Electives ETH Zurich

Course Catalogue of ETH Zurich

$\blacktriangleright \blacktriangleright$	Recommended	Flectives of	Master	Programme
	1/CCOIIIIICIIUCU	LIEGUVES VI	IVIASICI	FIUUIAIIIII

Number	Title	Type	ECTS	Hours				Lecturers
363-1065-00L	Design Thinking: Human-Centred Solutions to Real World Challenges	W	5 credits	5G				
363-1065-00 G	Design Thinking: Human-Centred Solutions Challenges Does not take place this semester. From FS22 in the spring semester.	to Real	World	5 hrs				S. Brusoni
363-1047-00L	Urban Systems and Transportation	W	3 credits	2G				
363-1047-00 G	Urban Systems and Transportation The lecture takes place in classroom, online zoom and recorded.	via live	estreaming or	2 hrs	Thu	10-12	LFW B1	G. Loumeau
052-0707-00L	Urban Design III	W	2 credits	2V				
052-0707-00 V	Urban Design III No course on 28.10. (seminar week) 16./23. critiques).	12. (be	fore final	2 hrs	Thu	08-10	ONA E7	H. Klumpner, M. Fessel
101-0193-00L	Systemic Design Labs: RE:GENERATE Alpine-Urban Circularity	W	4 credits	2S				

101-0193-00 S Systemic Design Labs: RE:GENERATE Alpine-Urban Circularity 30s hrs

Intro: 24.9.21, 14-17h Block (excursion/field work): 13.-17.10.21, full days

Final presentation: 10.12.21, 14-17h

#### ► GESS Science in Perspective

see GESS Science in Perspective: Language Courses ETH/UZH

see GESS Science in Perspective: Type A: Enhancement of Reflection Capability

Recommended GESS Science in Perspective (Type B) for D-BAUG.

#### **Civil Engineering Master - Key for Type**

W	Eligible for credits	Dr	Suitable for doctorate
E-	Recommended, not eligible for credits	0	Compulsory
Z	Courses outside the curriculum	W+	Eligible for credits and recommended

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#### **Key for Hours**

V	lecture	P	practical/laboratory course
G	lecture with exercise	A	independent project
U	exercise	D	diploma thesis
S	seminar	R	revision course / private study
K	colloquium		

European Credit Transfer and Accumulation System **ECTS** 

# **Biochemistry – Chemical Biology Bachelor**

### ► Core Courses First Year Examination

Number	Title	Type	ECTS	Hours				Lecturers
529-0011-02L	General Chemistry (Inorganic Chemistry) I	0	3 credits	2V+1U				
	Allgemeine Chemie I (AC) Allgemeine Chemie I (AC) Groups are selected in myStudies. oder nach Vereinbarung			2 hrs 1 hrs	Tue Mon	08-10 08-09	HCI G3 HCI D2 HCI H2.1 HCI H8.1 HCI J8 HIT F31.2	A. Togni A. Togni
						10-11	HIT H42 HCI D4 HCI F2 HIL C10.2 HIT F31.2 HIT H42	
					Fri	11-12	HCI H8.1	
	General Chemistry (Organic Chemistry) I	0	3 credits	2V+1U				
	Allgemeine Chemie I (OC) Allgemeine Chemie I (OC) Groups are selected in myStudies. oder nach Vereinbarung			2 hrs 1 hrs	Fri Mon	08-10 09-10	HCI G7 HCI D2 HCI J6 HIT F31.2 HIT H42	P. Chen P. Chen
					Tue	11-12	HIL B21 HIL C10.2 HIT F31.2 HIT H42 HIT J53	
529-0011-01L	General Chemistry (Physical Chemistry)	0	3 credits	2V+1U	140	10 14	1111 000	
529-0011-01 \/	I Allgemeine Chemie I (PC)			2 hrs	Wed	10-12	HG G5	H. J. Wörner
	Allgemeine Chemie I (PC) Groups are selected in myStudies.			1 hrs	Thu	12-13	HCI F8 HCI J6 HIT F31.1 HIT J52	H. J. Wörner
					Fri	13-14 18-19	HCI F8 HCI D8 HCI D6	
					rii	10-11	HCI D8 HCI E2 HCI E8 HCI F2 HIL B21 HIL D10.2 HIT K51 HPK D24.2 HCI E2 HCI E8 HCI F2	
					20.09.	13-14	HCP E47.2	
	Fundamentals of Biology I: From Molecules to the Biochemistry of Cells	0	6 credits	5G				
551-0125-00 G	Grundlagen der Biologie I: von Molekülen zu Zellen	ur Bioch	emie der	5 hrs	Mon Thu	12-14 10-12	HCI G7 HCI G7	J. Vorholt-Zambelli, N. Ban R. Glockshuber, K. Locher,
	Vorlesung: Montag 12-14 Uhr, Donnerstag Übungen: Freitag 12-13 Uhr oder 13-14 Uhr		hr		Fri	12-13 13-14	HCI G7 HCI G7	J. Piel
<b>101-0271-00L</b> 101-0271-00 V	Mathematical Foundations I: Analysis A Grundlagen der Mathematik I (Analysis A)	0	5 credits	<b>3V+2U</b> 3 hrs	Tue	10-12	HIL E1	L. Keller
404 0074 00 11	Once the second of Market second by Landau Second			0.5	Wed	08-09	HG E5	1 1/-11
101-0271-00 U	Grundlagen der Mathematik I (Analysis A) Groups are selected in myStudies.			2 hrs	Mon	08-10	HIL E7 HIT J51 HIT K51 HIT K52	L. Keller
						10-12	HCI F8 HIT J51 HIT K51 HIT K52	
	Introduction to Computer Science	0	4 credits	2V+2U	Τ,	00.45	50	B II II II I
529-0001-00 V 529-0001-00 U				2 hrs 2 hrs	Thu Tue	08-10 12-14	HIL E3 HCI D267.4 HIT F21	P. H. Hünenberger P. H. Hünenberger
						14-16	HCI D267.4 HIT F21	
					Thu	10-12	HCI D267.4 HIT F21	
						14-16	HCI D267.4 HIT F21	
					Fri	10-12	HCI D267.4 HIT F21	

### ► Second and Third Year Core Courses

### **▶▶** Examination Blocks

### ▶▶▶ Examination Block 1

Number	Title	Туре	ECTS	Hours				Lecturers
529-0121-00L	Inorganic Chemistry I	0	3 credits	2V+1U				
529-0121-00 V	Anorganische Chemie I			2 hrs	Mon	08-10	HCI G3	<ul><li>H. Grützmacher,</li><li>P. Steinegger</li></ul>
529-0121-00 U	Anorganische Chemie I			1 hrs	Tue	12-13	HCI D2	H. Grützmacher,
							HCI D8 HCI E8	P. Steinegger
							HCI F2	
							HCI F8	
							HCI J8	
529-0221-00L	Organic Chemistry I	0	3 credits	2V+1U				
	Organische Chemie I			2 hrs	Wed	12-14	HCI G3	H. Wennemers
529-0221-00 0	Organische Chemie I Groups are selected in myStudies.			1 hrs	Mon	12-13	HCI D6 HCI E8	H. Wennemers
							HCI F8	
							HCI H2.1	
					Tue	08-09	HCI J8 HCI D8	
						00 00	HCI H2.1	
							HCI J3 HCI J8	
529-0422-00L	Physical Chemistry II: Chemical	0	4 credits	3V+1U			110130	
529-0422-00 V	Reaction Kinetics Physikalische Chemie II: Chemische Reak	tionskine	tik	3 hrs	Tue	09-10	HCI J3	F. Merkt, U. Hollenstein
<u></u> 00 V	,				Fri	10-12	HCI G3	- , - : : : : : : : : : : : : : : : : :
529-0422-00 U	Physikalische Chemie II: Chemische Reak	tionskine	tik	1 hrs	Mon	08-09	HCI D4	F. Merkt, U. Hollenstein
	Groups are selected in myStudies.						HCI D6 HCI E2	
							HCP E47.2	
					Tue	10-11	HCI D4	
							HCI D6 HCI E8	
							HCI F8	
						11-12	HCI D4	
							HCI D6 HCI E8	
402-0043-00L	Physics I	0	4 credits	3V+1U				
	Physics I (Physik I)			3 hrs	Tue	16-17	HPH G2	J. Home
					Thu	16-18	HPH G2	
402-0043-00 U	Physik I Di 17-18 für Studiengang Rechnergestützte	o Wisser	nschaften	1 hrs	Tue	17-18	HCI D2 HIT F31.1	J. Home
	Mi 9-10 (oder Di 17-18 als Ausweichtermin						HIT H51.1	
	Chemie bzw. Chemieingenieurwissenscha	ften sowi	ie				HIT J51	
	Interdisziplinäre Naturwissenschaften. Mi 12-13 für Studiengang Raumbezogene				Wed	09-10	CAB G52 HG E21	
	Ingenieurwissenschaften.						HG E22	
	Do 10-11 für Studiengang Biochemie.						HG E33.5	
							HG G26.3 ML H41.1	
							ML J34.1	
							ML J34.3	
					Thu	12-13 10-11	HG D3.2 HCI D6	
401-0643-13L	Statistics II	0	3 credits	2V+1U				
	Statistik II (für Biologie/Biochemie – Chem.	_		2 hrs	Wed	10-12	HG F1	M. Kalisch
	Biologie/Pharmazeutische Wiss./HST)		04044				HG F3	
401-0642 12 LL	Findet im HG F 1 mit Videoüberttragung im		รเสน.	1 hrs	Thu	08-09	HCI H2.1	M. Kalisch
401-0043-13 U	Statistik II (für Biologie/Biochemie – Chem. Biologie/Pharmazeutische Wiss./HST)			1 1115	i iiu	00-09	HCI H2.1 HCI H8.1	IVI. NAIISUII
	Groups are selected in myStudies.					09-10	HCI H2.1	
	Do 9-10, Do 12-13 oder Do 13-14 für Studi Gesundheitswissenschaften und Technolo					10-11	HCI H8.1 HCI H2.1	
	Do 9-10 für Studiengang Biochemie – Che	0	Biologie.			11-12	HCI H2.1 HCI H2.1	
	Do 8-9, Do 10-11 oder Do 11-12. für Studie					12-13	HCI J4	
	Do 8-9 oder Do 9-10 für Studiengang Phar Wissenschaften.	mazeutis	scrie				HCI J7 HIT H51	
	· · · · · · · · · · · · · · · · · · ·					13-14	HCI J4	
							HCI J7	
					Fri	10-11	HIT H51 HIT F31.2	
					1 11	11-12	HIT F31.2	
529-0051-00L	Analytical Chemistry I	0	3 credits	3G				
529-0051-00 G	Analytische Chemie I			3 hrs	Wed	08-10	HCI G3	D. Günther, MO. Ebert,
					Thu	08-09	HPH G2	G. Schwarz, R. Zenobi
535-0521-00L	Pharmacology and Toxicology I	0	2 credits	2V				

Online-Veranstaltung: Diese Lehrveranstaltung findet grundsätzlich online statt. Die reservierten Räume bleiben für die Studierenden auf dem Campus bestehen, um die Lehrveranstaltung dort zu hören.

#### ▶▶▶ Examination Block 2

Starting Autumn Semester 2022.

#### ► Laboratory Courses

Number	Title	Type	ECTS	Hours				Lecturers
529-0124-00L	BCB I: General Chemistry	0	6 credits	8P				
529-0124-00 P	BCB I: Allgemeine Chemie Ferienpraktikum nach dem 1. Semest oder alternativ während des 1. Semes		19-18 Uhr,	8 hrs				H. V. Schönberg
529-0016-00L	BCB III: Organic Chemistry	0	8 credits	12P				
529-0016-00 P	BCB III: Organische Chemie ■  Das Praktikum findet am Montag und	Dienstag um	12.45 statt.	12 hrs	23.09.	13-15	HIT F11.1	J. W. Bode

### **▶** Block Courses

Starting Autumn Semester 2022

#### **▶** Electives

Course offerings from 3. year on (starting autumn semester 2022)

#### ► GESS Science in Perspective

### ▶▶ Science in Perspective

see Science in Perspective: Type A: Enhancement of Reflection Capability Recommended Science in Perspective (Type B) for D-CHAB

### **▶▶** Language Courses

see Science in Perspective: Language Courses ETH/UZH

Biochemistry – Chemical Biology Bachelor - Key for Type						
W	Eligible for credits	Dr	Suitable for doctorate			
E-	Recommended, not eligible for credits	0	Compulsory			
Z	Courses outside the curriculum	W+	Eligible for credits and recommended			

Key for Hours						
V	lecture	P	practical/laboratory course			
G	lecture with exercise	A	independent project			
U	exercise	D	diploma thesis			
S	seminar	R	revision course / private study			
K	colloquium					

### ECTS European Credit Transfer and Accumulation System

# **Biology (General Courses)**

### ► Complementary Courses

Number	Title	Type	ECTS	Hours				Lecturers
376-1791-00L	Introductory Course in Neuroscience I (University of Zurich) No enrolment to this course at ETH Zurich. Book the corresponding module directly at UZH as an incoming student. UZH Module Code: SPV0Y005	Z Dr	2 credits	2V				
	Mind the enrolment deadlines at UZH: https://www.uzh.ch/cmsssl/en/studies/appli cation/deadlines.html							
376-1791-00 V	Introductory Course in Neuroscience I (Univ **together with University of Zurich**	ersity of	Zurich)	2 hrs	Mon	16-18	UNI ZH.	University lecturers
	Kurs des Zentrums für Neurowissenschafte	n Zürich	(ZNZ)					
	Beginn 20.09.2021							
151-0927-00L	Rate-Controlled Separations in Fine Chemistry	Z Dr	6 credits	3V+1U				
151-0927-00 V	Rate-Controlled Separations in Fine Chemis The class will be in a hybrid mode. The exa discussed and agreed upon with the studen week of the semester.	ct moda		3 hrs	Thu	11-14	ML F34	M. Mazzotti, V. Becattini
151-0927-00 U	Rate-Controlled Separations in Fine Chemis The class will be in a hybrid mode. The exa discussed and agreed upon with the studen week of the semester.	ct moda		1 hrs	Thu	14-15	ML F34	M. Mazzotti, V. Becattini
401-0649-00L	Applied Statistical Regression	Z Dr	5 credits	2V+1U				
	Applied Statistical Regression			2 hrs	Mon	08-10	HG E1.2	M. Dettling
401-0649-00 U	Applied Statistical Regression Mon 10-12 might not work for all different pi course is offered. On sufficient demand, oth Mon 15-17 or Fri 10-12) for the exercise set	ner slots	(tentatively	1 hrs	Mon/2w	10-12	HG E1.2	M. Dettling
551-1619-00L	Structural Biology	Z Dr	1 credit	1K				
551-1619-00 K	Strukturbiologie Does not take place this semester. Raum: HPK D3, ETH-Hönggerberg			1 hrs	by appt.			R. Glockshuber, F. Allain, N. Ban, K. Locher, M. Pilhofe E. Weber-Ban, K. Wüthrich
851-0180-00L	Research Ethics Number of participants limited to 40	Z Dr	2 credits	2G				
054 0400 00 0	Particularly suitable for students of D-BIOL, D-CHAB, D-HEST			0.5	<b>NA</b> /1	40.00	1 EW 04	O Ashamaana D Fassh
851-0180-00 G	Research Ethics  One additional hour of home work per week		•	2 hrs	Wed	18-20	LFW C1	G. Achermann, P. Emch
376-1581-00L	Cancer: Fundamentals, Origin and Therapy	Z	2 credits	2G	_	10.10	UO D7 0	
	Krebs: Grundlagen, Ursachen und Therapie			2 hrs	Tue	10-12	HG D7.2	H. Nägeli
	ZüKoSt: Seminar on Applied Statistics ZüKoSt: Seminar on Applied Statistics **gemeinsam mit der Universität Zürich**	Z Dr	0 credits	1 <b>K</b> 10s hrs	Fri	15-17	HG G19.1	<b>M. Kalisch</b> , F. Balabdaoui, A. Bandeira, P. L. Bühlmann, R. Furrer, L. Held, T. Hothorr
	Zeit: 15:15-16:30 Nach besonderem Programm gemäss Ankt M. Kalisch Tel. 044 632 3435	ündigung	g, Koordinatior	)				M. H. Maathuis, M. Mächler, L. Meier, M. Robinson, C. Strobl, S. van de Geer
<b>551-1109-00L</b> 551-1109-00 K	Seminars in Microbiology Seminars in Microbiology In autumn semester 2021, the seminar will is some seminar units will only take place via Zoom and othe parallel		•	<b>2K</b> 2 hrs	Wed 03.01 04.02.	16-18 16-18	HCI J7 HCI J3	S. Sunagawa, WD. Hardt, M. Künzler, J. Piel, J. Vorholt Zambelli
	broadcasting. Information on the individual found at https://micro.biol.ethz.ch/events/microbiolog							
<b>401-0620-00L</b> 401-0620-00 K	Statistical Consulting Statistischer Beratungsdienst Web: http://stat.ethz.ch/consulting E-Mail: beratung@stat.math.ethz.ch Tel: 044 632 2223	Z Dr	0 credits	<b>0.1K</b> 0.1 hrs	by appt.			M. Kalisch, L. Meier
551-0512-00L	Current Topics in Molecular and Cellular Neurobiology Number of participants limited to 8.	Z Dr	2 credits	18				
551-0512-00 S	Current Topics in Molecular and Cellular Ne Does not take place this semester. Permission from lecturers required for all sta This course may be taken only once, either or in the autumn semester.	udents	0,	1 hrs				U. Suter

551-0737-00L	Ecology and Evolution: Interaction Seminar	Z	2 credits	2S				
551-0737-00 S	Ecology and Evolution: Interaction Seminar	r <b>=</b>		2 hrs	by appt	t.		S. Bonhoeffer
551-0509-00L	Current Immunological Research in Zurich	Z Dr	0 credits	1K				
551-0509-00 K	Current Immunological Research in Zurich			12s hrs	by appt	t.		R. Spörri, M. Detmar, C. Halin Winter, WD. Hardt, M. Kopf, S. R. Leibundgut, A. Oxenius, University lecturers
551-1106-00L	Progress Reports in Microbiology and Immunology Students must sign up via secr.micro.biol.ethz.ch	Z Dr	0 credits	5\$				
551-1106-00 S	Progress Reports in Microbiology and Imm	unology		5 hrs	Fri 03.01 18.02.	08-13 08-13	HCP E47.4 HPK D24.2	J. Piel, WD. Hardt, A. Oxenius, J. Vorholt-Zambelli
551-0209-00L	Sustainable Plant Systems (Seminar) Sustainable Plant Systems (Seminar)	Z Dr	2 credits	<b>2S</b> 2 hrs	07 10	14-18	LFW B2	<b>M. Paschke</b> , F. Liebisch,
331-0209-00 3	**together with University of Zurich and Uni Presence days: 7. october & 3. december 2			21113	07.10.	14-10	LI W BZ	further lecturers
551-0120-00L	Plant Biology Colloquium (Autumn Semester) This compulsory course is required only once. It may be taken in autumn as course 551-0120-00 "Plant Biology Colloquium (Autumn Semester)" or in spring as course 551-0120-01 "Plant Biology Colloquium (Spring Semester)".		2 credits	1K				
551-0120-00 K	Plant Biology Colloquium (Autumn Semeste	er)		1 hrs	Tue 03.01 18.02.	16-17 17-18	LFW C5 CAB G51	<ul><li>C. Sánchez-Rodríguez,</li><li>A. Rodriguez-Villalon,</li><li>O. Voinnet, S. C. Zeeman</li></ul>
551-1615-00L	NMR Methods for Studies of Biological Macromolecules Prerequisites: Basic knowledge in biologica NMR spectroscopy.		1 credit	28				
551-1615-00 S	NMR Methods for Studies of Biological Mad	cromole	cules	2 hrs	Wed	14-16	HPK D3	A. D. Gossert
551-1713-00L	Current Topics in Molecular Health Sciences	Z	0 credits	28				
551-1713-00 S	Current Topics in Molecular Health Science Permission from lecturers required for all st			2 hrs	Mon 03.01 18.02.	16-18 16-18	HPL D32 HPL D34 HPL D32	I. Zanini, further lecturers
402-0368-071	Lecture Series: Space Research and	Dr, Z	1 credit	2V			HPL D34	
	Exploration Lecture Series: Space Research and Explo	•	rcreuit	2 hrs	Tue 21.09.	12-14 12-14	HG F7 HPT C103	S. P. Quanz
Biology (Gen	eral Courses) - Key for Type							
W+	Eligible for credits and recommended			W	EI	igible for	credits	
Dr	Suitable for doctorate			E-			ded, not eligible	
0	Compulsory			Z	Co	ourses ou	tside the curricu	ılum
Key for Hours	S							
V	lecture			Р	pr	actical/lal	oratory course	
G	lecture with exercise			A	-	depender	-	
U	exercise			D		ploma the		
S	seminar			R	re	vision cou	urse / private stu	ıdy
K	colloquium							
ECTS	European Credit Transfer and Accumulation	•						

Special students and auditors need special permission from the lecturers.

# **Biology Bachelor**

- ► Bachelor Studies (Programme Regulations 2020)
- **▶▶** First Year Courses
- **▶▶▶** First Year Examinations

### ▶▶▶▶ First Year Examination Block 1

Number	Title	Type	ECTS	Hours				Lecturers
551-0125-00L	Fundamentals of Biology I: From Molecules to the Biochemistry of Cells	0	6 credits	5G				
551-0125-00 G	Grundlagen der Biologie I: von Molekülen zu	ır Bioch	emie der	5 hrs	Mon	12-14	HCI G7	J. Vorholt-Zambelli, N. Ban
	Zellen				Thu	10-12	HCI G7	R. Glockshuber, K. Locher,
	Vorlesung: Montag 12-14 Uhr, Donnerstag		hr		Fri	12-13	HCI G7	J. Piel
	Ubungen: Freitag 12-13 Uhr oder 13-14 Uhr	•				13-14	HCI G7	
529-1001-01L	General Chemistry (for Biol./Pharm.Sc.)	0	4 credits	4V+2U				
529-1001-01 V	Allgemeine Chemie (für Biol./Pharm.Wiss./H Di 10-12 Uhr im HG F1 mit Videoübertragun		G F3	4 hrs	Tue	10-12	HG F1 HG F3	J. Cvengros
	Do 8-10 Uhr im HCl G3 mit Videoübertragur	ng ins H	ICI G7		Thu	08-10	HCI G3 HCI G7	
529-1001-01 U	Allgemeine Chemie (für Biol./Pharm.Wiss.) Die Übungen beginnen erst in der zweiten V und wie folgt vorgesehen:	Voche,	sind fakultativ	2 hrs	Wed	08-10	HCI D2 HCI H8.1 HCI J4	J. Cvengros
	Pharma: Mi 8-10 BIOL: Fr 8-10				Fri	08-10	HCI D8 HIT H42	
							HPT C103	
529-1011-00L	Organic Chemistry I (for Biol./Pharm.Sc./HST)	0	4 credits	4G				
529-1011-00 G	Organische Chemie I (für Biol./Pharm.Wiss. Groups are selected in myStudies.	/HST)		4 hrs	Wed	10-12	HCI G3 HCI G7	C. Thilgen
	Vorlesung: Mi 10-12 Uhr im HCl G3 mit Vide G7		0 0	1	Fri	14-16	HCI D2 HCI D4	
	In den ersten beiden Wochen findet auch Fr HPH G 1 statt.	14-16	Vorlesung im				HCI D6 HCI D8	
	Die Übungen beginnen in der dritten Semes	terwool	ne und sind				HCI E2 HCI E8	
	wie folgt vorgesehen: Fr 14-16 oder 16-18 U						HCI E6	
	we reign vergesenen. The tree sacrife to te	m (nao	n Emionarig).				HCI F8	
							HCI G7	
							HPK D24.2	
							HPV G4	
							HPV G5	
						16-18	HCI D2	
						10 10	HCI D4	
							HCI D6	
							HCI D8	
							HCI E2	
							HCI E8	
							HCI F2	
							HCI F8	
							HCI G7	
							HPK D24.2	
							HPV G4	
							HPV G5	
					24.09.	14-16	HPH G1	
					01 10	14-16	HPH G1	

### ▶▶▶▶ First Year Examination Block 2

Number	Title	Type	ECTS	Hours				Lecturers
402-0073-00L	Physics I	0	3 credits	2V+2U				
402-0073-00 V	Physik I			2 hrs	Mon	14-16	HPH G2	T. M. Ihn
402-0073-00 U	Physik I			2 hrs	Mon	16-18	HCI E2 HCI H2.1 HCP E47.2 HIL E10.1 HIT F32 HIT J51 HIT J52 HIT J53 HIT K51 HIT K52 HPK D24.2	T. M. Ihn
401-0291-00L	Mathematics I	0	6 credits	4V+2U				
401-0291-00 V	Mathematik I Vorlesung im HG F7 mit Videoübertra	aauna ins HG l	F5.	4 hrs	Mon	08-10	HG F5 HG F7	A. Caspar
	3	5 5 5			Tue	08-10	HG F5 HG F7	

401-0291-00 U	Mathematik I Groups are selected in myStudies. Di 14-16 für Studiengang Gesundheitswissenschaften und Technologie. Mi 14-16 für Studiengänge Biologie bzw. Pharmazeutische Wissenschaften. StudyCenter: Steht den Studierenden am Dienstag und Mittwoch ab 16 Uhr in Begleitung der Übungen zur Verfügung.	2 hrs	Tue	14-16	CHN D48 ETZ E7 ETZ E8 ETZ F91 ETZ H91 HG D5.1 HG D5.3 HG E33.3 HG G26.1 ML H34.3 CHN D44 CHN D46 CHN D48 CHN G46 CLA E4 HG F26.5 IFW C31	A. Caspar

# ▶▶▶ First Year Laboratory Courses

Number	Title	Type	ECTS	Hours				Lecturers
535-1001-00L	Laboratory Course General Chemistry (for Biology and Pharmacy) Information about the practical course will be given on the first day.	0	6 credits	8P				
	Register in myStudies as early as possible, because the fire protection courses take place separately before the internship starts.							
535-1001-00 P	Praktikum Allgemeine Chemie (für Biol./Pha Informationsveranstaltung zum Praktikum fi nachmittags statt (Raum und Zeit werden a bekanntgegeben). Praktikumsbetrieb ab 3. Semesterwoche: Di: 13 - 18 (Gruppe A) Do: 13 - 18 (Gruppe B)	indet am m Begri	i 21.9.2021, issungstag	8 hrs	Tue	13-18	HCI C191.3 HCI C191.4 HCI E374 HCI E378 HCI G198.2 HCI J190.2 HCI J192.2 HCI J194.2 HCI J196.2	<b>S. Gruber</b> , KH. Altmann J. Hall
	Theorieunterricht zum Praktikum ab 4. Sem Di: 14 - 16 (Gruppe B) Do: 14 - 16 (Gruppe A)	esterwo	che:		Thu	14-16 13-18	HCI J198.2 HCI J7 HCI C191.3 HCI C191.4 HCI E374 HCI E378 HCI G198.2 HCI J190.2 HCI J194.2 HCI J196.2 HCI J196.2 HCI J198.2	
					21.09.	14-16 14-17	HCI J6 HCI J7	

### **▶▶** Second Year Courses

Number	Title	Type	ECTS	Hours				Lecturers
551-0127-00L	Fundamentals of Biology III: Multicellularity	0	8 credits	6G				
551-0127-00 G	Grundlagen der Biologie III: Multizellularität			6 hrs	Mon Tue Fri	10-12 10-12 08-10	HCI G3 HCI G3 HCI G3	M. Stoffel, M. Künzler, O. Y. Martin, U. Suter, S. Werner, A. Wutz, S. C. Zeeman
551-1005-00L	Bioanalytics	0	4 credits	4G				
551-1005-00 G	Bioanalytics			4 hrs	Mon Fri	08-10 10-12	HPV G5 HPV G5	P. Picotti, F. Allain, V. Korkhov, M. Pilhofer, R. Schlapbach, K. Weis, K. Wüthrich, further lecturers
<b>252-0852-00L</b> 252-0852-00 V	Foundations of Computer Science Grundlagen der Informatik Vorlesung im HG F1 mit Videoübertragung	<b>O</b> ins HG	4 credits	<b>2V+2U</b> 2 hrs	Mon	14-16	HG F1 HG F3	L. E. Fässler, M. Dahinden

252-0852-00 U	Grundlagen der Informatik Es gibt keine fixen Übungsgruppen. Stattdessen besprechen die Studierenden alle 2 Wochen eine Projektaufgabe individuell mit einer Assistenzperson. Die restlichen Zeiten stehen für die Bearbeitung der Projektaufgaben zur Verfügung.	2 hrs	Mon	10-12 16-18	CAB H56 CAB H57 HG E26.1 HG E26.3 HG E27 CAB H56 CAB H57 HG E19 HG E26.1 HG E26.3 HG E19	<b>L. E. Fässler</b> , M. Dahinden
			Fri	16-19	HG E26.1 HG E26.3 HG E27 HG D12	
401-0643-13L	Statistics II O 3 credits	2V+1U	1 11	10-10	110 012	
401-0643-13 V		2 hrs	Wed	10-12	HG F1 HG F3	M. Kalisch
401-0643-13 U	Statistik II (für Biologie/Biochemie – Chem. Biologie/Pharmazeutische Wiss./HST) Groups are selected in myStudies. Do 9-10, Do 12-13 oder Do 13-14 für Studiengang Gesundheitswissenschaften und Technologie. Do 9-10 für Studiengang Biochemie – Chemische Biologie.	1 hrs	Thu	08-09 09-10 10-11 11-12	HCI H2.1 HCI H8.1 HCI H2.1 HCI H8.1 HCI H2.1 HCI H2.1	M. Kalisch
	Do 8-9, Do 10-11 oder Do 11-12. für Studiengang Biologie. Do 8-9 oder Do 9-10 für Studiengang Pharmazeutische Wissenschaften.			12-13	HCI J4 HCI J7 HIT H51 HCI J4 HCI J7	
			Fri	10-11 11-12	HIT H51 HIT F31.2 HIT F31.2	
529-0015-00L	Physical Chemistry O 3 credits	2V+1U				
529-0015-00 V	Physikalische Chemie Vorlesung: Di 8-10 Übungen: Do 9-10	2 hrs	Tue	08-10	HIL E8	G. Jeschke, D. Klose
529-0015-00 U	Physikalische Chemie Vorlesung: Di 8-10 Übungen: Do 9-10	1 hrs	Thu	09-10	HCI E2 HCP E47.4 HIL C10.2 HIL D10.2 HIL F10.3 HPK D24.2	G. Jeschke
			23.09.	09-10	HCI E8	
529-0229-00L	Practical Course Organic Chemistry (for O Students of Biology and Pharmaceutical Sciences)  Latest online enrolment is 10 days before the beginning of the semester.  Students who did not pass the first-year examinations need the lecturers' written permission to take this course.	12P				
529-0229-00 P	Praktikum Organische Chemie (für Biol./Pharm.Wiss.)  Permission from lecturers required for all students Vorbesprechungstermin und weitere Informationen werden im Moodle-Kurs bekanntgegeben. Arbeitsbeginn jeweils zur vollen Stunde (s.t.).	12 hrs	Tue	13-19	HCI G290.2 HCI G292.2 HCI G294.2 HCI G296.2 HCI G298.2	C. Thilgen, Y. Yamakoshi
	Further information such as date, time, and place of the introductory lecture: see Moodle course. The lab always starts at the top of the hour (s.t.).		Wed	13-19	HCI G290.2 HCI G292.2 HCI G294.2 HCI G296.2 HCI G298.2	
			Thu	13-19	HCI G290.2 HCI G292.2 HCI G294.2 HCI G296.2 HCI G298.2	
			Fri	12-18	HCI G298.2 HCI G290.2 HCI G292.2 HCI G294.2 HCI G296.2 HCI G298.2	
			23.09. 28.09. 30.09. 01.10.	16-19 13-14 14-18 13-18	HCI G296.2 HCI D2 HCI E2 HCI E2	

# ► Bachelor Studies (Programme Regulations 2013)

### ▶▶ 2. Year, 3. Semester

### **▶▶▶** Core Courses

Number	Title	Туре	ECTS	Hours	Lecturers
551-1003-00L	<b>Methods of Biological Analysis</b> Only for Biologie BSc, Programme	0	3 credits	3G	

	Regulations 2013.					
529-1042-00 G	Analytik Lehrveranstaltung im Selbststudium. Keine Anwesenheit	1.5 hrs				to be announced
	erforderlich. Videoaufzeichnungen des Herbstsemesters 2020 werden der Studierenden zur Verfügung gestellt.	n				
	Die Lehrveranstaltung wird zum letzten Mal im HS 2021 angeboten.					
551-1003-00 G	Methoden der Biologischen Analytik Lehrveranstaltung im Selbststudium. Keine Anwesenheit	1.5 hrs				P. Picotti, K. Weis
	erforderlich. Videoaufzeichnungen des Herbstsemesters 2020 werden der Studierenden zur Verfügung gestellt.	n				
	Die Lehrveranstaltung wird zum letzten Mal im HS 2021 angeboten.					
401-0643-13L	Statistics II O 3 credit	s 2V+1U				
401-0643-13 V	Statistik II (für Biologie/Biochemie – Chem. Biologie/Pharmazeutische Wiss./HST) Findet im HG F 1 mit Videoüberttragung im HG F 3 statt.	2 hrs	Wed	10-12	HG F1 HG F3	M. Kalisch
401-0643-13 U	Statistik II (für Biologie/Biochemie – Chem. Biologie/Pharmazeutische Wiss./HST)	1 hrs	Thu	08-09	HCI H2.1 HCI H8.1	M. Kalisch
	Groups are selected in myStudies  Do 9-10. Do 12-13 oder Do 13-14 für Studiengang			09-10	HCI H2.1 HCI H8.1	
	Gesundheitswissenschaften und Technologie.			10-11	HCI H2.1	
	Do 9-10 für Studiengang Biochemie – Chemische Biologie. Do 8-9, Do 10-11 oder Do 11-12. für Studiengang Biologie.			11-12 12-13	HCI H2.1 HCI J4	
	Do 8-9 oder Do 9-10 für Studiengang Pharmazeutische Wissenschaften.			13-14	HCI J7 HIT H51 HCI J4	
					HCI J7 HIT H51	
			Fri	10-11 11-12	HIT F31.2 HIT F31.2	
551-1323-00L	Fundamentals of Biology II: O 4 credit Biochemistry and Molecular Biology	s 4G				
	Only for - Biologie BSc (Programme Regulations 2013) and - Pharmaceutical Sciences BSc					
551-1323-00 G	(Programme Regulations 2013) Grundlagen der Biologie II: Biochemie und Molekularbiologie	4 hrs				K. Locher, N. Ban,
33. 1323 33 3	Lehrveranstaltung im Selbststudium. Keine Anwesenheit erforderlich. Videoaufzeichnungen des Herbstsemesters 2020 werden de					R. Glockshuber, E. Weber-Ban
	Studierenden zur Verfügung gestellt.					
	Die Lehrveranstaltung wird zum letzten Mal im HS 2021 angeboten.					
551-0103-00L	Fundamentals of Biology II: Cell Biology O 5 credit Only for - Biologie BSc (Programme Regulations	s 5V				
	2013), - Pharmaceutical Sciences BSc					
	(Programme Regulations 2013) - Health Sciences and Technology BSc (Programme Regulations 2017)					
551-0103-00 V	Grundlagen der Biologie II: Zellbiologie Lehrveranstaltung im Selbststudium. Keine Anwesenheit	5 hrs				<b>S. Werner</b> , Y. Barral, U. Kutay, G. Schertler, U. Suter, I. Zemp
	erforderlich. Videoaufzeichnungen des Herbstsemesters 2020 werden der Studierenden zur Verfügung gestellt.	n				
	Die Lehrveranstaltung wird zum letzten Mal im HS 2021 angeboten.					
529-1023-00L	Physical Chemistry I (for Biology and O 3 credit Pharmacy)	s 2V+1U				
	Only for - Biologie BSc (Programme Regulations 2013) and					
	- Pharmaceutical Sciences BSc (Programme Regulations 2013)					
529-1023-00 V	Physikalische Chemie I (für Biol./Pharm.Wiss.) Lehrveranstaltung im Selbststudium. Keine Anwesenheit erforderlich.	2 hrs				R. Riek
	Videoaufzeichnungen des Herbstsemesters 2020 werden der Studierenden zur Verfügung gestellt, aber nur noch im HS 20					

529-1023-00 U Physikalische Chemie I (für Biol./Pharm.Wiss.)
Lehrveranstaltung im Selbststudium. Keine Anwesenheit

erforderlich.

Videoaufzeichnungen des Herbstsemesters 2020 werden den Studierenden zur Verfügung gestellt.

Die Lehrveranstaltung wird zum letzten Mal im HS 2021 angeboten.

### ▶▶▶ Elective Blocks

### **▶▶▶** Biodiversity

Number	Title	Type	ECTS	Hours	Lecturers
551-0435-00L	Systematic Biology: Zoology	0	3 credits	2V+2P	
551-0435-00 V	Systematische Biologie: Zoologie Does not take place this semester. Semesterwechsel, findet ab FS 2022 nur im	n FS star	tt.	2 hrs	O. Y. Martin, M. Greeff
551-0435-00 P	Systematische Biologie: Zoologie Does not take place this semester. Permission from lecturers required for all st Semesterwechsel, findet ab FS 2022 nur im		tt.	2 hrs	O. Y. Martin, M. Greeff

1 hrs

R. Riek

### ▶▶▶▶ Cellular and Molecular Biology

Number	Title Typ	oe ECTS	3	Hours				Lecturers
529-0229-00L	Practical Course Organic Chemistry (for Students of Biology and Pharmaceutical Sciences) Latest online enrolment is 10 days before the beginning of the semester. Students who did not pass the first-year examinations need the lecturers' written permission to take this course.	8 cred	dits	12P				
529-0229-00 P	Praktikum Organische Chemie (für Biol./Pharm.) Permission from lecturers required for all studen Vorbesprechungstermin und weitere Information Moodle-Kurs bekanntgegeben. Arbeitsbeginn je Stunde (s.t.).	nts nen werden		12 hrs	Tue	13-19	HCI G290.2 HCI G292.2 HCI G294.2 HCI G296.2 HCI G298.2	C. Thilgen, Y. Yamakosh
		Wed	13-19	HCI G290.2 HCI G292.2 HCI G294.2 HCI G296.2 HCI G298.2				
					Thu	13-19	HCI G290.2 HCI G292.2 HCI G294.2 HCI G296.2 HCI G298.2	
					Fri	12-18	HCI G290.2 HCI G292.2 HCI G294.2 HCI G296.2 HCI G298.2	
					23.09. 28.09. 30.09. 01.10.	16-19 13-14 14-18 13-18	HCI G3 HCI D2 HCI E2 HCI E2	

### **▶▶▶▶** Biological Chemistry

	•				
Number	Title	Туре	ECTS	Hours	Lecturers
529-0229-00L	Practical Course Organic Chemistry (for Students of Biology and Pharmaceutica Sciences) Latest online enrolment is 10 days before the beginning of the semester. Students who did not pass the first-year examinations need the lecturers' written permission to take this course.		8 credits	12P	

529-0229-00 P	Praktikum Organische Chemie (für Biol./Pharm.Wiss.)  Permission from lecturers required for all students Vorbesprechungstermin und weitere Informationen werden im Moodle-Kurs bekanntgegeben. Arbeitsbeginn jeweils zur vollen Stunde (s.t.).	12 hrs	Tue	13-19	HCI G290.2 HCI G292.2 HCI G294.2 HCI G296.2 HCI G298.2	C. Thilgen, Y. Yamakoshi
	Further information such as date, time, and place of the introductory lecture: see Moodle course. The lab always starts at the top of the hour (s.t.).		Wed	13-19	HCI G290.2 HCI G292.2 HCI G294.2 HCI G296.2	
			Thu	13-19	HCI G298.2 HCI G290.2 HCI G292.2 HCI G294.2	
			Fri	12-18	HCI G296.2 HCI G298.2 HCI G290.2 HCI G292.2	
			23.09.	16-19	HCI G294.2 HCI G296.2 HCI G298.2 HCI G3	
			28.09. 30.09. 01.10.	13-14 14-18 13-18	HCI D2 HCI E2 HCI E2	

### ▶▶ 3. Year, 5. Semester

### **▶▶▶** Concept Courses

Number	Title	Type	ECTS	Hours				Lecturers
701-2413-00L	Evolutionary Genetics	W	6 credits	4V				
701-1413-00 V	Population and Quantitative Genetics			2 hrs	Mon	14-16	HG D7.2	T. Städler, J. Stapley
701-1413-01 V	Ecological Genetics			2 hrs	Mon	10-12	ML F36	<b>A. Widmer</b> , S. Fior, M. C. Fischer
551-0307-00L	Molecular and Structural Biology I: Protein Structure and Function D-BIOL students are obliged to take part I and part II (next semester) as a two- semester course	W	3 credits	2V				
551-0307-00 V	Molecular and Structural Biology I: Protein S	tructure	and Function	2 hrs	Mon	14-16	HCI J7	<b>R. Glockshuber</b> , K. Locher, E. Weber-Ban
551-0309-00L	Concepts in Modern Genetics Information for UZH students: Enrolment to this course unit only possible at ETH. No enrolment to module BIO348 at UZH.	W	6 credits	4V				
	Please mind the ETH enrolment deadlines for UZH students: https://www.ethz.ch/en/studies/non-degree-courses/special-students/special-students-university-of-zurich.html							
551-0309-00 V	Concepts in Modern Genetics **gemeinsam mit der Universität Zürich**			4 hrs	Mon Tue	12-14 08-10	HG E5 I15 G60	Y. Barral, D. Bopp, A. Hajnal O. Voinnet
51-0311-00L	Molecular Life of Plants	W	6 credits	4V				
551-0311-00 V	Molecular Life of Plants			4 hrs	Mon Tue	08-10 10-12	HPL D32 LFO C13	S. C. Zeeman, K. Bomblies, A. Rodriguez-Villalon, C. Sánchez-Rodríguez, O. Voinnet
551-0313-00L	Microbiology (Part I)	w	3 credits	2V				
551-0313-00 V				2 hrs	Mon	10-12	HCI G7	WD. Hardt, L. Eberl, J. Piel, M. Pilhofer
51-0319-00L	Cellular Biochemistry (Part I)	W	3 credits	2V				
551-0319-00 V	Cellular Biochemistry (Part I)			2 hrs	Mon	14-16	HCI J3	<b>U. Kutay</b> , G. Neurohr, M. Peter, K. Weis, I. Zemp
529-0731-00L	Nucleic Acids and Carbohydrates Note for BSc Biology students: Only one of the two concept courses 529-0731-00 Nucleic Acids and Carbohydrates (autumn semester) or 529-0732-00 Proteins and Lipids (spring semester) can be counted for the Bachelor's degree.	W	6 credits	3G				
529-0731-00 G	Nucleic Acids and Carbohydrates Lecture 2 hours on Tue 9:45-11:30. Exercises: 1 hour according to agreement, p 8:30 or 8:45-9:30. Exercises will start in the semester.			3 hrs	Tue	08-09 09-10 10-12	HCI D2 HCI D2 HCI J3	<b>D. Hilvert</b> , P. A. Kast, S. J. Sturla, H. Wennemers
551-0317-00L	Immunology I	w	3 credits	2V				
551-0317-00 V	Immunology I			2 hrs	Tue	08-10	HG G3	M. Kopf, A. Oxenius

Exercises: Mo 14-16

4 hrs

Mon 12-14 14-16 HPT C103 HPT C103 S. Sunagawa, M. Gstaiger, A. Kahles, G. Rätsch, B. Snijder, E. Vayena, C. von Mering, N. Zamboni

#### **▶▶▶** Block Courses

Registration for Block courses is mandatory. Please register under https://www.uzh.ch/zoolmed/ssl-dir/Blockkurse\_UNIETH.php. Registration period: from 26.07.2021 to 13.08.2021

Please note the ETH admission criteria for the admission of ETH students to ETH block courses on the block course registration website under "allocation".

### ▶▶▶▶ Block Courses in 1st Quarter of the Semester

From 21.9.2021 to 13.10.2021

551-1129-00L				Hours				Lecturers
51-1129-00L	Understanding and Engineering Microbial Metabolism Number of participants limited to 6.	W	6 credits	7P				
	The enrolment is done by the D-BIOL study administration.							
	General safety regulations for all block courses: The COVID certificate is mandatory at ETH Zurich. Only students who have a Covid certificate, i.e. who have been vaccinated, have recovered or have been tested, are entitled to attend courses in attendanceWhenever possible the distance rules have to be respected -All students have to wear masks throughout the course. Please keep reserve masks ready. Surgical masks (IIR) or medical grade masks (FFP2) without a valve are permitted. Community masks (fabric masks) are not allowedThe installation and activation of the Swiss Covid-App is highly encouraged -Any additional rules for individual courses have to be respected -Students showing any COVID-19 symptoms are not allowed to enter ETH buildings and have to inform the course responsible.							
551-1129-00 P	Understanding and Engineering Microbial M Permission from lecturers required for all stu Block course in the 1st quarter of the autumn	ıdents		100s hrs	Tue/1 Wed/1 Thu/1 Fri/1	13-17 08-17 08-17 08-17	HCI F436 HCI F436 HCI F436 HCI F436	J. Vorholt-Zambelli

### 551-1421-00L

#### The Mechanisms of Natural Transformation in Competent Gram-**Negative Bacteria**

Number of participants limited to 2.

The enrolment is done by the D-BIOL study administration.

General safety regulations for all block courses:

The COVID certificate is mandatory at ETH Zurich.

Only students who have a Covid certificate, i.e. who have been vaccinated, have recovered or have been tested, are entitled to attend courses in attendance.

-Whenever possible the distance rules have to be respected

-All students have to wear masks throughout the course. Please keep reserve masks ready. Surgical masks (IIR) or medical grade masks (FFP2) without a valve are permitted. Community masks (fabric masks) are not allowed. -The installation and activation of the Swiss

Covid-App is highly encouraged -Any additional rules for individual courses have to be respected

-Students showing any COVID-19 symptoms are not allowed to enter ETH buildings and have to inform the course responsible.

551-1421-00 P The Mechanisms of Natural Transformation in Competent Gram- 100s hrs M. Hospenthal Negative Bacteria

7P

Permission from lecturers required for all students Block course in the 1st quarter of the autumn semester.

The course will start with an introductory lecture on Tuesday 21/09/2021 afternoon. Participants will be informed about the exact time and location via email.

551-1415-00L Image-Based Drug Screening in Human W

6 credits **Blood for Personalized Medicine** 

The enrolment is done by the D-BIOL study administration.

General safety regulations for all block

Number of participants limited to 6.

The COVID certificate is mandatory at ETH Zurich.

Only students who have a Covid certificate, i.e. who have been vaccinated, have recovered or have been tested, are entitled to attend courses in attendance.

-Whenever possible the distance rules have

to be respected

-All students have to wear masks

throughout the course. Please keep reserve masks ready. Surgical masks (IIR) or medical grade masks (FFP2) without a valve are permitted. Community masks (fabric masks) are not allowed.

-The installation and activation of the Swiss

Covid-App is highly encouraged -Any additional rules for individual courses

have to be respected

-Students showing any COVID-19 symptoms are not allowed to enter ETH

buildings and have to inform the course responsible.

551-1415-00 P

Medicine Permission from lecturers required for all students Block course in the 1st quarter of the autumn semester.

Image-Based Drug Screening in Human Blood for Personalized 100s hrs Tue/1 13-17 HPM F28 HPM F28 Wed/1 08-17 Thu/1 08-17 HPM E28 Fri/1 08-17 HPM E28 B. Snijder, further lecturers

551-0337-00L Cell Biology of the Nucleus

Number of participants limited to 18.

The enrolment is done by the D-BIOL study administration.

General safety regulations for all block courses.

The COVID certificate is mandatory at ETH Zurich.

Only students who have a Covid certificate, i.e. who have been vaccinated, have recovered or have been tested, are entitled to attend courses in attendance.

-Whenever possible the distance rules have to be respected

-All students have to wear masks

throughout the course. Please keep reserve masks ready. Surgical masks (IIR) or medical grade masks (FFP2) without a valve are permitted. Community masks (fabric masks) are not allowed.

-The installation and activation of the Swiss Covid-App is highly encouraged

-Any additional rules for individual courses have to be respected

-Students showing any COVID-19 symptoms are not allowed to enter ETH buildings and have to inform the course responsible.

551-0337-00 P

Cell Biology of the Nucleus Permission from lecturers required for all students Block course in the 1st semester quarter of the autumn semester.

HPM F7 100s hrs Tue/1 13-17 HPM E7 Wed/1 08-17 HPM F7 Thu/1 08-17 Fri/1 08-17 HPM E7

R. Kroschewski, Y. Barral, M. Jagannathan S. Jessberger, K. Weis

### ▶▶▶▶ Block Courses in 2nd Quarter of the Semester

From 14.10.2021 bis 5.11.2021

Number Type **ECTS** Hours Lecturers 551-0345-00L Mechanisms of Bacterial Pathogenesis 6 credits 7P Number of participants limited to 9 in the 2nd semester quarter of the autumn

6 credits

7P

Number of participants limited to 6 in the 4th semester quarter of the autumn semester.

The enrolment is done by the D-BIOL study administration.

General safety regulations for all block courses:

The COVID certificate is mandatory at ETH Zurich.

Only students who have a Covid certificate, i.e. who have been vaccinated, have recovered or have been

-Whenever possible the distance rules have to be respected

-All students have to wear masks throughout the course. Please keep reserve masks ready. Surgical masks (IIR) or medical grade masks (FFP2) without a valve are permitted. Community masks (fabric masks) are not allowed.

-The installation and activation of the Swiss Covid-App is highly encouraged

-Any additional rules for individual courses have to be respected

-Students showing any COVID-19 symptoms are not allowed to enter ETH buildings and have to inform the course responsible.

551-0345-00 P Mechanisms of Bacterial Pathogenesis

courses. Place: HCI G443

Permission from lecturers required for all students Block course in the 2nd and 4th quarter of the autumn semester The block course will be held two times, once in the 2nd quarter of the autumn semester and once in the 4th quarter of the autumn semester. The block course in the 2nd quarter of the autumn semester must be booked as course number 551-0345-00 and the course in the 4th quarter of the autumn semester as course number 551-0345-01 in the registration website for the block

W.-D. Hardt, B. Nguyen

551-0421-00L

#### Biology and Ecology of Fungi in Forests W

Number of participants limited to 10.

The enrolment is done by the D-BIOL study administration.

General safety regulations for all block courses:

The COVID certificate is mandatory at ETH Zurich.

Only students who have a Covid certificate, i.e. who have been vaccinated, have recovered or have been

-Whenever possible the distance rules have to be respected

-All students have to wear masks throughout the course. Please keep reserve masks ready. Surgical masks (IIR) or medical grade masks (FFP2) without a valve are permitted. Community masks (fabric masks) are not allowed.

-The installation and activation of the Swiss Covid-App is highly encouraged -Any additional rules for individual courses

-Any additional rules for individual courses have to be respected

-Students showing any COVID-19 symptoms are not allowed to enter ETH buildings and have to inform the course responsible.

551-0421-00 P Biologie und Ökologie der Pilze im Wald

Permission from lecturers required for all students Blockkurs im 2. Viertel des Herbstsemesters 100s hrs Tue/1 13-17 WSL LGE5 Wed/1 08-17 WSL LGE5 Thu/1 08-17 WSL LGE5 Fri/1 08-17 WSL LGE5 **S. Prospero**, I. L. Brunner, M. Peter Baltensweiler

551-0351-00L Membrane Biology

Number of participants limited to 15.

The enrolment is done by the D-BIOL study administration.

General safety regulations for all block courses:

The COVID certificate is mandatory at ETH Zurich.

Only students who have a Covid certificate,

6 credits

100s hrs

7P

6 credits

i.e. who have been vaccinated, have recovered or have been tested, are entitled to attend courses in attendance. -Whenever possible the distance rules have to be respected -All students have to wear masks throughout the course. Please keep reserve masks ready. Surgical masks (IIR) or medical grade masks (FFP2) without a valve are permitted. Community masks (fabric masks) are not allowed. The installation and activation of the Swiss Covid-App is highly encouraged -Any additional rules for individual courses have to be respected -Students showing any COVID-19 symptoms are not allowed to enter ETH buildings and have to inform the course responsible.

551-0351-00 P Membrane Biology

Permission from lecturers required for all students
Block course in the 2nd quarter of the autumn semester

### 551-1201-00L Computational Methods in Genome and W

6 credits

Sequence Analysis
Number of participants limited to 7.

The enrolment is done by the D-BIOL study

administration.

General safety regulations for all block courses:

The COVID certificate is mandatory at ETH Zurich.

Only students who have a Covid certificate, i.e. who have been vaccinated, have recovered or have been tested, are entitled to attend courses in attendance.

-Whenever possible the distance rules have to be respected

-All students have to wear masks throughout the course. Please keep reserve masks ready. Surgical masks (IIR) or medical grade masks (FFP2) without a valve are permitted. Community masks (fabric masks) are not allowed.

-The installation and activation of the Swiss Covid-App is highly encouraged -Any additional rules for individual courses

have to be respected -Students showing any COVID-19 symptoms are not allowed to enter ETH buildings and have to inform the course

responsible.

551-1201-00 P Computational Methods in Genome and Sequence Analysis Permission from lecturers required for all students

Block course in the 2nd quarter of the autumn semester

100s hrs Tue/1 13-17 **HPL E14.2** A. Wutz HPL E16.2 Wed/1 08-17 **HPL E14.2 HPL E16.2** Thu/1 08-17 **HPL E14.2** HPL E16.2 Fri/1 08-17 HPL E14.2 HPI F16.2

#### 551-1143-00L

# Analysis of Human T and B Cell Responses to Infectious Agents

W 6 credits

7P

Number of participants limited to 15.

The enrolment is done by the D-BIOL study administration.

General safety regulations for all block courses:

The COVID certificate is mandatory at ETH Zurich.

Only students who have a Covid certificate, i.e. who have been vaccinated, have recovered or have been tested, are entitled to attend courses in attendance.

-Whenever possible the distance rules have to be respected

-All students have to wear masks throughout the course. Please keep reserve masks ready. Surgical masks (IIR) or medical grade masks (FFP2) without a valve are permitted. Community masks (fabric masks) are not allowed.

-The installation and activation of the Swiss

Covid-App is highly encouraged -Any additional rules for individual courses have to be respected -Students showing any COVID-19 symptoms are not allowed to enter ETH buildings and have to inform the course responsible.

551-1143-00 P Analysis of Human T and B Cell Responses to Infectious Agents 100s hrs Tue/1

Permission from lecturers required for all students Block course in the 2nd quarter of the autumn semester

13-17 HCI E392 Wed/1 08-17 HCI E392 Thu/1 08-17 HCI E392 Fri/1 08-17 **HCI E392** 

7P

6 credits

F. Sallusto, R. Geiger, D. Latorre

551-0359-00L **Plant Biochemistry** 

Number of participants limited to 15.

The enrolment is done by the D-BIOL study administration

General safety regulations for all block courses:

The COVID certificate is mandatory at ETH Zurich.

Only students who have a Covid certificate, i.e. who have been vaccinated, have recovered or have been tested, are entitled to attend courses in attendance.

-Whenever possible the distance rules have to be respected

-All students have to wear masks throughout the course. Please keep reserve masks ready. Surgical masks (IIR) or medical grade masks (FFP2) without a valve are permitted. Community masks

(fabric masks) are not allowed. -The installation and activation of the Swiss Covid-App is highly encouraged -Any additional rules for individual courses

have to be respected -Students showing any COVID-19 symptoms are not allowed to enter ETH buildings and have to inform the course

responsible.

551-0359-00 P Plant Biochemistry

Permission from lecturers required for all students Block course in the 2nd quarter of the autumn semester 100s hrs Tue/1 13-17 I FW D12 Wed/1 08-17 LFW D12 Thu/1 08-17 LFW D12 Fri/1 08-17 LFW D12 S. C. Zeeman, B. Pfister

### ▶▶▶▶ Block Courses in 3rd Quarter of the Semester

**Biological Chemistry B: New Enzymes** 

from Directed Evolution Experiments

529-0739-01L

Number	Title	Туре	ECTS	Hours				Lecturers
551-0355-00L	Phytopathology Number of participants limited to 12.	W	6 credits	7P				
	The enrolment is done by the D-BIOL study administration.							
	General safety regulations for all block courses: The COVID certificate is mandatory at ETH Zurich. Only students who have a Covid certificate, i.e. who have been vaccinated, have recovered or have been tested, are entitled to attend courses in attendanceWhenever possible the distance rules have to be respected -All students have to wear masks throughout the course. Please keep reserve masks ready. Surgical masks (IIR) or medical grade masks (FFP2) without a valve are permitted. Community masks (fabric masks) are not allowedThe installation and activation of the Swiss Covid-App is highly encouraged -Any additional rules for individual courses have to be respected -Students showing any COVID-19 symptoms are not allowed to enter ETH buildings and have to inform the course responsible.							
551-0355-00 P	·		ester	100s hrs	Tue/2 Wed/2 Thu/2 Fri/2	13-17 08-17 08-17 08-17	LFW B2 LFW B2 LFW E15 LFW E15	M. Maurhofer Bringolf, B. McDonald

7P

6 credits

Number of participants limited to 12.

General safety regulations for all block courses:

The COVID certificate is mandatory at ETH Zurich.

Only students who have a Covid certificate, i.e. who have been vaccinated, have recovered or have been tested, are entitled to attend courses in attendance.

-Whenever possible the distance rules have to be respected -All students have to wear masks throughout the course. Please keep reserve masks ready. Surgical masks (IIR) or medical grade masks (FFP2) without a valve are permitted. Community masks (fabric masks) are not allowed.
-The installation and activation of the Swiss Covid-App is highly encouraged -Any additional rules for individual enurse have

Covid-App is highly encouraged -Any additional rules for individual courses have to be respected -Students showing any COVID-19 symptoms are not allowed to enter ETH buildings and have to inform the course responsible.

529-0739-01 P Biological Chemistry B: New Enzymes from Directed Evolution Experiments

Permission from lecturers required for all students

100s hrs Tue/2 13-17 HCI E392 HCI J374 Wed/2 08-17 HCI E392 HCI J374 Thu/2 08-17 HCI E392

08-17

Fri/2

HCI J374

HCI E392 HCI J374

Block course in third quarter of autumn semester.

Initial meeting place on first day at 12:45 in HCl J374. Information about actual working hours and how to sign up: www.kast.ethz.ch/teaching.html

551-0336-00L Methods in Cellular Biochemistry W 6 credits 7P

Number of participants limited to 13.

The enrolment is done by the D-BIOL study administration.

General safety regulations for all block courses:

The COVID certificate is mandatory at ETH Zurich.

Only students who have a Covid certificate, i.e. who have been vaccinated, have recovered or have been tested, are entitled to attend courses in attendance.

-Whenever possible the distance rules have

to be respected

-All students have to wear masks throughout the course. Please keep reserve masks ready. Surgical masks (IIR) or medical grade masks (FFP2) without a valve are permitted. Community masks (fabric masks) are not allowed.

-The installation and activation of the Swiss Covid-App is highly encouraged

-Any additional rules for individual courses have to be respected

-Students showing any COVID-19 symptoms are not allowed to enter ETH buildings and have to inform the course responsible.

551-0336-00 P Methods in Cellular Biochemistry

Permission from lecturers required for all students Block course in the 3rd quarter of the autumn semester

I. Zemp, U. Kutay, M. Peter

P. A. Kast

551-1515-00L Insulin Signaling

Number of participants limited to 15.

The enrolment is done by the D-BIOL study administration.

General safety regulations for all block courses:

The COVID certificate is mandatory at ETH Zurich.

Only students who have a Covid certificate, i.e. who have been vaccinated, have recovered or have been tested, are entitled to attend courses in attendance.

-Whenever possible the distance rules have to be respected

-All students have to wear masks throughout the course. Please keep reserve masks ready. Surgical masks (IIR) or medical grade masks (FFP2) without a 6 credits

**7P** 

valve are permitted. Community masks (fabric masks) are not allowed. The installation and activation of the Swiss Covid-App is highly encouraged -Any additional rules for individual courses have to be respected -Students showing any COVID-19 symptoms are not allowed to enter ETH buildings and have to inform the course responsible. 100s hrs Tue/2 551-1515-00 P Insulin Signaling 13-17 HPL D12 M. Stoffel Permission from lecturers required for all students HPL D21.2 Block course in the 3rd quarter of the autumn semester HPL D12 Wed/2 08-17 HPL D21.2 HPL D12 Thu/2 08-17 HPL D21.2 HPL D12 Fri/2 08-17 **HPL D21.2** 752-4020-00L **Experimental Food Microbiology for** 6 credits 7G **Biologists** Number of participants limited to 12 Prerequisites: It is recommended to attend the course Lebensmittel-Mikrobiologie (752-4005-00L) as a preparation. The course can only be booked via the Biology Student secretariat General safety regulations for all block courses: -Whenever possible the distance rules have to be respected -All students have to wear masks throughout the course. Please keep reserve masks ready. Surgical masks (IIR) or medical grade masks (FFP2) without a valve are permitted. Community masks (fabric masks) are not allowed. -The installation and activation of the Swiss Covid-App is highly encouraged -Any additional rules for individual courses have to be respected -Students showing any COVID-19 symptoms are not allowed to enter ETH buildings and have to inform the course responsible. 752-4020-00 G Expt. Lebensmittelmikrobiologie für Biologen 100s hrs Tue 13-17 LFV B42.1 M. Schuppler, M. Loessner, Permission from lecturers required for all students LFV B42.2 Y. Shen Blockkurs im 3. Viertel des Herbstsemesters LFV C42 Wed 08-17 LFV B42.1 LFV B42.2 LFV C42 LFV B42.1 Thu 08-17 LFV B42.2 LFV C42 I FV B42.1 Fri 08-17

> LFV B42.2 LFV C42

### 551-1517-00L Protein Change in Adaptive Evolution

Number of participants limited to 7.

imber of participants limited to 7.

The enrolment is done by the D-BIOL study administration.

General safety regulations for all block courses:

The COVID certificate is mandatory at ETH Zurich.

Only students who have a Covid certificate, i.e. who have been vaccinated, have recovered or have been tested, are entitled to attend courses in attendance.

-Whenever possible the distance rules have to be respected

-All students have to wear masks throughout the course. Please keep reserve masks ready. Surgical masks (IIR) or medical grade masks (FFP2) without a valve are permitted. Community masks (fabric masks) are not allowed.

-The installation and activation of the Swiss Covid-App is highly encouraged -Any additional rules for individual courses

have to be respected
-Students showing any COVID-19
symptoms are not allowed to enter ETH
buildings and have to inform the course

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6 credits

7P

responsible.

551-1517-00 P Protein Change in Adaptive Evolution

Permission from lecturers required for all students Block course in the 3rd quarter of the autumn semester 100s hrs

**C. S. Hughes**, K. Bomblies, A. P. Nayak

551-1119-00L Microbial Community Genomics

Number of participants limited to 10.

W 6 credits 7P

6 credits

**7**P

Prerequisite: Basic knowledge in [R] (e.g. indroductory course) and/or UNIX is required. Participants should bring their own laptop computer.

The enrolment is done by the D-BIOL study administration.

General safety regulations for all block courses:

The COVID certificate is mandatory at ETH Zurich.

Only students who have a Covid certificate, i.e. who have been vaccinated, have recovered or have bee

-Whenever possible the distance rules have to be respected

to be respected
-All students have to wear masks
throughout the course. Please keep reserve
masks ready. Surgical masks (IIR) or
medical grade masks (FFP2) without a
valve are permitted. Community masks
(fabric masks) are not allowed.
-The installation and activation of the Swiss
Covid-App is highly encouraged
-Any additional rules for individual courses

have to be respected -Students showing any COVID-19 symptoms are not allowed to enter ETH buildings and have to inform the course

responsible.

551-1119-00 P Microbial Community Genomics

Permission from lecturers required for all students Block course in the 3rd quarter of the autumn semester 100s hrs Tue/2 13-17 HCI G443 Wed/2 08-17 HCI G443

Thu/2 08-17 HCI G443 Fri/2 08-17 HCI G443

551-1147-00L

#### Bioactive Natural Products from Bacteria

Number of participants limited to 8.

The enrolment is done by the D-BIOL study administration.

General safety regulations for all block courses:

The COVID certificate is mandatory at ETH Zurich.

Only students who have a Covid certificate, i.e. who have been vaccinated, have recovered or have been tested, are entitled to attend courses in attendance.

-Whenever possible the distance rules have to be respected

-All students have to wear masks throughout the course. Please keep reserve masks ready. Surgical masks (IIR) or medical grade masks (FFP2) without a valve are permitted. Community masks (fabric masks) are not allowed.

-The installation and activation of the Swiss Covid-App is highly encouraged

-Any additional rules for individual courses have to be respected

-Students showing any COVID-19 symptoms are not allowed to enter ETH buildings and have to inform the course

responsible.

551-1147-00 P Bioactive Natural Products from Bacteria
Permission from lecturers required for all students

Permission from lecturers required for all students Block course in the 3rd quarter of the autumn semester 100s hrs Tue/2 13-17 HCI G443 Wed/2 08-17 HCI G443 Thu/2 08-17 HCI G443

08-17

Fri/2

HCI G443 HCI G443 HCI G443

J. Piel

S. Sunagawa

### ▶▶▶▶ Block Courses in 4th Quarter of the Semester

From 2.12.2021 to 23.12.2021

Number	Title	Туре	ECTS	Hours	Lecturers
551-0361-00L	Biology of Bryophytes and Ferns Number of participants limited to 16.	W	6 credits	7P	

The enrolment is done by the D-BIOL study

administration.

General safety regulations for all block courses:

The COVID certificate is mandatory at ETH Zurich.

Only students who have a Covid certificate, i.e. who have been vaccinated, have recovered or have been tested, are entitled to attend courses in attendance.

-Whenever possible the distance rules have to be respected

-All students have to wear masks throughout the course. Please keep reserve masks ready. Surgical masks (IIR) or medical grade masks (FFP2) without a valve are permitted. Community masks (fabric masks) are not allowed.

The installation and activation of the Swiss Covid-App is highly encouraged

-Any additional rules for individual courses

have to be respected

-Students showing any COVID-19 symptoms are not allowed to enter ETH buildings and have to inform the course responsible.

551-0361-00 P Biologie der Moose und Farne Permission from lecturers required for all students Blockkurs im 4. Viertel des Herbstsemesters.

w

6 credits

LFW E15 100s hrs Tue/2 13-17 Wed/2 08-17 I FW F15 LFW E15 Thu/2 08-17

08-17

LFW E15

Fri/2

**R. Holderegger**, A. L. Bergamini

551-1309-00L **RNA-Biology** 

Number of participants limited to 17.

The enrolment is done by the D-BIOL study administration.

General safety regulations for all block courses

The COVID certificate is mandatory at ETH Zurich.

Only students who have a Covid certificate, i.e. who have been vaccinated, have recovered or have been tested, are entitled to attend courses in attendance.

-Whenever possible the distance rules have to be respected

-All students have to wear masks throughout the course. Please keep reserve masks ready. Surgical masks (IIR) or medical grade masks (FFP2) without a valve are permitted. Community masks (fabric masks) are not allowed. The installation and activation of the Swiss

Covid-App is highly encouraged -Any additional rules for individual courses

have to be respected -Students showing any COVID-19

symptoms are not allowed to enter ETH buildings and have to inform the course responsible.

551-1309-00 P RNA-Biology

Permission from lecturers required for all students

Block course in the 4th guarter of the autumn semester

100s hrs

7P

6 credits

F. Allain, C. Beyer, J. Corn, J. Hall, M. Jinek, S. Jonas, R. Santoro, O. Voinnet

#### 551-1511-00L Parallels Between Tissue Repair and

Cancer

Number of participants limited to 20.

The enrolment is done by the D-BIOL study administration

General safety regulations for all block courses

The COVID certificate is mandatory at ETH Zurich.

Only students who have a Covid certificate, i.e. who have been vaccinated, have recovered or have been tested, are entitled to attend courses in attendance.

-Whenever possible the distance rules have to be respected

-All students have to wear masks throughout the course. Please keep reserve masks ready. Surgical masks (IIR) or

medical grade masks (FFP2) without a valve are permitted. Community masks

(fabric masks) are not allowed. -The installation and activation of the Swiss Covid-App is highly encouraged -Any additional rules for individual courses have to be respected -Students showing any COVID-19 symptoms are not allowed to enter ETH buildings and have to inform the course responsible. 551-1511-00 P Parallels Between Tissue Repair and Cancer 100s hrs Tue/2 13-17 HPL D12 S. Werner, H. Gehart, Permission from lecturers required for all students HPL D21.2 Block course in the 4th quarter of the autumn semester Wed/2 08-17 HPL D12 HPL D21.2 Thu/2 08-17 HPL D12 **HPL D21.2** Fri/2 08-17 HPI D12 HPL D21.2 551-0371-00L **Growth Control and Aging** w 6 credits **7P** Number of participants limited to 8. The enrolment is done by the D-BIOL study administration. General safety regulations for all block courses The COVID certificate is mandatory at ETH Zurich. Only students who have a Covid certificate. i.e. who have been vaccinated, have recovered or have been tested, are entitled to attend courses in attendance. -Whenever possible the distance rules have to be respected -All students have to wear masks throughout the course. Please keep reserve masks ready. Surgical masks (IIR) or medical grade masks (FFP2) without a valve are permitted. Community masks (fabric masks) are not allowed. The installation and activation of the Swiss Covid-App is highly encouraged -Any additional rules for individual courses have to be respected -Students showing any COVID-19 symptoms are not allowed to enter ETH buildings and have to inform the course responsible 551-0371-00 P Growth Control and Aging 100s hrs Tue/2 13-17 HPM E36 H. Stocker, R. C. Dechant, Permission from lecturers required for all students Wed/2 08-17 HPM E36 G. Neurohr Block course in the 4th quarter of the autumn semester Thu/2 08-17 **HPM E36** Fri/2 08-17 HPM F36 Imaging Bacterial Cells in a Native State W 551-1403-00L 6 credits 7P by Electron Cryotomography Number of participants limited to 15. The enrolment is done by the D-BIOL study administration. General safety regulations for all block The COVID certificate is mandatory at ETH Zurich. Only students who have a Covid certificate, i.e. who have been vaccinated, have recovered or have been tested, are entitled to attend courses in attendance. -Whenever possible the distance rules have to be respected -All students have to wear masks throughout the course. Please keep reserve masks ready. Surgical masks (IIR) or medical grade masks (FFP2) without a valve are permitted. Community masks (fabric masks) are not allowed. The installation and activation of the Swiss Covid-App is highly encouraged -Any additional rules for individual courses have to be respected -Students showing any COVID-19 symptoms are not allowed to enter ETH buildings and have to inform the course responsible.

100s hrs Tue/2

Wed/2

Thu/2

Fri/2

551-1403-00 P

Cryotomography

Imaging Bacterial Cells in a Native State by Electron

Permission from lecturers required for all students

Block course in the 4th quarter of the autumn semester

HPK D6.1

**HPK D6.1** 

HPK D6.1

**HPK D6.1** 

13-17

08-17

08-17

08-17

M. Pilhofer, G. Weiss

551-1417-00L In Vivo Cryo-EM Analysis of Dynein w 6 credits 7P **Motor Proteins** 

Number of participants limited to 5.

The enrolment is done by the D-BIOL study administration.

General safety regulations for all block

The COVID certificate is mandatory at ETH Zurich.

Only students who have a Covid certificate, i.e. who have been vaccinated, have recovered or have been tested, are entitled to attend courses in attendance.

-Whenever possible the distance rules have to be respected

-All students have to wear masks throughout the course. Please keep reserve masks ready. Surgical masks (IIR) or medical grade masks (FFP2) without a valve are permitted. Community masks (fabric masks) are not allowed.

The installation and activation of the Swiss Covid-App is highly encouraged

-Any additional rules for individual courses have to be respected

-Students showing any COVID-19 symptoms are not allowed to enter ETH buildings and have to inform the course responsible.

551-1417-00 P In Vivo Cryo-EM Analysis of Dynein Motor Proteins

Permission from lecturers required for all students Block course in the 4th quarter of the autumn semester

Place: Paul Scherrer Institut, Villigen

551-0345-00L Mechanisms of Bacterial Pathogenesis 7P 6 credits

Number of participants limited to 9 in the 2nd semester quarter of the autumn semester.

Number of participants limited to 6 in the 4th semester quarter of the autumn semester.

The enrolment is done by the D-BIOL study administration

General safety regulations for all block

The COVID certificate is mandatory at ETH Zurich.

Only students who have a Covid certificate, i.e. who have been vaccinated, have recovered or have been

-Whenever possible the distance rules have

to be respected

-All students have to wear masks throughout the course. Please keep reserve masks ready. Surgical masks (IIR) or medical grade masks (FFP2) without a valve are permitted. Community masks (fabric masks) are not allowed.

The installation and activation of the Swiss Covid-App is highly encouraged

-Any additional rules for individual courses

have to be respected

-Students showing any COVID-19 symptoms are not allowed to enter ETH buildings and have to inform the course

responsible.

551-0345-00 P Mechanisms of Bacterial Pathogenesis

Permission from lecturers required for all students Block course in the 2nd and 4th quarter of the autumn semester The block course will be held two times, once in the 2nd quarter of the autumn semester and once in the 4th quarter of the autumn semester. The block course in the 2nd quarter of the autumn semester must be booked as course number 551-0345-00 and the course in the 4th quarter of the autumn semester as course number 551-0345-01 in the registration website for the block courses. Place: HCI G443

100s hrs

100s hrs Tue/2

Wed/2

Thu/2

Fri/2

13-17

08-17

08-17

08-17

Ex tern

Ex tern

Ex tern

Ex tern

T. Ishikawa

W.-D. Hardt, B. Nguyen

### ▶▶▶ Block Courses in the 1st Half of the Semester

From 21.9.2021 to 5.11.2021

Number Title Type **ECTS** Hours Lecturers 701-2437-01L Aquatic Ecology (incl. Two Identification W 12 credits 3V+6U+4P

#### Courses)

The course can only be booked via the Biology Office of Student Affairs.

General safety regulations for all block

-Whenever possible the distance rules have to be respected -All students have to wear masks throughout the course. Please keep reserve masks ready. Surgical masks (IIR) or medical grade masks (FFP2) without a valve are permitted. Community masks (fabric masks) are not allowed.

-The installation and activation of the Swiss Covid-App is highly encouraged -Any additional rules for individual courses have to be respected -Students showing any COVID-19 symptoms are not allowed to enter ETH buildings and have to inform the

course responsible.

EAW -EAWAG **P. Spaak**, F. Altermatt, EAW -EAWAG C. T. Robinson 701-1437-00 V Aquatic Ecology I Wed/1 08-12 40s hrs Unregelmässige Lehrveranstaltung Thu/1 08-12 13-17 701-1437-03 U Aquatic Ecology II EAW -EAWAG P. Spaak, F. Altermatt, 90s hrs Wed/1 First half of the semester; at EAWAG, BU G 03. Thu/1 13-17 EAW -EAWAG C. T. Robinson

Includes 3-day field trip from 29.09-01.10.2021.

701-1437-01 P Bestimmungskurs aquatische Makroinvertebraten
The maximal participating number of students is 8 from D-USYS
and 14 from D-BIOL. In case of too many students, those that
simultaneously participate in the courses "701-1437-00 Aquatic
Ecology I" and "701-1437-02 Bestimmungskurs Süsswasseralgen

Ecology I" and "701-1437-02 Bestimmungskurs Süsswasseralgen und aquatische Mikroinvertebraten" are given priority. Sign in until 26.08.2021, free places will be distributed after that. Students registrating later cannot be guaranteed a place in the course. Takes place at Eawag Dübendorf (BU G 03).

701-1437-02 P Bestimmungskurs Süsswasseralgen und aquatische Mikroinvertebraten

The maximal participating number of students is 8 from D-USYS and 14 from D-BIOL. In case of too many students, those that simultaneously participate in the courses "701-1437-00 Aquatic Ecology I" and "701-1437-01 Bestimmungskurs aquatischer Makroinvertebraten" are given priority. Sign in until 26.08.2021, free places will be distributed after that. Students registrating later cannot be guaranteed a place in the course.

28s hrs Fri/1 13-17 EAW -EAWAG **J. Jokela** 21.10. 13-17 EAW -EAWAG

Fri/1

Tue/1

28s hrs

08-12

13-17

EAW - EAWAG

EAW - EAWAG J. Jokela

Takes place at Eawag Dübendorf (BU G 03)

### ▶▶▶▶ Block Courses during Semester Break

Number	Title	Type	ECTS	Hours	Lecturers
551-1709-00L	Genomic and Genetic Methods in Cell and Developmental Biology Number of participants limited to 8.	W	6 credits	7P	

The enrolment is done by the D-BIOL study administration.

General safety regulations for all block courses:

The COVID certificate is mandatory at ETH Zurich.

Only students who have a Covid certificate, i.e. who have been vaccinated, have recovered or have been tested, are entitled to attend courses in attendance.

-Whenever possible the distance rules have to be respected

-All students have to wear masks throughout the course. Please keep reserve masks ready. Surgical masks (IIR) or medical grade masks (FFP2) without a valve are permitted. Community masks (fabric masks) are not allowed.

-The installation and activation of the Swiss Covid-App is highly encouraged -Any additional rules for individual courses have to be respected

-Students showing any COVID-19 symptoms are not allowed to enter ETH buildings and have to inform the course responsible.

551-1709-00 P Genomic and Genetic Methods in Cell and Developmental Biology

Permission from lecturers required for all students
Block course in the semester break.

100s hrs

A. Wutz, M. Kopf, T. Schroeder

### ► GESS Science in Perspective

#### **▶▶** Science in Perspective

Recommended GESS Science in Perspective (Type B) for D-BIOL.

see GESS Science in Perspective: Type A: Enhancement of Reflection Capability

### **▶▶** Language Courses

see GESS Science in Perspective: Language Courses ETH/UZH

<b>Biology Bac</b>	Biology Bachelor - Key for Type						
0	Compulsory	E-	Recommended, not eligible for credits				
W+	Eligible for credits and recommended	Z	Courses outside the curriculum				
W	Eligible for credits	Dr	Suitable for doctorate				

Key for I	Hours		
V	lecture	P	practical/laboratory course
G	lecture with exercise	A	independent project
U	exercise	D	diploma thesis
S	seminar	R	revision course / private study
K	colloquium		

ECTS European Credit Transfer and Accumulation System

Special students and auditors need special permission from the lecturers.

## **Biology Teaching Diploma**

Detailed information on the programme at: www.didaktischeausbildung.ethz.ch

### ► Educational Science

Course offerings in the category Educational Science are listed under "Programme: Educational Science for Teaching Diploma and TC".

Number	Title		ECTS	Hours				Lecturers
851-0242-06L	Cognitively Activating Instructions in MINT Subjects Enrolment only possible with matriculation in Teaching Diploma or Teaching Certificate (excluding Teaching Diploma Sport).	W	2 credits	2\$				
851-0242-06 S	This course unit can only be enrolled after successful participation in, or during enrollment in the course "Human Learning (EW 1)".  Kognitiv aktivierender Unterricht in den MIN	T-Fäche	ern ■	2 hrs	Wed	18-20	ML H41.1	R. Schumacher
00.02.200	Unregelmässige Lehrveranstaltung; für eine Semesterplanung wird um frühe Anmeldun Erscheinen zum ersten Lehrveranstaltungs	e reibung g und pe	gslose ersönliches	20		.020		
	see Educational Science Teaching Diploma							
851-0242-07L	Human Intelligence Enrolment only possible with matriculation in Teaching Diploma or Teaching Certificate (excluding Teaching Diploma Sport). Number of participants limited to 30. This course unit can only be enrolled after successful participation in, or during enrollment in the course "Human Learning"	W	1 credit	15				
851-0242-07 S	(EW 1)".  Menschliche Intelligenz Unregelmässige Lehrveranstaltung. An zwei Terminen findet die Lehrveranstalt TeilnehmerInnen statt und an den übrigen einem Teil der Studierenden (Kleingruppen gemeinsam vereinbart.	Termine	n nur mit	14s hrs	Wed	16-18	ML F40	E. Stern
851-0242-08L	Research Methods in Educational Science Number of participants limited to 30 This course unit can only be enrolled after successful participation in, or during enrollment in the course "Human Learning (EW 1)".	W	1 credit	2\$				
851-0242-08 S	Forschungsmethoden der empirischen Bild Unregelmässige Lehrveranstaltung.  Zwei obligatorische Präsenztermine: 29.09. An den übrigen Terminen nur mit einem Te (jeweils mit 1-2 Kleingruppen).	und 17.	.11.	21s hrs	Wed	12-15	LFW C1	P. Edelsbrunner, T. Braas, C. M. Thurn
851-0242-11L	Gender Issues In Education and STEM Number of participants limited to 30.  Enrolment only possible with matriculation in Teaching Diploma or Teaching Certificate (excluding Teaching Diploma Sport).	W	2 credits	2\$				
851-0242-11 S	Prerequisite: students should be taking the course 851-0240-00L Human Learning (EW1) in parallel, or to have successfully completed it.  Gender Issues In Education and STEM			2 hrs	Thu	10-12	LEE C114	<b>M. Berkowitz Biran</b> , T. Braas
851-0229-00L	Using Outdoor Education Number of participants limited to 40.	w	1 credit	1S				C. M. Thurn
	Enrolment only possible with matriculation in Teaching Diploma Biology and Geography.							
851-0229-00 S	Ausserschulische Lernorte nutzen ■ Das erste Treffen findet in der 1. Semesten folgen.	voche s	tatt. Details	15s hrs				R. Schumacher, P. Faller
► Subject [	Didactics in Biology							
Number	Title	Туре	ECTS	Hours				Lecturers
551-0961-00L	Mentored Work Subject Didactics Biology A The Subject Didactics as well as possible	0	2 credits	4A				

branch-specific requirements must be fulfilled prior to commencing the mentored paper.

551-0961-00 A	Mentorierte Arbeit Fachdidaktik Biologie A	Lehrdipl	om ■	60s hrs	by appt.	P. Faller, H. Stocker
551-0962-00L	Mentored Work Subject Didactics Biology B The Subject Didactics as well as possible branch-specific requirements must be fulfilled prior to commencing the mentored paper.	0	2 credits	4A		
551-0962-00 A	Mentorierte Arbeit Fachdidaktik Biologie B I	Lehrdipl	om	60s hrs	by appt.	P. Faller, H. Stocker
551-0971-00L	Subject Didactics Biology I Simultaneous enrolment in Introductory Internship Biology - course 551-0968-00L - is compulsory.	0	4 credits	3G		

3 hrs

16-19

Thu

LFW C4

P. Faller

### ► Professional Training

551-0971-00 G Fachdidaktik Biologie I ■

Important: You can only enrole in the courses of this category if you have not more than 12 CP left for possible additional requirements.

Number	Title	Туре	ECTS	Hours		Lecturers
551-0968-00L	Introductory Internship Biology Simultaneous enrolment in Biology Didactics I - course 551-0971-00L - is compulsory.	0	3 credits	6P		
551-0968-00 P	Einführungspraktikum Biologie ■			90s hrs	by appt.	P. Faller
551-0966-00L	Teaching Internship Biology	0	8 credits	17P		
551-0966-00 P	Unterrichtspraktikum Biologie Lehrdiplom ■			240s hrs	by appt.	P. Faller
551-0969-01L	Examination Lesson I Biology Simultaneous enrolment in "Examination Lesson II Biology" (551-0969-02L) is compulsory.	0	1 credit	2P		
551-0969-01 P	Prüfungslektion untere Stufe Biologie ■			30s hrs	by appt.	P. Faller
551-0969-02L	Examination Lesson II Biology Simultaneous enrolment in "Examination Lesson I Biology" (551-0969-01L) is compulsory.	0	1 credit	2P		
551-0969-02 P	Prüfungslektion obere Stufe Biologie ■			30s hrs	by appt.	P. Faller
551-0913-00L	Professional Exercises in Biology	0	2 credits	2U		
551-0913-00 U	Berufspraktische Übungen: biologische Sch 7 Halbtage (Samstagmorgen), alle 2 Woche Beginn in der ersten Semesterwoche Ort: KS Rychenberg, Winterthur (ev. eine E	en im Se	emester,	2 hrs		P. Faller

### ▶ Spec. Courses in Resp. Subj. w/ Educ. Focus & Further Subj. Didactics

Number	Title	Type	ECTS	Hours				Lecturers
551-0973-00L	Specialized Biology Course with an Educational Focus: Evolution	0	6 credits	2G+13A				
551-0973-00 G	Fachwissenschaftliche Vertiefung in Biolog Fokus: Evolution ■	jie mit pä	dagogischem	2 hrs	Tue	09-12	HIT K52	H. Stocker, Y. Barral, K. Köhler
551-0973-00 A	Fachwissenschaftliche Vertiefung in Biolog Fokus: Evolution ■	jie mit pä	dagogischem	180s hrs				H. Stocker, Y. Barral, K. Köhler

### **▶** Compulsory Elective Courses

Number	Title	Type	ECTS	Hours				Lecturers
	see Compulsory Elective Courses Teaching Diploma	1						
851-0180-00L	Research Ethics Number of participants limited to 40	w	2 credits	2G				
	Particularly suitable for students of D-BIOL, D-CHAB, D-HEST							
851-0180-00 G	Research Ethics ■ One additional hour of home work per week	will be	required	2 hrs	Wed	18-20	LFW C1	G. Achermann, P. Emch
701-0015-00L	Transdisciplinary Research: Challenges of Interdisciplinarity and Stakeholder Engagement Number of participants limited to 20. Priority is given to PhD students D-USYS.	W	2 credits	25				

All participants will be on the waiting list at first. Enrollment is possible until 15 September 2021. The waiting list is active until 17 September. All students will be informed on 19 September, if they can participate in the lecture.

	The lecture takes place if a minimum of 12 students register for it							
701-0015-00 S	_	Interdisc	ciplinarity and	2 hrs	Wed/2	w 08-12	CHN K77	<b>M. Stauffacher</b> , C. E. Pohl, B. Vienni Baptista
701-1651-00L	Environmental Governance	w	6 credits	3G				
701-1651-00 G	Environmental Governance			3 hrs	Tue	10-13	CHN E46	E. Lieberherr
701-1551-00L	Sustainability Assessment Number of participants limited to 35.	W	3 credits	2G				
	Waiting list will be deleted October 1st, 2021.							
	No enrollment possible after October 1st, 2021.							
701-1551-00 G	Sustainability Assessment			2 hrs	Fri	10-12	CHN G42	P. Krütli, D. Nef
851-0229-00L	Using Outdoor Education Number of participants limited to 40.	W	1 credit	1S				
	Enrolment only possible with matriculation in Teaching Diploma Biology and Geography.							
851-0229-00 S	Ausserschulische Lernorte nutzen ■			15s hrs				R. Schumacher, P. Faller
	Das erste Treffen findet in der 1. Semester folgen.	woche s	tatt. Details					
860-0023-00L	International Environmental Politics Particularly suitable for students of D-ITET, D-USYS	W	3 credits	2V				
	D-0313							
860-0023-00 V	International Environmental Politics			2 hrs	Mon	16-18	HG F3	T. Bernauer
	International Environmental Politics	Reaui	rements	2 hrs	Mon	16-18	HG F3	T. Bernauer
► Course l		•		-		16-18	HG F3	T. Bernauer
► Course \	International Environmental Politics  Jnits for Additional Admission	with add		-		16-18	HG F3	T. Bernauer  Lecturers
► Course U	International Environmental Politics  Jnits for Additional Admission lourses below are only available for students to Title	•	itional admissi	on require		16-18	HG F3	
► Course l	International Environmental Politics  Jnits for Additional Admission International Environmental Politics  Jnits for Additional Environmental Politics  Jnits for Additional Environmental Politics  Jnits for Environmental Politics  Jni	vith add	itional admissi	on require		16-18	HG F3	
► Course U  The co  Number  376-0151-00L	International Environmental Politics  Jnits for Additional Admission International Environmental Politics  Jnits for Additional Environmental Politics  Jnits for Additional Environmental Politics  Jnits for Environmental Politics  Jni	vith addi	ECTS 5 credits	on requirer Hours	ments.			Lecturers
► Course U  The co  Number  376-0151-00L  376-0151-00 V	International Environmental Politics  Jnits for Additional Admission International Environmental Politics  Jnits for Additional Admission International Environmental Politics  Title  Anatomy and Physiology I  Anatomie und Physiologie I  Mi 8-10h Vorlesung im Hörsaal I24 G 55 m	vith addi	ECTS 5 credits	on requirer Hours	ments.	08-10	103 G85 124 G55	Lecturers  D. P. Wolfer, K. De Bock, R. Fiore, S. Meissner, L. Slomianka, C. Spengler,
► Course U  The co  Number  376-0151-00L	International Environmental Politics  Jnits for Additional Admission International Environmental Politics  Title  Anatomy and Physiology I  Anatomie und Physiologie I  Mi 8-10h Vorlesung im Hörsaal I24 G 55 mins 103 G 85	vith addi Type E- nit Video	itional admissi ECTS 5 credits übertragung	on required Hours 4V 4 hrs	ments.	08-10	103 G85 124 G55	D. P. Wolfer, K. De Bock, R. Fiore, S. Meissner, L. Slomianka, C. Spengler, M. Willecke
► Course U  The co  Number  376-0151-00L  376-0151-00 V  752-4001-00 U  551-0127-01L	International Environmental Politics  Jnits for Additional Admission International Environmental Politics  Title  Anatomy and Physiology I  Anatomie und Physiologie I  Mi 8-10h Vorlesung im Hörsaal I24 G 55 mins I03 G 85  Microbiology  Mikrobiologie	vith addi Type E- nit Video	itional admissi ECTS 5 credits übertragung	on required Hours 4V 4 hrs	wed	08-10 10-12	103 G85 124 G55 HCI G3	D. P. Wolfer, K. De Bock, R. Fiore, S. Meissner, L. Slomianka, C. Spengler, M. Willecke
► Course U  The co  Number  376-0151-00L  376-0151-00 V  752-4001-00 V  551-0127-01L	International Environmental Politics  Jnits for Additional Admission International Environmental Politics  Title  Anatomy and Physiology I  Anatomie und Physiologie I  Mi 8-10h Vorlesung im Hörsaal I24 G 55 mins I03 G 85  Microbiology  Mikrobiologie	Type E- nit Video	ECTS 5 credits  übertragung 2 credits	on required Hours 4V 4 hrs  2V 2 hrs	wed	08-10 10-12	103 G85 124 G55 HCI G3	D. P. Wolfer, K. De Bock, R. Fiore, S. Meissner, L. Slomianka, C. Spengler, M. Willecke
The control of the c	International Environmental Politics  Jnits for Additional Admission International Environmental Politics  Title  Anatomy and Physiology I  Anatomie und Physiologie I  Mi 8-10h Vorlesung im Hörsaal I24 G 55 mins 103 G 85  Microbiology  Mikrobiologie  Plants and Fungi Pflanzen und Pilze	Type E- nit Video	ECTS 5 credits  übertragung 2 credits	on required Hours 4V 4 hrs  2V 2 hrs	wed	08-10 10-12	103 G85 124 G55 HCI G3	Lecturers  D. P. Wolfer, K. De Bock, R. Fiore, S. Meissner, L. Slomianka, C. Spengler, M. Willecke  M. Ackermann, M. Schuppler J. Vorholt-Zambelli  S. C. Zeeman, M. Künzler,
The cc Number 376-0151-00L 376-0151-00 V  752-4001-00L 752-4001-00 V  551-0127-01L 551-0127-01 G  Biology Teacl	International Environmental Politics  Jnits for Additional Admission International Admission Interest below are only available for students of Title  Anatomy and Physiology I  Anatomie und Physiologie I  Mi 8-10h Vorlesung im Hörsaal 124 G 55 mins 103 G 85  Microbiology  Mikrobiologie  Plants and Fungi  Pflanzen und Pilze  Ort: HCI G3 Tag/Zeit werden noch mitgeten  hing Diploma - Key for Type  Compulsory	Type E- nit Video	ECTS 5 credits  übertragung 2 credits	On required Hours 4V 4 hrs  2V 2 hrs 3G 3 hrs	wed Thu Mon	08-10 10-12 08-10	I03 G85 I24 G55 HCI G3 ML D28	Lecturers  D. P. Wolfer, K. De Bock, R. Fiore, S. Meissner, L. Slomianka, C. Spengler, M. Willecke  M. Ackermann, M. Schuppler J. Vorholt-Zambelli  S. C. Zeeman, M. Künzler, O. Y. Martin
The control of the co	International Environmental Politics  Jnits for Additional Admission International Admission Interest below are only available for students of Title  Anatomy and Physiology I  Anatomie und Physiologie I  Mi 8-10h Vorlesung im Hörsaal 124 G 55 mins 103 G 85  Microbiology  Mikrobiologie  Plants and Fungi  Pflanzen und Pilze  Ort: HCl G3 Tag/Zeit werden noch mitgeten  hing Diploma - Key for Type  Compulsory  Eligible for credits and recommended	Type E- nit Video	ECTS 5 credits  übertragung 2 credits	On required Hours 4V 4 hrs  2V 2 hrs 3G 3 hrs	wed Thu Mon	08-10 10-12 08-10	I03 G85 I24 G55 HCI G3 ML D28  ded, not eligibl tside the curric	Lecturers  D. P. Wolfer, K. De Bock, R. Fiore, S. Meissner, L. Slomianka, C. Spengler, M. Willecke  M. Ackermann, M. Schuppler J. Vorholt-Zambelli  S. C. Zeeman, M. Künzler, O. Y. Martin
The cc Number 376-0151-00L 376-0151-00 V  752-4001-00 V  752-4001-01 G  Biology Teacl O W+	International Environmental Politics  Jnits for Additional Admission International Admission Interest below are only available for students of Title  Anatomy and Physiology I  Anatomie und Physiologie I  Mi 8-10h Vorlesung im Hörsaal 124 G 55 mins 103 G 85  Microbiology  Mikrobiologie  Plants and Fungi  Pflanzen und Pilze  Ort: HCI G3 Tag/Zeit werden noch mitgeten  hing Diploma - Key for Type  Compulsory	Type E- nit Video	ECTS 5 credits  übertragung 2 credits	On required Hours 4V 4 hrs  2V 2 hrs 3G 3 hrs	wed Thu Mon	08-10 10-12 08-10	I03 G85 I24 G55 HCI G3 ML D28  ded, not eligibl tside the curric	Lecturers  D. P. Wolfer, K. De Bock, R. Fiore, S. Meissner, L. Slomianka, C. Spengler, M. Willecke  M. Ackermann, M. Schuppler J. Vorholt-Zambelli  S. C. Zeeman, M. Künzler, O. Y. Martin
The control of the co	International Environmental Politics  Jnits for Additional Admission International Admission Interest below are only available for students of Title  Anatomy and Physiology I  Anatomie und Physiologie I  Mis-10h Vorlesung im Hörsaal 124 G 55 mins 103 G 85  Microbiology  Mikrobiologie  Plants and Fungi  Pflanzen und Pilze  Ort: HCI G3 Tag/Zeit werden noch mitgeteit  hing Diploma - Key for Type  Compulsory  Eligible for credits and recommended  Eligible for credits	Type E- nit Video	ECTS 5 credits  übertragung 2 credits	On required Hours 4V 4 hrs  2V 2 hrs 3G 3 hrs	wed Thu Mon	08-10 10-12 08-10	I03 G85 I24 G55 HCI G3 ML D28  ded, not eligibl tside the curric	Lecturers  D. P. Wolfer, K. De Bock, R. Fiore, S. Meissner, L. Slomianka, C. Spengler, M. Willecke  M. Ackermann, M. Schuppler J. Vorholt-Zambelli  S. C. Zeeman, M. Künzler, O. Y. Martin
The control of the co	International Environmental Politics  Jnits for Additional Admission International Admission Interest below are only available for students of Title  Anatomy and Physiology I  Anatomie und Physiologie I  Mis-10h Vorlesung im Hörsaal 124 G 55 mins 103 G 85  Microbiology  Mikrobiologie  Plants and Fungi  Pflanzen und Pilze  Ort: HCI G3 Tag/Zeit werden noch mitgeteit  hing Diploma - Key for Type  Compulsory  Eligible for credits and recommended  Eligible for credits	Type E- nit Video	ECTS 5 credits  übertragung 2 credits	On required Hours 4V 4 hrs  2V 2 hrs 3G 3 hrs	ments.  Wed Thu  Mon	08-10 10-12 08-10 ecommen courses ou uitable for	I03 G85 I24 G55 HCI G3 ML D28  ded, not eligibl tside the curric	Lecturers  D. P. Wolfer, K. De Bock, R. Fiore, S. Meissner, L. Slomianka, C. Spengler, M. Willecke  M. Ackermann, M. Schuppler J. Vorholt-Zambelli  S. C. Zeeman, M. Künzler, O. Y. Martin
► Course U  The co  Number  376-0151-00L  376-0151-00 V  752-4001-00 V  752-4001-01 G  Siology Teacl O W+ W  Key for Hours V	International Environmental Politics  Jnits for Additional Admission International Admission Interest below are only available for students of Title  Anatomy and Physiology I Anatomie und Physiologie I Mi 8-10h Vorlesung im Hörsaal 124 G 55 mins 103 G 85  Microbiology Mikrobiologie  Plants and Fungi Pflanzen und Pilze Ort: HCl G3 Tag/Zeit werden noch mitgeteit  hing Diploma - Key for Type  Compulsory Eligible for credits and recommended Eligible for credits	Type E- nit Video	ECTS 5 credits  übertragung 2 credits	On required Hours 4V 4 hrs  2V 2 hrs 3G 3 hrs  E- Z Dr	ments.  Wed Thu  Mon	08-10 10-12 08-10 ecommen courses ou uitable for	I03 G85 I24 G55 HCI G3  ML D28  ded, not eligibl tside the curric doctorate	Lecturers  D. P. Wolfer, K. De Bock, R. Fiore, S. Meissner, L. Slomianka, C. Spengler, M. Willecke  M. Ackermann, M. Schuppler J. Vorholt-Zambelli  S. C. Zeeman, M. Künzler, O. Y. Martin
► Course U  The co  Number  376-0151-00L  376-0151-00 V  752-4001-00 V  752-4001-01 G  Siology Teacl O W+ W  Key for Hours V G	International Environmental Politics  Jnits for Additional Admission International Admission Interest below are only available for students of Title  Anatomy and Physiology I Anatomie und Physiologie I Mi 8-10h Vorlesung im Hörsaal 124 G 55 mins 103 G 85  Microbiology Mikrobiologie  Plants and Fungi Pflanzen und Pilze Ort: HCl G3 Tag/Zeit werden noch mitgeten  Compulsory Eligible for credits and recommended Eligible for credits	Type E- nit Video	ECTS 5 credits  übertragung 2 credits	On required Hours 4V 4 hrs  2V 2 hrs 3G 3 hrs  E- Z Dr	ments.  Wed Thu  Mon	08-10 10-12 08-10 eccomment courses ou uitable for ractical/lak	I03 G85 I24 G55 HCI G3  ML D28  ded, not eligibl tside the curric doctorate  poratory course at project	Lecturers  D. P. Wolfer, K. De Bock, R. Fiore, S. Meissner, L. Slomianka, C. Spengler, M. Willecke  M. Ackermann, M. Schuppler J. Vorholt-Zambelli  S. C. Zeeman, M. Künzler, O. Y. Martin
► Course U  The cc  Number  376-0151-00L  376-0151-00 V  752-4001-00 V  752-4001-01 G  Biology Teacl O W+ W  Key for Hours V G U	International Environmental Politics  Jnits for Additional Admission International Admission Interest below are only available for students of Title  Anatomy and Physiology I Anatomie und Physiologie I Mi 8-10h Vorlesung im Hörsaal 124 G 55 mins 103 G 85  Microbiology Mikrobiologie  Plants and Fungi Pflanzen und Pilze Ort: HCl G3 Tag/Zeit werden noch mitgeten  Compulsory Eligible for credits and recommended Eligible for credits  Ilecture Ilecture with exercise	Type E- nit Video	ECTS 5 credits  übertragung 2 credits	On required Hours 4V 4 hrs  2V 2 hrs 3G 3 hrs  E- Z Dr	ments.  Wed Thu  Mon	08-10 10-12 08-10 eccommen courses ou uitable for	I03 G85 I24 G55 HCI G3  ML D28  ded, not eligibl tside the curric doctorate  poratory course at project	Lecturers  D. P. Wolfer, K. De Bock, R. Fiore, S. Meissner, L. Slomianka, C. Spengler, M. Willecke  M. Ackermann, M. Schuppler J. Vorholt-Zambelli  S. C. Zeeman, M. Künzler, O. Y. Martin

ECTS European Credit Transfer and Accumulation System

Special students and auditors need special permission from the lecturers.

# **Biology Master**

► Elective Major Subject Areas

▶▶ Elective Major: Ecology and Evolution

## ▶▶▶ Compulsory Concept Courses

Number   Title   Type   ECTS   Hours   Type   ECTS   Hours   Type   ECTS   Hours   Type									
201-1419-00   Population and Quantitative Genetics   2 in	Number	Title	Туре	ECTS	Hours				Lecturers
701-1413-91	701-2413-00L	Evolutionary Genetics	0	6 credits	4V				
Advanced Ecological Processes   O		•							• •
Post Students of the following study   Post Students   Post									M. C. Fischer
Number   Title   Title   Type   ECTS   Hours   Lecturers		For students of the following study programmes only: Biology Master Teaching certificate Biology Environmental Sciences Master UZH MNF Biology UZH MNF Geography /Earth Sciences	0	4 credits					
Number   Title   Type   ECTS   Hours   Carellits   C	701-0328-00 V	Advanced Ecological Processes			2 hrs	Mon	12-14	CHN F42	J. Hille Ris Lambers
	▶▶▶ Electi	ve Compulsory Master Courses	;						
Herbitover lancets   Systembezogopen Bekämpfung herbitover Insect   Systembezogopen Bekämpfung herbitover   Systembezogopen   Systembez	Number	Title	Туре	ECTS	Hours				Lecturers
Does not take place this semister.	751-4801-00L	•	W	2 credits	2G				
Minimum number of participants is 5.   1 hrs   Wed   11-12   CHN D46   S. Fior	751-4801-00 G		nsekten		2 hrs				to be announced
751-5121-00L Insect Ecology The number of participants is limited to 30. 751-5121-00V Insect Ecology The number of participants is limited to 30. 751-5121-00V Insect Ecology The number of participants is limited to 30. 751-5121-00V Insect Ecology The number of participants is limited to 30. 751-5121-00V Insect Ecology The number of participants is limited to 30. 751-5121-00V Applied Analysis of Variance and W 5 credits The section of th	701-1409-00L		W	2 credits	18				
The number of participants is limited to 30.  751-5121-00 V Insect Ecology  401-0625-01 L Applied Analysis of Variance and W S credits  401-0625-01 V Applied Analysis of Variance and Experimental Design  401-0625-01 V Applied Analysis of Variance and Experimental Design  401-0625-01 V Applied Analysis of Variance and Experimental Design  401-0625-01 V Applied Analysis of Variance and Experimental Design  401-0649-00 L Applied Statistical Regression  401-0649-00 V Applied Statistical Regression  401-0649-00 V Applied Statistical Regression  401-0649-00 L Applied Statistical Regression on V S credits  401-0649-00 V Applied Statistical R	701-1409-00 S	Research Seminar: Ecological Genetics			1 hrs	Wed	11-12	CHN D46	S. Fior
2 hrs	751-5121-00L		W	2 credits	2V				
Experimental Design	751-5121-00 V	Insect Ecology			2 hrs	Tue	14-16	LFW B3	
401-0625-01 U   Applied Analysis of Variance and Experimental Design   1 hrs   Mon/2w 16-18   HG E1.1   L. Meier	401-0625-01L	• • •	W	5 credits	2V+1U				
Applied Statistical Regression   W   5 credits   2V+1U   2 hrs   Mon   08-10   HG E1.2   M. Dettling   Mon   10-12 might not work for all different programmes where this course is offered.	401-0625-01 V	Applied Analysis of Variance and Experimen	ntal Des	ign	2 hrs	Mon	14-16	HG G5	L. Meier
401-0649-00 V Applied Statistical Regression 401-0649-00 U Applied Statistical Regression Mon 10-12 might not work for all different programmes where this course is offered. On sufficient demand, other stots (tentatively knon 15-17 or Fin 10-12) to the exercise sessions can be offered.  701-0301-001 Applied Systems Ecology Number of participants limited to 35. Waiting list will be deleted October 3rd, 2021.  701-0301-002 V Angewandte Systemökologie Lehisprache Englisch oder Deutsch, wird zu Beginn mit den Studierenden entschieden.  401-6215-001 Using R for Data Analysis and Graphics W 1.5 credits (Part II)  401-6217-004 Using R for Data Analysis and Graphics (Part II)  401-6217-005 Using R for Data Analysis and Graphics (Part II)  401-6217-006 Plant Pathology I W 2 credits 636-0017-006 Computational Biology W 6 credits 751-4504-001 Plant Pathology I W 6 credits 751-4504-001 Plant Pathology I W 6 credits 751-4504-001 Computational Biology W 6 credits 751-4504-001 Computational Biology W 6 credits 751-4504-001 Computational Biology W 6 credits 751-4504-001 Plant Pathology I W 6 credits 751-4504-001 Computational Biology W 6 credits 751-4504-001 Computational Biology W 6 credits 751-4504-001 Plant Pathology I W 6 credits 751-4504-001 Plant Pathology I W 6 credits 751-4504-001 Computational Biology W 6 credits 751-4504-001 Computational Biology The lecture will be the fid each Monday (16-18 h) either in Zurich or Basel and will be transmitted via videoconference to the second location. Tutorials in Basel: Thursday 12-13h (BSA E 46) Tutorials in Gasel Par	401-0625-01 U	Applied Analysis of Variance and Experimen	ntal Des	ign	1 hrs	Mon/2w	16-18	HG E1.1	L. Meier
401-0649-00 U Applied Statistical Regression Mon 10-12 might not work for all different programmes where this course is offered. On sufficient demand, other stots (tentatively Mon 15-17 or Fri 10-12) for the exercise sessions can be offered.  701-0301-00L Applied Systems Ecology Number of participants limited to 35. Waiting list will be deleted October 3rd, 2021.  701-0301-00U Applied Systems Ecology Number of participants limited to 35. Waiting list will be deleted October 3rd, 2021.  701-0301-00U V Angewandte Systemskologie Lehrsprache Englisch oder Deutsch, wird zu Beginn mit den Studierenden entschieden.  401-6215-00L Using R for Data Analysis and Graphics W 1.5 credits (Part I) 14s hrs Tue/I 14-16 CAB G11 M. Mächler  401-6217-00 Using R for Data Analysis and Graphics W 1.5 credits (Part II) 14s hrs Tue/Z 14-16 CAB G11 M. Mächler  401-6217-00 Using R for Data Analysis and Graphics W 2 credits (Part II) 14s hrs Tue/Z 14-16 CAB G11 M. Mächler  751-4504-00 Plant Pathology I W 2 credits 2 hrs Wed 14-16 LFW C5 B. McDonald  636-0017-00 Computational Biology W 6 credits Associated and will be transmitted via videoconference to the second location. Tutorials will happen in both hocations. Tutorials in Basel: Thursday 12-13h (BSA E 46) Lecture on Monday and the Tutorial on Thursday will also be available for participation via Zoom. ATTENTION: Lecture states on Monday, 27.09, First Tutorial in Basel: Thursday 130.09  636-0017-00 Computational Biology Project Work (compulsory continuous performance assessments), no fixed presence required.  701-1471-00 Ecological Parasitology W 3 credits 1V+1P	401-0649-00L	Applied Statistical Regression	W	5 credits	2V+1U				
Mon 10-12 might not work for all different programmes where this course is offered. On sufficient demand, other slots (tentatively Mon 15-17 or Fri 10-12) for the exercise sessions can be offered.  701-0301-001  Applied Systems Ecology Number of participants limited to 35. Waiting list will be deleted October 3rd, 2021.  701-0301-00 V Angewandte Systemökologie Lehrsprache Englisch oder Deutsch, wird zu Beginn mit den Studierenden entschieden.  401-6215-00L Using R for Data Analysis and Graphics W 1.5 credits (Part I)  401-6217-00L Using R for Data Analysis and Graphics (Part I)  401-6217-00L Using R for Data Analysis and Graphics (Part I)  401-6217-00L Using R for Data Analysis and Graphics (Part II)  401-6217-00L Using R for Data Analysis and Graphics (Part II)  401-6217-00L Using R for Data Analysis and Graphics (Part II)  401-6217-00L Using R for Data Analysis and Graphics (Part II)  401-6217-00L Using R for Data Analysis and Graphics (Part II)  401-6217-00L Using R for Data Analysis and Graphics (Part III)  401-6217-00L Using R for Data Analysis and Graphics (Part III)  401-6217-00L Using R for Data Analysis and Graphics (Part III)  401-6217-00L Using R for Data Analysis and Graphics (Part III)  401-6217-00L Using R for Data Analysis and Graphics (Part III)  401-6217-00L Omputational Biology  401-6217-00L Computational Biology  402 credits  403-0017-00L Computational Biology  403 credits  404-6217-00L Using R for Data Analysis and Graphics (Part III)  404-6217-00L Using R for Data Analysis and Graphics (Part III)  405-6217-00L Using R for Data Analysis and Graphics (Part III)  406-6217-00L Using R for Data Analysis and Graphics (Part III)  407-6217-00L Using R for Data Analysis and Graphics (Part III)  408-6218-0017-00L CAB Graphics (Part III)  409-6217-00L Using R for Data Analysis and Graphics (Part III)  409-6217-00L Using R for Data Analysis and Graphics (Part III)  401-6217-00L Using R for Data Analysis and Graphics (Part III)  401-6217-00L Using R for Data Analysis and Graphics (Part III)  401-6217-00	401-0649-00 V	Applied Statistical Regression			2 hrs	Mon	08-10	HG E1.2	M. Dettling
Number of participants limited to 35. Waiting list will be deleted October 3rd, 2021.  701-0301-00 V Angewandte Systemökologie Lehrsprache Englisch oder Deutsch, wird zu Beginn mit den Studierenden entschieden.  401-6215-00 L Using R for Data Analysis and Graphics W (Part I) 14s hrs Tue/1 14-16 CAB G11 M. Mächler  401-6217-00 L Using R for Data Analysis and Graphics W (Part I) 14s hrs Tue/1 14-16 CAB G11 M. Mächler  401-6217-00 L Using R for Data Analysis and Graphics W (Part II) 14s hrs Tue/2 14-16 CAB G11 M. Mächler  401-6217-00 G Using R for Data Analysis and Graphics (Part II) 14s hrs Tue/2 14-16 CAB G11 M. Mächler  751-4504-00 F Plant Pathology I W 2 credits 2 G 2 hrs Wed 14-16 LFW C5 B. McDonald  636-0017-00 C Computational Biology W 6 credits 3G+2A 3 hrs Mon 16-18 BSA E46 HG D16.2 HG D1	401-0649-00 U	Mon 10-12 might not work for all different procurse is offered. On sufficient demand, oth	er slots	(tentatively	1 hrs	Mon/2w	10-12	HG E1.2	M. Dettling
Leinsprache Englisch oder Deutsch, wird zu Beginn mit den Studierenden entschieden.  401-6215-00L Using R for Data Analysis and Graphics W 1.5 credits (Part I) 14-16 CAB G11 M. Mächler  401-6217-00L Using R for Data Analysis and Graphics (Part I) 14s hrs Tue/1 14-16 CAB G11 M. Mächler  401-6217-00L Using R for Data Analysis and Graphics (Part II) 14s hrs Tue/2 14-16 CAB G11 M. Mächler  751-4504-00L Plant Pathology I W 2 credits 2G  751-4504-00 G Plant Pathology I W 2 credits 2G  636-0017-00L Computational Biology W 6 credits 3 hrs The lectrue will be held each Monday (16-18 h) either in Zurich or Basel and will be transmitted via videoconference to the second location. Tutorials in Basel: Thursday 12-13h (BSA E 46) Lecture on Monday and the Tutorial on Thursday will also be available for participation via Zoom.  ATTENTION: Lecture Issarts on Monday, 27.09, First Tutorial in Basel on Thursday 30.09  636-0017-00 A Computational Biology Project Work (compulsory continuous performance assessments), no fixed presence required.  701-1471-00L Ecological Parasitology W 3 credits 1V+1P	701-0301-00L	Number of participants limited to 35. Waiting list will be deleted October 3rd,	W	3 credits	2V				
(Part I) 401-6215-00 G Using R for Data Analysis and Graphics (Part I)  401-6217-00L Using R for Data Analysis and Graphics W (Part II) 401-6217-00 G Using R for Data Analysis and Graphics (Part III) 401-62 G G G G G G G G G G G G G G G G G G G	701-0301-00 V	Lehrsprache Englisch oder Deutsch, wird zu	u Beginr	n mit den	2 hrs	Tue	16-18	HG G26.5	A. Gessler, C. Grossiord
401-6217-00L Using R for Data Analysis and Graphics W (Part II) 14s hrs Tue/2 14-16 CAB G11 M. Mächler  751-4504-00L Plant Pathology I W 2 credits 751-4504-00 G Plant Pathology I 2 hrs Wed 14-16 LFW C5 B. McDonald  636-0017-00L Computational Biology W 6 credits 3 hrs Mon 16-18 BSA E46 HG D16.2 Tutorials in Zürich: Monday 18-19h (HG D 16.2) Tutorials in Basel: Thursday 12-13h (BSA E 46) Lecture on Monday and the Tutorial on Thursday will also be available for participation via Zoom. ATTENTION: Lecture starts on Monday, 27.09, First Tutorial in Basel on Thursday 30.09  636-0017-00L Computational Biology Tutorials in Basel: Thursday 12-13h (BSA E 46) Lecture on Monday and the Tutorial on Thursday will also be available for participation via Zoom. ATTENTION: Lecture starts on Monday, 27.09, First Tutorial in Basel on Thursday 30.09  636-0017-00 A Computational Biology Project Work (compulsory continuous performance assessments), no fixed presence required.  701-1471-00L Ecological Parasitology W 3 credits 1V+1P	401-6215-00L	~	W	1.5 credits	1G				
(Part II)  401-6217-00 G Using R for Data Analysis and Graphics (Part II)  751-4504-00L Plant Pathology I W 2 credits 751-4504-00 G Plant Pathology I W 6 credits 636-0017-00L Computational Biology W 6 credits 636-0017-00 G Computational Biology The lecture will be held each Monday (16-18 h) either in Zurich or Basel and will be transmitted via videoconference to the second location. Tutorials in Zürich: Monday 18-19h (HG D 16.2) Tutorials in Basel: Thursday 12-13h (BSA E 46) Lecture on Monday and the Tutorial on Thursday will also be available for participation via Zoom. ATTENTION: Lecture starts on Monday, 27.09, First Tutorial in Basel on Thursday 30.09  636-0017-00 A Computational Biology Project Work (compulsory continuous performance assessments), no fixed presence required.  701-1471-00L Ecological Parasitology W 3 credits 1V+1P	401-6215-00 G	Using R for Data Analysis and Graphics (Pa	art I)		14s hrs	Tue/1	14-16	CAB G11	M. Mächler
751-4504-00 G Plant Pathology I W 2 credits 2G 2 hrs Wed 14-16 LFW C5 B. McDonald  636-0017-00 C Computational Biology W 6 credits 3G+2A  636-0017-00 G Computational Biology The lecture will be held each Monday (16-18 h) either in Zurich or Basel and will be transmitted via videoconference to the second location. Tutorials will happen in both locations. Tutorials in Zürich: Monday 18-19h (HG D 16.2) Tutorials in Basel: Thursday 12-13h (BSA E 46) Lecture on Monday and the Tutorial on Thursday will also be available for participation via Zoom.  ATTENTION: Lecture starts on Monday, 27.09, First Tutorial in Basel on Thursday 30.09  636-0017-00 A Computational Biology Project Work (compulsory continuous performance assessments), no fixed presence required.  701-1471-00L Ecological Parasitology W 3 credits 1V+1P		(Part II)		1.5 credits					
751-4504-00 G Plant Pathology I 2 hrs Wed 14-16 LFW C5 B. McDonald  636-0017-00L Computational Biology W 6 credits 636-0017-00 G Computational Biology The lecture will be held each Monday (16-18 h) either in Zurich or Basel and will be transmitted via videoconference to the second location. Tutorials will happen in both locations. Tutorials in Zurich: Monday 18-19h (HG D 16.2) Tutorials in Basel: Thursday 12-13h (BSA E 46) Lecture on Monday and the Tutorial on Thursday will also be available for participation via Zoom. ATTENTION: Lecture starts on Monday, 27.09, First Tutorial in Basel on Thursday 30.09  636-0017-00 A Computational Biology Project Work (compulsory continuous performance assessments), no fixed presence required.  701-1471-00L Ecological Parasitology W 3 credits 1V+1P	401-6217-00 G	Using R for Data Analysis and Graphics (Pa	art II)		14s hrs	Tue/2	14-16	CAB G11	M. Mächler
636-0017-00 Computational Biology The lecture will be held each Monday (16-18 h) either in Zurich or Basel and will be transmitted via videoconference to the second location. Tutorials will happen in both locations. Tutorials in Zürich: Monday 18-19h (HG D 16.2) Tutorials in Basel: Thursday 12-13h (BSA E 46) Lecture on Monday and the Tutorial on Thursday will also be available for participation via Zoom. ATTENTION: Lecture starts on Monday, 27.09, First Tutorial in Basel on Thursday 30.09  636-0017-00 A Computational Biology Project Work (compulsory continuous performance assessments), no fixed presence required.  701-1471-00L Ecological Parasitology W 3 credits 1V+1P		6,5	W	2 credits		١٨/٥ -١	14.40	LEWICE	P. McDonald
636-0017-00 G Computational Biology The lecture will be held each Monday (16-18 h) either in Zurich or Basel and will be transmitted via videoconference to the second location. Tutorials will happen in both locations. Tutorials in Zürich: Monday 18-19h (HG D 16.2) Tutorials in Basel: Thursday 12-13h (BSA E 46) Lecture on Monday and the Tutorial on Thursday will also be available for participation via Zoom. ATTENTION: Lecture starts on Monday, 27.09, First Tutorial in Basel on Thursday 30.09  636-0017-00 A Computational Biology Project Work (compulsory continuous performance assessments), no fixed presence required.  701-1471-00L Ecological Parasitology W 3 credits  16-18 BSA E46 T. Vaughan T. Vaughan T. Vaughan			107	•		vved	14-16	LFW C5	B. MCDONAID
The lecture will be held each Monday (16-18 h) either in Zurich or Basel and will be transmitted via videoconference to the second location. Tutorials will happen in both locations.  Tutorials in Zürich: Monday 18-19h (HG D 16.2) Tutorials in Basel: Thursday 12-13h (BSA E 46) Lecture on Monday and the Tutorial on Thursday will also be available for participation via Zoom.  ATTENTION: Lecture starts on Monday, 27.09, First Tutorial in Basel on Thursday 30.09  636-0017-00 A Computational Biology Project Work (compulsory continuous performance assessments), no fixed presence required.  701-1471-00L Ecological Parasitology W 3 credits 1V+1P			W	6 credits		Mon	16 10	DCA E46	T Vaughan
Basel and will be transmitted via videoconference to the second location. Tutorials will happen in both locations. Tutorials in Zürich: Monday 18-19h (HG D 16.2) Tutorials in Basel: Thursday 12-13h (BSA E 46) Lecture on Monday and the Tutorial on Thursday will also be available for participation via Zoom. ATTENTION: Lecture starts on Monday, 27.09, First Tutorial in Basel on Thursday 30.09  636-0017-00 A Computational Biology Project Work (compulsory continuous performance assessments), no fixed presence required.  701-1471-00L Ecological Parasitology W 3 credits 1V+1P	636-0017-00 G		8 h) eith	er in Zurich or	3 nrs	ivion	16-18		i. vaugnan
Project Work (compulsory continuous performance assessments), no fixed presence required.  701-1471-00L Ecological Parasitology W 3 credits 1V+1P		Basel and will be transmitted via videoconfe location. Tutorials will happen in both location. Tutorials in Zürich: Monday 18-19h (HG D 1 Tutorials in Basel: Thursday 12-13h (BSA E Lecture on Monday and the Tutorial on Thu available for participation via Zoom.  ATTENTION: Lecture starts on Monday, 27	erence to ons. 16.2) E 46) rsday w	o the second ill also be		Thu		HG D16.2	
0 0,	636-0017-00 A	Project Work (compulsory continuous perfo	rmance	assessments),	2 hrs				T. Vaughan
	701-1471-00L		w	3 credits	1V+1P				

	A minimum of 6 students is required that the course will take place.							
	Waiting list will be deleted on October 1st, 2021.							
701-1471-00 V	Ecological Parasitology ■  The lecture takes place irregularly.			14s hrs	Tue	08-10	CHN G46	J. Jokela, C. Vorburger
701-1471-00 P	Ecological Parasitology  Daten der Veranstaltung: 05.10.; 19.10.; 09 Zeit: 8:15 - 12:00 Ort der Veranstaltung: EAWAG Dübendorf	.11		12s hrs	05.10. 19.10. 09.11.	08-12 08-12 08-12	EAW -EAWAG EAW -EAWAG EAW -EAWAG	
701-1427-00L	Experimental Evolution Semester change. This lecture will be offered in Spring Semester 2022 for the next time.	W	4 credits	2\$				
701-1427-00 S	Experimental Evolution Does not take place this semester. Diese Lehrveranstaltung wird im HS21 nich das nächste Mal im FS22 angeboten.	t angeb	oten. Sie wird	2 hrs				G. Velicer, A. Hall
701-1703-00L	Evolutionary Medicine for Infectious Diseases Number of participants limited to 35.	W	3 credits	2G				
	Waiting list will be deleted October 3rd, 2021.							
701-1703-00 G	Evolutionary Medicine for Infectious Disease	es		2 hrs	Fri	10-12	HG E41	A. Hall
<b>636-0009-00L</b> 636-0009-00 V	<b>Evolutionary Dynamics</b> Evolutionary Dynamics Attention: lecture starts on Thursday, 30 Se	<b>W</b> p 2021	6 credits	2V+1U+2 2 hrs	<b>2A</b> Thu	09-11	BSA E46 HG D16.2	N. Beerenwinkel
	Online lecture: This lecture will primarily tak Reserved rooms will remain blocked for stu- course from there.	e place						
636-0009-00 U	Coolinary Dynamics Online: Will primarily take place online. Res remain blocked on campus for students to fi there			1 hrs	Thu	11-12	BSA E46 HG D16.2	N. Beerenwinkel
636-0009-00 A	Evolutionary Dynamics Project Work (compulsory continuous perfo. no fixed presence required.	rmance	assessment),	2 hrs				N. Beerenwinkel
	ve Concept Courses							
Number	Title	Туре	ECTS	Hours				Lecturers
	Microbiology (Part I) Microbiology (Part I)	W	3 credits	<b>2V</b> 2 hrs	Mon	10-12	HCI G7	WD. Hardt, L. Eberl, J. Piel, M. Pilhofer
551-0309-00L	Concepts in Modern Genetics Information for UZH students: Enrolment to this course unit only possible at ETH. No enrolment to module BIO348 at UZH.	W	6 credits	4V				
	Please mind the ETH enrolment deadlines for UZH students: https://www.ethz.ch/en/studies/non-degree-courses/special-students/special-students-university-of-zurich.html							
551-0309-00 V	for UZH students: https://www.ethz.ch/en/studies/non- degree- courses/special-			4 hrs	Mon Tue	12-14 08-10	HG E5 115 G60	<b>Y. Barral</b> , D. Bopp, A. Hajnal O. Voinnet
551-1299-00L	for UZH students: https://www.ethz.ch/en/studies/non- degree- courses/special- students/special- students-university-of-zurich.html Concepts in Modern Genetics	w	6 credits	4 hrs  4G 4 hrs				
551-1299-00L 551-1299-00 G ▶► Elective	for UZH students: https://www.ethz.ch/en/studies/non- degree- courses/special- students/special- students-university-of-zurich.html Concepts in Modern Genetics **gemeinsam mit der Universität Zürich** Introduction to Bioinformatics Introduction to Bioinformatics Lecture: Mo 12-14 Exercises: Mo 14-16  Major: Microbiology and Immu			4G	Tue	08-10 12-14	I15 G60 HPT C103	O. Voinnet  S. Sunagawa, M. Gstaiger, A. Kahles, G. Rätsch, B. Snijder, E. Vayena,
551-1299-00L 551-1299-00 G ►► Elective ►►► Comp	for UZH students: https://www.ethz.ch/en/studies/non- degree- courses/special- students/special- students-university-of-zurich.html Concepts in Modern Genetics **gemeinsam mit der Universität Zürich** Introduction to Bioinformatics Introduction to Bioinformatics Lecture: Mo 12-14 Exercises: Mo 14-16  Major: Microbiology and Immu- ulsory Concept Courses	ınoloç	ЭУ	<b>4G</b> 4 hrs	Tue	08-10 12-14	I15 G60 HPT C103	O. Voinnet  S. Sunagawa, M. Gstaiger, A. Kahles, G. Rätsch, B. Snijder, E. Vayena, C. von Mering, N. Zamboni
551-1299-00L 551-1299-00 G ►► Elective ►►► Compo	for UZH students: https://www.ethz.ch/en/studies/non- degree- courses/special- students/special- students-university-of-zurich.html Concepts in Modern Genetics **gemeinsam mit der Universität Zürich** Introduction to Bioinformatics Introduction to Bioinformatics Lecture: Mo 12-14 Exercises: Mo 14-16  Major: Microbiology and Immululsory Concept Courses Title	ınoloç Type	gy ects	4G 4 hrs	Tue	08-10 12-14	I15 G60 HPT C103	O. Voinnet  S. Sunagawa, M. Gstaiger, A. Kahles, G. Rätsch, B. Snijder, E. Vayena,
551-1299-00L 551-1299-00 G  ►► Elective ►►► Composition Number  551-0313-00L	for UZH students: https://www.ethz.ch/en/studies/non- degree- courses/special- students/special- students-university-of-zurich.html Concepts in Modern Genetics **gemeinsam mit der Universität Zürich** Introduction to Bioinformatics Introduction to Bioinformatics Lecture: Mo 12-14 Exercises: Mo 14-16  Major: Microbiology and Immu- ulsory Concept Courses	ınoloç	ЭУ	<b>4G</b> 4 hrs	Tue	08-10 12-14	I15 G60 HPT C103	O. Voinnet  S. Sunagawa, M. Gstaiger, A. Kahles, G. Rätsch, B. Snijder, E. Vayena, C. von Mering, N. Zamboni

A minimum of 6 students is required that

Number

Title

Hours

Lecturers

Type ECTS

FF4 0000 001			4 124	0) (				
	Immunology III Immunology III	w	4 credits	2V 2 hrs	Mon	10-12	HCI H8.1	M. Kopf, S. B. Freigang, J. Kisielow, S. R. Leibundgut, A. Oxenius, C. Schneider, R. Spörri, L. Tortola, E. Wetter Slack
551-0512-00L	Current Topics in Molecular and Cellular	w	2 credits	18				
551-0512-00 S	Neurobiology Number of participants limited to 8. Current Topics in Molecular and Cellular Ne Does not take place this semester. Permission from lecturers required for all st This course may be taken only once, either or in the autumn semester.	udents	0,	1 hrs				U. Suter
551-1117-00L	Cutting Edge Topics: Immunology and Infection Biology Information for UZH students: Enrolment to this course unit only possible at ETH. No enrolment to module BIO636 at UZH.	W	2 credits	18				
	Please mind the ETH enrolment deadlines for UZH students: https://www.ethz.ch/en/studies/non-degree-courses/special-students/special-students-university-of-zurich.html							
551-1117-00 S	Cutting Edge Topics: Immunology and Infect **together with University of Zurich**  In autumn semester 2021, the seminar will a			1 hrs	Tue	18-19	I17 M5	A. Oxenius, B. Becher, C. Halin Winter, M. Kopf, S. R. Leibundgut, C. Münz, L. Tortola, M. van den Broek
	some seminar units will only take place via site with a parallel broadcasting. Information seminar units can be found at https://micro.biol.ethz.ch/events/immunolog	Zoom a n on the	nd others on individual					E. Fotola, W. Vall dell Block
551-1153-00L	, ,,	W	4 credits	2V				
551-1153-00 V	Number of participants limited to 15.  Systems Biology of Metabolism			2 hrs	Mon	10-12	HPL D34	<b>U. Sauer</b> , N. Zamboni, M. Zampieri
551-1171-00L	Immunology: From Milestones to Current Topics	w	4 credits	2S				
551-1171-00 S	Immunology: From Milestones to Current To Online lecture: This lecture will take place of will remain reserved on campus for student from there.	nline. R		2 hrs s	Tue	14-16	HIT H51	B. Ludewig, J. Kisielow, A. Oxenius, L. Tortola, University lecturers
551-1303-00L	Cellular Biochemistry of Health and Disease Number of participants limited to 20.	W	4 credits	2\$				
551-1303-00 S	Cellular Biochemistry of Health and Disease	Э		2 hrs	Fri	10-12	HIT H42	V. Korkhov, Y. Barral, T. Ishikawa, M. Jagannathan, R. Kroschewski, G. Neurohr, M. Peter, A. E. Smith, B. Snijder, K. Weis
752-4009-00L	Molecular Biology of Foodborne Pathogens	W	3 credits	2V				
752-4009-00 V	_			2 hrs	Thu	10-12	HG E1.2	<b>M. Loessner</b> , M. Schmelcher, M. Schuppler, E. Wetter Slack
<b>752-5103-00L</b> 752-5103-00 G	Functional Microorganisms in Foods Functional Microorganisms in Foods ■ Online event: Will primarily take place online remain blocked on campus for students to fi there.			<b>2G</b> 2 hrs	Wed	14-16	HG D7.1	C. Lacroix, A. Geirnaert, A. Greppi
751-4504-00L	Plant Pathology I	w	2 credits	2G				
	Plant Pathology I			2 hrs	Wed	14-16	LFW C5	B. McDonald
636-0017-00L	Computational Biology	W	6 credits	<b>3G+2A</b> 3 hrs	Mon	16-18	BSA E46	T Vaughan
030-0017-00 G	Computational Biology The lecture will be held each Monday (16-1 Basel and will be transmitted via videoconfe location. Tutorials will happen in both location. Tutorials in Zürich: Monday 18-19h (HG D of Tutorials in Basel: Thursday 12-13h (BSA E Lecture on Monday and the Tutorial on Thu available for participation via Zoom. ATTENTION: Lecture starts on Monday, 27 Basel on Thursday 30.09	erence tons. 16.2) 46) rsday w	o the second		Thu	18-19 12-13	HG D16.2 HG D16.2 BSA E46	T. Vaughan
636-0017-00 A		rmance	assessments)	2 hrs				T. Vaughan
701-1703-00L	Evolutionary Medicine for Infectious	W	3 credits	2G				

#### Diseases

Number of participants limited to 35.

Waiting list will be deleted October 3rd, 2021.

701-1703-00 G Evolutionary Medicine for Infectious Diseases 2 hrs Fri 10-12 HG E41 A. Hall

	ve Concept Courses	Tyma	ECTE	Цента				Locturore
Number	Title	Туре	ECTS	Hours				Lecturers
752-4005-00L	Food Microbiology I	W	3 credits	<b>2V</b> 2 hrs	Tue	10-12	HG E1.1	M. Laggaray
	Lebensmittel-Mikrobiologie I	147	• "		rue	10-12	ng E1.1	M. Loessner
701-2413-00L	Evolutionary Genetics  Population and Quantitative Genetics	W	6 credits	<b>4V</b> 2 hrs	Mon	14-16	HG D7.2	T. Städler, J. Stapley
	Ecological Genetics			2 hrs	Mon	10-12	ML F36	A. Widmer, S. Fior,
701-1413-01 V	Leological Genetics			21113	IVIOIT	10-12	WE 1 30	M. C. Fischer
551-0311-00L	Molecular Life of Plants	W	6 credits	4V				
551-0311-00 V	Molecular Life of Plants			4 hrs	Mon	08-10	HPL D32	S. C. Zeeman, K. Bomblies,
					Tue	10-12	LFO C13	A. Rodriguez-Villalon,
								C. Sánchez-Rodríguez, O. Voinnet
551-0307-00L	Molecular and Structural Biology I:	w	3 credits	2V				
	Protein Structure and Function							
	D-BIOL students are obliged to take part I							
	and part II (next semester) as a two- semester course							
551-0307-00 V	Molecular and Structural Biology I: Protein S	Structure	and Function	2 hrs	Mon	14-16	HCI J7	R. Glockshuber, K. Locher,
								E. Weber-Ban
551-0309-00L	Concepts in Modern Genetics	W	6 credits	4V				
	Information for UZH students: Enrolment to this course unit only possible							
	at ETH. No enrolment to module BIO348 at							
	UZH.							
	Please mind the ETH enrolment deadlines							
	for UZH students:							
	https://www.ethz.ch/en/studies/non- degree-							
	courses/special-							
	students/special-							
FF4 0000 00 V	students-university-of-zurich.html			4 1		40.44	110 55	V Daniel D Danie A Hairan
551-0309-00 V	Concepts in Modern Genetics  **gemeinsam mit der Universität Zürich**			4 hrs	Mon Tue	12-14 08-10	HG E5 I15 G60	Y. Barral, D. Bopp, A. Hajna O. Voinnet
551-0319-00L	Cellular Biochemistry (Part I)	w	3 credits	2V				
	Cellular Biochemistry (Part I)			2 hrs	Mon	14-16	HCI J3	U. Kutay, G. Neurohr,
								M. Peter, K. Weis, I. Zemp
529-0731-00L	Nucleic Acids and Carbohydrates	W	6 credits	3G				
	Note for BSc Biology students: Only one of the two concept courses 529-0731-00							
	Nucleic Acids and Carbohydrates (autumn							
	semester) or 529-0732-00 Proteins and							
	Lipids (spring semester) can be counted for the Bachelor's degree.	•						
529-0731-00 G	Nucleic Acids and Carbohydrates			3 hrs	Tue	08-09	HCI D2	D. Hilvert, P. A. Kast,
	Lecture 2 hours on Tue 9:45-11:30.					09-10	HCI D2	S. J. Sturla, H. Wennemers
	Exercises: 1 hour according to agreement, p 8:30 or 8:45-9:30. Exercises will start in the	oresuma	ably Tue 7:45-			10-12	HCI J3	
	semester.	secona	Week OI					
551-1299-00L	Introduction to Bioinformatics	w	6 credits	4G				
	Introduction to Bioinformatics			4 hrs	Mon	12-14	HPT C103	S. Sunagawa, M. Gstaiger,
	Lecture: Mo 12-14					14-16	HPT C103	A. Kahles, G. Rätsch,
	Exercises: Mo 14-16							B. Snijder, E. Vayena, C. von Mering, N. Zamboni
►►► Electiv	ve Master Courses							<u> </u>
Number	Title	Туре	ECTS	Hours				Lecturers
551-1423-00L	Current Topics in Metabolism and	W	2 credits	18				
	Disease			-				
551-1423-00 S	Current Topics in Metabolism and Disease			1 hrs				to be announced
	Does not take place this semester.  Permission from lecturers required for all sti	udents						
	Ffindet ab HS2021 nicht mehr statt.							
►► Elective	Major: Cell Biology							
►►► Electiv	ve Compulsory Concept Course	es						
See D-	BIOL Master Studies Guide							
Number	Title	Tyma	FCTS	Hours				Lecturers

#### Number Title Type ECTS Lecturers Hours 551-0319-00L Cellular Biochemistry (Part I) w 3 credits 2V

551-0319-00 V	Cellular Biochemistry (Part I)			2 hrs	Mon	14-16	HCI J3	<b>U. Kutay</b> , G. Neurohr, M. Peter, K. Weis, I. Zemp
551-0309-00L	Concepts in Modern Genetics Information for UZH students: Enrolment to this course unit only possible at ETH. No enrolment to module BIO348 at UZH.	W	6 credits	4V				
	Please mind the ETH enrolment deadlines for UZH students: https://www.ethz.ch/en/studies/non- degree-							
	courses/special- students/special-							
551-0309-00 V	students-university-of-zurich.html Concepts in Modern Genetics **gemeinsam mit der Universität Zürich**			4 hrs	Mon Tue	12-14 08-10	HG E5 I15 G60	Y. Barral, D. Bopp, A. Hajnal, O. Voinnet
551-0317-00L 551-0317-00 V	Immunology I Immunology I	w	3 credits	<b>2V</b> 2 hrs	Tue	08-10	HG G3	M. Kopf, A. Oxenius
5 <b>51-1299-00L</b> 551-1299-00 G	Introduction to Bioinformatics Introduction to Bioinformatics Lecture: Mo 12-14 Exercises: Mo 14-16	W	6 credits	<b>4G</b> 4 hrs	Mon	12-14 14-16	HPT C103 HPT C103	S. Sunagawa, M. Gstaiger, A. Kahles, G. Rätsch, B. Snijder, E. Vayena, C. von Mering, N. Zamboni
►►► Electiv	ve Compulsory Master Courses							O. VOIT Mening, IV. Zumbonii
Number	Title	Туре	ECTS	Hours				Lecturers
551-0512-00L	Current Topics in Molecular and Cellular Neurobiology Number of participants limited to 8.	W	2 credits	1\$				
551-0512-00 S	Current Topics in Molecular and Cellular Ne Does not take place this semester. Permission from lecturers required for all str This course may be taken only once, either or in the autumn semester.	udents		1 hrs				U. Suter
551-0571-00L	From DNA to Diversity (University of Zurich) No enrolment to this course at ETH Zurich. Book the corresponding module directly at UZH as an incoming student. UZH Module Code: BIO336	W	2 credits	2V				
FF4 0F74 00 V	Mind the enrolment deadlines at UZH: https://www.uzh.ch/cmsssl/en/studies/application/deadlines.html			O bre				A Hainal D Dana
551-0571-00 V	From DNA to Diversity (University of Zurich) **Course at University of Zurich**			2 hrs				A. Hajnal, D. Bopp
551-1117-00L	Cutting Edge Topics: Immunology and Infection Biology Information for UZH students: Enrolment to this course unit only possible at ETH. No enrolment to module BIO636 at UZH.	W	2 credits	1S				
	Please mind the ETH enrolment deadlines for UZH students: https://www.ethz.ch/en/studies/non- degree- courses/special-							
551-1117-00 S	students/special- students-university-of-zurich.html	tion Bio	logy	1 hrs	Tue	18-19	I17 M5	A. Oxenius, B. Becher, C. Halin Winter, M. Kopf,
	In autumn semester 2021, the seminar will a some seminar units will only take place via a site with a parallel broadcasting. Information seminar units can be found at https://micro.biol.ethz.ch/events/immunolog	Zoom ai n on the	nd others on individual					S. R. Leibundgut, C. Münz, L. Tortola, M. van den Broek
551-1153-00L	Systems Biology of Metabolism	W	4 credits	2V				
551-1153-00 V	Number of participants limited to 15.  Systems Biology of Metabolism			2 hrs	Mon	10-12	HPL D34	U. Sauer, N. Zamboni, M. Zampieri
551-1171-00L	Immunology: From Milestones to Current Topics	w	4 credits	<b>2</b> S				
551-1171-00 S	Immunology: From Milestones to Current To Online lecture: This lecture will take place o will remain reserved on campus for students from there.	nline. R	eserved rooms ow the course	2 hrs	Tue	14-16	HIT H51	<b>B. Ludewig</b> , J. Kisielow, A. Oxenius, L. Tortola, University lecturers
551-1303-00L	Cellular Biochemistry of Health and Disease	w	4 credits	2S				

Number	Title	Type	ECTS	Hours				Lecturers
Soo D	-BIOL Master Studies Guide							
	e Major: Molecular Health Scien ve Compulsory Concept Course							
NN Floating	Ffindet ab HS2021 nicht mehr statt.	coc						
551-1423-00 S	Current Topics in Metabolism and Disease Does not take place this semester. Permission from lecturers required for all st	udents		1 hrs				to be announced
551-1423-00L	Current Topics in Metabolism and Disease	W	2 credits	1S				
	One hour of self-study per week is included	in the c	ourse.					
376-1305-00 V		ersity of	Zurich)	2 hrs	Mon	08-10	I15 G40	University lecturers
	Mind the enrolment deadlines at UZH: https://www.uzh.ch/cmsssl/en/studies/appli cation/deadlines.html							
	(University of Zurich) No enrolment to this course at ETH Zurich. Book the corresponding module directly at UZH as an incoming student. UZH Module Code: BIO344							
376-1305-00L	included in the course.  Development of the Nervous System	W	3 credits	2V				
	BE AWARE: Lecture starts already on 20.0.  4 hours of self-study (preparation and post-		er week are					
	**together with University of Zurich**				20.09.	10-12	I15 G40	W. von der Behrens, further lecturers
376-1305-01 V	https://www.ethz.ch/en/studies/non- degree- courses/special- students/special- students-university-of-zurich.html Neural Systems for Sensory, Motor and Hig	her Bra	in Functions	2 hrs	Mon	10-12	I15 G40	G. Schratt, J. Bohacek, L. Filli,
	at ETH. No enrolment to module BIO343 at UZH. Please mind the ETH enrolment deadlines for UZH students:							
376-1305-01L	Neural Systems for Sensory, Motor and Higher Brain Functions Information for UZH students: Enrolment to this course unit only possible		3 credits	2V				
227-0939-00 G	Cell Biophysics			4 hrs	Tue Thu	16-18 16-18	HG D7.2 ML F38	T. Zambelli
227-0939-00L	Cell Biophysics	w	6 credits	4G				
<b>551-0223-00L</b> 551-0223-00 V	Immunology III Immunology III	W	4 credits	<b>2V</b> 2 hrs	Mon	10-12	HCI H8.1	M. Kopf, S. B. Freigang, J. Kisielow, S. R. Leibundgut, A. Oxenius, C. Schneider, R. Spörri, L. Tortola, E. Wetter Slack
551-1409-00 V	RNA Biology Lecture Series II: Non-coding Therapeutics	RNAs: E	Biology and	2 hrs	Thu	16-18	HCI H8.1	J. Hall, M. Stoffel, further lecturers
551-1409-00L	RNA Biology Lecture Series II: Non- coding RNAs: Biology and Therapeutics	W	4 credits	2V				
551-1407-00 V	RNA Biology Lecture Series I: Transcription Translation  Does not take place this semester.	& Proc	essing &	2 hrs				<b>F. Allain</b> , N. Ban, U. Kutay, further lecturers
551-1407-00L	RNA Biology Lecture Series I: Transcription & Processing & Translation	W	4 credits	2V				
529-0733-01 G	Enzymes Lecture 2 hours on Monday, 09:45 - 11:30. 1 hour exercise Monday or Tuesday from so according to agreement.	econd w	reek on -	3 hrs	Mon Tue	09-10 10-12 12-13	HCI H8.1 HCI J6 HCI H2.1	D. Hilvert
529-0733-01L	•	W	6 credits	3G				B. Snijder, K. Weis
551-1303-00 S	Cellular Biochemistry of Health and Disease	)		2 hrs	Fri	10-12	HIT H42	V. Korkhov, Y. Barral, T. Ishikawa, M. Jagannathan, R. Kroschewski, G. Neurohr, M. Peter, A. E. Smith,
	• •							

Number	Title	Туре	ECTS	Hours	Lecturers
551-0309-00L	Concepts in Modern Genetics Information for UZH students: Enrolment to this course unit only possible at ETH. No enrolment to module BIO348 at UZH.	W	6 credits	4V	

Please mind the ETH enrolment deadlines for UZH students: https://www.ethz.ch/en/studies/nondegree-courses/specialstudents/specialstudents-university-of-zurich.html 551-0309-00 V Concepts in Modern Genetics
\*\*gemeinsam mit der Universität Zürich\*\* Y. Barral, D. Bopp, A. Hajnal, O. Voinnet 4 hrs Mon 12-14 HG E5 I15 G60 Tue 08-10 551-1299-00L Introduction to Bioinformatics W 6 credits 4G **S. Sunagaw**a, M. Gstaiger, A. Kahles, G. Rätsch, B. Snijder, E. Vayena, C. von Mering, N. Zamboni 551-1299-00 G Introduction to Bioinformatics 4 hrs Mon 12-14 **HPT C103** Lecture: Mo 12-14 14-16 HPT C103 Exercises: Mo 14-16

### **▶▶▶** Elective Compulsory Master Courses

See D-BIOL Master Studies Guide

See D-	BIOL Master Studies Guide							
Number	Title	Type	ECTS	Hours				Lecturers
551-0571-00L	From DNA to Diversity (University of Zurich) No enrolment to this course at ETH Zurich. Book the corresponding module directly at UZH as an incoming student. UZH Module Code: BIO336 Mind the enrolment deadlines at UZH:	W	2 credits	2V				
	https://www.uzh.ch/cmsssl/en/studies/appli cation/deadlines.html							
551-0571-00 V	From DNA to Diversity (University of Zurich) **Course at University of Zurich**	)		2 hrs				A. Hajnal, D. Bopp
551-1303-00L	Cellular Biochemistry of Health and Disease Number of participants limited to 20.	W	4 credits	2\$				
551-1303-00 S	Cellular Biochemistry of Health and Disease	e		2 hrs	Fri	10-12	HIT H42	V. Korkhov, Y. Barral, T. Ishikawa, M. Jagannathan, R. Kroschewski, G. Neurohr, M. Peter, A. E. Smith, B. Snijder, K. Weis
551-0512-00L	Current Topics in Molecular and Cellular Neurobiology Number of participants limited to 8.	W	2 credits	18				
551-0512-00 S	Current Topics in Molecular and Cellular Net Does not take place this semester. Permission from lecturers required for all st This course may be taken only once, either or in the autumn semester.	udents		1 hrs er				U. Suter
551-1153-00L	Systems Biology of Metabolism Number of participants limited to 15.	W	4 credits	2V				
551-1153-00 V	Systems Biology of Metabolism			2 hrs	Mon	10-12	HPL D34	<b>U. Sauer</b> , N. Zamboni, M. Zampieri
551-1171-00L	Immunology: From Milestones to Current Topics	W	4 credits	2S				
551-1171-00 S	Immunology: From Milestones to Current To Online lecture: This lecture will take place of will remain reserved on campus for students from there.	nline. R			Tue	14-16	HIT H51	<b>B. Ludewig</b> , J. Kisielow, A. Oxenius, L. Tortola, University lecturers
752-6105-00L	Epidemiology and Prevention	W	3 credits	2V				
752-6105-00 V	Epidemiology and Prevention			2 hrs	Wed	12-14	CHN C14	M. Puhan, R. Heusser
752-4009-00L	Molecular Biology of Foodborne Pathogens	W	3 credits	2V				
752-4009-00 V	Molecular Biology of Foodborne Pathogens			2 hrs	Thu	10-12	HG E1.2	M. Loessner, M. Schmelcher, M. Schuppler, E. Wetter Slack
<b>752-6101-00L</b> 752-6101-00 V	<b>Dietary Etiologies of Chronic Disease</b> Dietary Etiologies of Chronic Disease	W	3 credits	<b>2V</b> 2 hrs	Thu	08-10	CAB G11	M. B. Zimmermann
376-0300-00L	Translational Science for Health and Medicine	W	3 credits	2G				
376-0300-00 G	Translational Science for Health and Medici	ne ■		2 hrs	Fri	10-12	IFW A36	J. Goldhahn, C. Wolfrum
701-1703-00L	Evolutionary Medicine for Infectious Diseases Number of participants limited to 35.	w	3 credits	2G				
	Waiting list will be deleted October 3rd, 2021.							
701-1703-00 G	Evolutionary Medicine for Infectious Disease	es		2 hrs	Fri	10-12	HG E41	A. Hall
636-0108-00L	Biological Engineering and Biotechnology	W	4 credits	3V				

636-0108-00 V	Biological Engineering and Biotechnology Takes place at the D-BSSE in Basel and is conference to Zürich (HG D16.2).	transmit	ed per video	3 hrs	Wed	13-16	BSA E46 HG D16.2	M. Fussenegger
	Attention: Lecture starts on Wednesday, Se	ptember	29 2021					
551-1407-00L	RNA Biology Lecture Series I: Transcription & Processing & Translation	W	4 credits	2V				
551-1407-00 V		& Proce	ssing &	2 hrs				<b>F. Allain</b> , N. Ban, U. Kutay, further lecturers
551-1409-00L	RNA Biology Lecture Series II: Non- coding RNAs: Biology and Therapeutics	W	4 credits	2V				
551-1409-00 V	RNA Biology Lecture Series II: Non-coding Interapeutics	RNAs: B	iology and	2 hrs	Thu	16-18	HCI H8.1	J. Hall, M. Stoffel, further lecturers
551-1423-00L	Current Topics in Metabolism and Disease	W	2 credits	1S				
551-1423-00 S	Current Topics in Metabolism and Disease Does not take place this semester. Permission from lecturers required for all stu Ffindet ab HS2021 nicht mehr statt.	udents		1 hrs				to be announced
	Major: Biochemistry ulsory Concept Courses							
Number	Title	Type	ECTS	Hours				Lacturars
551-0319-00L	Cellular Biochemistry (Part I)	Type O	3 credits	2V				Lecturers
	Cellular Biochemistry (Part I)	Ü	3 Credits	2 hrs	Mon	14-16	HCI J3	<b>U. Kutay</b> , G. Neurohr, M. Peter, K. Weis, I. Zemp
▶▶▶ Comp	ulsory Master Course							
Number	Title	Туре	ECTS	Hours				Lecturers
551-1303-00L	Cellular Biochemistry of Health and Disease Number of participants limited to 20.	0	4 credits	2\$				
551-1303-00 S	Cellular Biochemistry of Health and Disease	•		2 hrs	Fri	10-12	HIT H42	V. Korkhov, Y. Barral, T. Ishikawa, M. Jagannathar R. Kroschewski, G. Neurohr, M. Peter, A. E. Smith, B. Snijder, K. Weis
	ve Compulsory Concept Course	es						
	BIOL Master Studies Guide	T	ГОТО	Harma				Lastimana
Number 551-0307-00L	Title  Molecular and Structural Biology I:	Type W	ECTS 3 credits	Hours 2V				Lecturers
331-0307-00L	Midieculai aliu Structurai bidiogy I.	**	3 Credits	24				
	Protein Structure and Function D-BIOL students are obliged to take part I and part II (next semester) as a two-semester course							
551-0307-00 V	Protein Structure and Function D-BIOL students are obliged to take part I and part II (next semester) as a two-semester course	Structure	and Function	2 hrs	Mon	14-16	HCI J7	R. Glockshuber, K. Locher, E. Weber-Ban
	Protein Structure and Function D-BIOL students are obliged to take part I and part II (next semester) as a two-semester course	Structure <b>W</b>	and Function	2 hrs	Mon	14-16	HCI J7	
	Protein Structure and Function D-BIOL students are obliged to take part I and part II (next semester) as a two-semester course Molecular and Structural Biology I: Protein S  Concepts in Modern Genetics Information for UZH students: Enrolment to this course unit only possible at ETH. No enrolment to module BIO348 at				Mon	14-16	HCI J7	·
551-0309-00L	Protein Structure and Function  D-BIOL students are obliged to take part I and part II (next semester) as a two-semester course  Molecular and Structural Biology I: Protein S  Concepts in Modern Genetics Information for UZH students: Enrolment to this course unit only possible at ETH. No enrolment to module BIO348 at UZH.  Please mind the ETH enrolment deadlines for UZH students: https://www.ethz.ch/en/studies/non-degree-courses/special-students/special-students-university-of-zurich.html  Concepts in Modern Genetics				Mon	12-14	HG E5	E. Weber-Ban  Y. Barral, D. Bopp, A. Hajna
<b>551-0309-00L</b> <b>551-</b> 0309-00 V	Protein Structure and Function D-BIOL students are obliged to take part I and part II (next semester) as a two-semester course Molecular and Structural Biology I: Protein S  Concepts in Modern Genetics Information for UZH students: Enrolment to this course unit only possible at ETH. No enrolment to module BIO348 at UZH.  Please mind the ETH enrolment deadlines for UZH students: https://www.ethz.ch/en/studies/non-degree-courses/special-students/special-students-university-of-zurich.html Concepts in Modern Genetics **gemeinsam mit der Universität Zürich**	w		4V				E. Weber-Ban
551-0309-00L 551-0309-00 V ▶▶▶ Electiv	Protein Structure and Function  D-BIOL students are obliged to take part I and part II (next semester) as a two-semester course  Molecular and Structural Biology I: Protein S  Concepts in Modern Genetics Information for UZH students: Enrolment to this course unit only possible at ETH. No enrolment to module BIO348 at UZH.  Please mind the ETH enrolment deadlines for UZH students: https://www.ethz.ch/en/studies/non-degree-courses/special-students-university-of-zurich.html  Concepts in Modern Genetics  **gemeinsam mit der Universität Zürich**  ve Compulsory Master Courses	w	6 credits	4V 4 hrs	Mon	12-14	HG E5	Y. Barral, D. Bopp, A. Hajna O. Voinnet
551-0309-00L 551-0309-00 ∨ ▶►► Electiv Number	Protein Structure and Function  D-BIOL students are obliged to take part I and part II (next semester) as a two-semester course  Molecular and Structural Biology I: Protein S  Concepts in Modern Genetics Information for UZH students: Enrolment to this course unit only possible at ETH. No enrolment to module BIO348 at UZH.  Please mind the ETH enrolment deadlines for UZH students: https://www.ethz.ch/en/studies/non-degree-courses/special-students-university-of-zurich.html  Concepts in Modern Genetics  **gemeinsam mit der Universität Zürich**  Ve Compulsory Master Courses  Title	Type	6 credits	4 hrs	Mon	12-14	HG E5	E. Weber-Ban  Y. Barral, D. Bopp, A. Hajna
551-0309-00L  551-0309-00 ∨  ►►► Electiv  Number  529-0733-01L	Protein Structure and Function  D-BIOL students are obliged to take part I and part II (next semester) as a two-semester course  Molecular and Structural Biology I: Protein Standard Biology II: Protein Standard Biology I: Protein Standard Biology I: Protein Standard Biology II: Protein Standard Biology I: Protein Standard Biology II: Protein Stand	Type W	6 credits  ECTS 6 credits	4V 4 hrs	Mon	12-14	HG E5	Y. Barral, D. Bopp, A. Hajna O. Voinnet
551-0309-00L 551-0309-00 V ►►► Elective Number 529-0733-01 G	Protein Structure and Function  D-BIOL students are obliged to take part I and part II (next semester) as a two-semester course  Molecular and Structural Biology I: Protein Structural Bi	Type W	ECTS 6 credits	4 hrs  Hours 3G 3 hrs	Mon Tue	12-14 08-10 09-10 10-12	HG E5 I15 G60 HCI H8.1 HCI J6	Y. Barral, D. Bopp, A. Hajna O. Voinnet
551-0309-00L  551-0309-00 ∨  ►►► Elective  Number  529-0733-01 G  551-1153-00L	Protein Structure and Function  D-BIOL students are obliged to take part I and part II (next semester) as a two-semester course  Molecular and Structural Biology I: Protein Standard Biology II: Protein Standard Biology I: Protein Standard Biology I: Protein Standard Biology II: Protein Standard Biology I: Protein Standard Biology II: Protein Stand	Type W	6 credits  ECTS 6 credits	4 hrs Hours	Mon Tue	12-14 08-10 09-10 10-12	HG E5 I15 G60 HCI H8.1 HCI J6	Y. Barral, D. Bopp, A. Hajna O. Voinnet  Lecturers  D. Hilvert  U. Sauer, N. Zamboni,
551-0309-00L  551-0309-00 ∨  ▶▶▶ Elective Number  529-0733-01L  529-0733-01 G	Protein Structure and Function  D-BIOL students are obliged to take part I and part II (next semester) as a two-semester course  Molecular and Structural Biology I: Protein Structuration for UZH students:  Information for UZH students:  Please mind the ETH enrolment deadlines for UZH students:  Inttps://www.ethz.ch/en/studies/non-degree-courses/special-students/special-students/special-students-university-of-zurich.html  Concepts in Modern Genetics  **gemeinsam mit der Universität Zürich**  Ve Compulsory Master Courses  Title  Enzymes  Enzymes  Enzymes  Lecture 2 hours on Monday, 09:45 - 11:30.  1 hour exercise Monday or Tuesday from seaccording to agreement.  Systems Biology of Metabolism  Number of participants limited to 15.	Type W	ECTS 6 credits	4 hrs  Hours 3G 3 hrs	Mon Tue Mon Tue	12-14 08-10 09-10 10-12 12-13	HG E5 I15 G60 HCI H8.1 HCI J6 HCI H2.1	Y. Barral, D. Bopp, A. Hajna O. Voinnet  Lecturers  D. Hilvert

636-0007-00 V	Computational Systems Biology Lecture: "inverted classroom". Students are lecture videos provided ahead of a Zoom Q held every Wednesday 16:15-17:00. Tutorials on Fridays 10:15-12:00 will be hel In addition, students can sign up for Q&A so small groups (max. 30). They will be offered Wednesdays 15:15-16:00 in the lecture room HG D 3.2. I scheduling, see the course Moodle.	&A sess d via Zo essions d on sele	sion that will be om. in presence in ected		Wed	14-17	HG D3.2	J. Stelling
636-0007-00 U	Computational Systems Biology Tutorials on Fridays 10:15-12:00 will be held	d via Zo	om.	2 hrs	Fri	10-12	HG D1.2	J. Stelling
	Applied Statistical Regression Applied Statistical Regression Applied Statistical Regression Applied Statistical Regression Mon 10-12 might not work for all different procurse is offered. On sufficient demand, oth Mon 15-17 or Fri 10-12) for the exercise see	ner slots	(tentatively	2V+1U 2 hrs 1 hrs	Mon Mon/2w	08-10 10-12	HG E1.2 HG E1.2	M. Dettling M. Dettling
<b>529-0041-00L</b>	Modern Mass Spectrometry, Hyphenated Methods, and Chemometrics  Moderne Massenspektroskopie, gekoppelte		6 credits	3G 3 hrs	Mon	10-12	HCI H2.1	R. Zenobi, B. Hattendorf,
	Chemometrie				Wed	12-13	HCI H2.1	P. Sinués Martinez-Lozano
<b>636-0108-00L</b> 636-0108-00 V	Biological Engineering and Biotechnology Biological Engineering and Biotechnology Takes place at the D-BSSE in Basel and is conference to Zürich (HG D16.2). Attention: Lecture starts on Wednesday, Se		•	3 hrs	Wed	13-16	BSA E46 HG D16.2	M. Fussenegger
<b>551-1407-00L</b> 551-1407-00 V	RNA Biology Lecture Series I: Transcription & Processing & Translation RNA Biology Lecture Series I: Transcription	W & Proce	4 credits	2V 2 hrs				F. Allain, N. Ban, U. Kutay,
	Translation  Does not take place this semester.							further lecturers
551-1409-00L	RNA Biology Lecture Series II: Non- coding RNAs: Biology and Therapeutics	W	4 credits	2V				
551-1409-00 V	RNA Biology Lecture Series II: Non-coding Therapeutics			2 hrs	Thu	16-18	HCI H8.1	J. Hall, M. Stoffel, further lecturers
	Cell Biophysics	w	6 credits	4G 4 hrs	Tue Thu	16-18 16-18	HG D7.2 ML F38	T. Zambelli
	ve Concept Courses  Title	Tuma	FCTC	Центо				Lasturara
551-0307-00L	Molecular and Structural Biology I: Protein Structure and Function D-BIOL students are obliged to take part I and part II (next semester) as a two- semester course	W	3 credits	Hours 2V				Lecturers
551-0307-00 V	Molecular and Structural Biology I: Protein S	Structure	e and Function	2 hrs	Mon	14-16	HCI J7	<b>R. Glockshuber</b> , K. Locher, E. Weber-Ban
551-0309-00L	Concepts in Modern Genetics Information for UZH students: Enrolment to this course unit only possible at ETH. No enrolment to module BIO348 at UZH.  Please mind the ETH enrolment deadlines for UZH students:	W	6 credits	4V				
	https://www.ethz.ch/en/studies/non-degree-courses/special-students/special-students-university-of-zurich.html							
551-0309-00 V	Concepts in Modern Genetics **gemeinsam mit der Universität Zürich**			4 hrs	Mon Tue	12-14 08-10	HG E5 I15 G60	Y. Barral, D. Bopp, A. Hajnal, O. Voinnet
<b>551-0313-00L</b> 551-0313-00 V	Microbiology (Part I) Microbiology (Part I)	W	3 credits	<b>2V</b> 2 hrs	Mon	10-12	HCI G7	WD. Hardt, L. Eberl, J. Piel, M. Pilhofer
		w	3 credits	2V				
<b>551-0317-00L</b> 551-0317-00 V	Immunology I Immunology I	**	3 Credits	2 hrs	Tue	08-10	HG G3	M. Kopf, A. Oxenius

529-0731-00 G Nucleic Acids and Carbohydrates 3 hrs Tue 08-09 HCl D2 D. Hilvert, P. A. Kast, O9-10 HCl D2 Exercises: 1 hour according to agreement, presumably Tue 7:45- 10-12 HCl J3

8:30 or 8:45-9:30. Exercises will start in the second week of

### ▶▶ Elective Major: Molecular Plant Biology

<b>&gt;&gt;</b>	Compulsor	y Master	<b>Courses</b>
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Number	Title	Type	ECTS	Hours			Lecturers
551-0120-00L	Plant Biology Colloquium (Autumn Semester) This compulsory course is required only once. It may be taken in autumn as course 551-0120-00 "Plant Biology Colloquium (Autumn Semester)" or in spring as course 551-0120-01 "Plant Biology Colloquium (Spring Semester)".	W	2 credits	1K			
551-0120-00 K	Plant Biology Colloquium (Autumn Semeste	r)		1 hrs	 6-17 7-18	LFW C5 CAB G51	C. Sánchez-Rodríguez, A. Rodriguez-Villalon, O. Voinnet, S. C. Zeeman

### **▶▶▶** Compulsory Concept Courses

Number	Title	Туре	ECTS	Hours				Lecturers
551-0311-00L	Molecular Life of Plants	0	6 credits	4V				
551-0311-00 V	Molecular Life of Plants			4 hrs	Mon Tue	08-10 10-12	HPL D32 LFO C13	S. C. Zeeman, K. Bomblies, A. Rodriguez-Villalon, C. Sánchez-Rodríguez, O. Voinnet

Hours

Lecturers

Type ECTS

### **▶▶▶** Elective Compulsory Concept Courses

See D-BIOL Master Studies Guide

Title

Number

551-0307-00L	Molecular and Structural Biology I: Protein Structure and Function D-BIOL students are obliged to take part I and part II (next semester) as a two- semester course	W	3 credits	2V				
551-0307-00 V	Molecular and Structural Biology I: Protein S	Structure	and Function	2 hrs	Mon	14-16	HCI J7	<b>R. Glockshuber</b> , K. Locher, E. Weber-Ban
551-0309-00L	Concepts in Modern Genetics Information for UZH students: Enrolment to this course unit only possible at ETH. No enrolment to module BIO348 at UZH.	W	6 credits	4V				
	Please mind the ETH enrolment deadlines for UZH students: https://www.ethz.ch/en/studies/non- degree- courses/special- students/special- students-university-of-zurich.html							
551-0309-00 V	Concepts in Modern Genetics **gemeinsam mit der Universität Zürich**			4 hrs	Mon Tue	12-14 08-10	HG E5 I15 G60	Y. Barral, D. Bopp, A. Hajna O. Voinnet
551-0313-00L	Microbiology (Part I)	W	3 credits	2V				
551-0313-00 V	Microbiology (Part I)			2 hrs	Mon	10-12	HCI G7	WD. Hardt, L. Eberl, J. Piel, M. Pilhofer
551-0319-00L	Cellular Biochemistry (Part I)	w	3 credits	2V				
551-0319-00 V	Cellular Biochemistry (Part I)			2 hrs	Mon	14-16	HCI J3	<b>U. Kutay</b> , G. Neurohr, M. Peter, K. Weis, I. Zemp
701-2413-00L	Evolutionary Genetics	w	6 credits	4V				
701-1413-00 V	Population and Quantitative Genetics			2 hrs	Mon	14-16	HG D7.2	T. Städler, J. Stapley
701-1413-01 V	Ecological Genetics			2 hrs	Mon	10-12	ML F36	A. Widmer, S. Fior, M. C. Fischer
529-0731-00L	Nucleic Acids and Carbohydrates Note for BSc Biology students: Only one of the two concept courses 529-0731-00 Nucleic Acids and Carbohydrates (autumn semester) or 529-0732-00 Proteins and Lipids (spring semester) can be counted for the Bachelor's degree.	. W	6 credits	3G				
529-0731-00 G	Nucleic Acids and Carbohydrates Lecture 2 hours on Tue 9:45-11:30. Exercises: 1 hour according to agreement, p 8:30 or 8:45-9:30. Exercises will start in the semester.			3 hrs	Tue	08-09 09-10 10-12	HCI D2 HCI D2 HCI J3	D. Hilvert, P. A. Kast, S. J. Sturla, H. Wennemers

### **▶▶▶** Elective Compulsory Master Courses

Number	Title	Type	ECTS	Hours	Lecturers

751-4801-00L								
	System-Oriented Management of Herbivore Insects	W	2 credits	2G				
751-4801-00 G	Systembezogene Bekämpfung herbivorer In Does not take place this semester.	sekten		2 hrs				to be announced
529-0733-01L	Enzymes	W	6 credits	3G				
529-0733-01 G	Lecture 2 hours on Monday, 09:45 - 11:30. 1 hour exercise Monday or Tuesday from se	econd v	veek on -	3 hrs	Mon Tue	09-10 10-12 12-13	HCI H8.1 HCI J6 HCI H2.1	D. Hilvert
	according to agreement.							
751-5121-00L	<b>Insect Ecology</b> The number of participants is limited to 30.	W	2 credits	2V				
751-5121-00 V	Insect Ecology			2 hrs	Tue	14-16	LFW B3	<b>C. De Moraes</b> , M. Mescher, N. Stanczyk
551-1153-00L	Systems Biology of Metabolism Number of participants limited to 15.	W	4 credits	2V				
551-1153-00 V	Systems Biology of Metabolism			2 hrs	Mon	10-12	HPL D34	<b>U. Sauer</b> , N. Zamboni, M. Zampieri
751-4504-00L	Plant Pathology I	W	2 credits	2G				
	Plant Pathology I			2 hrs	Wed	14-16	LFW C5	B. McDonald
551-1407-00L	RNA Biology Lecture Series I: Transcription & Processing & Translation	W	4 credits	2V				
551-1407-00 V	RNA Biology Lecture Series I: Transcription Translation Does not take place this semester.	& Proc	essing &	2 hrs				<b>F. Allain</b> , N. Ban, U. Kutay, further lecturers
551-1409-00L	RNA Biology Lecture Series II: Non- coding RNAs: Biology and Therapeutics	W	4 credits	2V				
551-1409-00 V	RNA Biology Lecture Series II: Non-coding F Therapeutics	RNAs: I	Biology and	2 hrs	Thu	16-18	HCI H8.1	<b>J. Hall</b> , M. Stoffel, further lecturers
►►► Electiv	ve Concept Courses							
Number	Title	Туре	ECTS	Hours				Lecturers
551-0307-00L	Molecular and Structural Biology I: Protein Structure and Function D-BIOL students are obliged to take part I	W	3 credits	2V				
	and part II (next semester) as a two- semester course							
551-0307-00 V		Structur	e and Functior	2 hrs	Mon	14-16	HCI J7	R. Glockshuber, K. Locher, E. Weber-Ban
551-0307-00 V 551-0309-00L	semester course	Structur <b>W</b>	e and Function  6 credits	2 hrs	Mon	14-16	HCI J7	
	semester course  Molecular and Structural Biology I: Protein S  Concepts in Modern Genetics Information for UZH students: Enrolment to this course unit only possible at ETH. No enrolment to module BIO348 at				Mon	14-16		
551-0309-00L	semester course Molecular and Structural Biology I: Protein S  Concepts in Modern Genetics Information for UZH students: Enrolment to this course unit only possible at ETH. No enrolment to module BIO348 at UZH.  Please mind the ETH enrolment deadlines for UZH students: https://www.ethz.ch/en/studies/non-degree-courses/special-students/special-students-university-of-zurich.html				Mon Mon Tue	14-16 12-14 08-10	HCI J7  HG E5 I15 G60	E. Weber-Ban
551-0309-00L 551-0309-00 V	semester course Molecular and Structural Biology I: Protein S  Concepts in Modern Genetics Information for UZH students: Enrolment to this course unit only possible at ETH. No enrolment to module BIO348 at UZH.  Please mind the ETH enrolment deadlines for UZH students: https://www.ethz.ch/en/studies/non-degree-courses/special-students/special-students-university-of-zurich.html Concepts in Modern Genetics			4V	Mon	12-14	HG E5	E. Weber-Ban  Y. Barral, D. Bopp, A. Hajna
551-0309-00L	Semester course Molecular and Structural Biology I: Protein S  Concepts in Modern Genetics Information for UZH students: Enrolment to this course unit only possible at ETH. No enrolment to module BIO348 at UZH.  Please mind the ETH enrolment deadlines for UZH students: https://www.ethz.ch/en/studies/non-degree-courses/special-students/special-students-university-of-zurich.html Concepts in Modern Genetics **gemeinsam mit der Universität Zürich**	W	6 credits	<b>4V</b> 4 hrs	Mon	12-14	HG E5	E. Weber-Ban  Y. Barral, D. Bopp, A. Hajna
551-0309-00L 551-0309-00 V 551-0313-00L	semester course  Molecular and Structural Biology I: Protein S  Concepts in Modern Genetics Information for UZH students: Enrolment to this course unit only possible at ETH. No enrolment to module BIO348 at UZH.  Please mind the ETH enrolment deadlines for UZH students: https://www.ethz.ch/en/studies/non-degree-courses/special-students/special-students/special-students-university-of-zurich.html  Concepts in Modern Genetics **gemeinsam mit der Universität Zürich**  Microbiology (Part I)	W	6 credits	4 hrs	Mon Tue	12-14 08-10	HG E5 I15 G60	Y. Barral, D. Bopp, A. Hajna O. Voinnet

### ▶▶ Elective Major: Systems Biology

## ▶▶▶ Elective Compulsory Concept Courses

See D-BIOL Master Studies Guide

Number	Title	Type	ECTS	Hours				Lecturers
551-0319-00L	Cellular Biochemistry (Part I)	W	3 credits	2V				
551-0319-00 V	Cellular Biochemistry (Part I)			2 hrs	Mon	14-16	HCI J3	U. Kutay, G. Neurohr, M. Peter, K. Weis, I. Zemp
551-0309-00L	Concepts in Modern Genetics Information for UZH students: Enrolment to this course unit only possible at ETH. No enrolment to module BIO348 at UZH.	W	6 credits	4V				
	Please mind the ETH enrolment deadlines for UZH students: https://www.ethz.ch/en/studies/non-							

	degree- courses/special-							
	students/special- students-university-of-zurich.html							
551-0309-00 V	•			4 hrs	Mon Tue	12-14 08-10	HG E5 I15 G60	Y. Barral, D. Bopp, A. Hajnal, O. Voinnet
551-0313-00L	Microbiology (Part I)	W	3 credits	2V				
551-0313-00 V	Microbiology (Part I)			2 hrs	Mon	10-12	HCI G7	WD. Hardt, L. Eberl, J. Piel, M. Pilhofer
551-1299-00L	Introduction to Bioinformatics	w	6 credits	4G				
551-1299-00 G	Introduction to Bioinformatics Lecture: Mo 12-14 Exercises: Mo 14-16			4 hrs	Mon	12-14 14-16	HPT C103 HPT C103	S. Sunagawa, M. Gstaiger, A. Kahles, G. Rätsch, B. Snijder, E. Vayena, C. von Mering, N. Zamboni
▶▶▶ Electiv	ve Compulsory Master Courses	s I: Co	mputation					
Number	Title	Type	ECTS	Hours				Lecturers
	Computational Systems Biology Computational Systems Biology Lecture: "inverted classroom". Students are	W	6 credits	<b>3V+2U</b> 3 hrs	Wed	14-17	HG D3.2	J. Stelling
	held every Wednesday 16:15-17:00. Tutorials on Fridays 10:15-12:00 will be hel In addition, students can sign up for Q&A s small groups (max. 30). They will be offered Wednesdays 15:15-16:00 in the lecture room HG D 3.2. scheduling, see the course Moodle.	essions d on sele	in presence in ected					
636-0007-00 U	Computational Systems Biology Tutorials on Fridays 10:15-12:00 will be hel	ld via Zo	om.	2 hrs	Fri	10-12	HG D1.2	J. Stelling
636-0706-00L	Spatio-Temporal Modelling in Biology	W	4 credits	3G				
	Spatio-Temporal Modelling in Biology The lecture course will be offered as "inven Lecture videos, slides, and scripts will be m	nade ava	ilable via	3 hrs	Thu Fri	10-11 11-12 11-12 12-13	BSD G207.1 BSD G207.1 HG D16.2 HG D16.2	D. Iber
	Moodle, and students are expected to wate the lecture. The 45-minute in person lecture answer student question where necessary, application examples with students to deep of the material. Similarly, problem sheets a made available ahead of the tutorial. The tuaddress further questions. As students from Zurich participate in the course, lectures an offered in alternating weeks in Basel and Z participation is always possible. It is a new Feedback will be most welcome. Thursday 10-11 Q&A Lecture (BS)	e time se and to den their nd soluti utorials se n both B nd tutoria urich. Re	erves to discuss understanding ions will be erve to asel and als will be emote					

Number	Title	Type	ECTS	Hours				Lecturers
551-1153-00L	Systems Biology of Metabolism Number of participants limited to 15.	W	4 credits	2V				
551-1153-00 V	Systems Biology of Metabolism			2 hrs	Mon	10-12	HPL D34	<b>U. Sauer</b> , N. Zamboni M. Zampieri
551-0571-00L	From DNA to Diversity (University of Zurich) No enrolment to this course at ETH Zurich. Book the corresponding module directly at UZH as an incoming student. UZH Module Code: BIO336  Mind the enrolment deadlines at UZH: https://www.uzh.ch/cmsssl/en/studies/application/deadlines.html		2 credits	2V				
551-0571-00 V	From DNA to Diversity (University of Zurich) **Course at University of Zurich**	1		2 hrs				A. Hajnal, D. Bopp
636-0009-00L	Evolutionary Dynamics	W	6 credits	2V+1U+	-2A			
636-0009-00 V	Evolutionary Dynamics Attention: lecture starts on Thursday, 30 Sep	p 2021		2 hrs	Thu	09-11	BSA E46 HG D16.2	N. Beerenwinkel
	Online lecture: This lecture will primarily take Reserved rooms will remain blocked for stud course from there.							
636-0009-00 U	Evolutionary Dynamics Online: Will primarily take place online. Reservation of the computation of the comp			1 hrs	Thu	11-12	BSA E46 HG D16.2	N. Beerenwinkel

636-0009-00 A	Evolutionary Dynamics Project Work (compulsory continuous performation)	rmance	assessment),	2 hrs				N. Beerenwinkel
	no fixed presence required.							
<b>227-0939-00L</b> 227-0939-00 G	Cell Biophysics Cell Biophysics	W	6 credits	<b>4G</b> 4 hrs	Tue Thu	16-18 16-18	HG D7.2 ML F38	T. Zambelli
	Major: Molecular and Structur	al Bio	logy					
<u> </u>	ulsory Concept Courses							
Number	Title	Туре	ECTS	Hours				Lecturers
551-0307-00L	Molecular and Structural Biology I: Protein Structure and Function D-BIOL students are obliged to take part I and part II (next semester) as a two- semester course	0	3 credits	2V				
551-0307-00 V	Molecular and Structural Biology I: Protein S	Structure	and Function	2 hrs	Mon	14-16	HCI J7	R. Glockshuber, K. Locher, E. Weber-Ban
	ve Compulsory Concept Course BIOL Master Studies Guide	es						
Number	Title	Туре	ECTS	Hours				Lecturers
551-0319-00L 551-0319-00 V	Cellular Biochemistry (Part I) Cellular Biochemistry (Part I)	W	3 credits	<b>2V</b> 2 hrs	Mon	14-16	HCI J3	<b>U. Kutay</b> , G. Neurohr, M. Peter, K. Weis, I. Zemp
529-0731-00L	Nucleic Acids and Carbohydrates Note for BSc Biology students: Only one of the two concept courses 529-0731-00 Nucleic Acids and Carbohydrates (autumn semester) or 529-0732-00 Proteins and Lipids (spring semester) can be counted for the Bachelor's degree.	W	6 credits	3G				w. Peter, K. Wels, I. Zemp
529-0731-00 G	Nucleic Acids and Carbohydrates Lecture 2 hours on Tue 9:45-11:30. Exercises: 1 hour according to agreement, p 8:30 or 8:45-9:30. Exercises will start in the semester.			3 hrs	Tue	08-09 09-10 10-12	HCI D2 HCI D2 HCI J3	<b>D. Hilvert</b> , P. A. Kast, S. J. Sturla, H. Wennemers
551-0313-00L 551-0313-00 V	Microbiology (Part I) Microbiology (Part I)	W	3 credits	<b>2V</b> 2 hrs	Mon	10-12	HCI G7	<b>WD. Hardt</b> , L. Eberl, J. Piel, M. Pilhofer
551-0309-00L	Concepts in Modern Genetics Information for UZH students: Enrolment to this course unit only possible at ETH. No enrolment to module BIO348 at UZH.	W	6 credits	4V				
	Please mind the ETH enrolment deadlines for UZH students: https://www.ethz.ch/en/studies/non-degree-courses/special-students/special-students-university-of-zurich.html							
551-0309-00 V	Concepts in Modern Genetics **gemeinsam mit der Universität Zürich**			4 hrs	Mon Tue	12-14 08-10	HG E5 I15 G60	Y. Barral, D. Bopp, A. Hajnal O. Voinnet
5 <b>51-1299-00L</b> 551-1299-00 G	Introduction to Bioinformatics Introduction to Bioinformatics Lecture: Mo 12-14 Exercises: Mo 14-16	W	6 credits	<b>4G</b> 4 hrs	Mon	12-14 14-16	HPT C103 HPT C103	S. Sunagawa, M. Gstaiger, A. Kahles, G. Rätsch, B. Snijder, E. Vayena, C. von Mering, N. Zamboni
►►► Electiv	ve Compulsory Master Courses							
Number	Title	Type	ECTS	Hours				Lecturers
5 <b>29-0733-01L</b> 529-0733-01 G	Enzymes Enzymes Lecture 2 hours on Monday, 09:45 - 11:30. 1 hour exercise Monday or Tuesday from seaccording to agreement.	<b>W</b> econd w	6 credits reek on -	3G 3 hrs	Mon Tue	09-10 10-12 12-13	HCI H8.1 HCI J6 HCI H2.1	D. Hilvert
551-1401-00L	Advanced Protein Engineering (University of Zurich) No enrolment to this course at ETH Zurich. Book the corresponding module directly at UZH as an incoming student. UZH Module Code: BCH420 Restricted to max.10 students from ETH Mind the enrolment deadlines at UZH: https://www.uzh.ch/cmsssl/en/studies/appli cation/deadlines.html	W	2 credits	2G				

551-1401-00 G	Advanced Protein Engineering (University of **Course at University of Zurich**	of Zurich)	)	2 hrs				A. Plückthun
551-1153-00L	Systems Biology of Metabolism Number of participants limited to 15.	W	4 credits	2V				
551-1153-00 V	Systems Biology of Metabolism			2 hrs	Mon	10-12	HPL D34	<b>U. Sauer</b> , N. Zamboni, M. Zampieri
529-0004-01L	Classical Simulation of (Bio)Molecular Systems	w	6 credits	4G				
529-0004-01 G	Classical Simulation of (Bio)Molecular Syste 2 hr lecture + 2 hr exercise session in our c students can choose between two alternative either on Tuesdays 7:30-9:30 a.m. or on Th a.m.; the course was previously named CSI remains the same, but the new title is more	omputer ve exerc oursdays CBP (the	ise sessions, 7:45-9:45 e content	4 hrs	Tue	10-12	HCI D2	<b>P. H. Hünenberger</b> , J. Dolenc, S. Riniker
401-0649-00L	Applied Statistical Regression	W	5 credits	2V+1U				
	Applied Statistical Regression			2 hrs	Mon	08-10	HG E1.2	M. Dettling
401-0649-00 U	Applied Statistical Regression Mon 10-12 might not work for all different po- course is offered. On sufficient demand, oth Mon 15-17 or Fri 10-12) for the exercise sea	ner slots	(tentatively	1 hrs	Mon/2w	10-12	HG E1.2	M. Dettling
401-6215-00L	Using R for Data Analysis and Graphics (Part I)	W	1.5 credits	1G				
401-6215-00 G	Using R for Data Analysis and Graphics (Pa	art I)		14s hrs	Tue/1	14-16	CAB G11	M. Mächler
529-0041-00L	Modern Mass Spectrometry, Hyphenated Methods, and Chemometrics	W	6 credits	3G				
529-0041-00 G	Moderne Massenspektroskopie, gekoppelte Chemometrie	Analyse	enmethoden,	3 hrs	Mon Wed	10-12 12-13	HCI H2.1 HCI H2.1	R. Zenobi, B. Hattendorf, P. Sinués Martinez-Lozano
551-1407-00L	RNA Biology Lecture Series I: Transcription & Processing & Translation	W	4 credits	2V				
551-1407-00 V	RNA Biology Lecture Series I: Transcription Translation Does not take place this semester.	& Proce	essing &	2 hrs				<b>F. Allain</b> , N. Ban, U. Kutay, further lecturers
551-1409-00L	RNA Biology Lecture Series II: Non- coding RNAs: Biology and Therapeutics	W	4 credits	2V				
551-1409-00 V	• • • • • • • • • • • • • • • • • • • •		Biology and	2 hrs	Thu	16-18	HCI H8.1	J. Hall, M. Stoffel, further lecturers
<b>227-0939-00L</b> 227-0939-00 G	Cell Biophysics Cell Biophysics	W	6 credits	<b>4G</b> 4 hrs	Tue	16-18	HG D7.2	T. Zambelli
					Thu	16-18	ML F38	
	Major: Biological Chemistry							
	ulsory Concept Courses							
Number	Title		ECTS	Hours				Lecturers
529-0731-00L	Nucleic Acids and Carbohydrates Note for BSc Biology students: Only one of the two concept courses 529-0731-00 Nucleic Acids and Carbohydrates (autumn semester) or 529-0732-00 Proteins and Lipids (spring semester) can be counted for the Bachelor's degree.		6 credits	3G				
529-0731-00 G	Nucleic Acids and Carbohydrates Lecture 2 hours on Tue 9:45-11:30. Exercises: 1 hour according to agreement, 8:30 or 8:45-9:30. Exercises will start in the semester.			3 hrs	Tue	08-09 09-10 10-12	HCI D2 HCI D2 HCI J3	D. Hilvert, P. A. Kast, S. J. Sturla, H. Wennemers
►►► Electiv								
	ve Compulsory Master Courses	•						
Number	ve Compulsory Master Courses  Title	Туре	ECTS	Hours				Lecturers
Number 529-0733-01L	<u> </u>		ECTS 6 credits	Hours 3G				Lecturers
	Title Enzymes Enzymes Lecture 2 hours on Monday, 09:45 - 11:30. 1 hour exercise Monday or Tuesday from se	Type	6 credits		Mon Tue	09-10 10-12 12-13	HCI H8.1 HCI J6 HCI H2.1	D. Hilvert
529-0733-01L	Title  Enzymes Enzymes Lecture 2 hours on Monday, 09:45 - 11:30. 1 hour exercise Monday or Tuesday from so according to agreement.  Classical Simulation of (Bio)Molecular	Type	6 credits	3 <b>G</b>		10-12	HCI J6	
<b>529-0733-01L</b> 529-0733-01 G <b>529-0004-01L</b>	Title Enzymes Enzymes Lecture 2 hours on Monday, 09:45 - 11:30. 1 hour exercise Monday or Tuesday from so according to agreement.	Type W econd w W ems omputer ve exercursdays CBP (the	6 credits  eek on - 6 credits  room; the ise sessions, 7:45-9:45 e content	<b>3G</b> 3 hrs		10-12	HCI J6	
<b>529-0733-01L</b> 529-0733-01 G <b>529-0004-01L</b>	Title  Enzymes  Enzymes  Lecture 2 hours on Monday, 09:45 - 11:30.  1 hour exercise Monday or Tuesday from so according to agreement.  Classical Simulation of (Bio)Molecular Systems  Classical Simulation of (Bio)Molecular Syste 2 hr lecture + 2 hr exercise session in our cstudents can choose between two alternative either on Tuesdays 7:30-9:30 a.m. or on Tha.m.; the course was previously named CS	Type W econd w W ems omputer ve exercursdays CBP (the	6 credits  eek on - 6 credits  room; the ise sessions, 7:45-9:45 e content	3G 3 hrs	Tue	10-12 12-13	HCI J6 HCI H2.1	D. Hilvert  P. H. Hünenberger, J. Dolenc,
<b>529-0733-01L</b> 529-0733-01 G <b>529-0004-01L</b> 529-0004-01 G <b>529-0233-01L</b>	Title  Enzymes  Enzymes  Lecture 2 hours on Monday, 09:45 - 11:30.  1 hour exercise Monday or Tuesday from so according to agreement.  Classical Simulation of (Bio)Molecular Systems  classical Simulation of (Bio)Molecular	Type W econd w w ems omputer ve exercursdays CBP (the adequa	6 credits  eek on - 6 credits  room; the ise sessions, 7:45-9:45 e content te) 6 credits	3G 3 hrs 4G 4 hrs	Tue	10-12 12-13	HCI J6 HCI H2.1	D. Hilvert  P. H. Hünenberger, J. Dolenc,

529-0243-01L	Transition Metal Catalysis: From	W	6 credits	3G				
529-0243-01 G	Mechanisms to Applications Transition Metal Catalysis: From Mechanism	ns to Ap	plications	3 hrs	Fri	09-12	HCI D2	B. Morandi
529-0041-00L	Modern Mass Spectrometry, Hyphenatec	I W	6 credits	3G				
529-0041-00 G	Methods, and Chemometrics  Moderne Massenspektroskopie, gekoppelte Chemometrie	Analyse	enmethoden,	3 hrs	Mon Wed	10-12 12-13	HCI H2.1 HCI H2.1	R. Zenobi, B. Hattendorf, P. Sinués Martinez-Lozano
529-0240-00L	Chemical Biology - Peptides	W	6 credits	3G				
529-0240-00 G	Chemical Biology - Peptides Lecture: 2 hours, 8:45 - 10:30 on Thursday Exercise: 1 hour, 7:45 - 8:30 or 10:45 - 11:5	•	,	3 hrs	Thu	08-09 09-11 11-12	HCI J4 HCI J4 HCI J4	H. Wennemers
636-0108-00L	the lecture) on Thursday. Exercises start in Biological Engineering and	W	4 credits	3V	23.09.	09-11	HIL E8	
	Biotechnology	••	4 Ground			10.10	DOA 540	
636-0108-00 V	Biological Engineering and Biotechnology Takes place at the D-BSSE in Basel and is conference to Zürich (HG D16.2). Attention: Lecture starts on Wednesday, Se		•	3 hrs	Wed	13-16	BSA E46 HG D16.2	M. Fussenegger
551-1407-00L	RNA Biology Lecture Series I:	W	4 credits	2V				
001 1407 002	Transcription & Processing & Translation	••	4 0.00.00	_,				
551-1407-00 V	RNA Biology Lecture Series I: Transcription Translation Does not take place this semester.	& Proce	essing &	2 hrs				<b>F. Allain</b> , N. Ban, U. Kutay, further lecturers
551-1409-00L	RNA Biology Lecture Series II: Non- coding RNAs: Biology and Therapeutics	W	4 credits	2V				
551-1409-00 V		RNAs: B	siology and	2 hrs	Thu	16-18	HCI H8.1	J. Hall, M. Stoffel, further lecturers
529-0241-10L	·	W	6 credits	3G				
529-0241-10 G	Advanced Methods and Strategies in Synth Lecture: 13–15 Exercises: 15–16	esis		3 hrs	Mon	13-15 15-16	HCI J4 HCI J4 HIT J51	J. W. Bode
					27.09. 01.11.	13-16 13-16	HIT J52 HIL E3 HIL E3	
<b>227-0939-00L</b> 227-0939-00 G	Cell Biophysics Cell Biophysics	W	6 credits	<b>4G</b> 4 hrs	Tue Thu	16-18 16-18	HG D7.2 ML F38	T. Zambelli
▶▶▶ Electi	ve Concept Courses							
Number	Title	Туре	ECTS	Hours				Lecturers
551-0307-00L	Molecular and Structural Biology I: Protein Structure and Function	W	3 credits	2V				
	D-BIOL students are obliged to take part I and part II (next semester) as a two-semester course							
551-0307-00 V	and part II (next semester) as a two-	Structure	and Function	2 hrs	Mon	14-16	HCI J7	R. Glockshuber, K. Locher, E. Weber-Ban
	and part II (next semester) as a two- semester course Molecular and Structural Biology I: Protein S	Structure <b>W</b>	and Function 3 credits	2 hrs	Mon	14-16	HCI J7	
551-0319-00L	and part II (next semester) as a two- semester course Molecular and Structural Biology I: Protein S				Mon	14-16	HCI J7	
551-0319-00L	and part II (next semester) as a two- semester course Molecular and Structural Biology I: Protein S Cellular Biochemistry (Part I)			2V				E. Weber-Ban  U. Kutay, G. Neurohr,
<b>551-0319-00L</b> 551-0319-00 V <b>551-1299-00L</b>	and part II (next semester) as a two- semester course  Molecular and Structural Biology I: Protein S  Cellular Biochemistry (Part I)  Cellular Biochemistry (Part I)	w	3 credits	<b>2V</b> 2 hrs				E. Weber-Ban  U. Kutay, G. Neurohr,
<b>551-0319-00L</b> 551-0319-00 V <b>551-1299-00L</b> 551-1299-00 G	and part II (next semester) as a two- semester course  Molecular and Structural Biology I: Protein S  Cellular Biochemistry (Part I)  Cellular Biochemistry (Part I)  Introduction to Bioinformatics  Introduction to Bioinformatics  Lecture: Mo 12-14	w	3 credits	2V 2 hrs 4G 4 hrs	Mon	14-16	HCI J3	E. Weber-Ban  U. Kutay, G. Neurohr, M. Peter, K. Weis, I. Zemp  S. Sunagawa, M. Gstaiger, A. Kahles, G. Rätsch, B. Snijder, E. Vayena,
551-0319-00L 551-0319-00 V 551-1299-00L 551-1299-00 G	and part II (next semester) as a two-semester course  Molecular and Structural Biology I: Protein S  Cellular Biochemistry (Part I)  Cellular Biochemistry (Part I)  Introduction to Bioinformatics  Introduction to Bioinformatics  Lecture: Mo 12-14  Exercises: Mo 14-16	w	3 credits	2V 2 hrs 4G 4 hrs	Mon	14-16	HCI J3	E. Weber-Ban  U. Kutay, G. Neurohr, M. Peter, K. Weis, I. Zemp  S. Sunagawa, M. Gstaiger, A. Kahles, G. Rätsch, B. Snijder, E. Vayena,
551-0319-00L 551-0319-00 V 551-1299-00L 551-1299-00 G ►► Recomi	and part II (next semester) as a two- semester course  Molecular and Structural Biology I: Protein S  Cellular Biochemistry (Part I)  Cellular Biochemistry (Part I)  Introduction to Bioinformatics Introduction to Bioinformatics Lecture: Mo 12-14 Exercises: Mo 14-16  mended Elective Courses (for a	w w	3 credits 6 credits ter Majors	2V 2 hrs 4G 4 hrs	Mon	14-16	HCI J3	E. Weber-Ban  U. Kutay, G. Neurohr, M. Peter, K. Weis, I. Zemp  S. Sunagawa, M. Gstaiger, A. Kahles, G. Rätsch, B. Snijder, E. Vayena, C. von Mering, N. Zamboni
551-0319-00L 551-0319-00 V 551-1299-00L 551-1299-00 G ►► Recomi	and part II (next semester) as a two- semester course  Molecular and Structural Biology I: Protein S  Cellular Biochemistry (Part I)  Cellular Biochemistry (Part I)  Introduction to Bioinformatics  Introduction to Bioinformatics  Lecture: Mo 12-14  Exercises: Mo 14-16  mended Elective Courses (for a  Title  Research Ethics	w W II Mas	3 credits 6 credits ter Majors	2V 2 hrs 4G 4 hrs	Mon	14-16	HCI J3	E. Weber-Ban  U. Kutay, G. Neurohr, M. Peter, K. Weis, I. Zemp  S. Sunagawa, M. Gstaiger, A. Kahles, G. Rätsch, B. Snijder, E. Vayena, C. von Mering, N. Zamboni
551-0319-00L 551-0319-00 V 551-1299-00 G ►► Recomi Number 851-0180-00L	and part II (next semester) as a two- semester course  Molecular and Structural Biology I: Protein S  Cellular Biochemistry (Part I)  Cellular Biochemistry (Part I)  Introduction to Bioinformatics Introduction to Bioinformatics Lecture: Mo 12-14 Exercises: Mo 14-16  mended Elective Courses (for a  Title  Research Ethics Number of participants limited to 40  Particularly suitable for students of D-BIOL,	W W II Mas Type W+	3 credits 6 credits ter Majors ECTS 2 credits	2V 2 hrs 4G 4 hrs	Mon	14-16	HCI J3	E. Weber-Ban  U. Kutay, G. Neurohr, M. Peter, K. Weis, I. Zemp  S. Sunagawa, M. Gstaiger, A. Kahles, G. Rätsch, B. Snijder, E. Vayena, C. von Mering, N. Zamboni
551-0319-00L 551-0319-00 V  551-1299-00L 551-1299-00 G  ▶ Recomi Number 851-0180-00 G  ▶ Research	and part II (next semester) as a two- semester course  Molecular and Structural Biology I: Protein S  Cellular Biochemistry (Part I)  Cellular Biochemistry (Part I)  Introduction to Bioinformatics  Introduction to Bioinformatics  Lecture: Mo 12-14 Exercises: Mo 14-16  mended Elective Courses (for a  Title  Research Ethics Number of participants limited to 40  Particularly suitable for students of D-BIOL, D-CHAB, D-HEST  Research Ethics One additional hour of home work per week  Projects (for all Master Majors	W  II Mas Type W+	3 credits 6 credits ter Majors ECTS 2 credits	2V 2 hrs 4G 4 hrs  Hours 2G	Mon	14-16 12-14 14-16	HCI J3  HPT C103  HPT C103	E. Weber-Ban  U. Kutay, G. Neurohr, M. Peter, K. Weis, I. Zemp  S. Sunagawa, M. Gstaiger, A. Kahles, G. Rätsch, B. Snijder, E. Vayena, C. von Mering, N. Zamboni  Lecturers
551-0319-00L 551-0319-00 V  551-1299-00 G  ► Recomi Number 851-0180-00L  851-0180-00 G  ► Research Resea	and part II (next semester) as a two- semester course  Molecular and Structural Biology I: Protein S  Cellular Biochemistry (Part I)  Cellular Biochemistry (Part I)  Introduction to Bioinformatics  Introduction to Bioinformatics  Lecture: Mo 12-14  Exercises: Mo 14-16  mended Elective Courses (for a  Title  Research Ethics  Number of participants limited to 40  Particularly suitable for students of D-BIOL, D-CHAB, D-HEST  Research Ethics  One additional hour of home work per week	W  II Mas  Type W+	3 credits 6 credits ter Majors ECTS 2 credits	2V 2 hrs 4G 4 hrs  Hours 2G 2 hrs	Mon	14-16 12-14 14-16	HCI J3  HPT C103  HPT C103	E. Weber-Ban  U. Kutay, G. Neurohr, M. Peter, K. Weis, I. Zemp  S. Sunagawa, M. Gstaiger, A. Kahles, G. Rätsch, B. Snijder, E. Vayena, C. von Mering, N. Zamboni  Lecturers  G. Achermann, P. Emch
551-0319-00L 551-0319-00 V  551-1299-00L 551-1299-00 G  ► Recomi Number 851-0180-00 G  ► Research	and part II (next semester) as a two- semester course  Molecular and Structural Biology I: Protein S  Cellular Biochemistry (Part I)  Cellular Biochemistry (Part I)  Introduction to Bioinformatics Introduction to Bioinformatics Lecture: Mo 12-14 Exercises: Mo 14-16  mended Elective Courses (for a  Title  Research Ethics Number of participants limited to 40  Particularly suitable for students of D-BIOL, D-CHAB, D-HEST Research Ethics One additional hour of home work per week The Projects (for all Master Majors) The projects neither accepted nor registered in	W  II Mas Type W+	3 credits 6 credits ter Majors ECTS 2 credits	2V 2 hrs 4G 4 hrs  Hours 2G	Mon	14-16 12-14 14-16	HCI J3  HPT C103  HPT C103	E. Weber-Ban  U. Kutay, G. Neurohr, M. Peter, K. Weis, I. Zemp  S. Sunagawa, M. Gstaiger, A. Kahles, G. Rätsch, B. Snijder, E. Vayena, C. von Mering, N. Zamboni  Lecturers

551-1801-01L Research Project II O 15 credits 34A

551-1801-01 A Research Project II ■ 480s hrs by appt. Lecturers

Note: a list of D-BIOL authorised supervisors names is given under https://www.biol.ethz.ch/en/studies/master/research-projects.html

# ► GESS Science in Perspective

see GESS Science in Perspective: Language Courses ETH/UZH

see GESS Science in Perspective: Type A: Enhancement of Reflection Capability

Recommended GESS Science in Perspective (Type B) for D-BIOL.

#### ► Master's Thesis

A Master's thesis neither accepted nor registered nor approved will not be credited.

Number	Title Typ	e ECTS	Hours		Lecturers
551-1800-00L	Master's Thesis Only students who fulfill the following criteria are allowed to begin with their master thesis: a. successful completion of the bachelor programme; b. fulfilling of any additional requirements necessary to gain admission to the master programme; c have acquired at least 30 credits in the category "research projects".	30 credits	64D		
551-1800-00 D	Master's Thesis ■  Note: the examiners may include only those pers authorised by the Department of Biology to super thesis (see list of names under "Lernmaterialien"	rvise a Master	900s hrs by	appt.	Lecturers

# ► Master's Examination

Number	Title Type	e ECTS	Hours		Lecturers
551-1800-01L	Master's Examination Only students who fulfill the following criteria are admited for the master examination a. successful completion of the bachelor programme; b. fulfilling of any additional requirements necessary to gain admission to the master programme.	4 credits			
551-1800-01 A	Master's Examination ■  Note: the examiners may include only those personauthorised by the Department of Biology to superthesis (see list of names under the http://www.biol.ethz.ch/education/mscbiology/mscA Betreuer aktuell.pdf	vise a Master	4.5s hrs b	oy appt.	Lecturers

Biology Ma	ster - Key for Type		
0	Compulsory	E-	Recommended, not eligible for credits
W+	Eligible for credits and recommended	Z	Courses outside the curriculum
W	Eligible for credits	Dr	Suitable for doctorate

Key for	Hours		
V	lecture	P	practical/laboratory course
G	lecture with exercise	A	independent project
U	exercise	D	diploma thesis
S	seminar	R	revision course / private study
K	colloquium		

ECTS European Credit Transfer and Accumulation System

# **Biomedical Engineering Master**

# ► Track Courses

#### **▶▶** Bioelectronics

#### **▶▶▶** Track Core Courses

During the Master programme, a minimum of 12 CP must be obtained from track core courses.

Number	Title	Type	ECTS	Hours				Lecturers
151-0604-00L	Microrobotics	W	4 credits	3G				
151-0604-00 G	Microrobotics The class starts in the second week.			3 hrs	Mon Thu	16-18 11-12	NO C60 NO C60	B. Nelson, N. Shamsudhin
151-0605-00L	Nanosystems	w	4 credits	4G				
151-0605-00 G	Nanosystems Lecture: Thursday 10-13. Online lecture: The take place online. Reserved rooms will remanded from the campus for students to follow the course from Exercises: will take place in the laboratories.	ain bloci om there	ked on	4 hrs	Thu	10-13	ML F40	A. Stemmer
151-0621-00L	Microsystems I: Process Technology and Integration	W	6 credits	3V+3U				
151-0621-00 V	Microsystems I: Process Technology and Ir The lecture starts in the second week of the			3 hrs	Thu	13-16	HG E5	C. Hierold, M. Haluska
151-0621-00 U	Microsystems I: Process Technology and Ir The exercise starts in the third week of the			3 hrs	Tue	16-19	HG E1.2	M. Haluska
227-0105-00L	Introduction to Estimation and Machine Learning	W	6 credits	4G				
227-0105-00 G	Introduction to Estimation and Machine Lea	rning <b>=</b>		4 hrs	Fri	14-18	ETF C1	HA. Loeliger
227-0311-00L	Qubits, Electrons, Photons	W	6 credits	3V+2U				
227-0311-00 V	Qubits, Electrons, Photons			3 hrs	Thu Fri	08-10 13-14	CHN F42 ETZ E9	T. Zambelli
227-0311-00 U	Qubits, Electrons, Photons			2 hrs	Wed	10-12	HG D3.2	T. Zambelli
227-0385-10L	Biomedical Imaging	W	6 credits	5G				
227-0385-10 G	Biomedical Imaging **together with University of Zurich**			5 hrs	Mon Tue	14-16 13-16	HG E19 HG E7	S. Kozerke, K. P. Prüssmann
227-0386-00L	Biomedical Engineering	w	4 credits	3G				
227-0386-00 G	Biomedical Engineering **together with University of Zurich**			3 hrs	Wed	08-10 10-11	ETF E1 ETF E1	J. Vörös, S. J. Ferguson, S. Kozerke, M. P. Wolf, M. Zenobi-Wong
402-0674-00L	Physics in Medical Research: From Atoms to Cells	W	6 credits	2V+1U				
402-0674-00 V	Physics in Medical Research: From Atoms	to Cells		2 hrs	Fri	14-16	HCI H8.1	B. K. R. Müller
402-0674-00 U	Physics in Medical Research: From Atoms	to Cells		1 hrs	Fri	16-17	HCI H8.1	B. K. R. Müller
227-0393-10L	Bioelectronics and Biosensors	W	6 credits	2V+2U				
227-0393-10 V	Bioelectronics and Biosensors			2 hrs	Fri	09-11	HG E1.2	J. Vörös, M. F. Yanik
227-0393-10 U	Bioelectronics and Biosensors			2 hrs	Fri	08-09 11-12	HG E1.2 HG E1.2	M. F. Yanik, J. Vörös
227-0427-00L	Signal Analysis, Models, and Machine Learning This course was replaced by "Introduction to Estimation and Machine Learning" and "Advanced Signal Analysis, Modeling, and Machine Learning".	W	6 credits	4G				
227-0427-00 G	Signal Analysis, Models, and Machine Lear Does not take place this semester.	ning		4 hrs				HA. Loeliger
227-1037-00L	Introduction to Neuroinformatics	W	6 credits	2V+1U+	1A			
227-1037-00 V	Introduction to Neuroinformatics			2 hrs	Thu	08-10	NO C60	V. Mante, M. Cook, B. Grewe, G. Indiveri, D. Kiper, W. von der Behrens
227-1037-00 U	Introduction to Neuroinformatics			1 hrs	Thu	10-11	NO C60	V. Mante, M. Cook, B. Grewe, G. Indiveri, D. Kiper, W. von der Behrens
227-1037-00 A	Introduction to Neuroinformatics Self-study, no fixed presence required.			1 hrs				V. Mante
376-1714-00L	Biocompatible Materials	W	4 credits	3V				
376-1714-00 V	Biocompatible Materials Vorlesung 9-11h Uebungen/Gruppenarbeiten 11-12h			3 hrs	Fri	09-12	HG G3	<b>K. Maniura</b> , M. Rottmar, M. Zenobi-Wong

# ▶▶▶ Recommended Elective Courses

These courses are particularly recommended for the Bioelectronics track. Please consult your track advisor if you wish to select other subjects.

Number	Title	Туре	ECTS	Hours				Lecturers
227-0166-00L	Analog Integrated Circuits	W	6 credits	2V+2U				
227-0166-00 V	Analog Integrated Circuits			2 hrs	Fri	10-12	ETZ E6	T. Jang

227-0166-00 U	Analog Integrated Circuits Some of the exercise lessons will take place ETZ D61.1. To be announced during the course lessons		puter room	2 hrs	Fri	14-16	ETZ E6	T. Jang
	Image Analysis and Computer Vision Image Analysis and Computer Vision	W	6 credits	<b>3V+1U</b> 3 hrs	Thu	14-17	HG F1	<b>L. Van Gool</b> , E. Konukoglu, F. Yu
227-0447-00 U	Image Analysis and Computer Vision			1 hrs	Thu	17-19	ETZ D61.1 ETZ D61.2	L. Van Gool, E. Konukoglu, F. Yu
227-0468-00L	Analog Signal Processing and Filtering Suitable for Master Students as well as	w	6 credits	2V+2U				
	Doctoral Students.  Analog Signal Processing and Filtering  Analog Signal Processing and Filtering			2 hrs 2 hrs	Wed Wed	08-10 10-12	CHN E46 CHN E46	H. Schmid H. Schmid
	Cross-Disciplinary Research and Development in Medicine and	w	4 credits	2V+2A				
	Engineering A maximum of 12 medical degree students and 12 (biomedical) engineering degree students can be admitted, their number should be equal.							
227-0981-00 V	Cross-Disciplinary Research and Developm Engineering ■  Permission from lecturers required for all stu- **together with University of Zurich**	2 hrs	Tue	10-12	HG E41	V. Kurtcuoglu, D. de Julien de Zelicourt, M. Meboldt, M. Schmid Daners O. Ullrich		
	In order to synchronize the schedule between students, the course will start on Tuesday 20. The final lecture will be on 07.12.							
007 0004 00 4	IMPORTANT: Note that a special permission required to register for this course. Contact that end.	the head	d lecturer to					W.W
227-0981-00 A	Cross-Disciplinary Research and Developm Engineering ■ Permission from lecturers required for all stuary **together with University of Zurich**		ledicine and	2 hrs				V. Kurtcuoglu, D. de Julien de Zelicourt, M. Meboldt, M. Schmid Daners O. Ullrich
	2 hours of group work to be scheduled inder teams of medical and engineering students.	oendent	tly by the joint					
227-0939-00L	Cell Biophysics	w	6 credits	4G				
	Cell Biophysics	-	0 0.000	4 hrs	Tue Thu	16-18 16-18	HG D7.2 ML F38	T. Zambelli
227-1033-00L	Neuromorphic Engineering I Registration in this class requires the permission of the instructors. Class size will be limited to available lab spots. Preference is given to students that require this class as part of their major.	W	6 credits	2V+3U				
	Information for LIZH atudanta							
	Information for UZH students: Enrolment to this course unit only possible at ETH. No enrolment to module INI404 at UZH.							
	Enrolment to this course unit only possible at ETH. No enrolment to module INI404 at UZH.  Please mind the ETH enrolment deadlines for UZH students:  https://www.ethz.ch/en/studies/non-degree-courses/special-students/special-							
227-1033-00 V	Enrolment to this course unit only possible at ETH. No enrolment to module INI404 at UZH.  Please mind the ETH enrolment deadlines for UZH students:  https://www.ethz.ch/en/studies/non-degree-courses/special-		es of ONLINE	2 hrs	Mon	14-16	ON LINE	<b>T. Delbrück</b> , G. Indiveri, SC. Liu
	Enrolment to this course unit only possible at ETH. No enrolment to module INI404 at UZH.  Please mind the ETH enrolment deadlines for UZH students: https://www.ethz.ch/en/studies/non-degree-courses/special-students/special-students-university-of-zurich.html  Neuromorphic Engineering I  Permission from lecturers required for all students-initial students of Zurich in the lecturers will communicate the exact less	sson tim	nes of ONLINE		Mon by appt		ON LINE	
227-1033-00 U	Enrolment to this course unit only possible at ETH. No enrolment to module INI404 at UZH.  Please mind the ETH enrolment deadlines for UZH students: https://www.ethz.ch/en/studies/non-degree-courses/special-students/special-students-university-of-zurich.html  Neuromorphic Engineering I Permission from lecturers required for all stu-*together with University of Zurich** The lecturers will communicate the exact lescourses.  Neuromorphic Engineering I Permission from lecturers required for all stu-*together with University of Zurich**  Dates by arrangement.	sson tim		3 hrs			ON LINE	C. Liu  T. Delbrück, G. Indiveri, S
227-1033-00 U 227-2037-00L	Enrolment to this course unit only possible at ETH. No enrolment to module INI404 at UZH. Please mind the ETH enrolment deadlines for UZH students: https://www.ethz.ch/en/studies/non-degree-courses/special-students/special-students-university-of-zurich.html Neuromorphic Engineering I Permission from lecturers required for all stu*together with University of Zurich** The lecturers will communicate the exact lescourses. Neuromorphic Engineering I Permission from lecturers required for all stu*together with University of Zurich**	sson tim	nes of ONLINE	·			ON LINE	C. Liu  T. Delbrück, G. Indiveri, S
227-1033-00 U 227-2037-00L 227-2037-00 G 151-0509-00L	Enrolment to this course unit only possible at ETH. No enrolment to module INI404 at UZH.  Please mind the ETH enrolment deadlines for UZH students: https://www.ethz.ch/en/studies/non-degree-courses/special-students/special-students/special-students-university-of-zurich.html  Neuromorphic Engineering I Permission from lecturers required for all students-will communicate the exact lescourses.  Neuromorphic Engineering I Permission from lecturers required for all students-will communicate the exact lescourses.  Neuromorphic Engineering I Permission from lecturers required for all students-with University of Zurich**  Dates by arrangement.  Physical Modelling and Simulation  Physical Modelling and Simulation  Microscale Acoustofluidics  Microscale Acoustofluidics	w W		3 hrs	by appt	t.		C. Liu  T. Delbrück, G. Indiveri, S C. Liu
227-1033-00 U  227-2037-00L 227-2037-00 G  151-0509-00L 151-0509-00 G	Enrolment to this course unit only possible at ETH. No enrolment to module INI404 at UZH.  Please mind the ETH enrolment deadlines for UZH students: https://www.ethz.ch/en/studies/non-degree-courses/special-students/special-students/special-students-university-of-zurich.html  Neuromorphic Engineering I Permission from lecturers required for all students-university of Zurich** The lecturers will communicate the exact lescourses.  Neuromorphic Engineering I Permission from lecturers required for all students-university of Zurich**  The lecturers will communicate the exact lescourses.  Neuromorphic Engineering I Permission from lecturers required for all students-university of Zurich**  Dates by arrangement.  Physical Modelling and Simulation Physical Modelling and Simulation  Microscale Acoustofluidics	w W	6 credits	3 hrs  4G 4 hrs 3G	by appt	08-12	ETZ E6	C. Liu  T. Delbrück, G. Indiveri, S C. Liu  J. Smajic
227-2037-00L 227-2037-00 G 151-0509-00 G 151-0905-00L	Enrolment to this course unit only possible at ETH. No enrolment to module INI404 at UZH.  Please mind the ETH enrolment deadlines for UZH students: https://www.ethz.ch/en/studies/non-degree-courses/special-students/special-students/special-students-university-of-zurich.html  Neuromorphic Engineering I Permission from lecturers required for all stu-*together with University of Zurich** The lecturers will communicate the exact lescourses.  Neuromorphic Engineering I Permission from lecturers required for all stu-*together with University of Zurich**  Dates by arrangement.  Physical Modelling and Simulation Physical Modelling and Simulation  Microscale Acoustofluidics  Microscale Acoustofluidics  The course will take place on 29.09.21 in Marcourse	w W LF36.	6 credits 4 credits 4 credits	3 hrs  4G 4 hrs 3G 3 hrs	by appt	08-12 13-16	ETZ E6	C. Liu  T. Delbrück, G. Indiveri, S C. Liu  J. Smajic

376-1103-00 V	Frontiers in Nanotechnology			4 hrs	Mon Fri	10-12 14-16	HCP E47.3 HCP E47.3	V. Vogel, further lecturers
376-1219-00L	Rehabilitation Engineering II: Rehabilitation of Sensory and Vegetative Functions	W	3 credits	2V				
376-1219-00 V	Rehabilitation Engineering II: Rehabilitation Vegetative Functions	of Sens	sory and	2 hrs	Tue	08-10	CAB G11	R. Riener, O. Lambercy
376-1351-00L	Micro/Nanotechnology and Microfluidics for Biomedical Applications	W	2 credits	2V				
376-1351-00 V	Micro/Nanotechnology and Microfluidics for Applications	Biomed	dical	2 hrs	Wed	16-18	ML H41.1	E. Delamarche
529-0837-01L	Biomicrofluidic Engineering Number of participants limited to 25.	W	6 credits	3G				
529-0837-01 G	Biomicrofluidic Engineering			3 hrs	Mon Tue	16-18 12-13	HCI H8.1 HCI J7	A. de Mello
636-0108-00L	Biological Engineering and Biotechnology	W	4 credits	3V				
636-0108-00 V	Biological Engineering and Biotechnology Takes place at the D-BSSE in Basel and is conference to Zürich (HG D16.2). Attention: Lecture starts on Wednesday, Se		•	3 hrs	Wed	13-16	BSA E46 HG D16.2	M. Fussenegger
227-0976-00L	Computational Psychiatry & Computational Psychosomatics Number of participants limited to 24.	W	2 credits	48				
	Information for UZH students: Enrolment to this course unit only possible at ETH Zurich. No enrolment to module BMT20002.							
	Please mind the ETH enrolment deadlines for UZH students: https://www.ethz.ch/en/studies/non-degree-courses/special-students/special-students-university-of-zurich.html							
227-0976-00 S	Computational Psychiatry & Computational Permission from lecturers required for all stream **together with University of Zurich**		osomatics	60s hrs				K. Stephan
	Room: SOF-E-7 (UZH): SOF-E-7 Schönber https://www.plaene.uzh.ch/SOF/room/SOF-		1 8001 Zurich					
	The dates will be announced on https://www.tnu.ethz.ch/en/teaching							

# **▶▶▶** Biology Courses

Number	Title	Type	ECTS	Hours				Lecturers
227-0399-10L	Physiology and Anatomy for Biomedical Engineers I	W	3 credits	2G				
227-0399-10 G	Physiology and Anatomy for Biomedical Eng	jineers	l	2 hrs	Tue	08-10	ETZ E8	M. Wyss
227-0945-00L	Cell and Molecular Biology for Engineers I This course is part I of a two-semester course.	W	3 credits	2G				
227-0945-00 G	Cell and Molecular Biology for Engineers I			2 hrs	Thu	10-12	LFW C5	C. Frei
227-0949-00L	Biological Methods for Engineers (Basic Lab) Number of participants limited to 10.	W	3 credits	5P				
227-0949-00 P	Biological Methods for Engineers (Basic Lab Permission from lecturers required for all stu Laboratory: Thu 16:00 - 18:00 ETZ C81.1	,		70s hrs	Thu/2	13-16 16-18	ETZ H91 ETZ C81.1	C. Frei

# **▶▶** Bioimaging

# **▶▶▶** Track Core Courses

During the Master programme, a minimum of 12 CP must be obtained from track core courses.

Number	Title	Type	ECTS	Hours				Lecturers
227-0385-10L	Biomedical Imaging	W	6 credits	5G				
227-0385-10 G	Biomedical Imaging **together with University of Zurich**			5 hrs	Mon Tue	14-16 13-16	HG E19 HG E7	S. Kozerke, K. P. Prüssmann
227-0386-00L	Biomedical Engineering	w	4 credits	3G				
227-0386-00 G	Biomedical Engineering **together with University of Zurich**			3 hrs	Wed	08-10 10-11	ETF E1 ETF E1	<b>J. Vörös</b> , S. J. Ferguson, S. Kozerke, M. P. Wolf, M. Zenobi-Wong
227-0447-00L	Image Analysis and Computer Vision	W	6 credits	3V+1U				
227-0447-00 V	Image Analysis and Computer Vision			3 hrs	Thu	14-17	HG F1	<b>L. Van Gool</b> , E. Konukoglu, F. Yu

227-0447-00 U	Image Analysis and Computer Vision			1 hrs	Thu	17-19	ETZ D61.1 ETZ D61.2	<b>L. Van Gool</b> , E. Konukoglu, F. Yu
227-0965-00L	Micro and Nano-Tomography of Biological Tissues	W	4 credits	3G				
227-0965-00 G	Micro and Nano-Tomography of Biological	Tissues		3 hrs	Mon	09-12	ETZ E9	M. Stampanoni, F. Marone Welford

# **▶▶▶** Recommended Elective Courses

These courses are particularly recommended for the Bioimaging track. Please consult your track advisor if you wish to select other subjects.

Number	Title	Туре	ECTS	Hours				Lecturers
227-0311-00L	Qubits, Electrons, Photons	W	6 credits	3V+2U				
227-0311-00 V	Qubits, Electrons, Photons			3 hrs	Thu	08-10	CHN F42	T. Zambelli
227-0311-00 U	Qubits, Electrons, Photons			2 hrs	Fri Wed	13-14 10-12	ETZ E9 HG D3.2	T. Zambelli
227-0421-00L	Deep Learning in Artificial and Biological Neuronal Networks	W	4 credits	3G				
227-0421-00 G	Deep Learning in Artificial and Biological Ne	uronal N	Networks	3 hrs	Wed	09-12	ML F34	B. Grewe
227-0967-00L	Computational Neuroimaging Clinic Prerequisite: Successful completion of course "Methods & Models for fMRI Data Analysis", "Translational Neuromodeling" or "Computational Psychiatry"	W	3 credits	2V				
227-0967-00 V	Computational Neuroimaging Clinic Place: WIL-F-105 at TNU (Wilfriedstrasse 6,	8032 Z	(ürich)	2 hrs	Wed	10-12	Ex tern	K. Stephan
227-0969-00L	Methods & Models for fMRI Data Analysis	W	6 credits	4V				
227-0969-00 V	Methods & Models for fMRI Data Analysis			4 hrs	Tue	08-12	ETZ E6	K. Stephan
227-0971-00L	Computational Psychiatry Please note that participation in this course and the practical sessions requires additional registration at: http://www.translationalneuromodeling.org/ cpcourse/	W	3 credits	4\$				
227-0971-00 S	Computational Psychiatry  Block course from 13.09.2021 - 18.09.2021			60s hrs	13.09. <b>-</b> 17.09.	08-18	ON LINE	K. Stephan
	8:00 - 18:30h				18.09.	08-18	ON LINE	
227 4022 00 V	Registration in this class requires the permission of the instructors. Class size will be limited to available lab spots. Preference is given to students that require this class as part of their major.  Information for UZH students: Enrolment to this course unit only possible at ETH. No enrolment to module INI404 at UZH. Please mind the ETH enrolment deadlines for UZH students: https://www.ethz.ch/en/studies/non-degree-courses/special-students/special-students/special-students-university-of-zurich.html			2 hrs	Man	14.16	ON LINE	T Dollhvijek G Jadiyori S
227-1033-00 V	Neuromorphic Engineering I Permission from lecturers required for all stu **together with University of Zurich** The lecturers will communicate the exact les courses.		es of ONLINE		Mon	14-16	ON LINE	<b>T. Delbrück</b> , G. Indiveri, SC. Liu
227-1033-00 U	Permission from lecturers required for all stu **together with University of Zurich**	ıdents		3 hrs	by appt.			T. Delbrück, G. Indiveri, SC. Liu
227 4227 221	Dates by arrangement.	10/	C one-dir	01/-411-3	Α.			
<b>227-1037-00L</b> 227-1037-00 V	Introduction to Neuroinformatics Introduction to Neuroinformatics	W	6 credits	<b>2V+1U+1</b> 2 hrs	<b>A</b> Thu	08-10	NO C60	V. Mante, M. Cook, B. Grewe, G. Indiveri, D. Kiper, W. von der Behrens
	Introduction to Neuroinformatics			1 hrs	Thu	10-11	NO C60	V. Mante, M. Cook, B. Grewe, G. Indiveri, D. Kiper, W. von der Behrens
∠∠1-1031-00 A	Introduction to Neuroinformatics Self-study, no fixed presence required.			1 hrs				V. Mante
<b>227-2037-00L</b> 227-2037-00 G	Physical Modelling and Simulation Physical Modelling and Simulation	W	6 credits	4G 4 hrs	Thu	08-12	ETZ E6	J. Smajic
	<u> </u>	18/	A avadita			30 12		
<b>151-0105-00L</b> 151-0105-00 G	Quantitative Flow Visualization Quantitative Flow Visualization This course will be offered for the last time in 2021.	<b>W</b> n Autum	4 credits  nn Semester	<b>3G</b> 3 hrs	Tue	10-13	ML H41.1	T. Rösgen

151-0605-00L	Nanosystems	W	4 credits	4G				
151-0605-00 G	Nanosystems Lecture: Thursday 10-13. Online lecture: The take place online. Reserved rooms will remain campus for students to follow the course from Exercises: will take place in the laboratories	nin block m there	ked on	4 hrs	Thu	10-13	ML F40	A. Stemmer
252-0543-01L	Computer Graphics	W	8 credits	3V+2U+	2A			
252-0543-01 V	Computer Graphics Does not take place this semester.			3 hrs				
252-0543-01 U	Computer Graphics Does not take place this semester.			2 hrs				
252-0543-01 A	Computer Graphics Does not take place this semester.			2 hrs				
402-0674-00L	Physics in Medical Research: From Atoms to Cells	W	6 credits	2V+1U				
402-0674-00 V	Physics in Medical Research: From Atoms to	o Cells		2 hrs	Fri	14-16	HCI H8.1	B. K. R. Müller
402-0674-00 U	Physics in Medical Research: From Atoms to	o Cells		1 hrs	Fri	16-17	HCI H8.1	B. K. R. Müller
465-0953-00L	Biostatistics	W	4 credits	2V+1U				
465-0953-00 V	Biostatistics Does not take place this semester.			2 hrs				
465-0953-00 U	Biostatistics Does not take place this semester.			1 hrs				
227-0976-00L	Computational Psychiatry & Computational Psychosomatics Number of participants limited to 24.	W	2 credits	<b>4S</b>				
	Information for UZH students: Enrolment to this course unit only possible at ETH Zurich. No enrolment to module BMT20002.							
	Please mind the ETH enrolment deadlines for UZH students: https://www.ethz.ch/en/studies/non-degree-courses/special-students/special-students-university-of-zurich.html							
227-0976-00 S	Computational Psychiatry & Computational Permission from lecturers required for all stute **together with University of Zurich**		somatics	60s hrs				K. Stephan
	Room: SOF-E-7 (UZH): SOF-E-7 Schönberg https://www.plaene.uzh.ch/SOF/room/SOF-		1 8001 Zurich					
	The dates will be announced on https://www.tnu.ethz.ch/en/teaching							

# **▶▶▶** Biology Courses

		_						
Number	Title	Туре	ECTS	Hours				Lecturers
227-0399-10L	Physiology and Anatomy for Biomedical Engineers I	W	3 credits	2G				
227-0399-10 G	Physiology and Anatomy for Biomedical Engi	ineers	I	2 hrs	Tue	08-10	ETZ E8	M. Wyss
227-0945-00L	Cell and Molecular Biology for Engineers I This course is part I of a two-semester course.	W	3 credits	2G				
227-0945-00 G	Cell and Molecular Biology for Engineers I			2 hrs	Thu	10-12	LFW C5	C. Frei
227-0949-00L	Biological Methods for Engineers (Basic Lab)  Number of participants limited to 10.	W	3 credits	5P				
227-0949-00 P	Biological Methods for Engineers (Basic Lab) Permission from lecturers required for all stud Laboratory: Thu 16:00 - 18:00 ETZ C81.1	,		70s hrs	Thu/2	13-16 16-18	ETZ H91 ETZ C81.1	C. Frei

# **▶▶** Biomechanics

# **▶▶▶** Track Core Courses

During the Master programme, a minimum of 12 CP must be obtained from track core courses.

Number	Title	Type	ECTS	Hours				Lecturers
227-0385-10L	Biomedical Imaging	W	6 credits	5G				
227-0385-10 G	Biomedical Imaging **together with University of Zurich**			5 hrs	Mon Tue	14-16 13-16	HG E19 HG E7	S. Kozerke, K. P. Prüssmann
227-0386-00L	Biomedical Engineering	W	4 credits	3G				
227-0386-00 G	Biomedical Engineering **together with University of Zurich**			3 hrs	Wed	08-10 10-11	ETF E1 ETF E1	<b>J. Vörös</b> , S. J. Ferguson, S. Kozerke, M. P. Wolf, M. Zenobi-Wong
227-0447-00L	Image Analysis and Computer Vision	W	6 credits	3V+1U				

227-0447-00 V	Image Analysis and Computer Vision			3 hrs	Thu	14-17	HG F1	<b>L. Van Gool</b> , E. Konukoglu, F. Yu
227-0447-00 U	Image Analysis and Computer Vision			1 hrs	Thu	17-19	ETZ D61.1 ETZ D61.2	<b>L. Van Gool</b> , E. Konukoglu, F. Yu
227-0965-00L	Micro and Nano-Tomography of Biological Tissues	W	4 credits	3G				
227-0965-00 G	Micro and Nano-Tomography of Biological T	Tissues		3 hrs	Mon	09-12	ETZ E9	<b>M. Stampanoni</b> , F. Marone Welford
376-0121-00L	Multiscale Bone Biomechanics Number of participants limited to 30	W	6 credits	<b>4S</b>				
376-0121-00 S	Multiscale Bone Biomechanics ■			4 hrs	Fri	12-16	HCP E47.2	R. Müller, XH. Qin
376-1651-00L	Clinical and Movement Biomechanics Number of participants limited to 50.	W	4 credits	3 <b>G</b>				
376-1651-00 G	Clinical and Movement Biomechanics			3 hrs	Wed	14-17	HIL E9	N. Singh, R. List, P. Schütz
376-1985-00L	Trauma Biomechanics	W	4 credits	2V+1U				
376-1985-00 V	Trauma Biomechanics			2 hrs	Thu	10-12	HG D7.1	KU. Schmitt, M. H. Muser
376-1085-00 11	Trauma Biomechanics			1 hrs	Thu/2w	14-16	HG E33.3	KU. Schmitt, M. H. Muser

# **▶▶▶** Recommended Elective Courses

These courses are particularly recommended for the Biomechanics track. Please consult your track advisor if you wish to select other subjects.

Number	Title	Type	ECTS	Hours				Lecturers
	Continuum Mechanics I	W						Lociulois
151-0524-00L	Continuum Mechanics I	VV	4 credits	<b>2V+1U</b> 2 hrs	Fri	08-10	HG D5.2	E. Mazza, A. E. Ehret
	Continuum Mechanics I			1 hrs	Wed	12-13	HG E1.1	E. Mazza, A. E. Ehret
101 002 1 00 0	Exercises start in the second week of the se	emester	:	1 1110	******	12 10		El Mazza, 7t. E. Elliot
151-0601-00L	Theory of Robotics and Mechatronics	W	4 credits	3G				
151-0601-00 G	Theory of Robotics and Mechatronics			3 hrs	Mon	08-10	HG D1.2	P. Korba, S. Stoeter
	Online event: Will primarily take place onlin remain blocked on campus for students to there.			I		10-11	ML E12	
151-0604-00L	Microrobotics	W	4 credits	3G				
151-0604-00 G	Microrobotics The class starts in the second week.			3 hrs	Mon Thu	16-18 11-12	NO C60 NO C60	B. Nelson, N. Shamsudhin
151-0605-00L	Nanosystems	W	4 credits	4G				
151-0605-00 G	-			4 hrs	Thu	10-13	ML F40	A. Stemmer
	Lecture: Thursday 10-13. Online lecture: The take place online. Reserved rooms will rem campus for students to follow the course from Exercises: will take place in the laboratories.	ain bloc om there	ked on	,				
151-0905-00L	Medical Technology Innovation - From Concept to Clinics	W	4 credits	3P				
151-0905-00 P	Medical Technology Innovation - From Con	cept to (	Clinics	3 hrs	Tue	08-11	LFW C4	I. Herrmann
376-1103-00L	Frontiers in Nanotechnology	W	4 credits	4V				
376-1103-00 V	Frontiers in Nanotechnology			4 hrs	Mon Fri	10-12 14-16	HCP E47.3 HCP E47.3	V. Vogel, further lecturers
376-1219-00L	Rehabilitation Engineering II: Rehabilitation of Sensory and Vegetative Functions	W	3 credits	2V				
376-1219-00 V	Rehabilitation Engineering II: Rehabilitation Vegetative Functions	of Sens	sory and	2 hrs	Tue	08-10	CAB G11	R. Riener, O. Lambercy
376-1714-00L	Biocompatible Materials	W	4 credits	3V				
376-1714-00 V	Biocompatible Materials Vorlesung 9-11h Uebungen/Gruppenarbeiten 11-12h			3 hrs	Fri	09-12	HG G3	<b>K. Maniura</b> , M. Rottmar, M. Zenobi-Wong
376-1351-00L	Micro/Nanotechnology and Microfluidics for Biomedical Applications	W	2 credits	2V				
376-1351-00 V	Micro/Nanotechnology and Microfluidics for Applications	Biomed	lical	2 hrs	Wed	16-18	ML H41.1	E. Delamarche
376-1720-00L	Application of MATLAB in the Human Movement Sciences	W	2 credits	2G				
376-1720-00 G	Application of MATLAB in the Human Move Online event: Will primarily take place onlin remain blocked on campus for students to there.	e. Rese	rved rooms wil	2 hrs	Tue	10-12	HG D5.2	R. van de Langenberg
	Further information is available on Moodle.							
376-1974-00L	Colloquium in Biomechanics	W	2 credits	2K				
376-1974-00 K	Colloquium in Biomechanics ONLINE: This course will take place online. remain available for students to follow the s			2 hrs	Wed	08-10	HG D3.2	<b>B. Helgason</b> , S. J. Fergusor R. Müller, J. G. Snedeker, B. Taylor, M. Zenobi-Wong
376-2017-00L	Biomechanics of Sports Injuries and Rehabilitation	W	3 credits	2V				
376-2017-00 V	Biomechanik von Sportverletzungen und Ro	ehabilita	tion	2 hrs	Mon	16-18	HG D5.2	KU. Schmitt, J. Goldhahn
0.0 =0 00 .								

Atoms	4-	$\sim$	10

	674-00 V Physics in Medical Research: From Atoms to Cells 674-00 U Physics in Medical Research: From Atoms to Cells 953-001 Riostatistics W 4 credits				Fri Fri	14-16 16-17	HCI H8.1 HCI H8.1	B. K. R. Müller B. K. R. Müller
465-0953-00L	Biostatistics	W	4 credits	2V+1U				
465-0953-00 V	Biostatistics Does not take place this semester.			2 hrs				
465-0953-00 U	Biostatistics Does not take place this semester.			1 hrs				

#### **▶▶▶** Biology Courses

Number	Title	Туре	ECTS	Hours				Lecturers
227-0399-10L	Physiology and Anatomy for Biomedical Engineers I	W	3 credits	2G				
227-0399-10 G	Physiology and Anatomy for Biomedical Engi	ineers	l	2 hrs	Tue	08-10	ETZ E8	M. Wyss
227-0945-00L	Cell and Molecular Biology for Engineers I This course is part I of a two-semester course.	W	3 credits	2G				
227-0945-00 G	Cell and Molecular Biology for Engineers I			2 hrs	Thu	10-12	LFW C5	C. Frei
227-0949-00L	Biological Methods for Engineers (Basic Lab)  Number of participants limited to 10.	W	3 credits	5P				
227-0949-00 P	Biological Methods for Engineers (Basic Lab) Permission from lecturers required for all stud Laboratory: Thu 16:00 - 18:00 ETZ C81.1	,		70s hrs	Thu/2	13-16 16-18	ETZ H91 ETZ C81.1	C. Frei

# **▶▶** Medical Physics

#### **▶▶▶** Track Core Courses

During the Master programme, a minimum of 12 CP must be obtained from track core courses.

Number	Title	Type	ECTS	Hours				Lecturers
227-0311-00L	Qubits, Electrons, Photons	W	6 credits	3V+2U				
227-0311-00 V	Qubits, Electrons, Photons			3 hrs	Thu Fri	08-10 13-14	CHN F42 ETZ E9	T. Zambelli
227-0311-00 U	Qubits, Electrons, Photons			2 hrs	Wed	10-12	HG D3.2	T. Zambelli
227-0385-10L	Biomedical Imaging	W	6 credits	5G				
227-0385-10 G	Biomedical Imaging			5 hrs	Mon	14-16	HG E19	S. Kozerke, K. P. Prüssmann
	**together with University of Zurich**				Tue	13-16	HG E7	
227-0943-00L	Radiobiology	W	2 credits	2V				
227-0943-00 V	Radiobiology			2 hrs	Thu	14-16	HCI D8	M. Pruschy
	The lecture does not take place on October	14.						•
402-0341-00L	Medical Physics I	W	6 credits	2V+1U				
402-0341-00 V	Medical Physics I			2 hrs	Thu	16-18	HPT C103	P. Manser
402-0341-00 U	Medical Physics I			1 hrs	Thu	18-19	HPT C103	P. Manser

# **▶▶▶** Recommended Elective Courses

These courses are particularly recommended for the Medical Physics track. Please consult your track advisor if you wish to select other subjects.

Number	Title	Туре	ECTS	Hours				Lecturers
402-0674-00L	Physics in Medical Research: From Atoms to Cells	W	6 credits	2V+1U				
402-0674-00 V	Physics in Medical Research: From Atoms to	o Cells		2 hrs	Fri	14-16	HCI H8.1	B. K. R. Müller
402-0674-00 U	Physics in Medical Research: From Atoms to	o Cells		1 hrs	Fri	16-17	HCI H8.1	B. K. R. Müller
227-0941-00L	Physics and Mathematics of Radiotherapy Planning (University of Zurich) No enrolment to this course at ETH Zurich. Book the corresponding module directly at UZH as an incoming student. UZH Module Code: PHY471 https://www.uzh.ch/cmsssl/en/studies/appli cation/chmobilityin.html	W	6 credits	3G				
	Mind the enrolment deadlines at UZH: https://www.uzh.ch/cmsssl/en/studies/appli cation/deadlines.html							
227-0941-00 G	Physics and Mathematics of Radiotherapy F Zurich) **Course at University of Zurich**	lanning	(University of	3 hrs	Wed	10-13	UNI ZH.	University lecturers

# **▶▶▶** Other Elective Courses

These courses may be suitable for the Medical Physics track. Please consult your track advisor.

Number	Title	Туре	ECTS	Hours				Lecturers
227-0447-00L	Image Analysis and Computer Vision	W	6 credits	3V+1U				
227-0447-00 V	Image Analysis and Computer Vision			3 hrs	Thu	14-17	HG F1	<b>L. Van Gool</b> , E. Konukoglu, F. Yu

227-0447-00 U	Image Analysis and Computer Vision			1 hrs	Thu	17-19	ETZ D61.1 ETZ D61.2	<b>L. Van Gool</b> , E. Konukoglu, F. Yu
227-0965-00L	Micro and Nano-Tomography of Biological Tissues	W	4 credits	3G				
227-0965-00 G	Micro and Nano-Tomography of Biological	Tissues		3 hrs	Mon	09-12	ETZ E9	<b>M. Stampanoni</b> , F. Marone Welford
▶▶▶ Biolog	gy Courses							
Number	Title	Туре	ECTS	Hours				Lecturers
227-0399-10L	Physiology and Anatomy for Biomedical Engineers I	W	3 credits	2G				
227-0399-10 G	Physiology and Anatomy for Biomedical Eng	gineers l		2 hrs	Tue	08-10	ETZ E8	M. Wyss
227-0945-00L	Cell and Molecular Biology for Engineers I This course is part I of a two-semester course.	W	3 credits	2G				
227-0945-00 G	Cell and Molecular Biology for Engineers I			2 hrs	Thu	10-12	LFW C5	C. Frei

# **▶▶** Molecular Bioengineering

# **▶▶▶** Track Core Courses

During the Master programme, a minimum of 12 CP must be obtained from track core courses.

Number	Title	Туре	ECTS	Hours				Lecturers
376-1103-00L	Frontiers in Nanotechnology	W	4 credits	4V				
376-1103-00 V	Frontiers in Nanotechnology			4 hrs	Mon Fri	10-12 14-16	HCP E47.3 HCP E47.3	V. Vogel, further lecturers
376-1714-00L	Biocompatible Materials	W	4 credits	3V				
376-1714-00 V	Biocompatible Materials Vorlesung 9-11h Uebungen/Gruppenarbeiten 11-12h			3 hrs	Fri	09-12	HG G3	K. Maniura, M. Rottmar, M. Zenobi-Wong
402-0674-00L	Physics in Medical Research: From Atoms to Cells	W	6 credits	2V+1U				
402-0674-00 V	Physics in Medical Research: From Atoms to	o Cells		2 hrs	Fri	14-16	HCI H8.1	B. K. R. Müller
402-0674-00 U	Physics in Medical Research: From Atoms to	o Cells		1 hrs	Fri	16-17	HCI H8.1	B. K. R. Müller
465-0953-00L	Biostatistics	W	4 credits	2V+1U				
465-0953-00 V	Biostatistics Does not take place this semester.			2 hrs				
465-0953-00 U	Biostatistics Does not take place this semester.			1 hrs				
636-0108-00L	Biological Engineering and Biotechnology	W	4 credits	3V				
636-0108-00 V	Biological Engineering and Biotechnology Takes place at the D-BSSE in Basel and is a conference to Zürich (HG D16.2). Attention: Lecture starts on Wednesday, Se			3 hrs	Wed	13-16	BSA E46 HG D16.2	M. Fussenegger

#### **▶▶▶** Recommended Elective Courses

These courses are particularly recommended for the Molecular Bioengineering track. Please consult your track advisor if you wish to select other subjects.

Number	Title	Type	ECTS	Hours				Lecturers
151-0604-00L	Microrobotics	w	4 credits	3G				
151-0604-00 G	Microrobotics The class starts in the second week.			3 hrs	Mon Thu	16-18 11-12	NO C60 NO C60	B. Nelson, N. Shamsudhin
151-0905-00L	Medical Technology Innovation - From Concept to Clinics	W	4 credits	3P				
151-0905-00 P	Medical Technology Innovation - From Cor	cept to	Clinics	3 hrs	Tue	08-11	LFW C4	I. Herrmann
227-0311-00L	Qubits, Electrons, Photons	w	6 credits	3V+2U				
227-0311-00 V	Qubits, Electrons, Photons			3 hrs	Thu Fri	08-10 13-14	CHN F42 ETZ E9	T. Zambelli
227-0311-00 U	Qubits, Electrons, Photons			2 hrs	Wed	10-12	HG D3.2	T. Zambelli
227-0385-10L	Biomedical Imaging	w	6 credits	5G				
227-0385-10 G	Biomedical Imaging **together with University of Zurich**			5 hrs	Mon Tue	14-16 13-16	HG E19 HG E7	S. Kozerke, K. P. Prüssmann
227-0386-00L	Biomedical Engineering	w	4 credits	3G				
227-0386-00 G	Biomedical Engineering **together with University of Zurich**			3 hrs	Wed	08-10 10-11	ETF E1 ETF E1	<b>J. Vörös</b> , S. J. Ferguson, S. Kozerke, M. P. Wolf, M. Zenobi-Wong
227-0393-10L	Bioelectronics and Biosensors	w	6 credits	2V+2U				
227-0393-10 V	Bioelectronics and Biosensors			2 hrs	Fri	09-11	HG E1.2	J. Vörös, M. F. Yanik
227-0393-10 U	Bioelectronics and Biosensors			2 hrs	Fri	08-09 11-12	HG E1.2 HG E1.2	M. F. Yanik, J. Vörös
227-0965-00L	Micro and Nano-Tomography of Biological Tissues	W	4 credits	3G				

227-0965-00 G	Micro and Nano-Tomography of Biological	Tissues		3 hrs	Mon	09-12	ETZ E9	<b>M. Stampanoni</b> , F. Marone Welford
227-0981-00L	Cross-Disciplinary Research and Development in Medicine and Engineering A maximum of 12 medical degree students and 12 (biomedical) engineering degree students can be admitted, their number should be equal.	W	4 credits	2V+2A				
227-0981-00 V	Cross-Disciplinary Research and Developm Engineering ■ Permission from lecturers required for all st **together with University of Zurich**		Medicine and	2 hrs	Tue	10-12	HG E41	V. Kurtcuoglu, D. de Julien de Zelicourt, M. Meboldt, M. Schmid Daners O. Ullrich
	In order to synchronize the schedule betwee students, the course will start on Tuesday 2 The final lecture will be on 07.12.		and UZH					
	IMPORTANT: Note that a special permissic required to register for this course. Contact that end.			S				
227-0981-00 A	Cross-Disciplinary Research and Developm Engineering ■ Permission from lecturers required for all st **together with University of Zurich**		Medicine and	2 hrs				V. Kurtcuoglu, D. de Julien de Zelicourt, M. Meboldt, M. Schmid Daners, O. Ullrich
	2 hours of group work to be scheduled indeteams of medical and engineering students		tly by the joint	•				
327-0505-00L	Surfaces, Interfaces and their Applications I	W	3 credits	2V+1U				
327-0505-00 V	Surfaces, Interfaces and their Applications	I		2 hrs	Mon	09-11	HCI J7	N. Spencer, M. P. Heuberger, L. Isa
327-0505-00 U	Surfaces, Interfaces and their Applications	I		1 hrs	Mon	11-12	HCI J7	N. Spencer, M. P. Heuberger, L. Isa
<b>327-1101-00L</b> 327-1101-00 V	<b>Biomineralization</b> Biomineralization	W	2 credits	<b>2V</b> 2 hrs	Tue	10-12	ML H34.3	KH. Ernst
376-1622-00L	Practical Methods in Tissue Engineering Number of participants limited to 12.	y W	5 credits	4P				
376-1622-00 P	Practical Methods in Tissue Engineering ■			4 hrs	Mon	13-17	HPL D21.2	M. Zenobi-Wong, S. J. Ferguson, S. Grad, S. Schürle-Finke
402-0341-00L	Medical Physics I	W	6 credits	2V+1U	ть	40.40	LIDT C402	D. Manaar
	Medical Physics I Medical Physics I			2 hrs 1 hrs	Thu Thu	16-18 18-19	HPT C103 HPT C103	P. Manser P. Manser
	Chemical Biology - Peptides	w	6 credits	3G	THU	10 10	111 1 0 100	i i murisci
	Chemical Biology - Peptides  Chemical Biology - Peptides  Lecture: 2 hours, 8:45 - 10:30 on Thursday  Exercise: 1 hour, 7:45 - 8:30 or 10:45 - 11:  the lecture) on Thursday. Exercises start in	, 30 (imm	ediately after	3 hrs	Thu 23.09.	08-09 09-11 11-12 09-11	HCI J4 HCI J4 HCI J4 HIL E8	H. Wennemers
529-0615-01L	Biochemical and Polymer Reaction Engineering	w	6 credits	3G				
529-0615-01 G	Biochemical and Polymer Reaction Engine	ering		3 hrs	Tue Wed	14-16 12-13	HCI J4 HCI J6	P. Arosio
535-0423-00L	Drug Delivery and Drug Targeting	W	2 credits	1.5V				
535-0423-00 V	Drug Delivery and Drug Targeting			1.5 hrs	Tue/1	13-16	HIL E9	JC. Leroux, A. Steinauer
636-0507-00L	Synthetic Biology II Students in the MSc Biotechnology (Programme Regulations 2017) may select Synthetic Biology II instead of the Research Project 1.		8 credits	4A				
636-0507-00 A	Synthetic Biology II Does not take place this semester. Permission from lecturers required for all st This course will (hopefully!) be offered again 2022!		umn Semeste	4 hrs <i>r</i>	by app	t.		S. Panke, Y. Benenson, J. Stelling
▶▶▶ Other	Elective Courses							
These	courses may be suitable for the Molecular B	ioengine	eering track. P	Please cons	sult your t	rack advis	or.	
Number	Title	Туре	ECTS	Hours				Lecturers
<b>551-0313-00L</b> 551-0313-00 V	Microbiology (Part I) Microbiology (Part I)	W	3 credits	<b>2V</b> 2 hrs	Mon	10-12	HCI G7	WD. Hardt, L. Eberl, J. Piel,

Number	Title	Type	ECTS	Hours				Lecturers
551-0313-00L	Microbiology (Part I)	W	3 credits	2V				
551-0313-00 V	Microbiology (Part I)			2 hrs	Mon	10-12	HCI G7	<b>WD. Hardt</b> , L. Eberl, J. Piel, M. Pilhofer
▶▶▶ Biolo	gy Courses							
Number	Title	Type	ECTS	Hours				Lecturers

2G

3 credits

Physiology and Anatomy for Biomedical W Engineers I

227-0399-10L

227-0399-10 G	Physiology and Anatomy for Biomedical Eng	aineers l	l	2 hrs	Tue	08-10	ETZ E8	M. Wyss
227-0945-00L	Cell and Molecular Biology for	w	3 credits	2G				
	Engineers I This course is part I of a two-semester							
_	course.							
	Cell and Molecular Biology for Engineers I			2 hrs	Thu	10-12	LFW C5	C. Frei
227-0949-00L	Biological Methods for Engineers (Basic Lab) Number of participants limited to 10.	W	3 credits	5P				
227-0949-00 P	Biological Methods for Engineers (Basic Lat Permission from lecturers required for all stu Laboratory: Thu 16:00 - 18:00 ETZ C81.1	,		70s hrs	Thu/2	13-16 16-18	ETZ H91 ETZ C81.1	C. Frei
► Projects								
► Semest	and Laboratory Courses er Project							
Number	Title	Туре	ECTS	Hours				Lecturers
227-1101-00L	How to Write Scientific Texts Strongly recommended prerequisite for Semester Projects and Master Theses at D-ITET (MSc BME, MSc EEIT, MSc EST).	E-	0 credits					
227-1101-00 S	How to Write Scientific Texts Room to be announced			4s hrs	04.11. 11.11.		n /a n /a	U. Koch
227-1772-10L	Semester Project Registration in mystudies required!	0	12 credits	20A	h			Drefessor
	Semester Project		(ONLY)	20 hrs	by appt			Professors
	nal Projects and Laboratory Co		•		кед. 2	2020)		
Number	Title		ECTS	Hours				Lecturers
227-1772-20L	Semester Project 2 Only for Programme Regulations 2020.	W	12 credits	20A				
227-1772-20 A	Registration in mystudies required! Semester Project 2			20 hrs	by appt			Professors
227-1750-00L	Internship in Industry Only for Biomedical Engineering MSc (Programme Regulations 2020).	W	12 credits					
	Internship in Industry ■							external organisers
227-1760-00L	Research Project (long) Only for Biomedical Engineering MSc (Programme Regulations 2020).	W	24 credits	40A				
227-1760-00 A	Research Project (long)			40 hrs				Professors
► Master's	Thesis							
Number	Title	Туре	ECTS	Hours				Lecturers
227-1101-00L	How to Write Scientific Texts Strongly recommended prerequisite for Semester Projects and Master Theses at D-ITET (MSc BME, MSc EEIT, MSc EST).	E-	0 credits					
227-1101-00 S	How to Write Scientific Texts Room to be announced			4s hrs	04.11. 11.11.		n /a n /a	U. Koch
227-1700-00L	Master's Thesis Admission only if all the following apply: a. bachelor program successful completed; b. any additional requirements necessary to gain admission to the master program BME have been successfully completed; c. both the semester project and (if applicable) the internship successfully completed.		30 credits	40D				
227-1700-00 D	Registration in myStudies required! Master's Thesis ■			40 hrs	by appt			Professors
► GESS Sc	ience in Perspective							
	see GESS Science in Perspective:							
	Language Courses ETH/UZH							
	Language Courses ETH/UZH see GESS Science in Perspective: Type A: Enhancement of Reflection Capability							
	see GESS Science in Perspective: Type A:							
► Generally	see GESS Science in Perspective: Type A: Enhancement of Reflection Capability Recommended GESS Science in	oquia	ı					
► Generally Number	see GESS Science in Perspective: Type A: Enhancement of Reflection Capability Recommended GESS Science in Perspective (Type B) for D-ITET.		ECTS	Hours				Lecturers

								K. P. Prüssmann, S. Kozerke, M. Stampanoni, K. Stephan, J. Vörös
	Seminar on Biomedical Magnetic Z Resonance	2	0 credits	18				
227-0980-00 S	Seminar on Biomedical Magnetic Resonance			1 hrs	Thu	12-13	ETZ E6	K. P. Prüssmann, S. Kozerke, M. Weiger Senften
3iomedical Er	ngineering Master - Key for Type							
Э (	Compulsory			E-	R	Recommen	ded, not eligib	le for credits
N+ E	Eligible for credits and recommended			Z	С	courses ou	tside the curric	culum
<i>N</i> E	Eligible for credits			Dr	S	Suitable for	doctorate	
Key for Hours								
√ l	ecture			Р	р	ractical/lab	oratory course	е
G I	ecture with exercise			Α	ir	ndependen	t project	
J 6	exercise			D	d	iploma the	sis	
S s	seminar			R	re	evision cou	ırse / private s	tudy
Κ	colloquium							

# **Biotechnology Master**

# ► Master Studies (Programme Regulations 2021)

#### **▶▶** Core Courses

Students need to acquire a total of 6 ECTS in lectures in this category.

The list of core courses is a closed list, no other course can be added to this category.

Students need to pass both lectures offered in this category.

Number	Title	Type	ECTS	Hours				Lecturers
636-0102-10L	Advanced Bioengineering Only for Biotechnologie Master, Programme Regulations 2021 or doctoral students of D-BSSE	0	2 credits	3S				
636-0102-10 S	Advanced Bioengineering The lecture will take place Friday 11-13, Tu Attention: Lecture starts on Friday, Oct. 1 This lecture will take place online.	itorials F	iriday 17-18	3 hrs	Fri	11-13 17-18	BSA E46 BSA E46	S. Panke, Y. Benenson, P. S. Dittrich, M. Fussenegger, A. Hierlemann, M. H. Khammash, A. Moor, D. J. Müller, M. Nash, R. Platt, J. Stelling, B. Treutlein

#### ▶▶ Research Project and Industry Internship

Students can choose between Research Project OR Industry Internship. Duration: 12 weeks full-time min. Must be carried out in a different research group/company than the master's thesis.

Number	Title	Type	ECTS	Hours	Lecturers
636-0805-00L	Research Project Only for Biotechnologie Master, Programme Regulations 2021.	W	16 credits	34A	
636-0805-00 A	Research Project			480s hrs	Professors
636-0806-00L	Industry Internship Only for Biotechnologie Master, Programme Regulations 2021.	W	16 credits	34A	
636-0806-00 A	Industry Internship			480s hrs	Professors

#### ► Master's Thesis

Number	Title	Туре	ECTS	Hours	Lecturers
636-0900-10L	Master's Thesis Only for Biotechnologie Master, Programme Regulations 2021.	0	44 credits	91D	
	Students can only start with their master's thesis if a. The BSc programme has been completed successfully b. Assigned additional requirements for the admission to the master's degree programme have been passed c. At least 64 ECTS have been acquired for the master's degree programme, including 22 ECTS in the core course category and the 16 ECTS in the research projects and internships category				

1280s hrs

Professors

#### ► Master Studies (Programme Regulations 2017)

#### **▶▶** Core Courses

636-0900-10 D Master's Thesis

Students need to acquire a total of 8 ECTS in lectures in this category.

The list of core courses is a closed list, no other course can be added to this category.

Students need to pass both lectures offered in this category.

Number	Title Ty	ype	ECTS	Hours				Lecturers
636-0102-00L	Advanced Bioengineering Only for Biotechnologie Master, Programme Regulations 2017.		4 credits	3\$				
636-0102-10 S	Advanced Bioengineering The lecture will take place Friday 11-13, Tutoria Attention: Lecture starts on Friday, Oct. 1 This lecture will take place online.	ials Fı	riday 17-18	3 hrs	Fri	11-13 17-18	BSA E46 BSA E46	S. Panke, Y. Benenson, P. S. Dittrich, M. Fussenegger A. Hierlemann, M. H. Khammash, A. Moor, D. J. Müller, M. Nash, R. Platt J. Stelling, B. Treutlein

### ▶▶ Research Projects and Internship

Students need to acquire a total of 20 ECTS in this category. Either choose Research Project I (8 ECTS) and Research Project II (12 ECTS)

Or choose Research Project I (8 ECTS) and Industry Internship (12 ECTS)

Instead of Research Project I (8 ECTS) students may also choose Synthetic Biology II (8 ECTS)

#### ▶▶▶ Research Projects

Number	Title	Туре	ECTS	Hours	Lecturers
636-0802-00L	Research Project I Only for Biotechnologie Master BSc, Programme Regulations 2017.	0	8 credits	23A	

636-0802-00 A	Research Project I ■			320s hrs		Professors
636-0803-00L	Research Project II W Only for Biotechnologie Master BSc, Programme Regulations 2017.	N 1	2 credits	34A		
	Enrollment only for students that don't do an industry internship but two research projects.					
636-0803-00 A	Research Project II ■			480s hrs		Professors
636-0507-00L	Synthetic Biology II Students in the MSc Biotechnology (Programme Regulations 2017) may select Synthetic Biology II instead of the Research Project 1.	N 8	credits	4A		
636-0507-00 A	Synthetic Biology II Does not take place this semester. Permission from lecturers required for all stud This course will (hopefully!) be offered again in 2022!		n Semester	4 hrs	by appt.	<b>S. Panke</b> , Y. Benenson, J. Stelling

# ▶▶▶ Internship

Number	Title	Туре	ECTS	Hours	Lecturers
636-0804-00L	Industry Internship Only for Biotechnologie Master BSc, Programme Regulations 2017.	W	12 credits	34A	
636-0804-00 A	Industry Internship ■			480s hrs	Professors

#### ▶▶ Master's Thesis

Number	Title	Туре	ECTS	Hours	Lecturers
636-0900-00L	Master's Thesis	0	40 credits	91D	
636-0900-00 D	Master's Thesis ■			1280s hrs by appt.	Professors

# ► Practical Training

All listed lab courses are mandatory.
For Students in Biotechnology Master, Programme Regulation 2021: 16 ECTS in this category are mandatory.
For Students in Biotechnology Master, Programme Regulation 2017: 14 ECTS in this category are mandatory.

Number	Title	Туре	ECTS	Hours	Lecturers
636-0201-00L	Lab Course: Methods in Cell Analysis and Laboratory Automation The lab course is open for MSc Biotechnology students only.	0	3 credits	6P	
636-0201-00 P	Lab Course: Methods in Cell Analysis and I	Laborato	ry Automation	80s hrs	T. Horn
	The introduction to this lab course takes pla September 24. Then, the course continuou 17h for 5 weeks (until Tuesday, October 26	s Monda			
636-0203-00L	Lab Course: Microsystems and Microfluidics in Biology The lab course is open for MSc Biotechnology students only.	0	3 credits	5P	
636-0203-00 P	Lab Course: Microsystems and Microfluidic The Lab Course will take place Monday/Tu total. The Lab Course starts on Monday, Novemi December 21)	esday 9-	17h, 8 days in	64s hrs	P. S. Dittrich, A. Hierlemann
636-0204-00L	Lab Course: Microbial Biotechnology The lab course is open for MSc Biotechnology students only.	0	2 credits	5P	
636-0204-00 P	Lab Course: Microbial Biotechnology  The Lab Course will take place Monday/Tu total.  Lab Course starts on Monday, November 1 November 23)	•		64s hrs	M. Held

#### ► Advanced Courses

Students need to aquire a total of 24 ECTS in this category.
The list of advanced courses is a closed list, no other course can be added to this category.

#### **▶▶** Biomelecular-Orientated

Number	Title	Туре	ECTS	Hours				Lecturers
636-0103-00L	Microtechnology	W	4 credits	3G				
636-0103-00 G	Microtechnology Attention: Lecture starts on Thursday, Sep This lecture will take place in classroom in		30	3 hrs	Thu	13-16	BSA E46	A. Hierlemann
636-0104-00L	Biophysical Methods	w	4 credits	3G				
636-0104-00 G	Biophysical Methods Attention: Lecture starts on Wednesday, S This lecture will take place in classroom in		er 29	3 hrs	Wed	10-13	BSA E46	D. J. Müller

	Introduction to Biological Computers Introduction to Biological Computers Attention: Lecture starts on Friday, Oct. 1 This lecture will take place in classroom in BAS participate via Zoom will be offered.	<b>4 credits</b> EL. An option to	<b>3G</b> 3 hrs	Fri	14-17	BSA E46 HIT F22	Y. Benenson
636-0108-00L	Biological Engineering and W	4 credits	3V				
636-0108-00 V	Biotechnology Biological Engineering and Biotechnology Takes place at the D-BSSE in Basel and is tran conference to Zürich (HG D16.2). Attention: Lecture starts on Wednesday, Septer	•	3 hrs	Wed	13-16	BSA E46 HG D16.2	M. Fussenegger
<b>636-0107-00L</b> 636-0107-00 G	Microbial Biotechnology Microbial Biotechnology Attention: Lecture starts Friday, Oct. 1 This lecture will take place in classroom in Base	4 credits	<b>3G</b> 3 hrs	Fri	08-11	BSA E46	S. Panke, M. Jeschek
<b>636-0018-00L</b> 636-0018-00 G	Data Mining I W	6 credits	<b>3G+2A</b> 3 hrs	Wed	08-11	BSD G205 HG D16.2	K. M. Borgwardt
	The course will be held via Zoom (not in classro and tutorials will be recorded. Online event: This event will primarily take place rooms will remain blocked on campus for stude course from there.	e online. Reserved	ı				
636-0018-00 A		nce assessment),	2 hrs				K. M. Borgwardt
36-0550-00L	Biomolecular Nanotechnology W	4 credits	2V+1U				
636-0550-00 V	Biomolecular Nanotechnology Wednesdays 08.00-10.00 Campus Rosental 10 room E00.012 ATTENTION: This lecture will start on Wednesd		2 hrs				M. Nash
636-0550-00 U	Biomolecular Nanotechnology Thursday, 08.00-09.00 Campus Rosental 1060, 2.14 ATTENTION: The first tutorial will take place on		1 hrs				M. Nash
	30						
36-0117-00L	Mathematical Modelling for W Bioengineering and Systems Biology	4 credits	3G				
636-0117-00 G	Mathematical Modelling for Bioengineering and The lecture course will be offered as "inverted of Lecture videos, slides, and scripts will be made Moodle, and students are expected to watch the the lecture. The 45-minute in person lecture time answer student question where necessary, and application examples with students to deepen the of the material. Similarly, problem sheets and so made available ahead of the tutorial. The tutorial address further questions. As students from bot address further questions. As students from bot Sturich participate in the course, lectures and tutorial participation is always possible. It is a new form Feedback will be most welcome. Thursday 8-9 Tutorial (BS) Thursday 9-10 Tutorial (ZH) Friday 10-11 Q&A Lecture (ZH) Course starts: Thursday, Sept. 30 2021 in BS	lassroom". available via available via e videos ahead of e serves to to discuss heir understanding blutions will be als serve to th Basel and torials will be b. Remote	3 hrs	Thu Fri	08-09 09-10 09-10 10-11	BSD G205 BSD G205 HG D16.2 HG D16.2	D. Iber
36-0118-00 G	Applications to Biology	tions to Riology	3 hre	Thu	11-13	BSD G205	M H Khammach A Gunta
550-0110-UU G	Introduction to Dynamical Systems with Applica Lecture Thursdays 11-13h Online lecture: This le primarily take place online. Reserved rooms will for students to follow the course from there. Tutorial Friday 13-14h Online: The tutorial will p online. Reserved rooms will remain blocked for the course from there.	ecture will I remain blocked rimarily take place	3 hrs	Thu Fri	11-13 13-14	BSD G205 BSA E46	M. H. Khammash, A. Gupta
	Attention: Lecture starts on Thursday, Sept. 30						
636-0109-00L 636-0109-00 G	Stem Cells: Biology and Therapeutic W Manipulation Stem Cells: Biology and Therapeutic Manipulati Does not take place this semester. This lecture will not be held in Autumn Semester		<b>3G</b> 3 hrs				T. Schroeder
	offered again in Autumn Semester 2022.						

636-0109-00L

636-0109-00 G

636-0123-00L

Stem Cells: Biology and Therapeutic

offered again in Autumn Semester 2022

**Problem-Based Approach to Spatial** 

Does not take place this semester.

Stem Cells: Biology and Therapeutic Manipulation

This lecture will not be held in Autumn Semester 2021. It will be

Manipulation

3 hrs Wed 16-19 BSA F46 A Moor ATTENTION: Lecture starts on Wednesday, Sept. 29. This lecture will take place in classroom in Basel. ▶► System-Orientated Number Title Type **ECTS** Hours Lecturers 636-0103-00L Microtechnology 4 credits 3G 636-0103-00 G Microtechnology 13-16 BSA E46 A. Hierlemann 3 hrs Thu Attention: Lecture starts on Thursday, September 30 This lecture will take place in classroom in Basel. 636-0104-00L **Biophysical Methods** 4 credits 3G 636-0104-00 G Biophysical Methods 3 hrs Wed 10-13 BSA E46 D. J. Müller Attention: Lecture starts on Wednesday, September 29 This lecture will take place in classroom in Basel. Introduction to Biological Computers 636-0105-00L 4 credits 3G 636-0105-00 G Introduction to Biological Computers 3 hrs Fri 14-17 BSA E46 Y. Benenson Attention: Lecture starts on Friday, Oct. 1 HIT F22 This lecture will take place in classroom in BASEL. An option to participate via Zoom will be offered. 636-0108-00L **Biological Engineering and** 4 credits **3V** Biotechnology Biological Engineering and Biotechnology M. Fussenegger 636-0108-00 V Wed 13-16 BSA E46 Takes place at the D-BSSE in Basel and is transmitted per video HG D16.2 conference to Zürich (HG D16.2). Attention: Lecture starts on Wednesday, September 29 2021 636-0018-00L Data Mining I 6 credits 3G+2A 636-0018-00 G Data Mining I **BSD G205** K. M. Borgwardt 3 hrs Wed 08-11 Tutorial: 8-9h, Lecture: 9-11h. HG D16.2 ATTENTION: Course starts on Wednesday, Sept. 29 The course will be held via Zoom (not in classroom) and lectures and tutorials will be recorded. Online event: This event will primarily take place online. Reserved rooms will remain blocked on campus for students to follow the course from there. 636-0018-00 A Data Mining I K. M. Borgwardt 2 hrs Project Work (compulsory continuous performance assessment), no fixed presence required. 636-0117-00L **Mathematical Modelling for** 4 credits 3G **Bioengineering and Systems Biology** Mathematical Modelling for Bioengineering and Systems Biology **BSD G205** 636-0117-00 G Thu 08-09 D. Iber The lecture course will be offered as "inverted classroom". 09-10 **BSD G205** Lecture videos, slides, and scripts will be made available via Fri 09-10 HG D16.2 Moodle, and students are expected to watch the videos ahead of 10-11 HG D16.2 the lecture. The 45-minute in person lecture time serves to answer student question where necessary, and to discuss application examples with students to deepen their understanding of the material. Similarly, problem sheets and solutions will be made available ahead of the tutorial. The tutorials serve to address further questions. As students from both Basel and Zurich participate in the course, lectures and tutorials will be offered in alternating weeks in Basel and Zurich. Remote participation is always possible. It is a new form of teaching. Feedback will be most welcome. Thursday 8-9 Tutorial (BS) Thursday 9-10 Q&A Lecture (BS) Friday 9-10 Tutorial (ZH) Friday 10-11 Q&A Lecture (ZH) Course starts: Thursday, Sept. 30 2021 in BS 636-0118-00L Introduction to Dynamical Systems with W 4 credits 3G Applications to Biology 636-0118-00 G Introduction to Dynamical Systems with Applications to Biology Thu **BSD G205** M. H. Khammash, A. Gupta 3 hrs 11-13 Lecture Thursdays 11-13h Online lecture: This lecture will Fri 13-14 BSA E46 primarily take place online. Reserved rooms will remain blocked for students to follow the course from there. Tutorial Friday 13-14h Online: The tutorial will primarily take place online. Reserved rooms will remain blocked for students to follow the course from there. Attention: Lecture starts on Thursday, Sept. 30

# Biology

3G

3 hrs

3G

T. Schroeder

4 credits

4 credits

#### 3 hrs Wed 16-19 BSA E46 A. Moor

#### **▶** Electives

The electives list in the ETH course catalogue is an open list, and the courses listed in the ETH course catalogue provide just examples for possible elective courses, e.g. a selection of eligible courses. Students are expected to look for relevant courses in the ETH and University of Basel course catalogue and ask their mentor for approval. Courses from the advanced course category may also be taken as electives.

We particularly recommend browsing the University of Basel course catalogue for elective courses of relevant master's degree programes (using the filter "programe structure" on the course catalogue website), such as for example: Biomedical Engineering, Chemistry, Drug Sciences, Epidemiology, Infection Biology, Molecular Biology, Nanosciences.

Number	Title	Type	ECTS	Hours				Lecturers
336-0015-00L	An Introduction to Probability Theory and Stochastic Processes with Applications to Biology	W	4 credits	3G				
36-0015-00 G	An Introduction to Probability Theory and St with Applications to Biology Online lecture: This lecture will primarily tak Reserved rooms will remain blocked for stu- course from there.	e place	online.	3 hrs	Mon	11-12 14-16	BSD G205 BSD G205	A. Gupta
36-0017-00L	Computational Biology	w	6 credits	3G+2A				
336-0017-00 G	Computational Biology The lecture will be held each Monday (16-1- Basel and will be transmitted via videoconfe location. Tutorials will happen in both locatio Tutorials in Zürich: Monday 18-19h (HG D 1	erence to ons.		3 hrs	Mon Thu	16-18 18-19 12-13	BSA E46 HG D16.2 HG D16.2 BSA E46	T. Vaughan
	Tutorials in Basel: Thursday 12-13h (BSA E Lecture on Monday and the Tutorial on Thu available for participation via Zoom. ATTENTION: Lecture starts on Monday, 27 Basel on Thursday 30.09	: 46) rsday w						
636-0017-00 A	Computational Biology Project Work (compulsory continuous perfo- no fixed presence required.	rmance	assessments),	2 hrs				T. Vaughan
<b>336-0501-00L</b> 336-0501-00 V	Advanced Immunology I Advanced Immunology I (University of Base **Course at University of BaseI** Students need to also register with the Univ		2 credits  F Basel for this	2V 2 hrs				external organisers
	https://vorlesungsverzeichnis.unibas.ch/en/	home?id	t=256144					
36-0511-00L	Developmental Neuroscience	W	2 credits	2V				
36-0511-00 V	Developmental Neuroscience (University of **Course at University of Basel** Students need to also register with the University!	,	f Basel for this	2 hrs				external organisers
	https://vorlesungsverzeichnis.unibas.ch/de/	recherch	ne?id=259229					
36-0515-00L	Molecular Medicine I	W	2 credits	2V				
336-0515-00 V	Molecular Medicine I (University of Basel) **Course at University of Basel** Students need to also register with the University course! https://vorlesungsverzeichnis.unibas.ch/de/	•		2 hrs				external organisers
	, ,							
636-0706-00L 636-0706-00 G	Spatio-Temporal Modelling in Biology Spatio-Temporal Modelling in Biology	W	4 credits	<b>3G</b> 3 hrs	Thu	10-11	BSD G207.1	D. Iber
	The lecture course will be offered as "invert Lecture videos, slides, and scripts will be m Moodle, and students are expected to watch the lecture. The 45-minute in person lecture answer student question where necessary,	ade ava h the vio time se and to o	ilable via leos ahead of erves to liscuss		Fri	11-12 11-12 12-13	BSD G207.1 HG D16.2 HG D16.2	
	application examples with students to deep of the material. Similarly, problem sheets ar made available ahead of the tutorial. The tu address further questions. As students from Zurich participate in the course, lectures and feter of in alternating weeks in Basel and Zu participation is always possible. It is a new to Feedback will be most welcome. Thursday 10-11 Q&A Lecture (BS) Thursday 11-12 Tutorial (BS) Friday 11-12 Q&A Lecture (ZH) Friday 12-13 Tutorial (ZH) Course starts: Friday, Sept. 24 in ZH	en their nd soluti torials s n both Ba d tutoria ırich. Re form of t	understanding ons will be erve to asel and Is will be emote eaching.					
36-0510-00L	Proteomics and Drug Discovery Research	W	2 credits	2V				
636-0510-00 V	Proteomics and Drug Discovery Research ( **Course at University of Basel** This course will not be offered in Autumn Se		,	2 hrs				external organisers
36-0119-00L	Introduction to Statistics and R	w	6 credits	3G+2A				
36-0119-00 G	Introduction to Statistics and R Attention: Lecture starts Thursday, Sept. 30 This lecture will take place in classroom in E			3 hrs	Thu	16-19	BSA E46	J. Kuipers

636-0119-00 A	Introduction to Statistics and R Project Work (Compulsory continuous perfe	ormance	•	2 hrs				J. Kuipers
	assessments), no fixed presence required							
636-0120-00L	Introduction to Programming This is a voluntary programming course BEFORE the start of the semester (september 2021). It is addressed primarily at students of the MSc Biotechnology (and MSc CBB). Other students may send a request to participate to: student-admin@bsse.ethz.ch	Z	0 credits	1 <b>G</b>				
336-0120-00 G	Introduction to Programming This course will take place from September Mondays, Wednesdays and Fridays from 9	6 - Sep :00 to 1:	otember 17 on 2:00.	18s hrs	Mon Wed Fri	09-12 09-12 09-12	BSA E46 BSA E46 BSA E46	D. S. Roqueiro
636-0552-00L	Metals in Biology	W	3 credits	3G				
636-0552-00 G	Metals in Biology (University of Basel) **Course at University of Basel** Students need to also register with the University course! https://vorlesungsverzeichnis.unibas.ch/de/	•						external organisers
636-0553-00L	Chemical Biology	W	3 credits	3G				
636-0553-00 G	Chemical Biology (University of Basel) **Course at University of Basel** Students need to also register with the University course! https://vorlesungsverzeichnis.unibas.ch/en/planning?id=259056	,		3 hrs				external organisers
636-0551-00L	Supramolecular Chemistry	W	3 credits	2V				
	**Course at University of Basel** Tuesday, 10.15-12.00, Campus Rosental 1 7.48 Students need to also register with the Universe! https://vorlesungsverzeichnis.unibas.ch/en/planning?id=259081	ersity o	f Basel for this					
► GESS Sc	ience in Perspective							
► GESS Sc	ience in Perspective see GESS Science in Perspective: Language Courses ETH/UZH							
► GESS Sc	see GESS Science in Perspective:							
► GESS Sc	see GESS Science in Perspective: Language Courses ETH/UZH see GESS Science in Perspective: Type A:							
	see GESS Science in Perspective: Language Courses ETH/UZH see GESS Science in Perspective: Type A: Enhancement of Reflection Capability Recommended GESS Science in Perspective (Type B) for D-BSSE.							
Biotechnology	see GESS Science in Perspective: Language Courses ETH/UZH see GESS Science in Perspective: Type A: Enhancement of Reflection Capability Recommended GESS Science in Perspective (Type B) for D-BSSE.			F-	P	ecommen	ded not eliaibl	e for credits
Biotechnolog <sub>y</sub>	see GESS Science in Perspective: Language Courses ETH/UZH see GESS Science in Perspective: Type A: Enhancement of Reflection Capability Recommended GESS Science in Perspective (Type B) for D-BSSE.  y Master - Key for Type Compulsory			E- Z			ded, not eligibl	
Biotechnolog O ( W+	see GESS Science in Perspective: Language Courses ETH/UZH see GESS Science in Perspective: Type A: Enhancement of Reflection Capability Recommended GESS Science in Perspective (Type B) for D-BSSE.			E- Z Dr	С		tside the curric	
Biotechnology O N+	see GESS Science in Perspective: Language Courses ETH/UZH see GESS Science in Perspective: Type A: Enhancement of Reflection Capability Recommended GESS Science in Perspective (Type B) for D-BSSE.  / Master - Key for Type Compulsory Eligible for credits and recommended			Z	С	ourses ou	tside the curric	
Biotechnology O W+ I W	see GESS Science in Perspective: Language Courses ETH/UZH  see GESS Science in Perspective: Type A: Enhancement of Reflection Capability  Recommended GESS Science in Perspective (Type B) for D-BSSE.  / Master - Key for Type  Compulsory Eligible for credits and recommended Eligible for credits			Z	С	ourses ou	tside the curric	
Biotechnology O 0 W+ 1 W 1	see GESS Science in Perspective: Language Courses ETH/UZH  see GESS Science in Perspective: Type A: Enhancement of Reflection Capability  Recommended GESS Science in Perspective (Type B) for D-BSSE.  / Master - Key for Type  Compulsory Eligible for credits and recommended Eligible for credits			Z	S S	ourses ou uitable for	tside the curric	ulum
Biotechnology O W+ I W I Key for Hours	see GESS Science in Perspective: Language Courses ETH/UZH see GESS Science in Perspective: Type A: Enhancement of Reflection Capability Recommended GESS Science in Perspective (Type B) for D-BSSE.  / Master - Key for Type Compulsory Eligible for credits and recommended Eligible for credits			Z Dr	C S	ourses ou uitable for	tside the curric doctorate	ulum
Biotechnology O 0 W+ 1 W 1 Key for Hours V 1 G 1	see GESS Science in Perspective: Language Courses ETH/UZH see GESS Science in Perspective: Type A: Enhancement of Reflection Capability Recommended GESS Science in Perspective (Type B) for D-BSSE.  / Master - Key for Type Compulsory Eligible for credits and recommended Eligible for credits			Z Dr	p in	ourses ou uitable for ractical/lab	doctorate  ooratory course t project	ulum
Biotechnology O O W+ I W I  Key for Hours V I G I	see GESS Science in Perspective: Language Courses ETH/UZH see GESS Science in Perspective: Type A: Enhancement of Reflection Capability Recommended GESS Science in Perspective (Type B) for D-BSSE.  / Master - Key for Type Compulsory Eligible for credits and recommended Eligible for credits  ecture ecture ecture with exercise			Z Dr	p in di	ourses ou uitable for ractical/lab ractical/lab iploma the	doctorate  ooratory course t project	ulum

**ECTS** 

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Special students and auditors need special permission from the lecturers.

# **CAS ARC Digital**

# **▶** Core Courses

Number	Title	Type	ECTS	Hours		Lecturers
072-0101-00L	Module 1: Foundations of Digitalisation Only for CAS ARC in Digital and MAS in Architecture, Real Estate, Construction.	0	1 credit	2G		
072-0101-00 G	Modul 1: Grundlagen der Digitalisierung Kursraum HIB E33.			25s hrs	by appt.	A. Paulus
072-0102-00L	Module 2: Behaviour for Collaboration Foundation Only for CAS ARC in Digital and MAS in Architecture, Real Estate, Construction.	0	1 credit	2G		
072-0102-00 G	Modul 2: Zusammenarbeit Kursraum: HIB E33.			25s hrs	by appt.	A. Paulus
072-0103-00L	Module 3: Foundation of Automation Only for CAS ARC in Digital and MAS in Architecture, Real Estate, Construction.	0	1 credit	2G		
072-0103-00 G	Modul 3: Automation, IoT & Al Kursraum HIB E33.			25s hrs	by appt.	A. Paulus
072-0104-00L	Module 4: Foundation of Value Creation Only for CAS ARC in Digital and MAS in Architecture, Real Estate, Construction.	0	1 credit	2G		
072-0104-00 G	Modul 4: Wertschöpfung Kursraum: HIB E33.			25s hrs	by appt.	A. Paulus
072-0105-00L	Module 5: New Business Modelle Only for CAS ARC in Digital and MAS in Architecture, Real Estate, Construction.	0	1 credit	2G		
072-0105-00 G	Modul 5: Geschäftsmodelle Kursraum: HIB E33.			25s hrs	by appt.	A. Paulus

# ► Term Paper

The Term Paper is offered in spring semesters only.

0	Compulsory	E-	Recommended, not eligible for credits
W+	Eligible for credits and recommended	Z	Courses outside the curriculum
W	Eligible for credits	Dr	Suitable for doctorate
\/	locture	D	prostical/laboratory course
V	lecture	P	practical/laboratory course
V G	lecture lecture with exercise	P A	practical/laboratory course independent project
•		'	•
G	lecture with exercise	A	independent project

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# CAS ARC in Project Leadership

# **▶** Core Courses

Number	Title	Type	ECTS	Hours		Lecturers
072-0201-00L	Module 1: Understanding of Roles Only for CAS ARC in Project and MAS in Architecture, Real Estate, Construction.	0	1 credit	2G		
072-0201-00 G	Modul 1: Rollenverständnis Kursraum: HIB E 33.			25s hrs	by appt.	A. Paulus
072-0202-00L	Module 2: Collaboration Only for CAS ARC in Project and MAS in Architecture, Real Estate, Construction.	0	1 credit	2G		
072-0202-00 G	Modul 2: Zusammenarbeit Kursraum: HIB E 33.			25s hrs	by appt.	A. Paulus
072-0203-00L	Module 3: Services and tasks Only for CAS ARC in Project and MAS in Architecture, Real Estate, Construction.	0	1 credit	2G		
072-0203-00 G	Modul 3: Leistungen Kursraum: HIB E 33.			25s hrs	by appt.	A. Paulus
072-0204-00L	Module 4: Guiding/Steering/Leading Only for CAS ARC in Project and MAS in Architecture, Real Estate, Construction.	0	1 credit	2G		
072-0204-00 G	Modul 4: Leiten/Lenken/Führen Kursraum: HIB E 33.			25s hrs	by appt.	A. Paulus
072-0205-00L	Module 5: Project Only for CAS ARC in Project and MAS in Architecture, Real Estate, Construction.	0	1 credit	2G		
072-0205-00 G	Modul 5: Projekt Kursraum: HIB E 33.			25s hrs	by appt.	A. Paulus

# ► Term Paper

Offered in the Spring Semester.

CAS AR	C in Project Leadership - Key for Type		
0	Compulsory	E-	Recommended, not eligible for credits
W+	Eligible for credits and recommended	Z	Courses outside the curriculum
W	Eligible for credits	Dr	Suitable for doctorate
		I	

Key for	Hours			
V	lecture	P	practical/laboratory course	
G	lecture with exercise	A	independent project	
U	exercise	D	diploma thesis	
S	seminar	R	revision course / private study	
K	colloquium			

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# CAS ARC in Real Estate Strategies urban-peri-urban

#### **▶** Core Courses

Number	Title	Туре	ECTS	Hours	Lecturers
072-0301-00L	Module 1: Perception of Demand Only for CAS ARC in Real Estate Strategies urban-peri-urban and MAS in Architecture, Real Estate, Construction.	0	1 credit	2G	
072-0301-00 G	Modul 1: Aufgabenverständnis Does not take place this semester. Kursraum: HIB E33			25s hrs	
072-0302-00L	Module 2: State of the Art Only for CAS ARC in Real Estate Strategies urban-peri-urban and MAS in Architecture, Real Estate, Construction.	0	1 credit	2G	
072-0302-00 G	Modul 2: Stand der Dinge Does not take place this semester. Kursraum: HIB E33			25s hrs	
072-0303-00L	Module 3: Economic Interest Only for CAS ARC in Real Estate Strategies urban-peri-urban and MAS in Architecture, Real Estate, Construction.	0	1 credit	2G	
072-0303-00 G	Modul 3: Ökonomie Does not take place this semester. Kursraum: HIB E33.			25s hrs	
072-0304-00L	Module 4: Course of Action Only for CAS ARC in Real Estate Strategies urban-peri-urban and MAS in Architecture, Real Estate, Construction.	0	1 credit	2G	
072-0304-00 G	Modul 4: Handlungsoptionen Does not take place this semester. Kursraum: HIB E33			25s hrs	
072-0305-00L	Module 5: Life Cycle and Resources Only for CAS ARC in Real Estate Strategies urban-peri-urban and MAS in Architecture, Real Estate, Construction.	0	1 credit	2G	
072-0305-00 G	Modul 5: Lebenszyklus und Ressourcen Does not take place this semester. Kursraum: HIB E33.			25s hrs	

# ► Term Paper

The term paper is offered in spring semester only.

)	Compulsory	E-	Recommended, not eligible for credits
V+	Eligible for credits and recommended	Z	Courses outside the curriculum
V	Eligible for credits	Dr	Suitable for doctorate

Key for	Hours			
V	lecture	P	practical/laboratory course	
G	lecture with exercise	A	independent project	
U	exercise	D	diploma thesis	
S	seminar	R	revision course / private study	
K	colloquium			
		<u>'</u>		

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# CAS ARC in Unternehmensführung

# **▶** Core Courses

Number	Title	Type	ECTS	Hours		Lecturers
072-0401-00L	Module 1: Market Only for CAS ARC in Unternehmensführung and MAS in Architecture, Real Estate, Construction.	0	1 credit	2G		
072-0401-00 G	Modul 1: Markt Kursraum: HIB E 33.			25s hrs	by appt.	A. Paulus
072-0402-00L	Module 2: Acquisition Only for CAS ARC in Unternehmensführung and MAS in Architecture, Real Estate, Construction.	0	1 credit	2G		
072-0402-00 G	Modul 2: Akquisition Kursraum: HIB E 33.			25s hrs	by appt.	A. Paulus
072-0403-00L	Module 3: Marketing Only for CAS ARC in Unternehmensführung and MAS in Architecture, Real Estate, Construction.	0	1 credit	2G		
072-0403-00 G	Modul 3: Marketing Kursraum: HIB E 33.			25s hrs	by appt.	A. Paulus
072-0404-00L	Module 4: Financial Management Only for CAS ARC in Unternehmensführung and MAS in Architecture, Real Estate, Construction.	0	1 credit	2G		
072-0404-00 G	Modul 4: Finanzielle Führung Kursraum: HIB E 33.			25s hrs	by appt.	A. Paulus
072-0405-00L	Module 5: Digitalisation Only for CAS ARC in Unternehmensführung and MAS in Architecture, Real Estate, Construction.	0	1 credit	2G		
072-0405-00 G	Modul 5: Digitalisierung Kursraum: HIB E 33.			25s hrs	by appt.	A. Paulus

# ► Term Paper

Offered in the Spring Semester.

CAS ARC in Unternehmensführung - Key for Type						
0	Compulsory	E-	Recommended, not eligible for credits			
W+	Eligible for credits and recommended	Z	Courses outside the curriculum			
W	Eligible for credits	Dr	Suitable for doctorate			

Key for Hours						
V	lecture	P	practical/laboratory course			
G	lecture with exercise	A	independent project			
U	exercise	D	diploma thesis			
S	seminar	R	revision course / private study			
K	colloquium					

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# **CAS in Advanced Materials and Processes**

# ► Module

Number	Title	Type	ECTS	Hours		Lecturers
344-0100-00L	CAS Module in Advanced Materials and Processes Only for CAS in Advanced Materials and Processes. The enrolment is done by the MaP executive office.	0	12 credits	26A		
344-0100-00 A	CAS Module in Advanced Materials and Pro	ocesses		360s hrs	by appt.	Professors
CAS in Advar	nced Materials and Processes - Key for	Туре				
W+	Eligible for credits and recommended			Z	Courses outside the	curriculum
	Eligible for credits			Dr	Suitable for doctorat	te
E-	Recommended, not eligible for credits			0	Compulsory	
Key for Hours	<b>S</b>					
V	lecture			Р	practical/laboratory	course
G	lecture with exercise			Α	independent project	
U	exercise			D	diploma thesis	
S	seminar			R	revision course / priv	vate study
K	colloquium					
	European Credit Transfer and Accumulation Special students and auditors need special p	•		cturers.		

# **CAS in Applied Earth Sciences**

#### ► Modules Geo-Resources

The Module Geo-Resources runs over two semesters (FS and HS) and is offered every three years.

Takes place in FS22 + HS22

Number	Title	Туре	ECTS	Hours	Lecturers
669-0102-00L	Autumn Course: Utilisation of Geothermal Energy Only for CAS in Angewandten Erdwissenschaften.	W	2 credits	2G	
669-0102-00 G	Herbstkurs: Untiefe Geothermie Does not take place this semester. Der Kurs wird alle 3 Jahre angeboten. Näc 2022.	chste Dur	rchführung H	32s hrs	M. O. Saar, to be announced

# ► Modules Geo-Contructions

The Module Geo-Constructions runs over two semesters (FS and HS) and is offered every three years.

Takes place in FS23 + HS23

Number	Title	Туре	ECTS	Hours	Lecturers
669-0202-00L	Autumn Course: Engineering Geology in Underground Constructions Only for CAS in Angewandten Erdwissenschaften.	W	2 credits	2G	
669-0202-00 G	Herbstkurs: Ingenieurgeologie im Untertage Does not take place this semester. Der Kurs wird alle 3 Jahre angeboten. Näch 2023.		chführung HS	32s hrs	S. Löw
	Blockkurs				

#### ► Modules Geo-Risks

The Module Geo-Risks runs over two semesters (FS and HS) and is offered every three years.

Number	Title	Туре	ECTS	Hours		Lecturers	
669-0302-00L	Autumn Course: Landslide Processs and Hazards Only for CAS in Angewandten Erdwissenschaften.	W	2 credits	2G			
669-0302-00 G	Herbstkurs: Gefahrenanalyse von Hangins Der Kurs wird alle 3 Jahre als Blockkurs a			32s hrs	07.09 08-18 10.09.	HG E41	S. Löw, J. Aaron, A. Manconi
	Blockkurs: 07.09.2021 - 10.09.2021						

CAS in App	CAS in Applied Earth Sciences - Key for Type						
0	Compulsory	E-	Recommended, not eligible for credits				
W+	Eligible for credits and recommended	Z	Courses outside the curriculum				
W	Eligible for credits	Dr	Suitable for doctorate				

Key for	Hours			
V	lecture	P	practical/laboratory course	
G	lecture with exercise	A	independent project	
U	exercise	D	diploma thesis	
S	seminar	R	revision course / private study	
K	colloquium			

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# **CAS in Applied Statistics**

# ► Compulsory Courses

Number	Title	Туре	ECTS	Hours				Lecturers
47-0649-01L	Applied Statistical Regression I Only for DAS and CAS in Applied Statistics.	0	4 credits	1V+1U				
47-0649-01 V	Angewandte statistische Regression I			18s hrs	Mon/1 20.09.	08-10 08-10	HG E1.1 HG E1.1	M. Tanadini
47-0649-01 U	Angewandte statistische Regression I			18s hrs	Mon/1 20.09.	10-12 10-12	HG E19 HG E19	M. Tanadini
47-0625-01L	Applied Analysis of Variance and Experimental Design I Only for DAS and CAS in Applied Statistics.	0	3 credits	1V+1U				
	Applied Analysis of Variance and Experimen		•	14s hrs 14s hrs	Mon/1 Mon/1	14-16 16-18	HG G5 HG D11 HG D12 HG E1.2	L. Meier L. Meier
► Further C								
Number	Title	Туре	ECTS	Hours				Lecturers
147-0649-02L	Applied Statistical Regression II Only for DAS and CAS in Applied Statistics.  Appropriate statisticable Regression II	Z	2 credits	1V+1U 10s hrs	Mon/2	08-10	HG E1.1	C. Renaux
	Angewandte statistische Regression II Angewandte statistische Regression II			10s hrs	Mon/2	10-12	HG E1.1	C. Renaux
147-0625-02L	Applied Analysis of Variance and Experimental Design II Only for DAS and CAS in Applied Statistics.	Z	3 credits	1V+1U				
	Applied Analysis of Variance and Experimer Applied Analysis of Variance and Experimer			12s hrs 12s hrs	Mon/2 Mon/2		HG G5 HG D11 HG D12 HG E1.2	L. Meier L. Meier
147-6221-00L	Nonparametric Regression Special Students "University of Zurich (UZH)" in the Master Program in Biostatistics at UZH cannot register for this course unit electronically. Forward the lecturer's written permission to attend to the Registrar's Office. Alternatively, the lecturer may also send an email directly to registrar@ethz.ch. The Registrar's Office will then register you for the course.		1 credit	1G				
147-6221-00 G	Nichtparametrische Regression ■ Does not take place this semester. Blockkurs. Weitere Informationen unter http:	://stat.et	hz.ch/wbl/wbl	10.5s hrs				M. Mächler
147-6257-00L	Repeated Measures Special Students "University of Zurich (UZH)" in the Master Program in Biostatistics at UZH cannot register for this course unit electronically. Forward the lecturer's written permission to attend to the Registrar's Office. Alternatively, the lecturer may also send an email directly to registrar@ethz.ch. The Registrar's Office will then register you for the course.		1 credit	1G				
147-6257-00 G	Wiederholte Messungen ■  Does not take place this semester.  Blockkurs. Weitere Informationen unter http.	://stat.et	hz.ch/wbl/wbl	10.5s hrs				
447-6289-00L	Sampling Surveys Special Students "University of Zurich (UZH)" in the Master Program in Biostatistics at UZH cannot register for this course unit electronically. Forward the lecturer's written permission to attend to the Registrar's Office. Alternatively, the lecturer may also send an email directly to registrar@ethz.ch. The Registrar's Office will then register you for the course.		2 credits	1G				
447-6289-00 G	Stichproben-Erhebungen ■  Does not take place this semester.  Blockkurs. Weitere Informationen unter http:	://stat.et	hz.ch/wbl/wbl	17.5s hrs				
447-6201-00L	Nonparametric and Resampling Methods Special Students "University of Zurich (UZH)" in the Master Program in Biostatistics at UZH cannot register for this course unit electronically. Forward the lecturer's written permission to attend to the Registrar's Office. Alternatively, the lecturer may also send an email directly to registrar @ethz.ch. The Registrar's Office	Z	2 credits	2G				

will then register you for the course. 447-6201-00 G Nonparametric and Resampling Methods 21s hrs 17.01. 08-18 HG D1.1 L. Meier, D. Kuonen 24.01. 08-18 Block course on: 17.01.2022 / 24.01.2022 / 31.01.2022 HG D1.1 Lectures: 8-10 and 14-16 31.01. 08-18 HG D1.1 Exercises: 10-12 and 16-18 447-6233-00L **Spatial Statistics** 1 credit 1G Special Students "University of Zurich (UZH)" in the Master Program in Biostatistics at UZH cannot register for this course unit electronically. Forward the lecturer's written permission to attend to the Registrar's Office. Alternatively, the lecturer may also send an email directly to registrar@ethz.ch. The Registrar's Office will then register you for the course. 447-6233-00 G Spatial Statistics ■ 10.5s hrs Does not take place this semester. Block course. For further information see http://stat.ethz.ch/wbl/wbl Data Mining 447-6245-00L w 1 credit **1G** Special Students "University of Zurich (UZH)" in the Master Program in Biostatistics at UZH cannot register for this course unit electronically. Forward the lecturer's written permission to attend to the Registrar's Office. Alternatively, the lecturer may also send an email directly to registrar@ethz.ch. The Registrar's Office will then register you for the course. 447-6245-00 G Data-Mining = M Mächler 14s hrs Does not take place this semester. Blockkurs. Weitere Informationen unter http://stat.ethz.ch/wbl/wbl 447-6273-00L **Bayes Methods** 2 credits 2G Special Students "University of Zurich (UZH)" in the Master Program in Biostatistics at UZH cannot register for this course unit electronically. Forward the lecturer's written permission to attend to the Registrar's Office. Alternatively, the lecturer may also send an email directly to registrar@ethz.ch. The Registrar's Office will then register you for the course. 447-6273-00 G Bayes-Methoden ■ 21s hrs Does not take place this semester. Blockkurs. Weitere Informationen unter http://stat.ethz.ch/wbl/wbl 447-6191-00L Statistical Analysis of Financial Data 2 credits 1G Special Students "University of Zurich (UZH)" in the Master Program in Biostatistics at UZH cannot register for this course unit electronically. Forward the lecturer's written permission to attend to the Registrar's Office. Alternatively, the lecturer may also send an email directly to registrar@ethz.ch. The Registrar's Office will then register you for the course. 447-6191-00 G Statistical Analysis of Financial Data ■ 17.5s hrs Does not take place this semester. Block course. For further information see http://stat.ethz.ch/wbl/wbl CAS in Applied Statistics - Key for Type E-Recommended, not eligible for credits Compulsory W+ Eligible for credits and recommended Ζ Courses outside the curriculum Eligible for credits Dr Suitable for doctorate W **Key for Hours** ٧ lecture Ρ practical/laboratory course G lecture with exercise Α independent project

# K colloquium

exercise

seminar

U

S

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D

R

diploma thesis

revision course / private study

# **CAS in Applied Information Technology**

The CAS takes place in Autumn Semester only.

# ► Module

Number	Title	Type	ECTS	Hours				Lecturers
265-0100-00L	Foundations of Programming Only for CAS in Applied Information Technology and MAS in Applied Technology.	0	3 credits	2A				
265-0100-00 A	Foundations of Programming			32s hrs				L. E. Fässler
265-0101-00L	Data Science Only for CAS in Applied Information Technology and MAS in Applied Technology.	0	3 credits	3V				
265-0101-00 V	Data Science Block course			36s hrs	01.10. 02.10. 15.10. 16.10.	08-12 08-18	HG D7.2 HG D7.2 HG D7.2 HG D7.2	B. Gärtner
265-0102-00L	Humans & Machines Only for CAS in Applied Information Technology and MAS in Applied Technology.	0	3 credits	2V				
265-0102-00 V	Humans & Machines Block course			30s hrs	29.10. 30.10. 12.11.		HG E33.3 HG E1.1 HG D7.2	E. Konukoglu
265-0103-00L	Applied Information Technology Only for CAS in Applied Information Technology and MAS in Applied Technology.	0	3 credits	3V				
265-0103-00 V	Applied Information Technology Block course			42s hrs	17.09. 18.09. 26.11. 27.11.	08-12	HG D1.1 HG D1.1 LEE E101 LEE E101	M. Brandis
CAS in Applie	ed Information Technology - Key for	Туре						
0	Compulsory			E-	Re	ecommen	ded, not eligible	e for credits
W+	Eligible for credits and recommended			Z			tside the curric	
W	Eligible for credits			Dr	Sı	uitable for	doctorate	
Key for Hours	S							
V	lecture			Р	pr	actical/lab	oratory course	
G	lecture with exercise			Α	•	depender	,	
U	exercise			D		ploma the		
S	seminar			R	re	vision cou	ırse / private stı	udy
K	colloquium						-	

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# **CAS in Applied Manufacturing Technology**

The CAS takes place in Spring Semester only.

Start of the next course: FS 2022

Key for I	Hours			
V	lecture	P	practical/laboratory course	
G	lecture with exercise	A	independent project	
U	exercise	D	diploma thesis	
S	seminar	R	revision course / private study	
K	colloquium			

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# **CAS in Applied Technology in Energy**

The CAS takes place in Spring Semester only.

Key for	Hours			
V	lecture	P	practical/laboratory course	
G	lecture with exercise	A	independent project	
U	exercise	D	diploma thesis	
S	seminar	R	revision course / private study	
K	colloquium			

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# CAS in Applied Technology: R&D and Innovation

The CAS takes place in Autumn Semester only.

# ► Module

Number	Title	Type	ECTS	Hours				Lecturers
247-0200-00L	Organization of R&D in Tech Compani Only for CAS in Applied Technology: R& and Innovation and MAS in Applied Technology.		4 credits	2G				
247-0200-00 G	Organization of R&D in Tech Companies Block course on Fridays 9:00 - 18:00, Sa	turdays 9.	:00 - 13:00	24s hrs	17.09. 18.09. 15.10. 16.10. 26.11. 27.11.	09-13 09-18 09-13	HG E22 HG E22 HG E23 HG E23 HG E33.1 ETZ E81	U. Grossner
247-0201-00L	Innovation Opportunity Analysis Only for CAS in Applied Technology: R& and Innovation and MAS in Applied Technology.	<b>o</b>	4 credits	3 <b>G</b>				
247-0201-00 G	Innovation Opportunity Analysis  Block course on Fridays 9:00 - 18:00, Sa	turdays 9.	:00 - 13:00	36s hrs	01.10. 02.10. 29.10. 30.10. 12.11. 13.11. 10.12.	09-13 09-18 09-13 09-18 09-13	HG E23 HG E23 HG E33.1 HG E33.1 HG F26.3 HG F26.3 HG D1.1	J. Jaminet
247-0202-00L	Innovation and Technology Tools Only for CAS in Applied Technology: R& and Innovation and MAS in Applied Technology.	<b>o</b>	2 credits	4G				
247-0202-00 G	Innovation and Technology Tools Online Module			50s hrs				U. Grossner, J. Jaminet
247-0203-00L	Experiment Selection & Design Only for CAS in Applied Technology: R& and Innovation and MAS in Applied Technology.	<b>o</b>	0 credits					
247-0203-00 U	Experiment Selection & Design By appointment			4s hrs				U. Grossner
CAS in Applic	ed Technology: R&D and Innovation -	Key for	Туре					
0	Compulsory			E-	Re	ecommen	ded, not eligible	e for credits
W+	Eligible for credits and recommended			Z	Co	ourses ou	tside the curric	ulum
W	Eligible for credits			Dr	Sı	uitable for	doctorate	
Key for Hours	3							
V	lecture			Р	pr	actical/lab	oratory course	
G	lecture with exercise			Α	ine	depender	nt project	
U	exercise			D	di	ploma the	esis	
S	seminar			R	re	vision cou	urse / private st	udy
K	colloquium							

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# **CAS in Collaborative Decision Making Under Uncertainty**

Takes place only in Spring Semester

Start of the next course: Spring Semester 2022

Key for H	lours			
V	lecture	P	practical/laboratory course	
G	lecture with exercise	A	independent project	
U	exercise	D	diploma thesis	
S	seminar	R	revision course / private study	
K	colloquium			

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# **CAS in Cyber Security**

The CAS takes place in Autumn Semester only.

# ► Modules

Number	Title	Type	ECTS	Hours				Lecturers
268-0101-00L	Introduction to Information Security Only for CAS and DAS in Cyber Security.	0	5 credits	4G				
268-0101-00 G	Introduction to Information Security			4 hrs	Fri	08-12	HG E22	P. Schaller, S. Matetic
268-0201-00L	Information Security Seminar and Project	0	2 credits	28				
	Only for CAS and DAS in Cyber Security.							
268-0201-00 S	Information Security Seminar and Project			2 hrs	Fri	14-16	HG E22	S. Matetic
268-0202-00L	Contemporary Topics in Cyber Security Only for CAS and DAS in Cyber Security.	0	3 credits	2G				
268-0202-00 G	Contemporary Topics in Cyber Security			2 hrs	Fri	16-18	HG E22	S. Matetic
O W+	Security - Key for Type Compulsory Eligible for credits and recommended Eligible for credits			E- Z Dr			ded, not eligible tside the curric doctorate	
Key for Hours	<b>.</b>							
V	lecture			Р		practical/lab	oratory course	9
G	lecture with exercise			Α		independen	•	
U	exercise			D		diploma the	sis	
_	seminar colloquium			R		revision cou	ırse / private s	tudy

ECTS European Credit Transfer and Accumulation System

# **CAS** in Entrepreneurial Leadership in Technology Ventures

Start: Every Autumn Semester and Spring Semester.

Duration: 12 months. It is possible to join the programme at the beginning of each semester.

# **▶** Core Knowledge

Title	Type	ECTS	Hours				Lecturers
Entrepreneurial Strategies Only for CAS in Entrepreneurial Leadership in Technology Ventures.	0	1 credit	2G				
Entrepreneurial Strategies Block course			24s hrs	23.09. 24.09. 25.09.	09-18 09-18 09-18	WEV F109 WEV F109 WEV F109	B. Clarysse
Location: WEV F 109-111 and online (blend	led form	at)					
		1 credit	1G				
Entrepreneurial Leadership and Teams Block course			16s hrs	26.11. 27.11.	09-18 09-18	WEV F109 WEV F109	J. Thiel
Location: WEV F 109-111 and online (blend	led form	at)					
Entrepreneurial Marketing & Sales Only for CAS in Entrepreneurial Leadership in Technology Ventures.	0	1 credit	1G				
Entrepreneurial Marketing & Sales Block course			16s hrs	28.01. 29.01.	09-18 09-18	WEV F109 WEV F109	M. Gruber
Location: WEV F 109-111 and online (blend	led form	at)					
	Entrepreneurial Strategies Only for CAS in Entrepreneurial Leadership in Technology Ventures. Entrepreneurial Strategies Block course  Location: WEV F 109-111 and online (blence Entrepreneurial Leadership and Teams Only for CAS in Entrepreneurial Leadership in Technology Ventures. Entrepreneurial Leadership and Teams Block course  Location: WEV F 109-111 and online (blence Entrepreneurial Marketing & Sales Only for CAS in Entrepreneurial Leadership in Technology Ventures. Entrepreneurial Marketing & Sales Dily for CAS in Entrepreneurial Leadership in Technology Ventures. Entrepreneurial Marketing & Sales Block course	Entrepreneurial Strategies Only for CAS in Entrepreneurial Leadership in Technology Ventures. Entrepreneurial Strategies Block course  Location: WEV F 109-111 and online (blended form: Entrepreneurial Leadership and Teams Only for CAS in Entrepreneurial Leadership in Technology Ventures. Entrepreneurial Leadership and Teams Block course  Location: WEV F 109-111 and online (blended form: Entrepreneurial Marketing & Sales Only for CAS in Entrepreneurial Leadership in Technology Ventures. Entrepreneurial Marketing & Sales Block course  Entrepreneurial Marketing & Sales Sentrepreneurial Marketing & Sales Block course	Entrepreneurial Strategies O 1 credit Only for CAS in Entrepreneurial Leadership in Technology Ventures. Entrepreneurial Strategies Block course  Location: WEV F 109-111 and online (blended format)  Entrepreneurial Leadership and Teams O 1 credit Only for CAS in Entrepreneurial Leadership in Technology Ventures. Entrepreneurial Leadership and Teams Block course  Location: WEV F 109-111 and online (blended format)  Entrepreneurial Marketing & Sales O 1 credit Only for CAS in Entrepreneurial Leadership in Technology Ventures. Entrepreneurial Marketing & Sales Block course	Entrepreneurial Strategies O 1 credit 2G Only for CAS in Entrepreneurial Leadership in Technology Ventures. Entrepreneurial Strategies Block course  Location: WEV F 109-111 and online (blended format)  Entrepreneurial Leadership and Teams O 1 credit Only for CAS in Entrepreneurial Leadership in Technology Ventures. Entrepreneurial Leadership and Teams Block course  Location: WEV F 109-111 and online (blended format)  Entrepreneurial Marketing & Sales O 1 credit Only for CAS in Entrepreneurial Leadership in Technology Ventures. Entrepreneurial Marketing & Sales O 1 credit 1G Only for CAS in Entrepreneurial Leadership in Technology Ventures. Entrepreneurial Marketing & Sales O 1 credit 1G Only for CAS in Entrepreneurial Leadership in Technology Ventures. Entrepreneurial Marketing & Sales 16s hrs Block course	Entrepreneurial Strategies O 1 credit 2G  Only for CAS in Entrepreneurial Leadership in Technology Ventures.  Entrepreneurial Strategies 24.09.  Entrepreneurial Leadership and Teams O 1 credit 25.09.  Entrepreneurial Leadership and Teams O 1 credit 26.11.  Entrepreneurial Leadership and Teams Block course 26.11.  Entrepreneurial Leadership and Teams Block course 16s hrs 26.11.  Entrepreneurial Leadership and Teams Block course 16s hrs 26.11.  Entrepreneurial Marketing & Sales O 1 credit 1G  Only for CAS in Entrepreneurial Leadership in Technology Ventures.  Entrepreneurial Marketing & Sales O 1 credit 1G  Only for CAS in Entrepreneurial Leadership in Technology Ventures.  Entrepreneurial Marketing & Sales O 1 credit 1G  Only for CAS in Entrepreneurial Leadership in Technology Ventures.  Entrepreneurial Marketing & Sales 28.01.  Block course 29.01.	Entrepreneurial Strategies O 1 credit 2G  Only for CAS in Entrepreneurial Leadership in Technology Ventures.  Entrepreneurial Strategies 24s hrs 23.09. 09-18  Block course 24.09. 09-18  Location: WEV F 109-111 and online (blended format)  Entrepreneurial Leadership and Teams O 1 credit Only for CAS in Entrepreneurial Leadership in Technology Ventures.  Entrepreneurial Leadership and Teams Block course 16s hrs 26.11. 09-18  Location: WEV F 109-111 and online (blended format)  Entrepreneurial Marketing & Sales O 1 credit Only for CAS in Entrepreneurial Leadership in Technology Ventures.  Entrepreneurial Marketing & Sales O 1 credit 16  Only for CAS in Entrepreneurial Leadership in Technology Ventures.  Entrepreneurial Marketing & Sales O 1 credit 16  Only for CAS in Entrepreneurial Leadership in Technology Ventures.  Entrepreneurial Marketing & Sales O 1 credit 16  Only for CAS in Entrepreneurial Leadership in Technology Ventures.  Entrepreneurial Marketing & Sales 28.01. 09-18  Block course 29.01. 09-18	Entrepreneurial Strategies O 1 credit Only for CAS in Entrepreneurial Leadership in Technology Ventures.  Entrepreneurial Strategies Entrepreneurial Leadership and Teams O 1 credit Only for CAS in Entrepreneurial Leadership in Technology Ventures. Entrepreneurial Leadership and Teams Block course  16s hrs 26.11. 09-18 WEV F109 Entrepreneurial Marketing & Sales O 1 credit Only for CAS in Entrepreneurial Leadership in Technology Ventures.  Entrepreneurial Marketing & Sales Only for CAS in Entrepreneurial Leadership in Technology Ventures. Entrepreneurial Marketing & Sales Only for CAS in Entrepreneurial Leadership in Technology Ventures. Entrepreneurial Marketing & Sales Entrepreneurial Marketing & Sales Oliver CAS in Entrepreneurial Leadership in Technology Ventures. Entrepreneurial Marketing & Sales Entrepreneurial Marketing & Sales Oliver CAS in Entrepreneurial Leadership in Technology Ventures. Entrepreneurial Marketing & Sales Entrepreneurial Marketing & Sales Oliver CAS in Entrepreneurial Leadership in Technology Ventures. Entrepreneurial Marketing & Sales Oliver CAS in Entrepreneurial Leadership in Technology Ventures. Entrepreneurial Marketing & Sales Oliver CAS in Entrepreneurial Leadership in Technology Ventures. Entrepreneurial Marketing & Sales Oliver CAS in Entrepreneurial Leadership in Technology Ventures. Entrepreneurial Marketing & Sales Oliver CAS in Entrepreneurial Leadership in Technology Ventures. Entrepreneurial Marketing & Sales Oliver CAS in Entrepreneurial Leadership in Technology Ventures. Entrepreneurial Marketing & Sales Oliver CAS in Entrepreneurial Leadership in Technology Ventures.

Number	Title	Type	ECTS	Hours	Lecturers
373-0200-00L	Business Development of Technology Ventures I Only for CAS in Entrepreneurial Leadership in Technology Ventures.	<b>O</b>	2 credits	2P	
373-0200-00 P	Business Development of Technology Vent Kick- off event in conjunction with Module Strategies & Lean Innovation" Online coaching during the semester (dates agreement with participants)  Dates: 23.09 25.09.2021 Room: WEV F 109-111	'Entrepr		24s hrs	B. Clarysse
373-0201-00L	Leadership Development I Only for CAS in Entrepreneurial Leadership in Technology Ventures.	0	1 credit	1P	
373-0201-00 P	Leadership Development I Kick- off event in conjunction with Module Strategies & Lean Innovation". Monthly online and/or F2F coaching during will be decided in agreement with participar Dates: 23.09 25.09.2021	the sem		12s hrs	B. Clarysse
	Room: WEV F 109-111				
373-0205-00L	Final Business Project Defense Only for CAS in Entrepreneurial Leadership in Technology Ventures.	0	1 credit		
373-0205-00 P	Final Business Project Defense  Does not take place this semester.			4s hrs	B. Clarysse, to be announced

# ► Skills & Ecosystem Immersion

Courses are only offered in Spring Semester.

CAS in Entrepreneurial Leadership in Technology Ventures - Key for Type			
0	Compulsory	E-	Recommended, not eligible for credits
W+	Eligible for credits and recommended	Z	Courses outside the curriculum
W	Eligible for credits	Dr	Suitable for doctorate

Key for	Hours		
V	lecture	P	practical/laboratory course
G	lecture with exercise	A	independent project
U	exercise	D	diploma thesis
S	seminar	R	revision course / private study
K	colloquium		

**ECTS** 

European Credit Transfer and Accumulation System
Special students and auditors need special permission from the lecturers.

# **CAS** in Development and Cooperation

Take place each spring semester and every second autumn semester (odd years).

#### ► Module

Number	Title	Туре	ECTS	Hours	Lecturers
365-0065-00L	VET between Poverty Alleviation and Economic Development Only for MAS/CAS in Development and Cooperation students, as well as specialists with at least 24 months of practical experience in international cooperation.	W	2 credits	3 <b>G</b>	
	ETH doctoral students working on topics related to poverty reduction in low- and middle income countries may also be admitted.				
	Registration only through the NADEL administration office.				
865-0065-00 G	VET between Poverty Alleviation and Econo Block course from 13.09. – 17.09.2021 Location: CLD A1	mic De	velopment	40s hrs	<b>K. Harttgen</b> , F. Kehl, M. Maurer
365-0000-01L	Planning and Monitoring of Projects Only for CAS in Development and Cooperation students, as well as specialists with at least 24 months of practical experience in international cooperation.	0	2 credits	3G	
	ETH doctoral students working on topics related to poverty reduction in low- and middle income countries may also be admitted.				
	Registration only through the NADEL administration office.				
365-0000-01 G	Planning and Monitoring of Projects Block course from 20.09. – 24.09.2021 Location: CLD A1			40s hrs	K. Schneider
865-0000-06L	Impact Evaluations in Practice Only for MAS/CAS in Development and Cooperation students, as well as specialists with at least 24 months of practical experience in international cooperation.	w	2 credits	3G	
	ETH doctoral students working on topics related to poverty reduction in low- and middle income countries may also be admitted.				
	Registration only through the NADEL administration office.				
865-0000-06 G	Impact Evaluations in Practice Block course from 04.10. – 08.10.2021 Location: CLD A1			40s hrs	<b>I. Günther</b> , A. Rom, K. Schneider
365-0042-00L	Financial Management of Projects Only for MAS/CAS in Development and Cooperation students, as well as specialists with at least 24 months of practical experience in international cooperation.	W	2 credits	2G	
	ETH doctoral students working on topics related to poverty reduction in low- and middle income countries may also be admitted.				
	Registration only through the NADEL administration office.				
865-0042-00 G	Finanzmanagement von Projekten Block course from 26.10. – 29.10.2021 Location: CLD A1			32s hrs	I. Günther, M. Störmer
365-0064-00L	Decolonizing Aid Only for MAS/CAS in Development and Cooperation students, as well as specialists with at least 24 months of practical experience in international cooperation. Doctoral students dealing with empirical research in the area of development and cooperation (EZA) may be admitted "sur Dossier".	w	2 credits	3 <b>G</b>	
	Registration only through the NADEL administration office.				

2G

Location: CLD A1 865-0070-00L

1 credit The Private Sector and Development w Organizations: Building Successful

Alliances
Only for MAS/CAS in Development and Cooperation students, as well as specialists with at least 24 months of practical experience in international cooperation. Doctoral students dealing with empirical research in the area of development and cooperation (EZA) may be admitted "sur Dossier".

Registration only through the NADEL administration office.

865-0070-00 G The Private Sector and Development Organizations: Building F. Brugger 24s hrs

Successful Alliances

Block course from 15.11. - 17.11.2021

Location: CLD A1

865-0021-00L Fraud and Corruption: Prevent, Detect, 1 credit 2G

Investigate, Sanction
Only for MAS/CAS in Development and Cooperation students, as well as specialists with at least 24 months of practical experience in international cooperation.

ETH doctoral students working on topics related to poverty reduction in low- and middle income countries may also be admitted.

Registration only through the NADEL administration office.

865-0021-00 G Fraud and Corruption: Prevent, Detect, Investigate, Sanction 24s hrs L. Hensgen, M. Schmid-Huberty

Block course from 06.12. - 08.12.2021

Location: CLD A1

865-0006-00L Leveraging Private Impact Investors in 1 credit 1G

**Development Cooperation** 

Only for MAS/CAS in Development and Cooperation students, as well as specialists with at least 24 months of practical experience in international cooperation. Doctoral students dealing with empirical research in the area of development and cooperation (EZA) may be admitted "sur Dossier".

Registration only through the NADEL administration office.

865-0006-00 G Leveraging Private Impact Investors in Development Cooperation 16s hrs

Block course

Location: CLD A1

Natural Resource Governance and 865-0041-00L w 3 credits 35 **Development: Policies and Practice** 

Only for CAS in Development and Cooperation students, as well as specialists with at least 24 months of practical experience in international cooperation.

ETH doctoral students working on topics related to poverty reduction in low- and middle income countries may also be admitted.

Registration only through the NADEL

administration office.

865-0041-00 S Natural Resource Governance and Development: Policies and 36s hrs

Practice

Online course from September 2021 to November 2021

F. Brugger, further speakers

C. Humphrey

CAS in Development and Cooperation - Key for Type

O Compulsory E-Recommended, not eligible for credits W+ Eligible for credits and recommended Ζ Courses outside the curriculum W Eligible for credits Dr Suitable for doctorate

Key for Ho	urs		
V	lecture	P	practical/laboratory course
G	lecture with exercise	A	independent project
U	exercise	D	diploma thesis
S	seminar	R	revision course / private study
K	colloquium		

**ECTS** 

European Credit Transfer and Accumulation System
Special students and auditors need special permission from the lecturers.

# **CAS in Computer Science**

### ► Focus Courses and Electives

Number	Title Typ	ре	ECTS	Hours				Lecturers
252-0237-00L	Concepts of Object-Oriented W Programming		8 credits	3V+2U+	-2A			
252-0237-00 V	Concepts of Object-Oriented Programming Online lecture: This lecture will take place online will remain blocked on campus for students to fo			3 hrs	Thu	09-12	HG E1.1	P. Müller
52-0237-00 U	from there.  Concepts of Object-Oriented Programming			2 hrs	Fri	08-10	CAB G57 CHN D42	P. Müller
						10-12	CAB G57 CHN D42 CHN D44	
252-0237-00 A	Concepts of Object-Oriented Programming			2 hrs				P. Müller
252-0293-00L	Wireless Networking and Mobile W Computing		4 credits	2V+1U				
	Wireless Networking and Mobile Computing Wireless Networking and Mobile Computing			2 hrs 1 hrs	Mon Mon	16-18 18-19	HG E5 HG E5	S. Mangold S. Mangold
252-0417-00L	Randomized Algorithms and W Probabilistic Methods		10 credits	3V+2U+	-4A			
252-0417-00 V	Randomized Algorithms and Probabilistic Metho	ods		3 hrs	Wed Thu	08-09 16-18	ML D28 ML D28	A. Steger
252-0417-00 U	Randomized Algorithms and Probabilistic Metho	ods		2 hrs	Tue	14-16 16-18	HG D1.2 HG D1.2	A. Steger
252-0417-00 A	Randomized Algorithms and Probabilistic Metho Project Work, no fixed presence required.	ods		4 hrs				A. Steger
252-0463-00L	Security Engineering W		7 credits	2V+2U+	-2A			
252-0463-00 V	Security Engineering			2 hrs	Wed	10-12	CAB G51	S. Krstic
	Security Engineering Lab sessions every Friday in CAB H52 from 10-	12		2 hrs	Wed Fri	14-16 10-12	CAB G51 CAB H52	S. Krstic
252-0463-00 A	Security Engineering			2 hrs				S. Krstic
52-0535-00L	<u> </u>		10 credits	3V+2U+				
252-0535-00 V	Advanced Machine Learning Freitag 8-10 HG F1 mit Videoübertragung ins H Donnerstag 15-16 ETA F 5 mit Videoübertragun			3 hrs	Thu Fri	15-16 08-10	ETA F5 ETF E1 HG F1	J. M. Buhmann, C. Cotrini Jimenez
252-0535-00 U	Advanced Machine Learning			2 hrs	Wed	14-16 16-18	HG F3 CAB G61 CAB G61	J. M. Buhmann, C. Cotrini Jimenez
050 0505 00 A	Advanced Machine Leaving			4 6 4 6	Thu Fri	16-18 14-16	ML F34 CAB G61	I M Dubmann
52-0535-00 A	Advanced Machine Learning  Project Work, no fixed presence required.			4 hrs				J. M. Buhmann, C. Cotrini Jimenez
<b>252-0543-01L</b> 252-0543-01 V	Computer Graphics W Computer Graphics Does not take place this semester.		8 credits	<b>3V+2U+</b> 3 hrs	-2A			
252-0543-01 U	Computer Graphics Does not take place this semester.			2 hrs				
252-0543-01 A	Computer Graphics  Does not take place this semester.			2 hrs				
252-0546-00L	Physically-Based Simulation in W Computer Graphics		5 credits	2V+1U+	-1A			
252-0546-00 V	Physically-Based Simulation in Computer Graph	nics		2 hrs	Tue	10-12	CAB G51	V. da Costa de Azevedo, B. Solenthaler, B. Thomaszewski
252-0546-00 U	Physically-Based Simulation in Computer Graph	nics		1 hrs	Tue	16-17	CAB G51	V. da Costa de Azevedo B. Solenthaler, B. Thomaszewski
252-0546-00 A	Physically-Based Simulation in Computer Graph	nics		1 hrs				V. da Costa de Azevedo B. Solenthaler, B. Thomaszewski
252-1407-00L	Algorithmic Game Theory W		7 credits	3V+2U+	-1A			
52-1407-00 V	-			3 hrs	Fri	10-13	CHN C14	P. Penna
52-1407-00 U	Algorithmic Game Theory			2 hrs	Tue	10-12	CAB G57 CAB G59	P. Penna
252-1407-00 A	Algorithmic Game Theory Project Work, no fixed presence required.			1 hrs		16-18	LFW B3	P. Penna
252-1411-00L	Security of Wireless Networks W		6 credits	2V+1U+	-2A			
	Security of Wireless Networks  Security of Wireless Networks		o orcuito	2 <b>v</b> +1 <b>u</b> + 2 hrs	Tue	14-16	ML F34	S. Capkun, K. Kostiainen
	Security of Wireless Networks			1 hrs	Fri/2w	14-16	CAB E87.2	S. Capkun, K. Kostiainen
	Security of Wireless Networks includes a semester long project			2 hrs			2D 201.L	S. Capkun, K. Kostiainen
<b>52-1414-00L</b>	System Security W		7 credits	<b>2V+2U+</b> 2 hrs	- <b>2A</b> Mon	10-12	HG D1.2	S Cankun A Porria
-JZ-1414-UU V	System Security			∠ IIIS	NOIN	10-12	по и г.2	S. Capkun, A. Perrig

252-1414-00 U								
	System Security The exercises begin in the second week of the	he sem	ester.	2 hrs	Thu	14-16 16-18	HG D3.2 CAB G11	S. Capkun, A. Perrig
252-1/11/-00 Δ	System Security			2 hrs				S. Capkun, A. Perrig
	•	w	O avadita	3V+2U+2				3. Capkuii, A. Feirig
252-1425-00L	Geometry: Combinatorics and Algorithms	VV	8 credits	3V+2U+2	ZA			
252-1425-00 V	Geometry: Combinatorics and Algorithms			3 hrs	Mon	13-14	CAB G51	B. Gärtner, E. Welzl,
					Thu	14-16	CAB G51	M. Hoffmann, M. Wettstein
252-1425-00 U	Geometry: Combinatorics and Algorithms			2 hrs	Mon 23.09.	14-16 16-18	CAB G51 CAB G51	B. Gärtner, E. Welzl, M. Hoffmann, M. Wettstein
					30.09.	16-18	CAB G51	w. Hollinarii, w. Wedstein
252-1425-00 A	Geometry: Combinatorics and Algorithms			2 hrs				B. Gärtner, E. Welzl,
	Project Work, no fixed presence required.							M. Hoffmann, M. Wettstein
52-3005-00L	3	W	5 credits	2V+2U+	Α			
E2 200E 00 V	Number of participants limited to 400.			0 6 40	Man	12-14	HG F7	R. Cotterell
:52-3005-00 V	Natural Language Processing From HS21 in the autumn semester.			2 hrs	Mon	12-14	по г/	R. Cotteren
252-3005-00 U	Natural Language Processing			2 hrs	Wed	12-14	HG F7	R. Cotterell
252-3005-00 A	Natural Language Processing			1 hrs				R. Cotterell
27-2210-00L	Computer Architecture	w	8 credits	6G+1A				
27-2210-00 G	Computer Architecture			6 hrs	Thu	13-16	HG D16.2	O. Mutlu
	Online event: Will primarily take place online			ll .	Fri	13-16	HG D16.2	
	remain blocked on campus for students to for there.	llow the	e course trom					
27-2210-00 A	Computer Architecture			1 hrs				O. Mutlu
63-2400-00L	·	w	6 credits	2V+2U+	Δ			
00 2400 002	Intelligence	••	oorcans	211201				
63-2400-00 V	Reliable and Trustworthy Artificial Intelligence			2 hrs	Wed	14-16	HG G3	M. Vechev
	Online event: Will primarily take place online remain blocked on campus for students to for							
	there.	now tric	course morn					
63-2400-00 U	Reliable and Trustworthy Artificial Intelligence			2 hrs	Mon	12-14	CAB G56	M. Vechev
	Exercise session will start in the second wee				Wed	12-14	CAB G51	
	Online event: Will primarily take place online remain blocked on campus for students to for			II				
	there.		, , , , , , , , , , , , , , , , , , , ,					
263-2400-00 A	Reliable and Trustworthy Artificial Intelligence	е		1 hrs				M. Vechev
263-2800-00L	Design of Parallel and High-Performance	W	9 credits	3V+2U+3	BA			
	Computing Number of participants limited to 125.							
63-2800-00 V	Design of Parallel and High-Performance Co.	mputin	n	3 hrs	Mon	13-16	CAB G11	T. Hoefler, M. Püschel
	2 doign or r aranor and ringer r orrormando do		•	00			0, 12 0	
63-2800-00 U	Design of Parallel and High-Performance Co	mputin	a	2 hrs	Thu	14-16	CHN C14	T. Hoefler, M. Püschel
	Design of Parallel and High-Performance Co Design of Parallel and High-Performance Co			2 hrs 3 hrs	Thu	14-16	CHN C14	T. Hoefler, M. Püschel T. Hoefler, M. Püschel
					Thu	14-16	CHN C14	
	Design of Parallel and High-Performance Co Project Work, no fixed presence required.					14-16	CHN C14	
63-2800-00 A	Design of Parallel and High-Performance Co Project Work, no fixed presence required.  Big Data Big Data	mputing W	10 credits	3 hrs	IA Tue	14-16	CAB G61	
63-2800-00 A 63-3010-00L	Design of Parallel and High-Performance Co Project Work, no fixed presence required.  Big Data Big Data Online lecture: This lecture will primarily take	mputing  W  place	10 credits	3 hrs	IA			T. Hoefler, M. Püschel
63-2800-00 A 63-3010-00L	Design of Parallel and High-Performance Co Project Work, no fixed presence required.  Big Data Big Data	mputing  W  place	10 credits	3 hrs	IA Tue	14-16	CAB G61	T. Hoefler, M. Püschel
63-2800-00 A 63-3010-00L 63-3010-00 V	Design of Parallel and High-Performance Co Project Work, no fixed presence required.  Big Data Big Data Online lecture: This lecture will primarily take Reserved rooms will remain blocked on camp follow the course from there. Big Data	mputing  W  place	10 credits	3 hrs	IA Tue	14-16	CAB G61 ML H44 CAB G52	T. Hoefler, M. Püschel
63-2800-00 A 63-3010-00L 63-3010-00 V	Design of Parallel and High-Performance Co Project Work, no fixed presence required.  Big Data Big Data Online lecture: This lecture will primarily take Reserved rooms will remain blocked on camp follow the course from there.	mputing  W  place	10 credits	3 hrs 3V+2U+4 3 hrs	Tue Wed	14-16 09-10	CAB G61 ML H44 CAB G52 HG E33.1	T. Hoefler, M. Püschel G. Fourny
63-2800-00 A 63-3010-00L 63-3010-00 V	Design of Parallel and High-Performance Co Project Work, no fixed presence required.  Big Data Big Data Online lecture: This lecture will primarily take Reserved rooms will remain blocked on camp follow the course from there. Big Data	mputing  W  place	10 credits	3 hrs 3V+2U+4 3 hrs	Tue Wed	14-16 09-10	CAB G61 ML H44 CAB G52 HG E33.1 HG G26.1	T. Hoefler, M. Püschel G. Fourny
63-2800-00 A 63-3010-00L 63-3010-00 V	Design of Parallel and High-Performance Co Project Work, no fixed presence required.  Big Data Big Data Online lecture: This lecture will primarily take Reserved rooms will remain blocked on camp follow the course from there. Big Data	mputing  W  place	10 credits	3 hrs 3V+2U+4 3 hrs	Tue Wed	14-16 09-10	CAB G61 ML H44 CAB G52 HG E33.1 HG G26.1 ON LINE CAB G52	T. Hoefler, M. Püschel G. Fourny
63-2800-00 A 63-3010-00L 63-3010-00 V 63-3010-00 U	Design of Parallel and High-Performance Co Project Work, no fixed presence required.  Big Data Big Data Online lecture: This lecture will primarily take Reserved rooms will remain blocked on camp follow the course from there. Big Data Groups are selected in myStudies.	mputing  W  place	10 credits	3 hrs  3V+2U+4 3 hrs  2 hrs	Tue Wed Wed	14-16 09-10 14-16	CAB G61 ML H44 CAB G52 HG E33.1 HG G26.1 ON LINE	T. Hoefler, M. Püschel  G. Fourny  G. Fourny
63-2800-00 A 63-3010-00L 63-3010-00 V 63-3010-00 U	Design of Parallel and High-Performance Co Project Work, no fixed presence required.  Big Data Big Data Online lecture: This lecture will primarily take Reserved rooms will remain blocked on camp follow the course from there. Big Data Groups are selected in myStudies.  Big Data	W  place pus for	10 credits online. students to	3 hrs 3V+2U+4 3 hrs	Tue Wed Wed	14-16 09-10 14-16	CAB G61 ML H44 CAB G52 HG E33.1 HG G26.1 ON LINE CAB G52	T. Hoefler, M. Püschel G. Fourny
63-2800-00 A 63-3010-00L 63-3010-00 V 63-3010-00 U	Design of Parallel and High-Performance Co Project Work, no fixed presence required.  Big Data Big Data Online lecture: This lecture will primarily take Reserved rooms will remain blocked on camp follow the course from there. Big Data Groups are selected in myStudies.	W  place pus for	10 credits online. students to	3 hrs  3V+2U+4 3 hrs  2 hrs	Tue Wed Wed	14-16 09-10 14-16	CAB G61 ML H44 CAB G52 HG E33.1 HG G26.1 ON LINE CAB G52	T. Hoefler, M. Püschel  G. Fourny  G. Fourny
63-2800-00 A 63-3010-00L 63-3010-00 V 63-3010-00 U	Design of Parallel and High-Performance Co Project Work, no fixed presence required.  Big Data Big Data Big Data Online lecture: This lecture will primarily take Reserved rooms will remain blocked on camp follow the course from there. Big Data Groups are selected in myStudies.  Big Data Individual work to get hands-on experience we covered, no fixed presence required.	W  place pus for	10 credits online. students to	3 hrs  3V+2U+4 3 hrs  2 hrs	Tue Wed Wed	14-16 09-10 14-16	CAB G61 ML H44 CAB G52 HG E33.1 HG G26.1 ON LINE CAB G52	T. Hoefler, M. Püschel  G. Fourny  G. Fourny
63-2800-00 A  63-3010-00L 63-3010-00 U  63-3010-00 A	Design of Parallel and High-Performance Co Project Work, no fixed presence required.  Big Data Big Data Big Data Online lecture: This lecture will primarily take Reserved rooms will remain blocked on camp follow the course from there. Big Data Groups are selected in myStudies.  Big Data Individual work to get hands-on experience we covered, no fixed presence required.  Deep Learning Number of participants limited to 320.	W  place pus for	10 credits online. students to	3 hrs  3V+2U+4 3 hrs  2 hrs  4 hrs	Tue Wed Wed	14-16 09-10 14-16 14-16	CAB G61 ML H44 CAB G52 HG E33.1 HG G26.1 ON LINE CAB G52 ON LINE	T. Hoefler, M. Püschel  G. Fourny  G. Fourny
63-2800-00 A 63-3010-00L 63-3010-00 V 63-3010-00 U 63-3010-00 A	Design of Parallel and High-Performance Co Project Work, no fixed presence required.  Big Data Big Data Big Data Online lecture: This lecture will primarily take Reserved rooms will remain blocked on camp follow the course from there. Big Data Groups are selected in myStudies.  Big Data Individual work to get hands-on experience we covered, no fixed presence required.  Deep Learning	W  place pus for	10 credits online. students to	3 hrs  3V+2U+4 3 hrs  2 hrs  4 hrs	Tue Wed Wed Fri	14-16 09-10 14-16 14-16	CAB G61 ML H44 CAB G52 HG E33.1 HG G26.1 ON LINE CAB G52 ON LINE	T. Hoefler, M. Püschel  G. Fourny  G. Fourny
263-2800-00 A 263-3010-00L 263-3010-00 V 263-3010-00 U 263-3210-00 A 263-3210-00 V	Design of Parallel and High-Performance Co Project Work, no fixed presence required.  Big Data Big Data Big Data Online lecture: This lecture will primarily take Reserved rooms will remain blocked on camp follow the course from there. Big Data Groups are selected in myStudies.  Big Data Individual work to get hands-on experience we covered, no fixed presence required.  Deep Learning Number of participants limited to 320. Deep Learning	W  place pus for	10 credits online. students to	3 hrs  3V+2U+4 3 hrs  2 hrs  4 hrs	Tue Wed Wed	14-16 09-10 14-16 14-16	CAB G61 ML H44 CAB G52 HG E33.1 HG G26.1 ON LINE CAB G52 ON LINE	T. Hoefler, M. Püschel  G. Fourny  G. Fourny  F. Perez Cruz, A. Lucchi
63-2800-00 A  63-3010-00L 63-3010-00 V  63-3010-00 A  63-3210-00 A	Design of Parallel and High-Performance Co Project Work, no fixed presence required.  Big Data Big Data Big Data Online lecture: This lecture will primarily take Reserved rooms will remain blocked on camp follow the course from there. Big Data Groups are selected in myStudies.  Big Data Individual work to get hands-on experience we covered, no fixed presence required.  Deep Learning Number of participants limited to 320.	W  place pus for	10 credits online. students to	3 hrs  3V+2U+4 3 hrs  2 hrs  4 hrs  3V+2U+2 3 hrs	Tue Wed Wed Fri	14-16 09-10 14-16 14-16	CAB G61 ML H44 CAB G52 HG E33.1 HG G26.1 ON LINE CAB G52 ON LINE	T. Hoefler, M. Püschel  G. Fourny  G. Fourny
63-2800-00 A 63-3010-00L 63-3010-00 V 63-3010-00 A 63-3010-00 V	Design of Parallel and High-Performance Co Project Work, no fixed presence required.  Big Data Big Data Big Data Online lecture: This lecture will primarily take Reserved rooms will remain blocked on camp follow the course from there. Big Data Groups are selected in myStudies.  Big Data Individual work to get hands-on experience we covered, no fixed presence required.  Deep Learning Number of participants limited to 320. Deep Learning	W  place pus for	10 credits online. students to	3 hrs  3V+2U+4 3 hrs  2 hrs  4 hrs  3V+2U+2 3 hrs	Tue Wed Wed Fri Wed Thu Mon	14-16 09-10 14-16 14-16 13-14 14-16 16-18	CAB G61 ML H44 CAB G52 HG E33.1 HG G26.1 ON LINE CAB G52 ON LINE	T. Hoefler, M. Püschel  G. Fourny  G. Fourny  F. Perez Cruz, A. Lucchi
63-2800-00 A 63-3010-00L 63-3010-00 U 63-3010-00 A 63-3210-00L 63-3210-00 U 63-3210-00 U	Design of Parallel and High-Performance Co Project Work, no fixed presence required.  Big Data Big Data Big Data Online lecture: This lecture will primarily take Reserved rooms will remain blocked on camp follow the course from there. Big Data Groups are selected in myStudies.  Big Data Individual work to get hands-on experience we covered, no fixed presence required.  Deep Learning Number of participants limited to 320. Deep Learning Deep Learning Deep Learning	W  place pus for	10 credits online. students to	3 hrs  3V+2U+4 3 hrs  2 hrs  4 hrs  3V+2U+2 3 hrs 2 hrs	Tue Wed Wed Fri A Wed Thu Mon Wed	14-16 09-10 14-16 14-16 13-14 14-16 16-18	CAB G61 ML H44 CAB G52 HG E33.1 HG G26.1 ON LINE CAB G52 ON LINE	G. Fourny G. Fourny F. Perez Cruz, A. Lucchi F. Perez Cruz, A. Lucchi
63-2800-00 A  63-3010-00L 63-3010-00 U  63-3010-00 A  63-3210-00 A  63-3210-00 U  63-3210-00 U  63-3210-00 U	Design of Parallel and High-Performance Co Project Work, no fixed presence required.  Big Data Big Data Big Data Online lecture: This lecture will primarily take Reserved rooms will remain blocked on camp follow the course from there. Big Data Groups are selected in myStudies.  Big Data Individual work to get hands-on experience we covered, no fixed presence required.  Deep Learning Number of participants limited to 320. Deep Learning Deep Learning Deep Learning	w e place pus for	10 credits online. students to  technologies 8 credits	3 hrs  3V+2U+4 3 hrs  2 hrs  4 hrs  3V+2U+2 3 hrs 2 hrs 2 hrs	Wed  Fri  Wed  Wed  A  Wed  A  Wed  A  Wed  Wed	14-16 09-10 14-16 14-16 14-16 16-18 16-18	CAB G61 ML H44 CAB G52 HG E33.1 HG G26.1 ON LINE CAB G52 ON LINE ML D28 ML D28 HG G5 ML D28	T. Hoefler, M. Püschel  G. Fourny  G. Fourny  F. Perez Cruz, A. Lucchi  F. Perez Cruz, A. Lucchi
63-2800-00 A 63-3010-00L 63-3010-00 U 63-3010-00 A 63-3210-00L 63-3210-00 U 63-3210-00 U 63-3210-00 U	Design of Parallel and High-Performance Co Project Work, no fixed presence required.  Big Data Big Data Big Data Online lecture: This lecture will primarily take Reserved rooms will remain blocked on camp follow the course from there. Big Data Groups are selected in myStudies.  Big Data Individual work to get hands-on experience we covered, no fixed presence required.  Deep Learning Number of participants limited to 320. Deep Learning Deep Learning Deep Learning Deep Learning Data Management Systems Data Management Systems	w e place pus for	10 credits online. students to  technologies 8 credits	3 hrs  3V+2U+4 3 hrs  2 hrs  4 hrs  3V+2U+2 3 hrs 2 hrs 2 hrs 3V+1U+3 3 hrs	Wed  Fri  Wed  Wed  A  Wed  Thu  Mon  Wed  Wed  Fri	14-16 09-10 14-16 14-16 14-16 16-18 16-18 10-12 08-09	CAB G61 ML H44 CAB G52 HG E33.1 HG G26.1 ON LINE CAB G52 ON LINE ML D28 ML D28 HG G5 ML D28	G. Fourny  G. Fourny  F. Perez Cruz, A. Lucchi F. Perez Cruz, A. Lucchi F. Perez Cruz, A. Lucchi G. Alonso
63-2800-00 A  63-3010-00L 63-3010-00 U  63-3010-00 A  63-3210-00 A  63-3210-00 U  63-3210-00 U  63-3210-00 U  63-3210-00 U	Design of Parallel and High-Performance Co Project Work, no fixed presence required.  Big Data Big Data Big Data Online lecture: This lecture will primarily take Reserved rooms will remain blocked on camp follow the course from there. Big Data Groups are selected in myStudies.  Big Data Individual work to get hands-on experience we covered, no fixed presence required.  Deep Learning Number of participants limited to 320. Deep Learning Deep Learning Deep Learning Deep Learning Data Management Systems	w e place pus for	10 credits online. students to  technologies 8 credits	3 hrs  3V+2U+4 3 hrs  2 hrs  4 hrs  3V+2U+2 3 hrs 2 hrs 2 hrs 3V+1U+3	Wed  Fri  Wed  Wed  A  Wed  A  Wed  A  Wed  Wed	14-16 09-10 14-16 14-16 14-16 16-18 16-18	CAB G61 ML H44 CAB G52 HG E33.1 HG G26.1 ON LINE CAB G52 ON LINE ML D28 ML D28 HG G5 ML D28	G. Fourny G. Fourny F. Perez Cruz, A. Lucchi F. Perez Cruz, A. Lucchi F. Perez Cruz, A. Lucchi
63-2800-00 A 63-3010-00L 63-3010-00 U 63-3010-00 A 63-3210-00L 63-3210-00 U 63-3210-00 U 63-3210-00 U 63-3240-00 U	Design of Parallel and High-Performance Co Project Work, no fixed presence required.  Big Data Big Data Big Data Online lecture: This lecture will primarily take Reserved rooms will remain blocked on camp follow the course from there. Big Data Groups are selected in myStudies.  Big Data Individual work to get hands-on experience we covered, no fixed presence required.  Deep Learning Number of participants limited to 320. Deep Learning Deep Learning Deep Learning Deep Learning Data Management Systems Data Management Systems	w e place pus for	10 credits online. students to  technologies 8 credits	3 hrs  3V+2U+4 3 hrs  2 hrs  4 hrs  3V+2U+2 3 hrs 2 hrs 2 hrs 3V+1U+3 3 hrs	Wed  Fri  Wed  Wed  A  Wed  Thu  Mon  Wed  Wed  Fri	14-16 09-10 14-16 14-16 14-16 16-18 16-18 10-12 08-09	CAB G61 ML H44 CAB G52 HG E33.1 HG G26.1 ON LINE CAB G52 ON LINE ML D28 ML D28 HG G5 ML D28	G. Fourny  G. Fourny  F. Perez Cruz, A. Lucchi F. Perez Cruz, A. Lucchi F. Perez Cruz, A. Lucchi G. Alonso
63-2800-00 A  63-3010-00L 63-3010-00 U  63-3010-00 A  63-3210-00 A  63-3210-00 U  63-3210-00 U  63-3210-00 U  63-3240-00 U  63-3845-00L 63-3845-00 U	Design of Parallel and High-Performance Co Project Work, no fixed presence required.  Big Data Big Data Big Data Online lecture: This lecture will primarily take Reserved rooms will remain blocked on camp follow the course from there. Big Data Groups are selected in myStudies.  Big Data Individual work to get hands-on experience we covered, no fixed presence required.  Deep Learning Number of participants limited to 320. Deep Learning Deep Learning Deep Learning Deep Learning Data Management Systems Data Management Systems	w e place pus for	10 credits online. students to  technologies 8 credits	3 hrs  3V+2U+4 3 hrs  2 hrs  4 hrs  3V+2U+2 3 hrs 2 hrs 2 hrs 3V+1U+3 3 hrs	Wed  Fri  Wed  Wed  A  Wed  Thu  Mon  Wed  Wed  Fri	14-16 09-10 14-16 14-16 14-16 16-18 16-18 10-12 08-09	CAB G61 ML H44 CAB G52 HG E33.1 HG G26.1 ON LINE CAB G52 ON LINE ML D28 ML D28 HG G5 ML D28 CAB G61 HG G3 HG G3 HG D5.1 HG E21	G. Fourny  G. Fourny  F. Perez Cruz, A. Lucchi F. Perez Cruz, A. Lucchi F. Perez Cruz, A. Lucchi G. Alonso
63-2800-00 A 63-3010-00L 63-3010-00 U 63-3010-00 A 63-3210-00 A 63-3210-00 U 63-3210-00 U 63-3210-00 U 63-3245-00 U 63-3845-00 U	Design of Parallel and High-Performance Co Project Work, no fixed presence required.  Big Data Big Data Big Data Online lecture: This lecture will primarily take Reserved rooms will remain blocked on camp follow the course from there. Big Data Groups are selected in myStudies.  Big Data Individual work to get hands-on experience we covered, no fixed presence required.  Deep Learning Number of participants limited to 320. Deep Learning Deep Learning Deep Learning Data Management Systems Data Management Systems Data Management Systems Data Management Systems	w e place pus for	10 credits online. students to  technologies 8 credits	3 hrs  3V+2U+4 3 hrs  2 hrs  4 hrs  3V+2U+2 3 hrs 2 hrs 2 hrs 3V+1U+3 3 hrs 1 hrs	Wed  Fri  Wed  Wed  A  Wed  Thu  Mon  Wed  Wed  Fri	14-16 09-10 14-16 14-16 14-16 16-18 16-18 10-12 08-09	CAB G61 ML H44 CAB G52 HG E33.1 HG G26.1 ON LINE CAB G52 ON LINE ML D28 ML D28 HG G5 ML D28 CAB G61 HG G3 HG G3 HG D5.1 HG E21	G. Fourny G. Fourny F. Perez Cruz, A. Lucchi F. Perez Cruz, A. Lucchi F. Perez Cruz, A. Lucchi G. Alonso G. Alonso
63-2800-00 A 63-3010-00L 63-3010-00 U 63-3010-00 A 63-3210-00 A 63-3210-00 U 63-3210-00 U 63-3210-00 U 63-3245-00 U 63-3845-00 U 63-3845-00 A 63-3845-00 A	Design of Parallel and High-Performance Co Project Work, no fixed presence required.  Big Data Big Data Big Data Online lecture: This lecture will primarily take Reserved rooms will remain blocked on camp follow the course from there. Big Data Groups are selected in myStudies.  Big Data Individual work to get hands-on experience we covered, no fixed presence required.  Deep Learning Number of participants limited to 320. Deep Learning Deep Learning Deep Learning Data Management Systems Data Management Systems Data Management Systems Data Management Systems	w  pus for  with the	10 credits online. students to  technologies 8 credits  8 credits	3 hrs  3V+2U+4 3 hrs  2 hrs  4 hrs  3V+2U+2 3 hrs 2 hrs 2 hrs 3V+1U+3 3 hrs 1 hrs 3 hrs	Wed  Fri  Wed  Wed  A  Wed  Thu  Mon  Wed  Wed  Fri	14-16 09-10 14-16 14-16 14-16 16-18 16-18 10-12 08-09	CAB G61 ML H44 CAB G52 HG E33.1 HG G26.1 ON LINE CAB G52 ON LINE ML D28 ML D28 HG G5 ML D28 CAB G61 HG G3 HG G3 HG D5.1 HG E21	G. Fourny G. Fourny F. Perez Cruz, A. Lucchi F. Perez Cruz, A. Lucchi F. Perez Cruz, A. Lucchi G. Alonso G. Alonso
63-2800-00 A  63-3010-00L  63-3010-00 U  63-3010-00 A  63-3210-00 A  63-3210-00 U  63-3210-00 U  63-3210-00 U  63-3210-00 U  63-3845-00 U  63-3845-00 U  63-3845-00 A  63-3850-00L  63-3850-00L  63-3850-00 G	Design of Parallel and High-Performance Co Project Work, no fixed presence required.  Big Data Big Data Big Data Online lecture: This lecture will primarily take Reserved rooms will remain blocked on camp follow the course from there. Big Data Groups are selected in myStudies.  Big Data Individual work to get hands-on experience we covered, no fixed presence required.  Deep Learning Number of participants limited to 320. Deep Learning Deep Learning Deep Learning Data Management Systems	w  pus for  with the	10 credits online. students to  technologies 8 credits  8 credits	3 hrs  3V+2U+4 3 hrs  2 hrs  4 hrs  3V+2U+2 3 hrs 2 hrs 2 hrs 1 hrs 3 hrs 1 hrs 3 hrs	Tue Wed  Wed  Fri  A  Wed Thu Mon Wed  Wed Fri Fri	14-16 09-10 14-16 14-16 14-16 16-18 16-18 10-12 08-09 09-10	CAB G61 ML H44 CAB G52 HG E33.1 HG G26.1 ON LINE CAB G52 ON LINE ML D28 ML D28 HG G5 ML D28 CAB G61 HG G3 HG D5.1 HG E21 HG G26.1	G. Fourny G. Fourny F. Perez Cruz, A. Lucchi F. Perez Cruz, A. Lucchi F. Perez Cruz, A. Lucchi G. Alonso G. Alonso G. Alonso

263-5902-00 U 263-5905-00L 263-5905-00 G 263-5905-00 A 636-0007-00L 636-0007-00 U 636-0017-00L 636-0017-00 G	Mixed Reality Mixed Reality Mixed Reality Mixed Reality  Computational Systems Biology Computational Systems Biology Lecture: "inverted classroom". Students are lecture videos provided ahead of a Zoom Queled every Wednesday 16:15-17:00. Tutorials on Fridays 10:15-12:00 will be held in addition, students can sign up for Q&A ses small groups (max. 30). They will be offered Wednesdays 15:15-16:00 in the lecture room HG D 3.2. Escheduling, see the course Moodle. Computational Systems Biology Tutorials on Fridays 10:15-12:00 will be held.  Computational Biology Computational Biology The lecture will be held each Monday (16-18 Basel and will be transmitted via videoconfelocation. Tutorials will happen in both location Tutorials in Zürich: Monday 18-19h (HG D 1 Tutorials in Basel: Thursday 12-13h (BSA E Lecture on Monday and the Tutorial on Thur available for participation via Zoom. ATTENTION: Lecture starts on Monday, 27. Basel on Thursday 30.09 Computational Biology Project Work (compulsory continuous perforno fixed presence required.	&A sess d via Zoo essions i on sele For detail d via Zoo  W  8 h) eith brence toons. 6.2) 6.46) rsday wi 09, Firs	ion that will be om. in presence in ceted ils and om.  6 credits er in Zurich or o the second ill also be t Tutorial in		Mon  Wed  Fri  Mon Thu	10-13 14-17 10-12 16-18 18-19 12-13	HG D1.2  BSA E46 HG D16.2 HG D16.2 BSA E46	M. Pollefeys, S. Tang, F. Yu  I. Armeni, F. Bogo, M. Pollefeys I. Armeni, F. Bogo, M. Pollefeys  J. Stelling  T. Vaughan  T. Vaughan
263-5902-00 V 263-5902-00 U 263-5905-00 A 263-5905-00 G 263-5905-00 A 3636-0007-00 V 3636-0007-00 U 3636-0017-00 G	Mixed Reality Mixed Reality Mixed Reality Mixed Reality  Computational Systems Biology Computational Systems Biology Lecture: "inverted classroom". Students are lecture videos provided ahead of a Zoom Q& held every Wednesday 16:15-17:00.  Tutorials on Fridays 10:15-12:00 will be held in addition, students can sign up for Q&A se small groups (max. 30). They will be offered Wednesdays 15:15-16:00 in the lecture room HG D 3.2. Escheduling, see the course Moodle. Computational Systems Biology Tutorials on Fridays 10:15-12:00 will be held  Computational Biology Computational Biology The lecture will be held each Monday (16-18 Basel and will be transmitted via videoconfelocation. Tutorials will happen in both locatic Tutorials in Zürich: Monday 18-19h (HG D 1 Tutorials in Basel: Thursday 12-13h (BSA E Lecture on Monday and the Tutorial on Thur available for participation via Zoom. ATTENTION: Lecture starts on Monday, 27. Basel on Thursday 30.09 Computational Biology Project Work (compulsory continuous perfor	wexpecte &A sess d via Zoo essions i on sele for detail d via Zoo we by for detail d via Zoo we for detail d via Zoo for detail d via Zoo we for detail graphic for d	6 credits  ed to watch the ion that will be om. in presence in incted iils and om. 6 credits er in Zurich or o the second iill also be t Tutorial in	3G+1A 3 hrs 1 hrs 3V+2U 3 hrs 2 hrs 3G+2A 3 hrs	Mon  Wed  Fri  Mon	14-17 10-12 16-18 18-19	HG D3.2 HG D1.2 BSA E46 HG D16.2 HG D16.2	I. Armeni, F. Bogo, M. Pollefeys I. Armeni, F. Bogo, M. Pollefeys  J. Stelling  T. Vaughan
263-5902-00 V 263-5902-00 U 263-5905-00 A 263-5905-00 G 263-5905-00 A 263-5905-00 V 263-5905-00 V	Mixed Reality Mixed Reality Mixed Reality Mixed Reality  Computational Systems Biology Computational Systems Biology Lecture: "inverted classroom". Students are lecture videos provided ahead of a Zoom Queled every Wednesday 16:15-17:00. Tutorials on Fridays 10:15-12:00 will be held in addition, students can sign up for Q&A ses small groups (max. 30). They will be offered Wednesdays 15:15-16:00 in the lecture room HG D 3.2. Escheduling, see the course Moodle. Computational Systems Biology Tutorials on Fridays 10:15-12:00 will be held.  Computational Biology Computational Biology The lecture will be held each Monday (16-18 Basel and will be transmitted via videoconfelocation. Tutorials will happen in both location Tutorials in Zürich: Monday 18-19h (HG D 1 Tutorials in Basel: Thursday 12-13h (BSA E Lecture on Monday and the Tutorial on Thur available for participation via Zoom. ATTENTION: Lecture starts on Monday, 27.	expectes & A sess of via Zoo essions if on selector detailed via Zoo W  B h) eitherence to ons. 6.2) 46) rsday wi	6 credits ed to watch the sion that will be som. in presence in ected ills and om. 6 credits er in Zurich or o the second	3G+1A 3 hrs 1 hrs 3V+2U 3 hrs 2 hrs	Mon  Wed  Fri  Mon	14-17 10-12 16-18 18-19	HG D3.2 HG D1.2 BSA E46 HG D16.2 HG D16.2	I. Armeni, F. Bogo, M. Pollefeys I. Armeni, F. Bogo, M. Pollefeys J. Stelling
263-5902-00 V 263-5902-00 U 263-5905-00 A 263-5905-00 G 263-5905-00 A 263-5905-00 V 263-5905-00 V	Mixed Reality Mixed Reality Mixed Reality Mixed Reality  Mixed Reality  Computational Systems Biology Computational Systems Biology Lecture: "inverted classroom". Students are lecture videos provided ahead of a Zoom Qoheld every Wednesday 16:15-17:00.  Tutorials on Fridays 10:15-12:00 will be held in addition, students can sign up for Q&A sesmall groups (max. 30). They will be offered Wednesdays 15:15-16:00 in the lecture room HG D 3.2. Escheduling, see the course Moodle. Computational Systems Biology Tutorials on Fridays 10:15-12:00 will be held  Computational Biology Computational Biology The lecture will be held each Monday (16-18 Basel and will be transmitted via videoconfelocation. Tutorials will happen in both location	w expecte &A sess d via Zoo essions i on sele for detail d via Zoo w B h) eith rence to	6 credits ed to watch the ion that will be om. in presence in ected ils and om. 6 credits er in Zurich or	3G+1A 3 hrs 1 hrs 3V+2U 3 hrs 2 hrs	Mon  Wed  Fri  Mon	14-17 10-12 16-18 18-19	HG D3.2 HG D1.2 BSA E46 HG D16.2 HG D16.2	I. Armeni, F. Bogo, M. Pollefeys I. Armeni, F. Bogo, M. Pollefeys J. Stelling
263-5902-00 V 263-5902-00 U 263-5905-00 A 263-5905-00 G 263-5905-00 A 263-5905-00 V 366-0007-00 V	Computer Vision  Mixed Reality Mixed Reality  Mixed Reality  Mixed Reality  Computational Systems Biology Computational Systems Biology Lecture: "inverted classroom". Students are lecture videos provided ahead of a Zoom Q& held every Wednesday 16:15-17:00. Tutorials on Fridays 10:15-12:00 will be held in addition, students can sign up for Q&A se small groups (max. 30). They will be offered Wednesdays 15:15-16:00 in the lecture room HG D 3.2. F scheduling, see the course Moodle. Computational Systems Biology Tutorials on Fridays 10:15-12:00 will be held.  Computational Biology Computational Biology	w expecte &A sess d via Zoo essions i d on sele For detail	6 credits  ed to watch the ion that will be om. in presence in ected is and om.  6 credits	3G+1A 3 hrs 1 hrs 3V+2U 3 hrs 2 hrs	Mon Wed	14-17	HG D3.2 HG D1.2 BSA E46	I. Armeni, F. Bogo, M. Pollefeys I. Armeni, F. Bogo, M. Pollefeys  J. Stelling  J. Stelling
263-5902-00 V 263-5902-00 U 263-5905-00 A 263-5905-00 G 263-5905-00 A 263-5905-00 V 263-5905-00 V	Mixed Reality Mixed Reality Mixed Reality Mixed Reality  Mixed Reality  Computational Systems Biology Computational Systems Biology Lecture: "inverted classroom". Students are lecture videos provided ahead of a Zoom Q& held every Wednesday 16:15-17:00. Tutorials on Fridays 10:15-12:00 will be held in addition, students can sign up for Q&A se small groups (max. 30). They will be offered Wednesdays 15:15-16:00 in the lecture room HG D 3.2. F scheduling, see the course Moodle. Computational Systems Biology Tutorials on Fridays 10:15-12:00 will be held	w expecte &A sess d via Zoo essions i on sele For detail	6 credits  ed to watch the cion that will be com. in presence in cited ils and	3G+1A 3 hrs 1 hrs 3V+2U 3 hrs	Wed	14-17	HG D3.2	I. Armeni, F. Bogo, M. Pollefeys I. Armeni, F. Bogo, M. Pollefeys J. Stelling
263-5902-00 V 263-5902-00 U 263-5902-00 A 263-5905-00 G 263-5905-00 A 263-5905-00 A 263-60007-00 V	Computer Vision  Mixed Reality Mixed Reality  Mixed Reality  Mixed Reality  Computational Systems Biology  Computational Systems Biology  Lecture: "inverted classroom". Students are lecture videos provided ahead of a Zoom Q& held every Wednesday 16:15-17:00.  Tutorials on Fridays 10:15-12:00 will be held in addition, students can sign up for Q&A se small groups (max. 30). They will be offered Wednesdays  15:15-16:00 in the lecture room HG D 3.2. F scheduling, see the course Moodle.	w expecte &A sess d via Zoo essions i d on sele	6 credits  ed to watch the ion that will be om. in presence in acted	3G+1A 3 hrs 1 hrs 3V+2U 3 hrs	Wed	14-17	HG D3.2	I. Armeni, F. Bogo, M. Pollefeys I. Armeni, F. Bogo, M. Pollefeys J. Stelling
63-5902-00 V 63-5902-00 U 63-5902-00 A 63-5905-00L 63-5905-00 A 63-6007-00L	Computer Vision  Mixed Reality Mixed Reality Mixed Reality  Mixed Reality  Computational Systems Biology Computational Systems Biology Lecture: "inverted classroom". Students are lecture videos provided ahead of a Zoom Q& held every Wednesday 16:15-17:00. Tutorials on Fridays 10:15-12:00 will be held in addition, students can sign up for Q&A se small groups (max. 30). They will be offered	w expecte &A sess d via Zoo	6 credits  ed to watch the cion that will be com. in presence in	3G+1A 3 hrs 1 hrs 3V+2U 3 hrs	Mon			I. Armeni, F. Bogo, M. Pollefeys I. Armeni, F. Bogo, M. Pollefeys
263-5902-00 V 263-5902-00 U 263-5902-00 A 263-5905-00L 263-5905-00 G 263-5905-00 A	Computer Vision  Mixed Reality  Mixed Reality  Mixed Reality  Computational Systems Biology  Computational Systems Biology	w	6 credits	3G+1A 3 hrs 1 hrs 3V+2U 3 hrs	Mon			I. Armeni, F. Bogo, M. Pollefeys I. Armeni, F. Bogo, M. Pollefeys
263-5902-00 V 263-5902-00 U 263-5902-00 A 263-5905-00L 263-5905-00 G	Computer Vision  Mixed Reality  Mixed Reality	W	5 credits	<b>3G+1A</b> 3 hrs		10-13	CAB G11	I. Armeni, F. Bogo, M. Pollefeys I. Armeni, F. Bogo,
263-5902-00 V 263-5902-00 U 263-5902-00 A 263-5905-00L	Computer Vision  Mixed Reality	W	5 credits	3G+1A		10.12	CAP C44	<u> </u>
263-5902-00 V 263-5902-00 U	·			3 hrs				M. Pollefeys, S. Tang, F. Yu
63-5902-00 V	Computer vision				Fri	13-14	CAB G51	
	Computer Vision			1 hrs	Thu Thu	12-13 13-14	HG G5 CAB G51	M. Pollefeys, S. Tang, F. Yu
	Computer Vision Computer Vision	W	8 credits	3V+1U+3 3 hrs	Wed	14-16	NO C60	M. Pollefeys, S. Tang, F. Yu
	Foundations of Reinforcement Learning	14/	0 "	2 hrs				N. He
63-5255-00L 63-5255-00 V	Foundations of Reinforcement Learning Number of participants limited to 190. Foundations of Reinforcement Learning	VV	J CIEUIIS	2 <b>V+2A</b> 2 hrs	Fri	14-16	CAB G11	N. He
	Probabilistic Artificial Intelligence	<b>\</b>	5 credits	2 hrs 2V+2A				A. Krause
63-5210-00 U	Probabilistic Artificial Intelligence Q&A session: Monday, 17-18, via zoom			2 hrs	Thu	13-14	ETA F5 ETF E1 CHN C14	A. Krause
	Probabilistic Artificial Intelligence Fr 10-12 und 13-14 im ETA F5 mit Videoüb			3 hrs	Fri	10-12 13-14	ETA F5 ETF E1 ETA F5	A. Krause
63-5210-00L	Probabilistic Artificial Intelligence	w	8 credits	3V+2U+2	2A			M. Sachan, T. Sinha
	Online exercises: Will primarily take place or rooms will remain blocked on campus for stuexercises from there.  Artificial Intelligence in Education			1 hrs				
263-5005-00 U	Online lecture: This lecture will take place or will remain blocked on campus for students from there.  Artificial Intelligence in Education			t hrs	Thu	18-19	RZ F21	<b>M. Sachan</b> , T. Sinha
263-5005-00L 263-5005-00 V	Number of participants limited to 75.  Artificial Intelligence in Education	W	5 credits	2V+1U+7 2 hrs	Thu	16-18	RZ F21	<b>M. Sachan</b> , T. Sinha
	Network Security Project Work, no fixed presence required.	147	- II.	3 hrs				A. Perrig, S. Frei, M. Legner K. Paterson
	Network Security			2 hrs	Thu	16-18	CAB G61	A. Perrig, S. Frei, M. Legner K. Paterson
63-4640-00 V	_	••	o credits	2 hrs	Tue	10-12	HG E1.2	<b>A. Perrig</b> , S. Frei, M. Legner K. Paterson
63-4500-00 A	Advanced Algorithms  Network Security	w	8 credits	3 hrs 2V+2U+3	RΔ			M. Ghaffari, G. Zuzic
	follow the course from there. Advanced Algorithms	ipus ioi	students to	2 hrs	Fri	10-12	CAB G59	M. Ghaffari, G. Zuzic
63-4500-00 V	Advanced Algorithms Online lecture: This lecture will primarily take Reserved rooms will remain blocked on carr			3 hrs	Wed	09-12	HG D5.2	M. Ghaffari, G. Zuzic

252-3811-00L	Case Studies from Practice Seminar Number of participants limited to 24.	w	4 credits	2S				
	The deadline for deregistering expires at the end of the second week of the semester. Students who are still registered after that date, but do not attend the seminar, will officially fail the seminar.							
252-3811-00 S	Case Studies from Practice Seminar			2 hrs	21.09. 28.09. 05.10. 12.10.	16-18 16-18 16-18 16-18	CAB H52 CAB H52 CAB H52 CAB H52	M. Brandis
252-4601-00L	Current Topics in Information Security Number of participants limited to 24.	W	2 credits	2S				
252-4601-00 S	The deadline for deregistering expires at the end of the second week of the semester. Students who are still registered after that date, but do not attend the seminar, will officially fail the seminar. Current Topics in Information Security Online seminar: This seminar will primarily Reserved rooms will remain blocked on car follow the seminar from there.			2 hrs	Mon	14-16	CAB G57	S. Capkun, K. Paterson, A. Perrig, S. Shinde
252-5051-00L	Advanced Topics in Machine Learning Number of participants limited to 40.	W	2 credits	28				
	The deadline for deregistering expires at the end of the fourth week of the semester. Students who are still registered after that date, but do not attend the seminar, will officially fail the seminar.				_			
252-5051-00 S	Advanced Topics in Machine Learning ■			2 hrs	Tue Thu	16-18 16-18	CAB G56 CAB G57	J. M. Buhmann, R. Cotterell, J. Vogt, F. Yang
252-5701-00L	Advanced Topics in Computer Graphics and Vision Number of participants limited to 24.	W	2 credits	2S				
	The deadline for deregistering expires at the end of the third week of the semester. Students who are still registered after that date, but do not attend the seminar, will officially fail the seminar.							
252-5701-00 S	Advanced Topics in Computer Graphics and	d Vision		2 hrs	Thu	14-16	CAB G56	M. Pollefeys, O. Sorkine Hornung, S. Tang
263-2100-00L	Research Topics in Software Engineering Number of participants limited to 22.	W	2 credits	2\$				
	The deadline for deregistering expires at the end of the second week of the semester. Students who are still registered after that date, but do not attend the seminar, will officially fail the seminar.				_		0.111.0.45	
263-2100-00 S	Research Topics in Software Engineering Online lecture: This lecture will take place of will remain blocked on campus for students from there.			2 hrs as	Tue	14-16	CHN G46	P. Müller, M. Püschel
263-3504-00L	Hardware Acceleration for Data Processing Number of participants limited to 24.	W	2 credits	2\$				
263-3504-00 S	The deadline for deregistering expires at the end of the second week of the semester. Students who are still registered after that date, but do not attend the seminar, will officially fail the seminar. Hardware Acceleration for Data Processing Online seminar: This seminar will take place rooms will remain blocked on campus for strourse from there.	e online.		2 hrs	Tue	14-16	ML J34.1	G. Alonso
263-5156-00L	Beyond iid Learning: Causality, Dynamics, and Interactions Number of participants limited to 60.	W	2 credits	2\$				
	The deadline for deregistering expires at the end of the second week of the semester. Students who are still registered after that date, but do not attend the seminar, will officially fail the seminar.							

263-5156-00 S	Beyond iid Learning: Causality, Dynamics, and The lecturers will communicate the exact lesson courses.		2 hrs E	Wed	16-18	ON LINE	M. Mühlebach, A. Krause, B. Schölkopf
263-3713-00L	Advanced Topics in Human-Centric W Computer Vision Numbers of participants limited to 20.	2 credits	28				
	The deadline for deregistering expires at the end of the third week of the semester. Students who are still registered after that date, but do not attend the seminar, will officially fail the seminar.						
263-3713-00 S	Advanced Topics in Human-Centric Computer	Vision	2 hrs	Thu	16-18	CAB G52	O. Hilliges
CAS in Comp	uter Science - Key for Type						
•	Compulsory	I	E-	F	ecommen?	ded, not eligible	e for credits
	Eligible for credits and recommended		Z			tside the curric	
	Eligible for credits		Dr		Suitable for		
Key for Hours	S						
V	lecture		Р	р	ractical/lab	oratory course	
G	lecture with exercise		Α	ir	ndependen	t project	
U	exercise		D	d	liploma the	sis	
S	seminar		R	r	evision cou	ırse / private stı	udy
K	colloquium						

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# **CAS in International Policy and Advocacy**

The CAS is offered once per year in the spring semester. Course duration: 1 Semester, part-time

More information at: www.sspg.ethz.ch/en

CAS in I	nternational Policy and Advocacy - Key for Type		
0	Compulsory	E-	Recommended, not eligible for credits
W+	Eligible for credits and recommended	Z	Courses outside the curriculum
W	Eligible for credits	Dr	Suitable for doctorate

Key for	Hours			
V	lecture	P	practical/laboratory course	
G	lecture with exercise	A	independent project	
U	exercise	D	diploma thesis	
S	seminar	R	revision course / private study	
K	colloquium			

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# **CAS in Future Transport Systems: New Business Models**

The "CAS in Future Transport Systems: New Business Models" takes place only in Spring Semester

Start of the next course: Spring Semester 2022 Course duration: Six months part time

Periodicity: Every two years

More Information at: http://www.mas-mobilitaet.mavt.ethz.ch/

0	Compulsory	E-	Recommended, not eligible for credits
W+	Eligible for credits and recommended	Z	Courses outside the curriculum
W	Eligible for credits	Dr	Suitable for doctorate
Key for	Hours		
Key for	Hours		
V	lecture	P	practical/laboratory course
G	lecture with exercise	A	independent project
U	exercise	D	diploma thesis
S	seminar	R	revision course / private study
K	colloquium		

# **CAS in Future Transport Systems: Systemic Aspects of Future Transport**

The "CAS in Future Transport Systems: Systemic Aspects of Future Transport" takes place only in Spring Semester

Start of the next course: Spring Semester 2023 Course duration: Six months part time

Periodicity: Every two years

More Information at: http://www.mas-mobilitaet.mavt.ethz.ch/

0	Compulsory	E-	Recommended, not eligible for credits
W+	Eligible for credits and recommended	Z	Courses outside the curriculum
W	Eligible for credits	Dr	Suitable for doctorate
Key for			
<b>Key for</b> ∨	Hours lecture	P	practical/laboratory course
-		P   A	practical/laboratory course independent project
V	lecture	· · · · ·	
V	lecture lecture with exercise	A	independent project

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# **CAS in Future Transport Systems: Technology Potential**

The "CAS in Future Transport Systems: Technology Potential" takes place only in Autumn Semester

Start of the next course: Autumn Semester 2021

Course duration: Six months part time

Periodicity: Every two years

More Information at: http://www.mas-mobilitaet.mavt.ethz.ch/

#### ► Major Courses

Number	Title	Type	ECTS	Hours				Lecturers
166-0200-00L	Technology Potential: Powertrain, Systems and Energy Carriers Only for MAS in Future Transport Systems and CAS in Future Transport Systems: Technology Potential.	0	3.5 credits	3G				
166-0200-00 G	Technologie-Potenziale: Antriebs-/Fahrzeug Energieträger Blockkurs Einführungsvormittag 24.08.21 Die genauen Unterrichtszeiten werden von kommuniziert.			45s hrs	24.08. 26.08. 27.08. 15.09. 16.09.	08-17 08-17 08-17 08-17 08-17	LEO C12 LEO C12 LEO C12 LEO C12 LEO C12	C. Onder
166-0201-00L	Potential of Spatial Information- and Communication Technologies Only for MAS in Future Transport Systems and CAS in Future Transport Systems: Technology Potential.	0	3 credits	3G				
166-0201-00 G	Potenziale räumlicher Informations- und Kommunikationstechnologien ■ Blockkurs (Ort: LEO C12 oder Hönggerberg	1)		40s hrs	02.11 05.11.	13-16	LEO C12	P. Kiefer
166-0202-00L	Integrated Assessment of Technologies and Transport Systems Only for MAS in Future Transport Systems and CAS in Future Transport Systems: Technology Potential.	0	2 credits	1G	08.12.	08-12	LEO C12	
166-0202-00 G	Integrated Assessment of Technologies and Blockkurs	l Transp	oort Systems	20s hrs	08.12. 09.12 10.12.		LEO C12 LEO C12	C. L. Mutel
166-0203-00L	Energy Carrier for the Mobility of the Future Only for MAS in Future Transport Systems and CAS in Future Transport Systems: Technology Potential.	0	3.5 credits	3G				
166-0203-00 G	Energieträger für eine Mobilität der Zukunft Findet im LEO C 12 (08-12 und 13-17) statt 25.08.2021, EMPA Dübendorf 08.10.2021, PSI, Villigen		hme:	40s hrs	25.08. 17.09. 06.10. 07.10. 08.10.	08-17 08-17 08-17 08-17 08-17	Ex tern LEO C12 LEO C12 LEO C12 Ex tern	C. Bach

#### ► CAS Thesis

Number	Title	Туре	ECTS	Hours	Lecturers
166-0290-00L	CAS Thesis on Technology Potentials Only for MAS in Future Transport Systems and CAS in Future Transport Systems: Technology Potential.	0	3 credits	5D	
166-0290-00 D	CAS-Arbeit Technologie-Potenziale ■ Daten der Veranstaltung (Ort: tbd): 24.08.21 Kick-off CAS Arbeit 27.01.22 Präsentation CAS Arbeit			75s hrs	M. A. Streicher-Porte

# CAS in Future Transport Systems: Technology Potential - Key for Type

0	Compulsory	E-	Recommended, not eligible for credits
W+	Eligible for credits and recommended	Z	Courses outside the curriculum
W	Eligible for credits	Dr	Suitable for doctorate

#### **Key for Hours**

V	lecture	P	practical/laboratory course	
G	lecture with exercise	A	independent project	
U	exercise	D	diploma thesis	
S	seminar	R	revision course / private study	
K	colloquium			

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### **CAS in Nutrition for Disease Prevention and Health**

### ► Disciplinary Subjects

Number	Title	Type	ECTS	Hours				Lecturers
752-6101-00L	Dietary Etiologies of Chronic Disease	W	3 credits	2V				
752-6101-00 V	Dietary Etiologies of Chronic Disease			2 hrs	Thu	08-10	CAB G11	M. B. Zimmermann
752-6403-00L	Nutrition and Performance	w	2 credits	2V				
752-6403-00 V	Nutrition and Performance			2 hrs	Thu	14-16	ML E12	S. Mettler, M. B. Zimmermann
752-6301-00L	Selected Topics in Physiology Related to Nutrition	W	3 credits	2V				
752-6301-00 V	Selected Topics in Physiology Related to N	lutrition		2 hrs	Thu	10-12	CAB G51	F. von Meyenn

CAS in I	CAS in Nutrition for Disease Prevention and Health - Key for Type									
0	Compulsory	E-	Recommended, not eligible for credits							
W+	Eligible for credits and recommended	Z	Courses outside the curriculum							
W	Eligible for credits	Dr	Suitable for doctorate							

Key for	Hours			
V	lecture	P	practical/laboratory course	
G	lecture with exercise	A	independent project	
U	exercise	D	diploma thesis	
S	seminar	R	revision course / private study	
K	colloquium			

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### **CAS in Pharmaceuticals - From Research to Market**

#### ► Modules

Number	Title	Type	ECTS	Hours		Lecturers
541-0002-00L	Module 2: Project Management in the Pharmaceutical Industry Only for CAS in Pharmaceuticals.	W	2.5 credits	3G		
	The enrolment is done by the CAS in Pharmaceuticals study administration.					
541-0002-00 G	Module 2: Project Management in the Pha Does not take place this semester. Blockkurs (5 Tage)	armaceuti	cal Industry	40s hrs		R. Schibli
541-0007-00L	Module 7: Clinical Development Only for CAS in Pharmaceuticals.	W	2.5 credits	3G		
	The enrolment is done by the CAS in Pharmaceuticals study administration.					
541-0007-00 G	Module 7: Clinical Development Block course			40s hrs	07.09 09-18 HCI J4 09.09.	R. Furegati Hafner, R. Schibl
					14.09 09-18 HCI J4 15.09.	
► Essay						
Number	Title	Type	ECTS	Hours		Lecturers
541-1000-00L	Essay Only for CAS in Pharmaceuticals.	0	1 credit	2D		
	The enrolment is done by the CAS in Pharmaceuticals study administration.					
541-1000-00 D	Essay			30s hrs		R. Furegati Hafner, R. Schibl
CAS in Pharm	naceuticals - From Research to Marke	t - Key fo	or Type			
0	Compulsory			E-	Recommended, not eli	gible for credits
W+	Eligible for credits and recommended			Z	Courses outside the cu	ırriculum
W	Eligible for credits			Dr	Suitable for doctorate	
Key for Hours	<b>3</b>					
V	lecture			Р	practical/laboratory cou	ırse
G	lecture with exercise			Α	independent project	
U	exercise			D	diploma thesis	
S	seminar			R	revision course / private	e study
K	colloquium					
ECTS	European Credit Transfer and Accumulatio	n System				
	Special students and auditors need special	-		cturers.		

## **CAS in Public Governance and Administration**

#### ► CAS Thesis

Number	Title	Type	ECTS	Hours	Lecturers
371-0100-00L	CAS Thesis Only for CAS in Public Governance and Administration.	0	7 credits	13D	
371-0100-00 D	CAS Thesis			175s hrs	M. Ambühl, N. Meier
CAS in Public	C Governance and Administration - Ke	y for Typ	oe		
0	Compulsory			E-	Recommended, not eligible for credits
W+	Eligible for credits and recommended			Z	Courses outside the curriculum
W	Eligible for credits			Dr	Suitable for doctorate
Key for Hours	5				
V	lecture			Р	practical/laboratory course
G	lecture with exercise			Α	independent project
U	exercise			D	diploma thesis
S	seminar			R	revision course / private study
K	colloquium				
		_			
	European Credit Transfer and Accumulation	•			
•	Special students and auditors need special	permissi	on from the le	cturers.	

# CAS in Radiopharmaceutical Chemistry, Radiopharmacy

#### ► Modules

E Pharmacy and Legislation CAS in Radiopharmazeutischer Radiopharmacy.  Ilment is done by the CAS study ation.  Pharmacy and Legislation urse, takes place in Slovenia, Univ.  Ill: Radiopharmacology and Radiopharmacy CAS in Radiopharmazeutischer Radiopharmacy.  Ilment is done by the CAS study ation.  I: Radiopharmacology and Clinica take place this semester.	0	4 credits	6G 80s hrs 6G	<b>R. Schibli</b> , R. Furegati Hafne
ation. Pharmacy and Legislation urse, takes place in Slovenia, Univ II: Radiopharmacology and Radiopharmacy CAS in Radiopharmazeutischer Radiopharmacy. Ilment is done by the CAS study ation. I: Radiopharmacology and Clinica take place this semester.	0	4 credits	6G	<b>R. Schibli</b> , R. Furegati Hafne
Irse, takes place in Slovenia, Univ II: Radiopharmacology and Radiopharmacy CAS in Radiopharmazeutischer Radiopharmacy. Ilment is done by the CAS study ation. I: Radiopharmacology and Clinica take place this semester.	0	4 credits	6G	R. Schibli, R. Furegati Hafne
Radiopharmacy CAS in Radiopharmazeutischer Radiopharmacy.  Iment is done by the CAS study ation.  I: Radiopharmacology and Clinica take place this semester.				
ation. I: Radiopharmacology and Clinica take place this semester.	al Radiop	oharmacy	80s hrs	
take place this semester.	al Radiop	harmacy	80s hrs	
				R. Schibli
eutical Chemistry, Radiopharr	macv - k	Kev for Type		
γ	,		E-	Recommended, not eligible for credits
credits and recommended			Z	Courses outside the curriculum
credits			Dr	Suitable for doctorate
			Р	practical/laboratory course
n exercise			Α	independent project
			D	diploma thesis
			R	revision course / private study
				•
			n exercise  Credit Transfer and Accumulation System	D R

# **CAS in Spatial Planning**

#### **▶** Lectures

Number	Title	Type	ECTS	Hours	Lecturers
115-0500-00L	Preliminary Course: Introduction to Swiss Spatial Planning Only for MAS, DAS and CAS in Spatial Planning	0	3 credits	3G	
115-0500-00 G	Vorkurs: Einführung in die Raumplanung Datum: 23.08 27.08.2021 Gemäss separatem Programm Raum HIL H 35.1			40s hrs	<b>D. Jerjen</b> , A. Schneider
115-0502-00L	Lecture Week 02: Urban Planning and Urban Design I Only for MAS, DAS and CAS in Spatial Planning.	W	2 credits	1G	
115-0502-00 G	Präsenzwoche 02: Stadtplanung und Städt Datum: 08. – 12.11.2021 Gemäss separatem Programm Raum HIL H 35.1	ebau I		20s hrs	S. Kretz, C. Salewski
115-0503-00L	Lecture Week 03: Landscape Architecture Only for MAS, DAS and CAS in Spatial Planning.	W	2 credits	1G	
115-0503-00 G	Präsenzwoche 03: Landschaftsarchitektur Datum: 06. – 10.12.2021 Gemäss separatem Programm Raum HIL H 35.1			20s hrs	G. Vogt
115-0504-00L	Lecture Week 04: Landscape and Environmental Planning Only for MAS, DAS and CAS in Spatial Planning.	W	2 credits	1G	
115-0504-00 G	Präsenzwoche 04: Landschafts- und Umwe Datum: 10. – 14.01.2022 Gemäss separatem Programm Raum HIL H 35.1	eltplanur	ng	20s hrs	<b>A. Grêt-Regamey</b> , U. Wissen Hayek
115-0501-00L	Lecture Week 01: Spatial Planning: Tasks and Methods Only for MAS, DAS and CAS in Spatial Planning.	W	2 credits	1G	
115-0501-00 G	Präsenzwoche 01: Raumplanung: Aufgabe Datum: 11. – 15.10.2021 Gemäss separatem Programm Raum HIL H 35.1	n und M	ethoden	20s hrs	M. Nollert
CAS in Spatia	al Planning - Key for Type				
•	Compulsory			E-	Recommended, not eligible for credits
_	Eligible for credits and recommended			Z	Courses outside the curriculum
	Eligible for credits			Dr	Suitable for doctorate
Van far II.					
Key for Hours			ı	D	procinal/laboratory course
	lecture lecture with exercise			P ^	practical/laboratory course
_	exercise			A D	independent project diploma thesis
_	seminar			R	revision course / private study
	colloquium			11	15715.011 Godine / private stady
ECTS	European Credit Transfer and Accumulation	System			
	Special students and auditors need special	•		octuroro	

### **CAS in Robotics**

#### ► Modul

Number	Title	Туре	ECTS	Hours	Lecturers
172-0100-00L	CAS Module in Robotics and Al Only for CAS in Robotics.	0	12 credits	26A	
172-0100-00 A	CAS Module in Robotics and Al			360s hrs by appt.	Professors

Key for	Hours			
V	lecture	P	practical/laboratory course	
G	lecture with exercise	A	independent project	
U	exercise	D	diploma thesis	
S	seminar	R	revision course / private study	
K	colloquium			

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# **CAS in Seismic Evaluation and Retrofitting**

Offered only in the Autumn Semester.

#### ► Module

Number	Title	Туре	ECTS	Hours				Lecturers
139-0101-00L	Module 1: Introduction to Seismic Design and Swiss Seismic Code Provisions Only for CAS iin Seismic Evaluation and Retrofitting.	0	2 credits	3 <b>G</b>				
139-0101-00 G	Modul 1: Erdbebengerechter Entwurf und No Blockkurs	rmen i	n der Schweiz	42s hrs	03.09. 04.09. 17.09. 18.09. 01.10. 09.10.	14-20 10-18 14-20 10-18 14-20 10-18	HCP E47.3 HCP E47.3 HCP E47.3 HCP E47.3 HIT F11.1 HIL E1	A. Tsiavos, B. Stojadinovic
139-0102-00L	Module 2: Finite Element Modelling and Identification of the Seismic Behavior of Structures Only for CAS iin Seismic Evaluation and Retrofitting.	0	2 credits	3 <b>G</b>				
139-0102-00 G	Modul 2: Finite-Elemente-Modellierung und M	/lesste	chnik	42s hrs	15.10. 16.10. 29.10. 30.10. 12.11. 13.11.	10-18 14-20 10-18 14-20	HIT F11.1 HIL E15.2 HIT F12 HIL E1 HIT F11.1 HIL E1	A. Tsiavos, B. Stojadinovic
139-0103-00L	Module 3: Analysis Methods and Case Study Examples of Seismic Evaluation and Retrofitting Only for CAS iin Seismic Evaluation and Retrofitting.	0	2 credits	3G				
139-0103-00 G	Modul 3: Analysemethoden und Praxisbeispi Erdbebenüberprüfung und Erdbebenertüchtig		n	42s hrs	26.11. 27.11. 10.12. 11.12. 07.01. 08.01.	10-18 14-20 10-18	HIT F11.1 HIL E1 HIT F11.1 HIL E1 HPT C103 HIL E1	A. Tsiavos, B. Stojadinovic
139-0104-00L	Module 4: Individual Project Exercise Only for CAS iin Seismic Evaluation and Retrofitting.	0	4 credits	2P				
139-0104-00 P	Modul 4: Individuelle Projektarbeit Blocckurs			24s hrs	22.01. 05.02. 05.03.	08-18 08-18 08-18	HIL E1 HIL E1 HIL E1	A. Tsiavos, B. Stojadinovic

Key for	Hours			
V	lecture	P	practical/laboratory course	
G	lecture with exercise	A	independent project	
U	exercise	D	diploma thesis	
S	seminar	R	revision course / private study	
K	colloquium			
		ı .		

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# **CAS in Technology and Public Policy: Impact Analysis**

Offered only in Autumn Semester.

#### ► Module

Number	Title	Type	ECTS	Hours				Lecturers
876-0101-00L	Economic Foundations for Policy Analysis Only for CAS in Technology and Public Policy: Impact Analysis	0	3 credits	3G				
876-0101-00 G	Economic Foundations for Policy Analysis			40s hrs	23.08 27.08.	09-18	HG E41	T. Schmidt, JE. Sturm
876-0201-00L	Technology and Policy Analysis Only for CAS in Technology and Public Policy: Impact Analysis	0	8 credits	5G				
876-0201-00 G	Technology and Policy Analysis			75s hrs	10.09. 11.09.	09-18 09-17	HG E21 HG E21 HG E22	T. Schmidt, E. Ash, R. Garrett I. Günther, L. Kaack, A. Rom, B. Steffen
					24.09. 25.09.	09-18 09-17	HG E23 HG E23 HG F33.1	
					08.10.	09-18	HG E23	
					09.10.	09-17	HG E23	
					29.10. 30.10.	09-18 09-17	HG E23 HG E23	
					12.11.	09-17	HG E33.1	
					13.11.	09-17	HG E33.1	
876-0301-00L	Policy-Making in Practice Only for CAS in Technology and Public Policy: Impact Analysis	0	4 credits	3G				
876-0301-00 G	Policy-Making in Practice			46s hrs	07.10.	09-18	HG E23	T. Bernauer, D. N. Bresch,
	•				28.10.	09-17	HG E23	T. Schmidt
					18.11.	09-18	LFW B2	
					19.11.	09-18	LFW B2	
					20.11.	09-17	LFW B2	
					03.12.	09-18	HG E23	
					04.12.	09-17	HG E23	

Key for	Hours		
V	lecture	P	practical/laboratory course
G	lecture with exercise	A	independent project
U	exercise	D	diploma thesis
S	seminar	R	revision course / private study
K	colloquium		

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# **CAS** in Transport Engineering

#### ► Module

Number	Title	Type	ECTS	Hours			Lecturers
149-0001-00L	Transport Planning - Theory and Models Only for CAS/DAS in Transport Engineering and MAS in Future Transport Systems		4 credits	3G			
149-0001-00 G	Verkehr und Verkehrsplanung - Theoretisch Modelle Blockkurs Vorlesung: 09:00 - 13:00 Uhr Übungen: 14:00 - 17:00 Uhr	e Ansät	tze und	35s hrs	20.10.	IT F11.1 IT F11.1	K. W. Axhausen, M. Friedrich
149-0002-00L	Traffic Engineering Only for CAS/DAS in Transport Engineering and MAS in Future Transport Systems	0	4 credits	3G			
149-0002-00 G	Verkehrssteuerung Blockkurs Vorlesung: 09:00 - 13:00 Uhr Übungen: 14:00 - 17:00 Uhr			35s hrs	22.10.	IT F11.1 IT F11.1	M. Fellendorf
CAS in Trans	port Engineering - Key for Type						
0	Compulsory			E-	Recommended	, not eligible	for credits
W+	Eligible for credits and recommended			Z	Courses outside	the curricul	um
W	Eligible for credits			Dr	Suitable for doc	torate	
Key for Hours	3						
V	lecture			Р	practical/labora	tory course	
G	lecture with exercise			Α	independent pro	oject	
U	exercise			D	diploma thesis		
				_		1	de .
S	seminar			R	revision course	/ private stud	ау

ECTS European Credit Transfer and Accumulation System

Special students and auditors need special permission from the lecturers.

# **Chemistry (General Courses)**

#### ► General Courses

Number	Title	Type	ECTS	Hours				Lecturers
529-0073-00L	Radiochemistry	Z	2 credits	2V				
529-0073-00 V	Radiochemie Does not take place this semester.			2 hrs				to be announced
529-0499-00L	Physical Chemistry	Z	1 credit	1K				
529-0499-00 K	Physical Chemistry			1 hrs	Tue	16-19	HCI J3	M. Reiher, A. Barnes, G. Jeschke, B. H. Meier, F. Merkt, J. Richardson, R. Riek, S. Riniker, T. Schmidt, R. Signorell, H. J. Wörner
529-1100-00L	Fragrance Chemistry	Z	1 credit	1V				
529-1100-00 V	Fragrance Chemistry Does not take place this semester.			1 hrs				
529-0688-00L	Safety Lecture for Assistants	Z	0 credits					
529-0688-00 V	Sicherheitsvorlesung für Assistierende			2s hrs	14.09.	13-18	HCI G3	T. Mäder
Chemistry (G	eneral Courses) - Key for Type							
0	Compulsory			E-	Re	ecommen	ded, not eligib	ble for credits
W+	Eligible for credits and recommended			Z			tside the curri	
W	Eligible for credits			Dr	Sı	uitable for	doctorate	
Key for Hour	S							
V	lecture			Р	pr	actical/lab	oratory cours	e
G	lecture with exercise			Α	in	dependen	t project	
U	exercise			D	di	ploma the	sis	
S	seminar			R	re	vision cou	ırse / private s	study
K	colloquium							

ECTS European Credit Transfer and Accumulation System

<sup>■</sup> Special students and auditors need special permission from the lecturers.

# **Chemistry Bachelor**

### ▶ 1. Semester

# ▶▶ Compulsory Subjects First Year Examinations

Number	Title	Туре	ECTS	Hours				Lecturers
529-0011-02L	General Chemistry (Inorganic Chemistry) I	0	3 credits	2V+1U				
	Allgemeine Chemie I (AC) Allgemeine Chemie I (AC) Groups are selected in myStudies. oder nach Vereinbarung			2 hrs 1 hrs	Tue Mon	08-10 08-09	HCI G3 HCI D2 HCI H2.1 HCI H8.1 HCI J8 HIT F31.2 HIT H42 HCI D4	A. Togni A. Togni
					Fri	11-12	HCI F2 HIL C10.2 HIT F31.2 HIT H42 HCI H8.1	
529-0011-03L	General Chemistry (Organic Chemistry)	10	3 credits	2V+1U				
529-0011-03 V	Allgemeine Chemie I (OC) Allgemeine Chemie I (OC) Groups are selected in myStudies. oder nach Vereinbarung			2 hrs 1 hrs	Fri Mon	08-10 09-10	HCI G7 HCI D2 HCI J6 HIT F31.2 HIT H42	P. Chen P. Chen
						11-12	HIL B21 HIL C10.2 HIT F31.2 HIT H42	
					Tue	13-14	HIT J53	
529-0011-01L	General Chemistry (Physical Chemistry)	0	3 credits	2V+1U				
	Allgemeine Chemie I (PC)			2 hrs	Wed	10-12	HG G5	H. J. Wörner
529-0011-01 U	Allgemeine Chemie I (PC) Groups are selected in myStudies.			1 hrs	Thu	12-13	HCI F8 HCI J6 HIT F31.1 HIT J52	H. J. Wörner
					Fri	13-14 18-19 10-11	HCI F8 HCI D8 HCI D6 HCI D8 HCI E2 HCI E8 HCI F2 HIL B21 HIL D10.2 HIT K51	
						12-13	HPK D24.2 HCI E2 HCI E8 HCI F2	
					20.09.	13-14	HCP E47.2	
<b>402-0043-00L</b> 402-0043-00 V	Physics I Physics I (Physik I)	0	4 credits	<b>3V+1U</b> 3 hrs	Tue Thu	16-17 16-18	HPH G2 HPH G2	J. Home
402-0043-00 U	Physik I Di 17-18 für Studiengang Rechnergestützte Mi 9-10 (oder Di 17-18 als Ausweichtermin) Chemie bzw. Chemieingenieurwissenschaf	für Stud	diengänge	1 hrs	Tue	17-18	HCI D2 HIT F31.1 HIT H51 HIT J51	J. Home
	Interdisziplinäre Naturwissenschaften. Mi 12-13 für Studiengang Raumbezogene Ingenieurwissenschaften. Do 10-11 für Studiengang Biochemie.				Wed	09-10	CAB G52 HG E21 HG E22 HG E33.5 HG G26.3 ML H41.1 ML J34.1 ML J34.3	
					Thu	12-13 10-11	HG D3.2 HCI D6	
<b>401-0271-00L</b> 401-0271-00 V	Mathematical Foundations I: Analysis A Grundlagen der Mathematik I (Analysis A)	0	5 credits	<b>3V+2U</b> 3 hrs	Tue	10-12	HIL E1	L. Keller
401-0271-00 U	Grundlagen der Mathematik I (Analysis A) Groups are selected in myStudies.			2 hrs	Wed Mon	08-09 08-10	HG E5 HIL E7 HIT J51	L. Keller
	отоиро ато вывыва ит тувишев.					10-12	HIT K51 HIT K52 HCI F8	
						10-12	HIT J51 HIT K51 HIT K52	

529-0001-00L	Introduction to Computer Scie	ence C	)	4 credits	2V+2U				
529-0001-00 V	Informatik I				2 hrs	Thu	08-10	HIL E3	P. H. Hünenberger
529-0001-00 U	Informatik I				2 hrs	Tue	12-14	HCI D267.4 HIT F21	P. H. Hünenberger
							14-16	HCI D267.4 HIT F21	
						Thu	10-12	HCI D267.4 HIT F21	
							14-16	HCI D267.4 HIT F21	
						Fri	10-12	HCI D267.4 HIT F21	

## **▶▶** Laboratory Courses

Number	Title	Type O	ECTS	Hours				Lecturers
529-0011-04L	Practical Course General Chemistry Latest online enrolment is 20.9.2021		8 credits	12P				
	Information about the practical course will be given on the first day.							
529-0011-04 P	be given on the first day.  Allgemeine Chemie (Praktikum) ■ Ferienpraktikum n. V. für Interdisziplinäre Naturwissenschaften kann alternativ nach dem 1. Semester oder während des 1. Semesters besucht werden. Für PhysChem. Richtung prinzipiell auch während des 3. Semesters. Ferienpraktikum n. V. Woche 1-4 8-18 Uhr				Mon Wed Fri 24.09. 27.09. 13.10.	13-18 13-18 13-18 13-16 13-16 13-15	HCI HCI HCI HCI G3 HPH G1 HIL C10.2	H. V. Schönberg, E. C. Meister

#### ▶ 3. Semester

### ▶▶ Compulsory Subjects Examination Block I

Number	Title	Type	ECTS	Hours				Lecturers
529-0121-00L	Inorganic Chemistry I	0	3 credits	2V+1U				
529-0121-00 V	Anorganische Chemie I			2 hrs	Mon	08-10	HCI G3	<ul><li>H. Grützmacher,</li><li>P. Steinegger</li></ul>
529-0121-00 U	Anorganische Chemie I			1 hrs	Tue	12-13	HCI D2 HCI D8 HCI E8 HCI F2 HCI F8 HCI J8	H. Grützmacher, P. Steinegger
529-0221-00L	Organic Chemistry I	0	3 credits	2V+1U				
529-0221-00 V	Organische Chemie I			2 hrs	Wed	12-14	HCI G3	H. Wennemers
529-0221-00 U	Organische Chemie I Groups are selected in myStudies.			1 hrs	Mon	12-13	HCI D6 HCI E8 HCI F8 HCI H2.1 HCI J8	H. Wennemers
					Tue	08-09	HCI D8 HCI H2.1 HCI J3 HCI J8	
529-0422-00L	Physical Chemistry II: Chemical Reaction Kinetics	0	4 credits	3V+1U				
529-0422-00 V	Physikalische Chemie II: Chemische Rea	ktionskine	tik	3 hrs	Tue Fri	09-10 10-12	HCI J3 HCI G3	F. Merkt, U. Hollenstein
529-0422-00 U	Physikalische Chemie II: Chemische Rea Groups are selected in myStudies.	ktionskine	tik	1 hrs	Mon	08-09	HCI D4 HCI D6 HCI E2 HCP E47.2	F. Merkt, U. Hollenstein
					Tue	10-11	HCI D4 HCI D6 HCI E8 HCI F8	
						11-12	HCI D4 HCI D6 HCI E8	
529-0051-00L	Analytical Chemistry I	0	3 credits	3G				
529-0051-00 G	Analytische Chemie I			3 hrs	Wed Thu	08-10 08-09	HCI G3 HPH G2	<b>D. Günther</b> , MO. Ebert G. Schwarz, R. Zenobi
401-0373-00L	Mathematics III: Partial Differential Equations	0	4 credits	2V+1U				
401-0373-00 V	Mathematics III: Partial Differential Equation	ions		2 hrs	Thu	10-12	HCI J7	A. Carlotto
401-0373-00 U	Mathematics III: Partial Differential Equati Groups are selected in myStudies.	ions		1 hrs	Thu	09-10	HCI J7 HCP E47.1 HIT H51	A. Carlotto
						12-13	HCP E47.2	
▶▶ Laborat	tory Courses							

Number	Title	Type ECTS	Hours	Lecturers

529-0129-00L	Inorganic and Organic Chemistry II Latest online enrolment is one week before the beginning of the semester.	0	11 credits	16P				
529-0129-00 P	-			16 hrs	Mon	14-18	HCI H174 HCI H190.2 HCI H192.2 HCI H194.2 HCI H196.2 HCI H296.2	V. Mougel
					Tue	14-18	HCI H174 HCI H190.2 HCI H192.2 HCI H194.2 HCI H196.2 HCI H296.2	
					Thu	14-18	HCI H174 HCI H190.2 HCI H192.2 HCI H194.2 HCI H196.2 HCI H296.2	
					23.09. 24.09.	14-18 17-18 14-18	HCI H174 HCI H190.2 HCI H192.2 HCI H194.2 HCI H196.2 HCI H296.2 HCI J6 HCI J6	

#### ▶ 5. Semester

### ▶▶ Compulsory Subjects Examination Block II

Number	Title	Type	ECTS	Hours				Lecturers
529-0132-00L	Inorganic Chemistry III: Organometallic Chemistry and Homogeneous Catalysis	0	4 credits	3G				
529-0132-00 G	Anorganische Chemie III: Metallorganische Homogenkatalyse	Chemie	und	3 hrs	Thu Fri	14-15 10-12	HCI J4 HCI J4	C. Copéret, A. Togni
529-0231-00L	Organic Chemistry III: Introduction to Asymmetric Synthesis	0	4 credits	3G				
529-0231-00 G	Organic Chemistry III: Introduction to Asymi	metric S	ynthesis	3 hrs	Wed	08-11	HCI D4 HCI D6 HCI E2 HCI F2 HCI F8 HCI J7 HCI J8	E. M. Carreira
529-0432-00L	Physical Chemistry IV: Magnetic Resonance	0	4 credits	3G				
529-0432-00 G	Physikalische Chemie IV: Magnetische Res Vorlesung: Fr 8-10 Übungen: Di 9-10	onanz		3 hrs	Tue	09-10	HCI D4 HCI D6 HCI E8 HCI J8 HCP E47.3 HIT F31.1 HIT F31.2 HCI J6	G. Jeschke, M. Ernst

#### **▶▶** Laboratory Courses

Number	Title	Туре	ECTS	Hours				Lecturers
529-0449-00L	Spectroscopy	0	13 credits	13P				
529-0449-00 P	Spektroskopie			13 hrs	Mon Tue Wed Thu Fri 22.09.	14-18 14-18 14-18 14-18 14-18 14-15	HCI HCI HCI HCI HCI HCP E47.3	E. C. Meister, B. Hattendorf

#### **▶** Electives

Students are free to choose from a range of D-CHAB chemistry courses appropriate to their level of study (please note admission requirements). In case of doubt, contact the student administration.

#### **▶▶** Inorganic Chemistry

Number	Title	Type	ECTS	Hours				Lecturers
529-0141-00L	Physical Methods for Inorganic Chemistry	W	6 credits	3G				
529-0141-00 G	Physikalische Methoden der Anorganische	n Chemi	е	3 hrs	Mon	12-14	HCI H8.1	M. D. Wörle, D. Günther, J. Koch, R. Verel

### **▶▶** Physical Chemistry

Number	Title	Туре	ECTS	Hours	Lecturers
529-0441-00L	Signal Processing	W	6 credits	3G	

529-0441-00 G	Messtechnik Vorlesung: Di 12-14 Übungen: Do 8-9/ 9-10			3 hrs	Tue Thu	12-14 08-09 09-10	HCI E2 HCI F2 HCI F2	G. Jeschke, M. Yulikov
►► Analytic	cal Chemistry							
Number	Title	Туре	ECTS	Hours				Lecturers
529-0041-00L	Modern Mass Spectrometry, Hyphenated		6 credits	3G				
529-0041-00 G	Methods, and Chemometrics  Moderne Massenspektroskopie, gekoppelte Chemometrie	e Analys	enmethoden,	3 hrs	Mon Wed	10-12 12-13	HCI H2.1 HCI H2.1	R. Zenobi, B. Hattendorf, P. Sinués Martinez-Lozano
▶▶ Biologic	cal Chemistry							
Number	Title	Туре	ECTS	Hours				Lecturers
529-0731-00L	Nucleic Acids and Carbohydrates Note for BSc Biology students: Only one of the two concept courses 529-0731-00 Nucleic Acids and Carbohydrates (autumn semester) or 529-0732-00 Proteins and Lipids (spring semester) can be counted for the Bachelor's degree.	W	6 credits	3 <b>G</b>				
529-0731-00 G	Nucleic Acids and Carbohydrates Lecture 2 hours on Tue 9:45-11:30. Exercises: 1 hour according to agreement, 8:30 or 8:45-9:30. Exercises will start in the semester.			3 hrs	Tue	08-09 09-10 10-12	HCI D2 HCI D2 HCI J3	D. Hilvert, P. A. Kast, S. J. Sturla, H. Wennemers
<b>529-0240-00L</b> 529-0240-00 G	Chemical Biology - Peptides Chemical Biology - Peptides Lecture: 2 hours, 8:45 - 10:30 on Thursday Exercise: 1 hour, 7:45 - 8:30 or 10:45 - 11:3 the lecture) on Thursday. Exercises start in	30 (imme		<b>3G</b> 3 hrs	Thu 23.09.	08-09 09-11 11-12 09-11	HCI J4 HCI J4 HCI J4 HIL E8	H. Wennemers
▶▶ Chemic	al Aspects of Energy							
Number	Title	Туре	ECTS	Hours				Lecturers
529-0659-00L	Electrochemistry: Fundamentals, Cells	W	6 credits	3G				
529-0659-00 G	& Applications Electrochemistry: Fundamentals, Cells & Applications	oplication	ns	3 hrs	Mon	09-12	HPT C103	L. Gubler
►► Chemic	al Crystallography							
Number	Title	Туре	ECTS	Hours				Lecturers
529-0039-00L	Principles of Crystal Structure	W	6 credits	3G				
529-0039-00 G	Determination Grundlagen der Kristallstrukturanalyse Lehrsprache: Deutsch und Englisch			3 hrs	Tue Thu	12-14 13-14	HCP E47.2 HCI D8	M. D. Wörle, N. Trapp
▶▶ Comput	tational Chemistry							
Number	Title	Туре	ECTS	Hours				Lecturers
<b>529-0002-00L</b> 529-0002-00 G	Algorithms and Programming in C++ Algorithmen und Programmentwicklung in C nach Bedarf in Englisch	W	6 credits	<b>3G</b> 3 hrs	Wed Thu	14-16 12-13	HCI J6 HCI D267.4	S. Riniker, G. Landrum
►► Materia	Is Science d during Spring Semester.							
	nmental Chemistry							
Number	Title	Туре	ECTS	Hours				Lecturers
529-0037-01L	Introduction to Environmental	W	4 credits	3 <b>G</b>				
529-0037-01 G	Chemistry and Ecotoxicology Grundlagen der Umweltchemie und Ökotox	ikologie		3 hrs	Thu	09-12	HPK D3	<b>J. Hollender</b> , T. Hofstetter, C. S. McArdell
	•	W	4 credits	2V+1U				
	Stratospheric Chemistry			2 hrs	Thu Thu	14-16	CHN F42	T. Peter, G. Chiodo
	Stratospheric Chemistry  Exercises start in the second week of the se	emester.	·	1 hrs	illu	13-14	CHN F42	T. Peter, G. Chiodo
►► Econon	nics							
Number	Title	Туре	ECTS	Hours				Lecturers
351-0778-00L	Discovering Management Entry level course in management for BSc, MSc and PHD students at all levels not belonging to D-MTEC. This course can be complemented with Discovering Management (Excercises) 351-0778-01. Discovering Management	W	3 credits	3G 3 hrs	Fri	08-11	HG E1.1	B. Clarysse, S. Brusoni,
331-0770-00 G	Discovering Management Diese Lehrveranstaltung wird ab dem HS 2 angeboten. The lecture takes place in classroom, online zoom and recorded.	-		<b>3</b> เมช	ГΠ	UO-11	по Е1.1	B. Clarysse, S. Brusoni, E. Fleisch, G. Grote, V. Hoffmann, T. Netland, Y. R. Shrestha, P. Tinguely, L. P. T. Vandeweghe

### ► GESS Science in Perspective

#### ▶▶ Science in Perspective

see GESS Science in Perspective: Type A: Enhancement of Reflection Capability

Recommended GESS Science in Perspective (Type B) for D-CHAB.

#### **▶▶** Language Courses

see GESS Science in Perspective: Language Courses ETH/UZH

Chamietry	Bachelor -	Kον	for	Type
Chemistry	Dachelor -	ne	/ TOT	i ype

0	Compulsory	E-	Recommended, not eligible for credits
W+	Eligible for credits and recommended	Z	Courses outside the curriculum
W	Eligible for credits	Dr	Suitable for doctorate

#### **Key for Hours**

V	lecture	P	practical/laboratory course
G	lecture with exercise	A	independent project
U	exercise	D	diploma thesis
S	seminar	R	revision course / private study
K	colloquium		

ECTS European Credit Transfer and Accumulation System

# **Chemistry Teaching Diploma**

Further information at: https://www.ethz.ch/de/studium/didaktische-ausbildung/studienangebot-zulassung/lehrdiplom-fuer-maturitaetsschulen.html

#### **▶** Educational Science

Course offerings in the category Educational Science are listed under "Programme: Educational Science for Teaching Diploma".

Number	Title	Type	ECTS	Hours				Lecturers
851-0242-06L	Cognitively Activating Instructions in MINT Subjects Enrolment only possible with matriculation in Teaching Diploma or Teaching Certificate (excluding Teaching Diploma Sport).	W	2 credits	2S				
	This course unit can only be enrolled after successful participation in, or during enrollment in the course "Human Learning (EW 1)".							
851-0242-06 S	Kognitiv aktivierender Unterricht in den MIN Unregelmässige Lehrveranstaltung; für eine Semesterplanung wird um frühe Anmeldung Erscheinen zum ersten Lehrveranstaltungs	e reibung g und pe	gslose ersönliches	2 hrs	Wed	18-20	ML H41.1	R. Schumacher
851-0242-07L	Human Intelligence Enrolment only possible with matriculation in Teaching Diploma or Teaching Certificate (excluding Teaching Diploma Sport). Number of participants limited to 30. This course unit can only be enrolled after successful participation in, or during enrollment in the course "Human Learning (EW 1)".	W	1 credit	1\$				
851-0242-07 S	Menschliche Intelligenz Unregelmässige Lehrveranstaltung. An zwei Terminen findet die Lehrveranstalt TeilnehmerInnen statt und an den übrigen einem Teil der Studierenden (Kleingruppen gemeinsam vereinbart.	Terminei	n nur mit	14s hrs	Wed	16-18	ML F40	E. Stern
851-0242-08L	Research Methods in Educational Science Number of participants limited to 30 This course unit can only be enrolled after successful participation in, or during enrollment in the course "Human Learning (EW 1)".	W	1 credit	2\$				
851-0242-08 S	Forschungsmethoden der empirischen Bild Unregelmässige Lehrveranstaltung.  Zwei obligatorische Präsenztermine: 29.09. An den übrigen Terminen nur mit einem Te (jeweils mit 1-2 Kleingruppen).	und 17.	11.	21s hrs	Wed	12-15	LFW C1	P. Edelsbrunner, T. Braas, C. M. Thurn
851-0242-11L	Gender Issues In Education and STEM Number of participants limited to 30. Enrolment only possible with matriculation	W	2 credits	2\$				
	in Teaching Diploma or Teaching Certificate (excluding Teaching Diploma Sport).  Prorequisite: students should be taking the							
	Prerequisite: students should be taking the course 851-0240-00L Human Learning (EW1) in parallel, or to have successfully completed it.							
851-0242-11 S	Gender Issues In Education and STEM ■			2 hrs	Thu	10-12	LEE C114	M. Berkowitz Biran, T. Braas, C. M. Thurn
	see Educational Science Teaching Diploma	7						

#### ► Subject Didactics in Chemistry

Important Notice: Enrolment in the courses of this category is only possible if no more than 12 CP of potential additional requirements have to be acquired

acquire	ed.					
Number	Title	Type	ECTS	Hours		Lecturers
529-0959-00L	Mentored Work Subject Didactics Chemistry A	0	2 credits	4A		
529-0959-00 A	Mentorierte Arbeit Fachdidaktik Chemie A	für Lehrd	liplom ■	60s hrs	by appt.	R. Ciorciaro
529-0960-00L	Mentored Work Subject Didactics Chemistry B	0	2 credits	4A		
529-0960-00 A	Mentorierte Arbeit Fachdidaktik Chemie B	Lehrdiplo	om ■	60s hrs	by appt.	R. Ciorciaro
529-0950-00L	Subject Didactics Chemistry I Simultaneous enrolment in Introductory Internship Chemistry - course 529- 0966-00L - is compulsory.	0	4 credits	3G		

529-0950-00 G Fachdidaktik Chemie I Fri 15-18 A. Baertsch 3 hrs

ORT: Lageplan: http://fdchemie.pbworks.com/w/page/45801830/Übersicht%20und %20Organisation

#### ► Professional Training in Chemistry

Important Notice: Enrolment in the courses of this category is only possible if no more than 12 CP of potential additional requirements have to be acquired.

Number	Title	Type	ECTS	Hours			Lecturers
529-0966-00L	Introductory Internship Chemistry Simultaneous enrolment in Subject Didactics Chemistry I - course 529- 0950-00L - is compulsory.	0	3 credits	6P			
529-0966-00 P	Einführungspraktikum Chemie ■ Zuteilung zu den Praktikumslehrpersonen Fachdidaktiker Chemie.	über den		90s hrs	by appt.		A. Baertsch
529-0964-00L	Teaching Internship Chemistry	0	8 credits	17P			
529-0964-00 P	Unterrichtspraktikum Chemie Lehrdiplom Das Unterrichtspraktikum findet am Gymn Praktikumslehrperson statt.		r	240s hrs	by appt.		A. Baertsch
	Bitte melden Sie sich mindestens 7 Mona Fachdidaktiker amadeus.baertsch@kfr.ch		ginn beim				
529-0955-00L	Professional Exercises: Experiments in Teaching Chemistry	0	2 credits	4V			
529-0955-00 V	Berufspraktische Uebungen: Das Experim Unterricht ■ Der Kurs findet als Blockveranstaltung, jet			60s hrs	23.10. 09-17 30.10. 09-17 06.11. 09-17 20.11. 09-17	Ex tern Ex tern Ex tern Ex tern	A. Baertsch
	Ort: Zimmer 27, Kantonsschule Freudenb 8002 Zürich Lageplan: http://fdchemie.pbworks.com/w/page/4580 %20Organisation Für die Erteilung der Kreditpunkte müsser	)1830/Üb	ersicht%20un			27.15	
//	den ganzen Kurs über anwesend sein.						
529-0968-01L	Examination Lesson I Chemistry Simultaneous enrolment in "Examination Lesson II Chemistry" (529-0968-02L) is compulsory.	0	1 credit	2P			
	Will mark the conclusion of the teacher training program in Chemistry.						
529-0968-01 P	Prüfungslektion untere Stufe Chemie ■ Permission from lecturers required for all s Der Termin muss mindestens 2 Monate in Fachdidaktiker vereinbart werden: amade	n voraus i		30s hrs	by appt.		A. Baertsch
529-0968-02L	Examination Lesson II Chemistry Simultaneous enrolment in "Examination Lesson I Chemistry" (529-0968-01L) is compulsory.	0	1 credit	2P			
	Will mark the conclusion of the teacher training program in Chemistry.						
529-0968-02 P	Prüfungslektion obere Stufe Chemie  Permission from lecturers required for all s Der Termin muss mindestens 2 Monate in Fachdidaktiker vereinbart werden: amade	n voraus i		30s hrs	by appt.		A. Baertsch

Number	Title	Type	ECTS	Hours				Lecturers
529-0962-00L	Fundamental Aspects of Chemistry with an Educational Focus B Mentored Work with an Educational Focus Chemistry B for Teaching Diploma.	0	4 credits	2V				
	Information for UZH students: Enrolment to this course unit only possible at ETH. No enrolment to module CHE406 at UZH. Examination Registration only at ETH.							
	Please mind the ETH enrolment deadlines for UZH students: https://www.ethz.ch/en/studies/non-degree-courses/special-students/special-students-university-of-zurich.html							
529-0962-00 V	Vertiefte Grundlagen der Chemie B für Lehr **gemeinsam mit der Universität Zürich**	diplom		2 hrs	Wed	18-20	HCI D8	A. Togni, R. Alberto

529-0962-01L	Mentored Work Specialised Courses in the Respective Subject with an Educational Focus Chemistry B	0	2 credits	4A		
529-0962-01 A	Mentorierte Arbeit Fachwissenschaftliche Ve pädagogischem Fokus Chemie B Lehrdiplom		mit	60s hrs	by appt.	R. Ciorciaro
► Compuls	ory Elective Courses					
	see Compulsory Elective Courses Teaching Diploma					
Chemistry Te	aching Diploma - Key for Type					
0	Compulsory			E-	Recommend	ded, not eligible for credits
W+	Eligible for credits and recommended			Z	Courses out	side the curriculum
W	Eligible for credits			Dr	Suitable for o	doctorate
Key for Hours	3					
V	lecture			Р	practical/lab	oratory course
G	lecture with exercise			Α	independent	project
U	exercise			D	diploma thes	sis
S	seminar			R	revision coul	rse / private study
K	colloquium					

**ECTS** 

European Credit Transfer and Accumulation System
Special students and auditors need special permission from the lecturers.

# **Chemistry Master**

### ► Core Subjects

#### **▶▶** Inorganic Chemistry

Offered during spring semester

#### **▶▶** Organic Chemistry

Number	Title	Type	ECTS	Hours				Lecturers
529-0233-01L	Organic Synthesis: Methods and Strategies	W+	6 credits	3G				
529-0233-01 G	Organic Synthesis: Methods and Strategies Attendance of the accompanying exercise s recommended.		is strongly	3 hrs	Wed	13-16 14-16	HCI J3 HCI H8.1 HCI J343	E. M. Carreira
529-0241-10L	Advanced Methods and Strategies in Synthesis	W+	6 credits	3G				
529-0241-10 G	Advanced Methods and Strategies in Synthe Lecture: 13–15 Exercises: 15–16	esis		3 hrs	Mon	13-15 15-16	HCI J4 HCI J4 HIT J51 HIT J52	J. W. Bode
					27.09. 01.11.	13-16 13-16	HIL E3 HIL E3	

#### **▶▶** Physical Chemistry

Number	Title	Type	ECTS	Hours				Lecturers
529-0433-01L	Advanced Physical Chemistry: Statistical Thermodynamics	W+	6 credits	3G				
529-0433-01 G	Advanced Physical Chemistry: Statistical T Vorlesung: Mo 8-10 Übungen Di 8-9 oder Di 10-11	hermody	rnamics	3 hrs	Mon Tue	08-10 08-09 10-11 08-10	HCI J4 HCI D4 HCI D6 HCI E2 HCI E8 HCI F2 HCI J4 HCI F2 HCI E8 HCI F2 HCI F8 HCI F7 HCI F8 HCI F8 HCP E47.1	R. Riek, J. Richardson

#### ► Research Projects

Number	Title	Туре	ECTS	Hours		Lecturers
529-0200-10L	Research Project I	w	13 credits	16A		
529-0200-10 A	Research Project I Usually taken in spring during 6. Semester. Duration 7 weeks			16 hrs		Supervisors
529-0201-10L	Research Project II	w	13 credits	16A		
529-0201-10 A	Research Project II  Duration 7 weeks			16 hrs	by appt.	Supervisors

#### ► Industry Internship or Laboratory Course

529-0739-10 P Biological Chemistry A: Technologies for Directed Evolution of

Permission from lecturers required for all students

Number	Title	Type	ECTS	Hours	Lecturers
529-0202-00L	Industry Internship	w	13 credits		
529-0202-00 A	Industry Internship min. 7 weeks				Supervisors
529-0739-10L	Biological Chemistry A: Technologies for Directed Evolution of Enzymes Advanced laboratory course or internship depending on lab course Biological Chemistry B	W	13 credits	16P	
	Candidates must inquire with P. Kast no later than September 1st whether course will take place (no self-enrollment)				
	Further information to registration and work hours: www.kast.ethz.ch/teaching.html	•			

P. A. Kast

#### ► Master's Thesis

Number	Title	Туре	ECTS	Hours	Lecturers
529-0500-10L	Master's Thesis Only students who fulfill the following criteria are allowed to begin with their Master's thesis: a. successful completion of the Bachelor's	0	25 credits	54D	

by appt.

programme; b. fulfilling of any additional requirements necessary to gain admission to the Master's

Duration of the Master's Thesis 20 weeks.

529-0500-10 D Master's Thesis •

750s hrs

Supervisors

E. M. Carreira

J. W. Bode

HCI J3

HIL E3

01.11. 13-16

HCI H8.1 **HCI J343** 

#### Electives

Students are free to choose from a range of D-CHAB chemistry courses appropriate to their level of study (please note admission requirements). In case of doubt, contact the student administration.

#### **▶▶** Inorganic Chemistry

Number	Title	Type	ECTS	Hours				Lecturers
529-0143-01L	Aspects of Modern Inorganic Chemistr Concepts, Building Blocks, and Polymers	y: W	6 credits	3 <b>G</b>				
529-0143-01 G	Aspects of Modern Inorganic Chemistry: 0 Blocks, and Polymers	Concepts,	Building	3 hrs	Thu Fri	12-13 10-12	HCI H2.1 HCI H2.1	<b>H. Grützmacher</b> , J. Grützmacher
▶▶ Organic	Chemistry							
Number	Title	Туре	ECTS	Hours				Lecturers
529-0243-01L	Transition Metal Catalysis: From Mechanisms to Applications	W	6 credits	3G				
529-0243-01 G	Transition Metal Catalysis: From Mechani	isms to Ap	plications	3 hrs	Fri	09-12	HCI D2	B. Morandi

3G

6 credits

529-0233-01 G	Organic Synthesis: Methods and Strategie Attendance of the accompanying exercise recommended.		ns is strongly	3 hrs	Wed	13-16 14-16
529-0241-10L	Advanced Methods and Strategies in	3G				

	Synthesis				
529-0241-10 G	Advanced Methods and Strategies in Synthesis Lecture: 13–15 Exercises: 15–16	3 hrs	Mon	13-15 15-16	HCI J4 HCI J4 HIT J51 HIT J52
			27.09.	13-16	HIL E3

### **▶▶** Physical Chemistry

529-0233-01L Organic Synthesis: Methods and

**Strategies** 

Number	Title	Type	ECTS	Hours				Lecturers
529-0433-01L	Advanced Physical Chemistry: Statistical Thermodynamics	W	6 credits	3G				
529-0433-01 G	Advanced Physical Chemistry: Statistical T Vorlesung: Mo 8-10 Übungen Di 8-9 oder Di 10-11	Γhermody	rnamics	3 hrs	Mon Tue 11.10.	08-10 08-09	HCI J4 HCI D4 HCI D6 HCI E2 HCI E8 HCI F2 HCI J4 HCI F2 HCI E8 HCI F2 HCI F8 HCI F8 HCP E47.1 HCP E47.3	R. Riek, J. Richardson
529-0443-01L	Advanced Magnetic Resonance	w	6 credits	3G				
529-0443-01 G	Advanced Magnetic Resonance			3 hrs	Wed	10-13	HCI J3	G. Jeschke, A. Barnes
529-0445-01L	Advanced Optics and Spectroscopy	w	6 credits	3G				
529-0445-01 G	Advanced Optics and Spectroscopy Lecture: Do 14-16 Exercises: Do 16-17			3 hrs	Thu	14-16 16-17	HCI H2.1 HCI F8 HCI H2.1	R. Signorell, G. David

#### **▶▶** Analytical Chemistry

Number	Title	Type	ECTS	Hours				Lecturers
529-0043-01L	Analytical Strategy	w	6 credits	3G				
529-0043-01 G	Analytical Strategy			3 hrs	Tue Thu	10-12 12-13	HCI H2.1 HCI D2	<b>R. Zenobi</b> , K. Eyer, S. Giannoukos, D. Günther
529-0049-00L	Analytical Methods for Characterization of Nanoparticles and Nanomaterials	W	2 credits	2G				
529-0049-00 G	Analytical Methods for Characterization of Nanomaterials  Does not take place this semester.	Nanopar	ticles and	2 hrs				to be announced

►► Biological Chemistry						
Number	Title	Type EC	CTS	Hours	Lecturers	

500 0700 041	F	147	0	20				
<b>529-0733-01L</b> 529-0733-01 G	-	W	6 credits	<b>3G</b> 3 hrs	Mon	09-10	HCI H8.1	D. Hilvert
329-0733-01 G	Lecture 2 hours on Monday, 09:45 - 11:30.			31113	IVIOIT	10-12	HCI J6	D. Hillvert
	1 hour exercise Monday or Tuesday from se according to agreement.	econd w	eek on -		Tue	12-13	HCI H2.1	
<b> </b>								
	al Aspects of Energy							
Number	Title	Туре	ECTS	Hours				Lecturers
151-0209-00L	Renewable Energy Technologies Renewable Energy Technologies	W	4 credits	<b>3G</b> 3 hrs	Tue	14-17	HG G5	A. Steinfeld, E. I. M. Casati
131-0203-00 G	Online event: Will primarily take place online remain blocked on campus for students to for there.			11	rue	14-17	110 03	A. Otenheid, E. I. W. Oasaii
▶▶ Chemic	al Crystallography							
Number	Title	Туре	ECTS	Hours				Lecturers
529-0029-01L	Structure Determination	W	6 credits	3G				
529-0029-01 G	Structure Determination			3 hrs	Thu	09-12	HCP E47.3	M. D. Wörle, N. Trapp
▶▶ Chemic	al Technology							
Number	Title	Туре	ECTS	Hours				Lecturers
636-0108-00L	Biological Engineering and	W	4 credits	3V				
	Biotechnology							
636-0108-00 V	Biological Engineering and Biotechnology Takes place at the D-BSSE in Basel and is a	transmit	ted per video	3 hrs	Wed	13-16	BSA E46 HG D16.2	M. Fussenegger
	conference to Zürich (HG D16.2).		•				2	
	Attention: Lecture starts on Wednesday, Se	ptembe	r 29 2021					
►► Comput	tational Chemistry							
Number	Title	Туре	ECTS	Hours				Lecturers
529-0003-01L	Advanced Quantum Chemistry	W	6 credits	3G				
529-0003-01 G	Advanced Quantum Chemistry Lecture Tue 12:00-14:00, Exercise Classes	Thursd:	av 10:00-11:0	3 hrs	Tue Thu	12-14 10-11	HCI J4 HCI F8	M. Reiher, A. Baiardi
	Vorlesung Di 12-14 Uhr, Uebung Do 10-11 U		ay 10.00-11.0	O	ma	10-11	110110	
529-0004-01L	Classical Simulation of (Bio)Molecular	W	6 credits	4G				
	Systems				_			
329-0004-01 G	Classical Simulation of (Bio)Molecular Syste 2 hr lecture + 2 hr exercise session in our constudents can choose between two alternative either on Tuesdays 7:30-9:30 a.m. or on The a.m.; the course was previously named CSC	omputer re exerc ursdays CBP (the	ise sessions, 7:45-9:45 content	4 hrs	Tue	10-12	HCI D2	P. H. Hünenberger, J. Dolenc S. Riniker
	remains the same, but the new title is more	adequa	te)					
<b>▶▶</b> Materia	Science							
Number	Title	Type	ECTS	Hours				Lecturers
327-0703-00L	Electron Microscopy in Material Science	W	4 credits	2V+2U	F-:	00.40	1101110.4	K Karasa D Errai O Ocarati
327-0703-00 V	Electron Microscopy in Material Science			2 hrs	Fri	08-10	HCI H2.1	K. Kunze, R. Erni, S. Gerstl, F. Gramm, A. Käch, F. Krumeich, M. Willinger
327-0703-00 U	Electron Microscopy in Material Science			2 hrs	Fri	12-14	HCI H2.1	K. Kunze, R. Erni, S. Gerstl, F. Gramm, A. Käch, F. Krumeich, M. Willinger
►► Environ	mental Chemistry							
	<u> </u>	Tim-	ECTO	Це				Locturoro
Number	Title	Туре		Hours				Lecturers
<b>529-0745-01L</b> 529-0745-01 V	General and Environmental Toxicology General and Environmental Toxicology Online course: This course takes place onlir is meant for those students who want to follothe campus.			3V 3 hrs n	Fri	09-12	HCI J8	M. Arand, H. Nägeli
▶▶ Econon	nics and Technology Manageme	ent						
Number	Title	Туре	ECTS	Hours				Lecturers
363-0389-00L	Technology and Innovation Management		3 credits	2G				
	Technology and Innovation Management The lecture takes place in classroom, online recorded.			2 hrs	Mon 27.09.	14-16 14-16	NO C60 HG D1.2	S. Brusoni, A. Zeijen
363-0565-00L	Principles of Macroeconomics	W	3 credits	2V	_	46.45		0
363-0565-00 V	Principles of Macroeconomics Di 16-18 im ETA F 5 mit Videoübertragung i The lecture takes place in classroom, online zoom and recorded.			2 hrs	Tue	16-18	ETA F5 ETF E1	JE. Sturm
363-0503-00L	Principles of Microeconomics GESS (Science in Perspective): This lecture is for MSc students only. BSc students register for 363-1109-00L Einführung in die Mikroökonomie.	W	3 credits	2G				

# ► Compensatory courses

zoom and recorded.

### **▶▶** Inorganic Chemistry

Number	Title	Гуре	ECTS	Hours				Lecturers
529-0143-01L	Aspects of Modern Inorganic Chemistry: V Concepts, Building Blocks, and Polymers	N+	6 credits	3G				
529-0143-01 G	Aspects of Modern Inorganic Chemistry: Cond Blocks, and Polymers	cepts, I	Building	3 hrs	Thu Fri	12-13 10-12	HCI H2.1 HCI H2.1	H. Grützmacher, J. Grützmacher

#### **▶▶** Physical Chemistry

Number	Title	Type	ECTS	Hours				Lecturers
529-0443-01L	Advanced Magnetic Resonance	W+	6 credits	3G				
529-0443-01 G	Advanced Magnetic Resonance			3 hrs	Wed	10-13	HCI J3	G. Jeschke, A. Barnes
529-0445-01L	Advanced Optics and Spectroscopy	W	6 credits	3G				
529-0445-01 G	Advanced Optics and Spectroscopy Lecture: Do 14-16 Exercises: Do 16-17			3 hrs	Thu	14-16 16-17	HCI H2.1 HCI F8 HCI H2.1	R. Signorell, G. David

#### ► GESS Science in Perspective

see GESS Science in Perspective: Language Courses ETH/UZH

see GESS Science in Perspective: Type A: Enhancement of Reflection Capability

Recommended GESS Science in Perspective (Type B) for D-CHAB.

#### ► Course Units for Additional Admission Requirements

Number	Title	Type	ECTS	Hours	Lecturers
529-0051-AAL	Analytical Chemistry I Enrolment ONLY for MSc students with a decree declaring this course unit as an additional admission requirement.	E-	3 credits	6R	
	Any other students (e.g. incoming exchange students, doctoral students) CANNOT enrol for this course unit.				
	The underlying lecture (529-0051-00L) is offered in autumn semester but only in German.				
529-0051-AA R	Analytical Chemistry I Self-study course. No presence required.			90s hrs	D. Günther, R. Zenobi
529-0058-AAL	Analytical Chemistry II Enrolment ONLY for MSc students with a decree declaring this course unit as an additional admission requirement.	E-	3 credits	6R	
	Any other students (e.g. incoming exchange students, doctoral students) CANNOT enrol for this course unit.				
	This course does not offer a lecture of its own but it is linked to the course 529-0058-00L.				
529-0058-AA R	Analytical Chemistry II Self-study course. No presence required.			90s hrs	<b>D. Günther</b> , MO. Ebert, G. Schwarz, R. Zenobi
529-0132-AAL	Inorganic Chemistry III: Organometallic Chemistry and Homogeneous Catalysis Enrolment ONLY for MSc students with a decree declaring this course unit as an additional admission requirement.	E-	4 credits	9R	
	Any other students (e.g. incoming exchange students, doctoral students) CANNOT enrol for this course unit.				
	This course does not offer a lecture of its own but it is linked to the course 529-0132-00L.				
529-0132-AA R	Inorganic Chemistry III: Organometallic Che Homogeneous Catalysis Self-study course. No presence required.	mistry a	ind	120s hrs	<b>C. Copéret</b> , A. Togni
529-0431-AAL	Physical Chemistry III: Molecular	E-	4 credits	9R	

	Med	

Enrolment ONLY for MSc students with a decree declaring this course unit as an additional admission requirement.

Any other students (e.g. incoming exchange students, doctoral students) CANNOT enrol for this course unit.

This course does not offer a lecture of its own but it is linked to the course 529-0431-00L.

529-0431-AA R Physical Chemistry III: Molecular Quantum Mechanics

Self-study course. No presence required.

120s hrs F. Merkt

# 529-0432-AAL Physical Chemistry IV: Magnetic

Resonance

Enrolment ONLY for MSc students with a decree declaring this course unit as an additional admission requirement.

Any other students (e.g. incoming exchange students, doctoral students) CANNOT enrol for this course unit.

529-0432-AA R Physical Chemistry IV: Magnetic Resonance Self-study course. No presence required.

120s hrs G. Jeschke, M. Ernst

#### 529-0129-AAL Inorganic and Organic Chemistry II

Enrolment ONLY for MSc students with a decree declaring this course unit as an additional admission requirement.

Any other students (e.g. incoming exchange students, doctoral students) CANNOT enrol for this course unit.

This course does not offer a lecture of its own but it is linked to the course 529-0129-00L.

529-0129-AA R Inorganic and Organic Chemistry II

11 credits 16R

4 credits

9R

16 hrs V. Mougel

#### 551-0103-AAL Fundamentals of Biology II: Cell Biology E-

Enrolment ONLY for MSc students with a decree declaring this course unit as an additional admission requirement.

Any other students (e.g. incoming exchange students, doctoral students) CANNOT enrol for this course unit.

551-0103-AA R Fundamentals of Biology II: Cell Biology

Self-study course. No presence required.

5 credits 11R

150s hrs

**U. Kutay**, Y. Barral, G. Schertler, U. Suter,

S. Werner

#### **Chemistry Master - Key for Type**

0	Compulsory	E-	Recommended, not eligible for credits
W+	Eligible for credits and recommended	Z	Courses outside the curriculum
W	Eligible for credits	Dr	Suitable for doctorate

#### **Key for Hours**

\/	lecture	D	practical/laboratory course
V	lecture	Г	practical/laboratory course
G	lecture with exercise	Α	independent project
U	exercise	D	diploma thesis
S	seminar	R	revision course / private study
K	colloquium		

#### ECTS European Credit Transfer and Accumulation System

# **Chemical and Bioengineering Master**

### ► Core Subjects

### ▶▶ Biochemical Engineering

Number	Title	Type	ECTS	Hours				Lecturers
529-0837-01L	Biomicrofluidic Engineering Number of participants limited to 25.	W+	6 credits	3G				
529-0837-01 G	Biomicrofluidic Engineering			3 hrs	Mon Tue	16-18 12-13	HCI H8.1 HCI J7	A. de Mello
529-0615-01L	Biochemical and Polymer Reaction Engineering	W+	6 credits	3G				
529-0615-01 G	Biochemical and Polymer Reaction Engineer	ering		3 hrs	Tue Wed	14-16 12-13	HCI J4 HCI J6	P. Arosio
►► Produc	ts and Materials							
Number	Title	Туре	ECTS	Hours				Lecturers
529-0619-01L	Chemical Product Design Prerequisites: Basic chemistry and chemical engineering knowledge (Diffusion, Thermodynamics, Kinetics,).	W+	6 credits	3G				
529-0619-01 G	Chemical Product Design Lecture: Thursday Exercice: Monday			3 hrs	Mon Thu	15-16 10-12	HPZ F31.1 HCI J3	W. J. Stark
►► Process	s Design							
Number	Title	Туре	ECTS	Hours				Lecturers
529-0643-01L	Process Design and Development	W+	6 credits	3 <b>G</b>				
529-0643-01 G	Process Design and Development			3 hrs	Tue Wed	10-12 13-14	HCI D8 HCI H2.1	G. Guillén Gosálbez
	Process Simulation and Flowsheeting	W+	6 credits	3G				
529-0613-01 G	Process Simulation and Flowsheeting The module combines theory-based lecture practical lectures based on Aspen (Wednes		days) with	3 hrs	Mon Wed	10-13 14-18	HCI J4 HCI G174	G. Guillén Gosálbez
►► Catalys	is and Separation							
Number	Title	Type	ECTS	Hours				Lecturers
151-0927-00L	Rate-Controlled Separations in Fine Chemistry	W+	6 credits	3V+1U				
151-0927-00 V	Rate-Controlled Separations in Fine Chemis The class will be in a hybrid mode. The exa discussed and agreed upon with the studer week of the semester.	ct moda		3 hrs	Thu	11-14	ML F34	M. Mazzotti, V. Becattini
151-0927-00 U	Rate-Controlled Separations in Fine Chemic The class will be in a hybrid mode. The exa discussed and agreed upon with the studer week of the semester.	ct moda		1 hrs	Thu	14-15	ML F34	M. Mazzotti, V. Becattini
529-0617-01L	Catalysis Engineering	W+	6 credits	3 <b>G</b>				
529-0617-01 G	Catalysis Engineering			3 hrs	Mon Thu	09-10 16-18	HCI J3 HCP E47.1	J. Pérez-Ramírez, S. J. Mitchell
► Case Stu	dy							
Number	Title	Туре	ECTS	Hours				Lecturers
<b>529-0459-01L</b> 529-0459-01 A	Case Studies in Process Design Case Studies in Process Design	0	3 credits	<b>3A</b> 42s hrs				G. Guillén Gosálbez
	This course does not take place on a week case study is carried out by the students in week", from 1-4 November 2021 (HCI G17-	a specit						
► Research	Project or Industry Internship							
Number	Title	Туре	ECTS	Hours				Lecturers
529-0300-10L	Research Project	W	13 credits	16A				
529-0300-10 A	Research Project Duration 7 weeks			16 hrs	by appt	<b>.</b>		Supervisors
529-0301-00L	Industry Internship	W	13 credits					
529-0301-00 A	Industry Internship min. 7 weeks				by appt	i.		Supervisors
► Master's	Thesis							
Number	Title	Туре	ECTS	Hours				Lecturers
529-0600-10L	Master's Thesis Only students who fulfill the following criteria are allowed to begin with their Master's thesis: a. successful completion of the Bachelor's programme;	0	25 credits	54D				

Duration of the Master's Thesis 20 weeks.

529-0600-10 D Master's Thesis ■

750s hrs

Supervisors

#### ► Electives

### **▶▶** Biochemical Engineering

Number	Title	Type	ECTS	Hours				Lecturers
636-0108-00L	Biological Engineering and Biotechnology	W	4 credits	3V				
636-0108-00 V	Biological Engineering and Biotechnology Takes place at the D-BSSE in Basel and is conference to Zürich (HG D16.2). Attention: Lecture starts on Wednesday, S		•	3 hrs	Wed	13-16	BSA E46 HG D16.2	M. Fussenegger
36-0007-00L	Computational Systems Biology	W	6 credits	3V+2U				
636-0007-00 V	Computational Systems Biology Lecture: "inverted classroom". Students ar lecture videos provided ahead of a Zoom of held every Wednesday 16:15-17:00. Tutorials on Fridays 10:15-12:00 will be he In addition, students can sign up for Q&A s small groups (max. 30). They will be offere Wednesdays 15:15-16:00 in the lecture room HG D 3.2. scheduling, see the course Moodle.	Q&A sess eld via Zo sessions ed on sele	ion that will be om. in presence in ected	e	Wed	14-17	HG D3.2	J. Stelling
636-0007-00 U	Computational Systems Biology Tutorials on Fridays 10:15-12:00 will be he	eld via Zo	om.	2 hrs	Fri	10-12	HG D1.2	J. Stelling
376-1714-00L	Biocompatible Materials	w	4 credits	3V				
376-1714-00 V	Biocompatible Materials Vorlesung 9-11h Uebungen/Gruppenarbeiten 11-12h			3 hrs	Fri	09-12	HG G3	<b>K. Maniura</b> , M. Rottmar, M. Zenobi-Wong
529-0615-01L	Biochemical and Polymer Reaction Engineering	w	6 credits	3G				
529-0615-01 G	Biochemical and Polymer Reaction Engine	eering		3 hrs	Tue Wed	14-16 12-13	HCI J4 HCI J6	P. Arosio
529-0837-01L	Biomicrofluidic Engineering Number of participants limited to 25.	W	6 credits	3G				
	rvamber of participants limited to 25.							
529-0837-01 G	Biomicrofluidic Engineering			3 hrs	Mon Tue	16-18 12-13	HCI H8.1 HCI J7	A. de Mello
				3 hrs				A. de Mello
►► Environ	Biomicrofluidic Engineering	Туре	ECTS	3 hrs Hours				A. de Mello  Lecturers
►► Environ Number 151-0209-00L	Biomicrofluidic Engineering	<b>W</b> ne. Reser	4 credits	Hours 3G 3 hrs				
►► Environ Number 151-0209-00L 151-0209-00 G	ment and Energy  Title  Renewable Energy Technologies Renewable Energy Technologies Online event: Will primarily take place online remain blocked on campus for students to	<b>W</b> ne. Resei follow the	4 credits	Hours 3G 3 hrs	Tue	12-13	HCI J7	Lecturers
►► Environ Number 151-0209-00L 151-0209-00 G	Title  Renewable Energy Technologies Renewable Energy Technologies Online event: Will primarily take place onling remain blocked on campus for students to there.  Electrochemistry: Fundamentals, Cells	W ne. Resel follow the	4 credits  ved rooms will e course from  6 credits	Hours 3G 3 hrs	Tue	12-13	HCI J7	Lecturers
►► Environ Number 151-0209-00 L 151-0209-00 G 529-0659-00 L 529-0659-00 G 529-0745-01L	Title  Renewable Energy Technologies Renewable Energy Technologies Online event: Will primarily take place onling remain blocked on campus for students to there.  Electrochemistry: Fundamentals, Cells & Applications	W ne. Reser follow the W Application W	4 credits  eved rooms will ecourse from  6 credits  6 credits  reserved room	Hours 3G 3 hrs 3G 3 hrs 3V 3 hrs	Tue	12-13	HCI J7	Lecturers  A. Steinfeld, E. I. M. Casati
►► Environ Number 151-0209-00L 151-0209-00 G 529-0659-00L 529-0659-00 G 529-0745-01 V	Title  Renewable Energy Technologies Renewable Energy Technologies Renewable Energy Technologies Online event: Will primarily take place online remain blocked on campus for students to there.  Electrochemistry: Fundamentals, Cells & Applications Electrochemistry: Fundamentals, Cells & A feneral and Environmental Toxicology General and Environmental Toxicology Online course: This course takes place on is meant for those students who want to for	W ne. Reser follow the W Application W	4 credits  eved rooms will ecourse from  6 credits  6 credits  reserved room	Hours 3G 3 hrs 3G 3 hrs 3V 3 hrs	Tue	12-13	HCI J7 HG G5 HPT C103	Lecturers  A. Steinfeld, E. I. M. Casati  L. Gubler
►► Environ Number 151-0209-00L 151-0209-00 G 529-0659-00L 529-0659-00 G 529-0745-01 V  ►► System	Title  Renewable Energy Technologies Renewable Energy Technologies Renewable Energy Technologies Online event: Will primarily take place onling remain blocked on campus for students to there.  Electrochemistry: Fundamentals, Cells & Applications Electrochemistry: Fundamentals, Cells & Applications Electrochemistry: Fundamental Toxicology General and Environmental Toxicology Online course: This course takes place on is meant for those students who want to for the campus.	W ne. Reser follow the W Application W	4 credits  eved rooms will ecourse from  6 credits  6 credits  reserved room	Hours 3G 3 hrs 3G 3 hrs 3V 3 hrs	Tue	12-13	HCI J7 HG G5 HPT C103	Lecturers  A. Steinfeld, E. I. M. Casati  L. Gubler
►► Environ Number 151-0209-00L 151-0209-00 G 529-0659-00 G 529-0745-01 V  ►► System Number 151-0109-00L	Title  Renewable Energy Technologies Renewable Energy Technologies Renewable Energy Technologies Online event: Will primarily take place onling remain blocked on campus for students to there.  Electrochemistry: Fundamentals, Cells & Applications Electrochemistry: Fundamentals, Cells & Applications Electrochemistry: Fundamental Toxicology General and Environmental Toxicology Online course: This course takes place on its meant for those students who want to for the campus.  s and Process Engineering Title Turbulent Flows	W me. Reselfollow the W Application W line. The	4 credits  eved rooms will eved rooms from  6 credits  6 credits  reserved room course from	Hours 3G 3 hrs 3G 3 hrs 3V 3 hrs 7	Tue  Mon  Fri	12-13 14-17 09-12 09-12	HCI J7  HG G5  HPT C103  HCI J8	Lecturers  A. Steinfeld, E. I. M. Casati  L. Gubler  M. Arand, H. Nägeli  Lecturers
►► Environ Number 151-0209-00L 151-0209-00 G 529-0659-00 G 529-0745-01 V  ►► System Number 151-0109-00L 151-0109-00 V	Title  Renewable Energy Technologies Renewable Energy Technologies Renewable Energy Technologies Online event: Will primarily take place onling remain blocked on campus for students to there.  Electrochemistry: Fundamentals, Cells & Applications Electrochemistry: Fundamentals, Cells & Applications Electrochemistry: Fundamental Toxicology General and Environmental Toxicology Online course: This course takes place on its meant for those students who want to for the campus.  s and Process Engineering Title Turbulent Flows Turbulent Flows	W me. Reset follow the W Application W line. The allow the o	4 credits  eved rooms will ecourse from  6 credits  6 credits  reserved room course from	Hours 3G 3 hrs 3V 3 hrs 7  Hours 2V+1U 2 hrs	Tue  Tue  Mon  Fri  Thu	12-13 14-17 09-12 09-12	HCI J7 HG G5 HPT C103 HCI J8	Lecturers  A. Steinfeld, E. I. M. Casati  L. Gubler  M. Arand, H. Nägeli  Lecturers  P. Jenny
►► Environ Number 151-0209-00L 151-0209-00 G 529-0659-00 G 529-0745-01 V  ►► System Number 151-0109-00 U 151-0109-00 U	Title  Renewable Energy Technologies Renewable Energy Technologies Renewable Energy Technologies Online event: Will primarily take place onling remain blocked on campus for students to there.  Electrochemistry: Fundamentals, Cells & Applications Electrochemistry: Fundamentals, Cells & Applications Electrochemistry: Fundamental Toxicology General and Environmental Toxicology General and Environmental Toxicology Online course: This course takes place on is meant for those students who want to for the campus.  s and Process Engineering Title Turbulent Flows Turbulent Flows Turbulent Flows	W  Type  W  Type	4 credits  eved rooms will eved roomse from  6 credits  6 credits  reserved room  course from  ECTS  4 credits	Hours 3G 3 hrs 3V 3 hrs 7  Hours 2V+1U 2 hrs 1 hrs	Tue  Mon  Fri	12-13 14-17 09-12 09-12	HCI J7  HG G5  HPT C103  HCI J8	Lecturers  A. Steinfeld, E. I. M. Casati  L. Gubler  M. Arand, H. Nägeli  Lecturers
►► Environ Number 151-0209-00L 151-0209-00 G 529-0659-00 G 529-0745-01 V  ►► System Number 151-0109-00 U 151-0109-00 U 529-0611-01L	Title  Renewable Energy Technologies Renewable Energy Technologies Renewable Energy Technologies Online event: Will primarily take place onling remain blocked on campus for students to there.  Electrochemistry: Fundamentals, Cells & Applications Electrochemistry: Fundamentals, Cells & Applications Electrochemistry: Fundamental Toxicology General and Environmental Toxicology Online course: This course takes place on its meant for those students who want to for the campus.  s and Process Engineering Title Turbulent Flows Turbulent Flows	W  Type  W  Wees	4 credits  eved rooms will e course from  6 credits  6 credits  reserved room course from  ECTS  4 credits  6 credits	Hours 3G 3 hrs 3V 3 hrs 7  Hours 2V+1U 2 hrs 1 hrs 4G 4 hrs	Tue  Tue  Mon  Fri  Thu	12-13 14-17 09-12 09-12	HCI J7 HG G5 HPT C103 HCI J8	Lecturers  A. Steinfeld, E. I. M. Casati  L. Gubler  M. Arand, H. Nägeli  Lecturers  P. Jenny P. Jenny
►► Environ Number 151-0209-00L 151-0209-00 G 529-0659-00 G 529-0659-01 V  ►► System Number 151-0109-00 V 151-0109-00 U 529-0611-01 G	Title  Renewable Energy Technologies Renewable Energy Technologies Renewable Energy Technologies Online event: Will primarily take place online remain blocked on campus for students to there.  Electrochemistry: Fundamentals, Cells & Applications Electrochemistry: Fundamentals, Cells & Applications Electrochemistry: Fundamental Toxicology General and Environmental Toxicology Online course: This course takes place on is meant for those students who want to for the campus.  s and Process Engineering Title Turbulent Flows Turbulent Flows Turbulent Flows Molecular Aspects of Catalysts and Surfaces Molecular Aspects of Catalysts and Surfaces Molecular Aspects of Catalysts and Surfaces In addition to the lecture, there will be an lad on some Mondays from 10-11. Students we	W  Type  W  Wees	4 credits  eved rooms will e course from  6 credits  6 credits  reserved room course from  ECTS  4 credits  6 credits	Hours 3G 3 hrs 3V 3 hrs 7  Hours 2V+1U 2 hrs 1 hrs 4G 4 hrs	Tue  Mon  Fri  Thu Thu Thu Thu	12-13 14-17 09-12 09-12 08-10 13-14	HCI J7  HG G5  HPT C103  HCI J8  ML E12 HG D7.1  HCI H2.1	Lecturers  A. Steinfeld, E. I. M. Casati  L. Gubler  M. Arand, H. Nägeli  Lecturers  P. Jenny
►► Environ Number 151-0209-00L 151-0209-00 G 529-0659-00 G 529-0659-01 V  ►► System Number 151-0109-00 U 151-0109-00 U 529-0611-01 G	Title  Renewable Energy Technologies Renewable Energy Technologies Renewable Energy Technologies Online event: Will primarily take place onling remain blocked on campus for students to there.  Electrochemistry: Fundamentals, Cells & Applications Electrochemistry: Fundamentals, Cells & Applications Electrochemistry: Fundamentals, Cells & Applications Electrochemistry: Fundamental Toxicology General and Environmental Toxicology Online course: This course takes place on is meant for those students who want to for the campus.  s and Process Engineering  Title  Turbulent Flows Turbulent Flows Turbulent Flows Molecular Aspects of Catalysts and Surfaces	W  Type  W  Wees	4 credits  eved rooms will e course from  6 credits  6 credits  reserved room course from  ECTS  4 credits  6 credits	Hours 3G 3 hrs 3V 3 hrs 7  Hours 2V+1U 2 hrs 1 hrs 4G 4 hrs	Tue  Mon  Fri  Thu Thu Thu Thu	12-13 14-17 09-12 09-12 08-10 13-14	HCI J7  HG G5  HPT C103  HCI J8  ML E12 HG D7.1  HCI H2.1	Lecturers  A. Steinfeld, E. I. M. Casati  L. Gubler  M. Arand, H. Nägeli  Lecturers  P. Jenny P. Jenny

529-0004-01 G	Classical Simulation of (Bio)Molecular Sys 2 hr lecture + 2 hr exercise session in our students can choose between two alternate either on Tuesdays 7:30-9:30 a.m. or on Ta.m.; the course was previously named Coremains the same, but the new title is mor	compute tive exerc Thursdays SCBP (th	cise sessions, s 7:45-9:45 ne content	4 hrs	Tue	10-12	HCI D2	<b>P. H. Hünenberger</b> , J. Dolend S. Riniker
327-0508-00L	Simulation Techniques in Materials	W	4 credits	2V+2U				
	Science							
227 0509 00 \/	Offered for the last time in HS 2021. Simulationstechniken in der Materialwisse	ncohoft		2 hrs	Mon	14-16	HCI D2	C. Ederer
	Simulationstechniken in der Materialwisse Simulationstechniken in der Materialwisse			2 hrs	Mon	16-18	HCI D2 HCI G3	C. Ederer C. Ederer
021 0000 00 0	Omidiation steel miner in der Material Wisse	iloonait		21113	27.09.		HCI D2	O. Eucloi
►► Econor	nics and Technology Managen	nent						
Number	Title	Туре	ECTS	Hours				Lecturers
63-0389-00L	Technology and Innovation Manageme	nt W	3 credits	2G				
363-0389-00 G	Technology and Innovation Management The lecture takes place in classroom, onlin recorded.	ne via zo	om and	2 hrs	Mon 27.09.	14-16 14-16	NO C60 HG D1.2	S. Brusoni, A. Zeijen
863-0565-00L	Principles of Macroeconomics	w	3 credits	2V				
363-0565-00 V	•	••	o orcano	2 hrs	Tue	16-18	ETA F5	JE. Sturm
	Di 16-18 im ETA F 5 mit Videoübertragung The lecture takes place in classroom, onlin zoom and recorded.	,					ETF E1	
63-0503-00L	Principles of Microeconomics	w	3 credits	2G				
	GESS (Science in Perspective): This lecture is for MSc students only. BSc students register for 363-1109-00L							
863-0503-00 G	Einführung in die Mikroökonomie. Principles of Microeconomics			2 hrs	Thu	18-20	HG F7	M. Filippini
003-0303-00 G	The lecture takes place in classroom, onling zoom and recorded.	ne via live	estreaming or	21115	mu	10-20	11017	w. т пррпп
►► Produc	ts and Materials							
lumber	Title	Type	ECTS	Hours				Lecturers
29-0619-01L	Chemical Product Design Prerequisites: Basic chemistry and chemical engineering knowledge (Diffusion Thermodynamics, Kinetics,).	<b>W</b> n,	6 credits	3G				
529-0619-01 G	Chemical Product Design Lecture: Thursday Exercice: Monday			3 hrs	Mon Thu	15-16 10-12	HPZ F31.1 HCI J3	W. J. Stark
►► Proces	s Design							
Number	Title	Туре	ECTS	Hours				Lecturers
29-0643-01L	Process Design and Development	w	6 credits	3G				
529-0643-01 G	Process Design and Development			3 hrs	Tue Wed	10-12 13-14	HCI D8 HCI H2.1	G. Guillén Gosálbez
29-0613-01L	Process Simulation and Flowsheeting	W	6 credits	3G				
529-0613-01 G	Process Simulation and Flowsheeting The module combines theory-based lecture practical lectures based on Aspen (Wedner		days) with	3 hrs	Mon Wed	10-13 14-18	HCI J4 HCI G174	G. Guillén Gosálbez
►► Catalys	is and Separation							
lumber	Title	Туре	ECTS	Hours				Lecturers
51-0927-00L	Rate-Controlled Separations in Fine	w	6 credits	3V+1U				
51-0927-00 V	Chemistry Rate-Controlled Separations in Fine Chem The class will be in a hybrid mode. The ex discussed and agreed upon with the stude week of the semester.	act moda		3 hrs	Thu	11-14	ML F34	M. Mazzotti, V. Becattini
51-0927-00 U		act moda		1 hrs	Thu	14-15	ML F34	M. Mazzotti, V. Becattini
5 <b>29-0617-01L</b> 529-0617-01 G	Catalysis Engineering Catalysis Engineering	W	6 credits	<b>3G</b> 3 hrs	Mon Thu	09-10 16-18	HCI J3 HCP E47.1	J. Pérez-Ramírez, S. J. Mitchell
GESS Sc	ience in Perspective							
	see GESS Science in Perspective: Language Courses ETH/UZH							
	see GESS Science in Perspective: Type A Enhancement of Reflection Capability	\ <i>:</i>						
	Recommended GESS Science in Perspective (Type B) for D-CHAB.							

# ► Course Units for Additional Admission Requirements

Number	Title	Type	ECTS	Hours		Lecturers
551-0016-AAL	Biology II Enrolment ONLY for MSc students with a decree declaring this course unit as an additional admission requirement.	E-	2 credits	4R		
	Any other students (e.g. incoming exchange students, doctoral students) CANNOT enrol for this course unit.					
551-0016-AA R	Biology II Self-study course. No presence required.			60s hrs		M. Stoffel
529-0051-AAL	Analytical Chemistry I Enrolment ONLY for MSc students with a decree declaring this course unit as an additional admission requirement.	E-	3 credits	6R		
	Any other students (e.g. incoming exchange students, doctoral students) CANNOT enrol for this course unit.					
	The underlying lecture (529-0051-00L) is offered in autumn semester but only in German.					
529-0051-AA R	Analytical Chemistry I Self-study course. No presence required.			90s hrs		D. Günther, R. Zenobi
551-0013-AAL	Biochemistry Enrolment ONLY for MSc students with a decree declaring this course unit as an additional admission requirement.	E-	2 credits	4R		
	Any other students (e.g. incoming exchange students, doctoral students) CANNOT enrol for this course unit.					
551-0013-AA R	Biochemistry Self-study course. No presence required.			60s hrs		R. Glockshuber
551-0103-AAL	Fundamentals of Biology II: Cell Biology Enrolment ONLY for MSc students with a decree declaring this course unit as an additional admission requirement.	E-	5 credits	11R		
	Any other students (e.g. incoming exchange students, doctoral students) CANNOT enrol for this course unit.					
551-0103-AA R	Fundamentals of Biology II: Cell Biology Self-study course. No presence required.			150s hrs		U. Kutay, Y. Barral, G. Schertler, U. Suter, S. Werner
Chemical and	Bioengineering Master - Key for Type					
0	Compulsory			E-	Recommended, not eligible f	or credits
	Eligible for credits and recommended			Z	Courses outside the curricula	
	Eligible for credits			Dr	Suitable for doctorate	
Key for Hours						
	lecture			P	practical/laboratory course	
	lecture with exercise			A	independent project	
	exercise			D	diploma thesis	
_	seminar			R	revision course / private stud	у
-	colloquium					

# **Chemical Engineering Bachelor**

### ▶ 1. Semester

## ▶▶ Compulsory Subjects First Year Examinations

Number	Title	Type	ECTS	Hours				Lecturers
529-0011-02L	General Chemistry (Inorganic Chemistry) I	0	3 credits	2V+1U				
	Allgemeine Chemie I (AC) Allgemeine Chemie I (AC) Groups are selected in myStudies. oder nach Vereinbarung			2 hrs 1 hrs	Tue Mon	08-10 08-09	HCI G3 HCI D2 HCI H2.1 HCI H8.1 HCI J8 HIT F31.2 HIT H42	A. Togni A. Togni
						10-11	HCI D4 HCI F2 HIL C10.2 HIT F31.2 HIT H42	
					Fri	11-12	HCI H8.1	
529-0011-03L	General Chemistry (Organic Chemistry)	0	3 credits	2V+1U	F.::	00.40	1101.07	D. Oharr
	Allgemeine Chemie I (OC) Allgemeine Chemie I (OC) Groups are selected in myStudies. oder nach Vereinbarung			2 hrs 1 hrs	Fri Mon	08-10 09-10	HCI G7 HCI D2 HCI J6 HIT F31.2 HIT H42	P. Chen P. Chen
						11-12	HIL B21 HIL C10.2 HIT F31.2 HIT H42	
					Tue	13-14	HIT J53	
529-0011-01L	General Chemistry (Physical Chemistry)	O	3 credits	2V+1U				
529-0011-01 V	Allgemeine Chemie I (PC)			2 hrs	Wed	10-12	HG G5	H. J. Wörner
529-0011-01 U	Allgemeine Chemie I (PC) Groups are selected in myStudies.			1 hrs	Thu	12-13	HCI F8 HCI J6 HIT F31.1 HIT J52	H. J. Wörner
						13-14	HCI F8	
					Fri	18-19 10-11	HCI D8 HCI D6 HCI D8 HCI E2 HCI E8 HCI F2 HIL B21 HIL D10.2 HIT K51	
						12-13	HPK D24.2 HCI E2 HCI E8 HCI F2	
					20.09.	13-14	HCP E47.2	
402-0043-00L	Physics I	0	4 credits	3V+1U				
402-0043-00 V	Physics I (Physik I)			3 hrs	Tue Thu	16-17 16-18	HPH G2 HPH G2	J. Home
402-0043-00 U				1 hrs	Tue	17-18	HCI D2	J. Home
	Di 17-18 für Studiengang Rechnergestützte Mi 9-10 (oder Di 17-18 als Ausweichtermin) Chemie bzw. Chemieingenieurwissenschaf	für Stud	diengänge				HIT F31.1 HIT H51 HIT J51	
	Interdisziplinäre Naturwissenschaften. Mi 12-13 für Studiengang Raumbezogene Ingenieurwissenschaften. Do 10-11 für Studiengang Biochemie.				Wed	09-10	CAB G52 HG E21 HG E22 HG E33.5 HG G26.3 ML H41.1 ML J34.1 ML J34.3	
					_	12-13	HG D3.2	
					Thu	10-11	HCI D6	
<b>401-0271-00L</b> 401-0271-00 V	<b>Mathematical Foundations I: Analysis A</b> Grundlagen der Mathematik I (Analysis A)	0	5 credits	<b>3V+2U</b> 3 hrs	Tue	10-12	HIL E1	L. Keller
401-0271-00 U	Grundlagen der Mathematik I (Analysis A) Groups are selected in myStudies.			2 hrs	Wed Mon	08-09 08-10	HG E5 HIL E7 HIT J51	L. Keller
	2. supe are serioted in my diddies.						HIT K51 HIT K52	
						10-12	HCI F8 HIT J51 HIT K51 HIT K52	

529-0001-00L	Introduction to Computer Science	0	4 credits	2V+2U				
529-0001-00 V	Informatik I			2 hrs	Thu	08-10	HIL E3	P. H. Hünenberger
529-0001-00 U	Informatik I			2 hrs	Tue	12-14	HCI D267.4 HIT F21	P. H. Hünenberger
						14-16	HCI D267.4 HIT F21	
					Thu	10-12	HCI D267.4 HIT F21	
						14-16	HCI D267.4 HIT F21	
					Fri	10-12	HCI D267.4 HIT F21	

### **▶▶** Laboratory Courses

Number	Title	Type	ECTS	Hours				Lecturers
529-0011-04L	Practical Course General Chemistry Latest online enrolment is 20.9.2021	0	8 credits	12P				
	Information about the practical course will be given on the first day.							
529-0011-04 P	Allgemeine Chemie (Praktikum) ■ Ferienpraktikum n. V. für Interdisziplinäre N kann alternativ nach dem 1. Semester oder Semesters besucht werden. Für PhysChem. Richtung prinzipiell auch Semesters. Ferienpraktikum n. V. Woche 1-4 8-18 Uhr	r währen während	d des 1.	12 hrs	Mon Wed Fri 24.09. 27.09. 13.10.	13-18 13-18 13-18 13-16 13-16 13-15	HCI HCI HCI HCI G3 HPH G1 HIL C10.2	H. V. Schönberg, E. C. Meister

### ▶ 3. Semester

### **▶▶** Examination Block I

Number	Title	Type	ECTS	Hours				Lecturers
529-0121-00L	Inorganic Chemistry I	0	3 credits	2V+1U				
529-0121-00 V	Anorganische Chemie I			2 hrs	Mon	08-10	HCI G3	<ul><li>H. Grützmacher,</li><li>P. Steinegger</li></ul>
529-0121-00 U	Anorganische Chemie I			1 hrs	Tue	12-13	HCI D2 HCI D8 HCI E8 HCI F2 HCI F8 HCI J8	H. Grützmacher, P. Steinegger
529-0221-00L	Organic Chemistry I	0	3 credits	2V+1U				
529-0221-00 V	Organische Chemie I			2 hrs	Wed	12-14	HCI G3	H. Wennemers
529-0221-00 U	Organische Chemie I Groups are selected in myStudies.			1 hrs	Mon	12-13	HCI D6 HCI E8 HCI F8 HCI H2.1 HCI J8	H. Wennemers
					Tue	08-09	HCI D8 HCI H2.1 HCI J3 HCI J8	
529-0422-00L	Physical Chemistry II: Chemical Reaction Kinetics	0	4 credits	3V+1U				
529-0422-00 V	Physikalische Chemie II: Chemische Rea	ktionskine	tik	3 hrs	Tue Fri	09-10 10-12	HCI J3 HCI G3	F. Merkt, U. Hollenstein
529-0422-00 U	Physikalische Chemie II: Chemische Rea Groups are selected in myStudies.	aktionskine	tik	1 hrs	Mon	08-09	HCI D4 HCI D6 HCI E2 HCP E47.2	F. Merkt, U. Hollenstein
					Tue	10-11	HCI D4 HCI D6 HCI E8 HCI F8	
						11-12	HCI D4 HCI D6 HCI E8	
529-0051-00L	Analytical Chemistry I	0	3 credits	3G				
529-0051-00 G	Analytische Chemie I			3 hrs	Wed Thu	08-10 08-09	HCI G3 HPH G2	D. Günther, MO. Ebert, G. Schwarz, R. Zenobi
401-0373-00L	Mathematics III: Partial Differential Equations	0	4 credits	2V+1U				
401-0373-00 V	Mathematics III: Partial Differential Equat			2 hrs	Thu	10-12	HCI J7	A. Carlotto
401-0373-00 U	Mathematics III: Partial Differential Equat Groups are selected in myStudies.	ions		1 hrs	Thu	09-10 12-13	HCI J7 HCP E47.1 HIT H51 HCP E47.2	A. Carlotto
▶▶ Laborat	ory Courses							

Number	Title	Type ECTS	Hours	Lecturers

529-0129-00L	Inorganic and Organic Chemistry II Latest online enrolment is one week before the beginning of the semester.	0	11 credits	16P				
529-0129-00 P	Inorganic and Organic Chemistry II			16 hrs	Mon	14-18	HCI H174 HCI H190.2 HCI H192.2 HCI H194.2 HCI H196.2 HCI H296.2	V. Mougel
					Tue	14-18	HCI H174 HCI H190.2 HCI H192.2 HCI H194.2 HCI H196.2 HCI H296.2	
					Thu	14-18	HCI H174 HCI H190.2 HCI H192.2 HCI H194.2 HCI H196.2 HCI H296.2	
					23.09. 24.09.	14-18 17-18 14-18	HCI H174 HCI H190.2 HCI H192.2 HCI H194.2 HCI H196.2 HCI H296.2 HCI J6 HCI G7	

### ▶ 5. Semester

### **▶▶** Compulsory Subjects

### ▶▶▶ Examination Block II

Number	Title	Type	ECTS	Hours				Lecturers
529-0557-00L	Chemical Engineering Thermodynamics	0	4 credits	3G				
529-0557-00 G	Chemical Engineering Thermodynamics			3 hrs	Wed	14-17	HCI H2.1	A. de Mello, S. Stavrakis
151-0917-00L	Mass Transfer	0	4 credits	2V+2U				
151-0917-00 V	Mass Transfer			2 hrs	Wed	10-12	ML H44	S. E. Pratsinis, V. Mavrantzas, CJ. Shih
151-0917-00 U	Mass Transfer The exercise will start in the 2nd week of the	ne Seme	ster.	2 hrs	Tue	14-16	HG E1.1	S. E. Pratsinis, V. Mavrantzas, CJ. Shih
529-0636-00L	Heat Transport and Fluid Dynamics	0	4 credits	4G				
529-0636-00 G	Wärmetransport und Strömungslehre ■			4 hrs	Mon	10-13	HG D5.2	A. A. Kubik
	Permission from lecturers required for all si Dienstag 16:00 - 18:00 Uhr findet alle zwei		n statt.		Tue/2w	16-18	HG E33.3	

### **▶▶▶** Examination Block III

Number	Title	Туре	ECTS	Hours				Lecturers
529-0632-00L	Homogeneous Reaction Engineering	0	4 credits	3G				
529-0632-00 G	Homogeneous Reaction Engineering			3 hrs	Tue Wed	10-12 13-14	HCI H8.1 HCI D8	P. Arosio
752-4001-00L	Microbiology	0	2 credits	2V				
752-4001-00 V	Mikrobiologie			2 hrs	Mon	08-10	ML D28	M. Ackermann, M. Schuppler, J. Vorholt-Zambelli
401-0675-00L	Statistical and Numerical Methods for Chemical Engineers	0	3 credits	2V+2U				
401-0675-00 V	Statistical and Numerical Methods for Chemi	ical En	gineers	2 hrs	Wed	08-10	HG E33.1	R. Käppeli, P. Müller, A. Ruf
401-0675-00 U	Statistical and Numerical Methods for Chemi	ical En	gineers	26s hrs	Tue	08-10	HCI H8.1	CJ. Shih, M. Sokolov
351-0778-00L	Discovering Management  Entry level course in management for BSc, MSc and PHD students at all levels not belonging to D-MTEC. This course can be complemented with Discovering Management (Excercises) 351-0778-01.	0	3 credits	3G				
351-0778-00 G	Discovering Management Diese Lehrveranstaltung wird ab dem HS 20 angeboten. The lecture takes place in classroom, online zoom and recorded.	•		3 hrs	Fri	08-11	HG E1.1	B. Clarysse, S. Brusoni, E. Fleisch, G. Grote, V. Hoffmann, T. Netland, Y. R. Shrestha, P. Tinguely, L. P. T. Vandeweghe

#### ▶▶▶ Examination Block IV

Offered in the Spring Semester.

#### **▶▶▶** Examination Block V

Offered in the Spring Semester.

### ▶▶ Laboratory Courses and Case Studies

Number	Title	Type ECTS	Hours	Lecturers

529-0549-01L	Case Studies in Process Design I	0	3 credits	3A				
	Case Studies in Process Design I This course does not take place on a week case study is carried out by the students in week", 25-29 October 2021. Besides, there introductory lectures to the project (before as follows: October 1/8/15/22 from 13-16.	a speci will be	fic "case study four	39s hrs		13-16 13-16	HPK D3 HPK D3	<b>G. Guillén Gosálbez</b> , J. Dolenc, U. Fischer
529-0639-01L	Chemical Engineering Laboratory	0	6 credits	8P				
529-0639-01 P	Chemieingenieurwesen BSc			8 hrs	Thu	09-12 14-18	HCI HCI	N. Kobert, R. Grass
					23.09.	09-12 13-17	HCI J4 HCI J6	
► GESS So	ience in Perspective							
▶► Science	e in Perspective							
	see GESS Science in Perspective: Type A. Enhancement of Reflection Capability	:						
	Recommended GESS Science in Perspective (Type B) for D-CHAB							
▶► Langua	ge Courses							
	see GESS Science in Perspective: Language Courses ETH/UZH							
Chemical Eng	ineering Bachelor - Key for Type							
E-	Recommended, not eligible for credits			0	C	ompulsory	/	
	Courses outside the curriculum			W+		Ü	credits and red	commended
Dr	Suitable for doctorate			W	EI	igible for	credits	
Key for Hours	<b>.</b>							
V	lecture			Р	pr	actical/lat	ooratory course	e
G	lecture with exercise			Α	in	depender	nt project	
-	exercise			D		ploma the		
S	seminar			R	re	vision col	urse / private s	study

#### ECTS European Credit Transfer and Accumulation System

colloquium

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# **Comparative and International Studies Master**

### **▶** Core Seminars

Number	Title	Туре	ECTS	Hours				Lecturers
857-0001-00L	Methods I: Research Design, Qualitative		6 credits	2U+2S				Lecturers
00. 000. 002	Methods, and Data Collection Only for MA Comparative and International Studies (MACIS).	J	o oround	20.20				
857-0001-00 U	, ,	s and Re	esearch	2 hrs	Thu	10-12	HG E33.5	S. Hegewald
857-0001-00 S	Methods I: Research Design, Qualitative Methods I: Research Design II	ethods, a	and Data	2 hrs	Wed	10-12	RZ F21	F. Schimmelfennig
857-0007-00L	<b>Democracy</b> Only for MA Comparative and International Studies.	W	8 credits	2\$				
857-0007-00 S				2 hrs	Mon	10-12	RZ F21	F. Schimmelfennig, D. Kübler
857-0009-00L	Political Violence Only for Comparative and International Studies MSc.	W	8 credits	2\$				
857-0009-00 S	Political Violence			2 hrs	Wed	14-16	IFW C33	LE. Cederman, G. D. Clayton
857-0091-00L	Methods II: Quantitative Methods Only for Comparative and International Studies MSc and UZH MA in Politics.	0	6 credits	2U+2S				
857-0091-00 U	Methods II: Tutorial ■			2 hrs	Tue	14-16	IFW B42	D. Hangartner, A. Alrababa'h
857-0091-00 S	Methods II: Quantitative Methods ■			2 hrs	Mon	14-16	IFW D42	D. Hangartner
► Research	n Seminars							
Number	Title	Туре	ECTS	Hours				Lecturers
857-0103-00L	Topics in Public Policy: Governing the Energy Transition Only for MA Comparative and International Studies.	W	8 credits	2V+3S				
851-0609-06 V	Governing the Energy Transition			2 hrs	Thu	16-18	NO C60	T. Schmidt, N. Schmid, S. Sewerin
857-0103-00 S	Topics in Public Policy: Governing the Ener Students have to attend the seminar 'Governansition' 851-0609-06 on Thursdays, 16-Meeting dates for the research paper will be seminar.	rning the 18, HG	Energy E 21.	3 hrs				S. Sewerin, N. Schmid, T. Schmidt
857-0104-00L	Topics in Public Policy: The Politics and Policies of International Migration Number of participants limited to 18. MACIS students are given priority.	W	8 credits	38				
857-0104-00 S	Topics in Public Policy: The Politics and Po Migration	licies of	International	3 hrs	Thu	14-16	IFW E42	D. Hangartner
857-0052-00L	Comparative and International Political Economy Number of participants limited to 15. MACIS students are given priority. Registration required to koubi@ir.gess.ethz.ch Comparative and International Political Eco		8 credits	<b>2S</b> 2 hrs	Thu	10-12	IFW E42	V. Koubi
857-0098-00L	The Politics of Cybersecurity	W	8 credits	2S		10-12	II VV L+2	V. ROUDI
857-0008-00 S	Number of participants limited to 15.  MACIS students are given priority.  The Politics of Cybersecurity ■			2 hrs	Tue	14-16	IFW E42	M. Dunn Cavelty, M. Leese
	· · ·	141	<b>0</b> II'		rue	14-10	1FVV E42	w. Dulin Cavelly, W. Leese
857-0106-00L	International Environmental Politics (with Research Paper) Only for MA Comparative and International Studies.	W	8 credits	2V+3S				
860-0023-00 V 857-0106-00 S	International Environmental Politics International Environmental Politics (with Rostudents have to attend the lecture 'Interna Politics' 860-0023-00L' on Monday, 16 - 18, Meeting dates for the research paper upon Thomas Bernauer or Prof. Vally Koubi.	tional Er HG F 3	nvironmental I.	2 hrs 3 hrs	Mon	16-18	HG F3	T. Bernauer T. Bernauer, V. Koubi
► Electives	<b>.</b>							
Number	Title	Туре	ECTS	Hours				Lecturers
860-0023-00L	International Environmental Politics Particularly suitable for students of D-ITET, D-USYS	W	3 credits	2V				
860-0023-00 V	International Environmental Politics			2 hrs	Mon	16-18	HG F3	T. Bernauer
857-0027-00L	International Organizations (Field Trip) Only for Comparative and International	W	2 credits	1S				

857-0027-00 S	Studies MSc. International Organizations Field trip to Geneva.			20s hrs				D. Hangartner
851-0609-06L	Governing the Energy Transition Primarily suited for Master and PhD level.	W	2 credits	2V				
851-0609-06 V	Governing the Energy Transition			2 hrs	Thu	16-18	NO C60	<b>T. Schmidt</b> , N. Schmid, S. Sewerin
865-0064-00L	Decolonizing Aid Only for MAS/CAS in Development and Cooperation students, as well as specialists with at least 24 months of practical experience in international cooperation. Doctoral students dealing with empirical research in the area of development and cooperation (EZA) may be admitted "sur Dossier".	W	2 credits	3 <b>G</b>				
365-0064-00 G	Registration only through the NADEL administration office.  Decolonizing Aid			40s hrs				K. Schneider, L. Hensgen
700 000+ 00 <b>C</b>	Block course from 01.11 05.11.2021 Location: CLD A1			400 1110				rt. Commencer, E. Heriogen
865-0070-00L	The Private Sector and Development Organizations: Building Successful Alliances Only for MAS/CAS in Development and Cooperation students, as well as specialists with at least 24 months of practical experience in international cooperation. Doctoral students dealing with empirical research in the area of development and cooperation (EZA) may be admitted "sur Dossier".	W	1 credit	2G				
	Registration only through the NADEL administration office.							
365-0070-00 G	The Private Sector and Development Organ Successful Alliances  Block course from 15.11. – 17.11.2021  Location: CLD A1	izations	: Building	24s hrs				F. Brugger
► Master's	Thesis							
Number	Title	Туре	ECTS	Hours				Lecturers
857-0019-00L	Master's Thesis Colloquium Only for Comparative and International Studies MSc.	0	4 credits	3K				
357-0019-00 K	Permission to begin master thesis is required to take part in Colloquium.  Master's Thesis Colloquium  Permission from lecturers required for all stu- **together with University of Zurich**	udents		3 hrs				J. Spirig
857-0021-00L	Master's Thesis Only students who fulfill the following criteria are allowed to begin with their master thesis: a. successful completion of the bachelor programme; b. fulfilling of any additional requirements necessary to gain admission to the master programme.	0	26 credit	s 56D				
857-0021-00 D	Master's Thesis ■			780s hrs	by app	ot.		Professors
Comparative	and International Studies Master - Key f	or Type	<b>e</b>					
•	Compulsory			E-	F	Recommen	ded, not eligible	for credits
N+	Eligible for credits and recommended			Z	C	Courses ou	tside the curricu	lum
N	Eligible for credits			Dr	S	Suitable for	doctorate	
Key for Hours	s							
/	lecture			Р	р	ractical/lab	oratory course	
3	lecture with exercise			Α	ir	ndepender	t project	
•								

ECTS European Credit Transfer and Accumulation System

seminar

colloquium

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Special students and auditors need special permission from the lecturers.

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revision course / private study

### **Computational Biology and Bioinformatics Master**

More information at: https://www.cbb.ethz.ch/

#### **▶** Core Courses

Please note that the list of core courses is a closed list. Other courses cannot be added to the core course category in the study plan. Also the assignments of courses to core subcategories cannot be changed.

Students need to pass at least one course in each core subcategory.

A total of 40 ECTS needs to be acquired in the core course category.

#### **▶▶** Bioinformatics

Please note that all Bioinformatics core courses are offered in the autumn semester

Number	Title	Type	ECTS	Hours				Lecturers
36-0009-00L	<b>Evolutionary Dynamics</b>	w	6 credits	2V+1U+	2A			
636-0009-00 V	Evolutionary Dynamics Attention: lecture starts on Thursday, 30 S	ep 2021		2 hrs	Thu	09-11	BSA E46 HG D16.2	N. Beerenwinkel
	Online lecture: This lecture will primarily to Reserved rooms will remain blocked for st course from there.							
636-0009-00 U	Evolutionary Dynamics Online: Will primarily take place online. Re remain blocked on campus for students to there			1 hrs	Thu	11-12	BSA E46 HG D16.2	N. Beerenwinkel
636-0009-00 A	Evolutionary Dynamics Project Work (compulsory continuous perf no fixed presence required.	ormance	assessment),	2 hrs				N. Beerenwinkel
636-0017-00L	Computational Biology	w	6 credits	3G+2A				
636-0017-00 G	Computational Biology The lecture will be held each Monday (16- Basel and will be transmitted via videocon			3 hrs <i>r</i>	Mon	16-18 18-19	BSA E46 HG D16.2 HG D16.2	T. Vaughan
	Iocation. Tutorials will happen in both loca Tutorials in Zürich: Monday 18-19h (HG D Tutorials in Basel: Thursday 12-13h (BSA Lecture on Monday and the Tutorial on Th available for participation via Zoom. ATTENTION: Lecture starts on Monday, 2 Basel on Thursday 30.09	tions. 16.2) E 46) ursday w	ill also be		Thu	12-13	BSA E46	
636-0017-00 A	Computational Biology Project Work (compulsory continuous perf no fixed presence required.	ormance	assessments	2 hrs ),				T. Vaughan
262-6100-00L	<b>Evolutionary Genetics</b>	W	4 credits	3G				
262-6100-00 G	Evolutionary Genetics (University of Basel **Course at University of Basel** Students need to also register with the Uncourse! https://vorlesungsverzeichnis.unibas.ch/er71	iversity o						external organisers
262-6110-00L	Bioinformatics Algorithms	W	4 credits	3G				
262-6110-00 G	Bioinformatics Algorithms (University of Basel**  **Course at University of Basel**  Students need to also register with the Uncourse!  https://vorlesungsverzeichnis.unibas.ch/er  73	iversity o						external organisers
401-6282-00L	Statistical Analysis of High-Throughput Genomic and Transcriptomic Data (University of Zurich) No enrolment to this course at ETH Zurich Book the corresponding module directly at UZH as an incoming student. UZH Module Code: STA426	ı.	5 credits	3G				
	Mind the enrolment deadlines at UZH: https://www.uzh.ch/cmsssl/en/studies/app cation/deadlines.html	li						
401-6282-00 G	Statistical Analysis of High-Throughput Ge Transcriptomic Data (University of Zurich) **Course at University of Zurich**	nomic ar	nd	3 hrs	Mon	09-12	UNI ZH.	H. Rehrauer, M. Robinson
▶▶ Biophys	sics							
Number	Title	Type	ECTS	Hours				Lecturers

Number	Title	Type	ECTS	Hours	Lecturers
262-6106-00L	Current Topics in Biophysics	W	6 credits	3G	
262-6106-00 G	Current Topics in Biophysics (University of **Course at the University of Basel** Course Autumn Semester 2021! Students need to also register with the University of Basel** The first lecture will be on September 27 at https://vorlesungsverzeichnis.unibas.ch/en/	e will be versity o : 10:15ai	held online ir f Basel for this m		external organisers
636-0104-00L	Biophysical Methods	W	4 credits	3G	

636-0104-00 G	Biophysical Methods Attention: Lecture starts on Wednesday, September 29 This lecture will take place in classroom in Basel.	3 hrs	Wed	10-13	BSA E46	D. J. Müller
529-0004-01L	Classical Simulation of (Bio)Molecular W 6 credits Systems	4G				
529-0004-01 G	Classical Simulation of (Bio)Molecular Systems 2 hr lecture + 2 hr exercise session in our computer room; the students can choose between two alternative exercise sessions, either on Tuesdays 7:30-9:30 a.m. or on Thursdays 7:45-9:45 a.m.; the course was previously named CSCBP (the content remains the same, but the new title is more adequate)	4 hrs	Tue	10-12	HCI D2	P. H. Hünenberger, J. Dolenc, S. Riniker

▶▶ Biosyst	ems							
Number	Title Ty	ре	ECTS	Hours				Lecturers
<b>636-0007-00L</b> 636-0007-00 V	Computational Systems Biology Computational Systems Biology Lecture: "inverted classroom". Students are exp lecture videos provided ahead of a Zoom Q&A s held every Wednesday 16:15-17:00. Tutorials on Fridays 10:15-12:00 will be held via In addition, students can sign up for Q&A sessic small groups (max. 30). They will be offered on Wednesdays 15:15-16:00 in the lecture room HG D 3.2. For o scheduling, see the course Moodle.	sessi a Zoo ons ir seled	on that will be m. n presence in cted		Wed	14-17	HG D3.2	J. Stelling
636-0007-00 U	Computational Systems Biology Tutorials on Fridays 10:15-12:00 will be held via	a Zoo	m.	2 hrs	Fri	10-12	HG D1.2	J. Stelling
	Spatio-Temporal Modelling in Biology The lecture course will be offered as "inverted of Lecture videos, slides, and scripts will be made Moodle, and students are expected to watch the lecture. The 45-minute in person lecture time answer student question where necessary, and application examples with students to deepen the of the material. Similarly, problem sheets and somade available ahead of the tutorial. The tutorial address further questions. As students from both Zurich participate in the course, lectures and tutoffered in alternating weeks in Basel and Zurich participation is always possible. It is a new form Feedback will be most welcome. Thursday 10-11 Q&A Lecture (BS) Thursday 11-12 Tutorial (BS) Friday 11-13 Tutorial (ZH) Friday 12-13 Tutorial (ZH) Course starts: Friday, Sept. 24 in ZH	availe vide le ser le ser le to di heir u olutio als se th Ba torials	lable via leos ahead of leos ahead of leos to scuss leos sinderstanding leos will be leos and		Thu Fri	10-11 11-12 11-12 12-13	BSD G207.1 BSD G207.1 HG D16.2 HG D16.2	D. Iber
<b>636-0117-00L</b> 636-0117-00 G	Mathematical Modelling for Bioengineering and Systems Biology  Mathematical Modelling for Bioengineering and The lecture course will be offered as "inverted of Lecture videos, slides, and scripts will be made Moodle, and students are expected to watch the the lecture. The 45-minute in person lecture time answer student question where necessary, and application examples with students to deepen the of the material. Similarly, problem sheets and some advailable ahead of the tutorial. The tutorial address further questions. As students from both Zurich participate in the course, lectures and tutoffered in alternating weeks in Basel and Zurich participation is always possible. It is a new form Feedback will be most welcome.  Thursday 9-10 Q&A Lecture (BS)  Friday 9-10 Tutorial (ZH)  Friday 10-11 Q&A Lecture (ZH)  Course starts: Thursday, Sept. 30 2021 in BS	classr availe e vide le ser to di heir u olutio als se th Ba torials	oom".  lable via eos ahead of eves to scuss understanding ens will be eve to sel and s will be mote	3G 3 hrs	Thu Fri	08-09 09-10 09-10 10-11	BSD G205 BSD G205 HG D16.2 HG D16.2	D. Iber

### ▶▶ Data Science

PP Data St	rence							
Number	Title	Туре	ECTS	Hours				Lecturers
636-0018-00L	Data Mining I	W	6 credits	3G+2A				
636-0018-00 G	Data Mining I Tutorial: 8-9h, Lecture: 9-11h. ATTENTION: Course starts on Wednes	day, Sept. 2	29	3 hrs	Wed	08-11	BSD G205 HG D16.2	K. M. Borgwardt
	The course will be held via Zoom (not in and tutorials will be recorded. Online event: This event will primarily ta rooms will remain blocked on campus for course from there.	ke place or	nline. Reserve					

636-0018-00 A	Data Mining I Project Work (compulsory continuous performance assessmo fixed presence required.	2 hrs			K. M. Borgwardt		
252-0535-00L	Advanced Machine Learning W 10 cre	dits	3V+2U+	4A			
252-0535-00 V	Advanced Machine Learning Freitag 8-10 HG F1 mit Videoübertragung ins HG F3		3 hrs	Thu	15-16	ETA F5 ETF E1	<b>J. M. Buhmann</b> , C. Cotrini Jimenez
	Donnerstag 15-16 ETA F 5 mit Videoübertragung ins ETF E	1		Fri	08-10	HG F1 HG F3	
252-0535-00 U	Advanced Machine Learning		2 hrs	Wed	14-16 16-18	CAB G61 CAB G61	J. M. Buhmann, C. Cotrini Jimenez
				Thu Fri	16-18 14-16	ML F34 CAB G61	
252-0535-00 A	Advanced Machine Learning Project Work, no fixed presence required.		4 hrs				<b>J. M. Buhmann</b> , C. Cotrini Jimenez

#### ► Seminar

Compulsory seminar.

Number	Title	Туре	ECTS	Hours				Lecturers
636-0704-00L	Computational Biology and Bioinformatics Seminar Number of participants limited to 30 The seminar is addressed primarily at students enrolled in the MSc CBB programme. Students of other ETH study programmes interested in this course need to ask the lecturer for permission to enrol in the course.	0	2 credits	2\$				
	The Seminar will be offered in autumn semester in Basel (involving professors and lecturers from the University of Basel) and in spring semester in Zurich (involving professors and lecturers from the University of Zurich). Professors and lecturers from ETH Zurich are involved in both semesters.							
636-0704-00 S	Computational Biology and Bioinformatics S ATTENTION: Lecture starts on Thursday, S This seminar will take place online via Zoom	ept. 30		2 hrs	Thu	14-16	BSD G205	N. Beerenwinkel, K. M. Borgwardt, D. Iber, M. H. Khammash, J. Stelling

#### ► Advanced Courses

A total of 30 ECTS needs to be acquired in the Advanced Courses category. Thereof at least 16 ECTS in the Theory and at least 10 ECTS in the Biology category.

Note that some of the lectures are being recorded: https://video.ethz.ch/lectures.html

#### **▶▶** Theory

At least 18 ECTS need to be acquired in this category.

Number	Title	Type E	ECTS	Hours		Lecturers		
401-0663-00L	Numerical Methods for Computer Science	W	7 credits	2V+2U+	2P			
401-0663-00 V	Numerical Methods for Computer Science This course is designed in a flipped classrovideo tutorials and supplemented by a wee and-answer session, for which attendance recommended.	kly ques	tion-	2 hrs	Thu	10-12	HG F1	R. Hiptmair
401-0663-00 U Numerical Methods for Computer Science Groups are selected in myStudies. Mon 10-12 or Mon 14-16 according to exerc		cise gro	up allocation.	2 hrs	Mon	10-12	CLA E4 LFW E13 ML H41.1 ML J34.1 ML J34.3 HG E33.3 LEE D105 LFW B3 LFW C5 ML F40	R. Hiptmair
401-0663-00 P	Numerical Methods for Computer Science Self-study based on video tutorial and lectu	ıre notes		2 hrs				R. Hiptmair
263-5210-00L	Probabilistic Artificial Intelligence	W	8 credits	3V+2U+	2A			
263-5210-00 V	Probabilistic Artificial Intelligence Fr 10-12 und 13-14 im ETA F5 mit Videoü	bertragu	ng ins ETF E	3 hrs	Fri	10-12 13-14	ETA F5 ETF E1 ETA F5 ETF E1	A. Krause
263-5210-00 U	Probabilistic Artificial Intelligence Q&A session: Monday, 17-18, via zoom			2 hrs	Thu	16-18	CHN C14	A. Krause
263-5210-00 A	Probabilistic Artificial Intelligence			2 hrs				A. Krause
401-0647-00L	Introduction to Mathematical Optimization	W	5 credits	2V+1U				
401-0647-00 V	Introduction to Mathematical Optimization			2 hrs	Tue	16-18	HG F5	D. Adjiashvili
401-0647-00 U	Introduction to Mathematical Optimization Groups are selected in myStudies. Wed 12-13 or Wed 16-17			1 hrs	Wed	12-13 16-17	HG D1.2 IFW A36 ON LINE	D. Adjiashvili

	Linear System Theory Linear System Theory	w	6 credits	<b>5G</b> 5 hrs	Mon Wed	09-12 10-12	IFW A36 ETZ E6	A. lannelli
					22.09.	10-12	HG D1.1	
<b>151-0575-01L</b> 151-0575-01 V		W	4 credits	<b>2V+2U</b> 2 hrs	Thu	14-16	ETF C1	A. Carron
151-0575-01 U	The lecture will start in the 2nd week of the Signals and Systems The exercise will start in the 3rd week of the			2 hrs	Thu	16-18	ETF C1	A. Carron
252-0237-00L		W	8 credits	3V+2U+	2A			
	Programming							
252-0237-00 V	Concepts of Object-Oriented Programming Online lecture: This lecture will take place or will remain blocked on campus for students from there.			3 hrs s	Thu	09-12	HG E1.1	P. Müller
252-0237-00 U	Concepts of Object-Oriented Programming			2 hrs	Fri	08-10	CAB G57	P. Müller
						10-12	CHN D42 CAB G57 CHN D42 CHN D44	
252-0237-00 A	Concepts of Object-Oriented Programming			2 hrs			•	P. Müller
262-6140-00L	Random Processes: Theory and Applications from Physics to Finance	W	4 credits	3G				
262-6140-00 G	Random Processes: Theory and Application Finance (University of Basel) **Course at University of Basel** Students need to also register with the University of Basel**		•	3 hrs				external organisers
	course! https://vorlesungsverzeichnis.unibas.ch/en/ii 83							
262-6150-00L	Programming for Life Sciences	W	4 credits	2P				
262-6150-00 P	**Course at University of Basel** Students need to also register with the University	•	•	2 hrs				external organisers
	course! https://vorlesungsverzeichnis.unibas.ch/en/ii 18	nvestiga	ation?id=2592					
636-0015-00L	An Introduction to Probability Theory and Stochastic Processes with Applications to Biology	W	4 credits	3G				
636-0015-00 G	An Introduction to Probability Theory and Stewith Applications to Biology Online lecture: This lecture will primarily take Reserved rooms will remain blocked for stud course from there.	e place	online.	3 hrs	Mon	11-12 14-16	BSD G205 BSD G205	A. Gupta
263-3010-00L	Big Data	w	10 credits	3V+2U+	4A			
263-3010-00 V	Big Data Online lecture: This lecture will primarily take Reserved rooms will remain blocked on carr follow the course from there.			3 hrs	Tue Wed	14-16 09-10	CAB G61 ML H44	G. Fourny
263-3010-00 U	Big Data Groups are selected in myStudies.			2 hrs	Wed	14-16	CAB G52 HG E33.1 HG G26.1	G. Fourny
					Fri	14-16	ON LINE CAB G52 ON LINE	
263-3010-00 A	Big Data Individual work to get hands-on experience covered, no fixed presence required.	with the	e technologies	4 hrs				G. Fourny
261-5112-00L	Algorithms and Data Structures for Population Scale Genomics  Number of participants limited to 30.	W	3 credits	2G				
261-5112-00 G	Algorithms and Data Structures for Population Does not take place this semester.  Course will be offered again in FS 2022.	on Scal	e Genomics	2 hrs				to be announced
252-0834-00L	Information Systems for Engineers	w	4 credits	2V+1U				
252-0834-00 V	Information Systems for Engineers Online lecture: This lecture will primarily take Reserved rooms will remain blocked on cam follow the course from there.			2 hrs	Fri	14-16	HG E5	G. Fourny
	Information Systems for Engineers Groups are selected in myStudies.			1 hrs	Fri	16-17	CAB G52 CAB G56 CAB G57 CAB G59 ON LINE ON LINE	G. Fourny
<b>▶▶</b> Biology	7							

### **▶▶** Biology

At least 12 ECTS need to be acquired in this category.

Number	Title	Туре	ECTS	Hours				Lecturers
529-0733-01L	Enzymes	W	6 credits	3G				<b>-</b>
529-0733-01 G	Enzymes Lecture 2 hours on Monday, 09:45 - 11:30. 1 hour exercise Monday or Tuesday from s	ocond w	yeek on -	3 hrs	Mon Tue	09-10 10-12 12-13	HCI H8.1 HCI J6 HCI H2.1	D. Hilvert
	according to agreement.	econa w	eek on -		rue	12-13	потпал	
551-0309-00L	Concepts in Modern Genetics Information for UZH students: Enrolment to this course unit only possible at ETH. No enrolment to module BIO348 at UZH.	w	6 credits	4V				
551-0309-00 V				4 hrs	Mon	12-14	HG E5	<b>Y. Barral</b> , D. Bopp, A. Hajnal,
	**gemeinsam mit der Universität Zürich**				Tue	08-10	I15 G60	O. Voinnet
<b>551-0313-00L</b> 551-0313-00 V	Microbiology (Part I) Microbiology (Part I)	W	3 credits	<b>2V</b> 2 hrs	Mon	10-12	HCI G7	<b>WD. Hardt</b> , L. Eberl, J. Piel, M. Pilhofer
<b>551-0317-00L</b> 551-0317-00 V	Immunology I Immunology I	W	3 credits	2V 2 hrs	Tue	08-10	HG G3	M. Kopf, A. Oxenius
636-0105-00L	Introduction to Biological Computers	w	4 credits	3G				· /
	Introduction to Biological Computers Attention: Lecture starts on Friday, Oct. 1 This lecture will take place in classroom in a participate via Zoom will be offered.			3 hrs	Fri	14-17	BSA E46 HIT F22	Y. Benenson
636-0510-00L	Proteomics and Drug Discovery Research	W	2 credits	2V				
636-0510-00 V	Proteomics and Drug Discovery Research ( **Course at University of Basel** This course will not be offered in Autumn S		,	2 hrs				external organisers
<b>636-0511-00L</b> 636-0511-00 V	Developmental Neuroscience  Developmental Neuroscience (University of **Course at University of Basel**  Students need to also register with the University of the University of Students need to also register with the University of Students need to also register wi	ersity o		2V 2 hrs				external organisers
636-0515-00L	Molecular Medicine I	w	2 credits	2V				
636-0515-00 V	Molecular Medicine I (Universitty of Basel) **Course at University of Basel** Students need to also register with the University course! https://vorlesungsverzeichnis.unibas.ch/de/			2 hrs				external organisers
<b>262-6170-00L</b> 262-6170-00 V	Molecular Mechanisms of Development Molecular Mechanisms of Development (Ur **Course at University of Basel** Students need to also register with the Univ course! https://vorlesungsverzeichnis.unibas.ch/en/ 30	niversity versity o	f Basel for this	2V 2 hrs				external organisers
262-6180-00L	Molecular Control of Vertebrate Development and Organogenesis	W	2 credits	2V				
262-6180-00 V		ent and (	Organogenesis	2 hrs				external organisers
262-5130-00L	Evolutionary Medicine: Ancient pathogens and pathologies (University of Zurich) No enrolment to this course at ETH Zurich. Book the corresponding module directly at UZH as an incoming student. UZH Module Code: BIO440	W	6 credits	5G				
262-5130-00 G	Mind the enrolment deadlines at UZH: https://www.uzh.ch/cmsssl/en/studies/appli cation/deadlines.html Evolutionary Medicine: Ancient pathogens a		eginolog	5 hrs				University lecturers
_02 0100-00 G	(University of Zurich) **Course at University of Zurich**	and Pall	lologies	0 1113				omvoloky leokaleis
262-6101-00L	Antibiotic Drug Targets and Resistance	w	1 credit	1V				

262-6101-00 V	Antibiotic Drug Targets and Resistance (Uni Does not take place this semester. **Course at University of Base!**	versity o	of Basel)	1 hrs				external organisers
262-6102-00L	Functional Organization of the Cell Nucleus	W	2 credits	2V				
262-6102-00 V	Functional Organization of the Cell Nucleus Does not take place this semester. **Course at University of Basel**	(Univers	sity of Basel)	2 hrs				external organisers
262-6103-00L	Cellular Signalling	W	2 credits	2V				
262-6103-00 V	Cellular Signalling (University of Basel) Does not take place this semester.  **Course at University of Basel**			2 hrs				external organisers
262-6105-00L	Frontiers in RNA Biology	W	2 credits	2V				
262-6105-00 V	Frontiers in RNA Biology (University of Base **Course at University of Basel** Students need to also register with the University course! https://vorlesungsverzeichnis.unibas.ch/en/ii 56	ersity of		2 hrs				external organisers
636-0109-00L	Stem Cells: Biology and Therapeutic Manipulation	W	4 credits	3G				
636-0109-00 G	Stem Cells: Biology and Therapeutic Manipu Does not take place this semester. This lecture will not be held in Autumn Seme offered again in Autumn Semester 2022.		21. It will be	3 hrs				T. Schroeder
636-0108-00L	Biological Engineering and Biotechnology	W	4 credits	3V				
636-0108-00 V	Biological Engineering and Biotechnology Takes place at the D-BSSE in Basel and is a conference to Zürich (HG D16.2). Attention: Lecture starts on Wednesday, Se			3 hrs	Wed	13-16	BSA E46 HG D16.2	M. Fussenegger
262-5120-00L	Principles of Evolution: Theory (University of Zurich) No enrolment to this course at ETH Zurich. Book the corresponding module directly at UZH as an incoming student. UZH Module Code: BIO351	W	6 credits	3V				
	Mind the enrolment deadlines at UZH: https://www.uzh.ch/cmsssl/en/studies/appli cation/deadlines.html							
262-5120-00 V	Principles of Evolution: Theory (University of **Course at University of Zurich**	f Zurich)		40s hrs				University lecturers
551-0307-00L	Molecular and Structural Biology I: Protein Structure and Function D-BIOL students are obliged to take part I and part II (next semester) as a two- semester course	W	3 credits	2V				
551-0307-00 V	Molecular and Structural Biology I: Protein S	Structure	and Function	2 hrs	Mon	14-16	HCI J7	R. Glockshuber, K. Locher, E. Weber-Ban
262-6107-00L	Applied Mathematics and Informatics in Drug Discovery	W	2 credits	2G				
262-6107-00 G	Applied Mathematics and Informatics in Drug (University of Basel) **Course at University of Basel** Students need to also register with the University of Basel* https://vorlesungsverzeichnis.unibas.ch/en/ii	ersity of	Basel for this	2 hrs				external organisers

#### ► Lab Rotations

Students starting before Autumn Semester 2021:
18 ECTS in total (262-01\*).
At least two lab rotations need to be completed in two different research groups (supervisors).
Either choose Lab Rotation Short 1 (6 ECTS), Lab Rotation Short 2 (6 ECTS) and Lab Rotation Short 3 (6 ECTS)
Or choose Lab Rotation Long 1 (9 ECTS) and Lab Rotation Long 2 (9 ECTS)
Or choose Lab Rotation Short 1 (6 ECTS) and Industry Internship (12 ECTS)
Or choose Lab Rotation Short 1 (6 ECTS) and Lab Rotation Long 3 (12 ECTS)

Students starting in Autumn Semester 2021 or later:

18 ECTS in total (262-03\*).

At least one lab rotation in different group/ supervisor than master's thesis.

Either choose Lab Rotation Short 1 and Lab Rotation Short 2 (each 6 weeks, 9 ECTS)

Or choose lab Rotation Short 1 and Industry Internship Short (each 6 weeks, 9 ECTS)

Or choose Lab Rotation Long (12 weeks, 18 ECTS)

Or choose Industry Internship Long (12 weeks, 18 ECTS)

Number	Title	Туре	ECTS	Hours	Lecturers
262-0100-00L	Lab Rotation Short 1	W	6 credits	13A	
262-0100-00 A	Lab Rotation Short 1 ■			180s hrs	Lecturers
262-0101-00L	Lab Rotation Short 2	W	6 credits	13A	

262-0101-00 A	Lab Rotation Short 2 ■			180s hrs	Lecturers
262-0102-00L	Lab Rotation Short 3	W	6 credits	13A	
	Lab Rotation Short 3 ■			180s hrs	Lecturers
<b>262-0103-00L</b> 262-0103-00 A	Lab Rotation Long 1 Lab Rotation Long 1 ■	W	9 credits	<b>19A</b> 270s hrs	Lecturers
	Lab Rotation Long 2 Lab Rotation Long 2 ■	W	9 credits	<b>19A</b> 270s hrs	Lecturers
<b>262-0105-00L</b> 262-0105-00 A	Industry Internship Industry Internship ■	W	12 credits	<b>26A</b> 360s hrs	Lecturers
	Lab Rotation Long 3 Lab Rotation Long 3 ■	W	12 credits	<b>26A</b> 360s hrs	Lecturers
<b>262-0300-00L</b> 262-0300-00 A	Lab Rotation Short 1 Lab Rotation Short 1	W	9 credits	<b>17A</b> 240s hrs	Lecturers
<b>262-0301-00L</b> 262-0301-00 A	Lab Rotation Short 2 Lab Rotation Short 2	W	9 credits	<b>17A</b> 240s hrs	Lecturers
<b>262-0303-00L</b> 262-0303-00 A	Lab Rotation Long Lab Rotation Long	W	18 credits	<b>34A</b> 480s hrs	Lecturers
262-0302-00L	Industry Internship Short Industry Internship Short	W	9 credits	17A 240s hrs	Lecturers
262-0304-00L	Industry Internship Long Industry Internship Long	W	18 credits	34A 480s hrs	Lecturers
	cience in Perspective			1000 1110	Lookaroro
- 0200 00	see GESS Science in Perspective: Language Courses ETH/UZH				
	see GESS Science in Perspective: Type A: Enhancement of Reflection Capability				
	Recommended GESS Science in Perspective (Type B) for D-INFK.				
► Master's	Thesis				
Number	Title	Туре	ECTS	Hours	Lecturers
	Only students who fulfill the following criteria are allowed to begin with their master thesis: a. successful completion of the bachelor programme; b. fulfilling of any additional requirements necessary to gain admission to the master programme.				
262-0800-00 D	Master's Thesis ■			900s hrs by appt.	Professors
	Jnits for Additional Admission Fourses below are only available for MSc stude	-		vuiremente	
Number	Title	Type		Hours	Lecturers
252-0002-AAL		E-	8 credits	15R	255141-515
	Any other students (e.g. incoming exchange students, doctoral students) CANNOT enrol for this course unit.				
252-0002-AA R	Data Structures and Algorithms Self-study course. No presence required.			210s hrs	F. O. Friedrich Wicker
252-0856-AAL	Computer Science Enrolment ONLY for MSc students with a decree declaring this course unit as an additional admission requirement.	E-	4 credits	9R	
252-0856-AA R	Any other students (e.g. incoming exchange students, doctoral students) CANNOT enrol for this course unit.			120s hrs	F. O. Friedrich Wicker,
	Computer Science Self-study course. No presence required.				R. Sasse
406-0603-AAL	•	E-	4 credits	9R	R. Sasse

406-0603-AA R	Stochastics (Probability and Statistics) Self-study course. No presence required.			120s hrs	M. Kalisch
262-0945-AAL	Cell and Molecular Biology for Engineers I and II Enrolment ONLY for MSc students with a decree declaring this course unit as an additional admission requirement.	E-	6 credits	13R	
	Any other students (e.g. incoming exchange students, doctoral students) CANNOT enrol for this course unit.				
262-0945-AA R	Cell and Molecular Biology for Engineers I Self-study course. No presence required.	and II		180s hrs	B. Treutlein
636-1005-AAL	Bio V: Bioinformatics Enrolment ONLY for MSc students with a decree declaring this course unit as an additional admission requirement.	E-	5 credits	7R	
	Any other students (e.g. incoming exchange students, doctoral students) CANNOT enrol for this course unit.				
636-1005-AA R	Bio V: Bioinformatics Self-study course. No presence required. For MSc Biotech: Only offered in spring se weeks 24-27).	mester (	(calender	100s hrs	N. Beerenwinkel
Computationa	ll Biology and Bioinformatics Master -	Key for	r Tyne		
-	Compulsory	ney io	Type	E-	Recommended, not eligible for credits
-	Eligible for credits and recommended			Z	Courses outside the curriculum
	Eligible for credits			Dr	Suitable for doctorate
Key for Hours					
•	ecture			Р	practical/laboratory course
•	ecture with exercise			A	independent project
_	exercise			D	diploma thesis
	seminar			R	revision course / private study
K d	colloquium				

ECTS European Credit Transfer and Accumulation System

# **Cyber Security Master**

## ► Field of Specialization

### **▶▶** Core Courses

	Title	Туре	ECTS	Hours				Lecturers
252-0463-00L	Security Engineering	W	7 credits	2V+2U+	·2A			
252-0463-00 V				2 hrs	Wed	10-12	CAB G51	S. Krstic
252-0463-00 U	Security Engineering  Lab sessions every Friday in CAB H52 fron	10-12		2 hrs	Wed Fri	14-16 10-12	CAB G51 CAB H52	S. Krstic
252-0463-00 A	Security Engineering			2 hrs				S. Krstic
252-1414-00L	System Security	w	7 credits	2V+2U+	-2A			
252-1414-00 V	System Security			2 hrs	Mon	10-12	HG D1.2	S. Capkun, A. Perrig
252-1414-00 U	System Security The exercises begin in the second week of	the sem	ester.	2 hrs	Thu	14-16 16-18	HG D3.2 CAB G11	S. Capkun, A. Perrig
252-1414-00 A	System Security			2 hrs				S. Capkun, A. Perrig
263-4640-00L	Network Security	w	8 credits	2V+2U+	3 /			
	Network Security	**	o credits	2 hrs	Tue	10-12	HG E1.2	A. Perrig, S. Frei, M. Legner K. Paterson
263-4640-00 U	Network Security			2 hrs	Thu	16-18	CAB G61	A. Perrig, S. Frei, M. Legner K. Paterson
263-4640-00 A	Network Security Project Work, no fixed presence required.			3 hrs				A. Perrig, S. Frei, M. Legner K. Paterson
►► Elective	es							
Number	Title	Туре	ECTS	Hours				Lecturers
227-0575-00L	Advanced Topics in Communication Networks	W	6 credits	2V+2U				
227-0575-00 V	Advanced Topics in Communication Netwo	rks		2 hrs	Tue	14-16	ML E12	L. Vanbever
227-0575-00 U	Advanced Topics in Communication Netwo	rks		2 hrs	Tue	16-18	ML E12	L. Vanbever
227-0579-00L	Hardware Security	W	7 credits	2V+2U+	-2A			
227-0579-00 V	An informal meeting is planned for Friday, 5 - 7 pm. The exact room will be announced Please note that the classes of October 5 a	d later. nd Octo	ber 19 take	2 hrs	Tue	08-10	HG E41	K. Razavi
	place from 08:00 - 11:00 instead of 08:00 -	10:00 in	ETZ G71.2.		<b>-</b> .		IE144 4 0 0 4	
	Hardware Security Hardware Security Project Work, no fixed presence required.			2 hrs 2 hrs	Thu	10-12	IFW A32.1	K. Razavi K. Razavi
252-0811-00L	Applied Security Laboratory	W	8 credits	7P				
252-0811-00 P				7 hrs	Thu	10-13	LEE D101	C. Sprenger
252-1411-00L	Security of Wireless Networks	w	6 credits	2V+1U+	.2Δ			
252-1411-00 V			0 0.000	2 hrs	Tue	14-16	ML F34	S. Capkun, K. Kostiainen
	Security of Wireless Networks			1 hrs	Fri/2w	14-16	CAB E87.2	S. Capkun, K. Kostiainen
252-1411-00 A	,			2 hrs				S. Capkun, K. Kostiainen
263-4657-00L	Advanced Encryption Schemes	W	5 credits	2V+1U+	·1A			
	Advanced Encryption Schemes	••	o orouno	2 hrs	Thu	12-14	CAB G59	R. Gay
	Advanced Encryption Schemes			1 hrs	Wed/2v		HG E33.5	R. Gay
	Advanced Encryption Schemes			1 hrs				R. Gay
263-4665-00L	Zero-Knowledge Proofs Number of participants limited to 50.	W	5 credits	2V+1U+	1A			
263-4665-00 V	Zero-Knowledge Proofs			2 hrs	Fri	12-14	CHN G42	J. Bootle
	Zero-Knowledge Proofs			1 hrs	Fri	15-16	CHN F42	J. Bootle
	Zero-Knowledge Proofs			1 hrs				J. Bootle
▶▶ Semina	ar							
Number	Title	Type	ECTS	Hours				Lecturers
ivaniper	Current Topics in Information Security	W	2 credits	<b>2S</b>				
252-4601-00L	Number of participants limited to 24.							
252-4601-00L	Number of participants limited to 24.  The deadline for deregistering expires at the end of the second week of the semester. Students who are still registered after that date, but do not attend the seminar, will officially fail the seminar.			2 hrs	Mon	14-16	CAB G57	S. Capkun, K. Paterson, A. Perrig, S. Shinde
	Number of participants limited to 24.  The deadline for deregistering expires at the end of the second week of the semester. Students who are still registered after that date, but do not attend the seminar, will officially fail the seminar.  Current Topics in Information Security Online seminar: This seminar will primarily Reserved rooms will remain blocked on car follow the seminar from there.			2 hrs	Mon	14-16	CAB G57	

260-0100-00L Semester Project W 12 credits 26A

Only for Cyber Security MSc

260-0100-00 A Semester Project

360s hrs

Professors

#### ► Minor

### **▶▶** Data Management Systems

#### **▶▶▶** Core Courses

Number	Title	Type	ECTS	Hours				Lecturers
263-3010-00L	Big Data	W	10 credits	3V+2U+	-4A			
263-3010-00 V	Big Data Online lecture: This lecture will primarily to Reserved rooms will remain blocked on co follow the course from there.			3 hrs	Tue Wed	14-16 09-10	CAB G61 ML H44	G. Fourny
263-3010-00 U	Big Data Groups are selected in myStudies.			2 hrs	Wed	14-16	CAB G52 HG E33.1 HG G26.1 ON LINE	G. Fourny
					Fri	14-16	CAB G52 ON LINE	
263-3010-00 A	Big Data Individual work to get hands-on experience covered, no fixed presence required.	e with the	technologies	4 hrs				G. Fourny
263-3845-00L	Data Management Systems	w	8 credits	3V+1U+	-3A			
263-3845-00 V	Data Management Systems			3 hrs	Wed Fri	10-12 08-09	CAB G61 HG G3	G. Alonso
263-3845-00 U	Data Management Systems			1 hrs	Fri	09-10	HG D5.1 HG E21 HG G26.1	G. Alonso
263-3845-00 A	Data Management Systems			3 hrs				G. Alonso

### **▶▶▶** Elective Courses

Number	Title	Type	ECTS	Hours				Lecturers
252-0535-00L	Advanced Machine Learning	w	10 credits	3V+2U+4	4A			
252-0535-00 V	Advanced Machine Learning Freitag 8-10 HG F1 mit Videoübertragung Donnerstag 15-16 ETA F 5 mit Videoübert			3 hrs	Thu Fri	15-16 08-10	ETA F5 ETF E1 HG F1	J. M. Buhmann, C. Cotrini Jimenez
252-0535-00 U	Advanced Machine Learning			2 hrs	Wed Thu Fri	14-16 16-18 16-18 14-16	HG F3 CAB G61 CAB G61 ML F34 CAB G61	J. M. Buhmann, C. Cotrini Jimenez
252-0535-00 A	Advanced Machine Learning Project Work, no fixed presence required.			4 hrs	•••		0/12/001	J. M. Buhmann, C. Cotrini Jimenez
252-1414-00L	System Security	W	7 credits	2V+2U+2	2A			
252-1414-00 V	System Security			2 hrs	Mon	10-12	HG D1.2	S. Capkun, A. Perrig
252-1414-00 U	System Security The exercises begin in the second week o	f the sem	ester.	2 hrs	Thu	14-16 16-18	HG D3.2 CAB G11	S. Capkun, A. Perrig
252-1414-00 A	System Security			2 hrs				S. Capkun, A. Perrig
263-2800-00L	Design of Parallel and High-Performanc Computing Number of participants limited to 125.	e W	9 credits	3V+2U+	3A			
263-2800-00 V		Computin	g	3 hrs	Mon	13-16	CAB G11	T. Hoefler, M. Püschel
263-2800-00 U	Design of Parallel and High-Performance (	Computin	g	2 hrs	Thu	14-16	CHN C14	T. Hoefler, M. Püschel
263-2800-00 A	Design of Parallel and High-Performance of Project Work, no fixed presence required.	Computin	g	3 hrs				T. Hoefler, M. Püschel
263-3210-00L	Deep Learning Number of participants limited to 320.	W	8 credits	3V+2U+2	2A			
263-3210-00 V	Deep Learning			3 hrs	Wed Thu	13-14 14-16	ML D28 ML D28	F. Perez Cruz, A. Lucchi
263-3210-00 U	Deep Learning			2 hrs	Mon Wed	16-18 16-18	HG G5 ML D28	F. Perez Cruz, A. Lucchi
263-3210-00 A	Deep Learning			2 hrs				F. Perez Cruz, A. Lucchi
263-3850-00L	Informal Methods	w	5 credits	2G+2A				
263-3850-00 G	Informal Methods			2 hrs	Thu	10-12	CAB G59	D. Cock
	Informal Methods			2 hrs				D. Cock

### **▶▶** Machine Intelligence

#### **▶▶▶** Core Courses

Number	Title	Туре	ECTS	Hours				Lecturers
252-0535-00L	Advanced Machine Learning		10 credits	3V+2U+	-4A			
252-0535-00 V	Advanced Machine Learning Freitag 8-10 HG F1 mit Videoübertragur	ng ins HG l	<del>-</del> 3	3 hrs	Thu	15-16	ETA F5 ETF E1	<b>J. M. Buhmann</b> , C. Cotrini Jimenez
	Donnerstag 15-16 ETA F 5 mit Videoübe				Fri	08-10	HG F1 HG F3	

22-05-05-00   Advanced Markine Learning									
22-08-08-08-08-08-08-08-08-08-08-08-08-08-	252-0535-00 U	Advanced Machine Learning			2 hrs	Thu	16-18 16-18	CAB G61 ML F34	,
Number of participants kinited to 320.   September 1970	252-0535-00 A	Advanced Machine Learning Project Work, no fixed presence required.			4 hrs	Fri	14-16	CAB G61	
28-33   29-00   Deep Learning	263-3210-00L		W	8 credits	3V+2U+	-2A			
289-3210-00   Deep Learning   2 he   2 he   2 he   3 he   3 he   16 he   18 he   18 he   2	263-3210-00 V				3 hrs				F. Perez Cruz, A. Lucchi
283-5210-00   Probabilistic Artificial Intelligence   W   8 credits   3 v2-10-2	263-3210-00 U	Deep Learning			2 hrs	Mon	16-18	HG G5	F. Perez Cruz, A. Lucchi
Separation   Probabilistic Artificial Intelligence   Separation   Se	263-3210-00 A	Deep Learning			2 hrs				F. Perez Cruz, A. Lucchi
Fr 10-12 und 13-14 im ETÄ F5 mil Videotibertragung ins ETF E1   13-14   15-16   15-1	263-5210-00L	Probabilistic Artificial Intelligence	w	8 credits	3V+2U+	-2A			
13-14   ETA F6   CHN C14   A. Krause	263-5210-00 V					Fri	10-12		A. Krause
283-2610-00 V Probabilistic Artificial Intelligence		Fr 10-12 und 13-14 IM ETA F5 mit Videou	ıbertragu	ing ins EIFE	1		13-14		
26.4   26.5   27.0   26.5   27.0   26.5									
Part   Pelective Courses   Processing   Pr	263-5210-00 U				2 hrs	Thu	16-18	CHN C14	A. Krause
Number   Title   Tit	263-5210-00 A	•			2 hrs				Δ Krause
Number   Title   Tit					21110				7.1.1.1.000
282-3006-50L   Natural Language Processing   W   5 credits   24-2U+1A     HG F7   R. Cotterell	►►► Electi	ve Courses							
Number of participants limited to 400.	Number	Title	Type	ECTS	Hours				Lecturers
28-23005-00   Natural Language Processing	252-3005-00L		W	5 credits	2V+2U+	-1A			
252-3005-00 U Natural Language Processing   2 hrs   Wed   12-14   HG F7   R. Cotterell   R. Co	252-3005-00 V	Natural Language Processing			2 hrs	Mon	12-14	HG F7	R. Cotterell
282-300-00 A Natural Language Processing 1 hrs	252-3005-00 11				2 hrs	Wed	12-14	HG F7	R Cotterell
261-5100-00 Computational Biomedicine W 5 credits 2V+1U+1A  261-5100-00 V Computational Biomedicine Online lecture: This lecture will take place online. Reserved rooms will remain to recompute for students to follow the course from there.  261-5100-00 Computational Biomedicine Online lecture: This lecture will take place online. Reserved rooms will remain to recompute for students to follow the course from there.  261-5100-00 Computational Biomedicine 1 hrs Tue 13-14 ML F39 V. Boeva, G. Rätsch Online lecture: This lecture will take place online. Reserved rooms will remain to roamput for students to follow the course from there.  261-5100-00 A Computational Biomedicine 1 hrs Tue 13-14 ML F39 V. Boeva, G. Rätsch Online vectors will remain blocked on campus for students to follow the course from there.  263-2400-00 Reliable and Trustworthy Artificial Intelligence Confine event: Will primarily take place online. Reserved rooms will remain blocked on campus for students to follow the course from there.  263-2400-00 U Reliable and Trustworthy Artificial Intelligence Exercise session will staft in the second week of the semester. Online event: Will primarily take place online. Reserved rooms will remain blocked on campus for students to follow the course from there.  263-2400-00 A Reliable and Trustworthy Artificial Intelligence Exercise session will staft in the second week of the semester. Online event: Will primarily take place online. Reserved rooms will remain blocked on campus for students to follow the course from there.  263-2400-00 A Advanced Algorithms W 9 credits 30+20+3A Sinks Wed 09-12 HG D5.2 M. Ghaffari, G. Zuzic Confine event: Will primarily take place online. Reserved rooms will remain blocked on campus for students to follow the course from there.  263-3500-00 A Advanced Algorithms W 9 credits 2V+1U+1A Sinks Wed 09-12 HG D5.2 M. Ghaffari, G. Zuzic Confine exercises Will primarily take place online. Reserved rooms will remain blocked on campus for students to follow the course from there.  263-5005-00						wea	12-14	11017	
Number of participants limited to 120.			w	5 credits		-1Δ			
Online lecture: This lecture will take place online. Reserved rooms will remain on campus for students to follow the course from there.  261-5100-0U Computational Biomedicine Conline lecture: This lecture will take place online. Reserved rooms will remain on campus for students to follow the course from there.  261-5100-0U Reliable and Trustworthy Artificial Intelligence C63-2400-00L A Reliable and Trustworthy Artificial Intelligence C63-2400-00L Advanced Algorithms  W 9 credits C63-2400-00L Advanced Algorithms  W 9 credits C63-2400-00L Advanced Algorithms C76-7400-740-740-740-740-740-740-740-740-74	201 0100 002		••	o orcans	211101				
281-5100-00 U Computational Biomedicine Online lecture: This lecture will take place online. Reserved rooms will remain on campus for students to follow the course from there.  261-5100-00 A Computational Biomedicine 1 hrs	261-5100-00 V	Online lecture: This lecture will take place will remain on campus for students to follow				Tue	10-12	ML F39	V. Boeva, G. Rätsch
261-5100-00 A Computational Biomedicine	261-5100-00 U	Computational Biomedicine Online lecture: This lecture will take place will remain on campus for students to follo				Tue	13-14	ML F39	V. Boeva, G. Rätsch
263-2400-00 L Reliable and Trustworthy Artificial W 6 credits Intelligence 263-2400-00 V Reliable and Trustworthy Artificial Intelligence 263-2400-00 L Reliable and Trustworthy Artificial Intelligence 263-4500-00 L Advanced Algorithms 263-4500-00 L Advanced Algorithms 263-4500-00 L Advanced Algorithms 263-4500-00 L Advanced Algorithms 263-5005-00 L Artificial Intelligence in Education 264-5005-00 L Artificial Intelligence in Education 265-5005-00 L Artificial Intelligence in Education 265-50505-00 L Artificial Intelligence in Education 266-5055-00 L Artificial Intelligence in Education 267-5055-00 L Artifici	261-5100-00 A				1 hrs				V. Boeva, G. Rätsch
Intelligence   Reliable and Trustworthy Artificial Intelligence   2 hrs   Wed   14-16   HG G3   M. Vechev		<u> </u>	w	6 credits	2V+2U+	-1A			,
Online event: Will primarily take place online. Reserved rooms will remain blocked on campus for students to follow the course from there.  263-2400-00 U Retilable and Trustworthy Artificial Intelligence Exercise session will start in the second week of the semester. Online event: Will primarily take place online. Reserved rooms will remain blocked on campus for students to follow the course from there.  263-2400-00 A Reliable and Trustworthy Artificial Intelligence  263-2400-00 A Reliable and Trustworthy Artificial Intelligence  263-2400-00 A Advanced Algorithms  W 9 credits Online lecture: This lecture will primarily take place online. Reserved rooms will remain blocked on campus for students to follow the course from there.  263-4500-00 U Advanced Algorithms Online lecture: This lecture will primarily take place online. Reserved rooms online and the course from there.  263-4500-00 U Advanced Algorithms 263-4500-00 A Advanced Algorithms  Advanced Algorithms  W 5 credits 263-4500-00 A Advanced Algorithms 263-5005-00 U Artificial Intelligence in Education Online lecture: This lecture will take place online. Reserved rooms will remain blocked on campus for students to follow the course from there.  263-5005-00 U Artificial Intelligence in Education Online Reserved rooms will remain blocked on campus for students to follow the course from there.  263-5005-00 U Artificial Intelligence in Education Online Reserved rooms will remain blocked on campus for students to follow the course from there.  263-5005-00 U Artificial Intelligence in Education Online extervies from there.  263-5005-00 V Foundations of Reinforcement Learning W 5 credits Number of participants limited to 190.  263-5255-00 V Foundations of Reinforcement Learning W 5 credits Number of participants limited to 190.  263-5255-00 V Foundations of Reinforcement Learning W 5 credits Number of participants limited to 190.		Intelligence							
Exercise session will start in the second week of the semester. Online event: Will primarily take place online. Reserved rooms will remain blocked on campus for students to follow the course from there.  263-2400-00 A Reliable and Trustworthy Artificial Intelligence  Advanced Algorithms W 9 credits 3 hrs Wed 09-12 HG D5.2 M. Ghaffari, G. Zuzic Online lecture: This lecture will primarily take place online. Reserved rooms will remain blocked on campus for students to follow the course from there.  263-4500-00 U Advanced Algorithms  Advanced Algorithms Online lecture: This lecture will primarily take place online. Reserved rooms will remain blocked on campus for students to follow the course from there.  263-4500-00 U Advanced Algorithms  Advanced Algorithms  Application of Participants limited to 75.  263-5005-00L  Artificial Intelligence in Education Number of participants limited to 75.  263-5005-00 V Artificial Intelligence in Education Online lecture: This lecture will take place online. Reserved rooms will remain blocked on campus for students to follow the course from there.  263-5005-00 U Artificial Intelligence in Education Online exercises: Will primarily take place online. Reserved rooms will remain blocked on campus for students to follow the course from there.  263-5005-00 L Artificial Intelligence in Education Online exercises: Will primarily take place online. Reserved rooms will remain blocked on campus for students to follow the course from there.  263-5005-00 L Artificial Intelligence in Education Online exercises: Will primarily take place online. Reserved rooms will remain blocked on campus for students to follow the course from there.  263-5005-00 L Artificial Intelligence in Education Online exercises: Will primarily take place online. Reserved rooms will remain blocked on campus for students to follow the course from there.  263-5055-00 L Poundations of Reinforcement Learning W S credits  A trip of participants limited to 190.  263-5255-00 L Poundations of Reinforcement Learning W S credits	263-2400-00 V	Online event: Will primarily take place online remain blocked on campus for students to	ne. Rese		ill	Wed	14-16	HG G3	M. Vechev
263-4500-00 A Reliable and Trustworthy Artificial Intelligence 1 hrs M. Vechev  263-4500-00 V Advanced Algorithms W 9 credits 263-4500-00 V Online lecture: This lecture will primarily take place online. Reserved rooms will remain blocked on campus for students to follow the course from there.  263-4500-00 U Advanced Algorithms 2 hrs Fri 10-12 CAB G59 M. Ghaffari, G. Zuzic	263-2400-00 U	Exercise session will start in the second wo Online event: Will primarily take place online remain blocked on campus for students to	eek of th ne. Rese	rved rooms w	ill				M. Vechev
263-4500-00 V Advanced Algorithms Online lecture: This lecture will primarily take place online. Reserved rooms will remain blocked on campus for students to follow the course from there.  263-4500-00 L Advanced Algorithms 2 hrs Fri 10-12 CAB G59 M. Ghaffari, G. Zuzic M. Ghaffari, G. Z	263-2400-00 A	Reliable and Trustworthy Artificial Intelliger	nce		1 hrs				M. Vechev
Online lecture: This lecture will primarily take place online. Reserved rooms will remain blocked on campus for students to follow the course from there.  263-4500-00 U Advanced Algorithms  2 hrs Fri 10-12 CAB G59 M. Ghaffari, G. Zuzic M. Sachan, T. Sinha M. Sachan, T. Sinha M. Sachan, T. Sinha M. Sachan, T. Sinha M. Ghaffari, G. Zuzic M. Ghaffari, G. Zuzic M. Ghaffari, G. Zuzic M. Sachan, T. Sinha M. Sachan, T. Sinha M. Ghaffari, G. Zuzic M. Sachan, T. Sinha M. Sachan, T. Sinha M. Ghaffari, G. Zuzic M. Sachan, T. Sinha M. Sachan, T. Sinha M. Ghaffari, G. Zuzic M. Sachan, T. Sinha M. Sachan, T. Sinha M. Sachan, T. Sinha M. Sachan, T. Sinha M. Ghaffari, G. Zuzic M. Sachan, T. Sinha M. Sachan,	263-4500-00L	Advanced Algorithms	w	9 credits	3V+2U+	-3A			
263-4500-00 U Advanced Algorithms 2 hrs Fri 10-12 CAB G59 M. Ghaffari, G. Zuzic M. Ghaff	263-4500-00 V	Online lecture: This lecture will primarily ta Reserved rooms will remain blocked on ca			3 hrs	Wed	09-12	HG D5.2	M. Ghaffari, G. Zuzic
263-5005-00L Artificial Intelligence in Education Number of participants limited to 75.  263-5005-00 V Artificial Intelligence in Education Online lecture: This lecture will take place online. Reserved rooms will remain blocked on campus for students to follow the course from there.  263-5005-00 U Artificial Intelligence in Education Online exercises: Will primarily take place online. Reserved rooms will remain blocked on campus for students to follow the course from there.  263-5005-00 U Artificial Intelligence in Education Online exercises: Will primarily take place online. Reserved rooms will remain blocked on campus for students to follow the exercises from there.  263-5005-00 A Artificial Intelligence in Education 1 hrs M. Sachan, T. Sinha  263-5255-00L Foundations of Reinforcement Learning W 5 credits Number of participants limited to 190.  263-5255-00 A Foundations of Reinforcement Learning 2 hrs Fri 14-16 CAB G11 N. He  N. He	263-4500-00 U				2 hrs	Fri	10-12	CAB G59	M. Ghaffari, G. Zuzic
Number of participants limited to 75.  263-5005-00 V Artificial Intelligence in Education Online lecture: This lecture will take place online. Reserved rooms will remain blocked on campus for students to follow the course from there.  263-5005-00 U Artificial Intelligence in Education Online exercises: Will primarily take place online. Reserved rooms will remain blocked on campus for students to follow the exercises from there.  263-5005-00 A Artificial Intelligence in Education 1 hrs Thu 18-19 RZ F21 M. Sachan, T. Sinha M. Sachan, T. Sinha  263-5255-00 A Artificial Intelligence in Education 1 hrs M. Sachan, T. Sinha  263-5255-00 V Foundations of Reinforcement Learning W Aumber of participants limited to 190. 263-5255-00 A Foundations of Reinforcement Learning 2 hrs Fri 14-16 CAB G11 N. He N. He		S .							
Number of participants limited to 75.  263-5005-00 V Artificial Intelligence in Education Online lecture: This lecture will take place online. Reserved rooms will remain blocked on campus for students to follow the course from there.  263-5005-00 U Artificial Intelligence in Education Online exercises: Will primarily take place online. Reserved rooms will remain blocked on campus for students to follow the exercises from there.  263-5005-00 A Artificial Intelligence in Education 1 hrs Thu 18-19 RZ F21 M. Sachan, T. Sinha M. Sachan, T. Sinha  263-5255-00 A Artificial Intelligence in Education 1 hrs M. Sachan, T. Sinha  263-5255-00 V Foundations of Reinforcement Learning 2 hrs Fri 14-16 CAB G11 N. He N. He	263-5005-00L	Artificial Intelligence in Education	w	5 credits	2V+1U+	-1A			
Online lecture. This lecture will take place online. Reserved rooms will remain blocked on campus for students to follow the course from there.  263-5005-00 U Artificial Intelligence in Education Online exercises: Will primarily take place online. Reserved rooms will remain blocked on campus for students to follow the exercises from there.  263-5005-00 A Artificial Intelligence in Education 1 hrs Thu 18-19 RZ F21 M. Sachan, T. Sinha  M. Sachan, T. Sinha  263-5255-00 A Artificial Intelligence in Education 1 hrs M. Sachan, T. Sinha  263-5255-00 V Foundations of Reinforcement Learning 2 hrs Fri 14-16 CAB G11 N. He N. He									
Online exercises: Will primarily take place online. Reserved rooms will remain blocked on campus for students to follow the exercises from there.  263-5005-00 A Artificial Intelligence in Education 1 hrs M. Sachan, T. Sinha  263-5255-00L Foundations of Reinforcement Learning W Number of participants limited to 190.  263-5255-00 V Foundations of Reinforcement Learning 2 hrs Fri 14-16 CAB G11 N. He N. He	263-5005-00 V	Online lecture: This lecture will take place will remain blocked on campus for students				Thu	16-18	RZ F21	M. Sachan, T. Sinha
263-5255-00L Foundations of Reinforcement Learning W Number of participants limited to 190. 263-5255-00 V Foundations of Reinforcement Learning 2 hrs Fri 14-16 CAB G11 N. He 263-5255-00 A Foundations of Reinforcement Learning 2 hrs N. He	263-5005-00 U	Online exercises: Will primarily take place rooms will remain blocked on campus for s			1 hrs	Thu	18-19	RZ F21	M. Sachan, T. Sinha
Number of participants limited to 190.  263-5255-00 V Foundations of Reinforcement Learning 2 hrs Fri 14-16 CAB G11 N. He  263-5255-00 A Foundations of Reinforcement Learning 2 hrs N. He	263-5005-00 A	Artificial Intelligence in Education			1 hrs				M. Sachan, T. Sinha
263-5255-00 A Foundations of Reinforcement Learning 2 hrs <b>N. He</b>	263-5255-00L		y W	5 credits	2V+2A				
<u> </u>	263-5255-00 V	Foundations of Reinforcement Learning				Fri	14-16	CAB G11	
263-5902-00L Computer Vision W 8 credits 3V+1U+3A	263-5255-00 A	Foundations of Reinforcement Learning			2 hrs				N. He
	263-5902-00L	Computer Vision	W	8 credits	3V+1U+	-3A			

263-5902-00 V Computer Vision	3 hrs	Wed	14-16	NO C60	M. Pollefeys, S. Tang, F. Yu
		Thu	12-13	HG G5	
263-5902-00 U Computer Vision	1 hrs	Thu	13-14	CAB G51	M. Pollefeys, S. Tang, F. Yu
		Fri	13-14	CAB G51	
263-5902-00 A Computer Vision	3 hrs				M. Pollefeys, S. Tang, F. Yu

### **▶▶** Theoretical Computer Science

### **▶▶▶** Core Courses

	Title	Type	ECTS	Hours				Lecturers
252-0417-00L	Randomized Algorithms and Probabilistic Methods	W	10 credits	3V+2U+	4A			
252-0417-00 V	Randomized Algorithms and Probabilistic N	/lethods		3 hrs	Wed Thu	08-09 16-18	ML D28 ML D28	A. Steger
252-0417-00 U	Randomized Algorithms and Probabilistic N	/lethods		2 hrs	Tue	14-16 16-18	HG D1.2 HG D1.2	A. Steger
252-0417-00 A	Randomized Algorithms and Probabilistic M Project Work, no fixed presence required.	Methods		4 hrs		10 10	110 51.2	A. Steger
252-0535-00L	Advanced Machine Learning	w	10 credits	3V+2U+	4A			
252-0535-00 V	Advanced Machine Learning			3 hrs	Thu	15-16	ETA F5	J. M. Buhmann,
	Freitag 8-10 HG F1 mit Videoübertragung Donnerstag 15-16 ETA F 5 mit Videoüberti				Fri	08-10	ETF E1 HG F1	C. Cotrini Jimenez
252-0535-00 LL	Advanced Machine Learning			2 hrs	Wed	14-16	HG F3 CAB G61	J. M. Buhmann,
202 0000 00 0	Advanced Machine Eduthing			21113	Thu	16-18 16-18	CAB G61 ML F34	C. Cotrini Jimenez
252 0525 00 A	Advanced Machine Learning			4 bro	Fri	14-16	CAB G61	I M. Buhmann
252-0535-00 A	Advanced Machine Learning Project Work, no fixed presence required.			4 hrs				J. M. Buhmann, C. Cotrini Jimenez
252-1425-00L	Geometry: Combinatorics and Algorithms	W	8 credits	3V+2U+	2A			
252-1425-00 V	Geometry: Combinatorics and Algorithms			3 hrs	Mon Thu	13-14 14-16	CAB G51 CAB G51	B. Gärtner, E. Welzl, M. Hoffmann, M. Wettsteir
252-1425-00 U	Geometry: Combinatorics and Algorithms			2 hrs	Mon 23.09. 30.09.	14-16 16-18 16-18	CAB G51 CAB G51 CAB G51	B. Gärtner, E. Welzl, M. Hoffmann, M. Wettsteir
252-1425-00 A	Geometry: Combinatorics and Algorithms Project Work, no fixed presence required.			2 hrs	30.03.	10-10	OAD 031	B. Gärtner, E. Welzl, M. Hoffmann, M. Wettsteir
263-4500-00L	Advanced Algorithms	W	9 credits	3V+2U+	3Δ			<u> </u>
263-4500-00 V	_	ke place	online.	3 hrs	Wed	09-12	HG D5.2	M. Ghaffari, G. Zuzic
263-4500-00 U	Advanced Algorithms			2 hrs	Fri	10-12	CAB G59	M. Ghaffari, G. Zuzic
263-4500-00 A	Advanced Algorithms			3 hrs				M. Ghaffari, G. Zuzic
►►► Electiv	ve Courses							
	ve Courses Title	Туре	ECTS	Hours				Lecturers
Number		Type	ECTS 7 credits	Hours 3V+2U+	1A			Lecturers
Number 252-1407-00L	Title				1 <b>A</b> Fri	10-13	CHN C14	P. Penna
Number 252-1407-00L 252-1407-00 V	Title Algorithmic Game Theory			3V+2U+		10-12	CAB G57 CAB G59	
<b>Number</b> <b>252-1407-00L</b> 252-1407-00 V 252-1407-00 U	Algorithmic Game Theory Algorithmic Game Theory Algorithmic Game Theory			<b>3V+2U+</b> 3 hrs 2 hrs	Fri		CAB G57	P. Penna P. Penna
<b>Number</b> <b>252-1407-00L</b> 252-1407-00 V 252-1407-00 U	Title Algorithmic Game Theory Algorithmic Game Theory			<b>3V+2U+</b> 3 hrs	Fri	10-12	CAB G57 CAB G59	P. Penna
<b>Number 252-1407-00L</b> 252-1407-00 V 252-1407-00 U	Algorithmic Game Theory Algorithmic Game Theory Algorithmic Game Theory Algorithmic Game Theory			<b>3V+2U+</b> 3 hrs 2 hrs	Fri	10-12	CAB G57 CAB G59	P. Penna P. Penna
Number 252-1407-00L 252-1407-00 V 252-1407-00 U 252-1407-00 A	Algorithmic Game Theory Algorithmic Game Theory Algorithmic Game Theory Algorithmic Game Theory Project Work, no fixed presence required.	W	7 credits	3V+2U+ 3 hrs 2 hrs 1 hrs	Fri	10-12	CAB G57 CAB G59	P. Penna P. Penna
Number 252-1407-00L 252-1407-00 V 252-1407-00 U 252-1407-00 A 227-0417-00L 227-0417-00 G	Algorithmic Game Theory Algorithmic Game Theory Algorithmic Game Theory Algorithmic Game Theory Project Work, no fixed presence required. Information Theory I	W	7 credits	3V+2U+ 3 hrs 2 hrs 1 hrs	Fri Tue	10-12 16-18	CAB G57 CAB G59 LFW B3	P. Penna P. Penna P. Penna
Number 252-1407-00L 252-1407-00 V 252-1407-00 U 252-1407-00 A 227-0417-00L 227-0417-00 G 401-3055-64L	Algorithmic Game Theory Project Work, no fixed presence required. Information Theory I Information Theory I	w	7 credits 6 credits	3V+2U+ 3 hrs 2 hrs 1 hrs 4G 4 hrs	Fri Tue	10-12 16-18	CAB G57 CAB G59 LFW B3	P. Penna P. Penna P. Penna
Number 252-1407-00L 252-1407-00 V 252-1407-00 A 252-1407-00 A 227-0417-00L 227-0417-00 G 401-3055-64L 401-3055-64 V	Algorithmic Game Theory Project Work, no fixed presence required. Information Theory I Information Theory I Algebraic Methods in Combinatorics	w	7 credits 6 credits	3V+2U+ 3 hrs 2 hrs 1 hrs 4G 4 hrs 2V+1U	Fri Tue Wed	10-12 16-18 14-18	CAB G57 CAB G59 LFW B3	P. Penna P. Penna P. Penna A. Lapidoth
Number 252-1407-00L 252-1407-00 V 252-1407-00 A 252-1407-00 A 227-0417-00L 227-0417-00 G 401-3055-64L 401-3055-64 V	Algorithmic Game Theory Project Work, no fixed presence required. Information Theory I Information Theory I Algebraic Methods in Combinatorics Algebraic Methods in Combinatorics	w	7 credits 6 credits	3V+2U+ 3 hrs 2 hrs  1 hrs  4G 4 hrs  2V+1U 2 hrs	Fri Tue Wed	10-12 16-18 14-18 10-12	CAB G57 CAB G59 LFW B3 ETF C1	P. Penna P. Penna P. Penna A. Lapidoth B. Sudakov
Number 252-1407-00L 252-1407-00 V 252-1407-00 A 252-1407-00 A 227-0417-00L 227-0417-00 G 401-3055-64 V 401-3055-64 U	Algorithmic Game Theory Project Work, no fixed presence required. Information Theory I Information Theory I Algebraic Methods in Combinatorics Algebraic Methods in Combinatorics Algebraic Methods in Combinatorics	w	7 credits 6 credits	3V+2U+ 3 hrs 2 hrs  1 hrs  4G 4 hrs  2V+1U 2 hrs	Fri Tue Wed	10-12 16-18 14-18 10-12 12-13	CAB G57 CAB G59 LFW B3 ETF C1 IFW A36 ML F34	P. Penna P. Penna P. Penna A. Lapidoth B. Sudakov
Number 252-1407-00L 252-1407-00 V 252-1407-00 A 252-1407-00 A 227-0417-00L 227-0417-00 G 401-3055-64 V 401-3055-64 U 401-3901-00L	Algorithmic Game Theory Project Work, no fixed presence required. Information Theory I Information Theory I Algebraic Methods in Combinatorics Algebraic Methods in Combinatorics Algebraic Methods in Combinatorics	W W wematical	7 credits 6 credits 6 credits 11 credits Optimization) eserved room.	3V+2U+ 3 hrs 2 hrs  1 hrs  4G 4 hrs  2V+1U 2 hrs 1 hrs  4V+2U 4 hrs	Fri Tue Wed	10-12 16-18 14-18 10-12 12-13	CAB G57 CAB G59 LFW B3 ETF C1 IFW A36 ML F34	P. Penna P. Penna P. Penna A. Lapidoth B. Sudakov

### ▶▶ Visual and Interactive Computing

### **▶▶▶** Core Courses

Number	Title	Type	ECTS	Hours	Lecturers
252-0543-01L	Computer Graphics	W	8 credits	3V+2U+2A	
252-0543-01 V	Computer Graphics  Does not take place this semester.			3 hrs	

252-0543-01 U	Computer Graphics  Does not take place this semester.			2 hrs				
252-0543-01 A	Computer Graphics Does not take place this semester.			2 hrs				
63-5902-00L	Computer Vision	N	8 credits	3V+1U+	3A			
263-5902-00 V	Computer Vision			3 hrs	Wed Thu	14-16 12-13	NO C60 HG G5	M. Pollefeys, S. Tang, F. Yu
263-5902-00 U	Computer Vision			1 hrs	Thu Fri	13-14 13-14	CAB G51 CAB G51	M. Pollefeys, S. Tang, F. Yu
263-5902-00 A	Computer Vision			3 hrs				M. Pollefeys, S. Tang, F. Yu
►►► Electiv	ve Courses							
Number	Title	Гуре	ECTS	Hours				Lecturers
52-0546-00L	Physically-Based Simulation in Computer Graphics	N	5 credits	2V+1U+	1A			
252-0546-00 V	Physically-Based Simulation in Computer Gra	aphics		2 hrs	Tue	10-12	CAB G51	V. da Costa de Azevedo, B. Solenthaler, B. Thomaszewski
252-0546-00 U	Physically-Based Simulation in Computer Gra	aphics		1 hrs	Tue	16-17	CAB G51	V. da Costa de Azevedo, B. Solenthaler, B. Thomaszewski
252-0546-00 A	Physically-Based Simulation in Computer Gra	aphics		1 hrs				V. da Costa de Azevedo, B. Solenthaler, B. Thomaszewski
:63-5905-00L	• • • • • •	N	5 credits	3G+1A				
	Mixed Reality			3 hrs	Mon	10-13	CAB G11	I. Armeni, F. Bogo, M. Pollefeys
263-5905-00 A	Mixed Reality			1 hrs				I. Armeni, F. Bogo, M. Pollefeys
► Interfocu	s Courses							
lumber	Title	Гуре	ECTS	Hours				Lecturers
63-0006-00L	<b>3</b> · · · · · · · · · · · · · · · · · · ·	N	8 credits	4P+3A				
63-0006-00 P	Only for master students! Algorithms Lab			4 hrs	Mon	14-16	CAB H57 HG E26.1 HG E26.3	A. Steger, E. Welzl
					Tue Wed Thu	16-18 16-18 16-18	ML H34.3 CAB G11 ML H34.3	
263-0006-00 A	Algorithms Lab Project Work, no fixed presence required.			3 hrs				A. Steger, E. Welzl
63-0009-00L	Information Security Lab Only for master students! Number of participants limited to 250.	N	8 credits	2V+1U+	3P+1A			
263-0009-00 V	Information Security Lab			2 hrs	Mon	16-18	ML D28	<ul><li>K. Paterson, S. Capkun,</li><li>D. Hofheinz, A. Perrig,</li><li>S. Shinde</li></ul>
263-0009-00 U	Information Security Lab			1 hrs	Tue Wed	16-17 08-09	CHN F46 CAB G11	K. Paterson, S. Capkun, D. Hofheinz, A. Perrig, S. Shinde
263-0009-00 P	Information Security Lab			3 hrs	Thu	16-19	CAB H56 CAB H57 CHN E42 CHN G42 ETZ E6	K. Paterson, S. Capkun, D. Hofheinz, A. Perrig, S. Shinde
263-0009-00 A	Information Security Lab			1 hrs			L12 L0	<b>K. Paterson</b> , S. Capkun, D. Hofheinz, A. Perrig, S. Shinde
► Free Elec	ctives							
All Mas	ster level courses offered by ETH Zurich, EPF	Lausai	nne and the l	Jniversity o	of Zurich i	may be ch	osen.	
05000	Course Catalogue of ETH Zurich							
GESS Sc	ience in Perspective							
	see GESS Science in Perspective: Language Courses ETH/UZH							
	see GESS Science in Perspective: Type A: Enhancement of Reflection Capability							
	Recommended GESS Science in Perspective (Type B) for D-INFK.							
► Internshi	p							
		_						1
Number	Title	Гуре	ECTS	Hours				Lecturers
	Internship E	Гуре ≣-	0 credits	Hours				Lecturers
Number 260-0700-00L 260-0700-00 P	Internship Internship Only for Cyber Security MSc			Hours				external organisers

#### ► Master's Thesis

Number	Title	Type	ECTS	Hours	Lecturers	
260-0800-00L	Master's Thesis Only students who fulfill the following criteria are allowed to begin with their master thesis: a. successful completion of the bachelor programme; b. fulfilling of any additional requirements necessary to gain admission to the master programme.	0	30 credits	64D		
260-0800-00 D	Master's Thesis ■			900s hrs	by appt. Professors	
Cyber Securit	y Master - Key for Type					
W	Eligible for credits			Dr	Suitable for doctorate	
E-	Recommended, not eligible for credits			0	Compulsory	
Z	Courses outside the curriculum			W+	Eligible for credits and recommended	
Key for Hours	<b>S</b>					
V	lecture			Р	practical/laboratory course	
G	lecture with exercise			Α	independent project	
U	exercise			D	diploma thesis	
S	seminar			R	revision course / private study	
K	colloquium				• •	

ECTS

European Credit Transfer and Accumulation System
Special students and auditors need special permission from the lecturers.

# **DAS in Applied Statistics**

## ► Compulsory Courses

Compais	ory oddraca							
Number	Title	Туре	ECTS	Hours				Lecturers
147-0649-01L	Applied Statistical Regression I Only for DAS and CAS in Applied Statistics.	0	4 credits	1V+1U				
147-0649-01 V	Angewandte statistische Regression I			18s hrs	Mon/1 20.09.	08-10 08-10	HG E1.1 HG E1.1	M. Tanadini
147-0649-01 U	Angewandte statistische Regression I			18s hrs	Mon/1 20.09.	10-12 10-12	HG E19 HG E19	M. Tanadini
147-0649-02L	Applied Statistical Regression II Only for DAS and CAS in Applied Statistics.	0	2 credits	1V+1U				
47-0649-02 V	Angewandte statistische Regression II			10s hrs	Mon/2	08-10	HG E1.1	C. Renaux
47-0649-02 U	Angewandte statistische Regression II			10s hrs	Mon/2	10-12	HG E19	C. Renaux
47-0625-01L	Applied Analysis of Variance and Experimental Design I Only for DAS and CAS in Applied Statistics.	0	3 credits	1V+1U				
47-0625-01 V	Applied Analysis of Variance and Experimen	ntal Des	ign I	14s hrs	Mon/1	14-16	HG G5	L. Meier
147-0625-01 U	Applied Analysis of Variance and Experimen	ntal Des	ign I	14s hrs	Mon/1	16-18	HG D11 HG D12 HG E1.2	L. Meier
147-6201-00L	Nonparametric and Resampling Methods Special Students "University of Zurich (UZH)" in the Master Program in Biostatistics at UZH cannot register for this course unit electronically. Forward the lecturer's written permission to attend to the Registrar's Office. Alternatively, the lecturer may also send an email directly to registrar@ethz.ch. The Registrar's Office will then register you for the course.		2 credits	2G				
47-6201-00 G	Nonparametric and Resampling Methods Block course on: 17.01.2022 / 24.01.2022 / Lectures: 8-10 and 14-16 Exercises: 10-12 and 16-18	31.01.2	022	21s hrs	24.01.	08-18 08-18 08-18	HG D1.1 HG D1.1 HG D1.1	L. Meier, D. Kuonen
47-0990-00L	Workshop Only for DAS in Applied Statistics.	0	1 credit	18				
147-0990-00 S	Workshop (DAS ETH in Angewandter Statis Programm: https://stat.ethz.ch/Teaching/Wb WBL-8/04.Workshop/workshop.pdf		ce-	1 hrs	Mon	13-14	HG G19.1	L. Meier
► Electives								
Number	Title	Туре	ECTS	Hours				Lecturers
47-0625-02L	Applied Analysis of Variance and Experimental Design II Only for DAS and CAS in Applied Statistics.	W	3 credits	1V+1U				
	Applied Analysis of Variance and Experimen		0	12s hrs	Mon/2	14-16	HG G5	L. Meier
147-0625-02 U	Applied Analysis of Variance and Experimen	ntal Des	ign II	12s hrs	Mon/2	16-18	HG D11 HG D12 HG E1.2	L. Meier
447-6221-00L	Nonparametric Regression Special Students "University of Zurich (UZH)" in the Master Program in Biostatistics at UZH cannot register for this course unit electronically. Forward the lecturer's written permission to attend to the Registrar's Office. Alternatively, the lecturer may also send an email directly to registrar @ethz.ch. The Registrar's Office will then register you for the course.		1 credit	1G				
447-6221-00 G	Nichtparametrische Regression ■ Does not take place this semester. Blockkurs. Weitere Informationen unter http	://stat.et	thz.ch/wbl/wbl	10.5s hrs				M. Mächler
147-6257-00L	Repeated Measures Special Students "University of Zurich (UZH)" in the Master Program in Biostatistics at UZH cannot register for this course unit electronically. Forward the	W	1 credit	1G				
	lecturer's written permission to attend to the Registrar's Office. Alternatively, the lecturer may also send an email directly to registrar@ethz.ch. The Registrar's Office will then register you for the course.							
147-6257-00 G	Registrar's Office. Alternatively, the lecturer may also send an email directly to		the chiablish	10.5s hrs				

(UZH)" in the Master Program in Biostatistics at UZH cannot register for this course unit electronically. Forward the lecturer's written permission to attend to the Registrar's Office. Alternatively, the lecturer may also send an email directly to registrar@ethz.ch. The Registrar's Office will then register you for the course. 447-6289-00 G Stichproben-Erhebungen ■ 17.5s hrs Does not take place this semester. Blockkurs. Weitere Informationen unter http://stat.ethz.ch/wbl/wbl 447-6265-00L Deep Learning: A Probabilistic 2 credits 1G Approach Only for DAS and CAS in Applied Statistics. 447-6265-00 G Deep Learning: Ein probabilistischer Ansatz ■ 19.5s hrs Does not take place this semester. **Spatial Statistics** w 447-6233-00L 1 credit 1G Special Students "University of Zurich (UZH)" in the Master Program in Biostatistics at UZH cannot register for this course unit electronically. Forward the lecturer's written permission to attend to the Registrar's Office. Alternatively, the lecturer may also send an email directly to registrar@ethz.ch. The Registrar's Office will then register you for the course. 447-6233-00 G Spatial Statistics ■ 10.5s hrs Does not take place this semester. Block course. For further information see http://stat.ethz.ch/wbl/wbl 447-6245-00L w 1 credit 1G Special Students "University of Zurich (UZH)" in the Master Program in Biostatistics at UZH cannot register for this course unit electronically. Forward the lecturer's written permission to attend to the Registrar's Office. Alternatively, the lecturer may also send an email directly to registrar@ethz.ch. The Registrar's Office will then register you for the course. 447-6245-00 G Data-Mining ■ 14s hrs M. Mächler Does not take place this semester. Blockkurs. Weitere Informationen unter http://stat.ethz.ch/wbl/wbl 447-6273-00L **Bayes Methods** 2 credits Special Students "University of Zurich (UZH)" in the Master Program in Biostatistics at UZH cannot register for this course unit electronically. Forward the lecturer's written permission to attend to the Registrar's Office. Alternatively, the lecturer may also send an email directly to registrar@ethz.ch. The Registrar's Office will then register you for the course. 447-6273-00 G Bayes-Methoden ■ 21s hrs Does not take place this semester. Blockkurs. Weitere Informationen unter http://stat.ethz.ch/wbl/wbl Statistical Analysis of Financial Data 447-6191-00L 2 credits 1G Special Students "University of Zurich (UZH)" in the Master Program in Biostatistics at UZH cannot register for this course unit electronically. Forward the lecturer's written permission to attend to the Registrar's Office. Alternatively, the lecturer may also send an email directly to registrar@ethz.ch. The Registrar's Office will then register you for the course. 447-6191-00 G Statistical Analysis of Financial Data ■ 17.5s hrs Does not take place this semester. Block course. For further information see http://stat.ethz.ch/wbl/wbl

#### ► Diploma Thesis

Number	Title	Туре	ECTS	Hours	Lecturers
447-1990-00L	Diploma Thesis Only for DAS in Applied Statistics.	0	2 credits	4D	
447-1990-00 D	Diplomarbeit (DAS ETH in Angewandter Sta	atistik)		60s hrs	Supervisors

DAS in	Applied Statistics - Key for Type		
W	Eligible for credits	Dr	Suitable for doctorate
E-	Recommended, not eligible for credits	0	Compulsory
Z	Courses outside the curriculum	W+	Eligible for credits and recommended
V	lecture	P	practical/laboratory course
V G	lecture lecture with exercise	P A	practical/laboratory course independent project
		'.	
V G U S	lecture with exercise	'.	independent project

ECTS European Credit Transfer and Accumulation System

# **DAS in Cyber Security**

### **▶** Core Courses

Number	Title	Type	ECTS	Hours				Lecturers
252-1414-00L	System Security	0	7 credits	2V+2U+	+2A			
252-1414-00 V	System Security			2 hrs	Mon	10-12	HG D1.2	S. Capkun, A. Perrig
252-1414-00 U	System Security The exercises begin in the second week of	the sem	ester.	2 hrs	Thu	14-16 16-18	HG D3.2 CAB G11	S. Capkun, A. Perrig
252-1414-00 A	System Security			2 hrs				S. Capkun, A. Perrig
263-4640-00L	Network Security	0	8 credits	2V+2U+	+3A			
263-4640-00 V	Network Security			2 hrs	Tue	10-12	HG E1.2	<b>A. Perrig</b> , S. Frei, M. Legner K. Paterson
263-4640-00 U	Network Security			2 hrs	Thu	16-18	CAB G61	<b>A. Perrig</b> , S. Frei, M. Legner K. Paterson
263-4640-00 A	Network Security Project Work, no fixed presence required.			3 hrs				<b>A. Perrig</b> , S. Frei, M. Legner K. Paterson
268-0101-00L	Introduction to Information Security Only for CAS and DAS in Cyber Security.	0	5 credits	4G				
268-0101-00 G	Introduction to Information Security			4 hrs	Fri	08-12	HG E22	P. Schaller, S. Matetic
268-0102-00L	Applied Security Laboratory Only for DAS in Cyber Security.	0	5 credits	3P				
268-0102-00 P	Applied Security Laboratory			3 hrs	Thu	10-13	LEE D101	C. Sprenger
► Elective	Courses							
Number	Title	Туре	ECTS	Hours				Lecturers
252-0463-00L	Security Engineering	w	7 credits	2V+2U+	⊦2A			
252-0463-00 V	Security Engineering			2 hrs	Wed	10-12	CAB G51	S. Krstic
252-0463-00 U	Security Engineering  Lab sessions every Friday in CAB H52 from	10-12		2 hrs	Wed Fri	14-16 10-12	CAB G51 CAB H52	S. Krstic
252-0463-00 A	Security Engineering			2 hrs				S. Krstic
252-1411-00L	Security of Wireless Networks	W	6 credits	2V+1U+	⊦2A			
252-1411-00 V	Security of Wireless Networks			2 hrs	Tue	14-16	ML F34	S. Capkun, K. Kostiainen
252-1411-00 U	Security of Wireless Networks			1 hrs	Fri/2w	14-16	CAB E87.2	S. Capkun, K. Kostiainen
252-1411-00 A	Security of Wireless Networks includes a semester long project			2 hrs				S. Capkun, K. Kostiainen
268-0201-00L	Information Security Seminar and Project Only for CAS and DAS in Cyber Security.	W	2 credits	<b>2</b> S				
268-0201-00 S	Information Security Seminar and Project			2 hrs	Fri	14-16	HG E22	S. Matetic
268-0202-00L	Contemporary Topics in Cyber Security Only for CAS and DAS in Cyber Security.	W	3 credits	2G				
268-0202-00 G	Contemporary Topics in Cyber Security			2 hrs	Fri	16-18	HG E22	S. Matetic
DAS in Cyber	r Security - Key for Type							
N	Eligible for credits			Dr	9.	uitable for	doctorate	
vv E-	Recommended, not eligible for credits			0		ompulsory		
Z-	Courses outside the curriculum			W+			redits and reco	mmended
	Courses outside the ournedium			***		igibio ioi (	Crodito dila 1600	
Key for Hour	s							
	lecture			Р	pr	actical/lab	oratory course	
V				Α	ine	dependen	t project	
	lecture with exercise							
V G U	lecture with exercise exercise			D	dij	ploma the	sis	
G						-	sis ırse / private stu	dy

ECTS European Credit Transfer and Accumulation System

### **DAS in Data Science**

#### **▶** Core Courses

#### **▶▶** Foundations Courses

▶▶ Founda	tions Courses							
Number	Title	Туре	ECTS	Hours				Lecturers
227-0105-00L	Introduction to Estimation and Machine Learning	W	6 credits	4G				
227-0105-00 G	Introduction to Estimation and Machine Lear	ning <b>=</b>		4 hrs	Fri	14-18	ETF C1	HA. Loeliger
►► Capstoi	ne Project							
Number	Title	Туре	ECTS	Hours				Lecturers
266-0100-00L	Capstone Project Only for DAS in Data Science.	0	8 credits	17A				
266-0100-00 A	Capstone Project			240s hrs				Supervisors
► Specialis	ation Track							
	re for Machine Learning I in the Spring Semester.							
Number	· •	Typo	ECTS	Hours				Lecturers
227-0155-00L		Type W	6 credits	3G				Lecturers
227-0133-00L	Registration in this class requires the permission of the instructors. Class size will be limited to 25.  Preference is given to students in the MSc EEIT.	vv	o credits	30				
227-0155-00 G	Machine Learning on Microcontrollers ■ Permission from lecturers required for all stu	ıdents		3 hrs	Mon 27.09.	13-16 13-16	LFO C13 ETZ K63	M. Magno, L. Benini
▶▶ Image A	Analysis & Computer Vision							
Number	Title	Туре	ECTS	Hours				Lecturers
263-5902-00L	Computer Vision	W	8 credits	3V+1U+3	A			
263-5902-00 V	Computer Vision			3 hrs	Wed	14-16	NO C60	M. Pollefeys, S. Tang, F. Yu
263-5902-00 U	Computer Vision			1 hrs	Thu Thu Fri	12-13 13-14 13-14	HG G5 CAB G51 CAB G51	M. Pollefeys, S. Tang, F. Yu
263-5902-00 A	Computer Vision			3 hrs				M. Pollefeys, S. Tang, F. Yu
►► Neural I	Information Processing							
Number	Title	Туре	ECTS	Hours				Lecturers
227-0421-00L	Deep Learning in Artificial and	w	4 credits	3G				
227 0424 00 0	Biological Neuronal Networks		lativa dia	2 h	ا ۱۸۷ م ما	00.40	ML F34	B. Crawa
	Deep Learning in Artificial and Biological Ne			3 hrs	Wed	09-12	IVIL F34	B. Grewe
227-1033-00L	Neuromorphic Engineering I Registration in this class requires the permission of the instructors. Class size will be limited to available lab spots. Preference is given to students that require this class as part of their major.	W	6 credits	2V+3U				
	Information for UZH students: Enrolment to this course unit only possible at ETH. No enrolment to module INI404 at UZH.							
	Please mind the ETH enrolment deadlines for UZH students: https://www.ethz.ch/en/studies/non- degree- courses/special-							
	students/special- students-university-of-zurich.html							
227-1033-00 V	Neuromorphic Engineering I Permission from lecturers required for all stu **together with University of Zurich** The lecturers will communicate the exact les		es of ONLINE	2 hrs	Mon	14-16	ON LINE	T. Delbrück, G. Indiveri, SC. Liu
227-1033-00 U	courses. Neuromorphic Engineering I Permission from lecturers required for all stu **together with University of Zurich**	ıdents		3 hrs	by appt.			<b>T. Delbrück</b> , G. Indiveri, SC. Liu
	Dates by arrangement.							
►► Statistic	es e e e e e e e e e e e e e e e e e e							
Number	Title	Туре	ECTS	Hours				Lecturers
401-0625-01L	Applied Analysis of Variance and	w	5 credits	2V+1U				
	Experimental Design	4-15		0.5	14-	44.40	110.05	I Madan
	Applied Analysis of Variance and Experimen		-	2 hrs	Mon Mon/2w	14-16	HG G5 HG E1.1	L. Meier L. Meier
<del>-</del> 01-0020-01 U	Applied Analysis of Variance and Experimen	ilai DeS	ıyı1	1 hrs	IVIUI I/∠W	10-10	110 21.1	L. IVICICI

401-0649-00L								
101 0013 00L	Applied Statistical Regression	W	5 credits	2V+1U				
01-0649-00 V	Applied Statistical Regression			2 hrs	Mon	08-10	HG E1.2	M. Dettling
01-0649-00 U	Applied Statistical Regression			1 hrs	Mon/2w	10-12	HG E1.2	M. Dettling
	Mon 10-12 might not work for all different pro							
	course is offered. On sufficient demand, other Mon 15-17 or Fri 10-12) for the exercise ses							
101-3612-00L	Stochastic Simulation	W	5 credits	3G				
	Stochastic Simulation	**	3 Credits	3 hrs				
+01-3012-00 G	Does not take place this semester.			31115				
401-3621-00L	Fundamentals of Mathematical Statistics	w	10 credits	4V+1U				
	Fundamentals of Mathematical Statistics	••	10 orcans	4 hrs	Tue	08-10	HG E5	S. van de Geer
	r andamentale of mathematical Classes				Wed	10-12	HG E7	O. 14 40 000.
401-3621-00 U	Fundamentals of Mathematical Statistics			1 hrs	Tue	12-13	HG D7.1	S. van de Geer
							HG E7	
401-3622-00L	Statistical Modelling	W	8 credits	4G				
401-3622-00 G	Statistical Modelling			4 hrs	Mon Thu	10-12 14-16	ML D28 HG E1.1	C. Heinze-Deml
404 0000 441	Develop Otation	147	4	0)/	TTIU	14-10	по Ет.т	
401-3628-14L	Bayesian Statistics Bayesian Statistics	W	4 credits	<b>2V</b> 2 hrs	Tue	16-18	HG G3	F. Sigrist
	<u> </u>				rue	10-10	HG G3	r. Signst
401-4623-00L	Time Series Analysis	W	6 credits	3G				
101-4623-00 G	Time Series Analysis  Does not take place this semester.			3 hrs				F. Balabdaoui
	•							
<b>▶▶</b> Machine	e Learning and Artificial Intellige	ence						
Number	Title	Туре	ECTS	Hours				Lecturers
227-0689-00L	System Identification	W	4 credits	2V+1U				
	System Identification			2 hrs	Wed	10-12	HG D7.1	R. Smith
	System Identification			1 hrs	Wed	12-13	ETZ D61.1	R. Smith
	· 						HG D7.1	
252-0535-00L	Advanced Machine Learning	W	10 credits	3V+2U+	4A		<u> </u>	
252-0535-00 V	•			3 hrs	Thu	15-16	ETA F5	J. M. Buhmann,
	Freitag 8-10 HG F1 mit Videoübertragung in Donnerstag 15-16 ETA F 5 mit Videoübertra				Fri	08-10	ETF E1 HG F1	C. Cotrini Jimenez
	Donnerstag 13-10 ETA F 3 IIII Videoubertra	igurig iri	SEIFEI		ГП	06-10	HG F3	
252-0535-00 U	Advanced Machine Learning			2 hrs	Wed	14-16	CAB G61	J. M. Buhmann,
	ŭ					16-18	CAB G61	C. Cotrini Jimenez
					Thu	16-18	ML F34	
252-0535-00 A	Advanced Machine Learning			4 hrs	Fri	14-16	CAB G61	J. M. Buhmann,
202-0000-00 A	Project Work, no fixed presence required.			71113				C. Cotrini Jimenez
252-3005-00L	Natural Language Processing	W	5 credits	2V+2U+	1A			
	Number of participants limited to 400.							
252-3005-00 V	Natural Language Processing			2 hrs	Mon	12-14	HG F7	R. Cotterell
	From HS21 in the autumn semester.							
	Natural Language Processing			2 hrs	Wed	12-14	HG F7	R. Cotterell
252-3005-00 A	Natural Language Processing			1 hrs				R. Cotterell
263-2400-00L	•	W	6 credits	2V+2U+	1A			
202 2400 00 1/	Intelligence			0 6 40	الم ما	4440	110.00	M. Voebeu
263-2400-00 V	Reliable and Trustworthy Artificial Intelligence Online event: Will primarily take place online		ved rooms will	2 hrs	Wed	14-16	HG G3	M. Vechev
	remain blocked on campus for students to fo							
	there.							
263-2400-00 U	Reliable and Trustworthy Artificial Intelligence			2 hrs	Mon	12-14	CAB G56	M. Vechev
	Exercise session will start in the second wee Online event: Will primarily take place online			,	Wed	12-14	CAB G51	
	remain blocked on campus for students to fo							
	there.							
263-2400-00 A	Reliable and Trustworthy Artificial Intelligence	e		1 hrs				M. Vechev
263-3210-00L	Deep Learning	W	8 credits	3V+2U+	2A			
263-3210-0037	Number of participants limited to 320.			3 hro	<b>/</b> //^4	12 14	MI Dae	E Doroz Cruz A Lucali
∠∪3-3∠1U-UU V	Deep Learning			3 hrs	Wed Thu	13-14 14-16	ML D28 ML D28	F. Perez Cruz, A. Lucchi
263-3210-00 U	Deep Learning			2 hrs	Mon	16-18	HG G5	F. Perez Cruz, A. Lucchi
					Wed	16-18	ML D28	
263-3210-00 A	Deep Learning			2 hrs				F. Perez Cruz, A. Lucchi
	Probabilistic Artificial Intelligence	W	8 credits	3V+2U+	2A			
263-5210-00L	Probabilistic Artificial Intelligence			3 hrs	Fri	10-12	ETA F5	A. Krause
		ortradill	na ina ETE E1			10 11	ETF E1	
	Fr 10-12 und 13-14 im ETA F5 mit Videoüb	Griiagai	Ig IIIS ETF ET				ETA F5	
		ertragui	Ig IIIS ETF ET			13-14		
263-5210-00 V		ertragar	IG IIIS ETF ET	2 hrs	Thu	16-18	ETF E1 CHN C14	A. Krause
	Fr 10-12 und 13-14 im ETA F5 mit Videoüb	ertragar	IY IIIS ETF ET	2 hrs	Thu		ETF E1	A. Krause
263-5210-00 V 263-5210-00 U	Fr 10-12 und 13-14 im ETA F5 mit Videoübe Probabilistic Artificial Intelligence	ertragar	ig ilis ETF ET	2 hrs 2 hrs	Thu		ETF E1	A. Krause A. Krause
263-5210-00 V 263-5210-00 U 263-5210-00 A	Fr 10-12 und 13-14 im ETA F5 mit Videoübe Probabilistic Artificial Intelligence Q&A session: Monday, 17-18, via zoom Probabilistic Artificial Intelligence	- Triagui	ig ilis ETF ET		Thu		ETF E1	
263-5210-00 V 263-5210-00 U	Fr 10-12 und 13-14 im ETA F5 mit Videoübe Probabilistic Artificial Intelligence Q&A session: Monday, 17-18, via zoom Probabilistic Artificial Intelligence		ECTS		Thu		ETF E1	

252-0834-00L	Information Systems for Engineers W 4 credits	2V+1U			<u> </u>	
252-0834-00 V	Information Systems for Engineers Online lecture: This lecture will primarily take place online. Reserved rooms will remain blocked on campus for students to follow the course from there.	2 hrs	Fri	14-16	HG E5	G. Fourny
252-0834-00 U	Information Systems for Engineers Groups are selected in myStudies.	1 hrs	Fri	16-17	CAB G52 CAB G56 CAB G57 CAB G59 ON LINE ON LINE ON LINE	G. Fourny
263-2800-00L	Design of Parallel and High-Performance W 9 credits Computing Number of participants limited to 125.	3V+2U	+3A			
263-2800-00 V	Design of Parallel and High-Performance Computing	3 hrs	Mon	13-16	CAB G11	T. Hoefler, M. Püschel
263-2800-00 U	Design of Parallel and High-Performance Computing	2 hrs	Thu	14-16	CHN C14	T. Hoefler, M. Püschel
263-2800-00 A	Design of Parallel and High-Performance Computing Project Work, no fixed presence required.	3 hrs				T. Hoefler, M. Püschel
263-3010-00L	Big Data W 10 credit	s 3V+2U	+4A			
263-3010-00 V	Big Data Online lecture: This lecture will primarily take place online. Reserved rooms will remain blocked on campus for students to follow the course from there.	3 hrs	Tue Wed	14-16 I 09-10	CAB G61 ML H44	G. Fourny
263-3010-00 U	Big Data Groups are selected in myStudies.	2 hrs	Wed Fri	14-16 14-16	CAB G52 HG E33.1 HG G26.1 ON LINE CAB G52	G. Fourny
263-3010-00 A	Big Data Individual work to get hands-on experience with the technolog covered, no fixed presence required.	4 hrs ies			ON LINE	G. Fourny
DAS in Data S	cience - Key for Type					
0	Compulsory	E-		Recommen	ded, not eligible	e for credits
W+	Eligible for credits and recommended	Z		Courses ou	tside the curric	ulum
W	Eligible for credits	Dr		Suitable for	doctorate	
Key for Hours						
	lecture	Р		practical/lab	oratory course	
-	lecture with exercise	A		independen	•	
	exercise	D		diploma the		
S	seminar	R		•	ırse / private st	udy
K	colloquium					
FCTS	Furnnean Credit Transfer and Accumulation System				<u> </u>	

#### ECTS European Credit Transfer and Accumulation System

## **DAS in Information Technology and Electrical Engineering**

### ► Subjects of Specialization

Subjects are to be chosen from the courses offered in the master degree program in electrical engineering and information technology. The director of studies decides on exceptions, upon consultation with the tutor.

Course offer from the Master Program in Electrical Engineering and Information Technology

#### **▶** Diploma Project

Number	Title	Туре	ECTS	Hours				Lecturers
227-1101-00L	How to Write Scientific Texts Strongly recommended prerequisite for Semester Projects and Master Theses at D-ITET (MSc BME, MSc EEIT, MSc EST).	E-	0 credits					
227-1101-00 S	How to Write Scientific Texts Room to be announced			4s hrs	04.11. 11.11.	16-18 16-18	n /a n /a	U. Koch
227-3001-00L	<b>Diploma Thesis</b> Only for DAS in Information Technology and Electrical Engineering.	0	12 credits	36D				
	Registration for the diploma thesis requires the successfull completion of 18 credits ECTS from subjects of specialization.							
227-3001-00 D	Diplomprojekt			500s hrs	by appt			Professors

DAS in Information Technology and Electrical Engineering - Key for Type								
W	Eligible for credits	Dr	Suitable for doctorate					
E-	Recommended, not eligible for credits	0	Compulsory					
Z	Courses outside the curriculum	W+	Eligible for credits and recommended					

Key for	Hours			
V	lecture	P	practical/laboratory course	
G	lecture with exercise	A	independent project	
U	exercise	D	diploma thesis	
S	seminar	R	revision course / private study	
K	colloquium			
		ı ı		

ECTS European Credit Transfer and Accumulation System

Special students and auditors need special permission from the lecturers.

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## **DAS in Military Sciences**

The DAS in Military Sciences programme is executed every second year,

Next start in Autumn Semester 2021.

#### **▶** Courses Offered

Number	Title	Type	ECTS	Hours				Lecturers	
353-0063-02L	Military History I (without Exercises)	0	3 credits	2V					
353-0063-00 V	Militärgeschichte I			2 hrs	Mon	16-18	HG D3.2	<b>A. Wettstein</b> , T. Cubito, M. Olsansky	
853-0047-00L	World Politics Since 1945: The History of International Relations Only for Public Policy BA and DAS Military Sciences	0	4 credits	2V+1U					
853-0047-00 V	Weltpolitik seit 1945: Geschichte der interna	itionalei	n Beziehunge	n 2 hrs	Wed	10-12	CAB G11	L. Horovitz	
853-0047-00 U	Uebungen zu Weltpolitik seit 1945: Geschic Beziehungen	hte der	internationale	n 1 hrs	Wed	09-10	CAB G11	A. Dossi	
853-0082-00L	Strategic Studies I	0	3 credits	2V					
853-0082-00 V	Strategische Studien I			2 hrs	Tue	14-16	IFW A36	M. Mantovani	
853-0037-01L	Military Psychology and Pedagogy I (without Exercises)	0	3 credits	2V					
853-0037-00 V	Militärpsychologie und -pädagogik I			2 hrs	Tue	10-12	HG E33.3	H. Annen	
853-0064-00L	Military Sociology I	0	3 credits	2V					
853-0064-00 V	Militärsoziologie I			2 hrs	Mon	14-16	IFW A32.1	T. Szvircsev Tresch, S. De Rosa, T. Ferst	
853-0033-00L	Leadership I For BA Public Policy and DAS Military Sceinces only.	0	3 credits	2V					
853-0033-00 V	Leadership I ■			2 hrs	Tue	16-18	LEE E101	<b>F. Kernic</b> , F. Demont, M. Holenweger	
853-0061-00L	Introduction to Cybersecurity Politics	0	3 credits	2G					
853-0061-00 G	Einführung in die Cybersicherheitspolitik			2 hrs	Wed	14-16	HG F3	M. Dunn Cavelty, F. J. Eglo	
853-8002-00L	The Role of Technology in National and International Security Policy	0	3 credits	2G					
853-8002-00 G	Die Rolle von Technologie in nationaler und Sicherheitspolitik	interna	tionaler	2 hrs	Tue	08-10	IFW A36	M. Haas, A. Dossi, M. Leese O. Thränert	
853-0101-02L	Defense Economics I	0	3 credits	2V					
853-0101-02 V	Militärökonomie I			2 hrs	Mon	12-14	HG F26.5	M. M. Keupp	
DAS in Militar	ry Sciences - Key for Type								
Dr	Suitable for doctorate			W	Е	ligible for o	credits		
E-	Recommended, not eligible for credits			W+	E	ligible for o	credits and reco	mmended	
0	Compulsory			Z	Courses outside the curriculum				
Key for Hours	<b>S</b>								
V	lecture			Р	р	ractical/lab	oratory course		
G	lecture with exercise			Α		ndependen	-		
U	exercise			D		liploma the			
	seminar			R	re	evision cou	ırse / private stu	ıdy	
S	Communication		I I						

# **DAS in Spatial Planning**

### ► Lectures

	Title	Type	ECTS	Hours	Lecturers
115-0500-00L	Preliminary Course: Introduction to Swiss Spatial Planning Only for MAS, DAS and CAS in Spatial Planning	0	3 credits	3G	
115-0500-00 G	Vorkurs: Einführung in die Raumplanung Datum: 23.08 27.08.2021 Gemäss separatem Programm Raum HIL H 35.1			40s hrs	<b>D. Jerjen</b> , A. Schneider
115-0502-00L	Lecture Week 02: Urban Planning and Urban Design I Only for MAS, DAS and CAS in Spatial Planning.	W	2 credits	1G	
115-0502-00 G	Präsenzwoche 02: Stadtplanung und Städt Datum: 08. – 12.11.2021 Gemäss separatem Programm Raum HIL H 35.1	ebau I		20s hrs	S. Kretz, C. Salewski
115-0503-00L	Lecture Week 03: Landscape Architecture Only for MAS, DAS and CAS in Spatial Planning.	W	2 credits	1G	
115-0503-00 G	Präsenzwoche 03: Landschaftsarchitektur Datum: 06. – 10.12.2021 Gemäss separatem Programm Raum HIL H 35.1			20s hrs	G. Vogt
115-0504-00L	Lecture Week 04: Landscape and Environmental Planning Only for MAS, DAS and CAS in Spatial Planning.	W	2 credits	1G	
115-0504-00 G	Präsenzwoche 04: Landschafts- und Umwe Datum: 10. – 14.01.2022 Gemäss separatem Programm Raum HIL H 35.1	eltplanur	g	20s hrs	<b>A. Grêt-Regamey</b> , U. Wissen Hayek
115-0501-00L	Lecture Week 01: Spatial Planning: Tasks and Methods Only for MAS, DAS and CAS in Spatial Planning.	W	2 credits	1G	
115-0501-00 G	Präsenzwoche 01: Raumplanung: Aufgabe Datum: 11. – 15.10.2021 Gemäss separatem Programm Raum HIL H 35.1	n und M	ethoden	20s hrs	M. Nollert
DAS in Spatia	al Planning - Key for Type				
•	Recommended, not eligible for credits			W+	Eligible for credits and recommended
	Compulsory			Z	Courses outside the curriculum
	Eligible for credits			Dr	Suitable for doctorate
Key for Hours			1		
<b>V</b>	lecture			P	practical/laboratory course
	lecture with exercise			A	independent project
G	annual and a second a second and a second an			D	
G J	exercise seminar			R	diploma thesis revision course / private study

### **DAS in Transport Engineering**

Starts every second Autumn Semester.

Next start: HS21 Duration: Two years.

### ► Compulsory Modules

Number	Title	Type	ECTS	Hours			Lecturers
149-0001-00L	Transport Planning - Theory and Models Only for CAS/DAS in Transport Engineering and MAS in Future Transport Systems		4 credits	3G			
149-0001-00 G	Verkehr und Verkehrsplanung - Theoretisch Modelle Blockkurs Vorlesung: 09:00 - 13:00 Uhr Übungen: 14:00 - 17:00 Uhr	ne Ansä	tze und	35s hrs	18.10 09-17 20.10. 16.12 09-17 17.12.	HIT F11.1 HIT F11.1	K. W. Axhausen, M. Friedrich
149-0002-00L	Traffic Engineering Only for CAS/DAS in Transport Engineering and MAS in Future Transport Systems	<b>O</b>	4 credits	3G			
149-0002-00 G	Verkehrssteuerung Blockkurs Vorlesung: 09:00 - 13:00 Uhr Übungen: 14:00 - 17:00 Uhr			35s hrs	21.10 09-17 22.10. 13.12 09-17 15.12.	HIT F11.1 HIT F11.1	M. Fellendorf

#### **▶** Elective Modules

Elective modules start from Autumn Semester HS 2022 and Spring Semester FS 2023 on.

### ► Diploma Thesis

Start of diploma thesis from Autumn Semester 2022 on.

DAS in	Transport Engineering - Key for Type									
E- O	Recommended, not eligible for credits Compulsory	W+ Z	Eligible for credits and recommended Courses outside the curriculum							
<u>W</u>	Eligible for credits	Dr	Suitable for doctorate							
Key for Hours										
V	lecture	P	practical/laboratory course							

G	lecture with exercise	Α	independent project
U	exercise	D	diploma thesis
S	seminar	R	revision course / private study
K	colloquium		
	·		

ECTS European Credit Transfer and Accumulation System

## **DAS Preparation for the Swiss Federal Examination in Pharmacy**

#### ► First Series of Courses (Group A)

Number	Title	Type	ECTS	Hours				Lecturers
535-0521-00L	Pharmacology and Toxicology I	0	2 credits	2V				
535-0521-00 V	Pharmakologie und Toxikologie I Online-Veranstaltung: Diese Lehrveranstalt grundsätzlich online statt. Die reservierten Studierenden auf dem Campus bestehen, u Lehrveranstaltung dort zu hören.	Räume l		2 hrs	Fri	08-10	HCI J7	U. Quitterer, J. Abd Alla
535-0810-00L	Gene Technology	0	2 credits	2G				
535-0810-00 G	Gene Technology			2 hrs	Wed	10-12	HCI J6	K. Eyer, J. Scheuermann
535-0830-00L	Pharmaceutical Immunology	0	2 credits	2G				
535-0830-00 G	Pharmaceutical Immunology			2 hrs	Wed	08-10	HCI J6	<ul><li>C. Halin Winter,</li><li>V. Collado Diaz</li></ul>
535-0421-00L	Galenical Pharmacy I	0	2 credits	2G				
535-0421-00 G	Galenische Pharmazie I Unterrichtssprache: Deutsch und Englisch Language: German and English			2 hrs	Fri	10-12	HCI J7	JC. Leroux, E. Giger
535-0525-00L	Pharmaceutical Cases	0	1 credit	1G				
535-0525-00 G	Pharmazeutische Fallbeispiele ■			1 hrs	Tue/2	10-12	HCI J4	<ul><li>D. Stämpfli, S. Erni,</li><li>E. Kut Bacs, P. Obrist</li></ul>
► Second S	Series of Courses (Group A)							
▶▶ Compu	Isary Courses I							
Number	Title	Туре	ECTS	Hours				Lecturers
535-5512-00L	Triage, Diagnostics, Therapy Support	0	9 credits	12G				

Number	Title	Type	ECTS	Hours				Lecturers
<b>535-5512-00L</b> 535-5512-00 G	Triage, Diagnostics, Therapy Support Triage, Diagnostik, Therapiebegleitung ■	0	9 credits	<b>12G</b> 168s hrs	Thu/1 Fri/1 09.11 10.12.	08-12 14-18 08-17	HG D3.2 ML E12 ML H37.1	E. Kut Bacs, S. Erni, P. Obrist, D. Petralli-Nietlispach, K. Prader-Schneiter, I. S. Vogel Kahmann, P. Wiedemeier

### **▶▶** Compulsary Courses II

Number	Title	Туре	ECTS	Hours				Lecturers
535-0030-00L	Therapeutic Proteins	W	3 credits	3G				
535-0030-00 G	Therapeutic Proteins			3 hrs	Mon	10-13	HIL E9	C. Halin Winter, D. Neri
535-0041-00L	Pharmacology and Toxicology III	W	2 credits	2G				
535-0041-00 G	Pharmacology and Toxicology III Online lecture: This lecture will take place o will remain reserved on campus for students from there.			Mon	14-16	HCI G3	M. Detmar, U. Quitterer	
535-0050-00L	Pharmacoepidemiology and Drug Safety	W	3 credits	2G				
535-0050-00 G	Pharmacoepidemiology and Drug Safety			2 hrs	Fri/1	08-12	ML F36	A. Burden, S. Russmann
535-0137-00L	Clinical Chemistry II	W	1 credit	1V				

### ► Second Series of Courses (Group B)

Number	Title	Туре	ECTS	Hours				Lecturers
<b>535-5512-00L</b> 535-5512-00 G		0	9 credits	<b>12G</b> 168s hrs	Thu/1 Fri/1 09.11 10.12.	08-12 14-18 08-17	HG D3.2 ML E12 ML H37.1	E. Kut Bacs, S. Erni, P. Obrist, D. Petralli-Nietlispach, K. Prader-Schneiter, I. S. Vogel Kahmann, P. Wiedemeier
535-0137-00L	Clinical Chemistry II	0	1 credit	1V				
535-0137-00 V	Clinical Chemistry II			1 hrs	Tue/1	10-12	HCI J4	M. Hersberger

### ► Third Series of Courses (Group A and B)

### **▶▶** Practical Pharmacy I and Compensatory Courses

Number	Title	Туре	ECTS	Hours			Lecturers
535-5521-00L	Therapeutic Skills I	0	3 credits	3G			
535-5521-00 G	Therapeutic Skills I ■			48s hrs	20.09. 10-18 20.09 08-18 08.10. 23.09. 08-12 27.09. 08-16	ML H37.1 ML H37.1 ML H37.1 ML H37.1	A. Küng Krähenmann, S. Erni, E. Kut Bacs, D. Petralli- Nietlispach, D. Stämpfli, I. S. Vogel Kahmann, P. Wiedemeier
535-5522-00L	Therapeutic Skills II	0	3 credits	3G			
535-5522-00 G	Therapeutic Skills II ■			48s hrs	20.09. 10-18 20.09 08-18 08.10. 23.09. 08-12 27.09. 08-16	ML H37.1 ML H37.1 ML H37.1 ML H37.1	A. Küng Krähenmann, S. Erni, E. Kut Bacs, D. Petralli- Nietlispach, D. Stämpfli, I. S. Vogel Kahmann, P. Wiedemeier

## ▶▶ Practical Pharmacy II

Number	Title	Type	ECTS	Hours	Lecturers
535-5524-00L	Clinical Trainings	0	2 credits	3G	
535-5524-00 G	Clinical Trainings ■			40s hrs	<ul><li>A. Gutzeit, D. Stämpfli,</li><li>P. Wiedemeier</li></ul>
535-5502-00L	Pharmaceutical Manufacturing in Small Quantities (Compounding)	0	3 credits	5G	
535-5502-00 G	Arzneimittelherstellung in kleinen Mengen ■ Gemäss separatem Programm	I		64s hrs	P. G. Tiefenböck, A. Romagna
535-5503-00L	Institutional Pharmacy	0	2 credits	3G	
535-5503-00 G	Institutionelle Pharmazie ■			40s hrs by appt.	<b>P. Wiedemeier</b> , J. Beney, M. Lutters, I. S. Vogel Kahmann

DAS Prepar	DAS Preparation for the Swiss Federal Examination in Pharmacy - Key for Type									
Dr	Suitable for doctorate	W	Eligible for credits							
E-	Recommended, not eligible for credits	W+	Eligible for credits and recommended							
0	Compulsory	Z	Courses outside the curriculum							

Key for	Hours			
V	lecture	P	practical/laboratory course	
G	lecture with exercise	A	independent project	
U	exercise	D	diploma thesis	
S	seminar	R	revision course / private study	
K	colloquium			

ECTS European Credit Transfer and Accumulation System

Special students and auditors need special permission from the lecturers.

## **Data Science Master**

## **▶** Core Courses

## ▶▶ Data Analysis

## ▶▶▶ Information and Learning

227-0101-00L Discrete-Time and Statistical Signal

Number	Title	Type	ECTS	Hours				Lecturers
252-0535-00L	Advanced Machine Learning	W	10 credits	3V+2U+	44			
	Advanced Machine Learning  Advanced Machine Learning	**	io cieulis	3 hrs	Thu	15-16	ETA F5	J. M. Buhmann,
232-0333-00 V	Freitag 8-10 HG F1 mit Videoübertragung Donnerstag 15-16 ETA F 5 mit Videoübertr			51113	Fri	08-10	ETF E1 HG F1 HG F3	C. Cotrini Jimenez
252-0535-00 U	Advanced Machine Learning			2 hrs	Wed Thu Fri	14-16 16-18 16-18 14-16	CAB G61 CAB G61 ML F34 CAB G61	J. M. Buhmann, C. Cotrini Jimenez
252-0535-00 A	Advanced Machine Learning Project Work, no fixed presence required.			4 hrs	111	14-10	CAB GOT	J. M. Buhmann, C. Cotrini Jimenez
227-0423-00L	Neural Network Theory	W	4 credits	2V+1U				
227-0423-00 V	Neural Network Theory			2 hrs	Tue	10-12	HG F5	H. Bölcskei
227-0423-00 U	Neural Network Theory The exercise will take place online on: https://www.mins.ee.ethz.ch/teaching/nnt/d The reserved room is meant for those stude the course from the campus.			1 hrs	Tue	12-13	HG F5	H. Bölcskei
▶▶▶ Statist	tics							
Number	Title	Туре	ECTS	Hours				Lecturers
401-3621-00L	Fundamentals of Mathematical Statistics	s W	10 credits	4V+1U				
401-3621-00 V	Fundamentals of Mathematical Statistics			4 hrs	Tue	08-10	HG E5	S. van de Geer
401-3621-00 U	Fundamentals of Mathematical Statistics			1 hrs	Wed Tue	10-12 12-13	HG E7 HG D7.1 HG E7	S. van de Geer
▶▶ Data Ma	anagement							
Number	Title	Туре	ECTS	Hours				Lecturers
263-3010-00L	Big Data	W	10 credits	3V+2U+	4A			<u> </u>
263-3010-00 V	Big Data Online lecture: This lecture will primarily tak Reserved rooms will remain blocked on car follow the course from there.	ke place	online.	3 hrs	Tue Wed	14-16 09-10	CAB G61 ML H44	G. Fourny
263-3010-00 U				2 hrs	Wed	14-16	CAB G52 HG E33.1 HG G26.1 ON LINE	G. Fourny
					Fri	14-16	CAB G52 ON LINE	
263-3010-00 A	Big Data Individual work to get hands-on experience covered, no fixed presence required.	with the	technologies	4 hrs				G. Fourny
263-3845-00L	Data Management Systems	w	8 credits	3V+1U+	3A			
	Data Management Systems  Data Management Systems			3 hrs 1 hrs	Wed Fri Fri	10-12 08-09 09-10	CAB G61 HG G3 HG D5.1	G. Alonso G. Alonso
							HG E21 HG G26.1	
263-3845-00 A	Data Management Systems			3 hrs				G. Alonso
263-4500-00L	Advanced Algorithms	W	9 credits	3V+2U+	3A			
	Advanced Algorithms Online lecture: This lecture will primarily tak Reserved rooms will remain blocked on car follow the course from there.			3 hrs	Wed	09-12	HG D5.2	<b>M. Ghaffari</b> , G. Zuzic
	Advanced Algorithms			2 hrs	Fri	10-12	CAB G59	M. Ghaffari, G. Zuzic
	Advanced Algorithms			3 hrs				M. Ghaffari, G. Zuzic
►► Core Ele	ectives							
Number	Title	Type	ECTS	Hours				Lecturers
151-0563-01L	Dynamic Programming and Optimal Control	W	4 credits	2V+1U				
151-0563-01 V	Dynamic Programming and Optimal Contro The lecture will start in the 2nd week of Ser Online lecture: This lecture will primarily tak Reserved rooms will remain blocked on car follow the course from there.	mester. ke place		2 hrs	Wed	14-16	HG F1	R. D'Andrea
151-0563-01 U	Dynamic Programming and Optimal Contro The exercise will start in the 2nd week of Se			1 hrs	Wed	16-17 16-17	CAB G51 HG F1	R. D'Andrea
					29.09.	16-17	ML E12	

4G

6 credits

W

007 0404 00 0	Processing			4 1	<b>T</b>	4440	110 50	II A Laskaan
	Discrete-Time and Statistical Signal Proces			4 hrs	Tue	14-18	HG F3	HA. Loeliger
	Information Theory I	W	6 credits	<b>4G</b> 4 hrs	ام ۱۸۷	4440	ETE C4	A Lawidath
	Information Theory I				Wed	14-18	ETF C1	A. Lapidoth
227-0689-00L	System Identification	W	4 credits	2V+1U	14/I	40.40	110 D7 4	D. Comitte
	System Identification			2 hrs	Wed	10-12	HG D7.1 ETZ D61.1	R. Smith
227-0689-00 0	System Identification			1 hrs	Wed	12-13	HG D7.1	R. Smith
252-0417-00L	Randomized Algorithms and Probabilistic Methods	W	10 credits	3V+2U+	4A			
252-0417-00 V	Randomized Algorithms and Probabilistic N	/lethods		3 hrs	Wed	08-09	ML D28	A. Steger
	· ·				Thu	16-18	ML D28	-
252-0417-00 U	Randomized Algorithms and Probabilistic N	/lethods		2 hrs	Tue	14-16 16-18	HG D1.2 HG D1.2	A. Steger
252-0417-00 A	Randomized Algorithms and Probabilistic No. Project Work, no fixed presence required.	Methods		4 hrs		10-10	110 01.2	A. Steger
252-1407-00L	Algorithmic Game Theory	w	7 credits	3V+2U+	1A			
252-1407-00 V	Algorithmic Game Theory			3 hrs	Fri	10-13	CHN C14	P. Penna
252-1407-00 U	Algorithmic Game Theory			2 hrs	Tue	10-12	CAB G57	P. Penna
						16 10	CAB G59	
252-1407-00 A	Algorithmic Game Theory Project Work, no fixed presence required.			1 hrs		16-18	LFW B3	P. Penna
252-1414-00L	System Security	w	7 credits	2V+2U+	2A			
	System Security	••		2 hrs	Mon	10-12	HG D1.2	S. Capkun, A. Perrig
	System Security			2 hrs	Thu	14-16	HG D3.2	S. Capkun, A. Perrig
	The exercises begin in the second week of	the sem	ester.			16-18	CAB G11	•
050 4444 00 *	Sustan Security			2 5				C Conkup A Berrie
	System Security			2 hrs				S. Capkun, A. Perrig
252-3005-00L	Natural Language Processing Number of participants limited to 400.	W	5 credits	2V+2U+				
	Natural Language Processing From HS21 in the autumn semester.			2 hrs	Mon	12-14	HG F7	R. Cotterell
	Natural Language Processing			2 hrs	Wed	12-14	HG F7	R. Cotterell
	Natural Language Processing			1 hrs				R. Cotterell
261-5130-00L	Research in Data Science Only for Data Science MSc.	W	6 credits	13A				
261-5130-00 A	Research in Data Science			1000 hro				Professors
				180s hrs	<u> </u>			1 101000010
263-0006-00L	Algorithms Lab	W	8 credits	4P+3A	5			1 101000010
	Algorithms Lab Only for master students!	W	8 credits	4P+3A		11.10	045.457	
	Algorithms Lab	W	8 credits		Mon	14-16	CAB H57 HG E26.1 HG E26.3	A. Steger, E. Welzi
	Algorithms Lab Only for master students!	W	8 credits	4P+3A	Mon		HG E26.1 HG E26.3	
	Algorithms Lab Only for master students!	W	8 credits	4P+3A	Mon Tue Wed	14-16 16-18 16-18	HG E26.1 HG E26.3 ML H34.3 CAB G11	
263-0006-00 P	Algorithms Lab Only for master students! Algorithms Lab	W	8 credits	<b>4P+3A</b> 4 hrs	Mon Tue	16-18	HG E26.1 HG E26.3 ML H34.3	A. Steger, E. Welzl
263-0006-00 P	Algorithms Lab Only for master students! Algorithms Lab Algorithms Lab	W	8 credits	4P+3A	Mon Tue Wed	16-18 16-18	HG E26.1 HG E26.3 ML H34.3 CAB G11	
263-0006-00 P 263-0006-00 A	Algorithms Lab Only for master students! Algorithms Lab Algorithms Lab Project Work, no fixed presence required.			<b>4P+3A</b> 4 hrs 3 hrs	Mon Tue Wed Thu	16-18 16-18	HG E26.1 HG E26.3 ML H34.3 CAB G11	A. Steger, E. Welzl
263-0006-00 P 263-0006-00 A	Algorithms Lab Only for master students! Algorithms Lab Algorithms Lab	w	8 credits	<b>4P+3A</b> 4 hrs	Mon Tue Wed Thu	16-18 16-18	HG E26.1 HG E26.3 ML H34.3 CAB G11	A. Steger, E. Welzl
263-0006-00 P 263-0006-00 A 263-0009-00L	Algorithms Lab Only for master students! Algorithms Lab Algorithms Lab Project Work, no fixed presence required. Information Security Lab Only for master students!			<b>4P+3A</b> 4 hrs 3 hrs	Mon Tue Wed Thu	16-18 16-18	HG E26.1 HG E26.3 ML H34.3 CAB G11	A. Steger, E. Welzl  A. Steger, E. Welzl  K. Paterson, S. Capkun,
263-0006-00 P 263-0006-00 A 263-0009-00L	Algorithms Lab Only for master students! Algorithms Lab Algorithms Lab Project Work, no fixed presence required. Information Security Lab Only for master students! Number of participants limited to 250.			4P+3A 4 hrs 3 hrs 2V+1U+	Mon Tue Wed Thu 3P+1A	16-18 16-18 16-18	HG E26.1 HG E26.3 ML H34.3 CAB G11 ML H34.3	A. Steger, E. Welzl  A. Steger, E. Welzl  K. Paterson, S. Capkun, D. Hofheinz, A. Perrig,
263-0006-00 P 263-0006-00 A <b>263-0009-00L</b> 263-0009-00 V	Algorithms Lab Only for master students! Algorithms Lab Algorithms Lab Project Work, no fixed presence required.  Information Security Lab Only for master students! Number of participants limited to 250. Information Security Lab			4P+3A 4 hrs 3 hrs 2V+1U+	Mon Tue Wed Thu 3P+1A Mon	16-18 16-18 16-18	HG E26.1 HG E26.3 ML H34.3 CAB G11 ML H34.3	A. Steger, E. Welzl  A. Steger, E. Welzl  K. Paterson, S. Capkun, D. Hofheinz, A. Perrig, S. Shinde
263-0006-00 P 263-0006-00 A <b>263-0009-00L</b> 263-0009-00 V	Algorithms Lab Only for master students! Algorithms Lab Algorithms Lab Project Work, no fixed presence required. Information Security Lab Only for master students! Number of participants limited to 250.			4P+3A 4 hrs 3 hrs 2V+1U+	Mon Tue Wed Thu 3P+1A	16-18 16-18 16-18	HG E26.1 HG E26.3 ML H34.3 CAB G11 ML H34.3	A. Steger, E. Welzl  A. Steger, E. Welzl  K. Paterson, S. Capkun, D. Hofheinz, A. Perrig, S. Shinde K. Paterson, S. Capkun,
263-0006-00 P 263-0006-00 A 263-0009-00L	Algorithms Lab Only for master students! Algorithms Lab Algorithms Lab Project Work, no fixed presence required.  Information Security Lab Only for master students! Number of participants limited to 250. Information Security Lab			4P+3A 4 hrs 3 hrs 2V+1U+	Mon Tue Wed Thu 3P+1A Mon Tue	16-18 16-18 16-18 16-18	HG E26.1 HG E26.3 ML H34.3 CAB G11 ML H34.3 ML D28 CHN F46 CAB G11	A. Steger, E. Welzl  A. Steger, E. Welzl  K. Paterson, S. Capkun, D. Hofheinz, A. Perrig, S. Shinde
263-0006-00 P 263-0006-00 A <b>263-0009-00L</b> 263-0009-00 V 263-0009-00 U	Algorithms Lab Only for master students! Algorithms Lab Algorithms Lab Project Work, no fixed presence required.  Information Security Lab Only for master students! Number of participants limited to 250. Information Security Lab			4P+3A 4 hrs 3 hrs 2V+1U+	Mon Tue Wed Thu 3P+1A Mon Tue	16-18 16-18 16-18 16-18	HG E26.1 HG E26.3 ML H34.3 CAB G11 ML H34.3 ML D28 CHN F46 CAB G11 CAB H56	A. Steger, E. Welzl  A. Steger, E. Welzl  K. Paterson, S. Capkun, D. Hofheinz, A. Perrig, S. Shinde K. Paterson, S. Capkun, D. Hofheinz, A. Perrig, S. Shinde K. Paterson, S. Capkun,
263-0006-00 P 263-0006-00 A <b>263-0009-00L</b> 263-0009-00 V 263-0009-00 U	Algorithms Lab Only for master students! Algorithms Lab Algorithms Lab Project Work, no fixed presence required. Information Security Lab Only for master students! Number of participants limited to 250. Information Security Lab Information Security Lab			4P+3A 4 hrs 3 hrs 2V+1U+ 2 hrs 1 hrs	Mon Tue Wed Thu  3P+1A Mon Tue Wed	16-18 16-18 16-18 16-18	HG E26.1 HG E26.3 ML H34.3 CAB G11 ML H34.3 ML D28 CHN F46 CAB G11 CAB H56 CAB H57	A. Steger, E. Welzl  A. Steger, E. Welzl  K. Paterson, S. Capkun, D. Hofheinz, A. Perrig, S. Shinde K. Paterson, S. Capkun, D. Hofheinz, A. Perrig, S. Shinde K. Paterson, S. Capkun, D. Hofheinz, A. Perrig,
263-0006-00 P 263-0006-00 A <b>263-0009-00L</b> 263-0009-00 V 263-0009-00 U	Algorithms Lab Only for master students! Algorithms Lab Algorithms Lab Project Work, no fixed presence required. Information Security Lab Only for master students! Number of participants limited to 250. Information Security Lab Information Security Lab			4P+3A 4 hrs 3 hrs 2V+1U+ 2 hrs 1 hrs	Mon Tue Wed Thu  3P+1A Mon Tue Wed	16-18 16-18 16-18 16-18	ML D28  CHN F46 CAB G11  CAB H56 CAB H57 CHN E42 CHN G42	A. Steger, E. Welzl  A. Steger, E. Welzl  K. Paterson, S. Capkun, D. Hofheinz, A. Perrig, S. Shinde K. Paterson, S. Capkun, D. Hofheinz, A. Perrig, S. Shinde K. Paterson, S. Capkun,
263-0006-00 P 263-0006-00 A 263-0009-00 V 263-0009-00 U 263-0009-00 P	Algorithms Lab Only for master students! Algorithms Lab Algorithms Lab Project Work, no fixed presence required.  Information Security Lab Only for master students! Number of participants limited to 250. Information Security Lab Information Security Lab Information Security Lab			4P+3A 4 hrs 3 hrs 2V+1U+ 2 hrs 1 hrs 3 hrs	Mon Tue Wed Thu  3P+1A Mon Tue Wed	16-18 16-18 16-18 16-18	ML D28  CHN F46 CAB G11  CAB H56 CAB H57 CHN E42	A. Steger, E. Welzl  A. Steger, E. Welzl  K. Paterson, S. Capkun, D. Hofheinz, A. Perrig, S. Shinde K. Paterson, S. Capkun, D. Hofheinz, A. Perrig, S. Shinde K. Paterson, S. Capkun, D. Hofheinz, A. Perrig, S. Shinde
263-0006-00 P 263-0006-00 A 263-0009-00 V 263-0009-00 U 263-0009-00 P	Algorithms Lab Only for master students! Algorithms Lab Algorithms Lab Project Work, no fixed presence required. Information Security Lab Only for master students! Number of participants limited to 250. Information Security Lab Information Security Lab			4P+3A 4 hrs 3 hrs 2V+1U+ 2 hrs 1 hrs	Mon Tue Wed Thu  3P+1A Mon Tue Wed	16-18 16-18 16-18 16-18	ML D28  CHN F46 CAB G11  CAB H56 CAB H57 CHN E42 CHN G42	A. Steger, E. Welzl  K. Paterson, S. Capkun, D. Hofheinz, A. Perrig, S. Shinde K. Paterson, S. Capkun, D. Hofheinz, A. Perrig, S. Shinde K. Paterson, S. Capkun, D. Hofheinz, A. Perrig, S. Shinde K. Paterson, S. Capkun, D. Hofheinz, A. Perrig, S. Shinde K. Paterson, S. Capkun,
263-0006-00 P 263-0006-00 A 263-0009-00 V 263-0009-00 U 263-0009-00 P	Algorithms Lab Only for master students! Algorithms Lab Algorithms Lab Project Work, no fixed presence required.  Information Security Lab Only for master students! Number of participants limited to 250. Information Security Lab Information Security Lab Information Security Lab			4P+3A 4 hrs 3 hrs 2V+1U+ 2 hrs 1 hrs 3 hrs	Mon Tue Wed Thu  3P+1A Mon Tue Wed	16-18 16-18 16-18 16-18	ML D28  CHN F46 CAB G11  CAB H56 CAB H57 CHN E42 CHN G42	A. Steger, E. Welzl  A. Steger, E. Welzl  K. Paterson, S. Capkun, D. Hofheinz, A. Perrig, S. Shinde K. Paterson, S. Capkun, D. Hofheinz, A. Perrig, S. Shinde K. Paterson, S. Capkun, D. Hofheinz, A. Perrig, S. Shinde
263-0006-00 P 263-0006-00 A 263-0009-00 V 263-0009-00 U 263-0009-00 P	Algorithms Lab Only for master students! Algorithms Lab Algorithms Lab Project Work, no fixed presence required.  Information Security Lab Only for master students! Number of participants limited to 250. Information Security Lab Information Security Lab Information Security Lab Information Security Lab	W	8 credits	4P+3A 4 hrs 3 hrs 2V+1U+ 2 hrs 1 hrs 3 hrs	Mon Tue Wed Thu  3P+1A  Mon Tue Wed Thu	16-18 16-18 16-18 16-18	ML D28  CHN F46 CAB G11  CAB H56 CAB H57 CHN E42 CHN G42	A. Steger, E. Welzl  A. Steger, E. Welzl  K. Paterson, S. Capkun, D. Hofheinz, A. Perrig, S. Shinde K. Paterson, S. Capkun, D. Hofheinz, A. Perrig, S. Shinde K. Paterson, S. Capkun, D. Hofheinz, A. Perrig, S. Shinde  K. Paterson, S. Capkun, D. Hofheinz, A. Perrig, S. Shinde
263-0006-00 P 263-0006-00 A 263-0009-00 V 263-0009-00 U 263-0009-00 P	Algorithms Lab Only for master students! Algorithms Lab Algorithms Lab Project Work, no fixed presence required.  Information Security Lab Only for master students! Number of participants limited to 250. Information Security Lab Information Security Lab Information Security Lab			4P+3A 4 hrs 3 hrs 2V+1U+ 2 hrs 1 hrs 3 hrs	Mon Tue Wed Thu  3P+1A  Mon Tue Wed Thu	16-18 16-18 16-18 16-18	ML D28  CHN F46 CAB G11  CAB H56 CAB H57 CHN E42 CHN G42	A. Steger, E. Welzl  A. Steger, E. Welzl  K. Paterson, S. Capkun, D. Hofheinz, A. Perrig, S. Shinde K. Paterson, S. Capkun, D. Hofheinz, A. Perrig, S. Shinde K. Paterson, S. Capkun, D. Hofheinz, A. Perrig, S. Shinde  K. Paterson, S. Capkun, D. Hofheinz, A. Perrig, S. Shinde
263-0006-00 P  263-0006-00 A  263-0009-00 V  263-0009-00 U  263-0009-00 P  263-0009-00 A	Algorithms Lab Only for master students! Algorithms Lab Project Work, no fixed presence required.  Information Security Lab Only for master students! Number of participants limited to 250. Information Security Lab Information Security Lab  Information Security Lab  Reliable and Trustworthy Artificial Intelligence Reliable and Trustworthy Artificial Intelligen Online event: Will primarily take place online	W uce ne. Resea	8 credits 6 credits	4P+3A 4 hrs 3 hrs 2V+1U+ 2 hrs 1 hrs 3 hrs 2V+2U+ 2 hrs	Mon Tue Wed Thu  3P+1A  Mon Tue Wed Thu	16-18 16-18 16-18 16-18	ML D28  CHN F46 CAB G11  CAB H56 CAB H57 CHN E42 CHN G42	A. Steger, E. Welzl  A. Steger, E. Welzl  K. Paterson, S. Capkun, D. Hofheinz, A. Perrig, S. Shinde K. Paterson, S. Capkun, D. Hofheinz, A. Perrig, S. Shinde K. Paterson, S. Capkun, D. Hofheinz, A. Perrig, S. Shinde  K. Paterson, S. Capkun, D. Hofheinz, A. Perrig, S. Shinde
263-0006-00 P  263-0006-00 A  263-0009-00 V  263-0009-00 U  263-0009-00 P  263-0009-00 A	Algorithms Lab Only for master students! Algorithms Lab Project Work, no fixed presence required.  Information Security Lab Only for master students! Number of participants limited to 250. Information Security Lab Information Security Lab  Information Security Lab  Information Security Lab  Reliable and Trustworthy Artificial Intelligence Reliable and Trustworthy Artificial Intelligence	W uce ne. Resea	8 credits 6 credits	4P+3A 4 hrs 3 hrs 2V+1U+ 2 hrs 1 hrs 3 hrs 2V+2U+ 2 hrs	Mon Tue Wed Thu  3P+1A Mon Tue Wed Thu	16-18 16-18 16-18 16-17 08-09 16-19	ML D28  CHN F46 CAB G11  CAB H56 CAB H57 CHN E42 CHN G42 ETZ E6	A. Steger, E. Welzl  K. Paterson, S. Capkun, D. Hofheinz, A. Perrig, S. Shinde K. Paterson, S. Capkun, D. Hofheinz, A. Perrig, S. Shinde K. Paterson, S. Capkun, D. Hofheinz, A. Perrig, S. Shinde K. Paterson, S. Capkun, D. Hofheinz, A. Perrig, S. Shinde  K. Paterson, S. Capkun, D. Hofheinz, A. Perrig, S. Shinde
263-0006-00 P  263-0006-00 A  263-0009-00 V  263-0009-00 U  263-0009-00 P  263-0009-00 A	Algorithms Lab Only for master students! Algorithms Lab Project Work, no fixed presence required.  Information Security Lab Only for master students! Number of participants limited to 250. Information Security Lab Information Security Lab  Information Security Lab  Information Security Lab  Reliable and Trustworthy Artificial Intelligence Reliable and Trustworthy Artificial Intelligence in Information Security Information Security Intelligence Reliable and Trustworthy Artificial Intelligence Reliable and Trustworthy Artificial Intelligence Information Security Information Security Intelligence Reliable and Trustworthy Artificial Intelligence I	W  Ince  Inc	8 credits 6 credits rved rooms will e course from	4P+3A 4 hrs 3 hrs 2V+1U+ 2 hrs 1 hrs 3 hrs 2V+2U+ 2 hrs	Mon Tue Wed Thu  3P+1A Mon Tue Wed Thu	16-18 16-18 16-18 16-17 08-09 16-19	ML D28  CHN F46 CAB G11  CAB H56 CAB H57 CHN E42 CHN G42 ETZ E6	A. Steger, E. Welzl  K. Paterson, S. Capkun, D. Hofheinz, A. Perrig, S. Shinde K. Paterson, S. Capkun, D. Hofheinz, A. Perrig, S. Shinde K. Paterson, S. Capkun, D. Hofheinz, A. Perrig, S. Shinde K. Paterson, S. Capkun, D. Hofheinz, A. Perrig, S. Shinde  K. Paterson, S. Capkun, D. Hofheinz, A. Perrig, S. Shinde
263-0006-00 P  263-0006-00 A  263-0009-00 V  263-0009-00 U  263-0009-00 P  263-0009-00 A	Algorithms Lab Only for master students! Algorithms Lab Project Work, no fixed presence required.  Information Security Lab Only for master students! Number of participants limited to 250. Information Security Lab  Information Security Lab  Information Security Lab  Information Security Lab  Reliable and Trustworthy Artificial Intelligence Reliable and Trustworthy Artificial Intelligence Online event: Will primarily take place online remain blocked on campus for students to there. Reliable and Trustworthy Artificial Intelligence Exercise session will start in the second we Online event: Will primarily take place online remain blocked on campus for students to the continuous service of the second we online event: Will primarily take place online remain blocked on campus for students to the continuous service of the second we online event: Will primarily take place online remain blocked on campus for students to the continuous service of the second we online event: Will primarily take place online remain blocked on campus for students to the continuous service of the second we online event: Will primarily take place online event: Will primarily take place on the continuous service of the second we online event: Will primarily take place on the continuous service of the second we online event: Will primarily take place on the continuous service of the second we online event: Will primarily take place on the continuous service of the second we online event: Will primarily take place on the continuous service of the second we online event: Will primarily take place on the continuous service of the second we only the second w	W  ace le. Resel follow the lice leek of the lice Resel	8 credits  6 credits  rved rooms will e course from e semester. rved rooms wil	4P+3A 4 hrs 3 hrs 2V+1U+ 2 hrs 1 hrs 3 hrs 2V+2U+ 2 hrs // 2 hrs	Mon Tue Wed Thu  3P+1A  Mon Tue Wed Thu	16-18 16-18 16-18 16-18 16-17 08-09 16-19	ML D28  CHN F46 CAB G11  CAB H56 CAB H57 CHN E42 CHN G42 ETZ E6  HG G3	A. Steger, E. Welzl  K. Paterson, S. Capkun, D. Hofheinz, A. Perrig, S. Shinde K. Paterson, S. Capkun, D. Hofheinz, A. Perrig, S. Shinde K. Paterson, S. Capkun, D. Hofheinz, A. Perrig, S. Shinde  K. Paterson, S. Capkun, D. Hofheinz, A. Perrig, S. Shinde  K. Paterson, S. Capkun, D. Hofheinz, A. Perrig, S. Shinde
263-0006-00 P  263-0006-00 A  263-0009-00 V  263-0009-00 U  263-0009-00 A  263-2400-00L  263-2400-00 V  263-2400-00 U	Algorithms Lab Only for master students! Algorithms Lab Project Work, no fixed presence required.  Information Security Lab Only for master students! Number of participants limited to 250. Information Security Lab  Information Security Lab  Information Security Lab  Information Security Lab  Reliable and Trustworthy Artificial Intelligence Reliable and Trustworthy Artificial Intelligence Online event: Will primarily take place online remain blocked on campus for students to there. Reliable and Trustworthy Artificial Intelligence Exercise session will start in the second we Online event: Will primarily take place online remain blocked on campus for students to there.	W  ace be Reserved the company of th	8 credits  6 credits  rved rooms will e course from e semester. rved rooms wil	4P+3A 4 hrs 3 hrs 2V+1U+ 2 hrs 1 hrs 3 hrs 2V+2U+ 2 hrs 1 hrs	Mon Tue Wed Thu  3P+1A Mon Tue Wed Thu  1A Wed Mon	16-18 16-18 16-18 16-17 08-09 16-19	HG E26.1 HG E26.3 ML H34.3 CAB G11 ML H34.3 ML D28 CHN F46 CAB G11 CAB H56 CAB H57 CHN E42 CHN G42 ETZ E6 HG G3	A. Steger, E. Welzl  K. Paterson, S. Capkun, D. Hofheinz, A. Perrig, S. Shinde K. Paterson, S. Capkun, D. Hofheinz, A. Perrig, S. Shinde K. Paterson, S. Capkun, D. Hofheinz, A. Perrig, S. Shinde K. Paterson, S. Capkun, D. Hofheinz, A. Perrig, S. Shinde  K. Paterson, S. Capkun, D. Hofheinz, A. Perrig, S. Shinde  M. Vechev  M. Vechev
263-0006-00 P 263-0006-00 A 263-0009-00 V 263-0009-00 U 263-0009-00 P 263-2400-00L 263-2400-00 V	Algorithms Lab Only for master students! Algorithms Lab Project Work, no fixed presence required.  Information Security Lab Only for master students! Number of participants limited to 250. Information Security Lab  Information Security Lab  Information Security Lab  Information Security Lab  Reliable and Trustworthy Artificial Intelligence Reliable and Trustworthy Artificial Intelligence Online event: Will primarily take place online remain blocked on campus for students to there. Reliable and Trustworthy Artificial Intelligence Exercise session will start in the second we Online event: Will primarily take place online remain blocked on campus for students to the continuous service of the second we online event: Will primarily take place online remain blocked on campus for students to the continuous service of the second we online event: Will primarily take place online remain blocked on campus for students to the continuous service of the second we online event: Will primarily take place online remain blocked on campus for students to the continuous service of the second we online event: Will primarily take place online event: Will primarily take place on the continuous service of the second we online event: Will primarily take place on the continuous service of the second we online event: Will primarily take place on the continuous service of the second we online event: Will primarily take place on the continuous service of the second we online event: Will primarily take place on the continuous service of the second we online event: Will primarily take place on the continuous service of the second we only the second w	W  ace be Reserved the company of th	8 credits  6 credits  rved rooms will e course from e semester. rved rooms wil	4P+3A 4 hrs 3 hrs 2V+1U+ 2 hrs 1 hrs 3 hrs 2V+2U+ 2 hrs // 2 hrs	Mon Tue Wed Thu  3P+1A Mon Tue Wed Thu  1A Wed Mon	16-18 16-18 16-18 16-17 08-09 16-19	HG E26.1 HG E26.3 ML H34.3 CAB G11 ML H34.3 ML D28 CHN F46 CAB G11 CAB H56 CAB H57 CHN E42 CHN G42 ETZ E6 HG G3	A. Steger, E. Welzl  K. Paterson, S. Capkun, D. Hofheinz, A. Perrig, S. Shinde K. Paterson, S. Capkun, D. Hofheinz, A. Perrig, S. Shinde K. Paterson, S. Capkun, D. Hofheinz, A. Perrig, S. Shinde  K. Paterson, S. Capkun, D. Hofheinz, A. Perrig, S. Shinde  K. Paterson, S. Capkun, D. Hofheinz, A. Perrig, S. Shinde

263-2800-00 A 263-3210-00L	Design of Parallel and High-Performance Co Design of Parallel and High-Performance Co Project Work, no fixed presence required.	mputing	•	3 hrs	Mon	13-16	CAR C11	T 110 14 D" : :
	3		•	2 hrs 3 hrs	Thu	14-16	CAB G11 CHN C14	T. Hoefler, M. Püschel T. Hoefler, M. Püschel T. Hoefler, M. Püschel
263-3210-00 V		w	8 credits	3V+2U+2	:A			
	Deep Learning			3 hrs	Wed Thu	13-14 14-16	ML D28 ML D28	F. Perez Cruz, A. Lucchi
263-3210-00 U	Deep Learning			2 hrs	Mon Wed	16-18 16-18	HG G5 ML D28	F. Perez Cruz, A. Lucchi
263-3210-00 A	Deep Learning			2 hrs	vveu	10-10	IVIL DZ6	F. Perez Cruz, A. Lucchi
263-5210-00L	Probabilistic Artificial Intelligence	w	8 credits	3V+2U+2	:A			
263-5210-00 V	Probabilistic Artificial Intelligence Fr 10-12 und 13-14 im ETA F5 mit Videoübe	ertragun	g ins ETF E1	3 hrs	Fri	10-12 13-14	ETA F5 ETF E1 ETA F5 ETF E1	A. Krause
263-5210-00 U	Probabilistic Artificial Intelligence Q&A session: Monday, 17-18, via zoom			2 hrs	Thu	16-18	CHN C14	A. Krause
263-5210-00 A	Probabilistic Artificial Intelligence			2 hrs				A. Krause
263-5255-00L	Foundations of Reinforcement Learning Number of participants limited to 190.	W	5 credits	2V+2A				
	Foundations of Reinforcement Learning Foundations of Reinforcement Learning			2 hrs 2 hrs	Fri	14-16	CAB G11	N. He N. He
263-5902-00L	Computer Vision	w	8 credits	3V+1U+3	A			
263-5902-00 V	Computer Vision			3 hrs	Wed	14-16	NO C60	M. Pollefeys, S. Tang, F. Yu
263-5902-00 U	Computer Vision			1 hrs	Thu Thu Fri	12-13 13-14 13-14	HG G5 CAB G51 CAB G51	M. Pollefeys, S. Tang, F. Yu
263-5902-00 A	Computer Vision			3 hrs	FII	13-14	CAB GS1	M. Pollefeys, S. Tang, F. Yu
401-0625-01L	Applied Analysis of Variance and Experimental Design	W	5 credits	2V+1U				
401-0625-01 V	Applied Analysis of Variance and Experimen	tal Desi	gn	2 hrs	Mon	14-16	HG G5	L. Meier
401-0625-01 U	Applied Analysis of Variance and Experimen	tal Desi	gn	1 hrs	Mon/2w	16-18	HG E1.1	L. Meier
401-3055-64L	<b>9</b> · · · · · · · · · · · · · · · · · · ·	W	6 credits	2V+1U				
401-3055-64 V 401-3055-64 U	Algebraic Methods in Combinatorics Algebraic Methods in Combinatorics			2 hrs 1 hrs	Wed Mon	10-12 12-13	IFW A36 ML F34	B. Sudakov B. Sudakov
						13-14	ML F34	
401-3601-00L	At most one of the three course units (Bachelor Core Courses) 401-3461-00L Functional Analysis I 401-3531-00L Differential Geometry I 401-3601-00L Probability Theory can be recognised for the Master's degree in Mathematics or Applied Mathematics. In this case, you cannot change the category assignment by yourself in myStudies but must take contact with the Study Administration Office (www.math.ethz.ch/studiensekretariat) after having received the credits.	W	10 credits	4V+1U				
401-3601-00 V	Probability Theory			4 hrs	Tue Thu	10-12 10-12	HG D1.2 HG E3	W. Werner
401-3601-00 U	Probability Theory Groups are selected in myStudies. Tue 14-15 or Tue 15-16 starting in the secon semester.	nd week	of the	1 hrs	Tue	14-15 15-16	HG F26.5 ML H41.1 HG F26.5 ML H41.1	W. Werner
401-3612-00L	Stochastic Simulation	w	5 credits	3G				
401-3612-00 G	Stochastic Simulation Does not take place this semester.			3 hrs				
<b>401-3622-00L</b> 401-3622-00 G	Statistical Modelling Statistical Modelling	W	8 credits	<b>4G</b> 4 hrs	Mon Thu	10-12 14-16	ML D28 HG E1.1	C. Heinze-Deml
<b>401-3627-00L</b> 401-3627-00 V	High-Dimensional Statistics High-Dimensional Statistics	w	4 credits	<b>2V</b> 2 hrs	Thu	08-10	CAB G61	P. L. Bühlmann
401-3901-00L		nline. Re	served rooms	<b>4V+2U</b> 4 hrs	Wed Thu	12-14 10-12	HG G5 HG G5	R. Zenklusen
401-3901-00 U	Linear & Combinatorial Optimization (Mather Groups are selected in myStudies. Thu 14-16 or Fri 10-12 or Fr 12-14 or Fri 14- demand)			2 hrs	Thu Fri	14-16 10-12 12-14 14-16	HG F26.5 CAB G51 HG D3.2 HG F26.5	R. Zenklusen

	Time Series Analysis Time Series Analysis Does not take place this semester.	W	6 credits	<b>3G</b> 3 hrs				F. Balabdaoui
<b>401-4944-20L</b> 401-4944-20 G	Mathematics of Data Science Mathematics of Data Science	W	8 credits	<b>4G</b> 4 hrs	Thu Fri	12-14 10-12	HG G3 HG G5	A. Bandeira
	Quantum Information Theory Quantum Information Theory	W	8 credits	<b>3V+1U</b> 3 hrs	Wed	10-12	HPV G4	P. Kammerlander
402-0461-00 U	Quantum Information Theory			1 hrs	Thu Thu	14-15 15-16	HPV G4 HCI J4 HPV G4	P. Kammerlander
263-5005-00L	Artificial Intelligence in Education	w	5 credits	2V+1U+	1A		111 V O4	
263-5005-00 V	Number of participants limited to 75.  Artificial Intelligence in Education  Online lecture: This lecture will take place of will remain blocked on campus for students from there.			2 hrs	Thu	16-18	RZ F21	M. Sachan, T. Sinha
263-5005-00 U	Artificial Intelligence in Education Online exercises: Will primarily take place or rooms will remain blocked on campus for st exercises from there.			1 hrs	Thu	18-19	RZ F21	M. Sachan, T. Sinha
263-5005-00 A	Artificial Intelligence in Education			1 hrs				M. Sachan, T. Sinha
<b>227-2210-00L</b> 227-2210-00 G	Computer Architecture Computer Architecture Online event: Will primarily take place onlin remain blocked on campus for students to t there.			6 <b>G+1A</b> 6 hrs	Thu Fri	13-16 13-16	HG D16.2 HG D16.2	O. Mutlu
227-2210-00 A	Computer Architecture			1 hrs				O. Mutlu
► Interdisc	iplinary Electives							
Number	Title	Туре	ECTS	Hours				Lecturers
227-1033-00 V	Registration in this class requires the permission of the instructors. Class size will be limited to available lab spots.  Preference is given to students that require this class as part of their major.  Information for UZH students: Enrolment to this course unit only possible at ETH. No enrolment to module INI404 at UZH. Please mind the ETH enrolment deadlines for UZH students: https://www.ethz.ch/en/studies/non-degree-courses/special-students/special-students/special-students-university-of-zurich.html Neuromorphic Engineering I Permission from lecturers required for all st **together with University of Zurich** The lecturers will communicate the exact le	udents	nes of ONLINE	2 hrs	Mon	14-16	ON LINE	<b>T. Delbrück</b> , G. Indiveri, S C. Liu
227-1033-00 U	courses. Neuromorphic Engineering I			3 hrs	by appt			T. Delbrück, G. Indiveri, S
	Permission from lecturers required for all st **together with University of Zurich**	uuerits						C. Liu
227 0424 221	Dates by arrangement.	\A/	4 040-414-	20				
227-0421-00L	Deep Learning in Artificial and Biological Neuronal Networks	W	4 credits	3G				
227-0421-00 G	Deep Learning in Artificial and Biological Ne		Vetworks	3 hrs	Wed	09-12	ML F34	B. Grewe
227-0945-00L	Cell and Molecular Biology for Engineers I This course is part I of a two-semester course.	W	3 credits	2G				
227-0945-00 G	Cell and Molecular Biology for Engineers I			2 hrs	Thu	10-12	LFW C5	C. Frei
<b>261-5100-00L</b> 261-5100-00 V	Computational Biomedicine Number of participants limited to 120. Computational Biomedicine Online lecture: This lecture will take place of will remain on campus for students to follow there.			2V+1U+	Tue	10-12	ML F39	V. Boeva, G. Rätsch
261-5100-00 U	Computational Biomedicine Online lecture: This lecture will take place of will remain on campus for students to follow there.			1 hrs	Tue	13-14	ML F39	V. Boeva, G. Rätsch
261-5100-00 A	Computational Biomedicine			1 hrs				V. Boeva, G. Rätsch
261-5112-00L	Algorithms and Data Structures for	W	3 credits	2G				

	Population Scale Genomics							
261-5112-00 G	Number of participants limited to 30.  Algorithms and Data Structures for Population Property of the property.	on Scale	e Genomics	2 hrs				to be announced
	Does not take place this semester. Course will be offered again in FS 2022.							
261-5111-00L	Asset Management: Advanced Investments (University of Zurich) No enrolment to this course at ETH Zurich. Book the corresponding module directly at UZH as an incoming student. UZH Module Code: MFOEC207	W	3 credits	2V				
	Mind the enrolment deadlines at UZH: https://www.uzh.ch/cmsssl/en/studies/appli cation/deadlines.html							
261-5111-00 V	Asset Management: Advanced Investments **Course at University of Zurich**	(Univer	sity of Zurich)	2 hrs				University lecturers
636-0017-00L	Computational Biology	W	6 credits	3G+2A				
636-0017-00 G	Computational Biology The lecture will be held each Monday (16-18 Basel and will be transmitted via videoconfe	erence to		3 hrs	Mon	16-18 18-19	BSA E46 HG D16.2 HG D16.2	T. Vaughan
626 0017 00 A	location. Tutorials will happen in both location. Tutorials in Zürich: Monday 18-19h (HG D 1 Tutorials in Basel: Thursday 12-13h (BSA E Lecture on Monday and the Tutorial on Thuravailable for participation via Zoom. ATTENTION: Lecture starts on Monday, 27. Basel on Thursday 30.09  Computational Biology	6.2) 46) rsday wi		2 hrs	Thu	12-13	BSA E46	T. Vaughan
636-0017-00 A	Project Work (compulsory continuous perform no fixed presence required.	rmance a	assessments),	21115				i. vaugnan
<b>701-0023-00L</b> 701-0023-00 V	<b>Atmosphere</b> Atmosphäre	W	3 credits	<b>2V</b> 2 hrs	Tue	10-12	HG E3	E. M. Fischer, T. Peter
701-0473-00L	Weather Systems	W	3 credits	2G				
701-0473-00 G	Wettersysteme			2 hrs	Wed	14-16	CHN E46	<b>M. A. Sprenger</b> , F. Scholder-Aemisegger
701-1251-00L	Land-Climate Dynamics Number of participants limited to 36. Priority is given to the target groups: - Master Environmental Science, - Master Atmospheric and Climate Science and - PhD D-USYS until September 20th,2021. Waiting list will be deleted September 27th, 2021.	W	3 credits	2G				
701-1251-00 G	Land-Climate Dynamics			2 hrs	Tue 05.10.	14-16 14-16	CHN E42 HG E19	<b>S. I. Seneviratne</b> , R. Padrón Flasher
	Transport Planning Methods Transport Planning Methods	W	6 credits	4G 4 hrs	Mon Wed 22.09. 27.09. 29.09. 04.10. 06.10.	10-12 10-12 10-12 10-12 10-12 10-12 10-12	HIL F36.1 HIL F36.1 HCP E47.1 HIL F10.3 HCP E47.1 HIL F10.3 HCP E47.1	K. W. Axhausen
101-0491-00L		W	6 credits	4G				
101-0491-00 G	Agent Based Modeling in Transportation			4 hrs	Mon Tue	10-12 14-16	HPK D24.2 HPK D24.2	M. Balac
<b>103-0227-00L</b> 103-0227-00 G	Cartography III Cartography III	W	5 credits	<b>4G</b> 4 hrs	Mon	13-17	HIL G22	L. Hurni
<b>103-0237-00L</b> 103-0237-00 G		W	5 credits	<b>3G</b> 3 hrs	Thu	14-17	HIL D53	W. Kuhn
103-0717-00L	Geoinformation Technologies and Analysis	W	6 credits	5G				
103-0717-00 G	Geoinformationstechnologien und -analyser	1		5 hrs	Tue Wed	10-13 10-12	HIL E15.2 HIL E7	W. Kuhn
<b>103-0778-00L</b> 103-0778-00 P	GIS and Geoinformatics Lab GIS and Geoinformatics Lab	W	4 credits	<b>3P</b> 3 hrs	Tue 21.12.	14-17 10-18	HIL D54.1 HIT E51	P. Kiefer
227-0575-00L	Advanced Topics in Communication Networks	W	6 credits	2V+2U				
	Advanced Topics in Communication Networ			2 hrs	Tue	14-16	ML E12	L. Vanbever
	Advanced Topics in Communication Networ		A orealtre	2 hrs	Tue	16-18	ML E12	L. Vanbever
401-3922-00L	Life Insurance Mathematics	W	4 credits	2V				

8 credits

W

2 hrs

4V+1U

401-3922-00 V Life Insurance Mathematics

401-3925-00L Non-Life Insurance: Mathematics and

Fri

16-18 HG E1.1

M. Koller

	Statistics							
401-3925-00 V	Non-Life Insurance: Mathematics and Statis	stics		4 hrs	Mon Tue	16-18 13-15	HG D7.1 HG D7.1	M. V. Wüthrich
401-3925-00 U	Non-Life Insurance: Mathematics and Statis	stics		1 hrs	Tue	15-16	HG D7.1	M. V. Wüthrich
<b>401-3928-00L</b> 401-3928-00 V	Reinsurance Analytics Reinsurance Analytics	W	4 credits	<b>2V</b> 2 hrs	Tue	16-18	HG E1.1	P. Antal, P. Arbenz
<b>401-4889-00L</b> 401-4889-00 V	Mathematical Finance Mathematical Finance	W	11 credits	<b>4V+2U</b> 4 hrs	Tue	08-10	HG E1.1	D. Possamaï
401-4889-00 U	Mathematical Finance			2 hrs	Thu Fri	08-10 10-12	ML F36 ML F38	D. Possamaï
401-8905-00L	Financial Engineering (University of	w	6 credits	4G				
	<b>Zurich)</b> No enrolment to this course at ETH Zurich. Book the corresponding module directly at UZH as an incoming student. UZH Module Code: MFOEC200							
	Mind the enrolment deadlines at UZH: https://www.uzh.ch/cmsssl/en/studies/appli cation/deadlines.html							
401-8905-00 G	Financial Engineering (University of Zurich) **Course at University of Zurich**			4 hrs				University lecturers
851-0252-13L	Network Modeling Particularly suitable for students of D-INFK and in the MSc Data Science	W	3 credits	2V				
	Students are required to have basic knowledge in inferential statistics, such as regression models.							
851-0252-13 V	Network Modeling			2 hrs	Mon	16-18	IFW A32.1	C. Stadtfeld, V. Amati
851-0735-09L	Workshop & Lecture Series on the Law & Economics of Innovation	W	2 credits	2\$				
851-0735-09 S	Workshop & Lecture Series on the Law & E Innovation **together with University of Zurich**	conomi	cs of	28s hrs	Tue Wed 22.09.	16-18 16-18 16-18	UNI ZH. IFW A32.1 ML E12	S. Bechtold, H. Gersbach
	Unregelmässige Veranstaltung. Findet alter und an der ETH statt.	rnierend	le an der UZH					
851-0252-15L	Network Analysis Particularly suitable for students of D-INFK, D-MATH	W	3 credits	2V				
851-0252-15 V	Network Analysis			2 hrs	Wed	18-20	ML F36	U. Brandes
851-0760-00L	Building a Robot Judge: Data Science for Decision-Making Particularly suitable for students of D-INFK, D-ITET, D-MTEC	W	3 credits	2V				
851-0760-00 V	Building a Robot Judge: Data Science for D Online lecture: This seminar will primarily ta Reserved rooms will remain blocked on car follow the seminar from there.	ke plac	e online.	2 hrs	Mon	14-16	ETZ E8	E. Ash
851-0761-00L	Building a Robot Judge: Data Science for Decision-Making (Course Project) This is the optional course project for "Building a Robot Judge: Data Science for the Law."	W	2 credits	2V				
	Please register only if attending the lecture course or with consent of the instructor.							
	Some programming experience in Python is required, and some experience with text mining is highly recommended.							
851-0761-00 V	Building a Robot Judge: Data Science for D (Course Project) Mondays, 12 - 2 pm. Same dates and room course 851-0760-00 V Building a Robot Jud Decision-Making.	as for t	he lecture	28s hrs				E. Ash
401-3913-01L	Mathematical Foundations for Finance	W	4 credits	3V+2U	<b>T</b>	00.40	110.05	D. Anninis
	Mathematical Foundations for Finance **together with University of Zurich**			3 hrs	Tue Thu	08-10 13-14	HG G5 HG G5	B. Acciaio
401-3913-01 U	Mathematical Foundations for Finance Groups are selected in myStudies. **together with University of Zurich** Fri 8-10 or Fri 10-12			2 hrs	Fri	08-10 10-12	HG D7.1 HG D3.2	B. Acciaio
	Online course: This course takes place onling is meant for those students who want to follow Zentrum campus.			1				

263-4640-00 V	Network Security			2 hrs	Tue	10-12	HG E1.2	<b>A. Perrig</b> , S. Frei, M. Legner, K. Paterson
263-4640-00 U	Network Security			2 hrs	Thu	16-18	CAB G61	A. Perrig, S. Frei, M. Legner, K. Paterson
263-4640-00 A	Network Security Project Work, no fixed presence required.			3 hrs				<b>A. Perrig</b> , S. Frei, M. Legner, K. Paterson
► Data Scie	ence Lab							
Number	Title	Туре	ECTS	Hours				Lecturers
263-3300-00L	Data Science Lab	0	14 credits	9P				
263-3300-00 P	Only for Data Science MSc.  Data Science Lab			9 hrs	Thu	14-16	CAB G59	C. Zhang, V. Boeva,
								R. Cotterell, J. Vogt, F. Yang
► Seminar								
Number	Title	Type	ECTS	Hours				Lecturers
252-5051-00L	Advanced Topics in Machine Learning Number of participants limited to 40.	W	2 credits	28				
	The deadline for deregistering expires at the end of the fourth week of the semester. Students who are still registered after that date, but do not attend the seminar, will officially fail the seminar.							
252-5051-00 S	Advanced Topics in Machine Learning ■			2 hrs	Tue Thu	16-18 16-18	CAB G56 CAB G57	J. M. Buhmann, R. Cotterell, J. Vogt, F. Yang
263-3504-00L	Hardware Acceleration for Data Processing Number of participants limited to 24.	W	2 credits	2S				
	The deadline for deregistering expires at the end of the second week of the semester. Students who are still registered after that date, but do not attend the seminar, will officially fail the seminar.							
263-3504-00 S	Hardware Acceleration for Data Processing Online seminar: This seminar will take place rooms will remain blocked on campus for st course from there.	e online		2 hrs	Tue	14-16	ML J34.1	G. Alonso
263-5156-00L	Beyond iid Learning: Causality, Dynamics, and Interactions Number of participants limited to 60.	W	2 credits	2\$				
	The deadline for deregistering expires at the end of the second week of the semester. Students who are still registered after that date, but do not attend the seminar, will officially fail the seminar.							
263-5156-00 S	Beyond iid Learning: Causality, Dynamics, a The lecturers will communicate the exact le courses.			2 hrs	Wed	16-18	ON LINE	M. Mühlebach, A. Krause, B. Schölkopf
401-5680-00L	Foundations of Data Science Seminar	E-	0 credits					
401-5680-00 K	Foundations of Data Science Seminar https://www.math.ethz.ch/sfs/news- and-events/data-science-seminar.html Time: 16:15-17:15			3s hrs	23.09. 11.11. 02.12.		HG F3 HG G19.2 HG G19.1	P. L. Bühlmann, A. Bandeira, H. Bölcskei, F. Yang
401-3620-20L	Student Seminar in Statistics: Inference in Some Non-Standard Regression Problems Number of participants limited to 24. Mainly for students from the Mathematics Bachelor and Master Programmes who, in addition to the introductory course unit 401-2604-00L Probability and Statistics, have heard at least one core or elective course in		4 credits	2S				
401-3620-00 S	statistics. Also offered in the Master Programmes Statistics resp. Data Science. Student Seminar in Statistics: Inference in S Regression Problems Remark: former title in FS 2020: Student Se Inference in Non-Classical Regression Mod	eminar i		2 hrs	Mon	16-18	HG E21	F. Balabdaoui, P. L. Bühlmann, M. H. Maathuis, N. Meinshausen, S. van de Geer
► GESS Sc	ience in Perspective							
	see Science in Perspective: Language Courses ETH/UZH							
	see Science in Perspective: Type A: Enhancement of Reflection Capability							
	Recommended Science in Perspective (Type B) for D-INFK							

#### ► Master's Thesis

Number	Title	Type	ECTS	Hours	Lecturers
261-0800-00L	Master's Thesis The minimal prerequisites for the Master's thesis registration are:	0	30 credits	64D	
	Completed Bachelor's program All additional requirements completed (additional requirements, if any, are listed in the admission decree) Minimum degree requirements fulfilled of the course categories Data Analysis and Data Management and overall 50 credits obtained in the course category Core Courses Data Science Lab (14 credits) completed				
261-0800-00 D	Master's Thesis			900s hrs	Professors
Data Science	Master - Key for Type				
Dr	Suitable for doctorate			W	Eligible for credits
E-	Recommended, not eligible for credits			W+	Eligible for credits and recommended
0	Compulsory			Z	Courses outside the curriculum
Key for Hours	<b>S</b>				
V	lecture			Р	practical/laboratory course
G	lecture with exercise			Α	independent project
U	exercise			D	diploma thesis
S	seminar			R	revision course / private study
K	colloquium				

**ECTS** 

# **Doctoral Department of Architecture**

More Information at: https://www.ethz.ch/en/doctorate.html

Number	Title	Туре	ECTS	Hours				Lecturers
	Course Catalogue of ETH Zurich							
01-0015-00L	Transdisciplinary Research: Challenges of Interdisciplinarity and Stakeholder Engagement Number of participants limited to 20. Priority is given to PhD students D-USYS.	W	2 credits	2S				
	All participants will be on the waiting list at first. Enrollment is possible until 15 September 2021. The waiting list is active until 17 September. All students will be informed on 19 September, if they can participate in the lecture.  The lecture takes place if a minimum of 12 students register for it.							
701-0015-00 S	Transdisciplinary Research: Challenges of I Stakeholder Engagement Irregular course	nterdisc	ciplinarity and	2 hrs	Wed/2	w 08-12	CHN K77	M. Stauffacher, C. E. Pohl, B. Vienni Baptista
064-0005-21L	Advanced Topics in History and Theory of Architecture: Entry Points - Reading Seminar	W	1 credit	1K				
064-0005-21 K	For Architecture doctoral program only.  Advanced Topics in History and Theory of A Points - Reading Seminar No course on 28.10. (seminar week).	Architect	cure: Entry	1 hrs	Thu	18-19	HIL E67	P. Ursprung, T. Avermaete. M. Delbeke, L. Stalder
64-0013-21L	Research Methods in the History and Theory of Architecture	W	2 credits	28				
64-0013-21 S	Research Methods in the History and Theor No course on 28.10. (seminar week).	ry of Arc	hitecture I	2 hrs	Thu	14-16	HCI F2	C. Rachele
64-0017-21L	Research Methods in Landscape and Urban Studies	W	2 credits	2K				
064-0017-21 K	Research Methods in Landscape and Urbar Permission from lecturers required for all st No course on 28.10. (seminar week).		S ■	2 hrs	Thu	14-16	ONA E16	<b>G. Vogt</b> , H. Klumpner, F. Persyn, C. Schmid, M. Topalovic
064-0015-21L	PhD Colloquium Theory of Information Technology for Architects	W	2 credits	2K				
64-0015-21 K	PhD Colloquium Theory of Information Tech No course on 26.10. (seminar week).	nnology	for Architects	2 hrs	Tue	08-10	HIB E15	L. Hovestadt
64-0025-21L	Introduction to Computational Research in Architecture, Engineering, Fabrication and Construction		2 credits	3K				
064-0025-21 K	Introduction to Computational Research in A Engineering, Fabrication and Construction No course 28.10. (seminar week).  ONLINE course: This course will take place rooms will remain available for students to there.	online.	Reserved	3 hrs	Wed	13-16	HIL F10.3	P. Block
01-0139-00L	Scientific Machine and Deep Learning for Design and Construction in Civil Engineering	W+	3 credits	4G				
01-0139-00 G	Scientific Machine and Deep Learning for D Construction in Civil Engineering 14-16 theory 16-18 group work	esign a	nd	4 hrs	Mon	14-18	HPK D3	M. A. Kraus, D. Griego
51-0778-00L	Discovering Management Entry level course in management for BSc, MSc and PHD students at all levels not belonging to D-MTEC. This course can be complemented with Discovering Management (Excercises) 351-0778-01.	W	3 credits	3G				
51-0778-00 G	Discovering Management Diese Lehrveranstaltung wird ab dem HS 2 angeboten. The lecture takes place in classroom, online zoom and recorded.	•		3 hrs	Fri	08-11	HG E1.1	B. Clarysse, S. Brusoni, E. Fleisch, G. Grote, V. Hoffmann, T. Netland, Y. R. Shrestha, P. Tinguely, L. P. T. Vandeweghe
351-0125-76L	Critiques of Scientific Objectivity Number of participants limited to 30.	w	3 credits	<b>2</b> S				
851-0125-76 S	Critiques of Scientific Objectivity			2 hrs	Fri	16-18	IFW A34	R. Wagner

Doctora	I Department of Architecture - Key for Type		
0	Compulsory	E-	Recommended, not eligible for credits
W+	Eligible for credits and recommended	Z	Courses outside the curriculum
W	Eligible for credits	Dr	Suitable for doctorate
V	lecture	P	practical/laboratory course
Key for	Hours		
G	lecture with exercise	A	independent project
U	exercise	D	diploma thesis
S	seminar	R	revision course / private study
K	colloquium		

## **Doctoral Department of Civil, Environmental and Geomatic Engineering**

More Information at: https://www.ethz.ch/en/doctorate.html

## ► Doctoral and Post-Doctoral Courses

## ▶▶ International Graduate Program "Spatial Development as a Laboratory"

Further information: www.forschungslabor-raum.info

## **▶▶** Additional Courses

Number	Title	Type	ECTS	Hours				Lecturers
701-0015-00L	Transdisciplinary Research: Challenges of Interdisciplinarity and Stakeholder Engagement Number of participants limited to 20. Priority is given to PhD students D-USYS.	W	2 credits	2S				
	All participants will be on the waiting list at first. Enrollment is possible until 15 September 2021. The waiting list is active until 17 September. All students will be informed on 19 September, if they can participate in the lecture.  The lecture takes place if a minimum of 12 students register for it							
701-0015-00 S	Transdisciplinary Research: Challenges of Stakeholder Engagement Irregular course	Interdisc	ciplinarity and	2 hrs	Wed/2w	v 08-12	CHN K77	M. Stauffacher, C. E. Pohl, B. Vienni Baptista
	Course Catalogue of ETH Zurich							
<b>101-0191-00L</b> 101-0191-00 G	Seismic and Vibration Isolation  Seismic and Vibration Isolation	W	2 credits	1G 1 hrs	Wed/1	10-12	HCP E47.2	M. Vassiliou
101-0121-00L	Fatigue and Fracture in Materials and Structures	W	4 credits	3G				
101-0121-00 G	Fatigue and Fracture in Materials and Struc The lecture will primarily take place online. remain blocked on campus for students to there. Remark: Includes a visit to Empa and labor at Empa laboratories.	The reso	e lecture from	3 hrs	Tue	10-13	HCI J6	E. Ghafoori, A. Taras
101-0522-10L	Doctoral Seminar Data Science and Machine Learning in Civil, Env. and Geospatial Engineering Number of participants limited to 21.	W	1 credit	2\$				
101-0522-10 S	Doctoral Seminar Data Science and Machin Env. and Geospatial Engineering Does not take place this semester.	ne Learn	ning in Civil,	2 hrs				<b>B. Soja</b> , E. Chatzi, F. Corman, O. Fink, I. Hajnsek, K. Schindler
101-0523-12L	Frontiers in Machine Learning Applied to Civil, Env. and Geospatial Engineering (HS21)  Number of participants limited to 21.	W	1 credit	2\$				
101-0523-12 S	Frontiers in Machine Learning Applied to Conference of Geospatial Engineering (HS21) ■ Starting time: 13:45.	ivil, Env.	and	2 hrs	Wed/2w	v 14-16	ON LINE	M. A. Kraus, E. Chatzi, F. Corman, O. Fink, I. Hajnsek, M. Lukovic, K. Schindler, B. Soja, B. Sudret, M. J. Van Strien
101-0139-00L	Scientific Machine and Deep Learning for Design and Construction in Civil Engineering	W	3 credits	4G				
101-0139-00 G	6 Scientific Machine and Deep Learning for E Construction in Civil Engineering 14-16 theory 16-18 group work	esign a	nd	4 hrs	Mon	14-18	HPK D3	M. A. Kraus, D. Griego
101-0522-11L	Doctoral Seminar: Computational Science in Civil, Env. and Geomatic Engineering	W	1 credit	0.5G				
101-0522-11 G	B Doctoral Seminar: Computational Science i Geomatic Engineering The lecturers will communicate the exact le courses.			0.5 hrs	Tue/2w	13-14	ON LINE	D. Kammer, D. F. Vetsch
Doctoral Dep	eartment of Civil, Environmental and Ge	omatic	Engineering	- Key for	Туре			
0	Compulsory			Z	Co	ourses ou	itside the curricu	ılum
W	Eligible for credits			Dr			doctorate	
E-	Recommended, not eligible for credits			W+	Eli	gible for	credits and reco	mmended

Key for	Hours		
V	lecture	P	practical/laboratory course
G	lecture with exercise	A	independent project
U	exercise	D	diploma thesis
S	seminar	R	revision course / private study
K	colloquium		

# **Doctoral Department Biology**

More Information at: https://www.ethz.ch/en/doctorate.html

Number	Title	Type	ECTS	Hours				Lecturers
	Course Catalogue of ETH Zurich							
376-1791-00L	Introductory Course in Neuroscience I (University of Zurich) No enrolment to this course at ETH Zurich. Book the corresponding module directly at UZH as an incoming student. UZH Module Code: SPV0Y005	W	2 credits	2V				
	Mind the enrolment deadlines at UZH: https://www.uzh.ch/cmsssl/en/studies/application/deadlines.html							
376-1791-00 V	Introductory Course in Neuroscience I (Uni**together with University of Zurich**	versity o	f Zurich)	2 hrs	Mon	16-18	UNI ZH.	University lecturers
	Kurs des Zentrums für Neurowissenschafte	en Zürich	n (ZNZ)					
	Beginn 20.09.2021							
151-0927-00L	Rate-Controlled Separations in Fine Chemistry	W	6 credits	3V+1U				
151-0927-00 V	Rate-Controlled Separations in Fine Chemi The class will be in a hybrid mode. The exa discussed and agreed upon with the studen week of the semester.	nct mode		3 hrs	Thu	11-14	ML F34	M. Mazzotti, V. Becattini
151-0927-00 U	Rate-Controlled Separations in Fine Chemi The class will be in a hybrid mode. The exa discussed and agreed upon with the studen week of the semester.	ct moda		1 hrs	Thu	14-15	ML F34	M. Mazzotti, V. Becattini
101-0649-00L	Applied Statistical Regression	W	5 credits	2V+1U				
	Applied Statistical Regression			2 hrs	Mon	08-10	HG E1.2	M. Dettling
401-0649-00 U	Applied Statistical Regression Mon 10-12 might not work for all different p course is offered. On sufficient demand, oth Mon 15-17 or Fri 10-12) for the exercise se	her slots	(tentatively	1 hrs	Mon/2w	10-12	HG E1.2	M. Dettling
551-1619-00L	Structural Biology	W	1 credit	1K				
551-1619-00 K	Strukturbiologie Does not take place this semester. Raum: HPK D3, ETH-Hönggerberg			1 hrs	by appt.			R. Glockshuber, F. Allain, N. Ban, K. Locher, M. Pilhofer E. Weber-Ban, K. Wüthrich
851-0180-00L	Research Ethics Number of participants limited to 40	W	2 credits	2G				
	Particularly suitable for students of D-BIOL D-CHAB, D-HEST	•						
851-0180-00 G	Research Ethics ■ One additional hour of home work per week	k will be	required	2 hrs	Wed	18-20	LFW C1	G. Achermann, P. Emch
101-5640-00L	ZüKoSt: Seminar on Applied Statistics	E-	0 credits	1K				
101-5640-00 K	ZüKoSt: Seminar on Applied Statistics **gemeinsam mit der Universität Zürich**			10s hrs	Fri	15-17	HG G19.1	<b>M. Kalisch</b> , F. Balabdaoui, A. Bandeira, P. L. Bühlmann, R. Furrer, L. Held, T. Hothorn
	Zeit: 15:15-16:30 Nach besonderem Programm gemäss Ank M. Kalisch Tel. 044 632 3435	ündigun	g, Koordination	1				M. H. Maathuis, M. Mächler, L. Meier, M. Robinson, C. Strobl, S. van de Geer
551-1109-00L	Seminars in Microbiology	E-	0 credits	2K				
551-1109-00 K	Seminars in Microbiology In autumn semester 2021, the seminar will some seminar units will only take place via Zoom and othe		•	2 hrs	Wed 03.01 04.02.	16-18 16-18	HCI J7 HCI J3	S. Sunagawa, WD. Hardt, M. Künzler, J. Piel, J. Vorholt- Zambelli
	parallel broadcasting. Information on the individual found at	seminar	units can be					
	https://micro.biol.ethz.ch/events/microbiolog							
<b>401-0620-00L</b> 401-0620-00 K	Statistical Consulting Statistischer Beratungsdienst Web: http://stat.ethz.ch/consulting E-Mail: beratung@stat.math.ethz.ch Tel: 044 632 2223	E-	0 credits	<b>0.1K</b> 0.1 hrs	by appt.			M. Kalisch, L. Meier
551-0512-00L	Current Topics in Molecular and Cellular Neurobiology Number of participants limited to 8.	· W	2 credits	1\$				
551-0512-00 S	Current Topics in Molecular and Cellular No Does not take place this semester. Permission from lecturers required for all si This course may be taken only once, either or in the autumn semester.	udents		1 hrs				U. Suter

551-0737-00L	Ecology and Evolution: Interaction Seminar	W	2 credits	<b>2S</b>				
551-0737-00 S	Ecology and Evolution: Interaction Seminar	•		2 hrs	by app	t.		S. Bonhoeffer
551-0509-00L	Current Immunological Research in Zurich	E-	0 credits	1K				
551-0509-00 K	Current Immunological Research in Zurich			12s hrs	by app	t.		R. Spörri, M. Detmar, C. Halin Winter, WD. Hardt, M. Kopf, S. R. Leibundgut, A. Oxenius, University lecturer
551-1615-00L	NMR Methods for Studies of Biological Macromolecules Prerequisites: Basic knowledge in biological NMR spectroscopy.	<b>W</b>	1 credit	2\$				
551-1615-00 S	NMR Methods for Studies of Biological Mac	romole	cules	2 hrs	Wed	14-16	HPK D3	A. D. Gossert
551-1409-00L	RNA Biology Lecture Series II: Non- coding RNAs: Biology and Therapeutics	W	4 credits	2V				
551-1409-00 V	RNA Biology Lecture Series II: Non-coding Therapeutics	RNAs:	Biology and	2 hrs	Thu	16-18	HCI H8.1	J. Hall, M. Stoffel, further lecturers
551-1407-00L	RNA Biology Lecture Series I: Transcription & Processing & Translation	W	4 credits	2V				
551-1407-00 V	RNA Biology Lecture Series I: Transcription Translation Does not take place this semester.	& Proc	essing &	2 hrs				<b>F. Allain</b> , N. Ban, U. Kutay, further lecturers
701-0015-00L	Transdisciplinary Research: Challenges of Interdisciplinarity and Stakeholder Engagement Number of participants limited to 20. Priority is given to PhD students D-USYS.	W	2 credits	28				
	All participants will be on the waiting list at first. Enrollment is possible until 15 September 2021. The waiting list is active until 17 September. All students will be informed on 19 September, if they can participate in the lecture.  The lecture takes place if a minimum of 12 students register for it.							
701-0015-00 S	Transdisciplinary Research: Challenges of I Stakeholder Engagement Irregular course	Interdiso	ciplinarity and	2 hrs	Wed/2	w 08-12	CHN K77	M. Stauffacher, C. E. Pohl, B. Vienni Baptista
551-1423-00L	Current Topics in Metabolism and Disease	W	2 credits	1S				
551-1423-00 S	Current Topics in Metabolism and Disease Does not take place this semester. Permission from lecturers required for all st Ffindet ab HS2021 nicht mehr statt.	udents		1 hrs				to be announced
<b>551-0030-01L</b> 551-0030-01 A	Doctoral Thesis Doktorarbeit	E-	0 credits					Professors
D 1 1 D	and the second Dialogue Many for Town							
-	artment Biology - Key for Type							
W	Eligible for credits			0		ompulsory		
E-	Recommended, not eligible for credits			W+		-	credits and reco	
Dr	Suitable for doctorate			Z	C	ourses ou	tside the curric	ılum
Key for Hour	s							
V	lecture			Р	pr	actical/lab	oratory course	
G	lecture with exercise			Α		depender	-	
Ū	exercise			D		ploma the		
S	seminar			R		•	ırse / private stı	udy
К	colloquium							
ECTS	European Credit Transfer and Accumulation	System	ı					

# **Doctoral Department of Biosystems Science and Engineering**

More Information at: https://www.ethz.ch/en/doctorate.html

	Title	Type	ECTS	Hours				Lecturers
636-0301-00L	Current Topics in Biosystems Science and Engineering For doctoral students only. Master's students cannot receive credits for the seminar.		2 credits	18				
636-0301-00 S	Current Topics in Biosystems Science and I Does not take place this semester.	Enginee	ring	1 hrs				R. Platt, N. Beerenwinkel, Y. Benenson, K. M. Borgwardt P. S. Dittrich, M. Fussenegger A. Hierlemann, D. Iber, M. H. Khammash, D. J. Müller S. Panke, S. Reddy, T. Schroeder, J. Stelling, B. Treutlein
	Course Catalogue of ETH Zurich							
636-0309-00L	Advances in Molecular Biotechnology	W	2 credits	2S				
636-0309-00 S	Advances in Molecular Biotechnology			2 hrs	Wed	11-12	BSA E60	M. Fussenegger
Doctoral Dep	artment of Biosystems Science and Eng	gineerir	ng - Key for	Туре				
0	Compulsory			E-	Re	ecommen	ded, not eligible	e for credits
W+	Eligible for credits and recommended			Z	Co	ourses out	tside the curric	ulum
W	Eligible for credits			Dr	Sı	uitable for	doctorate	
Key for Hours	S							
V	lecture			Р	pr	actical/lab	oratory course	
G	lecture with exercise			Α	ind	dependen	t project	
	exercise			D	dij	ploma the	sis	
U				R	re	vision cou	rse / private st	udv
-	seminar			IX.				aay

Special students and auditors need special permission from the lecturers.

# **Doctoral Department of Chemistry and Applied Biosciences**

Further information at: https://www.ethz.ch/en/doctorate.html

## ► Doctoral and Post-Doctoral Courses

## ▶▶ Doctoral Studies in Inorganic Chemistry

Number	Title	Туре	ECTS	Hours				Lecturers
529-0169-00L	Instrumental Analysis	E-	0 credits	2S				
529-0169-00 S	Instrumental Analysis			2 hrs	Tue	16-18	HCI J141	D. Günther
529-0198-00L	Main Group Element and Coordination Chemistry	E-	0 credits	2S				
	Hauptgruppen- und Koordinationschemie			2 hrs	Thu	10-12	HCI J141	H. Grützmacher
<b>529-0199-00L</b> 529-0199-00 K	Inorganic and Organometallic Chemistry Inorganic and Organometallic Chemistry	' E-	0 credits	<b>2K</b> 2 hrs	Tue	18-20	HCI J7	C. Copéret, H. Grützmacher, D. Günther, M. Kovalenko, V. Mougel
<b>529-0455-00L</b> 529-0455-00 V	Laser for Micro- and Nanostructuring Laser for Micro- and Nanostructuring Die Vorlesung kann auch in Deutsch gehalt Vereinbarung).	<b>W</b> en werd	2 credits  len (nach	<b>2V</b> 2 hrs	Wed	10-12	HCI D2	T. Lippert
▶► Doctora	al Studies in Organic Chemistry	,						
Number	Title	Туре	ECTS	Hours				Lecturers
<b>529-0280-00L</b> 529-0280-00 K	Analytical Chemistry Seminar Analytische Chemie	E-	0 credits	<b>1K</b> 1 hrs	Thu	16-18	HCI J4	R. Zenobi
<b>529-0290-00L</b> 529-0290-00 S	Organic Chemistry (Seminar) Organic Chemistry ■ Permission from lecturers required for all st Jeder Dozent hält dieses Seminar getrennt.		0 credits	<b>2S</b> 2 hrs	Fri	10-12	HCI G374	E. M. Carreira, J. W. Bode, H. Wennemers, R. Zenobi
<b>529-0299-00L</b> 529-0299-00 K	Organic Chemistry Organic Chemistry	E-	0 credits	<b>1.5K</b> 1.5 hrs	Mon	16-20	HCI J7	J. W. Bode, E. M. Carreira, P. Chen, H. Wennemers, R. Zenobi
<b>529-1100-00L</b> 529-1100-00 V	Fragrance Chemistry Fragrance Chemistry Does not take place this semester.	w	1 credit	<b>1V</b> 1 hrs				
▶▶ Doctora	al Studies in Physical Chemistry	/						
Number	Title	Туре	ECTS	Hours				Lecturers
<b>529-0490-00L</b> 529-0490-00 S	Special Topics in Theoretical Chemistry Special Topics in Theoretical Chemistry DI 14-16 room HCl G7 blocked for discussion		0 credits	<b>1S</b> 1 hrs	Tue	14-15	HCI G7	M. Reiher
529-0460-00L	Computer Simulation	E-	0 credits	40				
529-0460-00 S	Computer Simulation Gruppenseminar Genaue Zeit: 10.30-11.30		o or cares	<b>1S</b> 1 hrs	Wed	10-12	HCI G241	P. H. Hünenberger, S. Rinike
529-0427-00L	Gruppenseminar	<b>W</b> udents	1 credit		Wed	10-12	HCI G241	P. H. Hünenberger, S. Riniker F. Merkt
529-0427-00L	Gruppenseminar Genaue Zeit: 10.30-11.30  Electron Spectroscopy Electron Spectroscopy Permission from lecturers required for all str			1 hrs				
<b>529-0427-00L</b> 529-0427-00 S <b>529-0479-00L</b>	Gruppenseminar Genaue Zeit: 10.30-11.30  Electron Spectroscopy Electron Spectroscopy Permission from lecturers required for all st	udents <b>W</b>	1 credit	1 hrs 2S 2 hrs				
529-0427-00L 529-0479-00L 529-0479-00 S 529-0480-00L	Gruppenseminar Genaue Zeit: 10.30-11.30  Electron Spectroscopy Electron Spectroscopy Permission from lecturers required for all statements. Theoretical Chemistry, Molecular Spectroscopy and Dynamics Theoretical Chemistry, Molecular Spectroscopy Nuclear Magnetic Resonance Seminar	udents <b>W</b>	1 credit	1 hrs  2S 2 hrs  2 hrs  2 hrs	Mon Fri	10-12	HCI J243	F. Merkt, M. Reiher, J. Richardson, R. Signorell, H. J. Wörner
529-0427-00L 529-0479-00L 529-0479-00 S 529-0480-00L	Gruppenseminar Genaue Zeit: 10.30-11.30  Electron Spectroscopy Electron Spectroscopy Permission from lecturers required for all statements. Theoretical Chemistry, Molecular Spectroscopy and Dynamics Theoretical Chemistry, Molecular Spectroscopy Nuclear Magnetic Resonance Seminar	w w copy and	1 credit 1 credit 1 Dynamics	1 hrs  2S 2 hrs  2hrs  2hrs	Mon	10-12	HCI J243	F. Merkt, M. Reiher, J. Richardson, R. Signorell,
<b>529-0427-00L</b> 529-0479-00L 529-0479-00 S <b>529-0480-00L</b> 529-0480-00 S	Gruppenseminar Genaue Zeit: 10.30-11.30  Electron Spectroscopy Electron Spectroscopy Permission from lecturers required for all statements. Theoretical Chemistry, Molecular Spectroscopy and Dynamics Theoretical Chemistry, Molecular Spectroscopy Nuclear Magnetic Resonance Seminar Nuclear Magnetic Resonance Seminar	w w copy and	1 credit 1 credit 1 Dynamics	1 hrs  2S 2 hrs  2 hrs  2 hrs	Mon Fri	10-12	HCI J243	F. Merkt, M. Reiher, J. Richardson, R. Signorell, H. J. Wörner
529-0427-00L 529-0479-00L 529-0479-00 S 529-0480-00L 529-0480-00 S 529-0489-00L	Gruppenseminar Genaue Zeit: 10.30-11.30  Electron Spectroscopy Electron Spectroscopy Permission from lecturers required for all states Theoretical Chemistry, Molecular Spectroscopy and Dynamics Theoretical Chemistry, Molecular Spectroscopy  Nuclear Magnetic Resonance Seminar Nuclear Magnetic Resonance Seminar Permission from lecturers required for all states Introduction to the Construction of Measurement Devices in Physical Chemistry	copy and	1 credit 1 credit Dynamics 0 credits	1 hrs  2S 2 hrs  2 hrs  2 hrs	Mon Fri	10-12	HCI J243	F. Merkt, M. Reiher, J. Richardson, R. Signorell, H. J. Wörner
<b>529-0427-00L</b> 529-0479-00L	Gruppenseminar Genaue Zeit: 10.30-11.30  Electron Spectroscopy Electron Spectroscopy Permission from lecturers required for all str Theoretical Chemistry, Molecular Spectroscopy and Dynamics Theoretical Chemistry, Molecular Spectrosco  Nuclear Magnetic Resonance Seminar Nuclear Magnetic Resonance Seminar Permission from lecturers required for all str Introduction to the Construction of Measurement Devices in Physical Chemistry Physchem. Apparatebau  Permission from lecturers required for all str	copy and	1 credit 1 credit Dynamics 0 credits	1 hrs  2S 2 hrs  2 hrs  2 hrs  2 hrs	Mon Fri Tue	10-12 16-18 10-12	HCI J243 HCI J4 HCI J243	F. Merkt, M. Reiher, J. Richardson, R. Signorell, H. J. Wörner
529-0427-00L 529-0427-00 S 529-0479-00L 529-0479-00 S 529-0480-00 S 529-0489-00L 529-0489-00 P	Gruppenseminar Genaue Zeit: 10.30-11.30  Electron Spectroscopy Electron Spectroscopy Permission from lecturers required for all states Theoretical Chemistry, Molecular Spectroscopy and Dynamics Theoretical Chemistry, Molecular Spectroscopy Nuclear Magnetic Resonance Seminar Nuclear Magnetic Resonance Seminar Nuclear Magnetic Resonance Seminar Permission from lecturers required for all states Introduction to the Construction of Measurement Devices in Physical Chemistry Physchem. Apparatebau  Permission from lecturers required for all states Werkstatt-Kurs	copy and  E-  udents  W	1 credit 1 credit Dynamics 0 credits 2 credits	1 hrs  2S 2 hrs  2 hrs  2 hrs  2 hrs  2 hrs  2 hrs	Mon Fri Tue	10-12 16-18 10-12	HCI J243 HCI J4 HCI J243	F. Merkt, M. Reiher, J. Richardson, R. Signorell, H. J. Wörner  B. H. Meier  M. Reiher, A. Barnes, G. Jeschke, B. H. Meier, F. Merkt, J. Richardson,
529-0427-00L 529-0427-00 S 529-0479-00L 529-0479-00 S 529-0480-00 S 529-0489-00L 529-0489-00 P	Gruppenseminar Genaue Zeit: 10.30-11.30  Electron Spectroscopy Electron Spectroscopy Permission from lecturers required for all states Theoretical Chemistry, Molecular Spectroscopy and Dynamics Theoretical Chemistry, Molecular Spectroscopy Nuclear Magnetic Resonance Seminar Nuclear Magnetic Resonance Seminar Nuclear Magnetic Resonance Seminar Permission from lecturers required for all states Introduction to the Construction of Measurement Devices in Physical Chemistry Physchem. Apparatebau  Permission from lecturers required for all states Werkstatt-Kurs Physical Chemistry	E- udents W  udents W	1 credit 1 credit Dynamics 0 credits 2 credits	1 hrs  2S 2 hrs  2 hrs  2 hrs  2 hrs  1 K	Mon  Fri  Tue	10-12 16-18 10-12	HCI J243 HCI J243 HCI J243	F. Merkt, M. Reiher, J. Richardson, R. Signorell, H. J. Wörner  B. H. Meier  M. Reiher, A. Barnes, G. Jeschke, B. H. Meier, F. Merkt, J. Richardson, R. Riek, S. Riniker, T. Schmidt

<b>402-0551-00L</b> 402-0551-00 S	Laser Seminar Laser Seminar	E-	0 credits	<b>1S</b> 1 hrs	Mon	18-19	HPF G6	T. Esslinger, J. Faist, J. Home U. Keller, F. Merkt,
529-0481-00L	Advanced High Resolution Molecular	W	1 credit	1V				H. J. Wörner
529-0481-00 V	<b>Spectroscopy</b> Advanced High Resolution Molecular Spec Block course	troscopy	,	15s hrs	01.12. 02.12. 03.12. 06.12. 07.12. 08.12.	16-18 16-18 16-18 16-18 16-18 16-18	n /a n /a n /a n /a n /a n /a	S. Albert
					09.12. 10.12. 13.12.	16-18 16-18 16-18	n /a n /a n /a	
529-0470-00L	Literature Seminar in Theoretical Chemistry	Z	0 credits	<b>2S</b>				
529-0470-00 S	Literature Seminar in Theoretical Chemistry	У		2 hrs	Wed	14-16	HCI G232	M. Reiher
529-0485-00L	Calculating Free Energy Differences from Molecular Simulation: Theory and Practical Applications	W	1 credit	1V				
529-0485-00 V	Calculating Free Energy Differences from Machinery and Practical Applications  This is a block course and will be held from 14.01.2022.			15s hrs	10.01 14.01.	09-12	HCI F8	N. Hansen
<b>529-0809-00L</b> 529-0809-00 S	Theoretical Chemistry Seminar Theoretical Chemistry Seminar Presentations will be announced on: https://reiher.ethz.ch/courses- and-seminars/theoretical-chemistry.html (and also in elevators etc. in the HCl building)	<b>E-</b> ng)	0 credits	<b>2S</b> 2 hrs	by appt			M. Reiher, J. Richardson
▶▶ Doctora	al Studies in Chemical and Bioe	engine	ering					
Number	Title	Type	ECTS	Hours				Lecturers
529-0690-00L	ICB Seminars on Chemical and Biochemical Engineering	W	1 credit					
	ICB Seminars on Chemical and Biochemical	al Engine	eering	3s hrs	by appt			P. Arosio
	al Studies in Polymer Science							
Number	Title	Туре	ECTS	Hours				Lecturers
<b>529-0585-00L</b> 529-0585-00 V	Reactivity in Micelles and Vesicles Reactivity in Micelles and Vesicles	W	1 credit	1V 1 hrs	Fri	11-12	HCI F2	P. J. Walde
▶► Doctora	al Studies in Pharmaceutical Sc	ience	S					
Number	Title	Type	ECTS	Hours				Lecturers
<b>535-2000-00L</b> 535-2000-00 S	Seminar for Group Members Seminar for Group Members ■ Does not take place this semester. Permission from lecturers required for all st	<b>W</b> tudents	0 credits	<b>2S</b> 2 hrs				G. Schneider
535-0900-00L	Seminars on Drug Discovery and Development	E-	1 credit	1K				
535-0900-00 K	Seminars on Drug Discovery and Developr Seminar starts at 5 p.m. Guests and titles a ETH Events Calender.		shed in the	1 hrs	Wed	17-18	HCI D2	R. Schibli, KH. Altmann, M. Detmar, K. Eyer, C. Halin Winter, J. Hall, J C. Leroux, U. Quitterer, G. Schneider, H. U. Zeilhofer
535-0901-00L	From A to Z in Drug Discovery and Development	Z	1 credit	28				
535-0901-01 S	From A to Z in Drug Discovery and Develop	oment I		1 hrs	Wed/1	08-10	HCI J3	<b>J. Hall</b> , KH. Altmann, M. Arand, J. Scheuermann, R. Schibli, H. U. Zeilhofer
535-0901-02 S	From A to Z in Drug Discovery and Develop	oment II		1 hrs	Wed/2	08-10	HCI J3	J. Hall, KH. Altmann, M. Arand, J. Scheuermann, R. Schibli, H. U. Zeilhofer
	nal Courses							
Number	Title	Туре	ECTS 2 gradita	Hours				Lecturers
529-0195-00L	Scientific Information Retrieval & Management in Life Sciences and Chemistry	W	2 credits	2V				
529-0195-00 V	Scientific Information Retrieval & Managemand Chemistry	nent in Li	fe Sciences	2 hrs	Wed	16-18	HCI J3	O. Renn, L. Betschart, J. Dolenc
	Course Catalogue of ETH Zurich							

Doctora	Department of Chemistry and Applied Bioscience	s - Key for Type		
W+	Eligible for credits and recommended	7	Courses outside the curriculum	
W	Eligible for credits	Dr	Suitable for doctorate	
E-	Recommended, not eligible for credits	0	Compulsory	
Key for				
	Hours lecture	P	practical/laboratory course	
V		P   A	practical/laboratory course independent project	
V G	lecture	'	,	
Key for V G U S	lecture lecture with exercise	A	independent project	

# **Doctoral Department of Earth Sciences**

More Information at: https://www.ethz.ch/en/doctorate.html

Number	Title	Type	ECTS	Hours				Lecturers
651-0254-00L	Seminar Geochemistry and Petrology	E-	0 credits	2S				
651-0254-00 S	Seminar Geochemistry and Petrology External and occasional internal speakers research topics. Changing programs anno event calendar of the department of Earth http://www.geopetro.ethz.ch/news-events.i	unced the Sciences	rough the	2 hrs	Thu	16-18	NO C6	O. Bachmann, M. Schönbächler, C. Chelle Michou, M. W. Schmidt, D. Vance
	Course Catalogue of ETH Zurich							
651-1617-00L	Geophysical Fluid Dynamics and Numerical Modelling Seminar	E-	0 credits	1\$				
651-1617-00 S	Geophysical Fluid Dynamics and Numerica	al Modell	ing Seminar	1 hrs	Wed	12-13	NO F39	P. Tackley, T. Gerya
651-4931-00L	Seminar I: Heat and Mass Transfers in Magmatology	W	1 credit	1\$				
651-4931-00 S	Seminar I: Heat and Mass Transfers in Ma Does not take place this semester. This seminar will present some of the lates dynamics of magmatic systems on Earth a planets.	st develo	oments in the	14s hrs				O. Bachmann, C. Chelle- Michou
651-1180-00L	Research Seminar Structural Geology and Tectonics	Z	0 credits	18				
651-1180-00 S	Research Seminar Structural Geology and	l Tectonio	cs	1 hrs	Wed	18-19	NO C6	W. Behr
Doctoral Dep	artment of Earth Sciences - Key for Ty	ре						
W+	Eligible for credits and recommended			Z	С	ourses ou	tside the curricu	ılum
W	Eligible for credits			Dr	s	uitable for	doctorate	
E-	Recommended, not eligible for credits			0	С	ompulsory	<u>'</u>	
Key for Hours	\$							
	lecture			Р	nı	ractical/lah	oratory course	
•	lecture with exercise			A	•	dependen	•	
	exercise			D		ploma the	. ,	
_	seminar			R		•	ırse / private stu	ıdv
_	colloquium			• •			, p	,
ECTS	European Credit Transfer and Accumulation	n System						
	Special students and auditors need special	permissi	on from the lea	cturers.				

Special students and auditors need special permission from the lecturers.

# **Doctoral Department of Humanities, Social and Political Sciences**

More Information at: https://www.ethz.ch/en/doctorate.html

Number	Title	Type	ECTS	Hours				Lecturers
	Course Catalogue of ETH Zurich							
851-0587-01L	CIS PhD Colloquium  No enrolment to this course at ETH Zurich. Book the corresponding module directly at UZH as an incoming student. UZH Module Code: 615G932C	W	2 credits	2K				
851-0587-01 K	Mind the enrolment deadlines at UZH: https://www.uzh.ch/cmsssl/en/studies/appli cation/deadlines.html CIS PhD Colloquium (University of Zürich)			26s hrs	Thu	14-17	UNI ZH.	University lecturers
007 0007 01 10	**together with University of Zurich**  Ort: Institut für Politikwissenschaft, Cityport,	Affolter	nstr. 56,	200 1113	mu	14 17	ON ZII.	Chiversity lecturers
851-0626-02L	Zürich Oerlikon  PhD Colloquium in Development	w	1 credit	1K				
851-0626-02 K	Economics PhD Colloquium in Development Economics Blockkurs an 2 Tagen im Herbstsemester Interessierte PhD Studenten sollen sich bitte 30.September 2021 per Email an Kenneth H	bis zui		1 hrs				I. Günther, K. Harttgen
851-0735-10L	Business Law Number of participants limited to 100	W	2 credits	2V				
	Particularly suitable for students of D-ITET, D-MAVT							
851-0735-10 V	Wirtschaftsrecht			2 hrs	Thu	14-16	HG D1.2	P. Peyrot
851-0735-09L	Workshop & Lecture Series on the Law & Economics of Innovation	W	2 credits	2S				
851-0735-09 S	Workshop & Lecture Series on the Law & Ed Innovation **together with University of Zurich**	conomic	es of	28s hrs	Tue Wed 22.09.	16-18 16-18 16-18	UNI ZH. IFW A32.1 ML E12	S. Bechtold, H. Gersbach
	Unregelmässige Veranstaltung. Findet altern und an der ETH statt.	nierende	e an der UZH					
851-0738-00L	Intellectual Property: Introduction Particularly suitable for students of D- CHAB, D-INFK, D-ITET, D-MAVT, D- MATL, D-MTEC	W+	2 credits	2V				
851-0738-00 V	Geistiges Eigentum: Eine Einführung Online-Veranstaltung: Diese Lehrveranstaltu Zoom) statt. Die reservierten Räume bleiber auf dem Campus bestehen, um die Lehrvera hören.	ı für die	Studierenden	2 hrs	Fri	10-12	HG D7.1	M. Schweizer
851-0738-01L	The Role of Intellectual Property in the Engineering and Technical Sector Particularly suitable for students of D- BAUG, D-BIOL, D-BSSE, D-CHAB, D- ITET, D-MAVT	W	2 credits	2V				
851-0738-01 V	Die Rolle des Geistigen Eigentums im Ingen technischen Wissenschaften	ieurwes	sen und den	28s hrs	Fri/2w	14-18	LFW B1	K. Houshang Pour Islam
<b>851-0252-04L</b> 851-0252-04 K	Behavioral Studies Colloquium Behavioral Studies Colloquium	Z	0 credits	<b>2K</b> 2 hrs	Tue	12-14	HG E33.3	E. Stern, U. Brandes, D. Helbing, C. Hölscher, M. Kapur, C. Stadtfeld
851-0252-01L	Human-Computer Interaction: Cognition and Usability Number of participants limited to 35.	W	3 credits	28				
	Particularly suitable for students of D- ARCH, D-INFK, D-ITET							
851-0252-01 S	Human-Computer Interaction: Cognition and The lecturers will communicate the exact les courses.			2 hrs	Mon	14-16	ON LINE	H. Zhao, S. Credé, C. Hölsche
851-0252-05L	Research Seminar Cognitive Science Prerequisite: Participants should be involved in research in the cognitive science group.	W	2 credits	2\$				
851-0252-05 S	Research Seminar Cognitive Science  The lecturers will communicate the exact les courses.	son tim	es of ONLINE	2 hrs	Wed	10-12	ON LINE	C. Hölscher, S. Andraszewicz
851-0585-41L	Computational Social Science Number of participants limited to 50.	W	3 credits	<b>2S</b>				

851-0585-41 S	Computational Social Science  Online seminar: This seminar will primarily to Reserved rooms will remain blocked on carrifollow the seminar from there.			2 hrs	Tue	18-20	RZ F21	<b>D. Helbing</b> , J. Argota Sánchez Vaquerizo, M. Korecki
851-0609-06L	Governing the Energy Transition Primarily suited for Master and PhD level.	W	2 credits	2V				
851-0609-06 V	Governing the Energy Transition			2 hrs	Thu	16-18	NO C60	T. Schmidt, N. Schmid, S. Sewerin
<b>851-0105-00L</b> 851-0105-00 V	Background Knowledge Arabic World Hintergrundwissen arabische Welt	W	2 credits	<b>2V</b> 2 hrs	Wed	18-20	HG E33.1	U. Gösken
851-0252-10L	Project in Behavioural Finance Number of participants limited to 40	w	3 credits	2S				
	Particularly suitable for students of D- MTEC							
851-0252-10 S	Project in Behavioural Finance The lecturers will communicate the exact lecourses.	sson tin	nes of ONLINE	2 hrs	Wed	10-12	ON LINE	<b>S. Andraszewicz</b> , C. Hölscher A. C. Roberts
701-0015-00L	Transdisciplinary Research: Challenges of Interdisciplinarity and Stakeholder Engagement Number of participants limited to 20. Priority is given to PhD students D-USYS.	W	2 credits	2S				
	All participants will be on the waiting list at first. Enrollment is possible until 15 September 2021. The waiting list is active until 17 September. All students will be informed on 19 September, if they can participate in the lecture.  The lecture takes place if a minimum of 12 students register for it							
701-0015-00 S	Transdisciplinary Research: Challenges of I Stakeholder Engagement Irregular course	nterdisc	ciplinarity and	2 hrs	Wed/2v	v 08-12	CHN K77	M. Stauffacher, C. E. Pohl, B. Vienni Baptista
851-0252-13L	<b>Network Modeling</b> Particularly suitable for students of D-INFK and in the MSc Data Science	W	3 credits	2V				
	Students are required to have basic knowledge in inferential statistics, such as regression models.							
851-0252-13 V	Network Modeling			2 hrs	Mon	16-18	IFW A32.1	C. Stadtfeld, V. Amati
851-0252-15L	Network Analysis Particularly suitable for students of D-INFK, D-MATH	W	3 credits	2V				
851-0252-15 V	Network Analysis			2 hrs	Wed	18-20	ML F36	U. Brandes
851-0742-00L	Contract Design I This course is taught by Professor Alexander Stremitzer (https://laweconbusiness.ethz.ch/group/professor/stremitzer.html). Note that this is NOT a legal drafting class that focuses on contractual language. Instead, in Contact Design I, you will learn what the content of a contract should be so that parties can reach their goals.	W f	3 credits	2V				
	You can find all course materials and the most recent announcements on Moodle. Please log in to Moodle using your ETH or UZH credentials. Then search for "Contract Design I (851-0742-00L; Fall 2021)" and enroll. The password is "ContractDesign01".							
851-0742-00 V	Number of participants limited to 160. Max 80 ETHZ and 80 UZH Students Contract Design I The course is going to take place twice a w Thursday) during the first half of the Semes		onday and	28s hrs	Mon/1 Thu/1	16-18 12-14	ETF E1 ETF E1	A. Stremitzer
	Online lecture: This lecture will primarily tak Reserved rooms will remain blocked on can follow the course from there.							
851-0732-06L	Law & Tech Number of participants limited to 30.	W	3 credits	3S				
851-0732-06 S				40s hrs	Tue Wed	10-12 10-12	IFW A32.1 IFW A32.1	A. Stremitzer, J. Merane, A. Nielsen

851-0101-86L	Complex Social Systems: Modeling Agents, Learning, and Games Number of participants limited to 100.	W	3 credits	2\$				
	Prerequisites: Basic programming skills, elementary probability and statistics.							
851-0101-86 S	Complex Social Systems: Modeling Agents,	Learnin	g, and Games	2 hrs	Mon	16-18	HG D7.2	N. Antulov-Fantulin, T. Asikis
	Online seminar: This seminar will primarily a Reserved rooms will remain blocked on can follow the seminar from there.							D. Helbing
851-0252-08L	Evidence-Based Design: Methods and Tools For Evaluating Architectural Design Number of participants limited to 40	W	3 credits	2\$				
	Particularly suitable for students of D- ARCH							
851-0252-08 S	Evidence-Based Design: Methods and Tool Architectural Design	s For Ev	aluating	2 hrs	Fri	10-12	HIL E10.1	<ul><li>M. Gath Morad, C. Hölscher,</li><li>L. Narvaez Zertuche,</li><li>C. Veddeler</li></ul>
851-0586-03L	Applied Network Science: Social Media Networks Number of participant limited to 20	W	3 credits	18				
851-0586-03 S	Applied Network Science: Social Media Net Irregular course. The seminar ends with a full-day conference (subject to confirmation).		12.2021	17s hrs	Thu/1 10.12.	18-20 09-19	HG E33.1 HG E33.1	U. Brandes
	Online lecture: This lecture will primarily tak the full-day conference) . Reserved rooms v campus for students to follow the course fro	viİl rema	in blocked on					
851-0253-07L	Consciousness Studies Number of participants limited to 80. Consciousness Studies	W	2 credits	<b>2V</b> 2 hrs	Tue	16-18	IFW A36	K. Stocker
851-0745-00L	Ethics Workshop: The Impact of Digital Life on Society  Number of participants limited to 40.	w	2 credits	2 <b>S</b>	Tue	10-10	11 77 750	N. Glocker
851-0745-00 S	Open to all Master level / PhD students. Ethics Workshop: The Impact of Digital Life Block course three days.	on Soci	ety ■	24s hrs	10.11. 11.11. 24.11.		IFW C42 IFW C42 IFW C42	<b>E. Vayena</b> , A. Blasimme, C. Brall, J. Sleigh
851-0760-00L	Building a Robot Judge: Data Science for Decision-Making Particularly suitable for students of D-INFK, D-ITET, D-MTEC	W	3 credits	2V				
851-0760-00 V		ke place	e online.	2 hrs	Mon	14-16	ETZ E8	E. Ash
851-0761-00L	Building a Robot Judge: Data Science for Decision-Making (Course Project) This is the optional course project for "Building a Robot Judge: Data Science for the Law."	W	2 credits	2V				
	Please register only if attending the lecture course or with consent of the instructor.							
	Some programming experience in Python is required, and some experience with text mining is highly recommended.	3						
851-0761-00 V	Building a Robot Judge: Data Science for D (Course Project) Mondays, 12 - 2 pm. Same dates and room course 851-0760-00 V Building a Robot Jud Decision-Making.	as for ti	he lecture	28s hrs				E. Ash
<b>851-0157-00L</b> 851-0157-00 V	Mind and Brain Gehirn und Geist	W	3 credits	<b>2V</b> 2 hrs	Tue 28.09. 05.10.	18-20 18-20 18-20	IFW A36 HG F3 HG F3	M. Hagner
851-0337-00L	African Intellectual and Artistic Presence: From "Négritude" to the "Ateliers de la pensée"	W	3 credits	2V				
851-0337-00 V	•				Tue	16-18	LFO C13	F. Sarr
<b>851-0011-00L</b> 851-0011-00 S	The Body in Global History The Body in Global History	W	3 credits	<b>2S</b> 2 hrs	Wed	10-12	HG E33.3	E. Valdameri
851-0422-00L	A Modern Utopia: Science and Visions of the Future	W	3 credits	2S				

851-0422-00 S	A Modern Utopia: Science and Visions of th	e Future	9	2 hrs	Thu	18-20	IFW B42	A. Fryxell
351-0499-00L	Globalization – Theories, Concepts, Aspects	W	3 credits	2V				
851-0499-00 V	Globalisierung – Theorien, Konzepte, Aspel	kte		2 hrs	Wed	18-20	IFW A32.1	S. M. Scheuzger
51-0336-00L		W	3 credits	2V				
	Eros: Atene, Roma, Vienna, Parigi			2 hrs	Thu	16-18	LFO C13	G. Sissa
51-0101-72L	The Modern City and Cultural Criticism. The "Knowledge of Life" in Reform Movements 1880-1933	W	3 credits	2V				
351-0101-72 V	Moderne Grossstadt und Kulturkritik. Das "\den Reformbewegungen 1880-1933	Wissen v	om Leben" in	2 hrs	Thu	14-16	IFW B42	S. S. Leuenberger
351-0536-00L	Technology and the Environment – on Course for Collision?	W	3 credits	2S				
351-0536-00 S	Technology and the Environment – on Cour	rse for C	ollision?	2 hrs	Wed	12-14	IFW C33	L. Müller
851-0742-01L	Contract Design II This course is taught by Professor Alexander Stremitzer (https://lawecon.ethz.ch/group/professors/s remitzer.html). To be considered for Contract Design II, you must have completed Contract Design I in the same semester. Students can only register for Contract Design II after having obtained approval by Prof. Stremitzer.	<b>W</b>	1 credit	1U				
351-0742-01 U	Contract Design II The course is going to take place twice a we during the second half of the Semester (ET			16s hrs	Mon/2 Thu/2	16-18 12-14	IFW E42 IFW E42	A. Stremitzer
351-0551-18L	Colloquium for Master and PhD Students History of Technology (HS 2021)	W	2 credits	1K				
351-0551-18 K	Master-/Doktoratskolloquium Technikgesch Daten werden noch kommuniziert.	ichte (H	S 2021)	14s hrs				D. Gugerli
<b>851-0535-10L</b> 851-0535-10 V	Yemen: A Failed State? Yemen: A Failed State?	W	2 credits	<b>2V</b> 2 hrs	Tue	12-14	HG E33.5	E. Manea
51-0062-00L	Doctoral Seminar «History of Knowledge» (University of Zurich) No enrolment to this course at ETH Zurich. Book the corresponding module directly at UZH as an incoming student. UZH Module Code: 600G134E  Mind the enrolment deadlines at UZH: https://www.uzh.ch/cmsssl/en/studies/application/deadlines.html	W	2 credits	15				
851-0062-00 S	Doktorierendenseminar «Geschichte des W Zürich) **Course at University of Zurich**	/issens»	(Universität	14s hrs	Wed/2w	/ 10-12	UNI ZH.	University lecturers
351-0125-65L	A Sampler of Histories and Philosophies of Mathematics Particularly suitable for students D-CHAB, D-INFK, D-ITET, D-MATH, D-PHYS	s W	3 credits	2V				
351-0125-65 V	A Sampler of Histories and Philosophies of	Mathem	atics	2 hrs	Mon	16-18	ML E12	R. Wagner
51-0125-76L	Number of participants limited to 30.	W	3 credits	2S	⊑r:	16.40	IEW 424	D. Wagner
	Critiques of Scientific Objectivity	187	2 av114	2 hrs	Fri	16-18	IFW A34	R. Wagner
51-0197-00L	Medieval and Early Modern Science and Philosophy  Medieval and Early Modern Science and Philosophy		3 credits	2V	Thu	12.44	IEW Age	E Sammarahi
	Medieval and Early Modern Science and Pr			2 hrs	Thu	12-14	IFW A36	E. Sammarchi
351-0255-00L	Introduction to Methods in Learning Sciences II Course registration targeted at students interested in learning sciences research and higher education. Language of performance assessment will be English.	w 	2 credits	2\$	_			
351-0255-00 S	Introduction to Methods in Learning Science Online seminar: This seminar will primarily in Reserved rooms will remain blocked on car follow the seminar from there.	take plac npus for	students to	2 hrs	Thu	12-14	IFW C33	M. Kapur, T. Sinha
<b>51-0256-00L</b> 51-0256-00 K	Future Learning Initiative Colloquium Future Learning Initiative Colloquium	w	0.5 credits	1K 10s hrs	24.09. 29.10. 26.11. 17.12.	16-18 16-18 16-18 16-18	IFW A32.1 IFW A32.1 IFW A32.1 IFW A32.1	M. Kapur
51-0301-11L	The Unconditionality of Knowledge: Faust in European Literature	W	3 credits	2V				
51-0301-11 V	Unbedingtheit des Wissens: Faust in der eu	ıropäisch	nen Literatur	2 hrs	Wed	12-14	IFW A32.1	A. Kilcher
51-0087-00L	Knowledge and Practice in Philosophy	W	3 credits	2S				

	of War							
851-0087-00 S	Knowledge and Practice in Philosophy of W. Does not take place this semester.	/ar		2 hrs				
851-0107-00L	Science and the Public: A Problem of Mediation that the Media Have to Solve?	W	2 credits	1S				
851-0107-00 S	Wissenschaft und Öffentlichkeit - ein Vermit die Medien zu lösen haben? Online-Veranstaltung: Diese Lehrveranstalt grundsätzlich online statt. Die reservierten Studierenden auf dem Campus bestehen, Lehrveranstaltung dort zu hören.	ttlungspr ung finde Räume b	et	1 hrs	Wed/2v	v 14-16	IFW D42	U. J. Wenzel
851-0063-00L	Histories of Knowledge in Society (University of Zurich) No enrolment to this course at ETH Zurich. Book the corresponding module directly at UZH as an incoming student. UZH Module Code: 600G135E Mind the enrolment deadlines at UZH:	W	2 credits	18				
951 0062 00 S	https://www.uzh.ch/cmsssl/en/studies/appli cation/deadlines.html Geschichten von Wissen in Gesellschaft (U	nivorcitä	t Zürich)	18s hrs				University lecturers
031-0003-00 3	**Course at University of Zurich**	riiversita	t Zulicii)	1051115				University lecturers
851-0064-00L	Blockkurs: 13.0915.09.2021	w	1 credit	1S				
031-0004-001	Writing and Publishing Reviews (University of Zurich) No enrolment to this course at ETH Zurich. Book the corresponding module directly at UZH as an incoming student. UZH Module Code: 600G133E  Mind the enrolment deadlines at UZH: https://www.uzh.ch/cmsssl/en/studies/appli	•	redit	13				
054 0004 00 0	cation/deadlines.html		70minh)	7a hua				Llais canaite class to mana
851-0064-00 5	Rezensionen schreiben und publizieren (Ur **Course at University of Zurich**			7s hrs				University lecturers
862-0004-13L	Blockkurs: 22.10.2021, 13–17 Uhr /10.12.2	021, 13– <b>W</b>		1K				
602-0004-13L	Research Colloquium Philosophy for Master Students and PhD (HS 2021) For MAGPW and PhD students of D-GESS only.		2 credits	IK				
862-0004-00 K	Forschungskolloquium Philosophie mit Arbe Anmeldung bei Prof. Michael Hampe, Prof. Prof. Lutz Wingert		gner oder	14s hrs	Wed/2v	v 18-20	RZ F21	R. Wagner, M. Hampe, L. Wingert
862-0078-11L	Research Colloquium. Extra-European History and Global History (HS 2021) For PhD and postdoctoral students. Master students are welcome.	W	2 credits	1K				
	Information for UZH students: Enrolment to this course unit only possible at ETH. No enrolment to module 06SM600G125E at UZH. Please mind the ETH enrolment deadlines for UZH students: https://www.ethz.ch/en/studies/non-degree-courses/special-students/special-students-university-of-zurich.html							
862-0078-00 K	Research Colloquium. Extra-European Hist **together with University of Zurich**	ory and (	Global History	1 hrs	30.09. 14.10. 28.10. 11.11. 02.12.	18-20 18-20	IFW A36 IFW A36 IFW A36 IFW A36	H. Fischer-Tiné, M. Dusinberre
862-0088-09L	Research Colloquium Science Studies (HS 2021)	W	2 credits	1K				
862-0088-00 K	Forschungskolloquium Wissenschaftsforsch Permission from lecturers required for all st Unregelmässige Lehrveranstaltung. Anmeldungen bitte per sekretariat@wiss.ge	udents	,	14s hrs	Wed	16-18	RZ F21	M. Hagner
862-0089-09L	Advanced Colloquium in Literary Studies (HS 2021) Colloquium is designed for advanced and graduated students.	W	2 credits	1K				
862-0089-00 K	Literaturwissenschaftliches Kolloquium			14s hrs	Wed	16-18	IFW E42	A. Kilcher
	Basic Problems of Environmental Ethics	W	3 credits	2G		46.1-		I NAC
	Grundprobleme der Umweltethik	187	2	2 hrs	Wed	16-18	HG G5	L. Wingert
851-0096-00L	Science in Society	W	3 credits	2G				

054 0400 001								L. Wingert
851-0198-00L	Philosophy of Psychiatry	W	3 credits	2V				
851-0198-00 V	Philosophy of Psychiatry			2 hrs	Wed	16-18	IFW C33	J. Perez Escobar
851-0624-00L	ETH4D PhD Seminar: Research for Development Number of participants limited to 15.	W	1 credit	1K				
851-0624-00 K	ETH4D PhD Seminar: Research for Development 2-day block course.  From HS21 in the autumn semester.	opment	1	20s hrs	18.11. 19.11.	09-18 09-18	IFW C42 IFW C42	I. Günther, A. Rom, E. Tilley
851-0367-00L	Introduction to EEG Data Analysis	w	2 credits	2S				
851-0367-00 S	Introduction to EEG Data Analysis Block course			25s hrs	24.01 28.01.	10-16	IFW B42	H. Poikonen
851-0008-00L	Ban on Alcohol and Science: A Global History of Prohibition 1918-1939	W	3 credits	28				
851-0008-00 S	Alkoholverbot und Wissenschaft: Eine Glob Prohibition 1918-1939	oalgesch	ichte der	2 hrs	Tue	12-14	LEE C104	E. Biçer-Deveci
851-0651-00L	Communicating Science for Global Development	W	0.5 credits	1\$				
851-0651-00 S	Communicating Science for Global Develo	pment <b>=</b>		8s hrs	26.11. 03.12.	09-13 09-13	CLD A1 CLD A1	A. Rom
Doctoral Depa	artment of Humanities, Social and Poli	tical Sci	ences - Key	for Type				
•	artment of Humanities, Social and Polit Eligible for credits and recommended	tical Sci	ences - Key	for Type	Co	urses ou	tside the curricul	um
W+	,	tical Sci	ences - Key	· ·			tside the curricul	um
W+ W	Eligible for credits and recommended	tical Sci	ences - Key	Z	Su		doctorate	um
W+ W	Eligible for credits and recommended Eligible for credits Recommended, not eligible for credits	tical Sci	ences - Key	Z Dr	Su	itable for	doctorate	um
W+ W E- Key for Hours	Eligible for credits and recommended Eligible for credits Recommended, not eligible for credits	tical Sci	ences - Key	Z Dr	Su Co	itable for impulsory	doctorate	um
W+ W E- <b>Key for Hours</b>	Eligible for credits and recommended Eligible for credits Recommended, not eligible for credits	tical Sci	ences - Key	Z Dr O	Su Co	itable for impulsory	doctorate	um
W+ W E- <b>Key for Hours</b> V G	Eligible for credits and recommended Eligible for credits Recommended, not eligible for credits  s lecture	tical Sci	ences - Key	Z Dr O	Su Co pra inc	itable for impulsory actical/lab	doctorate  oratory course t project	um
W+ W E- <b>Key for Hours</b> V G	Eligible for credits and recommended Eligible for credits Recommended, not eligible for credits  s lecture lecture with exercise	tical Sci	ences - Key	Z Dr O	Su Co pra inc dip	itable for impulsory actical/lab dependen bloma the	doctorate  oratory course t project	

European Credit Transfer and Accumulation System
Special students and auditors need special permission from the lecturers.

# **Doctoral Department of Health Sciences and Technology**

More Information at: https://www.ethz.ch/en/doctorate.html

## ► Health Sciences and Technology

Number	Title	Туре	ECTS	Hours				Lecturers
	Course Catalogue of ETH Zurich							
376-0303-00L	Colloquium in Translational Science (Autumn Semester)	W	1 credit	1K				
376-0303-00 K	Colloquium in Translational Science (Autum 3 block seminars à 3,5 hrs à 60 minutes 09.  Mittwoch 29.09.2021 09:15 – 12:15  Mittwoch 27.10.2021 09:15 – 12:15  Mittwoch 01.12.2021 09:15 – 12:15			1 hrs				M. Ristow, A. Alimonti, N. Cesarovic, C. Ewald, V. Falk, J. Goldhahn, K. Maniura, R. M. Rossi, S. Schürle-Finke, G. Shivashankar, E. Vayena
								V. Vogel
376-0305-00L	ETHeart Joint Scientific Colloquium (Autumn Semester)	W	1 credit	1K				
376-0305-00 K	ETHeart Joint Scientific Colloquium (Autum 4 block seminars.	n Seme	ster)	1 hrs				N. Cesarovic, V. Falk, H. Rodriguez Cetina Biefer
	1) Tuesday 28.09.2021 13 – 16h 2) Tuesday 26.10.2021 13 – 16h 3) Tuesday 30.11.2021 13 – 16h 4) Tuesday 20.12.2021 13 – 16h							
	The seminars take place online.							
376-1791-00L	Introductory Course in Neuroscience I (University of Zurich) No enrolment to this course at ETH Zurich. Book the corresponding module directly at UZH as an incoming student. UZH Module Code: SPV0Y005	W	2 credits	2V				
	Mind the enrolment deadlines at UZH: https://www.uzh.ch/cmsssl/en/studies/appli cation/deadlines.html							
376-1791-00 V	Introductory Course in Neuroscience I (Univ **together with University of Zurich**	ersity o	f Zurich)	2 hrs	Mon 16	·18 UNI	I ZH.	University lecturers
	Kurs des Zentrums für Neurowissenschafte	n Zürich	ı (ZNZ)					
	Beginn 20.09.2021							
376-1151-00L	Translation of Basic Research Findings from Genetics and Molecular Mechanisms of Aging Number of participants limited to 30.	W	3 credits	2V				
376-1151-00 V	Translation of Basic Research Findings from Molecular Mechanisms of Aging Does not take place this semester. Diese Lehrveranstaltung wird nicht mehr an			2 hrs				to be announced
701-0015-00L	Transdisciplinary Research: Challenges of Interdisciplinarity and Stakeholder Engagement Number of participants limited to 20. Priority is given to PhD students D-USYS.	W	2 credits	2\$				
	All participants will be on the waiting list at first. Enrollment is possible until 15 September 2021. The waiting list is active until 17 September. All students will be informed on 19 September, if they can participate in the lecture. The lecture takes place if a minimum of 12 students register for it.							
701-0015-00 S	Transdisciplinary Research: Challenges of I Stakeholder Engagement Irregular course	nterdisc	ciplinarity and	2 hrs	Wed/2w 08-	·12 CHI	N K77	<b>M. Stauffacher</b> , C. E. Pohl, B. Vienni Baptista
► Food Sci								
		Type	ECTS	Hours				Lecturers
	I ITIE							Lociuloid
Number	Title  Colloquium in Food and Nutrition	Type F-						
Number 752-0005-00L	Colloquium in Food and Nutrition Science Colloquium in Food and Nutrition Science	E-	1 credit	2K 2 hrs	Tue 18	-20 LFC	) C13	S. J. Sturla

W+	Eligible for credits and recommended	Z	Courses outside the curriculum	
W	Eligible for credits	Dr	Suitable for doctorate	
E-	Recommended, not eligible for credits	0	Compulsory	
•				
-	Hours lecture	P	practical/laboratory course	
V		P A	practical/laboratory course independent project	
V	lecture	'		
Key for V G U S	lecture lecture with exercise	A A	independent project	

# **Doctoral Department of Computer Science**

More Information at: https://www.ethz.ch/en/doctorate.html

Number	Title	Type	ECTS	Hours				Lecturers
	Course Catalogue of ETH Zurich							
264-5812-00L	Writing for Publication in Computer Science (WPCS) Number of participants limited to 15.	Z	2 credits	1G				
264-5812-00 G	Only for D-INFK doctoral students.  Writing for Publication in Computer Science **Course is offered in collaboration with Lar and ETH Zurich**  The lecture takes place ONLINE via Zoom ( lecturers will communicate the exact lesson courses.  Block course	nguage ( not reco	Center of UZH orded). The	20s hrs	28.09. 05.10. 19.10. 02.11. 16.11.	13-16 13-16	ON LINE ON LINE ON LINE ON LINE ON LINE	S. Milligan
252-4202-00L	Seminar in Theoretical Computer Science	W	2 credits	<b>2S</b>				
252-4202-00 S	Seminar in Theoretical Computer Science	I		2 hrs	Tue Thu	12-13 12-13	CAB G51 CAB G51	E. Welzl, B. Gärtner, M. Ghaffari, M. Hoffmann, J. Lengler, A. Steger, D. Steurer, B. Sudakov
252-1425-00L	Geometry: Combinatorics and Algorithms	W	8 credits	3V+2U+2	2 <b>A</b>			
252-1425-00 V	Geometry: Combinatorics and Algorithms			3 hrs	Mon Thu	13-14 14-16	CAB G51 CAB G51	B. Gärtner, E. Welzl, M. Hoffmann, M. Wettstein
252-1425-00 U	Geometry: Combinatorics and Algorithms			2 hrs	Mon 23.09. 30.09.	14-16 14-16 16-18 16-18	CAB G51 CAB G51 CAB G51	B. Gärtner, E. Welzl, M. Hoffmann, M. Wettstein
252-1425-00 A	Geometry: Combinatorics and Algorithms Project Work, no fixed presence required.			2 hrs				B. Gärtner, E. Welzl, M. Hoffmann, M. Wettstein
263-2100-00L	Research Topics in Software Engineering Number of participants limited to 22.	W	2 credits	2\$				
	The deadline for deregistering expires at the end of the second week of the semester. Students who are still registered after that date, but do not attend the seminar, will officially fail the seminar.							
263-2100-00 S	Research Topics in Software Engineering Online lecture: This lecture will take place o will remain blocked on campus for students from there.			2 hrs	Tue	14-16	CHN G46	P. Müller, M. Püschel
252-0945-13L	Doctoral Seminar Machine Learning (HS21) Only for Computer Science Ph.D. students.	w	2 credits	18				
	This doctoral seminar is intended for PhD students affiliated with the Institute for Machine Learning. Other PhD students who work on machine learning projects or related topics need approval by at least one of the organizers to register for the seminar.	)						
252-0945-00 S	Doctoral Seminar Machine Learning			1 hrs	Tue	12-13	CAB G59	J. M. Buhmann, N. He, A. Krause, G. Rätsch, M. Sachan
264-5800-18L	Doctoral Seminar in Visual Computing (HS21)	W	1 credit	1S				
264-5800-00 S	Doctoral Seminar in Visual Computing			1 hrs	Fri	12-13	CAB G51	M. Pollefeys, O. Sorkine Hornung, S. Tang
263-5255-10L	Foundations of Reinforcement Learning (Only Assignments) Only for Ph.D. students!	W	2 credits	4A				
263-5255-10 A	Foundations of Reinforcement Learning (Or	nly Assig	gnments)	60s hrs				N. He
Doctoral Dep	artment of Computer Science - Key for	Гуре						
	Eligible for credits and recommended			Z			tside the curricu	lum
<i>N</i> -	Eligible for credits			Dr			doctorate	
<b>≣-</b>	Recommended, not eligible for credits			0	Co	ompulsory	•	

Key for Ho	urs		
V	lecture	P	practical/laboratory course
G	lecture with exercise	A	independent project
U	exercise	D	diploma thesis
S	seminar	R	revision course / private study
K	colloquium		

ECTS European Credit Transfer and Accumulation System

Special students and auditors need special permission from the lecturers.

## Doctoral Dep. of Information Technology and Electrical Engineering

More Information at: https://www.ethz.ch/en/doctorate.html

#### ► Doctoral and Post-Doctoral Courses

A minimum of 12 ECTS credit points must be obtained during doctoral studies.

The courses on offer below are only a small selection out of a much larger available number of courses. Please discuss your course selection with your PhD supervisor.

227-0427-001	Lecturers
15-10-371-00   Advanced Model Predictive Control   30.99   10-12   HG D1.1   30.99   10-12   HG D7.2   15-10-371-00   Advanced Model Predictive Control   1 hrs   10-12   HG D7.2   15-10-371-00   Advanced Model Predictive Control   1 hrs   10-12   HG D7.2   1 hrs   10-12   HG D7.2   15-10-371-00   Introduction to Estimation and Machine Learning   4 hrs   Fri   14-18   ETF C1   12-13   HG D7.2   1 hrs   10-12   HG D7.3   1 hrs   1	
The lecture will take place on 30.09.21 in HG D 7.2   30.09, 12-13   HG D 7.2	<b>M. Zeilinger</b> , A. Carron, L. Hewing, J. Köhler
Learning   Learning	<b>M. Zeilinger</b> , A. Carron, L. Hewing, J. Köhler
227-0146-00	
227-0146-00 V Analog-to-Digital Converters	HA. Loeliger
Does not take place this semester.   227-0225-00   Linear System Theory   W   6 credits   5G	
227-0225-00   Comment	
Wed   10-12   ETZ E6   22.09   10-12   ETZ K91	
Electronic Devices and Systems 227-0377-10 V Physics of Failure and Reliability of Electronic Devices and 2 hrs Thu 14-16 ETZ K91 227-0417-00L Information Theory I W 6 credits 227-0417-00 Information Theory I W 6 credits 227-0427-00L Signal Analysis, Models, and Machine W Learning This course was replaced by "Introduction to Estimation and Machine Learning" and "Advanced Signal Analysis, Modeling, and Machine Learning" and "Advanced Signal Analysis, Modeling, and Machine Learning" and "Advanced Signal Analysis, Modeling, and Machine Learning" and "System Identification W 4 credits 227-0427-00 System Identification W 4 credits 227-0689-00 U System Identification W 4 credits 227-0689-00 U System Identification W 4 credits 227-0959-00 Seminar in Electromagnetics, Photonics W 3 credits 227-0955-00 Seminar in Electromagnetics, Photonics W 3 credits 227-0955-00 Seminar in Electromagnetics, Photonics and Terahertz 227-0974-00 K TNU Colloquium W 0 credits 227-0974-00 K TNU Colloquium W 0 credits 227-0974-00 K TNU Colloquium Permission from lecturers required for all students Takes place on Thursdays. 10:00 - 12:00 WIL Building, TNU meeting moor F105, Translational Neuromodeling Unit, Institute for Biomedical Engineering, Wilfriedstrasse 6, 8032 Zürich. (http://www.mapsearch.ethz.ct/map.do?gebaeudeMap=WIL) 252-0535-00 V Advanced Machine Learning Friela 8-10 HG F1 mit Videoübertragung ins HG F3 Donnerstag 15-16 ETA F 5 mit Videoübertragung ins ETF E 1 Fri 08-10 HG F1 HG F3 252-0535-00 V Advanced Machine Learning Project Work, no fixed presence required.	A. lannelli
Systems	
227-0427-00 G Information Theory I 4 hrs Wed 14-18 ETF C1  227-0427-00 Signal Analysis, Models, and Machine Learning This course was replaced by "Introduction to Estimation and Machine Learning" and 'Advanced Signal Analysis, Modeling, and Machine Learning Does not take place this semester.  227-0427-00 G Signal Analysis, Models, and Machine Learning Does not take place this semester.  227-0689-00 L System Identification W 4 credits 2V+1U 227-0689-00 U System Identification U 2 hrs Wed 12-13 ETZ D61.1 HG D7.1  227-0955-00 L Seminar in Electromagnetics, Photonics W 3 credits and Terahertz 2 hrs Wed 12-13 ETZ K71  227-0955-00 S Seminar in Electromagnetics, Photonics and Terahertz 2 hrs Wed 10-12 ETZ K71  227-0974-00 K TNU Colloquium W 0 credits 2 hrs Wed 10-12 ETZ K71  227-0974-00 K TNU Colloquium N 0 credits 2 hrs Wed 10-12 ETZ K71  227-0974-00 K TNU Colloquium N 0 credits 2 hrs Wed 10-12 ETZ K71  227-0974-00 K TNU Colloquium N 0 credits 2 hrs Wed 10-12 ETZ K71  227-0974-00 K TNU Colloquium N 0 credits 2 hrs Wed 10-12 ETZ K71  227-0974-00 K TNU Colloquium Fermission from lecturers required for all students Takes place on Thursdays. 10:00 - 12:00 WIL Building, TNU meeting room F105, Translational Neuromodeling Unit, Institute for Biomedical Engineering, Wilfriedstrasse 6, 8032 Zürich. (http://www.mapsearch.ethz.ch/map.do?gebaeudeMap=WIL)  252-0535-00 L Advanced Machine Learning W 10 credits Fri 08-10 HG F1 HG F3 Donnerstag 15-16 ETA F 5 mit Videoübertragung ins HG F3 Donnerstag 15-16 ETA F 5 mit Videoübertragung ins ETF E 1 Fri 08-10 HG F1 HG F3 CAB G61 16-18 CAB G61 17-10 16-18 ML F34 Fri 14-16 CAB G61 17-10 16-	I. Shorubalko, M. Held
227-0427-00L Signal Analysis, Models, and Machine Learning This course was replaced by "Introduction to Estimation and Machine Learning" and "Advanced Signal Analysis, Modeling, and Machine Learning" and "Advanced Signal Analysis, Modeling, and Machine Learning" 4 hrs  227-0427-00 G Signal Analysis, Models, and Machine Learning Does not take place this semester.  227-0689-00 L System Identification W 4 credits 2V+1U 27-0689-00 V System Identification 2 hrs Wed 10-12 HG D7.1 ETZ D61.1 HG D7.1  227-0689-00 U System Identification W 3 credits 27-0955-00 L Seminar in Electromagnetics, Photonics W 3 credits and Terahertz 2 hrs Wed 10-12 ETZ K71  227-0955-00 S Seminar in Electromagnetics, Photonics and Terahertz 2 hrs Wed 10-12 ETZ K71  227-0974-00 K TNU Colloquium W 0 credits 2 hrs Permission from lecturers required for all students Takes place on Thursdays. 10:00 - 12:00 WIL Building, TNU mediting room F105, Translational Neuromodeling Unit, Institute for Biomedical Engineering, Wilfriedstrasse 6, 8032 Zürich. (http://www.mapsearch.ethz.ch/map.do?gebaeudeMap=WIL)  252-0535-00 L Advanced Machine Learning W 10 credits 3 hrs Thu 15-16 ETA F5 ETF E1 Donnerstag 15-16 ETA F 5 mit Videoübertragung ins HG F3 Donnerstag 15-16 ETA F 5 mit Videoübertragung ins ETF E 1 Fri 08-10 H GF IH HG F3 1-16 ETA F 5 mit Videoübertragung ins ETF E 1 Fri 14-16 CAB G61 1-16 ETA F 5 mit Videoübertragung ins HG F3 CAB G61 1-16 ETA F 5 mit Videoübertragung ins HG F3 CAB G61 1-16 ETA F 5 mit Videoübertragung ins HG F3 CAB G61 1-16 ETA F 5 mit Videoübertragung ins HG F3 CAB G61 1-16 ETA F 5 mit Videoübertragung ins HG F3 CAB G61 1-16 ETA F 5 mit Videoübertragung ins HG F3 CAB G61 1-16 ETA F 5 mit Videoübertragung ins HG F3 CAB G61 1-16 ETA F 5 mit Videoübertragung ins HG F3 CAB G61 1-16 ETA F 5 mit Videoübertragung ins HG F3 CAB G61 1-16 ETA F 5 mit Videoübertragung ins HG F3 CAB G61 1-16 ETA F 5 mit Videoübertragung ins HG F3 CAB G61 1-16 CAB	
Learning	A. Lapidoth
Does not take place this semester.           227-0689-00 L System Identification         W 4 credits 2V+1U 21 4	
227-0689-00 V System Identification 2 hrs Wed 10-12 HG D7.1 227-0689-00 U System Identification 1 hrs Wed 12-13 ETZ D61.1 HG D7.1  227-0955-00L Seminar in Electromagnetics, Photonics W 3 credits and Terahertz 2 hrs Wed 10-12 ETZ K71  227-0955-00 S Seminar in Electromagnetics, Photonics and Terahertz 2 hrs Wed 10-12 ETZ K71  227-0974-00L TNU Colloquium ■ W 0 credits 2 hrs  Permission from lecturers required for all students Takes place on Thursdays. 10:00 - 12:00 WIL Building, TNU meeting room F105, Translational Neuromodeling Unit, Institute for Biomedical Engineering, Wilfriedstrasse 6, 8032 Zürich. (http://www.mapsearch.ethz.ch/map.do?gebaeudeMap=WIL)  252-0535-00L Advanced Machine Learning W 10 credits 3 hrs Thu 15-16 ETA F5 ETF E1 Donnerstag 15-16 ETA F5 mit Videoübertragung ins HG F3 Donnerstag 15-16 ETA F5 mit Videoübertragung ins ETF E 1 Fri 08-10 HG F1 HG F3  252-0535-00 U Advanced Machine Learning 2 hrs Wed 14-16 CAB G61 Thu 16-18 ML F34 Fri 14-16 CAB G61  Thu 16-18 ML F34 F1 Hrs 16-18 ML F34 F7 Project Work, no fixed presence required.  252-0417-00L Randomized Algorithms and W 10 credits 3V+2U+4A	HA. Loeliger
227-0689-00 U System Identification	
227-0955-00L Seminar in Electromagnetics, Photonics W 3 credits and Terahertz 2 hrs Wed 10-12 ETZ K71  227-0955-00 S Seminar in Electromagnetics, Photonics and Terahertz 2 hrs Wed 10-12 ETZ K71  227-0974-00L TNU Colloquium W 0 credits 2K  227-0974-00 K TNU Colloquium ■ 2 hrs Permission from lecturers required for all students Takes place on Thursdays. 10:00 - 12:00 WIL Building, TNU meeting room F105, Translational Neuromodeling Unit, Institute for Biomedical Engineering, Wilfriedstrasse 6, 8032 Zürich. (http://www.mapsearch.ethz.ch/map.do?gebaeudelMap=WIL)  252-0535-00L Advanced Machine Learning W 10 credits 3V+2U+4A  252-0535-00 V Advanced Machine Learning Freitag 8-10 HG F1 mit Videoübertragung ins HG F3 Donnerstag 15-16 ETA F 5 mit Videoübertragung ins ETF E 1 Fri 08-10 HG F1 HG F3  252-0535-00 U Advanced Machine Learning 2 hrs Wed 14-16 CAB G61 Thu 16-18 CAB	R. Smith R. Smith
and Terahertz  227-0955-00 S Seminar in Electromagnetics, Photonics and Terahertz  2 hrs Wed 10-12 ETZ K71  27-0974-00L TNU Colloquium W 0 credits  27-0974-00 K TNU Colloquium ■ 2 hrs  Permission from lecturers required for all students  Takes place on Thursdays. 10:00 - 12:00  WIL Building, TNU meeting room F105, Translational  Neuromodeling Unit, Institute  for Biomedical Engineering, Wilfriedstrasse 6, 8032 Zürich.  (http://www.mapsearch.ethz.ch/map.do?gebaeudeMap=WIL)  252-0535-00 V Advanced Machine Learning  Advanced Machine Learning  Treitag 8-10 HG F1 mit Videoübertragung ins HG F3  Donnerstag 15-16 ETA F 5 mit Videoübertragung ins ETF E 1  Donnerstag 15-16 ETA F 5 mit Videoübertragung ins ETF E 1  Advanced Machine Learning  2 hrs Wed 14-16 CAB G61  Thu 16-18 ML F34  Fri 14-16 CAB G61  Thu 16-18 ML F34	R. Silliui
TNU Colloquium    Permission from lecturers required for all students Takes place on Thursdays. 10:00 - 12:00   WIL Building, TNU meeting room F105, Translational Neuromodeling Unit, Institute for Biomedical Engineering, Wilfriedstrasse 6, 8032 Zürich. (http://www.mapsearch.ethz.ch/map.do?gebaeudeMap=WIL)  252-0535-00L   Advanced Machine Learning   W   10 credits   3V+2U+4A   252-0535-00 V   Advanced Machine Learning   Freitag 8-10 HG F1 mit Videoübertragung ins HG F3   Donnerstag 15-16 ETA F 5 mit Videoübertragung ins ETF E1   Fri	
227-0974-00 K  TNU Colloquium ■  Permission from lecturers required for all students Takes place on Thursdays. 10:00 - 12:00 WIL Building, TNU meeting room F105, Translational Neuromodeling Unit, Institute for Biomedical Engineering, Wilfriedstrasse 6, 8032 Zürich. (http://www.mapsearch.ethz.ch/map.do?gebaeudeMap=WIL)  252-0535-00 V  Advanced Machine Learning Freitag 8-10 HG F1 mit Videoübertragung ins HG F3 Donnerstag 15-16 ETA F 5 mit Videoübertragung ins ETF E 1  252-0535-00 U  Advanced Machine Learning Freitag 8-10 HG F1 mit Videoübertragung ins ETF E 1  252-0535-00 V  Advanced Machine Learning Fri 08-10 HG F1 HG F3  2 hrs Wed 14-16 CAB G61 Thu 16-18 ML F34 Fri 14-16 CAB G61 Thu 16-18 ML F34 Fri 14-16 CAB G61 Thu 16-18 ML F34 Fri 14-16 CAB G61 Thu 16-18 CAB G61 Thu 16-18 ML F34 Fri 14-16 CAB G61	J. Leuthold
Takes place on Thursdays. 10:00 - 12:00 WIL Building, TNU meeting room F105, Translational Neuromodeling Unit, Institute for Biomedical Engineering, Wilfriedstrasse 6, 8032 Zürich. (http://www.mapsearch.ethz.ch/map.do?gebaeudeMap=WIL)  252-0535-00L Advanced Machine Learning W 10 credits  252-0535-00 V Advanced Machine Learning Freitag 8-10 HG F1 mit Videoübertragung ins HG F3 Donnerstag 15-16 ETA F 5 mit Videoübertragung ins ETF E 1  Donnerstag 15-16 ETA F 5 mit Videoübertragung ins ETF E 1  252-0535-00 U Advanced Machine Learning 2 hrs Wed 14-16 CAB G61 16-18 CAB G61 1	K. Stephan
252-0535-00 V Advanced Machine Learning	
Freitag 8-10 HG F1 mit Videoübertragung ins HG F3 Donnerstag 15-16 ETA F 5 mit Videoübertragung ins ETF E 1  Advanced Machine Learning  2 hrs Wed 14-16 CAB G61 16-18 CAB G61 Thu 16-18 ML F34 Fri 14-16 CAB G61 Thu 16-18 Advanced Machine Learning Project Work, no fixed presence required.	I M Ruhmann
252-0535-00 U Advanced Machine Learning 2 hrs Wed 14-16 CAB G61 16-18 CAB G61 Thu 16-18 ML F34 Fri 14-16 CAB G61 Thu 16-18 ML F34 Fri 14-16 CAB G61 4 hrs 252-0535-00 A Advanced Machine Learning Project Work, no fixed presence required. 252-0417-00L Randomized Algorithms and W 10 credits 3V+2U+4A	J. M. Buhmann, C. Cotrini Jimenez
Thu 16-18 ML F34 Fri 14-16 CAB G61  252-0535-00 A Advanced Machine Learning Project Work, no fixed presence required.  252-0417-00L Randomized Algorithms and W 10 credits 3V+2U+4A	J. M. Buhmann, C. Cotrini Jimenez
Project Work, no fixed presence required.  252-0417-00L Randomized Algorithms and W 10 credits 3V+2U+4A	
	J. M. Buhmann, C. Cotrini Jimenez
Probabilistic Methods	
252-0417-00 V Randomized Algorithms and Probabilistic Methods 3 hrs Wed 08-09 ML D28 Thu 16-18 ML D28	A. Steger
252-0417-00 U Randomized Algorithms and Probabilistic Methods 2 hrs Tue 14-16 HG D1.2 16-18 HG D1.2	A. Steger

252-0417-00 A	Randomized Algorithms and Probabilistic Project Work, no fixed presence required.	Method	S	4 hrs				A. Steger
263-4500-00L	Advanced Algorithms	W	9 credits	3V+2U+	3A			
263-4500-00 V	Advanced Algorithms Online lecture: This lecture will primarily ta Reserved rooms will remain blocked on ca follow the course from there.			3 hrs	Wed	09-12	HG D5.2	M. Ghaffari, G. Zuzic
263-4500-00 U	Advanced Algorithms			2 hrs	Fri	10-12	CAB G59	M. Ghaffari, G. Zuzic
263-4500-00 A	Advanced Algorithms			3 hrs				M. Ghaffari, G. Zuzic
327-2132-00L	Multifunctional Ferroic Materials: Growth and Characterisation	w	2 credits	2G				
327-2132-00 G	Multifunctional Ferroic Materials: Growth a	nd Cha	racterization	2 hrs	Mon	14-16	HCI H8.1	M. Trassin
401-3055-64L	Algebraic Methods in Combinatorics	W	6 credits	2V+1U				
401-3055-64 V	Algebraic Methods in Combinatorics			2 hrs	Wed	10-12	IFW A36	B. Sudakov
401-3055-64 U	Algebraic Methods in Combinatorics			1 hrs	Mon	12-13 13-14	ML F34 ML F34	B. Sudakov
401-5680-00L	Foundations of Data Science Seminar	Z	0 credits					
401-5680-00 K	Foundations of Data Science Seminar https://www.math.ethz.ch/sfs/news- and-events/data-science-seminar.html Time: 16:15-17:15			3s hrs	23.09. 11.11. 02.12.	16-18 16-18 16-18	HG F3 HG G19.2 HG G19.1	P. L. Bühlmann, A. Bandeira H. Bölcskei, F. Yang
•	of Information Technology and Electr	ical Er	ngineering - K	<b>(ey for Ty</b>		ourses ou	tside the curric	ulum
W	Eligible for credits			Dr	St	uitable for	doctorate	
E-	Recommended, not eligible for credits			0	Co	ompulsory	<u>'</u>	
Key for Hours	3							
V	lecture			Р	pr	actical/lab	oratory course	
G I	lecture with exercise			Α	ine	dependen	t project	
U	exercise			D	di	ploma the	sis	
S :	seminar			R	re	vision cou	ırse / private st	udy
	colloquium		1					

European Credit Transfer and Accumulation System
Special students and auditors need special permission from the lecturers.

# **Doctoral Department of Management, Technology, and Economics**

More Information at: https://www.ethz.ch/en/doctorate.html

## ► Doctoral Studies in Management

Number	Title	Type	ECTS	Hours				Lecturers
864-1013-05L	Organizational Behavior	W	1 credit	1S				
864-1013-05 S	Number of participants limited to 20.  Organizational Behavior  Does not take place this semester.  Block course			10.5s hrs				to be announced
364-1013-06L	Marketing Theory Number of participants limited to 18.	w	2 credits	1G				
864-1013-06 G	Marketing Theory ■  Block course			16s hrs	11.11. 18.11.	08-12 08-12 08-12 08-12	WEV H326 WEV H326 WEV H326 WEV H326	F. von Wangenheim
864-1110-00L	Foundations of Innovation Studies	W	3 credits	2G				
64-1110-00 G	Foundations of Innovation Studies Irregular lecture			24s hrs	Tue/1	09-13	WEV H326	<b>S. Brusoni</b> , D. Laureiro Martinez
364-0553-00L	Innovation in Digital Space	w	1 credit	1G				
864-0553-00 G	Innovation in Digital Space Does not take place this semester. Permission from lecturers required for all st Blockkurs	udents		16s hrs				G. von Krogh
364-1140-00L	Hacking for Social Sciences - An Applied Guide to Programming with Data  Basic experience with either R or Python, e.g., a stats course that was taught using R.	W	3 credits	2V				
364-1140-00 V					22.10.	10-13 10-14 10-13 10-14 10-13	ON LINE	M. Bannert
864-1013-02L	Perspectives on Organizational Knowledge	W	1 credit	1G				
364-1013-02 G	Perspectives on Organizational Knowledge Block course			9s hrs	14.10.	14-17 14-17 14-17	WEV J414 WEV J414 WEV J414	Z. Erden Özkol
	Studies in Economics							
lumber	Title	Туре	ECTS	Hours				Lecturers
364-1090-00L	Research Seminar in Contract Theory, Banking and Money (University of Zurich) No enrolment to this course at ETH Zurich. Book the corresponding module directly at UZH as an incoming student. UZH Module Code: DOEC0988 Mind the enrolment deadlines at UZH: https://www.uzh.ch/cmsssl/en/studies/appli cation/deadlines.html	W	3 credits	28				
864-1090-00 S	Research Seminar in Contract Theory, Ban (University of Zurich) **gemeinsam mit der Universität Zürich**	king and	d Money	2 hrs				H. Gersbach, University lecturers
	An der ETH zuständig: Margrit Buser: mbus	ser@eth	ız.ch					
63-1036-00L	Empirical Innovation Economics	W	3 credits	1G				
63-1036-00 G	Empirical Innovation Economics  Block course			14s hrs	09.09.	10-13 14-17	RZ F21 RZ F21	M. Wörter
	DISON COURSE				10.09.	10-13 14-16	RZ F21 RZ F21	
					09.12.	10-13 14-17	LFW B2 LFW B2	
<b>364-0531-00L</b> 364-0531-00 S	CER-ETH Research Seminar CER-ETH Research Seminar The lecture starts at 17.15.	E-	0 credits	<b>2S</b> 2 hrs	Mon	17-19	ZUE G1	H. Gersbach, A. Bommier, L. Bretschger
364-0556-00L	Doctoral Workshop: Astute Modelling Prerequisite: Students are expected to attend the course 364-0559-00L "Dynamic Macroeconomics (Doctoral Course)", before registering for this workshop.	W	3 credits	1G				

	Does not take place this semester. Block course  Dynamic Macroeconomics, Innovation and Growth Students who have successfully completed the course "Dynamic Macroeconomics" (364-0559-00L) or "Economics of Innovation and Growth" (363-0562-01L) can not register for this course.  Dynamic Macroeconomics, Innovation and Please note: This lecture was merged from 364-0559-00 Macroeconomics and 363-0562-01L Econo Growth. Contact person: Julia Dür, jduer@ethz.ch	Growth		2V 2 hrs	Tue	10-12	ZUE G1	H. Gersbach Lecturers
363-1136-00 V  ► Addition	Does not take place this semester. Block course  Dynamic Macroeconomics, Innovation and Growth Students who have successfully completed the course "Dynamic Macroeconomics" (364-0559-00L) or "Economics of Innovation and Growth" (363-0562-01L) can not register for this course.  Dynamic Macroeconomics, Innovation and Please note: This lecture was merged from 364-0559-00 Macroeconomics and 363-0562-01L Econo Growth. Contact person: Julia Dür, jduer@ethz.ch	Growth L Dynar mics of	nic Innovation and	2V 2 hrs	Tue	10-12	ZUE G1	
	Does not take place this semester. Block course  Dynamic Macroeconomics, Innovation and Growth Students who have successfully completed the course "Dynamic Macroeconomics" (364-0559-00L) or "Economics of Innovation and Growth" (363-0562-01L) can not register for this course.  Dynamic Macroeconomics, Innovation and Please note: This lecture was merged from 364-0559-00 Macroeconomics and 363-0562-01L Econo Growth. Contact person: Julia Dür, jduer@ethz.ch	Growth	nic	2V 2 hrs	Tue	10-12	ZUE G1	H. Gersbach
363-1136-00 V	Does not take place this semester. Block course  Dynamic Macroeconomics, Innovation and Growth Students who have successfully completed the course "Dynamic Macroeconomics" (364-0559-00L) or "Economics of Innovation and Growth" (363-0562-01L) can not register for this course.  Dynamic Macroeconomics, Innovation and Please note: This lecture was merged from 364-0559-00 Macroeconomics and 363-0562-01L Econo Growth.	Growth	nic	2V 2 hrs	Tue	10-12	ZUE G1	H. Gersbach
363-1136-00 V	Does not take place this semester. Block course  Dynamic Macroeconomics, Innovation and Growth Students who have successfully completed the course "Dynamic Macroeconomics" (364-0559-00L) or "Economics of Innovation and Growth" (363-0562-01L) can not register for this course.		3 credits	2V	Tue	10-12	ZUE G1	H. Gersbach
	Does not take place this semester.  Block course  Dynamic Macroeconomics, Innovation and Growth		3 credits					
363-1136-00L	Does not take place this semester.			1231113				
<b>864-1062-00L</b> 864-1062-00 V	Experimental Methods Experimental Methods	W	1 credit	<b>1V</b> 12s hrs				C. Waibel
	Does not take place this semester. The lecture takes place in spring semester. Block course	2022.						
364-0513-00L 364-0513-00 V	Empirical Methods in Energy and Environmental Economics Empirical Methods in Energy and Environm	<b>W</b> ental Ed	3 credits	<b>2V</b> 24s hrs				M. Filippini, to be announce
	cation/deadlines.html KOF-ETH-UZH International Economic Poli of Zurich) **together with University of Zurich**				Thu	12-14	LEE E101	P. Egger, JE. Sturm, University lecturers
364-1015-00L	KOF-ETH-UZH International Economic Policy Seminar (University of Zurich) No enrolment to this course at ETH Zurich. Book the corresponding module directly at UZH as an incoming student. UZH Module Code: DOEC0584  Mind the enrolment deadlines at UZH: https://www.uzh.ch/cmsssl/en/studies/appli	W	2 credits	2\$				
	Risk Center Seminar Series Online lecture: This lecture will take place of will remain reserved on campus for student from there.	online. R	eserved rooms	2 hrs	Tue 28.09.	12-14 18-20	HG D3.2 HG F5	B. J. Bergmann, D. Basin, A. Bommier, D. N. Bresch, L. E. Cederman, P. Cheridito, F. Corman, O. Fink, H. Gersbach, C. Hölscher, K. Paterson, H. Schernberg, F. Schweitzer, D. Sornette, B. Stojadinovic, B. Sudret, J. Teichmann, U. A. Weidmann, S. Wiemer, M. Zeilinger, R. Zenklusen
64-1025-00 G	Advanced Microeconomics  Risk Center Seminar Series	Z	0 credits	2 hrs	Thu	09-11	ZUE G1	A. Bommier
64-1025-00L	Advanced Microeconomics	E-	3 credits	2G				
364-0581-00 S	Mind the enrolment deadlines at UZH: https://www.uzh.ch/cmsssl/en/studies/application/deadlines.html Microeconomics Seminar (ETH/UZH) **together with University of Zurich** Ansprechperson für die ETH: Volker Britz (v		othz ch)	2 hrs				H. Gersbach
364-0581-00L	Microeconomics Seminar (ETH/UZH) No enrolment to this course at ETH Zurich. Book the corresponding module directly at UZH as an incoming student. UZH Module Code: DOEC6089	E-	0 credits	2\$				
<b>64-0585-01L</b> 64-0585-01 V	PhD Course: Applied Econometrics PhD Course: Applied Econometrics Block course	W	2 credits	<b>2V</b> 28s hrs	31.08. 01.09. 02.09. 03.09.	09-17 09-17 09-17 09-17	LEE E308 LEE E308 LEE E308 LEE E308	P. Egger
64-0556-00 G	Doctoral Workshop: Astute Modelling Permission from lecturers required for all st If you wish to participate or if you want mon contact Dr. Akaki Mamageishvili: amamage	e inform		1 hrs	Tue/2w	12-14	ZUE G1	H. Gersbach

possible.

364-1064-00 S Inaugural Seminar - Doctoral Retreat Does not take place this semester.

Block course

15s hrs

**P. Schmid**, S. Brusoni, R. Finger, G. Grote, T. Netland, F. von Wangenheim, to be announced

Course Catalogue of ETH Zurich

Doctoral Department of Management, Technology, and Economics - Key for Type						
W+	Eligible for credits and recommended	Z	Courses outside the curriculum			
W	Eligible for credits	Dr	Suitable for doctorate			
E-	Recommended, not eligible for credits	0	Compulsory			

Key for	Hours			
V	lecture	P	practical/laboratory course	
G	lecture with exercise	A	independent project	
U	exercise	D	diploma thesis	
S	seminar	R	revision course / private study	
K	colloquium			
		'		

**ECTS** European Credit Transfer and Accumulation System

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# **Doctoral Department of Mechanical and Process Engineering**

More Information at: https://www.ethz.ch/en/doctorate.html

Number	Title	Туре	ECTS	Hours				Lecturers
	Course Catalogue of ETH Zurich							
151-0107-20L	High Performance Computing for	W	4 credits	4G				
151_0107_20 C	Science and Engineering (HPCSE) I High Performance Computing for Science a	nd Engi	nooring	4 hrs	Fri	12-14	ML H44	P. Koumoutsakos,
151-0107-20 G	(HPCSE) I	na Engi	neening	4 1115	FII	14-16	ML H44	S. M. Martin
	Lecture: 12-14h							
	Exercises: 14-16h							
154 0444 001	December Commission Florid Demonstra	_	0	20				
151-0111-00L	Research Seminar in Fluid Dynamics Internal research seminar for graduate	E-	0 credits	2S				
	students and scientific staffs of the IFD							
151-0111-00 S	Research Seminar in Fluid Dynamics			2 hrs	Tue	08-10	ML H41.1	F. Coletti, P. Jenny,
								T. Rösgen, O. Supponen
151-0123-00L	Experimental Methods for Engineers	W	4 credits	2V+2U				
151-0123-00 V	Experimental Methods for Engineers Lecture starts in the first week.			2 hrs	Thu	14-16	ML F39	T. Rösgen, B. Schuermans, M. Tibbitt
151-0123-00 II	Experimental Methods for Engineers			2 hrs	Thu	08-10	ML F39	T. Rösgen, B. Schuermans,
101 0120 00 0	Exercises start in the first week.			21113	ma	00 10	WIL 1 00	M. Tibbitt
151-0529-00L	Computational Mechanics II: Nonlinear	W	4 credits	2V+2U				
	FEA							
151-0529-00 V	Computational Mechanics II: Nonlinear FEA			2 hrs	Tue	10-12	LEE E101	L. De Lorenzis
					28.09. 26.10.	10-12 10-12	ETZ E8 n /a	
151-0529-00 U	Computational Mechanics II: Nonlinear FEA			2 hrs	Tue	14-16	LEE E101	L. De Lorenzis
151-0563-01L	Dynamic Programming and Optimal	w	4 credits	2V+1U				
	Control							
151-0563-01 V				2 hrs	Wed	14-16	HG F1	R. D'Andrea
	The lecture will start in the 2nd week of Sen Online lecture: This lecture will primarily tak		online					
	Reserved rooms will remain blocked on can							
	follow the course from there.	•						
151-0563-01 U				1 hrs	Wed	16-17	CAB G51	R. D'Andrea
	The exercise will start in the 2nd week of Se	emester			29.09.	16-17	HG F1 ML E12	
151-0593-00L	Embedded Control Systems	w	4 credits	6G	23.03.	10-17	IVIL L 12	
	Embedded Control Systems	**	4 Credits	80s hrs	13.09.	08-10	ML H44	J. S. Freudenberg,
101 0000 00 0	This two-week block course take places dai	ly (13-1	7.09.2021 &	003 1113	13.09		HG G26.5	M. Schmid Daners
	20-24.09.2021) and is comprised of				17.09.			
	- Lectures: 8-12 h - Exercises: 13-17 h				13.09 24.09.	13-17	ML J44.1	
	Excluded. 10 11 II				20.09.	08-12	HG F26.3	
						13-17	ML J44.1	
					21.09. 22.09.	08-12	HG F26.3	
					22.09.	15-17	HG F26.3 ML F39	
					23.09.	08-12	HG F26.3	
					24.09.	08-12	LEE E101	
151-0623-00L		W	1 credit	1S				
151 0622 00 8	Robotics, Systems and Controls	ioo Cuo	tomo and	1 hro	Eri/Ou	16 10	HG G5	P Nologo M Chli M Huttor
151-0623-00 5	ETH Zurich Distinguished Seminar in Robot Controls	ics, Sys	tems and	1 hrs	Fri/2w	16-18	HG G5	B. Nelson, M. Chli, M. Hutter, R. Katzschmann, R. Riener,
	The seminar is organized by all IRIS profes-	sors						R. Siegwart
	(http://www.iris.ethz.ch/the-institute.html).							
	Thermo- and Fluid Dynamics	E-	0 credits	2K				
151-1053-00 K	Thermo- and Fluid Dynamics			2 hrs	Wed	16-18	ML H44	P. Jenny, R. S. Abhari,
								<ul><li>G. Haller, C. Müller, N. Noiray</li><li>T. Rösgen, A. Steinfeld</li></ul>
151-8101-00L	International Engineering: from Hubris	w	4 credits	3G				
.3. 5101-00L	to Hope		· U. Cuito					
151-8101-00 G	International Engineering: from Hubris to Ho	ре		3 hrs	Thu	15-18	LEE D105	E. Tilley, M. Kalina
151-9901-00L	Scientific Writing for Publication in	W	2 credits	1G				
	Engineering							
	Only for D-MAVT doctoral students.							
	Only for D-IVIA VT doctoral students.							
	Number of participants limited to 15 per							
	•							
151-9901-00 G	Number of participants limited to 15 per group. Scientific Writing for Publication in Engineer	-	0	20s hrs	Thu/2w	08-11	ML H34.3	S. Milligan
151-9901-00 G	Number of participants limited to 15 per group. Scientific Writing for Publication in Engineer **Course is offered in collaboration with Lan.	-	Center of UZH		Thu/2w	08-11	ML H34.3	S. Milligan
151-9901-00 G	Number of participants limited to 15 per group. Scientific Writing for Publication in Engineer	-	Center of UZH		Thu/2w	08-11	ML H34.3	S. Milligan
151-9901-00 G 1 <b>51-9902-00</b> L	Number of participants limited to 15 per group. Scientific Writing for Publication in Engineer **Course is offered in collaboration with Lan.	-	Center of UZH		Thu/2w	08-11	ML H34.3	S. Milligan

Number of participants is limited to 20, in case of over-booking, 2nd year doctoral students from different research groups will have priority, registration by email to melanie.johnson@sl.ethz.ch, please, state the name of your supervising professor and the year of your PhD studies (first, second, third...). 151-9902-00 S Workshop on Intellectual Property Rights ■ 24s hrs Does not take place this semester. This is a hybdrid workshop, partly on Zoom, partly in class: October 1 (Zoom), October 7 (ETH), October 8 (ETH), October 22 351-0778-00L **Discovering Management** 3 credits 3G Entry level course in management for BSc, MSc and PHD students at all levels not belonging to D-MTEC. This course can be complemented with Discovering Management (Excercises) 351-0778-01. 351-0778-00 G Discovering Management 3 hrs Fri 08-11 HG E1.1 B. Clarysse, S. Brusoni, Diese Lehrveranstaltung wird ab dem HS 2021 jährlich im HS E. Fleisch, G. Grote, V. Hoffmann, T. Netland, angeboten. The lecture takes place in classroom, online via livestreaming or Y. R. Shrestha, P. Tinguely, zoom and recorded. L. P. T. Vandeweghe 363-0341-001 w 2G Introduction to Management 3 credits 363-0341-00 G Introduction to Management HG F7 Z. Zagorac-Uremovic, 2 hrs Thu 16-18 The lecture takes place in classroom, online via livestreaming or J. O'Neil zoom and recorded. 363-0389-00L **Technology and Innovation Management W** 3 credits 2G 363-0389-00 G Technology and Innovation Management 2 hrs Mon 14-16 **NO C60** S. Brusoni, A. Zeijen The lecture takes place in classroom, online via zoom and 27.09. 14-16 HG D1.2 363-0403-00L Introduction to Marketing 3 credits 2G 363-0403-00 G Introduction to Marketing 2 hrs Tue 14-16 HG E5 S. Brüggemann, The lecture takes place in classroom, online via livestreaming or F. von Wangenheim zoom and recorded 363-0503-00L **Principles of Microeconomics** 3 credits 2G GESS (Science in Perspective): This lecture is for MSc students only. BSc students register for 363-1109-00L Einführung in die Mikroökonomie. 363-0503-00 G Principles of Microeconomics 2 hrs Thu 18-20 HG F7 M. Filippini The lecture takes place in classroom, online via livestreaming or zoom and recorded. 363-0511-00L **Managerial Economics** 4 credits 3V Not for MSc students belonging to D-HG F5 363-0511-00 V Managerial Economics 3 hrs Tue 18-19 V. Lohmann, P. Egger, Wed 08-10 HG G3 M. Köthenbürger 363-0565-00L Principles of Macroeconomics W 3 credits 2V Principles of Macroeconomics FTA F5 J.-E. Sturm 363-0565-00 V 2 hrs Tue 16-18 Di 16-18 im ETA F 5 mit Videoübertragung im ETF E 1. ETF E1 The lecture takes place in classroom, online via livestreaming or zoom and recorded. 2V 363-0711-00L **Accounting for Managers** 3 credits 363-0711-00 V Accounting for Managers Thu 10-12 HG F3 J.-P. Chardonnens 2 hrs The lecture takes place in classroom, online via livestreaming and recorded. 363-0790-00L **Technology Entrepreneurship** 2 credits 2V 363-0790-00 V Technology Entrepreneurship 18-20 HG E5 F. Hacklin 2 hrs Tue The lecture takes place online via (livestreaming or) zoom and recorded. Reserved rooms will remain blocked on campus for students to follow the course from there. 363-1021-00L **Monetary Policy** w 3 credits 2V 363-1021-00 V Monetary Policy LFF F101 J.-E. Sturm. A. Rathke 2 hrs Mon 14-16 401-0625-01L Applied Analysis of Variance and w 5 credits 2V+1U Experimental Design 401-0625-01 V Applied Analysis of Variance and Experimental Design 2 hrs Mon 14-16 HG G5 L. Meier 401-0625-01 U Applied Analysis of Variance and Experimental Design 1 hrs Mon/2w 16-18 HG E1.1 L. Meier 1V 535-0546-00L **Patents** 1 credit 535-0546-00 V Patents Wed/1 10-12 **HCI H8.1** A. Koepf, P. Pliska 1 hrs 636-0507-00L Synthetic Biology II 8 credits 4A Students in the MSc Biotechnology (Programme Regulations 2017) may select Synthetic Biology II instead of the Research

Project 1.

636-0507-00 A Synthetic Biology II 4 hrs by appt. S. Panke, Y. Benenson, Does not take place this semester.
Permission from lecturers required for all students
This course will (hopefully!) be offered again in Autumn Semester J. Stelling

2022!

851-0180-00L Research Ethics W 2 credits 2G Number of participants limited to 40

Particularly suitable for students of D-BIOL, D-CHAB, D-HEST

851-0180-00 G Research Ethics ■ G. Achermann, P. Emch 2 hrs Wed 18-20 LFW C1

One additional hour of home work per week will be required

Doctora	Doctoral Department of Mechanical and Process Engineering - Key for Type								
W+	Eligible for credits and recommended	Z	Courses outside the curriculum						
W	Eligible for credits	Dr	Suitable for doctorate						
E-	Recommended, not eligible for credits	О	Compulsory						

Key for Ho	Key for Hours									
V	lecture	P	practical/laboratory course							
G	lecture with exercise	Α	independent project							
U	exercise	D	diploma thesis							
S	seminar	R	revision course / private study							
K	colloquium									

**ECTS** European Credit Transfer and Accumulation System

Special students and auditors need special permission from the lecturers.

## **Doctoral Department of Materials Science**

Further information at: https://www.ethz.ch/en/doctorate.html

### ► Doctoral and Post-Doctoral Courses

Number	Title	Туре	ECTS	Hours				Lecturers
	Course Catalogue of ETH Zurich							
<b>327-0710-00L</b> 327-0710-00 S	Polymer Physics Polymer Physics Permission from lecturers required for all st Ort und genaue Termine nach Ankündigung		0 credits	2 <b>S</b> 2 hrs	Wed	10-12		H. C. Öttinger, M. Kröger
<b>327-0711-00L</b> 327-0711-00 S	Metal Physics and Technology Seminar Metal Physics and Technology Seminar Ort und genaue Termine nach Ankündigung		0 credits	<b>2S</b> 2 hrs	Mon	16-18		J. F. Löffler
<b>327-0712-00L</b> 327-0712-00 S	Nanometallurgy Nanometallurgie	E-	0 credits	<b>2S</b> 2 hrs	Mon	13-15	HCI E530	R. Spolenak
327-1300-00L	Joint Group Seminar Only for D-MATL doctoral students	E-	0 credits	1S				ти ороголии
327-1300-00 S	Joint Group Seminar Permission from lecturers required for all st. Unregelmässige Lehrveranstaltung.	udents		1 hrs				M. Fiebig, N. Spaldin
<b>327-6100-00L</b> 327-6100-00 K	Materials Colloquium  Materials Colloquium  Wednesday, 4:30 pm see separate programme	E-	0 credits	4s hrs				M. Fiebig, I. Herrmann, M. Luisier, L. Novotny, further lecturers
327-0721-00L	Writing for Publication in Materials Science Number of participants limited to 15.	W	2 credits	1G				
327-0721-00 G	Only for D-MATL doctoral students. Writing for Publication in Materials Science **Course is offered in collaboration with Lar and ETH Zurich**	nguage (	Center of UZH	20s hrs				R. Mihalka
	Course days: January 13, 20, 27 and February 10, 24, 20 Time: 09:45-13:30 Place: Campus Hönggerberg (room will folk		))					
327-2125-00L	Microscopy Training SEM I - Introduction to SEM The number of participants is limited. In case of overbooking, the course will be repeated once. All registrations will be recorded on the waiting list.	W	2 credits	3P				
	For PhD students, postdocs and others, a fee will be charged (http://www.scopem.ethz.ch/education/MTF.html).	,						
	All applicants must additionally register on this form: (link will follow) The selected applicants will be contacted and asked for confirmation a few weeks before the course date.							
327-2125-00 P	Microscopy Training SEM I - Introduction to This block course will take place during 5 fu October 2529., 2021. Lectures will be held practical exercises in rooms of ScopeM.	ll days (		35s hrs	26.10. 27.10.		HIT F11.1 HIT F11.1 HIT F11.1 HIT F11.1	P. Zeng, A. G. Bittermann, S. Gerstl, L. Grafulha Morales, K. Kunze, J. Reuteler
	The repetition (if needed) of this course will 28., 2022.	take pla	ace on Jan 24.	-				
327-2126-00L	Microscopy Training TEM I - Introduction to TEM The number of participants is limited. In case of overbooking, the course will be repeated once. All registrations will be recorded on the waiting list.	W	2 credits	3P				
	For PhD students, postdocs and others, a fee will be charged (http://www.scopem.ethz.ch/education/MTF.html).	,						
	All applicants must additionally register on this form: (link will follow) The selected applicants will be contacted and asked for confirmation a few weeks before the course date.							

327-2126-00 P	Microscopy Training TEM I - Introduction to TEM	35s hrs	01.11.	09-12	HIT F11.1	P. Zeng, E. J. Barthazy Meier,
	This block course will take place during 5 full days (9am-5pm) on		02.11.	09-12	HIT F11.1	A. G. Bittermann, F. Gramm,
	November 15., 2021. Lectures will be held in the seminar room,		03.11.	09-12	HIT F11.1	A. Sologubenko, M. Willinger
	practical exercises in rooms of ScopeM.		05.11.	13-16	HIT F11.1	

The repetition (if needed) of this course will take place from 29.11.-03.12.2021.

Doctora	Doctoral Department of Materials Science - Key for Type								
W+	Eligible for credits and recommended	Z	Courses outside the curriculum						
W	Eligible for credits	Dr	Suitable for doctorate						
E-	Recommended, not eligible for credits	0	Compulsory						
		<u> </u>							

Key for	Key for Hours									
V	lecture	P	practical/laboratory course							
G	lecture with exercise	A	independent project							
U	exercise	D	diploma thesis							
S	seminar	R	revision course / private study							
K	colloquium									
		<u> '</u>								

ECTS European Credit Transfer and Accumulation System

Special students and auditors need special permission from the lecturers.

## **Doctoral Department of Mathematics**

More Information at: https://www.ethz.ch/en/doctorate.html

The list of courses (together with the allocated credit points) eligible for doctoral students is published each semester in the newsletter of the ZGSM. www.zgsm.ch/index.php?id=260&type=2 WARNING: Do not mistake ECTS credits for credit points for doctoral studies!

#### ► Graduate School

Official website of the Zurich Graduate School in Mathematics: www.zurich-graduate-school-math.ch

Number	Title	Туре	ECTS	Hours				Lecturers
101-5003-71L	At the Interface Between Semiclassical	W	4 credits	2V				Locidiois
701-3003-71E	Analysis and Numerical Analysis of Wave-Scattering Problems	••	4 Ciedits	24				
401-5003-71 V	At the Interface Between Semiclassical And Analysis of Wave-Scattering Problems Fridays, 10:15 - 12:00 First lecture: 1 October More information and registration (registration Scatterber)	·		2 hrs	Fri	10-12	HG G43	E. Spence
	September) https://math.ethz.ch/fim/activities/nachdiplo lectures/euan-spence.html	m-						
401-5005-71L	Randomization and Dimensionality in Risk Modeling	W	0 credits	2V				
401-5005-71 V	Randomization and Dimensionality in Risk Tuesdays, 10:15 - 12:00 First lecture: 28 September More information and registration (registration September) https://math.ethz.ch/fim/activities/nachdiplolectures/hansjoerg-albrecher.html	ion dead		2 hrs	Tue	10-12	HG G43	H. Albrecher
401-3225-00L	Introduction to Lie Groups	w	8 credits	4G				
401-3225-00 G	Introduction to Lie Groups Groups are selected in myStudies.			4 hrs	Wed Thu	08-10 10-12	ML E12 LFO C13	A. lozzi
401-3001-61L	Algebraic Topology I	W	8 credits	4G				
401-3001-61 G	Algebraic Topology I			4 hrs	Wed Fri	10-12 14-16	HG E1.1 HG E1.1	W. Merry
401-4421-71L	Harmonic Analysis	W	4 credits	2V				
101-4421-71 V	Harmonic Analysis			2 hrs	Thu	10-12	HG D1.2	A. Figalli
401-3059-00L	Combinatorics II	W	4 credits	2G				
401-3059-00 G	Kombinatorik II			2 hrs	Wed	18-20	HG D3.2	N. Hungerbühler
401-4475-71L	•	W	6 credits	3G				
401-4475-71 G	Microlocal Analysis Online lecture: This lecture will take place of will remain reserved on campus for student from there.				Tue Thu	10-12 08-09	LFW E13 HG E7	P. Hintz
401-4657-00L	Numerical Analysis of Stochastic Ordinary Differential Equations Alternative course title: "Computational Methods for Quantitative Finance: Monte Carlo and Sampling Methods"	W	6 credits	3V+1U				
401-4657-00 V	Numerical Analysis of Stochastic ODEs (Co Fin.: Monte Carlo and Sampling Methods)	omp. Me	eth. Quant.	3 hrs	Mon Wed	16-18 14-15	HG D1.2 HG D5.2	A. Stein
401-4657-00 U	Numerical Analysis of Stochastic ODEs (Co Fin.: Monte Carlo and Sampling Methods) Groups are selected in myStudies.	omp. Me	eth. Quant.	1 hrs	Wed	15-16	HG D5.2 LFW C1	A. Stein
401-4785-00L	Mathematical and Computational Methods in Photonics	W	8 credits	4G				
401-4785-00 G	Mathematical and Computational Methods	in Photo	onics	4 hrs	Mon Wed	10-12 10-12	HG G26.5 HG G26.5	H. Ammari
	Schramm-Loewner Evolutions	W	4 credits	2V				
401-4607-67 V	Schramm-Loewner Evolutions			2 hrs	Wed 03.11.	08-10 08-10	HG G19.1 HG G19.2	W. Werner
401-4944-20L	Mathematics of Data Science	W	8 credits	4G				
401-4944-20 G	Mathematics of Data Science			4 hrs	Thu Fri	12-14 10-12	HG G3 HG G5	A. Bandeira
	Fundamentals of Mathematical Statistics	s W	10 credits	4V+1U				
	Fundamentals of Mathematical Statistics			4 hrs	Tue Wed	08-10 10-12	HG E5 HG E7	S. van de Geer
101-3621-00 U	Fundamentals of Mathematical Statistics			1 hrs	Tue	12-13	HG D7.1 HG E7	S. van de Geer
401-3622-00L	•	W	8 credits	4G				
401-3622-00 G	Statistical Modelling			4 hrs	Mon Thu	10-12 14-16	ML D28 HG E1.1	C. Heinze-Deml
401-4623-00L	Time Series Analysis	w	6 credits	3G				

401-4623-00 G	Time Series Analysis			3 hrs				F. Balabdaoui
	Does not take place this semester.							
<b>401-3627-00L</b> 401-3627-00 V	High-Dimensional Statistics High-Dimensional Statistics	W	4 credits	<b>2V</b> 2 hrs	Thu	08-10	CAB G61	P. L. Bühlmann
101-3612-00L	Stochastic Simulation	W	5 credits	3G				
101-3612-00 G	Stochastic Simulation Does not take place this semester.			3 hrs				
01-3628-14L	Bayesian Statistics	w	4 credits	2V				
01-3628-14 V	•			2 hrs	Tue	16-18	HG G3	F. Sigrist
101-4889-00L	Mathematical Finance	w	11 credits	4V+2U				
	Mathematical Finance			4 hrs	Tue Thu	08-10 08-10	HG E1.1 ML F36	D. Possamaï
101-4889-00 U	Mathematical Finance			2 hrs	Fri	10-12	ML F38	D. Possamaï
102-0861-00L	Statistical Physics	w	10 credits	4V+2U				
102-0861-00 V	Statistical Physics			4 hrs	Tue Wed	14-16 14-16	HPV G5 HPV G5	M. Sigrist
102-0861-00 U	Statistical Physics			2 hrs	Tue	16-18	HCI J4 HIT J53	M. Sigrist
					Wed	12-14	HIT H42 HIT J51 HIT J52	
					Fri	16-18	HIT K51 HIT K51	
► Seminars								
Number	Title	Туре	ECTS	Hours				Lecturers
101-4570-71L	Student Seminar in Symplectic vs. Contact Geometry Number of participants limited to 12.	W	4 credits	28				
401-4570-71 S	Student Seminar in Symplectic vs. Contact	Geomet	ry	2 hrs	Wed	14-16	HG G19.2	A. Cannas da Silva
401-4600-71L	Student Seminar in Probability Limited number of participants. Registration to the seminar will only be effective once confirmed by email from the organisers.	<b>W</b>	4 credits	2S				
	This Student Seminar in Probability will be at an advanced level (dealing with current research topics), and the participants will be at a doctoral level or postdocs. Of course, non-participants are welcome to attend the various talks of the seminar.							
401-4600-00 S	Student Seminar in Probability **together with University of Zurich** For doctoral students and postdocs.			2 hrs	Thu	16-18	CHN E46	J. Bertoin, V. Tassion, W. Werner
► Colloquia	a							
Number	Title	Туре	ECTS	Hours				Lecturers
<b>401-5000-00L</b> 401-5000-00 K	Zurich Colloquium in Mathematics Zurich Colloquium in Mathematics **together with University of Zurich** More information at: https://studentservices.uzh.ch/uzh/anonym/language=DE&sap-ui-language=DE#/details/2021/003/SM/500		0 credits ex.html?sap-	4s hrs	Tue	16-17	UNI ZH.	R. Abgrall, M. lacobelli, A. Bandeira, A. lozzi, S. Mishra, R. Pandharipande University lecturers
	Place: Zoom Time: 16:30-17:30 https://math.ethz.ch/news- and- events/events/research- seminars/zurich-colloquium-in-mathematics		-hs21					
401-5990-00L	Zurich Graduate Colloquium	E-	0 credits	1K				
101-5990-00 K	Zurich Graduate Colloquium  **together with University of Zurich** More information at: https://studentservices.uzh.ch/uzh/anonym/language=EN&sap-ui-language=EN#/details/2021/003/SM/500		ex.html?sap-	1 hrs	Tue	16-18	UNI ZH.	A. lozzi, further speakers
	Time: 16:15-18:00							
101-4530-00L	Geometry Graduate Colloquium	E-	0 credits	1K				
401-4530-00 K	Geometry Graduate Colloquium https://math.ethz.ch/news- and- events/events/research- seminars/geometry-graduate-colloquium.ht.	ml		1 hrs	Thu	16-17	HG G19.2	Speakers
401-5110-00L	Number Theory Seminar	E-	0 credits	1K				
101-0110-00L	ramber Theory Jennia	L-"	o orcuito	111				

401-5110-00 K	Number Theory Seminar			1 hrs	Fri	14-15	HG G43	Ö. Imamoglu, E. Kowalski, R. Pink, G. Wüstholz
<b>401-5140-11L</b> 401-5140-11 K	Algebraic Geometry and Moduli Seminar Algebraic Geometry and Moduli Seminar Time: usually Wed 13:30-14:45 and Fri 16:0 https://www.math.ethz.ch/news- and- events/events/research-		0 credits	<b>2K</b> 2 hrs	Wed Fri	13-15 16-17	HG G43 HG G43	R. Pandharipande
	seminars/algebraic-geometry-and-moduli-se	eminar.h	ntml					
<b>401-5530-00L</b> 401-5530-00 K	Geometry Seminar Geometry Seminar **together with University of Zurich** 15:45-16:45	E-	0 credits	<b>1K</b> 1 hrs	Wed	16-17	HG G43	M. Burger, M. Einsiedler, P. Feller, A. lozzi, U. Lang, University lecturers
<b>401-5350-00L</b> 401-5350-00 K	Analysis Seminar Analysis Seminar **together with University of Zurich**	E-	0 credits	1K 1 hrs	Tue	15-16	HG G43	A. Carlotto, F. Da Lio, A. Figalli, N. Hungerbühler, M. Iacobelli, T. Ilmanen, L. Keller, T. Rivière, J. Serra, University lecturers
<b>401-5370-00L</b> 401-5370-00 K	Ergodic Theory and Dynamical Systems Ergodic Theory and Dynamical Systems **together with University of Zurich** https://www.math.ethz.ch/news- and- events/events/research- seminars/ergodic-theory-and-dynamical-sys		<b>0</b> credits	1K 1 hrs	Mon	15-16	I27 H28	M. Akka Ginosar, M. Einsiedler, University lecturers
401-5580-00L	Symplectic Geometry Seminar	E-	0 credits	2K				
401-5580-00 K	Symplectic Geometry Seminar			2 hrs	Mon	16-18	HG G43	P. Biran, A. Cannas da Silva
401-5650-00L	Zurich Colloquium in Applied and	E-	0 credits	1K				
401-5650-00 K	Computational Mathematics Zurich Colloquium in Applied and Computat **together with University of Zurich** More information at: https://studentservices.uzh.ch/uzh/anonym/ /2021/003/SM/50027666			1 hrs	Wed	16-17	HG E1.2	R. Abgrall, R. Alaifari, H. Ammari, R. Hiptmair, S. Mishra, S. Sauter
	Talks in Mathematical Physics Talks in Mathematical Physics **together with University of Zurich**	E-	0 credits	1K 1 hrs	Thu	15-17	HG G43	P. E. Y. Bousseau, A. Cattaneo, G. Felder, M. Gaberdiel, G. M. Graf, T. H. Willwacher
<b>401-5600-00L</b> 401-5600-00 K	Seminar on Stochastic Processes Seminar on Stochastic Processes **together with University of Zurich**	E-	0 credits	<b>1K</b> 1 hrs	Wed	17-18	HG G19.1	J. Bertoin, A. Nikeghbali, B. D. Schlein, V. Tassion, W. Werner
<b>401-5620-00L</b> 401-5620-00 K	Research Seminar on Statistics Research Seminar on Statistics **together with University of Zurich**  Starting time may vary (depending on whete takes place). For details see https://www.math.ethz.ch/neand-	ews-		1K 1 hrs	Fri	15-17	HG G19.1	P. L. Bühlmann, M. H. Maathuis, N. Meinshausen, S. van de Geer, A. Bandeira, R. Furrer, L. Held, T. Hothorn, D. Kozbur, M. Wolf
	events/events/research-seminars/statistics-		h-seminar.htm	nl 				
<b>401-5680-00L</b> 401-5680-00 K	Foundations of Data Science Seminar Foundations of Data Science Seminar https://www.math.ethz.ch/sfs/news- and-events/data-science-seminar.html Time: 16:15-17:15	E-	0 credits	3s hrs	23.09. 11.11. 02.12.	16-18 16-18 16-18	HG F3 HG G19.2 HG G19.1	P. L. Bühlmann, A. Bandeira, H. Bölcskei, F. Yang
<b>401-5660-00L</b> 401-5660-00 K	Math and Data (MAD+) Math and Data (MAD+) https://math.ethz.ch/news- and-events/events/research-seminars/math	E- -and-da	0 credits ta.html	1K 1 hrs				A. Bandeira, external organisers
401-5910-00L	Talks in Financial and Insurance Mathematics	E-	0 credits	1K				
401-5910-00 K	Talks in Financial and Insurance Mathematic by announcement	cs		1 hrs	Thu	17-18	HG G43	P. Cheridito, M. Schweizer, J. Teichmann, M. V. Wüthrich
<b>401-5900-00L</b> 401-5900-00 K	Optimization Seminar Optimization Seminar Mon 16:30-17:30 (dates by announcement)	E-	0 credits	1K 1 hrs	Mon	16-17	HG G19.1	A. Bandeira, R. Weismantel, R. Zenklusen
252-4202-00L	Seminar in Theoretical Computer	E-	2 credits	2S				
252-4202-00 S	Science Seminar in Theoretical Computer Science	I		2 hrs	Tue Thu	12-13 12-13	CAB G51 CAB G51	E. Welzl, B. Gärtner, M. Ghaffari, M. Hoffmann, J. Lengler, A. Steger, D. Steurer, B. Sudakov

	I Department of Mathematics - Key for Type			
W+	Eligible for credits and recommended	Z	Courses outside the curriculum	
N	Eligible for credits	Dr	Suitable for doctorate	
E-	Recommended, not eligible for credits	0	Compulsory	
Key for	Hours			
•	Hours lecture	P	practical/laboratory course	
<b>Key for</b> √ G		P A	practical/laboratory course independent project	
<b>/</b>	lecture	'		
/	lecture lecture with exercise	A	independent project	

ECTS

European Credit Transfer and Accumulation System
Special students and auditors need special permission from the lecturers.

## **Doctoral Department of Physics**

More Information at: https://www.ethz.ch/en/doctorate.html

### ► Doctoral and Post-Doctoral Courses

Please note that this is an INCOMPLETE list of courses.

Number	Title	Typo	ECTS	Hours				Lecturers
		Туре						Lecturers
402-0317-00L	Semiconductor Materials: Fundamentals and Fabrication	VV	6 credits	2V+1U				
402-0317-00 V		d Fabrio	cation	2 hrs	Tue	14-16	HCI D2	S. Schön, W. Wegscheider
402-0317-00 U	Semiconductor Materials: Fundamentals an	d Fabrio	cation	1 hrs	Tue	16-17	HCI D2	S. Schön, W. Wegscheider
402-0526-00L	Ultrafast Processes in Solids	W	6 credits	2V+1U				
402-0526-00 V	Ultrafast Processes in Solids			2 hrs	Fri	10-12	HIT H51	Y. M. Acremann
402-0526-00 U	Ultrafast Processes in Solids			1 hrs	Fri	12-13	HIT H51	Y. M. Acremann
402-0464-00L	Optical Properties of Semiconductors	W	8 credits	2V+2U				
402-0464-00 V	Optical Properties of Semiconductors			2 hrs	Mon	12-14	HIT J53	J. Faist, P. Anantha Murthy
402-0464-00 U	Optical Properties of Semiconductors			2 hrs	Mon	14-16	HIT F31.2	J. Faist, P. Anantha Murthy
402-0484-00L	Experimental and Theoretical Aspects of Quantum Gases	W	6 credits	2V+1U				
402-0484-00 V	Does not take place this semester.			2 hrs				T. Esslinger
	Experimental and Theoretical Aspects of Quantum Does not take place this semester.		Gases	1 hrs				T. Esslinger
402-0535-00L	Introduction to Magnetism	W	6 credits	3G				
402-0535-00 G	Introduction to Magnetism			3 hrs	Mon	16-19	HIL E6	A. Vindigni
402-0595-00L	Semiconductor Nanostructures	W	6 credits	2V+1U				
402-0595-00 V				2 hrs	Wed	12-14	HCI J4	T. M. Ihn
402-0595-00 U	Semiconductor Nanostructures or by appointment			1 hrs	Wed	14-15	HIT J51 HIT K52	T. M. Ihn
402-0715-00L	Low Energy Particle Physics	W	6 credits	2V+1U				
402-0715-00 V	Low Energy Particle Physics Online lecture: This lecture will primarily tak Reserved rooms will remain blocked on can follow the course from there.			2 hrs	Mon	09-11	HIT F31.1	A. Soter, P. A. Schmidt- Wellenburg
402-0715-00 U	Low Energy Particle Physics Online exercises: Will primarily take place or rooms will remain blocked on campus for st exercises from there.			1 hrs	Mon	11-12	HIT F31.1	<b>A. Soter</b> , P. A. Schmidt-Wellenburg
402-0767-00L	Neutrino Physics	W	6 credits	2V+1U				
402-0767-00 V	Neutrino Physics			2 hrs	Tue	14-16	HIL C10.2	A. Rubbia, D. Sgalaberna
402-0767-00 U	Neutrino Physics			1 hrs	Tue	16-17	HIT F31.1	A. Rubbia, D. Sgalaberna
376-1791-00L	Introductory Course in Neuroscience I (University of Zurich) No enrolment to this course at ETH Zurich. Book the corresponding module directly at UZH as an incoming student. UZH Module Code: SPV0Y005	W	2 credits	2V				
	Mind the enrolment deadlines at UZH: https://www.uzh.ch/cmsssl/en/studies/appli cation/deadlines.html							
376-1791-00 V	Introductory Course in Neuroscience I (Univ **together with University of Zurich**	ersity o	f Zurich)	2 hrs	Mon	16-18	UNI ZH.	University lecturers
	Kurs des Zentrums für Neurowissenschafte	n Zürich	i (ZNZ)					
	Beginn 20.09.2021							
402-0620-00L	Current Topics in Accelerator Mass Spectrometry and Its Applications	E-	0 credits	1S				
402-0620-00 S	Current Topics in Accelerator Mass Spectro Applications	metry a	nd Its	1 hrs	Wed	12-13	HPK D24.2	M. Christl, S. Willett
402-0897-00L	Introduction to String Theory	w	6 credits	2V+1U				
402-0897-00 V		••	o oround	2 hrs	Tue	10-12	HPV G5	J. Brödel
	Introduction to String Theory			1 hrs	Wed	10-11	HCI J4	J. Brödel
							HPL D32	
402-0393-00L	Theoretical Cosmology and Different Aspects of Gravity	W	8 credits	4V				
402-0393-00 V	Theoretical Cosmology and Different Aspec Does not take place this semester.	ts of Gra	avity	4 hrs				L. Heisenberg
402-0465-58L	Intersubband Optoelectronics	W	6 credits	2V+1U				
402-0465-58 V	Intersubband Optoelectronics  Does not take place this semester.			2 hrs				G. Scalari
402-0465-58 U	Intersubband Optoelectronics  Does not take place this semester.			1 hrs				G. Scalari
402-0845-80L	Scattering Amplitudes in Quantum Field	W	6 credits	2V+1U				

	Theories Special Students UZH must book the						
402-0845-80 V	module PHY577 directly at UZH.		2 hrs				University lecturers
402-0043-00 V	Does not take place this semester.  **together with University of Zurich**		21113				Offiversity fectorers
402-0845-80 U	Scattering Amplitudes in Quantum Field Theories Does not take place this semester. **together with University of Zurich**		1 hrs				University lecturers
402-0845-61L	Effective Field Theories for Particle W Physics Special Students UZH must book the module PHY578 directly at UZH.	6 credits	2V+1U				
402-0845-61 V	Effective Field Theories for Particle Physics **together with University of Zurich**		2 hrs	Tue	14-16	HCI H8.1	P. Stoffer
	More information at: https://www.physik.uzh.ch/en/teaching/PHY578.htm	ıl					
402-0845-61 U	Effective Field Theories for Particle Physics **together with University of Zurich**		1 hrs	Tue	16-17	HCI H8.1 HIT K52	P. Stoffer
	More information at: https://www.physik.uzh.ch/en/teaching/PHY578.htm	ıl					
402-0010-00L	Basics of Computing Environments for Scientists Enrollment is only possible under https://www.lehrbetrieb.ethz.ch/laborpraktik a No registration required via myStudies.	0 credits					
	Introduction: - IT at D-PHYS (Herzog): 29.9. 1300 - IT at D-PHYS 2. Termin (Herzog): 7.10. 1300						
	Modules: - Linux Basics I (Müller): 13.10. 1300 - Linux Basics II (Müller): 20.10. 1300 - Python Ecosystem I (Becker): 27.10. 1300 - Python Ecosystem II (Becker): 3.11. 1300 - System Aspects (Herzog): 10.11. 1300						
402-0010-00 V	Basics of Computing Environments for Scientists		2s hrs	29.09. 07.10.	13-14 13-14	HPV G4 HPV G4	
<b>402-0442-00L</b> 402-0442-00 V	Quantum Optics Dr Quantum Optics	10 credits	<b>3V+2U</b> 3 hrs	Wed	10-12	HPV G5	T. Esslinger
	Quantum Optics		2 hrs	Fri Tue	09-10 10-12	HPV G5 HIT F32 HIT H51	T. Esslinger
				Thu	16-18	HIT J51 HCI D6 HCI D8 HCI F2 HIT H42	
Doctoral Depa	artment of Physics - Key for Type						
	Eligible for credits and recommended		Z	_		tside the curricu	ulum
	Eligible for credits Recommended, not eligible for credits		Dr O		uitable for ompulsory	doctorate /	
Key for Hours							
•	lecture		Р	nr	actical/lak	oratory course	
	lecture with exercise		A	-	depender	•	
U	exercise		D		ploma the		

## ECTS European Credit Transfer and Accumulation System

seminar

colloquium

s

Κ

■ Special students and auditors need special permission from the lecturers.

R

revision course / private study

## **Doctoral Department of Environmental Sciences**

More Information at: https://www.ethz.ch/en/doctorate.html

## ► Agricultural Sciences

## **▶▶** Graduate Programme in Plant Sciences

Number	Title	Туре	ECTS	Hours				Lecturers
751-4003-01L	Current Topics in Grassland Sciences (HS)	W	2 credits	2\$				
751-4003-01 S	Current Topics in Grassland Sciences Online lecture: This lecture will take place of will remain reserved on campus for studen from there.				Mon	16-18	LFW C1	A. K. Gilgen
551-0205-00L	Challenges in Plant Sciences Number of participants limited to 40.	W	2 credits	2K				
551-0205-00 K	Challenges in Plant Sciences **together with University of Zurich and University of Basel**				29.09. 10.11.	14-18 08-18	ML F39 LEE E101	S. C. Zeeman, G. Dow, M. Paschke, B. Pfister, further lecturers
	29 September 2021, 14.15–17.45h, ML F3 10 November 2021, 08.30–17:45h, LEE E							

#### ► Environmental Sciences

Number	Title	Type	ECTS	Hours				Lecturers
701-1239-00L	Aerosols I: Physical and Chemical Principles	W	4 credits	2V+1U				
701-1239-00 V	Aerosols I: Physical and Chemical Principles	S		2 hrs	Mon	14-16	CAB G52	<b>M. Gysel Beer</b> , D. Bell, E. Weingartner
701-1239-00 U	Aerosols I: Physical and Chemical Principles	S		1 hrs	Mon	13-14	CAB G52	M. Gysel Beer, D. Bell, E. Weingartner
701-1253-00L	Analysis of Climate and Weather Data	W	3 credits	2G				
701-1253-00 G	Analysis of Climate and Weather Data Does not take place this semester.			2 hrs				C. Frei
701-1235-00L	Cloud Microphysics Number of participants limited to 16.	W	4 credits	2V+1U				
	Priority is given to PhD students majoring in Atmospheric and Climate Sciences, and remaining open spaces will be offered to the following groups: - PhD student Environmental sciences - MSc in Atmospheric and climate science - MSc in Environmental sciences	,						
	All participants will be on the waiting list at first. Enrollment is possible until September 22nd, 2021. The waiting list is active until October 1st, 2021. All students will be informed on September 16th, if they can participate in the lecture. The lecture takes place if a minimum of 5 students register for it.							
701-1235-00 V	Cloud Microphysics			2 hrs	Tue	10-12	CHN G22	U. Lohmann, N. Shardt
701-1235-00 U	Cloud Microphysics			1 hrs	Tue	12-13	CHN G22	U. Lohmann, N. Shardt
701-1221-00L	Dynamics of Large-Scale Atmospheric Flow	W	4 credits	2V+1U				
701-1221-00 V	Dynamics of Large-Scale Atmospheric Flow	'		2 hrs	Wed	09-11	CHN E42	H. Wernli, L. Papritz
701-1221-00 U	Dynamics of Large-Scale Atmospheric Flow	<u>'</u>		1 hrs	Wed	11-12	CHN E42	H. Wernli, L. Papritz
701-1251-00L	Land-Climate Dynamics Number of participants limited to 36. Priority is given to the target groups: - Master Environmental Science, - Master Atmospheric and Climate Science and - PhD D-USYS until September 20th,2021. Waiting list will be deleted September 27th, 2021.	w	3 credits	2G				
701-1251-00 G	Land-Climate Dynamics			2 hrs	Tue 05.10.	14-16 14-16	CHN E42 HG E19	<b>S. I. Seneviratne</b> , R. Padrón Flasher
701-1237-00L	Solar Ultraviolet Radiation	W	1 credit	1V				
701-1237-00 V	Solar Ultraviolet Radiation Unregelmässige Lehrveranstaltung			1 hrs	Wed/2w 10.11.		HG D3.1 HG D3.1	J. Gröbner, S. Kazantzis
701-1233-00L	Stratospheric Chemistry	W	4 credits	2V+1U				
701-1233-00 V	Stratospheric Chemistry			2 hrs	Thu	14-16	CHN F42	T. Peter, G. Chiodo
701-1233-00 U	Stratospheric Chemistry			1 hrs	Thu	13-14	CHN F42	T. Peter, G. Chiodo

	Climate 1 Target groups only: Master Environmental Science Master Atmospheric and Climate Science							
701-1211-01 S	Master's Seminar: Atmosphere and Climate Permission from lecturers required for all str			2 hrs	Mon	08-10	ML F40	<b>H. Joos</b> , R. Knutti, A. Merrifield Könz, M. A. Wüest
	Colloquium Atmosphere and Climate 1 Colloquium Atmosphere and Climate Contact person: Dr. Hanna Joos (IAC) hann		<b>1 credit</b> @env.ethz.ch	1K 1 hrs	Mon	16-18	CAB G11	H. Joos, H. Wernli, D. N. Bresch, D. Domeisen, N. Gruber, R. Knutti, U. Lohmann, T. Peter, C. Schär, S. Schemm, S. I. Seneviratne, M. Wild
►► Biogeo	chemistry and Pollutant Dynam	iCS Type	ECTS	Hours				Lecturers
701-1341-00L	Water Resources and Drinking Water	W	3 credits	2G				Lecturers
	Water Resources and Drinking Water Water Resources and Drinking Water Online event: Will primarily take place online remain blocked on campus for students to fi there.	e. Rese	rved rooms wil	2 hrs	Fri	08-10	CAB G11	<b>S. Hug</b> , M. Berg, F. Hammes, U. von Gunten
701-1313-00L	Isotopes and Biomarkers in Biogeochemistry	W	3 credits	2G				
	Isotopes and Biomarkers in Biogeochemistr			2 hrs	Tue	14-16	CHN F42	C. Schubert, R. Kipfer
<b>701-1315-00L</b> 701-1315-00 G	Biogeochemistry of Trace Elements Biogeochemistry of Trace Elements	W	3 credits	<b>2G</b> 2 hrs	Tue	10-12	LFV E41	A. Voegelin, S. Bouchet, L. Winkel
701-1346-00L	Carbon Mitigation Number of participants limited to 90. Priority is given to the target groups: Bachelor and Master Environmental Sciences and PHD Environmental Sciences until September 21st,2021. Waiting list will be deleted October 1st, 2021.	W	3 credits	2G				
701-1346-00 G	Carbon Mitigation			2 hrs	Mon	10-12	CHN C14	N. Gruber
860-0012-00L	Cooperation and Conflict Over International Water Resources Number of participants limited to 40. Priority for Science, Technology, and Policy MSc. This is a research seminar at the Master	<b>w</b>	3 credits	2S				
860-0012-00 S	level. PhD students are also welcome. Cooperation and Conflict Over International	Water	Resources	2 hrs	Tue	12-14	LEE D105	<b>B. Wehrli</b> , T. Bernauer, E. Calamita, T. U. Siegfried
▶▶ Ecolog	y and Evolution							
Number	Title	Туре	ECTS	Hours				Lecturers
701-0263-01L	Seminar in Evolutionary Ecology of Infectious Diseases	W	3 credits	2G				
701-0263-01 G	Seminar in Evolutionary Ecology of Infection	us Disea	ases	2 hrs	Tue	16-18	CHN F42	R. R. Regös, S. Bonhoeffer
	Ecological Assessment and Evaluation	W	3 credits	3G		40.40	OUN 540	F. Knows
	Ecological Assessment and Evaluation	147	• "	3 hrs	Mon	16-19	CHN E46	F. Knaus
	Research Seminar: Ecological Genetics Minimum number of participants is 5. Research Seminar: Ecological Genetics	W	2 credits	1 <b>S</b> 1 hrs	Wed	11-12	CHN D46	S. Fior
701-1425-01L	or by arrangement  Genetic Diversity: Techniques Number of participants limited to 8.	w	2 credits	4P				
	Waiting list will be deleted November 1st, 2021.  No enrollment possible after October 18th,							
701-1425-01 P	2021. Genetic Diversity: Techniques Language of the course: English			60s hrs				A. M. Minder Pfyl
	Start of the course: Wednesday, 3.11.21 at the course: Wednesday, 24.11.21 at 13:15-in between (about one whole day per week Wednesday).  Course room for the introduction and final dannounced, lab work has to be done at the	17:00, i prefera liscussio	ndividual work bly Monday to					

Climate 1

2 credits

701-1676-01L Genomics of Environmental Adaptation W Number of participants limited to 14. Waiting list will be deleted January 20th, 2022.

Prerequisites: good knowledge in population genetics and some experience in using GIS and R is required.

701-0015-00L	Transdisciplinary Research: Challenges	w	2 credits	2S				
Number	Title	Туре	ECTS	Hours				Lecturers
►► Inter- a	nd Transdisciplinary Courses							
	Soil Science Seminar	-	v vieuita	1 hrs	Tue	17-19	CHN P12	R. Kretzschmar, A. Carminati S. Dötterl, E. Frossard, M. Hartmann
701-1695-00L	Zusätzlich zur Lehrveranstaltung wird eine g angeboten  Soil Science Seminar	anztäg <b>Z</b>	ige Exkursion  0 credits	1S				G. von Arx
<b>701-1682-00L</b> 701-1682-00 G	Dendroecology  Dendroecology  Zupätzlich zur Lahrugranstaltung wird eine eine	W	3 credits	<b>3G</b> 3 hrs	Fri	12-14	CHN G46	C. Bigler, K. Treydte,
	3-day block course.				16.09. 17.09.	09-17 09-17	NO D39 NO D39	
701-1776-00 U	Waiting list will be deleted September 14th, 2021. Geographic Data Processing with Python ar	nd ArcG	IS	30s hrs	15.09.	09-17	NO D39	A. Baltensweiler
701-1776-00L	Geographic Data Processing with Python and ArcGIS  Number of participants limited to 30.	w	1 credit	2U				
<b>102-0675-00L</b> 102-0675-00 G	Earth Observation Erdbeobachtung	W	4 credits	<b>3G</b> 3 hrs	Thu	13-16 14-15	HIL E8 HIL E15.2	I. Hajnsek, E. Baltsavias
751-5125-00 G	Stable Isotope Ecology of Terrestrial Ecosys This block course takes place on 14 January 2022.			2 hrs	14.01 21.01.	08-18	LFW B2	R. A. Werner, N. Buchmann, A. Gessler, M. Lehmann
751-5125-00L	Stable Isotope Ecology of Terrestrial Ecosystems Number of participants limited to 20.	W	2 credits	2G				
<b>701-1651-00L</b> 701-1651-00 G	Environmental Governance Environmental Governance	W	6 credits	<b>3G</b> 3 hrs	Tue	10-13	CHN E46	E. Lieberherr
701-1631-00 G	Foundations of Ecosystem Management			3 hrs	Thu 23.09.	10-13 10-13	CHN G46 HG E41 HG E33.1	J. Ghazoul, C. Garcia, J. Garcia Ulloa, A. Giger Dray
701-1631-00L	Lehrveranstaltung wird im HS21 zum letzter Foundations of Ecosystem Management	n Mal ar		3G				
<b>701-1615-00L</b> 701-1615-00 G	Advanced Forest Pathology Advanced Forest Pathology Lehrsprache Deutsch möglich auf Wunsch o	<b>W</b> der Stud	3 credits	<b>2G</b> 2 hrs	Thu	16-18	CHN F42	S. Prospero
Number	Title	Туре	ECTS	Hours				Lecturers
▶▶ Forest a	and Landscape Management							
701-1551-00 G	No enrollment possible after October 1st, 2021. Sustainability Assessment			2 hrs	Fri	10-12	CHN G42	P. Krütli, D. Nef
	Waiting list will be deleted October 1st, 2021.							
701-1551-00L	Sustainability Assessment Number of participants limited to 35.	w	3 credits	2G				
<b>851-0589-00L</b> 851-0589-00 V	Technology and Innovation for Development Technology and Innovation for Development	<b>W</b> t	3 credits	<b>2V</b> 2 hrs	Tue	12-14	LEE D101	P. Aerni
<b>701-1651-00L</b> 701-1651-00 G	Environmental Governance Environmental Governance	W	6 credits	<b>3G</b> 3 hrs	Tue	10-13	CHN E46	E. Lieberherr
Number	Title	Туре	ECTS	Hours				Lecturers
▶▶ Human-	Environment Systems							
551-0737-00 S	Seminar Ecology and Evolution: Interaction Seminar	•		2 hrs	by appt			S. Bonhoeffer
551-0737-00L	Ort der Veranstaltung: EP D01 / LG E05 WS Ecology and Evolution: Interaction	W BIRM	2 credits	2S				
	Blockkurs: 07. bis 11.02.2022	Ol Dirm	anadarf	40s hrs				R. Holderegger, F. Gugerli, C. Rellstab

Priority is given to PhD students D-USYS.

All participants will be on the waiting list at first. Enrollment is possible until 15 September 2021. The waiting list is active until 17 September. All students will be informed on 19 September, if they can participate in the lecture.

The lecture takes place if a minimum of 12 students register for it.

701-0015-00 S Transdisciplinary Research: Challenges of Interdisciplinarity and 2 hrs Wed/2w 08-12 CHN K77 Stakeholder Engagement

Irregular course

**M. Stauffacher**, C. E. Pohl, B. Vienni Baptista

#### ▶▶ Basic and Scientific Skills

Number	Title	Type	ECTS	Hours				Lecturers
701-0019-00L	Readings in Environmental Thinking	W	3 credits	28				
701-0019-00 S	Readings in Environmental Thinking			2 hrs	Fri	16-18	CHN G42 CHN G46	J. Ghazoul
701-3001-00L	Environmental Systems Data Science	W	3 credits	2G				
701-3001-00 G	Environmental Systems Data Science			2 hrs	Tue	08-10	CHN D44 CHN D46 CHN F42	<b>L. Pellissier</b> , J. Payne, B. Stocker
					21.09.	08-10	CHN G22 HG D1.1	
851-0180-00L	Research Ethics Number of participants limited to 40	w	2 credits	2G				
	Particularly suitable for students of D-BIOL, D-CHAB, D-HEST							
851-0180-00 G	Research Ethics  One additional hour of home work per week	will be	required	2 hrs	Wed	18-20	LFW C1	G. Achermann, P. Emch

#### Additional Courses

Course Catalogue of ETH Zurich

<b>Doctoral De</b>	Doctoral Department of Environmental Sciences - Key for Type							
Dr	Suitable for doctorate	W	Eligible for credits					
0	Compulsory	E-	Recommended, not eligible for credits					
W+	Eligible for credits and recommended	Z	Courses outside the curriculum					

Key for Ho	urs		
V	lecture	P	practical/laboratory course
G	lecture with exercise	A	independent project
U	exercise	D	diploma thesis
S	seminar	R	revision course / private study
K	colloquium		

ECTS European Credit Transfer and Accumulation System

Special students and auditors need special permission from the lecturers.

## **Electrical Engineering and Information Technology Bachelor**

### ▶ 1st Semester

### **▶▶** First Year Examinations

## ▶▶▶ First Year Examination Block A

Number	Title	Type	ECTS	Hours				Lecturers
227-0003-00L	Digital Circuits	0	4 credits	2V+2U	147	40.45	ETE O:	M Ludad
227-0003-00 V 227-0003-00 U	Digitaltechnik Digitaltechnik Study-Center: Donnerstags 18 - 20 Uhi	r im ETF E 1		2 hrs 2 hrs	Wed Thu	10-12 14-16	ETF C1 CHN D46 CHN G46 ETZ E8 ETZ E9 ETZ F91 HG D3.1 HG D5.1 HG E33.5 HG G26.3 HG G26.5 NO C44 NO E11	M. Luisier M. Luisier
401-0151-00L	Linear Algebra	0	5 credits	3V+2U				
401-0151-00 V	Lineare Algebra Vorlesung im HG F1 mit Videoübertrag Dauer jeweils bis 12:45	ung ins HG	F3.	3 hrs	Fri	10-13	HG F1 HG F3	V. C. Gradinaru
401-0151-00 U	Lineare Algebra Groups are selected in myStudies. Übungen: Di 16-18 oder Do 16-18 für Studiengan Informationstechnologie gemäss Grupp Do 10-12 für Studiengang Rechnerges Übungen in den einzelnen Übungsgrup	eneinteilung stützte Wisse	ı. enschaften.	2 hrs	Tue Thu	16-18 10-12	CAB G61 CHN C14 CLA E4 ML F40 NO D11 RZ F21 CAB G56	V. C. Gradinaru
	zweiten Semesterwoche.  Zusätzlich zu den Übungen wird ein Sti (ab der zweiten Semesterwoche, gemä	udy Center a			mu	16-18	HG F26.5 CHN D48 CHN G46 ETZ E8	
	https://metaphor.ethz.ch/x/2020/hs/401			01/ 011			ETZ K91 ML E12	
227-0001-00L	Networks and Circuits I Netzwerke und Schaltungen I	0	4 credits	<b>2V+2U</b> 2 hrs	Tue	14-16	ETF C1	C. Franck
	Netzwerke und Schaltungen I Groups are selected in myStudies. Study-Center: Donnerstags 18 - 20 Uhi			2 hrs	Thu	10-12	CAB G57 CHN D42 ETZ E7 ETZ G91 ETZ J91 HG D3.1 HG D5.3 HG G26.5 LEE C104 LEE D105 LFW C1	C. Franck
151-0223-10L	Engineering Mechanics	0	4 credits	2V+2U+	1K			
151-0223-10 V	Technische Mechanik Anstelle der Übungsstunden finden zw. Dienstag 21.09.2021 von 8-10h im HG		sstunden am	2 hrs	Mon 21.09.	10-12 08-10	ETF C1 HG E3	P. Tiso
151-0223-10 U	Technische Mechanik Groups are selected in myStudies. Anstelle der Übungsstunden finden zwe		sstunden am	2 hrs	Tue	08-10	CLA E4 ETZ E9 ETZ F91 ETZ G91 ETZ H91	P. Tiso
	Dienstag 21.09.2021 von 8-10h statt,						ETZ J91 ETZ K91 LFW C1 LFW E13 ML F40	

Number	Title	Type	ECTS	Hours	Lecturers
401-0231-10L	Analysis 1 Students in BSc EEIT may instead register for 401-1261-07L Analysis I: One Variable (for BSc Mathematics, BSc Physics and BSc Interdisciplinary Science (Phys Chem), and take the performance assessment of the corresponding two-semester course. Students in BSc EEIT who wish to register for 401-1261-07L/401-1262-07L Analysis I: One Variable/Analysis II: Several Variables instead of 401-0231-10L/401-0232-10L Analysis 1/Analysis 2 must get in touch with		8 credits	4V+3U	

the Study Administration before the	Ļ
registration.	

	. og.o. a					
401-0231-10 V	Analysis 1 (für EEIT und RW) Findet im HG F7 mit Videoübertragung ins HG F5 statt.	4 hrs	Wed	08-10	HG F5 HG F7	T. Rivière
	0 0		Thu	08-10	HG F5 HG F7	
401-0231-10 U	Analysis 1 (für EEIT und RW)  Groups are selected in myStudies.	3 hrs	Mon	10-12	CAB G56 LFW C4	T. Rivière
	Übungen: Mo 10-12 für Studiengang Rechnergestützte Wissenschaften.			14-16	ETZ F91 ETZ J91	
	Mo 14-16 oder Mo 16-18 gemäss Gruppeneinteilung für				HG D3.1	
	Studiengänge Elektrotechnik und Informationstechnologie bzw.				HG E22	
	Interdisziplinäre Naturwissenschaften. Schnellübungen Fr 8-10 (14-täglich).				LEE C114 LFV E41	
	· · · · · · · · · · · · · · · · · · ·			16-18	ETZ J91	
	Zusätzlich zu den Übungen wird ein Study Center angeboten: Di 11-12 im IFW D 42 ab der zweiten Semesterwoche.				HG D3.1	
	11-12 IIII IFW D 42 ab der zweiten Semesterwoche.				HG E22 LEE C104	
					LEE C114	
					LFV E41	
			Fri/2w	08-10	ETZ E9 ETZ K91	
					HG D3.2	
					IFW A32.1	
					LFV E41	
					LFW C5 NO C44	

## **▶▶** First Year Compulsory Laboratory Courses

Number	Title	Type	ECTS	Hours				Lecturers
227-0005-10L	Digital Circuits Laboratory	0	1 credit	1P				
227-0005-10 P	Digitaltechnik ■			1 hrs	Wed	14-18	ETZ C96.1 ETZ C96.2 ETZ C99	A. Emboras, M. Luisier
					Fri	14-18	ETZ C96.1 ETZ C96.2 ETZ C99	
252-0865-00L	Preparatory Course in Computer Science	0	1 credit	1P				
252-0865-00 P	Vorkurs Informatik			1 hrs	24.09. 01.10. 08.10. 15.10	14-18 14-18 14-16 14-16	ETA F5 ETA F5 ETA F5	M. Schwerhoff

## ▶ 3rd Semester: Examination Blocks

## ▶▶ Examination Block 1

Number	Title	Type	ECTS	Hours				Lecturers
401-0353-00L	Analysis 3	0	4 credits	2V+2U				
401-0353-00 V	Analysis 3			2 hrs	Mon	08-10	HG G3	M. lacobelli
401-0353-00 U	Analysis 3 Groups are selected in myStudies. Exercises start in the second week of the s Es wird auch mindestens eine Übungsgrup angeboten.			2 hrs	Fri	10-12	CAB G56 CLA E4 ETZ E7 ETZ J91 ETZ K91 LEE C114 LFV E41 LFW B3	M. Iacobelli
402-0053-00L	Physics II	0	8 credits	4V+2U				
402-0053-00 V	Physics II			4 hrs	Tue Wed	10-12 14-16	HPH G3 HPH G3	G. Scalari
402-0053-00 U	Physics II			2 hrs	Tue	14-16	HCI E2 HIL B21 HIL D60.1 HIL E10.1 HIL F10.3 HIT F31.1 HIT F31.2 HIT F32 HIT J52 HIT J53 HPL D34	G. Scalari
227-0045-00L	Signals and Systems I	0	4 credits	2V+2U				
227-0045-00 V	Signal- und Systemtheorie I			2 hrs	Thu	08-10	HG F1	H. Bölcskei
227-0045-00 U	Signal- und Systemtheorie I			2 hrs	Tue	16-18	ETZ E6 HG E22 LEE C104 LEE C114 LFV E41	H. Bölcskei
252-0836-00L	Computer Science II	0	4 credits	2V+2U				
252-0836-00 V	Informatik II			2 hrs	Thu	10-12	HG E7	<b>M. Schwerhoff</b> , F. O. Friedrich Wicker

2 hrs

Fri 16-18

CHN D42 CHN D44 CHN D46 M. Schwerhoff, F. O. Friedrich Wicker

CHN D44 CHN D46 CHN D48 LFW B3 LFW C1 LFW C11 LFW E13

▶▶	Exan	nina	tion	Blog	ck 2
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Title	Type	ECTS	Hours				Lecturers
Electronic Circuits	0	4 credits	2V+2U				
Halbleiter-Schaltungstechnik			2 hrs	Fri	08-10	ETF C1	T. Burger
Halbleiter-Schaltungstechnik			2 hrs	Fri	14-16	HG D7.1 HG F3	T. Burger
Discrete Mathematics	0	4 credits	2V+1U				
Diskrete Mathematik			2 hrs	Mon	10-12	HG G5	D. Adjiashvili
Diskrete Mathematik Groups are selected in myStudies. Di 9-10 oder Di 18-19 gemäss Gruppenein	teilung.		1 hrs	Tue	09-10 18-19	HCI H2.1 HIL C10.2 HIL E10.1 HPL D34 CLA E4 HG G26 5	D. Adjiashvili
	Electronic Circuits Halbleiter-Schaltungstechnik Halbleiter-Schaltungstechnik  Discrete Mathematics Diskrete Mathematik Diskrete Mathematik Groups are selected in myStudies.	Electronic Circuits O Halbleiter-Schaltungstechnik Halbleiter-Schaltungstechnik  Discrete Mathematics Diskrete Mathematik Diskrete Mathematik	Electronic Circuits  Halbleiter-Schaltungstechnik  Halbleiter-Schaltungstechnik  Discrete Mathematics  Diskrete Mathematik  Diskrete Mathematik  Groups are selected in myStudies.	Electronic Circuits O 4 credits 2V+2U Halbleiter-Schaltungstechnik 2 hrs Halbleiter-Schaltungstechnik 2 hrs  Discrete Mathematics O 4 credits 2V+1U Diskrete Mathematik 2 hrs Diskrete Mathematik 1 hrs Groups are selected in myStudies.	Electronic Circuits O 4 credits 2V+2U Halbleiter-Schaltungstechnik Halbleiter-Schaltungstechnik  Discrete Mathematics O 4 credits 2 hrs Fri  2 hrs Mon Diskrete Mathematik 2 hrs Mon Diskrete Mathematik 7 true Groups are selected in myStudies.	Electronic Circuits O 4 credits 2 brs Fri 08-10 Halbleiter-Schaltungstechnik 2 hrs Fri 14-16  Discrete Mathematics O 4 credits 2 hrs Fri 14-16  Discrete Mathematics O 4 credits 2 brs Mon 10-12 Diskrete Mathematik Groups are selected in myStudies. Di 9-10 oder Di 18-19 gemäss Gruppeneinteilung.	Electronic Circuits O 4 credits 2V+2U  Halbleiter-Schaltungstechnik 2 hrs Fri 08-10 ETF C1  Halbleiter-Schaltungstechnik 2 hrs Fri 14-16 HG D7.1 HG F3  Discrete Mathematics O 4 credits 2 hrs Fri 14-16 HG D7.1 HG F3  Diskrete Mathematik 2 hrs Non 10-12 HG G5 Diskrete Mathematik 1 hrs Tue 09-10 HCI H2.1 HIL C10.2 HIL C10.2 HIL E10.1 HPL D34

## ▶ 3rd Semester: Second Year Compulsory Laboratory Course

Number	Title	Туре	ECTS	Hours				Lecturers
227-0079-10L	Electronic Circuits Laboratory	0	1 credit	1P				
227-0079-10 P	Halbleiter-Schaltungstechnik ■			1 hrs	Thu	12-14 14-16 16-18	ETZ D96.1 ETZ D96.1 ETZ D96.1	Q. Huang

#### ► Laboratory Courses, Projects, Seminars

A minimum of 18 cp (under the 2016 regulations), respectively at least 15 cp (under the 2018 regulations) must be achieved in the category "Laboratory Courses, Projects, Seminars".

#### **▶▶** General Laboratory

Number	Title	Туре	ECTS	Hours	Lecturers
227-0095-10L	General Laboratory I Only for Electrical Engineering and Information Technology BSc.	W	2 credits	2P	
	Enrolment via Online-Tool (EE-Website: Studies -> Bachelor Program -> Third Year -> Laboratory Courses)				
227-0095-10 P	Allgemeines Fachpraktikum I Montag, Mittwoch, Freitag Nachmittag nach	Vereini	barung.	2 hrs	Professors
227-0096-10L	General Laboratory II Only for Electrical Engineering and Information Technology BSc.	W	4 credits	4P	
	Enrolment via Online-Tool (EE-Website: Studies -> Bachelor Program -> Third Year -> Laboratory Courses)				
227-0096-10 P	Allgemeines Fachpraktikum II Montag, Mittwoch, Freitag Nachmittag nach	Vereini	barung.	4 hrs	Professors

#### ▶▶ Projects & Seminars

Enrolment is only possible for students in the BSc Electrical Engineering and Information Technology from Friday before the start of the semester. Places are allocated using the P&S application tool (https://psapp.ee.ethz.ch/). Please only enrol for P&S for which you apply via the tool.

Number	Title	Type	ECTS	Hours	Lecturers
227-0085-01L	Projects & Seminars: Amateur Radio Course Only for Electrical Engineering and Information Technology BSc.	W	1.5 credits	1P	

The course unit can only be taken once. Repeated enrollment in a later semester is not creditable. 227-0085-01 P Projekte & Seminare: Amateurfunk-Kurs

1 hrs

3P

3 hrs

.l Leuthold

M. Magno

J. Leuthold

Für den Zugang zum Angebot und zur Einschreibung loggen Sie sich hier ein (mit Ihrem n.ETHZ account):

https://psapp.ee.ethz.ch/

Bitte beachten Sie, dass die Seite jeweils erst zwei Wochen vor Semesterbeginn zugänglich ist und im Verlauf des Semesters wieder abgeschaltet wird. Die Einschreibung ist nur von Freitag vor Semesterbeginn bis zum ersten Freitag im Semester mittags möalich.

To access the offer and to enroll for courses log in (with your n.ethz account): https://psapp.ee.ethz.ch/ Please note that the P&S-site is accessible no earlier than two weeks before the start of the semester until four weeks after the

start of the semester. Enrollment is only possible from Friday before the start of the semester until noon of the first Friday in the

227-0085-02L

Projects & Seminars: Game 3 credits **Development with Unity** 

Only for Electrical Engineering and Information Technology BSc.

The course unit can only be taken once. Repeated enrollment in a later semester is not creditable.

227-0085-02 P Projekte & Seminare: Game Development with Unity ■

Für den Zugang zum Angebot und zur Einschreibung loggen Sie sich hier ein (mit Ihrem n.ETHZ account):

https://psapp.ee.ethz.ch/

Bitte beachten Sie, dass die Seite jeweils erst zwei Wochen vor Semesterbeginn zugänglich ist und im Verlauf des Semesters wieder abgeschaltet wird. Die Einschreibung ist nur von Freitag vor Semesterbeginn bis zum ersten Freitag im Semester mittags möglich.

To access the offer and to enroll for courses log in (with your n.ethz account): https://psapp.ee.ethz.ch/ Please note that the P&S-site is accessible no earlier than two weeks before the start of the semester until four weeks after the start of the semester. Enrollment is only possible from Friday before the start of the semester until noon of the first Friday in the

227-0085-03L

Projects & Seminars: COMSOL Design 3 credits

Tool - Design of Optical Components Only for Electrical Engineering and

Information Technology BSc.

The course unit can only be taken once. Repeated enrollment in a later semester is not creditable.

227-0085-03 P Projekte & Seminare: COMSOL Design Tool - Design of Optical 3 hrs

Components ■

Does not take place this semester.

Für den Zugang zum Angebot und zur Einschreibung loggen Sie

sich hier ein (mit Ihrem n.ETHZ account):

https://psapp.ee.ethz.ch/

Bitte beachten Sie, dass die Seite jeweils erst zwei Wochen vor Semesterbeginn zugänglich ist und im Verlauf des Semesters wieder abgeschaltet wird. Die Einschreibung ist nur von Freitag vor Semesterbeginn bis zum ersten Freitagmittag im Semester möglich.

To access the offer and to enroll for courses log in (with your n.ethz account): https://psapp.ee.ethz.ch/

Please note that the P&S-site is accessible no earlier than two weeks before the start of the semester until four weeks after the start of the semester. Enrollment is only possible from Friday before the start of the semester until noon of the first Friday in the

227-0085-04L Projects & Seminars: Microcontrollers

for Sensors and Internet of Things Only for Electrical Engineering and

Information Technology BSc.

The course unit can only be taken once. Repeated enrollment in a later semester is not creditable.

Data: 29.09.2021 12:38 Autumn Semester 2021 Page 270 of 805 227-0085-04 P Projekte & Seminare: Microcontrollers for Sensors and Internet of 4 hrs

Things ■

Für den Zugang zum Angebot und zur Einschreibung loggen Sie sich hier ein (mit Ihrem n.ETHZ account):

https://psapp.ee.ethz.ch/

Bitte beachten Sie, dass die Seite jeweils erst zwei Wochen vor Semesterbeginn zugänglich ist und im Verlauf des Semesters wieder abgeschaltet wird. Die Einschreibung ist nur von Freitag vor Semesterbeginn bis zum ersten Freitagmittag im Semester mödlich.

To access the offer and to enroll for courses log in (with your n.ethz account): https://psapp.ee.ethz.ch/

Please note that the P&S-site is accessible no earlier than two weeks before the start of the semester until four weeks after the start of the semester. Enrollment is only possible from Friday before the start of the semester until noon of the first Friday in the semester

227-0085-05L

Projects & Seminars: Fast Signal Acquisition and Processing for Quantum Experiments Using FPGA

Only for Electrical Engineering and Information Technology BSc.

The course unit can only be taken once. Repeated enrollment in a later semester is not creditable.

227-0085-05 P

Projekte & Seminare: Fast Signal Acquisition and Processing for 3 hrs

w

3 credits

2 credits

3P

Quantum Experiments Using FPGA

Für den Zugang zum Angebot und zur Einschreibung loggen Sie sich hier ein (mit Ihrem n.ETHZ account):

https://psapp.ee.ethz.ch/

Bitte beachten Sie, dass die Seite jeweils erst zwei Wochen vor Semesterbeginn zugänglich ist und im Verlauf des Semesters wieder abgeschaltet wird. Die Einschreibung ist nur von Freitag vor Semesterbeginn bis zum ersten Freitag im Semester mittags möglich.

To access the offer and to enroll for courses log in (with your n.ethz account): https://psapp.ee.ethz.ch/

Please note that the P&S-site is accessible no earlier than two weeks before the start of the semester until four weeks after the start of the semester. Enrollment is only possible from Friday before the start of the semester until noon of the first Friday in the semester.

The lecturers will communicate the exact lesson times of ONLINE courses.

227-0085-06L

Projects & Seminars: Neural Network on W Low Power FPGA: A Practical Approach

Only for Electrical Engineering and Information Technology BSc.

The course unit can only be taken once. Repeated enrollment in a later semester is not creditable.

227-0085-06 P

Projekte & Seminare: Neural Network on Low Power FPGA: A 2 hrs

Practical Approach

Does not take place this semester.

Für den Zugang zum Angebot und zur Einschreibung loggen Sie

sich hier ein (mit Ihrem n.ETHZ account):

https://psapp.ee.ethz.ch/

Bitte beachten Sie, dass die Seite jeweils erst zwei Wochen vor Semesterbeginn zugänglich ist und im Verlauf des Semesters wieder abgeschaltet wird. Die Einschreibung ist nur von Freitag vor Semesterbeginn bis zum ersten Freitag im Semester mittags möglich.

To access the offer and to enroll for courses log in (with your n.ethz account): https://psapp.ee.ethz.ch/ Please note that the P&S-site is accessible no earlier than two

Please note that the P&S-site is accessible no earlier than two weeks before the start of the semester until four weeks after the start of the semester. Enrollment is only possible from Friday before the start of the semester until noon of the first Friday in the semester.

Zeit: Dienstag, 16:00 - 18:30 Uhr.

227-0085-07L

Projects & Seminars: Deep Learning for W 3 credits 3 Smartphone Apps (DLSA)

Only for Electrical Engineering and Information Technology BSc.

The course unit can only be taken once. Repeated enrollment in a later semester is not creditable.

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M. Magno

M. Magno

227-0085-07 P Projekte & Seminare: Deep Learning for Smartphone Apps (DLSA) ■

3 hrs

L. Van Gool

Does not take place this semester.

Für den Zugang zum Angebot und zur Einschreibung loggen Sie sich hier ein (mit Ihrem n.ETHZ account):

https://psapp.ee.ethz.ch/

Bitte beachten Sie, dass die Seite jeweils erst zwei Wochen vor Semesterbeginn zugänglich ist und im Verlauf des Semesters wieder abgeschaltet wird. Die Einschreibung ist nur von Freitag vor Semesterbeginn bis zum ersten Freitagmittag im Semester möglich.

To access the offer and to enroll for courses log in (with your n.ethz account): https://psapp.ee.ethz.ch/
Please note that the P&S-site is accessible no earlier than two weeks before the start of the semester until four weeks after the start of the semester. Enrollment is only possible from Friday before the start of the semester until noon of the first Friday in the semester.

#### 227-0085-08L Projects & Seminars: Bluetooth Low Energy Programming for IoT Sensing

Information Technology BSc.

3 credits

3P

System
Only for Electrical Engineering and

The course unit can only be taken once. Repeated enrollment in a later semester is not creditable.

227-0085-08 P Projekte & Seminare: Bluetooth Low Energy Programming for IoT 3 hrs Sensing System ■

Does not take place this semester.

Für den Zugang zum Angebot und zur Einschreibung loggen Sie sich hier ein (mit Ihrem n.ETHZ account):

https://psapp.ee.ethz.ch/

Bitte beachten Sie, dass die Seite jeweils erst zwei Wochen vor Semesterbeginn zugänglich ist und im Verlauf des Semesters wieder abgeschaltet wird. Die Einschreibung ist nur von Freitag vor Semesterbeginn bis zum ersten Freitagmittag im Semester mödlich.

To access the offer and to enroll for courses log in (with your n.ethz account): https://psapp.ee.ethz.ch/
Please note that the P&S-site is accessible no earlier than two weeks before the start of the semester until four weeks after the start of the semester. Enrollment is only possible from Friday before the start of the semester until noon of the first Friday in the

# 227-0085-09L Projects & Seminars: Spiking Neural Network on Neuromorphic Processors

W 3 credits

3P

Only for Electrical Engineering and Information Technology BSc.

The course unit can only be taken once. Repeated enrollment in a later semester is not creditable.

227-0085-09 P Projekte & Seminare: Spiking Neural Network on Neuromorphic 3 hrs

Processors

semester.

Für den Zugang zum Angebot und zur Einschreibung loggen Sie sich hier ein (mit Ihrem n.ETHZ account):

https://psapp.ee.ethz.ch/

Bitte beachten Sie, dass die Seite jeweils erst zwei Wochen vor Semesterbeginn zugänglich ist und im Verlauf des Semesters wieder abgeschaltet wird. Die Einschreibung ist nur von Freitag vor Semesterbeginn bis zum ersten Freitagmittag im Semester möglich.

To access the offer and to enroll for courses log in (with your n.ethz account): https://psapp.ee.ethz.ch/
Please note that the P&S-site is accessible no earlier than two weeks before the start of the semester until four weeks after the start of the semester. Enrollment is only possible from Friday before the start of the semester until noon of the first Friday in the

# 227-0085-11L Projects & Seminars: Deep Learning for W 3 credits Image Manipulation (DLIM)

Only for Electrical Engineering and Information Technology BSc.

The course unit can only be taken once. Repeated enrollment in a later semester is not creditable.

ЗP

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G. Indiveri

227-0085-11 P Projekte & Seminare: Deep Learning for Image Manipulation (DLIM) ■

Does not take place this semester.

Für den Zugang zum Angebot und zur Einschreibung loggen Sie sich hier ein (mit Ihrem n.ETHZ account): 3 hrs

1 hrs

https://psapp.ee.ethz.ch/

Bitte beachten Sie, dass die Seite jeweils erst zwei Wochen vor Semesterbeginn zugänglich ist und im Verlauf des Semesters wieder abgeschaltet wird. Die Einschreibung ist nur von Freitag vor Semesterbeginn bis zum ersten Freitagmittag im Semester möglich.

To access the offer and to enroll for courses log in (with your n.ethz account): https://psapp.ee.ethz.ch/
Please note that the P&S-site is accessible no earlier than two weeks before the start of the semester until four weeks after the start of the semester. Enrollment is only possible from Friday before the start of the semester until noon of the first Friday in the

semester.

227-0085-12L Projects & Seminars: Electronic Circuits W 2 credits 1P

& Signals Exploration Laboratory

Only for Electrical Engineering and Information Technology BSc.

The course unit can only be taken once. Repeated enrollment in a later semester is not creditable.

227-0085-12 P Projekte & Seminare: Electronic Circuits & Signals Exploration Laboratory ■

Für den Zugang zum Angebot und zur Einschreibung loggen Sie sich hier ein (mit Ihrem n.ETHZ account): https://psapp.ee.ethz.ch/

Bitte beachten Sie, dass die Seite jeweils erst zwei Wochen vor Semesterbeginn zugänglich ist und im Verlauf des Semesters wieder abgeschaltet wird. Die Einschreibung ist nur von Freitag vor Semesterbeginn bis zum ersten Freitagmittag im Semester möglich.

To access the offer and to enroll for courses log in (with your n.ethz account): https://psapp.ee.ethz.ch/

Please note that the P&S-site is accessible no earlier than two weeks before the start of the semester until four weeks after the start of the semester. Enrollment is only possible from Friday before the start of the semester until noon of the first Friday in the semester

227-0085-13L Projects & Seminars: Assembling and W 3.5 credits 3.5P

**Controlling a Tuning-Fork AFM**Only for Electrical Engineering and Information Technology BSc.

The course unit can only be taken once. Repeated enrollment in a later semester is not creditable.

227-0085-13 P Projekte & Seminare: Assembling and Controlling a Tuning-Fork 3.5 hrs

AFIM ■

Für den Zugang zum Angebot und zur Einschreibung loggen Sie sich hier ein (mit Ihrem n.ETHZ account):

https://psapp.ee.ethz.ch/

Bitte beachten Sie, dass die Seite jeweils erst zwei Wochen vor Semesterbeginn zugänglich ist und im Verlauf des Semesters wieder abgeschaltet wird. Die Einschreibung ist nur von Freitag vor Semesterbeginn bis zum ersten Freitagmittag im Semester mödlich

Früherer Titel bis HS 2020: Let's Build and Control our own Atomic Force Microscope...

To access the offer and to enroll for courses log in (with your n.ethz account): https://psapp.ee.ethz.ch/

Please note that the P&S-site is accessible no earlier than two weeks before the start of the semester until four weeks after the start of the semester. Enrollment is only possible from Friday before the start of the semester until noon of the first Friday in the semester.

Former title until AS 2020: Let's Build and Control our own Atomic Force Microscope...

227-0085-14L Projects & Seminars: Technical and W 3 credits
Economic Aspects of Renewable Energy

Only for Electrical Engineering and Information Technology BSc.

The course unit can only be taken once. Repeated enrollment in a later semester is not creditable. 3P

I Van Gool

H.-A. Loeliger

T. Zambelli

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227-0085-14 P Projekte & Seminare: Technical and Economic Aspects of 3 hrs G. Hua Renewable Energy Supply ■ Für den Zugang zum Angebot und zur Einschreibung loggen Sie sich hier ein (mit Ihrem n.ETHZ account): https://psapp.ee.ethz.ch/ Bitte beachten Sie, dass die Seite jeweils erst zwei Wochen vor Semesterbeginn zugänglich ist und im Verlauf des Semesters wieder abgeschaltet wird. Die Einschreibung ist nur von Freitag vor Semesterbeginn bis zum ersten Freitagmittag im Semester To access the offer and to enroll for courses log in (with your n.ethz account): https://psapp.ee.ethz.ch/ Please note that the P&S-site is accessible no earlier than two weeks before the start of the semester until four weeks after the start of the semester. Enrollment is only possible from Friday before the start of the semester until noon of the first Friday in the semester. 227-0085-15L Projects & Seminars: Python for w 3 credits 3P Engineers - Get Productive in the Classroom, in the Lab and at Home Only for Electrical Engineering and Information Technology BSc. The course unit can only be taken once. Repeated enrollment in a later semester is not creditable. J. Leuthold 227-0085-15 P Projekte & Seminare: Python for Engineers - Get Productive in 3 hrs the Classroom, in the Lab and at Home Für den Zugang zum Angebot und zur Einschreibung loggen Sie sich hier ein (mit Ihrem n.ETHZ account): https://psapp.ee.ethz.ch/ Bitte beachten Sie, dass die Seite jeweils erst zwei Wochen vor Semesterbeginn zugänglich ist und im Verlauf des Semesters wieder abgeschaltet wird. Die Einschreibung ist nur von Freitag vor Semesterbeginn bis zum ersten Freitagmittag im Semester To access the offer and to enroll for courses log in (with your n.ethz account): https://psapp.ee.ethz.ch/ Please note that the P&S-site is accessible no earlier than two weeks before the start of the semester until four weeks after the start of the semester. Enrollment is only possible from Friday before the start of the semester until noon of the first Friday in the 227-0085-16L Projects & Seminars: Machine Learning W 3P 3 credits for Brain-Computer Interfaces Only for Electrical Engineering and Information Technology BSc. The course unit can only be taken once. Repeated enrollment in a later semester is not creditable. I Renini

227-0085-16 P Projekte & Seminare: Machine Learning for Brain-Computer 3 hrs Interfaces .

> Für den Zugang zum Angebot und zur Einschreibung loggen Sie sich hier ein (mit Ihrem n.ETHZ account):

https://psapp.ee.ethz.ch/

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To access the offer and to enroll for courses log in (with your n.ethz account): https://psapp.ee.ethz.ch/ Please note that the P&S-site is accessible no earlier than two weeks before the start of the semester until four weeks after the start of the semester. Enrollment is only possible from Friday before the start of the semester until noon of the first Friday in the

semester. 227-0085-17L Projects & Seminars: Building a 2P 2 credits

> Wireless Infrared Headphone Only for Electrical Engineering and

Information Technology BSc.

The course unit can only be taken once. Repeated enrollment in a later semester is not creditable.

Data: 29.09.2021 12:38 Autumn Semester 2021 Page 274 of 805 227-0085-17 P Projekte & Seminare: Bau eines drahtlosen Infrarot-Kopfhörers ■ 2 hrs

Für den Zugang zum Angebot und zur Einschreibung loggen Sie sich hier ein (mit Ihrem n.ETHZ account):

https://psapp.ee.ethz.ch/

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Please note that the P&S-site is accessible no earlier than two weeks before the start of the semester until four weeks after the start of the semester. Enrollment is only possible from Friday before the start of the semester until noon of the first Friday in the

227-0085-18L Projects & Seminars: Bits on Air

V 2 credits

2P

2 hrs

3 hrs

Only for Electrical Engineering and Information Technology BSc.

> The course unit can only be taken once. Repeated enrollment in a later semester is not creditable.

227-0085-18 P Projekte & Seminare: Bits on Air ■

Für den Zugang zum Angebot und zur Einschreibung loggen Sie sich hier ein (mit Ihrem n.ETHZ account):

https://psapp.ee.ethz.ch/

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227-0085-19L Projects & Seminars: Software Defined W 3 credits 3P

Only for Electrical Engineering and Information Technology BSc.

The course unit can only be taken once. Repeated enrollment in a later semester is not creditable

227-0085-19 P Projekte & Seminare: Software Defined Radio

Für den Zugang zum Angebot und zur Einschreibung loggen Sie

sich hier ein (mit Ihrem n.ETHZ account):

https://psapp.ee.ethz.ch/

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semester.

227-0085-21L Projects & Seminars: Quad-Rotors: W 2 credits 2P Control and Estimation

Only for Electrical Engineering and

Information Technology BSc.

The course unit can only be taken once. Repeated enrollment in a later semester is not creditable. M. Lerjen

M. Lerjen

M. Lerjen

227-0085-21 P Projekte & Seminare: Quad-Rotors: Control and Estimation ■

Für den Zugang zum Angebot und zur Einschreibung loggen Sie sich hier ein (mit Ihrem n.ETHZ account):

https://psapp.ee.ethz.ch/

Bitte beachten Sie, dass die Seite jeweils erst zwei Wochen vor Semesterbeginn zugänglich ist und im Verlauf des Semesters wieder abgeschaltet wird. Die Einschreibung ist nur von Freitag vor Semesterbeginn bis zum ersten Freitagmittag im Semester möglich.

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227-0085-22L Projects & Seminars: Programming of a W 4 credits 4
Blackfin DSP

Only for Electrical Engineering and Information Technology BSc.

The course unit can only be taken once. Repeated enrollment in a later semester is not creditable.

227-0085-22 P Projekte & Seminare: Programmierung eines Blackfin DSP ■ 4 hrs H.-A. Loeliger

Does not take place this semester.

H.-A. Loeliger

2 hrs

J. Lygeros

Start wird noch angekündigt. Für den Zugang zum Angebot und zur Einschreibung loggen Sie sich hier ein (mit Ihrem n ETHZ

zur Einschreibung loggen Sie sich hier ein (mit Ihrem n.ETHZ account): https://psapp.ee.ethz.ch/

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Start tba. To access the offer and to enroll for courses log in (with your n.ethz account): https://psapp.ee.ethz.ch/
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227-0085-23L Projects & Seminars: Phase Change W 1 credit 1P Materials and Memories

Only for Electrical Engineering and

Information Technology BSc.

The course unit can only be taken once. Repeated enrollment in a later semester is not creditable.

227-0085-23 P Projekte & Seminare: Phase Change Materials and Memories ■ 1 hrs M. Yarema

Für den Zugang zum Angebot und zur Einschreibung loggen Sie sich hier ein (mit Ihrem n.ETHZ account): https://psapp.ee.ethz.ch/

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Course hours: 14:00 - 17:30 h

227-0085-24L Projects & Seminars: Vision and Control W 3 credits 1P

in RoboCup

semester.

Only for Electrical Engineering and Information Technology BSc.

The course unit can only be taken once. Repeated enrollment in a later semester is not creditable

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227-0085-24 P Projekte & Seminare: Vision and Control in RoboCup

Für den Zugang zum Angebot und zur Einschreibung loggen Sie sich hier ein (mit Ihrem n.ETHZ account):

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# 227-0085-25L Projects & Seminars: Magnetic Resonance: From Spectrum to Image

W 1 credit

18s hrs

1P

Only for Electrical Engineering and

Information Technology BSc.

The course unit can only be taken once. Repeated enrollment in a later semester is not creditable.

227-0085-25 P Projekte & Seminare: Magnetresonanz: Vom Spektrum zum Bild ■ 1 hrs

Für den Zugang zum Angebot und zur Einschreibung loggen Sie

sich hier ein (mit Ihrem n.ETHZ account):

https://psapp.ee.ethz.ch/

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## 227-0085-26L Projects & Seminars: Biosignal W 3 credits

Acquisition and Processing for IoT Wearable Devices

Only for Electrical Engineering and Information Technology BSc.

The course unit can only be taken once.

Repeated enrollment in a later semester is

Repeated enrollment in a later semester is not creditable.

227-0085-26 P Projekte & Seminare: Biosignal Acquisition and Processing for IoT 3 hrs

Wearable Devices ■

Does not take place this semester.

Für den Zugang zum Angebot und zur Einschreibung loggen Sie

sich hier ein (mit Ihrem n.ETHZ account):

https://psapp.ee.ethz.ch/

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semester.

227-0085-27L Projects & Seminars: Android W 4 credits 3P
Application Development (AAD)

Only for Electrical Engineering and Information Technology BSc.

The course unit can only be taken once. Repeated enrollment in a later semester is not creditable J. Lygeros, L. Van Gool

M. Weiger Senften

227-0085-27 P Projekte & Seminare: Android Application Development (AAD) ■ 3 hrs

Does not take place this semester.

Für den Zugang zum Angebot und zur Einschreibung loggen Sie

sich hier ein (mit Ihrem n.ETHZ account):

https://psapp.ee.ethz.ch/

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#### 227-0085-28L Projects & Seminars: iCEBreaker FPGA W 3 credits 3P

For IoT Sensing Systems

Only for Electrical Engineering and Information Technology BSc.

The course unit can only be taken once. Repeated enrollment in a later semester is not creditable.

227-0085-28 P Projekte & Seminare: iCEBreaker FPGA For IoT Sensing

Systems ■

Für den Zugang zum Angebot und zur Einschreibung loggen Sie sich hier ein (mit Ihrem n.ETHZ account):

3 hrs

3 hrs

2P

https://psapp.ee.ethz.ch/

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# 227-0085-29L Projects & Seminars: Embedded Deep W 3 credits Learning with Huawei Atlas 200 Al Dev

Kit

not creditable.

semester.

Data: 29.09.2021 12:38

Only for Electrical Engineering and Information Technology BSc.

The course unit can only be taken once. Repeated enrollment in a later semester is

227-0085-29 P Projekte & Seminare: Embedded Deep Learning with Huawei

Atlas 200 Al Dev Kit ■

Für den Zugang zum Angebot und zur Einschreibung loggen Sie

sich hier ein (mit Ihrem n.ETHZ account):

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227-0085-31L Projects & Seminars: Vision Goes Vegas W 2 credits

Only for Electrical Engineering and Information Technology BSc.

The course unit can only be taken once. Repeated enrollment in a later semester is not creditable. M. Magno

M. Magno

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227-0085-31 P Projekte & Seminare: Vision Goes Vegas

2 hrs

L. Van Gool

Für den Zugang zum Angebot und zur Einschreibung loggen Sie sich hier ein (mit Ihrem n.ETHZ account):

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227-0085-321 Projects & Seminars: Magnetic Fields in W 2P 2 credits

our Daily Life

Only for Electrical Engineering and Information Technology BSc.

The course unit can only be taken once. Repeated enrollment in a later semester is

FT7 H91 .l Leuthold 227-0085-32 P Projekte & Seminare: Magnetische Felder im Alltag 2 hrs Wed 10-13

Für den Zugang zum Angebot und zur Einschreibung loggen Sie

sich hier ein (mit Ihrem n.ETHZ account): https://psapp.ee.ethz.ch/

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Projects & Seminars: Accelerating Genome Analysis with FPGAs, GPUs, 227-0085-331 w 3 credits 3P

and New Execution Paradigms Only for Electrical Engineering and

Information Technology BSc.

The course unit can only be taken once. Repeated enrollment in a later semester is not creditable.

Projekte & Seminare: Accelerating Genome Analysis with FPGAs, 3 hrs 227-0085-33 P

GPUs, and New Execution Paradigms ■

Für den Zugang zum Angebot und zur Einschreibung loggen Sie sich hier ein (mit Ihrem n.ETHZ account):

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start of the semester. Enrollment is only possible from Friday before the start of the semester until noon of the first Friday in the semester.

Time: to be arranged with each student Location: various

227-0085-34L Projects & Seminars: Exploring Future 3 credits

Memory Systems with RAMulator Only for Electrical Engineering and Information Technology BSc.

> The course unit can only be taken once. Repeated enrollment in a later semester is not creditable.

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M. H. K. Alser. J. Gómez Luna 227-0085-34 P Projekte & Seminare: Exploring Future Memory Systems with RAMulator ■

Für den Zugang zum Angebot und zur Einschreibung loggen Sie sich hier ein (mit Ihrem n.ETHZ account):

3 hrs

3 credits

ЗP

3 hrs

Bitte beachten Sie, dass die Seite jeweils erst zwei Wochen vor Semesterbeginn zugänglich ist und im Verlauf des Semesters wieder abgeschaltet wird. Die Einschreibung ist nur von Freitag vor Semesterbeginn bis zum ersten Freitagmittag im Semester

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Time: to be arranged with each student Location: various

227-0085-35L Projects & Seminars: Enabling Secure, Reliable and Fast Memory with Hands-On FPGA Experiments

https://psapp.ee.ethz.ch/

Only for Electrical Engineering and Information Technology BSc.

The course unit can only be taken once. Repeated enrollment in a later semester is not creditable.

227-0085-35 P Projekte & Seminare: Enabling Secure, Reliable and Fast Memory with Hands-On FPGA Experiments ■

> Für den Zugang zum Angebot und zur Einschreibung loggen Sie sich hier ein (mit Ihrem n.ETHZ account):

https://psapp.ee.ethz.ch/ Bitte beachten Sie, dass die Seite jeweils erst zwei Wochen vor Semesterbeginn zugänglich ist und im Verlauf des Semesters wieder abgeschaltet wird. Die Einschreibung ist nur von Freitag vor Semesterbeginn bis zum ersten Freitagmittag im Semester

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Time: To be arranged with each student Location: various

227-0085-36L Projects & Seminars: Genome Sequencing on Mobile Devices

Only for Electrical Engineering and Information Technology BSc.

The course unit can only be taken once. Repeated enrollment in a later semester is not creditable.

227-0085-36 P Projekte & Seminare: Genome Sequencing on Mobile Devices ■ 3 hrs Für den Zugang zum Angebot und zur Einschreibung loggen Sie

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Time: To be arranged with each student Location: various

227-0085-37L Projects & Seminars: Exploring the Processing-in-Memory Paradigm for **Future Computing Systems** 

Only for Electrical Engineering and Information Technology BSc.

The course unit can only be taken once.

O. Mutlu. H. Hasan

M. H. K. Alser, J. Gómez Luna

O. Mutlu, H. Hasan

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ЗΡ

3 credits

3P

3 credits

Repeated enrollment in a later semester is not creditable.

Projekte & Seminare: Exploring the Processing-in-Memory Paradigm for Future Computing Systems ■ 227-0085-37 P

Für den Zugang zum Angebot und zur Einschreibung loggen Sie sich hier ein (mit Ihrem n.ETHZ account):

3 hrs

3 credits

2P

2 hrs

3 hrs

3P

https://psapp.ee.ethz.ch/

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Time: to be arranged with each student Location: various

227-0085-38L **Projects & Seminars: Controlling Biological Neuronal Networks Using** Machine Learning

Only for Electrical Engineering and Information Technology BSc.

Course can only be registered for once. A repeatedly registration in a later semester is not chargeable.

Projekte & Seminare: Controlling Biological Neuronal Networks 227-0085-38 P Using Machine Learning ■

Does not take place this semester. Für den Zugang zum Angebot und zur Einschreibung loggen Sie

sich hier ein (mit Ihrem n.ETHZ account): https://psapp.ee.ethz.ch/

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227-0085-39L Projects & Seminars: Python for Science W 3 credits & Machine Learning

Only for Electrical Engineering and Information Technology BSc.

semester.

Course can only be registered for once. A repeatedly registration in a later semester is not chargeable.

227-0085-39 P Projekte & Seminare: Python for Science & Machine Learning

Does not take place this semester.
Für den Zugang zum Angebot und zur Einschreibung loggen Sie

sich hier ein (mit Ihrem n.ETHZ account):

https://psapp.ee.ethz.ch/

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start of the semester. Enrollment is only possible from Friday before the start of the semester until noon of the first Friday in the semester.

227-0085-41L Projects & Seminars: Memory Design: 3 credits From Architecture Down to Basic Cells

Only for Electrical Engineering and Information Technology BSc.

Data: 29.09.2021 12:38

Course can only be registered for once. A repeatedly registration in a later semester is not chargeable.

J. Gómez Luna

.I Vörös

Autumn Semester 2021 Page 281 of 805 227-0085-41 P Projekte & Seminare: Speicherentwurf: von der Architektur bis zur 3 hrs

Grundspeicherzelle .

Does not take place this semester.

Für den Zugang zum Angebot und zur Einschreibung loggen Sie

sich hier ein (mit Ihrem n.ETHZ account):

https://psapp.ee.ethz.ch/

Bitte beachten Sie, dass die Seite jeweils erst zwei Wochen vor Semesterbeginn zugänglich ist und im Verlauf des Semesters wieder abgeschaltet wird. Die Einschreibung ist nur von Freitag vor Semesterbeginn bis zum ersten Freitagmittag im Semester möalich.

To access the offer and to enroll for courses log in (with your n.ethz account): https://psapp.ee.ethz.ch/

Please note that the P&S-site is accessible no earlier than two weeks before the start of the semester until four weeks after the start of the semester. Enrollment is only possible from Friday before the start of the semester until noon of the first Friday in the semester.

227-0085-42L Projects & Seminars: Constructing a Receive Coil for Magnetic Resonance

Imaging

1.5 credits 1.5P

Only for Electrical Engineering and Information Technology BSc.

Course can only be registered for once. A repeatedly registration in a later semester is not chargeable.

Projekte & Seminare: Bau einer Empfangsspule für die 227-0085-42 P

1.5 hrs

K. P. Prüssmann

M. Luisier

Magnetresonanzbildgebung

Does not take place this semester. Für den Zugang zum Angebot und zur Einschreibung loggen Sie

sich hier ein (mit Ihrem n.ETHZ account):

https://psapp.ee.ethz.ch/

Bitte beachten Sie, dass die Seite jeweils erst zwei Wochen vor Semesterbeginn zugänglich ist und im Verlauf des Semesters wieder abgeschaltet wird. Die Einschreibung ist nur von Freitag vor Semesterbeginn bis zum ersten Freitagmittag im Semester möalich.

To access the offer and to enroll for courses log in (with your n.ethz account): https://psapp.ee.ethz.ch/

Please note that the P&S-site is accessible no earlier than two weeks before the start of the semester until four weeks after the start of the semester. Enrollment is only possible from Friday before the start of the semester until noon of the first Friday in the semester.

227-0085-43L

**Projects & Seminars: Clean Room** Technology – Fabrication and Characterization of Photonic Materials

Only for Electrical Engineering and Information Technology BSc.

Course can only be registered for once. A repeatedly registration in a later semester is not chargeable.

227-0085-43 P

Projekte & Seminare: Clean Room Technology - Fabrication and 3 hrs

Characterization of Photonic Materials

https://psapp.ee.ethz.ch/

Semesterbeginn zugänglich ist und im Verlauf des Semesters wieder abgeschaltet wird. Die Einschreibung ist nur von Freitag vor Semesterbeginn bis zum ersten Freitagmittag im Semester möglich.

To access the offer and to enroll for courses log in (with your n.ethz account): https://psapp.ee.ethz.ch/ Please note that the P&S-site is accessible no earlier than two

weeks before the start of the semester until four weeks after the start of the semester. Enrollment is only possible from Friday before the start of the semester until noon of the first Friday in the semester.

Ort: ETZ K71 und BRNC (Reinraum in Rüschlikon).

Durchführung üblicherweise jährlich im FS geplant.

227-0085-44L

**Projects & Seminars: Understanding** and Designing Modern Solid-State Drives (SSDs)

Only for Electrical Engineering and

Information Technology BSc.

Course can only be registered for once. A

3 credits

Does not take place this semester.

Für den Zugang zum Angebot und zur Einschreibung loggen Sie sich hier ein (mit Ihrem n.ETHZ account):

Bitte beachten Sie, dass die Seite jeweils erst zwei Wochen vor

3 credits 3P

Data: 29.09.2021 12:38 Autumn Semester 2021 Page 282 of 805 repeatedly registration in a later semester is not chargeable.

227-0085-44 P Projekte & Seminare: Understanding and Designing Modern Solid-State Drives (SSDs) ■

Für den Zugang zum Angebot und zur Einschreibung loggen Sie sich hier ein (mit Ihrem n.ETHZ account):

3 hrs

3P

3 hrs

4 hrs

3 credits

https://psapp.ee.ethz.ch/ Bitte beachten Sie, dass die Seite jeweils erst zwei Wochen vor Semesterbeginn zugänglich ist und im Verlauf des Semesters wieder abgeschaltet wird. Die Einschreibung ist nur von Freitag vor Semesterbeginn bis zum ersten Freitagmittag im Semester möglich.

To access the offer and to enroll for courses log in (with your n.ethz account): https://psapp.ee.ethz.ch/
Please note that the P&S-site is accessible no earlier than two weeks before the start of the semester until four weeks after the start of the semester. Enrollment is only possible from Friday before the start of the semester until noon of the first Friday in the

Time: To be arranged with each student taking the course Room: tba

227-0085-45L Projects & Seminars: Robotic Maze Solving with a TI-RSLK Robot (RMaze)

Only for Electrical Engineering and Information Technology BSc.

Course can only be registered for once. A repeatedly registration in a later semester is not chargeable.

227-0085-45 P Projekte & Seminare: Robotic Maze Solving with a TI-RSLK

Robot (RMaze) ■

semester.

Does not take place this semester.

Für den Zugang zum Angebot und zur Einschreibung loggen Sie sich hier ein (mit Ihrem n.ETHZ account):

https://psapp.ee.ethz.ch/

Bitte beachten Sie, dass die Seite jeweils erst zwei Wochen vor Semesterbeginn zugänglich ist und im Verlauf des Semesters wieder abgeschaltet wird. Die Einschreibung ist nur von Freitag vor Semesterbeginn bis zum ersten Freitagmittag im Semester möglich.

To access the offer and to enroll for courses log in (with your n.ethz account): https://psapp.ee.ethz.ch/
Please note that the P&S-site is accessible no earlier than two weeks before the start of the semester until four weeks after the start of the semester. Enrollment is only possible from Friday before the start of the semester until noon of the first Friday in the semester.

227-0085-46L Projects & Seminars: Embedded W 4 credits 4 Systems With Drones

Only for Electrical Engineering and Information Technology BSc.

Course can only be registered for once. A repeatedly registration in a later semester is not chargeable.

227-0085-46 P Projekte & Seminare: Embedded Systems With Drones

Für den Zugang zum Angebot und zur Einschreibung loggen Sie sich hier ein (mit Ihrem n.ETHZ account):

https://psapp.ee.ethz.ch/

Bitte beachten Sie, dass die Seite jeweils erst zwei Wochen vor Semesterbeginn zugänglich ist und im Verlauf des Semesters wieder abgeschaltet wird. Die Einschreibung ist nur von Freitag vor Semesterbeginn bis zum ersten Freitagmittag im Semester möglich.

To access the offer and to enroll for courses log in (with your n.ethz account): https://psapp.ee.ethz.ch/
Please note that the P&S-site is accessible no earlier than two weeks before the start of the semester until four weeks after the start of the semester. Enrollment is only possible from Friday before the start of the semester until noon of the first Friday in the

semester.

227-0085-47L Projects & Seminars: Machine Learning W

Data: 29.09.2021 12:38

Projects & Seminars: Machine Learning Woon Smart Phone

Only for Electrical Engineering and Information Technology BSc.

Course can only be registered for once. A repeatedly registration in a later semester is not chargeable.

3 credits 3

J. Park

M. Magno

Autumn Semester 2021 Page 283 of 805

227-0085-47 P Projekte & Seminare: Machine Learning on Smart Phone ■

Does not take place this semester.

Für den Zugang zum Angebot und zur Einschreibung loggen Sie

sich hier ein (mit Ihrem n.ETHZ account):

https://psapp.ee.ethz.ch/

Bitte beachten Sie, dass die Seite jeweils erst zwei Wochen vor Semesterbeginn zugänglich ist und im Verlauf des Semesters wieder abgeschaltet wird. Die Einschreibung ist nur von Freitag vor Semesterbeginn bis zum ersten Freitagmittag im Semester

To access the offer and to enroll for courses log in (with your n.ethz account): https://psapp.ee.ethz.ch/

Please note that the P&S-site is accessible no earlier than two weeks before the start of the semester until four weeks after the start of the semester. Enrollment is only possible from Friday before the start of the semester until noon of the first Friday in the semester.

227-0085-48L

Projects & Seminars: Introduction to Program Nao Robots for Robocup Competition

Only for Electrical Engineering and Information Technology BSc.

Course can only be registered for once. A repeatedly registration in a later semester is not chargeable.

227-0085-48 P Projekte & Seminare: Introduction to Program Nao Robots for Robocup Competition .

Für den Zugang zum Angebot und zur Einschreibung loggen Sie sich hier ein (mit Ihrem n.ETHZ account):

https://psapp.ee.ethz.ch/ Bitte beachten Sie, dass die Seite jeweils erst zwei Wochen vor Semesterbeginn zugänglich ist und im Verlauf des Semesters wieder abgeschaltet wird. Die Einschreibung ist nur von Freitag vor Semesterbeginn bis zum ersten Freitagmittag im Semester

To access the offer and to enroll for courses log in (with your n.ethz account): https://psapp.ee.ethz.ch/ Please note that the P&S-site is accessible no earlier than two weeks before the start of the semester until four weeks after the start of the semester. Enrollment is only possible from Friday before the start of the semester until noon of the first Friday in the

möglich.

227-0085-49L **Projects & Seminars: Smart Patch Projects** 

Only for Electrical Engineering and Information Technology BSc.

Course can only be registered for once. A repeatedly registration in a later semester is not chargeable.

227-0085-49 P Projekte & Seminare: Smart Patch Projects ■

Für den Zugang zum Angebot und zur Einschreibung loggen Sie sich hier ein (mit Ihrem n.ETHZ account): https://psapp.ee.ethz.ch/

Bitte beachten Sie, dass die Seite jeweils erst zwei Wochen vor Semesterbeginn zugänglich ist und im Verlauf des Semesters wieder abgeschaltet wird. Die Einschreibung ist nur von Freitag vor Semesterbeginn bis zum ersten Freitagmittag im Semester

To access the offer and to enroll for courses log in (with your n.ethz account): https://psapp.ee.ethz.ch/ Please note that the P&S-site is accessible no earlier than two weeks before the start of the semester until four weeks after the start of the semester. Enrollment is only possible from Friday before the start of the semester until noon of the first Friday in the semester.

227-0085-51L

Projects & Seminars: Hands-on Acceleration on Heterogeneous Computing Systems

Only for Electrical Engineering and Information Technology BSc.

Course can only be registered for once. A repeatedly registration in a later semester is not chargeable.

4 credits 4P

w

w

w

3 credits

4 hrs

4P

4 hrs

3P

4 credits

3 hrs

M. Magno

M. Magno

227-0085-51 P Projekte & Seminare: Hands-on Acceleration on Heterogeneous 3 hrs Computing Systems ■

Für den Zugang zum Angebot und zur Einschreibung loggen Sie sich hier ein (mit Ihrem n.ETHZ account):

https://psapp.ee.ethz.ch/

Bitte beachten Sie, dass die Seite jeweils erst zwei Wochen vor Semesterbeginn zugänglich ist und im Verlauf des Semesters wieder abgeschaltet wird. Die Einschreibung ist nur von Freitag vor Semesterbeginn bis zum ersten Freitagmittag im Semester mödlich.

To access the offer and to enroll for courses log in (with your n.ethz account): https://psapp.ee.ethz.ch/

Please note that the P&S-site is accessible no earlier than two weeks before the start of the semester until four weeks after the start of the semester. Enrollment is only possible from Friday before the start of the semester until noon of the first Friday in the semester.

W

w

4P

4P

4 hrs

3 credits

4 credits

227-0085-53L Projects & Seminars: Motion Sensing Technologies for Magnetic Resonance

Imaging (MRI)
Only for Electrical Engineering and
Information Technology BSc.

Course can only be registered for once. A repeatedly registration in a later semester is not chargeable.

227-0085-53 P Projekte & Seminare: Motion Sensing Technologies for Magnetic 4 hrs Resonance Imaging (MRI) ■

Für den Zugang zum Angebot und zur Einschreibung loggen Sie sich hier ein (mit Ihrem n.ETHZ account): https://psapp.ee.ethz.ch/ Bitte beachten Sie, dass die Seite jeweils erst zwei Wochen vor

Bitte beachten Sie, dass die Seite jeweils erst zwei Wochen vor Semesterbeginn zugänglich ist und im Verlauf des Semesters wieder abgeschaltet wird. Die Einschreibung ist nur von Freitag vor Semesterbeginn bis zum ersten Freitagmittag im Semester möglich.

To access the offer and to enroll for courses log in (with your n.ethz account): https://psapp.ee.ethz.ch/
Please note that the P&S-site is accessible no earlier than two weeks before the start of the semester until four weeks after the start of the semester. Enrollment is only possible from Friday before the start of the semester until noon of the first Friday in the

227-0085-54L Projects & Seminars: Optics and Spectroscopy Lab

not chargeable.

Only for Electrical Engineering and Information Technology BSc.

Course can only be registered for once. A repeatedly registration in a later semester is

227-0085-54 P Projekte & Seminare: Optics and Spectroscopy Lab

Für den Zugang zum Angebot und zur Einschreibung loggen Sie sich hier ein (mit Ihrem n.ETHZ account):

https://psapp.ee.ethz.ch/

Bitte beachten Sie, dass die Seite jeweils erst zwei Wochen vor Semesterbeginn zugänglich ist und im Verlauf des Semesters wieder abgeschaltet wird. Die Einschreibung ist nur von Freitag vor Semesterbeginn bis zum ersten Freitagmittag im Semester möglich.

To access the offer and to enroll for courses log in (with your n.ethz account): https://psapp.ee.ethz.ch/ Please note that the P&S-site is accessible no earlier than two

weeks before the start of the semester until four weeks after the start of the semester. Enrollment is only possible from Friday before the start of the semester until noon of the first Friday in the semester.

#### **▶▶** Group Projects

Number	Title	Туре	ECTS	Hours		Lecturers
227-0091-10L	Group Project I	W	6 credits	5A		
227-0091-10 A	Gruppenarbeit I ■			5 hrs	by appt.	Lecturers
227-0092-10L	Group Project II	w	6 credits	5A		
227-0092-10 A	Gruppenarbeit II ■			5 hrs	by appt.	Lecturers

#### ▶▶ Internship in Industry

Please note the conditions for internships in industry as set forward by the "Guidelines for the "Laboratory Courses - Projects - Seminars ", see https://www.ee.ethz.ch/content/dam/ethz/special-

interest/itet/department/Studies/Bachelor/Regulations/Richtlinien\_Praktika-Projekte-Seminare\_v5\_final.pdf (German only).

Number Title Type ECTS Hours Lecturers

O. Mutlu, J. Gómez Luna

.l Leuthold

K. P. Prüssmann

W 6 credits

227-0093-10L Internship in Industry
Only for students in the Bachelor's
Programme Electrical Engineering and Information Technology, Regulations 2012/2016.

For students enrolled in the 2018 Programme Regulations, see "227-1550-10L Internship in Industry" at Master's

227-0093-10 P Industriepraktikum ■

external organisers

►► Additio	nal Subjects							
Number	Title	Туре	ECTS	Hours				Lecturers
227-0651-00L	Applied Circuit and PCB-Design Number of participants limited to 24.	W	2 credits	4G				
227-0651-00 G	Schaltungs- und Leiterplattenentwicklung in First lesson (Thu September 23, 2021) will course presentation.			4 hrs	Thu	08-12	ETZ K63	A. Blanco Fontao
	Some parts of the course might be given as lectures or as remote teaching.	ns pre-recorded video						
	Although not strictly mandatory, attendance and will be considered as part of the evalua not willing to attend regularly to the lectures to register to it.	tion crit	eria. Students					
	The deadline for deregistering expires at the week of the semester. Students who are stit date, but do not attend the course, will fail to	II registe	ered after that					

#### ▶ 5th Semester: Third Year Core Courses

Can be freely combined, a list of recommendations is available under https://ee.ethz.ch/studies/bachelor/third-year/core-courses.html

Number	Title	Type	ECTS	Hours				Lecturers
227-0101-00L	Discrete-Time and Statistical Signal Processing	W	6 credits	4G				
227-0101-00 G	Discrete-Time and Statistical Signal Proce	ssing		4 hrs	Tue	14-18	HG F3	HA. Loeliger
227-0102-00L	Discrete Event Systems	W	6 credits	4G				
227-0102-00 G	Diskrete Ereignissysteme			4 hrs	Thu	14-16 16-18	HG D7.2 HG D7.2	R. Jacob, L. Vanbever, R. Wattenhofer
227-0103-00L	Control Systems	w	6 credits	2V+2U				
227-0103-00 V	Regelsysteme			2 hrs	Mon	10-12	NO C60	F. Dörfler
227-0103-00 U	Regelsysteme			2 hrs	Tue 21.09.	10-12 12-14	CHN C14 CHN C14	F. Dörfler
227-0113-00L	Power Electronics	w	6 credits	4G				
227-0113-00 G	Leistungselektronik			4 hrs	Thu	14-18	HG E1.2	J. W. Kolar
227-0116-00L	VLSI 1: HDL based design for FPGAs	W	6 credits	5G				
227-0116-00 G	VLSI 1: HDL based design for FPGAs			5 hrs	Tue Wed	08-10 13-16	ETF C1 ETZ D61.1 ETZ D61.2 ETZ D96.1	F. K. Gürkaynak, L. Benini
227-0121-00L	Communication Systems	w	6 credits	4G				
227-0121-00 G	Kommunikationssysteme			4 hrs	Wed	08-12	ML F39	A. Wittneben
227-0124-00L	Embedded Systems	W	6 credits	4G				
227-0124-00 G	Embedded Systems Exercises in groups.			4 hrs	Mon Wed	14-16 16-18	ETF C1 ETZ D61.1 ETZ D96.1	L. Thiele, M. Magno
					Fri	16-18	ETF E1 ETZ D61.1 ETZ D96.1	
227-0145-00L	Solid State Electronics and Optics	W	6 credits	4G				
227-0145-00 G	Solid State Electronics and Optics			4 hrs	Mon Thu	14-16 14-16	ML F38 LFW C4	N. Yazdani, V. Wood
227-0166-00L	Analog Integrated Circuits	W	6 credits	2V+2U				
227-0166-00 V	Analog Integrated Circuits			2 hrs	Fri	10-12	ETZ E6	T. Jang
227-0166-00 U	Analog Integrated Circuits Some of the exercise lessons will take place ETZ D61.1. To be announced during the course lesson		nputer room	2 hrs	Fri	14-16	ETZ E6	T. Jang
227-0311-00L	Qubits, Electrons, Photons	w	6 credits	3V+2U				
227-0311-00 V	,			3 hrs	Thu Fri	08-10 13-14	CHN F42 ETZ E9	T. Zambelli
227-0311-00 U	Qubits, Electrons, Photons			2 hrs	Wed	10-12	HG D3.2	T. Zambelli
227-0385-10L	Biomedical Imaging	w	6 credits	5G				
227-0385-10 G	5 5			5 hrs	Mon Tue	14-16 13-16	HG E19 HG E7	S. Kozerke, K. P. Prüssmann

227-0393-10L	Bioelectronics and Biosensors	W	6 credits	2V+2U				
227-0393-10 V	Bioelectronics and Biosensors			2 hrs	Fri	09-11	HG E1.2	J. Vörös, M. F. Yanik
227-0393-10 U	Bioelectronics and Biosensors			2 hrs	Fri	08-09	HG E1.2	M. F. Yanik, J. Vörös
						11-12	HG E1.2	

#### ▶ 5th Semester: Third Year Additional Foundation Courses

Students complete at least two of the Additional Foundation Courses available for selection. Recommendations are available under https://ee.ethz.ch/studies/bachelor/third-year/additional-foundation-courses.html

Number	Title	Туре	ECTS	Hours				Lecturers
227-0014-20L	Computational Thinking	W	4 credits	2V+1U				
227-0014-20 V	Computational Thinking			2 hrs	Wed	08-10	ETF C1	R. Wattenhofer
227-0014-20 U	Computational Thinking			1 hrs	Mon	12-13 13-14	ETZ F91 ETZ F91	R. Wattenhofer
					Tue Fri	09-10 10-11 11-12	HG E33.3 ETZ G91 ETZ G91	
227-0053-00L	High-Frequency Design Techniques	W	4 credits	2V+2U				
227-0053-00 V	High-Frequency Design Techniques Online event: Will primarily take place online remain blocked on campus for students to fo there.				Mon	08-10	HG E5	C. Bolognesi
227-0053-00 U	High-Frequency Design Techniques			2 hrs	Fri	08-10	ML H44	C. Bolognesi
227-0122-00L	Introduction to Electric Power Transmission: System & Technology	W	4 credits	2V+2U				
227-0122-00 V	Introduction to Electric Power Transmission: Technology	Systen	n &	2 hrs	Thu	08-10	ML H44	C. Franck, G. Hug
227-0122-00 U	Introduction to Electric Power Transmission: Technology	Systen	n &	2 hrs	Thu	10-12	ML H44	C. Franck, G. Hug

#### **▶** Electives

This is only a small selection. Other courses from the ETH course catalogue may be chosen. Please consult the "Richtlinien zu Projekten, Praktika, Seminare" (German only), published on our website (http://www.ee.ethz.ch/pps-richtlinien).

## **▶▶** Economics, Law and Management Electives

These subjects are particularly suitable for students planning to apply to the Master's Degree Program in Energy Science and Technology (MSc EST) or Management, Technology and Economics (MSc MTFC)

Number	Title	Type	ECTS	Hours				Lecturers
351-0778-00L	Discovering Management Entry level course in management for BSc, MSc and PHD students at all levels not belonging to D-MTEC. This course can be complemented with Discovering Management (Excercises) 351-0778-01.	W	3 credits	3G				
351-0778-00 G	Discovering Management Diese Lehrveranstaltung wird ab dem HS 20 angeboten. The lecture takes place in classroom, online zoom and recorded.	•		3 hrs	Fri	08-11	HG E1.1	B. Clarysse, S. Brusoni, E. Fleisch, G. Grote, V. Hoffmann, T. Netland, Y. R. Shrestha, P. Tinguely L. P. T. Vandeweghe
351-0778-01L	<b>Discovering Management (Exercises)</b> Complementary exercises for the module Discovering Managment.	W	1 credit	1U				
	Prerequisite: Participation and successful completion of the module Discovering Management (351-0778-00L) is mandatory.							
351-0778-01 U	Discovering Management (Exercises)			1 hrs	Fri	11-12	HG E1.1	<b>B. Clarysse</b> , L. P. T. Vandeweghe
363-0511-00L	Managerial Economics Not for MSc students belonging to D- MTEC!	W	4 credits	3V				
363-0511-00 V	Managerial Economics			3 hrs	Tue Wed	18-19 08-10	HG F5 HG G3	V. Lohmann, P. Egger, M. Köthenbürger
363-1109-00L	Introduction to Microeconomics GESS (Science in Perspective): This course is only for students enrolled in a Bachelor's degree programme.	W	3 credits	2G				
	Students enrolled in a Master's degree programme may attend "Principles of Microeconomics" (LE 363-0503-00L) instead.							
	Note for D-MAVT students: If you have already successfully completed "Principles of Microeconomics" (LE 363-0503-00L), then you will not be permitted to attend it again.							
363-1109-00 G	Einführung in die Mikroökonomie Zusätzliche (freiwillige) Termine für Übunge werden zu Beginn der Vorlesung bekanntge		orlesung	2 hrs	Tue	10-12	HG E5	M. Wörter, M. Beck

851-0703-00L	Introduction to Law Students who have attended or will attend the lecture "Introduction to Law for Civil Engineering and Architecture" (851- 0703-03L) or "Introduction to Law" (851- 0708-00L), cannot register for this course unit.	w	2 credits	2V				
054 0700 00 1/	Particularly suitable for students of D-ARCH, D-MAVT, D-MATL			0.5	14	4440	110 54 0	0.00-200
	Grundzüge des Rechts			2 hrs	Mon	14-16	HG E1.2	O. Streiff Gnöpff
851-0735-10L	Number of participants limited to 100	W	2 credits	2V				
	Particularly suitable for students of D-ITET, D-MAVT							
851-0/35-10 V	Wirtschaftsrecht			2 hrs	Thu	14-16	HG D1.2	P. Peyrot
851-0738-00L	Intellectual Property: Introduction Particularly suitable for students of D- CHAB, D-INFK, D-ITET, D-MAVT, D- MATL, D-MTEC	W	2 credits	2V				
851-0738-00 V	Geistiges Eigentum: Eine Einführung Online-Veranstaltung: Diese Lehrveranstaltung findet online (via Zoom) statt. Die reservierten Räume bleiben für die Studierenden auf dem Campus bestehen, um die Lehrveranstaltung dort zu hören.			2 hrs	Fri	10-12	HG D7.1	M. Schweizer
851-0738-01L	The Role of Intellectual Property in the Engineering and Technical Sector Particularly suitable for students of D- BAUG, D-BIOL, D-BSSE, D-CHAB, D- ITET, D-MAVT	W	2 credits	2V				
851-0738-01 V	Die Rolle des Geistigen Eigentums im Inger technischen Wissenschaften	nieurwes	sen und den	28s hrs	Fri/2w	14-18	LFW B1	K. Houshang Pour Islam
▶► Engine	ering Electives							
Number	Title	Type	ECTS	Hours				Lecturers
	Additional third year core courses may be credited as electives.							
227-0105-00L	Introduction to Estimation and Machine Learning	W	6 credits	4G				
227-0105-00 G	Introduction to Estimation and Machine Lea	rning <b>=</b>		4 hrs	Fri	14-18	ETF C1	HA. Loeliger
227-0110-00L	Electromagnetic Waves: Materials, Effects, and Antennas	W	6 credits	2V+2U				
227-0110-00 V	Electromagnetic Waves: Materials, Effects,	and Ant	ennas	2 hrs	Wed	14-16	ETZ E8	U. Koch
227-0110-00 U	Electromagnetic Waves: Materials, Effects,	and Ante	ennas	2 hrs	Wed	16-18	ETZ E8	U. Koch
	Fundamentals of Electric Machines Fundamentals of Electric Machines	W	6 credits	<b>4G</b> 4 hrs	Thu	08-10 10-12	HG D5.2 HG D5.2	D. Bortis
227-0652-00L	Maxwell, Einstein, and the GPS	W	6 credits	2V+2U				
	Maxwell, Einstein, and the GPS			2 hrs	Fri	10-12	ETZ E9	T. Zambelli
227-0652-00 U	Maxwell, Einstein, and the GPS			2 hrs	Wed	08-10	HG G26.1	T. Zambelli
151-0723-00L	Manufacturing of Electronic Devices	W	4 credits	3 <b>G</b>				
151-0723-00 G	Manufacturing of Electronic Devices  Die Lehrveranstaltung beginnt in der zweite	n Seme	sterwoche.	3 hrs	Wed	14-17	LEE C114	<b>A. Kunz</b> , A. Guber, R D. Moryson, F. Reichert
151-0621-00L	Microsystems I: Process Technology	W	6 credits	3V+3U				
151-0621-00 V	and Integration Microsystems I: Process Technology and Ir The lecture starts in the second week of the			3 hrs	Thu	13-16	HG E5	C. Hierold, M. Haluska
	and Integration Microsystems I: Process Technology and Ir	Semes itegration	<i>ter.</i> n	3 hrs 3 hrs	Thu Tue	13-16 16-19	HG E5 HG E1.2	C. Hierold, M. Haluska  M. Haluska
151-0621-00 U	and Integration Microsystems I: Process Technology and Ir The lecture starts in the second week of the Microsystems I: Process Technology and Ir The exercise starts in the third week of the	Semes itegration	<i>ter.</i> n					
	and Integration  Microsystems I: Process Technology and Ir  The lecture starts in the second week of the  Microsystems I: Process Technology and Ir	e Semes stegration Semeste W	ter. n er. 4 credits online.	3 hrs				
151-0621-00 U <b>252-0834-00</b> L 252-0834-00 V	and Integration Microsystems I: Process Technology and In The lecture starts in the second week of the Microsystems I: Process Technology and In The exercise starts in the third week of the Information Systems for Engineers Information Systems for Engineers Online lecture: This lecture will primarily tak Reserved rooms will remain blocked on car	e Semes stegration Semeste W	ter. n er. 4 credits online.	3 hrs	Tue	16-19	HG E1.2	M. Haluska

376-0021-00 G Materials and Mechanics in Medicine

Groups are selected in myStudies. lecture: Di 14-16h

exercises: Di 16-17h, start at the secound week af the semester.

The lecturers will communicate the exact lesson times of the ONLINE-exercises.

3 hrs Tue 14-16 HG F1 CHN G42 16-17 ETZ E8

M. Zenobi-Wong, J. G. Snedeker

HG D7.1 ML H41.1 ON LINE

Number	Title	Туре	ECTS	Hours				Lecturers
151-0227-00L	Basics of Air Transport (Aviation I)	W	4 credits	3G				
151-0227-00 G	Basics of Air Transport (Aviation I)			3 hrs	Wed	13-16	CAB G11	P. Wild

#### ► GESS Science in Perspective

#### ▶▶ Science in Perspective

see Science in Perspective: Type A: Enhancement of Reflection Capability

Recommended Science in Perspective (Type B) for D-ITET.

#### **▶▶** Language Courses

see Science in Perspective: Language Courses ETH/UZH

#### ► Bachelor's Project

The Bachelor's Thesis is the final part of the bachelor's program and should therefore only be taken in the semester in which the bachelor's diploma is acquired.

The minimum requirement for enrollment is the successful completion of:

- basic examination (examination blocks A+B) and
   subjects of the second year (examination blocks 1-3)

Number	Title	Type	ECTS	Hours				Lecturers
227-0100-00L	Bachelor's Thesis The Bachelor's Thesis is the final part of the bachelor's program and should therefore only be taken in the semester in which the bachelor's diploma is acquired.	0	12 credits	26D				
	The minimum requirement for enrollment is the successful completion of: - basic examination (examination blocks A+B) and - subjects of the second year (examination blocks 1-3)							
	Supervisor must be a professor at D-ITET or associated, see a link to the lists of those at https://www.ee.ethz.ch/studies/main-master/projects-and-master-thesis.html	)						
227-0100-00 D	Bachelor-Arbeit ■ Permission from lecturers required for all ste	udents		360s hrs	by appt.			Supervisors
227-1101-00L	How to Write Scientific Texts Strongly recommended prerequisite for Semester Projects and Master Theses at D-ITET (MSc BME, MSc EEIT, MSc EST).	E-	0 credits					
227-1101-00 S	How to Write Scientific Texts Room to be announced			4s hrs	04.11. 11.11.	16-18 16-18	n /a n /a	U. Koch

Electrical E	ngineering and Information Technology Bachelor - Key	for Type	
0	Compulsory	E-	Recommended, not eligible for credits
W+	Eligible for credits and recommended	Z	Courses outside the curriculum
W	Eligible for credits	Dr	Suitable for doctorate

Key for Ho	ours		
V	lecture	P	practical/laboratory course
G	lecture with exercise	A	independent project
U	exercise	D	diploma thesis
S	seminar	R	revision course / private study
K	colloquium		

**ECTS** European Credit Transfer and Accumulation System

Special students and auditors need special permission from the lecturers.

# **Electrical Engineering and Information Technology TC**

More informations at: https://www.ethz.ch/de/studium/didaktische-ausbildung/studienangebot-zulassung/didaktik-zertifikat.html

#### ► Educational Science

General course offerings in the category Educational Science are listed under "Programme: Educational Science for Teaching Diploma and TC".

Number	Title		ECTS	Hours				Lecturers
851-0240-00L	Human Learning (EW1) This lecture is only apt for students who intend to enrol in the programs "Teaching Diploma" or "Teaching Certificate". It is about learning in childhood and adolescence.	0	2 credits	2V				
851-0240-00 V	Menschliches Lernen (EW1)			2 hrs	Tue	18-20	HG F1	E. Stern
851-0240-22L	Coping with Psychosocial Demands of Teaching (EW4 DZ)  Number of participants limited to 20.	W	2 credits	3S				
	The successful participation in EW1 ("Human Learning") and EW2 ("Designing Learning Environments for School") is recommended, but not a mandatory prerequisite.							
851-0240-22 S	Bewältigung psychosozialer Anforderungen DZ) ■	im Leh	rberuf (EW4	3 hrs	Tue	09-12	HG E33.1 HG F26.5 HG G26.1	<ul><li>U. Markwalder, S. Maurer,</li><li>S. Peteranderl</li></ul>
851-0242-06L	Cognitively Activating Instructions in MINT Subjects Enrolment only possible with matriculation in Teaching Diploma or Teaching Certificate (excluding Teaching Diploma Sport).	W	2 credits	2\$				
	This course unit can only be enrolled after successful participation in, or during enrollment in the course "Human Learning (EW 1)".							
851-0242-06 S	Kognitiv aktivierender Unterricht in den MIN Unregelmässige Lehrveranstaltung; für eine Semesterplanung wird um frühe Anmeldung Erscheinen zum ersten Lehrveranstaltungs	e reibun g und pe	gslose ersönliches	2 hrs	Wed	18-20	ML H41.1	R. Schumacher
851-0242-07L	Human Intelligence Enrolment only possible with matriculation in Teaching Diploma or Teaching Certificate (excluding Teaching Diploma Sport). Number of participants limited to 30. This course unit can only be enrolled after successful participation in, or during enrollment in the course "Human Learning (EW 1)".	w	1 credit	18				
851-0242-07 S	Menschliche Intelligenz Unregelmässige Lehrveranstaltung. An zwei Terminen findet die Lehrveranstalt TeilnehmerInnen statt und an den übrigen einem Teil der Studierenden (Kleingruppen gemeinsam vereinbart.	Termine	n nur mit	14s hrs	Wed	16-18	ML F40	E. Stern
851-0242-08L	Research Methods in Educational Science Number of participants limited to 30 This course unit can only be enrolled after successful participation in, or during enrollment in the course "Human Learning (EW 1)".	W	1 credit	2\$				
851-0242-08 S	Forschungsmethoden der empirischen Bild Unregelmässige Lehrveranstaltung.	ungsfors	schung	21s hrs	Wed	12-15	LFW C1	<b>P. Edelsbrunner</b> , T. Braas, C. M. Thurn
	Zwei obligatorische Präsenztermine: 29.09. An den übrigen Terminen nur mit einem Te (jeweils mit 1-2 Kleingruppen).							
851-0242-11L	<b>Gender Issues In Education and STEM</b> <i>Number of participants limited to 30.</i>	W	2 credits	28				
	Enrolment only possible with matriculation in Teaching Diploma or Teaching Certificate (excluding Teaching Diploma Sport).							
	Prerequisite: students should be taking the course 851-0240-00L Human Learning (EW1) in parallel, or to have successfully completed it.							

Thu 10-12 LEE C114

**M. Berkowitz Biran**, T. Braas, C. M. Thurn

# ► Subject Didactics and Professional Training

Important: You can only enroll in the courses of this category if you have not more than 12 CP left for possible additional requirements.

2 hrs

Number	Title	Type	ECTS	Hours				Lecturers
227-0857-00L	Didactics I for D-MAVT and D-ITET	0	4 credits	3G				
227-0857-00 G	Fachdidaktik I für D-MAVT und D-ITET ■			3 hrs	Wed	16-19	ML J37.1	Q. Lohmeyer, A. Colotti
227-0859-10L	Teaching Internship Including Examination Lessons Electrical Engineering and Information Technology The teaching internship can just be visited in all other courses of TC are completed. Repetition of the teaching internship is excluded even if the examination lessons are to be repeated.	O f	6 credits	13P				
227-0859-10 P	Unterrichtspraktikum mit Prüfungslektionen Informationstechnologie DZ ■	Elektrot	echnik und	180s hrs	by appt.			A. Colotti
227-0854-00L	Mentored Work Subject Didactics Electrical Engineering and Information Technology Prerequisites: successful completion of FD I and FD II	0	2 credits	4A				
227-0854-00 A	Mentorierte Arbeit Fachdidaktik Elektrotechi Informationstechnologie ■	nik und		60s hrs	by appt.			A. Colotti

Electrica	al Engineering and Information Technology TC - Ke	y for Type		
0	Compulsory	E-	Recommended, not eligible for credits	
W+	Eligible for credits and recommended	Z	Courses outside the curriculum	
W	Eligible for credits	Dr	Suitable for doctorate	

Key for Ho	urs		
V	lecture	P	practical/laboratory course
G	lecture with exercise	A	independent project
U	exercise	D	diploma thesis
S	seminar	R	revision course / private study
K	colloquium		

ECTS European Credit Transfer and Accumulation System

Special students and auditors need special permission from the lecturers.

# **Electrical Engineering and Information Technology Master**

#### ► Master Studies (Programme Regulations 2018)

#### **▶▶** Communication

The core courses and specialisation courses below are a selection for students who wish to specialise in the area of "Communication", see https://www.ee.ethz.ch/studies/main-master/areas-of-specialisation.html.

The individual study plan is subject to the tutor's approval.

#### **▶▶▶** Core Courses

These core courses are particularly recommended for the field of "Communication". You may choose core courses form other fields in agreement with your tutor.

A minimum of 24 credits must be obtained from core courses during the MSc EEIT.

#### **▶▶▶▶** Foundation Core Courses

Fundamentals at bachelor level, for master students who need to strengthen or refresh their background in the area.

Number	Title	Type	ECTS	Hours				Lecturers
227-0121-00L	Communication Systems	W	6 credits	4G				
227-0121-00 G	Kommunikationssysteme			4 hrs	Wed	08-12	ML F39	A. Wittneben
227-0101-00L	Discrete-Time and Statistical Signal Processing	W	6 credits	4G				
227-0101-00 G	Discrete-Time and Statistical Signal Proce	essing		4 hrs	Tue	14-18	HG F3	HA. Loeliger

#### ▶▶▶▶ Advanced Core Courses

Advanced core courses bring students to gain in-depth knowledge of the chosen specialization. They are MSc level only.

Number	Title	Type	ECTS	Hours				Lecturers
227-0301-00L	Optical Communication Fundamentals	W	6 credits	2V+1U+	1P			
227-0301-00 V	Optical Communication Fundamentals			2 hrs	Tue	14-16	ETZ K91	J. Leuthold
227-0301-00 U	Optical Communication Fundamentals			1 hrs	Tue	16-17	ETZ K91	J. Leuthold
227-0301-00 P	Optical Communication Fundamentals			1 hrs	Tue	17-18	ETZ K91	J. Leuthold
227-0417-00L	Information Theory I	W	6 credits	4G				
227-0417-00 G	Information Theory I			4 hrs	Wed	14-18	ETF C1	A. Lapidoth
227-0427-00L	Signal Analysis, Models, and Machine Learning This course was replaced by "Introduction to Estimation and Machine Learning" and "Advanced Signal Analysis, Modeling, and Machine Learning".	W	6 credits	4G				
227-0427-00 G	Signal Analysis, Models, and Machine Lear Does not take place this semester.	ning		4 hrs				HA. Loeliger
227-0439-00L	Wireless Access Systems	W	6 credits	2V+2U				
227-0439-00 V	Wireless Access Systems Does not take place this semester. This lecture will be moved to the spring sen spring 2022.	nester. N	Vext date	2 hrs				A. Wittneben
227-0439-00 U	Wireless Access Systems Does not take place this semester. This lecture will be moved to the spring sen spring 2022.	nester. N	Vext date	2 hrs				A. Wittneben

#### **▶▶▶** Specialisation Courses

These specialisation courses are particularly recommended for the area of "Communication", but you are free to choose courses from any other field in agreement with your tutor.

A minimum of 40 credits must be obtained from specialisation courses during the Master's Programme.

Number	Title	Type	ECTS	Hours				Lecturers
227-0102-00L	Discrete Event Systems	W	6 credits	4G				
227-0102-00 G	Diskrete Ereignissysteme			4 hrs	Thu	14-16 16-18	HG D7.2 HG D7.2	R. Jacob, L. Vanbever, R. Wattenhofer
227-0103-00L	Control Systems	w	6 credits	2V+2U				
227-0103-00 V	Regelsysteme			2 hrs	Mon	10-12	NO C60	F. Dörfler
227-0103-00 U	Regelsysteme			2 hrs	Tue 21.09.	10-12 12-14	CHN C14 CHN C14	F. Dörfler
227-0116-00L	VLSI 1: HDL based design for FPGAs	w	6 credits	5G				
227-0116-00 G	VLSI 1: HDL based design for FPGAs			5 hrs	Tue Wed	08-10 13-16	ETF C1 ETZ D61.1 ETZ D61.2 ETZ D96.1	F. K. Gürkaynak, L. Benini
227-0148-00L	VLSI III: Test and Fabrication of VLSI Circuits	W	6 credits	4G				
227-0148-00 G	VLSI III: Test and Fabrication of VLSI Circu Does not take place this semester. Will be offered in spring 2022 as "227-0148 VLSI: measurement and testing"		SI4: Practical	4 hrs				L. Benini
227-0166-00L	Analog Integrated Circuits	w	6 credits	2V+2U				

	Analog Integrated Circuits			2 hrs	Fri	10-12	ETZ E6	T. Jang
227-0166-00 U	Analog Integrated Circuits  Some of the exercise lessons will take place ETZ D61.1.	e in con	nputer room	2 hrs	Fri	14-16	ETZ E6	T. Jang
	To be announced during the course lesson	s.						
227-0301-00L	Optical Communication Fundamentals	w	6 credits	2V+1U+	1P			
227-0301-00 V	Optical Communication Fundamentals			2 hrs	Tue	14-16	ETZ K91	J. Leuthold
227-0301-00 U	Optical Communication Fundamentals			1 hrs	Tue	16-17	ETZ K91	J. Leuthold
227-0301-00 P	Optical Communication Fundamentals			1 hrs	Tue	17-18	ETZ K91	J. Leuthold
227-0377-10L	Physics of Failure and Reliability of Electronic Devices and Systems	W	3 credits	2V				
227-0377-10 V	Physics of Failure and Reliability of Electron Systems	nic Devi	ces and	2 hrs	Thu	14-16	ETZ K91	I. Shorubalko, M. Held
227-0423-00L	Neural Network Theory	W	4 credits	2V+1U				
227-0423-00 V	,			2 hrs	Tue	10-12	HG F5	H. Bölcskei
227-0423-00 U	Neural Network Theory The exercise will take place online on: https://www.mins.ee.ethz.ch/teaching/nnt/a The reserved room is meant for those stude the course from the campus.			1 hrs	Tue	12-13	HG F5	H. Bölcskei
227-0447-00L	Image Analysis and Computer Vision	w	6 credits	3V+1U				
227-0447-00 V	Image Analysis and Computer Vision			3 hrs	Thu	14-17	HG F1	<b>L. Van Gool</b> , E. Konukoglu, F. Yu
227-0447-00 U	Image Analysis and Computer Vision			1 hrs	Thu	17-19	ETZ D61.1 ETZ D61.2	<b>L. Van Gool</b> , E. Konukoglu, F. Yu
227-0468-00L	Analog Signal Processing and Filtering Suitable for Master Students as well as Doctoral Students.	W	6 credits	2V+2U				
227-0468-00 V	Analog Signal Processing and Filtering			2 hrs	Wed	08-10	CHN E46	H. Schmid
227-0468-00 U	Analog Signal Processing and Filtering			2 hrs	Wed	10-12	CHN E46	H. Schmid
227-0477-00L	Acoustics I	W	6 credits	4G				
227-0477-00 G	Acoustics I			4 hrs	Mon	14-18	ETZ E7	K. Heutschi
227-0652-00L	Maxwell, Einstein, and the GPS	W	6 credits	2V+2U				
227-0652-00 V	Maxwell, Einstein, and the GPS			2 hrs	Fri	10-12	ETZ E9	T. Zambelli
227-0652-00 U	Maxwell, Einstein, and the GPS			2 hrs	Wed	08-10	HG G26.1	T. Zambelli
252-0535-00L	Advanced Machine Learning	W	10 credits	3V+2U+	4A			
252-0535-00 V	Advanced Machine Learning		<b>5</b> 0	3 hrs	Thu	15-16	ETA F5	J. M. Buhmann,
	Freitag 8-10 HG F1 mit Videoübertragung Donnerstag 15-16 ETA F 5 mit Videoübertr				Fri	08-10	ETF E1 HG F1 HG F3	C. Cotrini Jimenez
252-0535-00 U	Advanced Machine Learning			2 hrs	Wed	14-16 16-18	CAB G61 CAB G61	<b>J. M. Buhmann</b> , C. Cotrini Jimenez
					Thu Fri	16-18 14-16	ML F34 CAB G61	
252-0535-00 A	Advanced Machine Learning Project Work, no fixed presence required.			4 hrs				J. M. Buhmann, C. Cotrini Jimenez
263-4640-00L	Network Security	W	8 credits	2V+2U+				
263-4640-00 V	•			2 hrs	Tue	10-12	HG E1.2	A. Perrig, S. Frei, M. Legner, K. Paterson
	Network Security			2 hrs	Thu	16-18	CAB G61	A. Perrig, S. Frei, M. Legner, K. Paterson
263-4640-00 A	Network Security Project Work, no fixed presence required.			3 hrs				A. Perrig, S. Frei, M. Legner, K. Paterson
401-3055-64L	Algebraic Methods in Combinatorics	W	6 credits	2V+1U				
	Algebraic Methods in Combinatorics			2 hrs	Wed	10-12	IFW A36	B. Sudakov
401-3055-64 U	Algebraic Methods in Combinatorics			1 hrs	Mon	12-13 13-14	ML F34 ML F34	B. Sudakov
	VLSI 3: Full-Custom Digital Circuit Design	W	6 credits	2V+3U				
	VLSI 3: Full-Custom Digital Circuit Design Permission from lecturers required for all st	tudents		2 hrs	Mon	10-12	ETZ E8	C. Studer, O. Castañeda Fernández
227-0147-10 U	VLSI 3: Full-Custom Digital Circuit Design Permission from lecturers required for all st	tudents		3 hrs	Thu	13-16	ETZ G91	C. Studer, O. Castañeda Fernández

#### **▶▶** Computers and Networks

The core courses and specialisation courses below are a selection for students who wish to specialise in the area of "Computers and Networks", see https://www.ee.ethz.ch/studies/main-master/areas-of-specialisation.html.

The individual study plan is subject to the tutor's approval.

#### **▶▶▶** Core Courses

These core courses are particularly recommended for the field of "Computers and Networks". You may choose core courses form other fields in agreement with your tutor.

A minimum of 24 credits must be obtained from core courses during the MSc EEIT.

## **▶▶▶▶** Foundation Core Courses

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Fundamentals at bachelor level, for master students who need to strengthen or refresh their background in the area.

Number	Title	Туре	ECTS	Hours				Lecturers
227-0102-00L	Discrete Event Systems	w	6 credits	4G				
227-0102-00 G	Diskrete Ereignissysteme			4 hrs	Thu	14-16	HG D7.2	R. Jacob, L. Vanbever,
						16-18	HG D7.2	R. Wattenhofer
227-0121-00L	Communication Systems	w	6 credits	4G				
227-0121-00 G	Kommunikationssysteme			4 hrs	Wed	08-12	ML F39	A. Wittneben
227-0124-00L	Embedded Systems	w	6 credits	4G				
227-0124-00 G	Embedded Systems			4 hrs	Mon	14-16	ETF C1	L. Thiele, M. Magno
	Exercises in groups.				Wed	16-18	ETZ D61.1	
							ETZ D96.1	
					Fri	16-18	ETF E1	
							ETZ D61.1	
							ETZ D96.1	

#### ▶▶▶▶ Advanced Core Courses

Advanced core courses bring students to gain in-depth knowledge of the chosen specialization. They are MSc level only.

Number	Title	Type	ECTS	Hours				Lecturers
227-2210-00L	Computer Architecture	w	8 credits	6G+1A				
227-2210-00 G	Computer Architecture Online event: Will primarily take place onlin remain blocked on campus for students to there.				Thu Fri	13-16 13-16	HG D16.2 HG D16.2	O. Mutlu
227-2210-00 A	Computer Architecture			1 hrs				O. Mutlu
227-0575-00L	Advanced Topics in Communication Networks	W	6 credits	2V+2U				
227-0575-00 V	Advanced Topics in Communication Netwo	rks		2 hrs	Tue	14-16	ML E12	L. Vanbever
227-0575-00 U	Advanced Topics in Communication Netwo	rks		2 hrs	Tue	16-18	ML E12	L. Vanbever
227-0579-00L	Hardware Security	w	7 credits	2V+2U+	-2A			
227-0579-00 V	Hardware Security An informal meeting is planned for Friday, 5 - 7 pm. The exact room will be announce Please note that the classes of October 5 a place from 08:00 - 11:00 instead of 08:00 -	d later. and Octo	ber 19 take	2 hrs n	Tue	08-10	HG E41	K. Razavi
227-0579-00 U	Hardware Security			2 hrs	Thu	10-12	IFW A32.1	K. Razavi
227-0579-00 A	Hardware Security Project Work, no fixed presence required.			2 hrs				K. Razavi
252-1414-00L	System Security	W	7 credits	2V+2U+	2A			
252-1414-00 V	System Security			2 hrs	Mon	10-12	HG D1.2	S. Capkun, A. Perrig
252-1414-00 U	System Security The exercises begin in the second week or	the sem	nester.	2 hrs	Thu	14-16 16-18	HG D3.2 CAB G11	S. Capkun, A. Perrig
252-1414-00 A	System Security			2 hrs				S. Capkun, A. Perrig
263-4640-00L	Network Security	w	8 credits	2V+2U+	3A			
263-4640-00 V	Network Security			2 hrs	Tue	10-12	HG E1.2	<b>A. Perrig</b> , S. Frei, M. Legner, K. Paterson
263-4640-00 U	Network Security			2 hrs	Thu	16-18	CAB G61	<b>A. Perrig</b> , S. Frei, M. Legner, K. Paterson
263-4640-00 A	Network Security  Project Work, no fixed presence required.			3 hrs				<b>A. Perrig</b> , S. Frei, M. Legner, K. Paterson

# ▶▶▶ Specialisation Courses

These specialisation courses are particularly recommended for the area of "Computers and Networks", but you are free to choose courses from any other field in agreement with your tutor.

A minimum of 40 credits must be obtained from specialisation courses during the Master's Programme.

Number	Title	Type	ECTS	Hours				Lecturers
227-0101-00L	Discrete-Time and Statistical Signal Processing	W	6 credits	4G				
227-0101-00 G	Discrete-Time and Statistical Signal Process	sing		4 hrs	Tue	14-18	HG F3	HA. Loeliger
227-0103-00L	Control Systems	W	6 credits	2V+2U				
227-0103-00 V	Regelsysteme			2 hrs	Mon	10-12	NO C60	F. Dörfler
227-0103-00 U	Regelsysteme			2 hrs	Tue 21.09.	10-12 12-14	CHN C14 CHN C14	F. Dörfler
227-0116-00L	VLSI 1: HDL based design for FPGAs	W	6 credits	5G				
227-0116-00 G	VLSI 1: HDL based design for FPGAs			5 hrs	Tue Wed	08-10 13-16	ETF C1 ETZ D61.1 ETZ D61.2 ETZ D96.1	F. K. Gürkaynak, L. Benini
227-0377-10L	Physics of Failure and Reliability of Electronic Devices and Systems	W	3 credits	2V				
227-0377-10 V	Physics of Failure and Reliability of Electron Systems	ic Devi	ces and	2 hrs	Thu	14-16	ETZ K91	I. Shorubalko, M. Held
227-0447-00L	Image Analysis and Computer Vision	w	6 credits	3V+1U				

227-0447-00 V	Image Analysis and Computer Vision			3 hrs	Thu	14-17	HG F1	<b>L. Van Gool</b> , E. Konukoglu, F. Yu
227-0447-00 U	Image Analysis and Computer Vision			1 hrs	Thu	17-19	ETZ D61.1 ETZ D61.2	<b>L. Van Gool</b> , E. Konukoglu, F. Yu
227-0555-00L	Distributed Systems  Enrolled students will be notified by e-mail about the lecture start.	W	4 credits	3G+1A				
227-0555-00 G	Distributed Systems Groups are selected in myStudies. The lecture start will be notified by e-mail.			3 hrs	Mon/2 Fri/2 Fri	10-12 10-12 14-16	CAB G61 CAB G61 CAB G57	R. Wattenhofer
227-0555-00 A	Distributed Systems			1 hrs				R. Wattenhofer
151-0593-00L	Embedded Control Systems	W	4 credits	6G				
151-0593-00 G	Embedded Control Systems This two-week block course take places de 20-24.09.2021) and is comprised of - Lectures: 8-12 h - Exercises: 13-17 h	aily (13-	17.09.2021 &	80s hrs	13.09. 13.09 17.09. 13.09 24.09. 20.09. 21.09. 22.09. 23.09. 24.09.		ML H44 HG G26.5 ML J44.1 HG F26.3 ML J44.1 HG F26.3 HG F26.3 ML F39 HG F26.3 LEE E101	J. S. Freudenberg, M. Schmid Daners
252-1411-00L	Security of Wireless Networks	W	6 credits	2V+1U+				
252-1411-00 V				2 hrs	Tue	14-16	ML F34	S. Capkun, K. Kostiainen
	Security of Wireless Networks			1 hrs	Fri/2w	14-16	CAB E87.2	S. Capkun, K. Kostiainen
252-1411-00 A	Security of Wireless Networks includes a semester long project			2 hrs				S. Capkun, K. Kostiainen
401-3055-64L	Algebraic Methods in Combinatorics	W	6 credits	2V+1U				
401-3055-64 V	Algebraic Methods in Combinatorics			2 hrs	Wed	10-12	IFW A36	B. Sudakov
401-3055-64 U	Algebraic Methods in Combinatorics			1 hrs	Mon	12-13 13-14	ML F34 ML F34	B. Sudakov

#### **▶▶** Electronics and Photonics

The core courses and specialisation courses below are a selection for students who wish to specialise in the area of "Electronics and Photonics", see https://www.ee.ethz.ch/studies/main-master/areas-of-specialisation.html.

The individual study plan is subject to the tutor's approval.

#### **▶▶▶** Core Courses

These core courses are particularly recommended for the field of "Electronics and Photonics".

You may choose core courses form other fields in agreement with your tutor.

A minimum of 24 credits must be obtained from core courses during the MSc EEIT.

#### **▶▶▶▶** Foundation Core Courses

Fundamentals at bachelor level, for master students who need to strengthen or refresh their background in the area.

Number	Title	Type	ECTS	Hours				Lecturers
227-0110-00L	Electromagnetic Waves: Materials, Effects, and Antennas	W	6 credits	2V+2U				
227-0110-00 V	Electromagnetic Waves: Materials, Effects,	and Ant	ennas	2 hrs	Wed	14-16	ETZ E8	U. Koch
227-0110-00 U	Electromagnetic Waves: Materials, Effects,	and Ant	ennas	2 hrs	Wed	16-18	ETZ E8	U. Koch
227-0116-00L	VLSI 1: HDL based design for FPGAs	w	6 credits	5G				
227-0116-00 G	VLSI 1: HDL based design for FPGAs			5 hrs	Tue Wed	08-10 13-16	ETF C1 ETZ D61.1 ETZ D61.2 ETZ D96.1	F. K. Gürkaynak, L. Benini
227-0145-00L	Solid State Electronics and Optics	w	6 credits	4G				
227-0145-00 G	Solid State Electronics and Optics			4 hrs	Mon Thu	14-16 14-16	ML F38 LFW C4	N. Yazdani, V. Wood
227-0166-00L	Analog Integrated Circuits	w	6 credits	2V+2U				
227-0166-00 V	Analog Integrated Circuits			2 hrs	Fri	10-12	ETZ E6	T. Jang
227-0166-00 U	Analog Integrated Circuits Some of the exercise lessons will take plac ETZ D61.1. To be announced during the course lesson		nputer room	2 hrs	Fri	14-16	ETZ E6	T. Jang

#### **▶▶▶▶** Advanced Core Courses

Advanced core courses bring students to gain in-depth knowledge of the chosen specialization. They are MSc level only.

Number	Title	Type	ECTS	Hours	Lecturers
227-0146-00L	Analog-to-Digital Converters	W	6 credits	2V+2U	
227-0146-00 V	Analog-to-Digital Converters  Does not take place this semester.			2 hrs	
227-0146-00 U	Analog-to-Digital Converters  Does not take place this semester.			2 hrs	
227-0148-00L	VLSI III: Test and Fabrication of VLSI	W	6 credits	4G	

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227-0148-00 G VLSI III: Test and Fabrication of VLSI Circuits

227-0146-00 G	Does not take place this semester. Will be offered in spring 2022 as "227-0148 VLSI: measurement and testing"		SI4: Practical	41115				L. Defillil
227-0301-00L	Optical Communication Fundamentals	w	6 credits	2V+1U+	1P			
227-0301-00 V	Optical Communication Fundamentals			2 hrs	Tue	14-16	ETZ K91	J. Leuthold
227-0301-00 U	Optical Communication Fundamentals			1 hrs	Tue	16-17	ETZ K91	J. Leuthold
227-0301-00 P	Optical Communication Fundamentals			1 hrs	Tue	17-18	ETZ K91	J. Leuthold
227-0655-00L	Nonlinear Optics	W	6 credits	2V+2U				
227-0655-00 V	Nonlinear Optics Does not take place this semester.			2 hrs				J. Leuthold
227-0655-00 U	Nonlinear Optics Does not take place this semester.			2 hrs				J. Leuthold
227-0663-00L	Nano-Optics	w	6 credits	2V+2U				
227-0663-00 V	Nano-Optics Does not take place this semester.			2 hrs				M. Frimmer
227-0663-00 U	Nano-Optics Does not take place this semester.			2 hrs				M. Frimmer
227-0147-10L	VLSI 3: Full-Custom Digital Circuit Design	W	6 credits	2V+3U				
227-0147-10 V	VLSI 3: Full-Custom Digital Circuit Design Permission from lecturers required for all sa	tudents		2 hrs	Mon	10-12	ETZ E8	C. Studer, O. Castañeda Fernández
227-0147-10 U	VLSI 3: Full-Custom Digital Circuit Design Permission from lecturers required for all sa	tudents		3 hrs	Thu	13-16	ETZ G91	<ul><li>C. Studer,</li><li>O. Castañeda Fernández</li></ul>

4 hrs

L. Benini

#### **▶▶▶** Specialisation Courses

These specialisation courses are particularly recommended for the area of "Electronics and Photonics", but you are free to choose courses from any other field in agreement with your tutor.

A minimum of 40 credits must be obtained from specialisation courses during the Master's Programme.

Number	Title	Type	ECTS	Hours				Lecturers
227-0121-00L	Communication Systems	W	6 credits	4G				
227-0121-00 G	Kommunikationssysteme			4 hrs	Wed	08-12	ML F39	A. Wittneben
227-0155-00L	Machine Learning on Microcontrollers Registration in this class requires the permission of the instructors. Class size will be limited to 25. Preference is given to students in the MSc EEIT.	W	6 credits	3G				
227-0155-00 G	Machine Learning on Microcontrollers ■ Permission from lecturers required for all sto	udents		3 hrs	Mon 27.09.	13-16 13-16	LFO C13 ETZ K63	M. Magno, L. Benini
227-0157-00L	Semiconductor Devices: Physical Bases and Simulation	W	4 credits	3G				
227-0157-00 G	Semiconductor Devices: Physical Bases and Falls alle Hörende es wünschen, kann die V Deutsch gehalten werden.			3 hrs	Mon	09-12	ETZ G91	A. Schenk, C. I. Roman
227-0166-00L	Analog Integrated Circuits	W	6 credits	2V+2U				
227-0166-00 V	Analog Integrated Circuits			2 hrs	Fri	10-12	ETZ E6	T. Jang
227-0166-00 U	Analog Integrated Circuits Some of the exercise lessons will take place ETZ D61.1. To be announced during the course lessons		puter room	2 hrs	Fri	14-16	ETZ E6	T. Jang
227-0377-10L	Physics of Failure and Reliability of Electronic Devices and Systems	W	3 credits	2V				
227-0377-10 V	Physics of Failure and Reliability of Electron Systems	ic Devi	ces and	2 hrs	Thu	14-16	ETZ K91	I. Shorubalko, M. Held
227-0468-00L	Analog Signal Processing and Filtering Suitable for Master Students as well as Doctoral Students.	W	6 credits	2V+2U				
227-0468-00 V	Analog Signal Processing and Filtering			2 hrs	Wed	08-10	CHN E46	H. Schmid
227-0468-00 U	Analog Signal Processing and Filtering			2 hrs	Wed	10-12	CHN E46	H. Schmid
227-0615-00L	Simulation of Photovoltaic Devices - From Materials to Modules	W	3 credits	2G				
227-0615-00 G	Simulation of Photovoltaic Devices - From ${\tt N}$	1aterials	to Modules	2 hrs	Thu	14-16	LEE C104	U. Aeberhard
227-0617-00L	Solar Cells	W	4 credits	3G				
227-0617-00 G	Solar Cells			3 hrs	Wed	09-12	HG D7.2	<b>A. N. Tiwari</b> , R. Carron, Y. Romanyuk
227-0618-00L	Modeling, Characterization and Reliability of Power Semiconductors	W	6 credits	4G				
227-0618-00 G	Modeling, Characterization and Reliability of Semiconductors	Power		4 hrs	Wed	12-16	ETZ F91	M. P. M. Ciappa
227-0619-00L	Charge Transport in Energy Conversion and Storage Devices	W	6 credits	2V+2U				

MS Lab	W	5 credits	3P				
ay 10-13. Online lecture: Thi e. Reserved rooms will rema ents to follow the course fro ake place in the laboratories.	is lecture ain block m there.	e will primarily red on	4 hrs	Thu	10-13	ML F40	A. Stemmer
ics and Mechatronics ill primarily take place online on campus for students to fo			3G 3 hrs	Mon	08-10 10-11	HG D1.2 ML E12	P. Korba, S. Stoeter
ng and Simulation			4 hrs	Thu	08-12	ETZ E6	J. Smajic
ement. Iing and Simulation	W	6 credits	4G				
Iniversity of Zurich**							- · <del>- · -</del>
ngineering I		OS OF OTVEHVE	3 hrs	by appt	-		T. Delbrück, G. Indiveri, SC. Liu
ngineering I lecturers required for all stu Jniversity of Zurich** Il communicate the exact les		es of ONLINE	2 hrs	Mon	14-16	ON LINE	T. Delbrück, G. Indiveri, SC. Liu
:  -  sity-of-zurich.html							
ETH enrolment deadlines s: c.ch/en/studies/non-							
JZH students: s course unit only possible Ilment to module INI404 at							
ilable lab spots. ven to students that require t of their major.							
Engineering I his class requires the e instructors. Class size will	W	6 credits	2V+3U				
on Engineering	<b>\</b>	6 orodita	1 hrs	Mon	15-16	NO D11	T. J. Patey
hD students). on Engineering			2 hrs	Mon	13-15	NO D11	T. J. Patey
Energy Storage and  Electrochemistry							
y Storage Physical Electrochemistry ysis Renewable Energy							
quired to have attended one courses: Technology and Policy of							
ti <b>on Engineering</b> Electrical and Mechanical dents	W	3 credits	2V+1U				
ms Seminar			1 hrs	Mon	18-20	ETZ J91	A. Schenk
take place online until further ems Seminar	r notice. <b>W</b>	1 credit	1\$				
take place online until further Precision Measurements ar	nd Opto	-Mechanics	1 hrs	Fri	11-12	ML H34.3	M. Frimmer
and Opto-Mechanics Precision Measurements ar	nd Opto-	-Mechanics	2 hrs	Fri	09-11	ML H34.3	M. Frimmer
·	w	4 credits	2V+1U	· · · · · · · · · · · · · · · · · · ·	00 10	110 020.1	1. Zumbem
n, and the GPS n, and the GPS			2 hrs 2 hrs	Fri Wed	10-12 08-10	ETZ E9 HG G26.1	T. Zambelli T. Zambelli
ein, and the GPS	w	6 credits	2V+2U	24.09.	12-14	MIL E 12	
	-		2 hrs	Fri	12-14	CAB G11	C. Battaglia C. Battaglia
rt	in Energy Conversion and	in Energy Conversion and Storage	in Energy Conversion and Storage Devices in Energy Conversion and Storage Devices n, and the GPS W 6 credits	in Energy Conversion and Storage Devices 2 hrs	in Energy Conversion and Storage Devices 2 hrs Fri 24.09.	in Energy Conversion and Storage Devices 2 hrs Fri 12-14 24.09. 12-14	in Energy Conversion and Storage Devices 2 hrs Fri 12-14 CAB G11 24.09. 12-14 ML E12

151-0620-00 P	Embedded MEMS Lab - First part of the compulsory introductory led 27.09.2021 from 13:15h to 18h (venue: tbd) - Second part of the compulsory introductory 04.10.2021 from 13:15h to 18h (venue: tbd) - Practical portion of the course in the clean consecutive Mondays from 13:00 (exact) to Semester. Starting days for groups are stage - Attendance is required at all meetings of the	45s hrs	Mon 27.09. 04.10.	13-14 13-17 13-18 13-18	ML J34.1 ML J34.3 ML J37.1 CLA G2 ML H43 ML H43	<b>C. Hierold</b> , S. Blunier, M. Haluska		
151-0911-00L	Introduction to Plasmonics	w	4 credits	2V+1U				
151-0911-00 V	Introduction to Plasmonics  Does not take place this semester.  Will be offered again in HS22.			2 hrs				D. J. Norris
151-0911-00 U	Introduction to Plasmonics  Does not take place this semester.  Will be offered again in HS22.			1 hrs				D. J. Norris
327-2132-00L	Multifunctional Ferroic Materials: Growth and Characterisation	W	2 credits	2G				
327-2132-00 G	Multifunctional Ferroic Materials: Growth and	d Char	acterization	2 hrs	Mon	14-16	HCI H8.1	M. Trassin
363-0389-00L	Technology and Innovation Management	W	3 credits	2G				
363-0389-00 G	Technology and Innovation Management The lecture takes place in classroom, online recorded.	via zo	oom and	2 hrs	Mon 27.09.	14-16 14-16	NO C60 HG D1.2	S. Brusoni, A. Zeijen
401-3055-64L	Algebraic Methods in Combinatorics	W	6 credits	2V+1U				
401-3055-64 V	Algebraic Methods in Combinatorics			2 hrs	Wed	10-12	IFW A36	B. Sudakov
401-3055-64 U	Algebraic Methods in Combinatorics			1 hrs	Mon	12-13 13-14	ML F34 ML F34	B. Sudakov

#### ▶▶ Energy and Power Electronics

The core courses and specialisation courses below are a selection for students who wish to specialise in the area of "Energy and Power Electronics", see https://www.ee.ethz.ch/studies/main-master/areas-of-specialisation.html.

The individual study plan is subject to the tutor's approval.

#### **▶▶▶** Core Courses

These core courses are particularly recommended for the field of "Energy and Power Electronics". You may choose core courses form other fields in agreement with your tutor.

A minimum of 24 credits must be obtained from core courses during the MSc EEIT.

#### ▶▶▶▶ Foundation Core Courses

Fundamentals at bachelor level, for master students who need to strengthen or refresh their background in the area.

Number	Title	Type	ECTS	Hours				Lecturers
227-0113-00L	Power Electronics	W	6 credits	4G				
227-0113-00 G	Leistungselektronik			4 hrs	Thu	14-18	HG E1.2	J. W. Kolar
227-0517-10L	Fundamentals of Electric Machines	W	6 credits	4G				
227-0517-10 G	Fundamentals of Electric Machines			4 hrs	Thu	08-10 10-12	HG D5.2 HG D5.2	D. Bortis

#### ▶▶▶▶ Advanced Core Courses

Advanced core courses bring students to gain in-depth knowledge of the chosen specialization. They are MSc level only.

Number	Title	Туре	ECTS	Hours				Lecturers
227-0117-00L	High Voltage Engineering	W	6 credits	4G				
227-0117-00 G	High Voltage Engineering			4 hrs	Thu	14-18	ETZ E7	C. Franck, U. Straumann
227-0247-00L	Power Electronic Systems I	w	6 credits	4G				
227-0247-00 G	Power Electronic Systems I			4 hrs	Tue	14-16 16-18	HG D5.2 HG D5.2	J. Biela, F. Krismer
227-0526-00L	Power System Analysis	w	6 credits	4G				
227-0526-00 G	Power System Analysis The language of instruction will be chosen first lecture (English or German)	by the s	tudents in the	4 hrs	Wed	14-18	ETZ E6	G. Hug

#### ▶▶▶ Specialisation Courses

These specialisation courses are particularly recommended for the area of "Energy and Power Electronics", but you are free to choose courses from any other field in agreement with your tutor.

A minimum of 40 credits must be obtained from specialisation courses during the Master's Programme.

	-			-		-		
Number	Title	Туре	ECTS	Hours				Lecturers
227-0101-00L	Discrete-Time and Statistical Signal Processing	W	6 credits	4G				
227-0101-00 G	Discrete-Time and Statistical Signal Proce	essing		4 hrs	Tue	14-18	HG F3	HA. Loeliger
227-0103-00L	Control Systems	W	6 credits	2V+2U				
227-0103-00 V	Regelsysteme			2 hrs	Mon	10-12	NO C60	F. Dörfler
227-0103-00 U	Regelsysteme			2 hrs	Tue 21.09.	10-12 12-14	CHN C14 CHN C14	F. Dörfler
227-0121-00L	Communication Systems	w	6 credits	4G				

227-0121-00 G	Kommunikationssysteme			4 hrs	Wed	08-12	ML F39	A. Wittneben
227-0225-00L	Linear System Theory	W	6 credits	5G				
227-0225-00 G	Linear System Theory			5 hrs	Mon Wed 22.09.	09-12 10-12 10-12	IFW A36 ETZ E6 HG D1.1	A. lannelli
227-0517-10L	Fundamentals of Electric Machines	w	6 credits	4G				
	Fundamentals of Electric Machines			4 hrs	Thu	08-10 10-12	HG D5.2 HG D5.2	D. Bortis
227-0523-00L	Railway Systems I	W	6 credits	4G				
227-0523-00 G	Eisenbahn-Systemtechnik I Online-Veranstaltung: Diese Lehrveranstalt Der reservierte Raum bleibt für die Studiere Campus Zentrum bestehen, um die Lehrver hören.	nden au	ıf dem	4 hrs	Fri	08-12	LFW C1	M. Meyer
227-0536-00L	Multiphysics Simulations for Power Systems This course is defined so and planned to be an addition to the module "227-0537-00L Technology of Electric Power System Components". However, the students who are familiar with the fundamentals of electromagnetic fields could attend only this course without its 227-0537-00-complement.		4 credits	2V+2U				
227-0536-00 V	Multiphysics Simulations for Power Systems	3		2 hrs	Mon	10-12	HG E22	J. Smajic
227-0536-00 U	Multiphysics Simulations for Power Systems	3		2 hrs	Mon	08-10	HG E22	J. Smajic
227-0567-00L	Design of Power Electronic Systems	W	6 credits	4G				
227-0567-00 G	Design of Power Electronic Systems			4 hrs	Fri	14-18	HG D5.2	F. Krismer
227-0618-00L	Modeling, Characterization and Reliability of Power Semiconductors	w	6 credits	4G				
227-0618-00 G	Modeling, Characterization and Reliability of Semiconductors	f Power		4 hrs	Wed	12-16	ETZ F91	М. Р. М. Сіарра
227-0697-00L	Industrial Process Control	w	4 credits	3G				
227-0697-00 G	Industrial Process Control Upon special arrangement, on some afterno extended. Single lectures may be given onli		lecture will be	3 hrs	Tue	13-16	ETZ G91	A. Horch, M. Mercangöz
227-0731-00L	Power Market I - Portfolio and Risk Management	W	6 credits	4G				
227-0731-00 G	Power Market I - Portfolio and Risk Manage	ment		4 hrs	Tue	08-12	HG D7.1	D. Reichelt, G. A. Koeppel
227-0759-00L	International Business Management for Engineers This course will be offered for the last time in fall 2021	W	3 credits	2V				
227-0759-00 V	International Business Management for Eng The lecture will be held in three blocks each Saturday (starts on September 18, 2021). E on one of the three main topics of the cours Between the blocks the students will work o studies to deepen the subject matter. About third block a written examination will be conducted.	n of them ach bloo e. n specif	ck will focus ic case	24s hrs				W. Hofbauer

#### **▶▶** Systems and Control

The core courses and specialisation courses below are a selection for students who wish to specialise in the area of "Systems and Control", see https://www.ee.ethz.ch/studies/main-master/areas-of-specialisation.html.

The individual study plan is subject to the tutor's approval.

#### **▶▶▶** Core Courses

These core courses are particularly recommended for the field of "Systems and Control".

You may choose core courses form other fields in agreement with your tutor.

A minimum of 24 credits must be obtained from core courses during the MSc EEIT.

#### **▶▶▶▶** Foundation Core Courses

Fundamentals at bachelor level, for master students who need to strengthen or refresh their background in the area.

Number	Title	Туре	ECTS	Hours				Lecturers
227-0103-00L	Control Systems	W	6 credits	2V+2U				
227-0103-00 V	Regelsysteme			2 hrs	Mon	10-12	NO C60	F. Dörfler
227-0103-00 U	Regelsysteme			2 hrs	Tue 21.09.	10-12 12-14	CHN C14 CHN C14	F. Dörfler

## ▶▶▶▶ Advanced Core Courses

Advanced core courses bring students to gain in-depth knowledge of the chosen specialization. They are MSc level only.

Number	Title	Type	ECTS	Hours	Lecturers
227-0225-00L	Linear System Theory	W	6 credits	5G	

227-0225-00 G	Linear System Theory		5 hrs	Mon Wed 22.09.	09-12 10-12 10-12	IFW A36 ETZ E6 HG D1.1	A. lannelli
227-0697-00L	Industrial Process Control W	4 credits	3G				
227-0697-00 G	Industrial Process Control Upon special arrangement, on some afternoons extended. Single lectures may be given online.	the lecture wil	3 hrs Il be	Tue	13-16	ETZ G91	A. Horch, M. Mercangöz
151-0371-00L	Advanced Model Predictive Control W Number of participants limited to 40.	4 credits	2V+1U				
151-0371-00 V	Advanced Model Predictive Control The lecture will take place on 30.09.21 in HG D 7	7.2.	2 hrs	Thu 30.09.	10-12 10-12	HG D1.1 HG D7.2	<b>M. Zeilinger</b> , A. Carron, L. Hewing, J. Köhler
151-0371-00 U	Advanced Model Predictive Control The lecture will take place on 30.09.21 in HG D 7	7.2.	1 hrs	Thu 30.09.	12-13 12-13	HG D1.1 HG D7.2	<b>M. Zeilinger</b> , A. Carron, L. Hewing, J. Köhler
151-0563-01L	Dynamic Programming and Optimal W Control	4 credits	2V+1U				
151-0563-01 V	Dynamic Programming and Optimal Control The lecture will start in the 2nd week of Semeste Online lecture: This lecture will primarily take plac Reserved rooms will remain blocked on campus follow the course from there.	ce online.	2 hrs	Wed	14-16	HG F1	R. D'Andrea
151-0563-01 U	Dynamic Programming and Optimal Control The exercise will start in the 2nd week of Semest	ter.	1 hrs	Wed	16-17	CAB G51 HG F1	R. D'Andrea
				29.09.	16-17	ML E12	

# ▶▶▶ Specialisation Courses

These specialisation courses are particularly recommended for the area of "Systems and Control", but you are free to choose courses from any other field in agreement with your tutor.

A minimum of 40 credits must be obtained from specialisation courses during the Master's Programme.

Number	Title	Type	ECTS	Hours				Lecturers
227-0102-00L	Discrete Event Systems	W	6 credits	4G				
227-0102-00 G	Diskrete Ereignissysteme			4 hrs	Thu	14-16 16-18	HG D7.2 HG D7.2	R. Jacob, L. Vanbever, R. Wattenhofer
227-0447-00L	Image Analysis and Computer Vision	W	6 credits	3V+1U				
227-0447-00 V	Image Analysis and Computer Vision			3 hrs	Thu	14-17	HG F1	<b>L. Van Gool</b> , E. Konukoglu, F. Yu
227-0447-00 U	Image Analysis and Computer Vision			1 hrs	Thu	17-19	ETZ D61.1 ETZ D61.2	<b>L. Van Gool</b> , E. Konukoglu, F. Yu
227-0526-00L	Power System Analysis	W	6 credits	4G				
227-0526-00 G	Power System Analysis The language of instruction will be chosen b first lecture (English or German)	y the st	udents in the	4 hrs	Wed	14-18	ETZ E6	G. Hug
227-0531-00L	Control of Power-Electronics-Dominated Power Systems	W	3 credits	2V+2U				
227-0531-00 V	Control of Power-Electronics-Dominated Po This course starts on September 28, 2021.	wer Sys	stems	2 hrs	Tue	08-10	CAB G52	E. Prieto Araujo
227-0531-00 U	Control of Power-Electronics-Dominated Po This course starts on September 28, 2021.	wer Sys	stems	2 hrs	Tue	10-12	CAB G52	E. Prieto Araujo
227-0689-00L	System Identification	W	4 credits	2V+1U				
227-0689-00 V	System Identification			2 hrs	Wed	10-12	HG D7.1	R. Smith
227-0689-00 U	System Identification			1 hrs	Wed	12-13	ETZ D61.1 HG D7.1	R. Smith
227-0945-00L	Cell and Molecular Biology for Engineers I	W	3 credits	2G				
	This course is part I of a two-semester course.							
227-0945-00 G	Cell and Molecular Biology for Engineers I			2 hrs	Thu	10-12	LFW C5	C. Frei
151-0532-00L	Nonlinear Dynamics and Chaos I	W	4 credits	2V+2U				
151-0532-00 V	Nonlinear Dynamics and Chaos I			2 hrs	Wed	10-12	LFW B1	G. Haller
151-0532-00 U	Nonlinear Dynamics and Chaos I			2 hrs	Tue	16-18	ML F39	G. Haller
151-0573-00L	System Modeling	W	4 credits	2V+1U				
151-0573-00 V				2 hrs	Wed	08-10	HG E7	L. Guzzella
	System Modeling			1 hrs	Tue	13-14	LFV E41	L. Guzzella
	Groups are selected in myStudies.						LFW C5	
	Die Übungen finden ab der zweiten Semest					17-18	CHN G42	
	Di 13-14, Di 17-18 oder Do 8-9 gemäss Gru	ppeneii	nteilung.		Thu	00.00	HG D7.1	
					Thu	08-09	HG E1.1 LFV E41	
151-0601-00L	Theory of Robotics and Mechatronics	w	4 credits	3G				
	Theory of Robotics and Mechatronics			3 hrs	Mon	08-10	HG D1.2	P. Korba, S. Stoeter
	Online event: Will primarily take place online remain blocked on campus for students to fo there.					10-11	ML E12	,
151-0563-01L	Dynamic Programming and Optimal Control	W	4 credits	2V+1U				

151-0563-01 V	Dynamic Programming and Optimal Control The lecture will start in the 2nd week of Sen Online lecture: This lecture will primarily tak Reserved rooms will remain blocked on can follow the course from there.	nester. e place		2 hrs	Wed	14-16	HG F1	R. D'Andrea
151-0563-01 U	Dynamic Programming and Optimal Control			1 hrs	Wed	16-17	CAB G51	R. D'Andrea
	The exercise will start in the 2nd week of Se	emester	:		29.09.	16-17	HG F1 ML E12	
376-1219-00L	Rehabilitation Engineering II: Rehabilitation of Sensory and Vegetative Functions	W	3 credits	2V				
376-1219-00 V	Rehabilitation Engineering II: Rehabilitation Vegetative Functions	of Sens	sory and	2 hrs	Tue	08-10	CAB G11	R. Riener, O. Lambercy
401-0647-00L	Introduction to Mathematical Optimization	W	5 credits	2V+1U				
401-0647-00 V	Introduction to Mathematical Optimization			2 hrs	Tue	16-18	HG F5	D. Adjiashvili
401-0647-00 U	Introduction to Mathematical Optimization Groups are selected in myStudies. Wed 12-13 or Wed 16-17			1 hrs	Wed	12-13 16-17	HG D1.2 IFW A36 ON LINE	D. Adjiashvili
401-3901-00L	Linear & Combinatorial Optimization	W	11 credits	4V+2U				
401-3901-00 V	Linear & Combinatorial Optimization (Mathe Online lecture: This lecture will take place or will remain reserved on campus for students from there.	nline. R	eserved room		Wed Thu	12-14 10-12	HG G5 HG G5	R. Zenklusen
401-3901-00 U	Linear & Combinatorial Optimization (Mathe Groups are selected in myStudies. Thu 14-16 or Fri 10-12 or Fr 12-14 or Fri 14- demand)		. ,	2 hrs	Thu Fri	14-16 10-12 12-14 14-16	HG F26.5 CAB G51 HG D3.2 HG F26.5	R. Zenklusen
636-0007-00L	Computational Systems Biology	W	6 credits	3V+2U				
636-0007-00 V	Computational Systems Biology Lecture: "inverted classroom". Students are lecture videos provided ahead of a Zoom Qo held every Wednesday 16:15-17:00. Tutorials on Fridays 10:15-12:00 will be held In addition, students can sign up for Q&A se small groups (max. 30). They will be offered Wednesdays 15:15-16:00 in the lecture room HG D 3.2. F scheduling, see the course Moodle.	&A sess d via Zo essions I on sele	sion that will be om. in presence in ected	9	Wed	14-17	HG D3.2	J. Stelling
636-0007-00 U	Computational Systems Biology Tutorials on Fridays 10:15-12:00 will be held	d via Zo	om.	2 hrs	Fri	10-12	HG D1.2	J. Stelling
401-3055-64L	Algebraic Methods in Combinatorics	w	6 credits	2V+1U				
	Alaskasis Mathada in Osaskia stadas			2 hrs	Wed	10-12	IFW A36	B. Sudakov
401-3055-64 V	Algebraic Methods in Combinatorics							

## ▶▶ Signal Processing and Machine Learning

The core courses and specialisation courses below are a selection for students who wish to specialise in the area of "Signal Processing and Machine Learning", see https://www.ee.ethz.ch/studies/main-master/areas-of-specialisation.html.

The individual study plan is subject to the tutor's approval.

#### **▶▶▶** Core Courses

These core courses are particularly recommended for the field of "Signal Processing and Machine Learning". You may choose core courses form other fields in agreement with your tutor.

A minimum of 24 credits must be obtained from core courses during the MSc EEIT.

#### ▶▶▶▶ Foundation Core Courses

Fundamentals at bachelor level, for master students who need to strengthen or refresh their background in the area.

Number	Title	Туре	ECTS	Hours				Lecturers
227-0101-00L	Discrete-Time and Statistical Signal Processing	N	6 credits	4G				
227-0101-00 G	Discrete-Time and Statistical Signal Processing	ng		4 hrs	Tue	14-18	HG F3	HA. Loeliger
227-0105-00L	Introduction to Estimation and Machine V Learning	N	6 credits	4G				
227-0105-00 G	Introduction to Estimation and Machine Learn	ning <b>=</b>		4 hrs	Fri	14-18	ETF C1	HA. Loeliger

#### ▶▶▶▶ Advanced Core Courses

Advanced core courses bring students to gain in-depth knowledge of the chosen specialization. They are MSc level only.

Number	Title	Type	ECTS	Hours				Lecturers	
	Neural Network Theory	W	4 credits	2V+1U					
227-0423-00 V	Neural Network Theory			2 hrs	Tue	10-12	HG F5	H. Bölcskei	
	Neural Network Theory The exercise will take place online on: https://www.mins.ee.ethz.ch/teaching/ The reserved room is meant for those the course from the campus.				Tue	12-13	HG F5	H. Bölcskei	

227-0427-00L	Signal Analysis, Models, and Machine Learning This course was replaced by "Introduction to Estimation and Machine Learning" and "Advanced Signal Analysis, Modeling, and Machine Learning".	w	6 credits	4G				
227-0427-00 G	Signal Analysis, Models, and Machine Lear Does not take place this semester.	ning		4 hrs				HA. Loeliger
227-0447-00L	Image Analysis and Computer Vision	W	6 credits	3V+1U				
227-0447-00 V	Image Analysis and Computer Vision			3 hrs	Thu	14-17	HG F1	<b>L. Van Gool</b> , E. Konukoglu, F. Yu
227-0447-00 U	Image Analysis and Computer Vision			1 hrs	Thu	17-19	ETZ D61.1 ETZ D61.2	<b>L. Van Gool</b> , E. Konukoglu, F. Yu
252-0535-00L	Advanced Machine Learning	W	10 credits	3V+2U+	4A			
252-0535-00 V	Advanced Machine Learning Freitag 8-10 HG F1 mit Videoübertragung	ins HG	F3	3 hrs	Thu	15-16	ETA F5 ETF E1	J. M. Buhmann, C. Cotrini Jimenez
	Donnerstag 15-16 ETA F 5 mit Videoübertr	agung i	ns ETF E 1		Fri	08-10	HG F1 HG F3	
252-0535-00 U	Advanced Machine Learning			2 hrs	Wed Thu	14-16 16-18 16-18	CAB G61 CAB G61 ML F34	J. M. Buhmann, C. Cotrini Jimenez
					Fri	14-16	CAB G61	
252-0535-00 A	Advanced Machine Learning Project Work, no fixed presence required.			4 hrs				J. M. Buhmann, C. Cotrini Jimenez
263-3210-00L	Deep Learning Number of participants limited to 320.	W	8 credits	3V+2U+	2A			
263-3210-00 V	Deep Learning			3 hrs	Wed Thu	13-14 14-16	ML D28 ML D28	F. Perez Cruz, A. Lucchi
263-3210-00 U	Deep Learning			2 hrs	Mon Wed	16-18 16-18	HG G5 ML D28	F. Perez Cruz, A. Lucchi
263-3210-00 A	Deep Learning			2 hrs				F. Perez Cruz, A. Lucchi
401-4944-20L	Mathematics of Data Science	W	8 credits	4G				
401-4944-20 G	Mathematics of Data Science			4 hrs	Thu Fri	12-14 10-12	HG G3 HG G5	A. Bandeira

#### **▶▶▶** Specialisation Courses

These specialisation courses are particularly recommended for the area of "Signal Processing and Machine Learning", but you are free to choose courses from any other field in agreement with your tutor.

A minimum of 40 credits must be obtained from specialisation courses during the MSc EEIT.

Number	Title	Type	ECTS	Hours				Lecturers
227-0116-00L	VLSI 1: HDL based design for FPGAs	W	6 credits	5G				
227-0116-00 G	VLSI 1: HDL based design for FPGAs			5 hrs	Tue Wed	08-10 13-16	ETF C1 ETZ D61.1 ETZ D61.2 ETZ D96.1	F. K. Gürkaynak, L. Benin
227-0155-00L	Machine Learning on Microcontrollers Registration in this class requires the permission of the instructors. Class size will be limited to 25. Preference is given to students in the MSc EEIT.	W	6 credits	3 <b>G</b>				
227-0155-00 G	Machine Learning on Microcontrollers ■ Permission from lecturers required for all stu	ıdents		3 hrs	Mon 27.09.	13-16 13-16	LFO C13 ETZ K63	M. Magno, L. Benini
227-0121-00L	Communication Systems	W	6 credits	4G				
227-0121-00 G	Kommunikationssysteme			4 hrs	Wed	08-12	ML F39	A. Wittneben
227-0225-00L	Linear System Theory	W	6 credits	5G				
227-0225-00 G	Linear System Theory			5 hrs	Mon Wed 22.09.	09-12 10-12 10-12	IFW A36 ETZ E6 HG D1.1	A. lannelli
227-0417-00L	Information Theory I	W	6 credits	4G				
227-0417-00 G	Information Theory I			4 hrs	Wed	14-18	ETF C1	A. Lapidoth
227-0421-00L	Deep Learning in Artificial and Biological Neuronal Networks	W	4 credits	3G				
227-0421-00 G	Deep Learning in Artificial and Biological Ne	uronal l	Networks	3 hrs	Wed	09-12	ML F34	B. Grewe
227-0477-00L	Acoustics I	W	6 credits	4G				
227-0477-00 G	Acoustics I			4 hrs	Mon	14-18	ETZ E7	K. Heutschi
263-5210-00L	Probabilistic Artificial Intelligence	W	8 credits	3V+2U+2	2A			
263-5210-00 V	Probabilistic Artificial Intelligence Fr 10-12 und 13-14 im ETA F5 mit Videoübe	ertragui	ng ins ETF E1	3 hrs	Fri	10-12	ETA F5 ETF E1	A. Krause
						13-14	ETA F5 ETF E1	
263-5210-00 U	Probabilistic Artificial Intelligence Q&A session: Monday, 17-18, via zoom			2 hrs	Thu	16-18	CHN C14	A. Krause
263-5210-00 A	Probabilistic Artificial Intelligence			2 hrs				A. Krause
263-5255-001	Foundations of Reinforcement Learning	w	5 credits	2V+2A				

	Number of participants limited to 190.							
263-5255-00 V	Foundations of Reinforcement Learning			2 hrs	Fri	14-16	CAB G11	N. He
263-5255-00 A	Foundations of Reinforcement Learning			2 hrs				N. He
401-3055-64L	Algebraic Methods in Combinatorics	W	6 credits	2V+1U				
401-3055-64 V	Algebraic Methods in Combinatorics			2 hrs	Wed	10-12	IFW A36	B. Sudakov
401-3055-64 U	Algebraic Methods in Combinatorics			1 hrs	Mon	12-13 13-14	ML F34 ML F34	B. Sudakov
401-3621-00L	Fundamentals of Mathematical Statistics	W	10 credits	4V+1U				
401-3621-00 V	Fundamentals of Mathematical Statistics			4 hrs	Tue Wed	08-10 10-12	HG E5 HG E7	S. van de Geer
401-3621-00 U	Fundamentals of Mathematical Statistics			1 hrs	Tue	12-13	HG D7.1 HG E7	S. van de Geer
401-3901-00L	Linear & Combinatorial Optimization	W	11 credits	4V+2U				
401-3901-00 V	Linear & Combinatorial Optimization (Mathe Online lecture: This lecture will take place of will remain reserved on campus for students from there.	nline. F	Reserved rooms		Wed Thu	12-14 10-12	HG G5 HG G5	R. Zenklusen
401-3901-00 U	Linear & Combinatorial Optimization (Mathe Groups are selected in myStudies. Thu 14-16 or Fri 10-12 or Fr 12-14 or Fri 14- demand)			2 hrs	Thu Fri	14-16 10-12 12-14 14-16	HG F26.5 CAB G51 HG D3.2 HG F26.5	R. Zenklusen

#### **▶▶** Electives

This is only a short selection. Other courses from the ETH course catalogue may be chosen in agreement with your tutor.

As an alternative to the elective courses, students may do a second semester project or an internship in industry. Please consult your tutor.

Number	Title	Type	ECTS	Hours				Lecturers
151-0371-00L	Advanced Model Predictive Control Number of participants limited to 40.	W	4 credits	2V+1U				
151-0371-00 V	Advanced Model Predictive Control The lecture will take place on 30.09.21 in H	IG D 7.2		2 hrs	Thu 30.09.	10-12 10-12	HG D1.1 HG D7.2	<b>M. Zeilinger</b> , A. Carron, L. Hewing, J. Köhler
151-0371-00 U	Advanced Model Predictive Control The lecture will take place on 30.09.21 in H	IG D 7.2		1 hrs	Thu 30.09.	12-13 12-13	HG D1.1 HG D7.2	<b>M. Zeilinger</b> , A. Carron, L. Hewing, J. Köhler
363-0511-00L	Managerial Economics Not for MSc students belonging to D- MTEC!	W	4 credits	3V				
363-0511-00 V	Managerial Economics			3 hrs	Tue Wed	18-19 08-10	HG F5 HG G3	<b>V. Lohmann</b> , P. Egger, M. Köthenbürger
351-0778-00L	Discovering Management Entry level course in management for BSc, MSc and PHD students at all levels not belonging to D-MTEC. This course can be complemented with Discovering Management (Excercises) 351-0778-01.	W	3 credits	3G				
351-0778-00 G	Discovering Management Diese Lehrveranstaltung wird ab dem HS 2 angeboten. The lecture takes place in classroom, online zoom and recorded.	•		3 hrs	Fri	08-11	HG E1.1	B. Clarysse, S. Brusoni, E. Fleisch, G. Grote, V. Hoffmann, T. Netland, Y. R. Shrestha, P. Tinguely L. P. T. Vandeweghe
351-0778-01L	Discovering Management (Exercises) Complementary exercises for the module Discovering Management.	W	1 credit	1U				
	Prerequisite: Participation and successful completion of the module Discovering Management (351-0778-00L) is mandatory	<u>.</u>						
351-0778-01 U	Discovering Management (Exercises)			1 hrs	Fri	11-12	HG E1.1	<b>B. Clarysse</b> , L. P. T. Vandeweghe
363-0790-00L	Technology Entrepreneurship	w	2 credits	2V				
363-0790-00 V	Technology Entrepreneurship The lecture takes place online via (livestrea recorded. Reserved rooms will remain bloc students to follow the course from there.			2 hrs	Tue	18-20	HG E5	F. Hacklin
363-1065-00L	Design Thinking: Human-Centred Solutions to Real World Challenges	W	5 credits	5G				
363-1065-00 G	Design Thinking: Human-Centred Solutions Challenges Does not take place this semester. From FS22 in the spring semester.	to Real	World	5 hrs				S. Brusoni
363-1082-00L	Enabling Entrepreneurship: From Science to Startup Students should provide a brief overview (unto 1 page) of their business ideas that they would like to commercialise through the course. If they do not have an idea, they are required to provide a motivation letter stating why they would like to do this elective. If you are unsure about the readiness of your idea or technology to be	W	3 credits	2V				

converted into a startup, please drop me a line to schedule a call or meeting to discuss.

The total number of students will be limited to 40. It is preferable that the students already form teams of at least two persons, where both the team-members would like to do the course. The names of the team-members should be provided together with the business idea or the motivation letter submitted by the students.

The students should submit the necessary information until September 13 and apply to anilsethi @ethz.ch

	ariiisetrii @etriz.Gri							
363-1082-00 V	Enabling Entrepreneurship: From Science to	o Startu	р	2 hrs	Mon	16-18	HG E33.1	A. Sethi
851-0703-00L	Introduction to Law Students who have attended or will attend the lecture "Introduction to Law for Civil Engineering and Architecture " (851- 0703-03L) or " Introduction to Law" (851- 0708-00L), cannot register for this course unit.	W	2 credits	2V				
	Particularly suitable for students of D- ARCH, D-MAVT, D-MATL							
851-0703-00 V	Grundzüge des Rechts			2 hrs	Mon	14-16	HG E1.2	O. Streiff Gnöpff
851-0735-10L	Business Law Number of participants limited to 100	W	2 credits	2V				
	Particularly suitable for students of D-ITET, D-MAVT							
851-0735-10 V	Wirtschaftsrecht			2 hrs	Thu	14-16	HG D1.2	P. Peyrot
851-0738-00L	Intellectual Property: Introduction Particularly suitable for students of D- CHAB, D-INFK, D-ITET, D-MAVT, D- MATL, D-MTEC	W	2 credits	2V				
851-0738-00 V	Geistiges Eigentum: Eine Einführung Online-Veranstaltung: Diese Lehrveranstalt Zoom) statt. Die reservierten Räume bleibe auf dem Campus bestehen, um die Lehrver hören.	n für die	Studierenden	2 hrs	Fri	10-12	HG D7.1	M. Schweizer
851-0738-01L	The Role of Intellectual Property in the Engineering and Technical Sector Particularly suitable for students of D-BAUG, D-BIOL, D-BSSE, D-CHAB, D-ITET, D-MAVT	W	2 credits	2V				
851-0738-01 V	Die Rolle des Geistigen Eigentums im Inger technischen Wissenschaften	nieurwes	sen und den	28s hrs	Fri/2w	14-18	LFW B1	K. Houshang Pour Islam
▶▶ Industri	ial Internship							
	ial Internship Title	Туре	ECTS	Hours				Lecturers
►► Industri Number 227-1550-10L	•	Type	ECTS 12 credits	Hours				Lecturers

#### ► Master Studies (Programme Regulations 2008)

Machine Learning".

#### **▶▶** Major Courses

A total of 42 CP must be achieved during the Master Programme. The individual study plan is subject to the tutor's approval.

#### **▶▶▶** Communication

#### **▶▶▶** Core Subjects

These core subjects are particularly recommended for the field of "Communication".

Number	Title	Type ECTS				Hours					
227-0301-00L	Optical Communication Fundamentals	W	6 credits	2V+1U+	⊦1P						
227-0301-00 V	Optical Communication Fundamentals			2 hrs	Tue	14-16	ETZ K91	J. Leuthold			
227-0301-00 U	Optical Communication Fundamentals			1 hrs	Tue	16-17	ETZ K91	J. Leuthold			
227-0301-00 P	Optical Communication Fundamentals			1 hrs	Tue	17-18	ETZ K91	J. Leuthold			
227-0417-00L	Information Theory I	w	6 credits	4G							
227-0417-00 G	Information Theory I			4 hrs	Wed	14-18	ETF C1	A. Lapidoth			
227-0427-00L	Signal Analysis, Models, and Machine Learning	W	6 credits	4G							
	This course was replaced by "Introduction to Estimation and Machine Learning" and "Advanced Signal Analysis, Modeling, and										

227-0427-00 G	Signal Analysis, Models, and Machine Lead Does not take place this semester.	rning		4 hrs	HA. Loeliger
227-0439-00L	Wireless Access Systems	W	6 credits	2V+2U	
227-0439-00 V	Wireless Access Systems Does not take place this semester. This lecture will be moved to the spring ser spring 2022.	nester.	Next date	2 hrs	A. Wittneben
227-0439-00 U	Wireless Access Systems Does not take place this semester. This lecture will be moved to the spring ser	nester.	Next date	2 hrs	A. Wittneben

# spring 2022. ▶▶▶▶ Recommended Subjects

These courses are recommended, but you are free to choose courses from any other special field. Please consult your tutor.

227-0102-00L	Title	Type	ECTS	Hours				Lecturers
1-0102-00L	Discrete Event Systems	w	6 credits	4G				
227-0102-00 G	Diskrete Ereignissysteme			4 hrs	Thu	14-16 16-18	HG D7.2 HG D7.2	R. Jacob, L. Vanbever, R. Wattenhofer
227-0103-00L	Control Systems	W	6 credits	2V+2U				
227-0103-00 V	Regelsysteme			2 hrs	Mon	10-12	NO C60	F. Dörfler
227-0103-00 U	Regelsysteme			2 hrs	Tue 21.09.	10-12 12-14	CHN C14 CHN C14	F. Dörfler
227-0116-00L	VLSI 1: HDL based design for FPGAs	w	6 credits	5G				
	VLSI 1: HDL based design for FPGAs			5 hrs	Tue Wed	08-10 13-16	ETF C1 ETZ D61.1 ETZ D61.2 ETZ D96.1	F. K. Gürkaynak, L. Benini
227-0148-00L	VLSI III: Test and Fabrication of VLSI Circuits	W	6 credits	4G				
227-0148-00 G	VLSI III: Test and Fabrication of VLSI Circu Does not take place this semester. Will be offered in spring 2022 as "227-0148 VLSI: measurement and testing"		SI4: Practical	4 hrs				L. Benini
227-0166-00L	Analog Integrated Circuits	W	6 credits	2V+2U				
227-0166-00 V	Analog Integrated Circuits			2 hrs	Fri	10-12	ETZ E6	T. Jang
227-0166-00 U	Analog Integrated Circuits Some of the exercise lessons will take plac ETZ D61.1. To be announced during the course lessons		puter room	2 hrs	Fri	14-16	ETZ E6	T. Jang
227-0301-00L	Optical Communication Fundamentals	W	6 credits	2V+1U+	IP			
227-0301-00 V	Optical Communication Fundamentals			2 hrs	Tue	14-16	ETZ K91	J. Leuthold
227-0301-00 U	Optical Communication Fundamentals			1 hrs	Tue	16-17	ETZ K91	J. Leuthold
227-0301-00 P	Optical Communication Fundamentals			1 hrs	Tue	17-18	ETZ K91	J. Leuthold
227-0423-00L	Neural Network Theory	w	4 credits	2V+1U				
227-0423-00 V	Neural Network Theory			2 hrs	Tue	10-12	HG F5	H. Bölcskei
227-0423-00 U	Neural Network Theory The exercise will take place online on:		s/indev html	1 hrs	Tue	12-13	HG F5	H. Bölcskei
	https://www.mins.ee.ethz.ch/teaching/nnt/d The reserved room is meant for those stude the course from the campus.			N				
227-0447-00L	The reserved room is meant for those stude			<i>w</i> 3V+1U				
	The reserved room is meant for those stude the course from the campus.	ents who	want to follo		Thu	14-17	HG F1	<b>L. Van Gool</b> , E. Konukoglu F. Yu
227-0447-00 V	The reserved room is meant for those stude the course from the campus.  Image Analysis and Computer Vision	ents who	want to follo	3V+1U	Thu Thu	14-17 17-19	HG F1 ETZ D61.1 ETZ D61.2	F. Yu
227-0447-00 V 227-0447-00 U	The reserved room is meant for those stude the course from the campus.  Image Analysis and Computer Vision Image Analysis and Computer Vision	ents who	want to follo	<b>3V+1U</b> 3 hrs			ETZ D61.1	F. Yu <b>L. Van Gool</b> , E. Konukoglu
227-0447-00 V 227-0447-00 U 227-0468-00L	The reserved room is meant for those stude the course from the campus.  Image Analysis and Computer Vision Image Analysis and Computer Vision Image Analysis and Computer Vision  Analog Signal Processing and Filtering Suitable for Master Students as well as	w W	6 credits	<b>3V+1U</b> 3 hrs 1 hrs			ETZ D61.1	F. Yu <b>L. Van Gool</b> , E. Konukoglu
227-0447-00 V 227-0447-00 U <b>227-0468-00</b> L 227-0468-00 V	The reserved room is meant for those stude the course from the campus.  Image Analysis and Computer Vision Image Analysis and Computer Vision Image Analysis and Computer Vision  Analog Signal Processing and Filtering Suitable for Master Students as well as Doctoral Students.	w W	6 credits	3V+1U 3 hrs 1 hrs 2V+2U	Thu	17-19	ETZ D61.1 ETZ D61.2	F. Yu <b>L. Van Gool</b> , E. Konukoglu F. Yu
227-0447-00 V 227-0447-00 U 227-0468-00L 227-0468-00 V 227-0468-00 U	The reserved room is meant for those stude the course from the campus.  Image Analysis and Computer Vision Image Analysis and Computer Vision Image Analysis and Computer Vision  Analog Signal Processing and Filtering Suitable for Master Students as well as Doctoral Students.  Analog Signal Processing and Filtering	w W	6 credits	3V+1U 3 hrs 1 hrs 2V+2U 2 hrs	Thu	17-19	ETZ D61.1 ETZ D61.2 CHN E46	F. Yu L. Van Gool, E. Konukoglu F. Yu  H. Schmid
227-0447-00 V 227-0447-00 U 227-0468-00L 227-0468-00 V 227-0468-00 U 227-0477-00L	The reserved room is meant for those stude the course from the campus.  Image Analysis and Computer Vision Image Analysis and Computer Vision Image Analysis and Computer Vision  Analog Signal Processing and Filtering Suitable for Master Students as well as Doctoral Students.  Analog Signal Processing and Filtering Analog Signal Processing and Filtering Acoustics I	w w	6 credits 6 credits	3V+1U 3 hrs 1 hrs 2V+2U 2 hrs 2 hrs	Thu	17-19	ETZ D61.1 ETZ D61.2 CHN E46	F. Yu  L. Van Gool, E. Konukoglu F. Yu  H. Schmid
227-0447-00 V 227-0447-00 U 227-0468-00L 227-0468-00 V 227-0468-00 U 227-0477-00L 227-0477-00 G	The reserved room is meant for those stude the course from the campus.  Image Analysis and Computer Vision Image Analysis and Computer Vision Image Analysis and Computer Vision  Analog Signal Processing and Filtering Suitable for Master Students as well as Doctoral Students.  Analog Signal Processing and Filtering Analog Signal Processing and Filtering  Acoustics I	w w	6 credits 6 credits	3V+1U 3 hrs 1 hrs 2V+2U 2 hrs 2 hrs 4G	Thu Wed Wed Mon	17-19 08-10 10-12	ETZ D61.1 ETZ D61.2 CHN E46 CHN E46	F. Yu L. Van Gool, E. Konukoglu F. Yu  H. Schmid H. Schmid
227-0447-00 V 227-0447-00 U 227-0468-00L 227-0468-00 V 227-0468-00 U 227-0477-00L 227-0477-00 G 252-0535-00L	The reserved room is meant for those stude the course from the campus.  Image Analysis and Computer Vision Image Analysis and Computer Vision Image Analysis and Computer Vision  Analog Signal Processing and Filtering Suitable for Master Students as well as Doctoral Students.  Analog Signal Processing and Filtering Analog Signal Processing and Filtering Acoustics I  Advanced Machine Learning Advanced Machine Learning	w w w	6 credits 6 credits 10 credits	3V+1U 3 hrs 1 hrs 2V+2U 2 hrs 2 hrs 4G 4 hrs	Thu Wed Wed Mon	17-19 08-10 10-12	ETZ D61.1 ETZ D61.2 CHN E46 CHN E46 ETZ E7	H. Schmid H. Schmid K. Heutschi J. M. Buhmann,
227-0447-00 V 227-0447-00 U 227-0468-00L 227-0468-00 V 227-0468-00 U 227-0477-00L 227-0477-00 G 252-0535-00L	The reserved room is meant for those stude the course from the campus.  Image Analysis and Computer Vision Image Analysis and Computer Vision Image Analysis and Computer Vision  Analog Signal Processing and Filtering Suitable for Master Students as well as Doctoral Students.  Analog Signal Processing and Filtering Analog Signal Processing and Filtering Analog Signal Processing and Filtering Acoustics I Advanced Machine Learning	W W ins HG F	6 credits 6 credits 10 credits	3V+1U 3 hrs 1 hrs 2V+2U 2 hrs 2 hrs 4G 4 hrs 3V+2U+4	Thu Wed Wed Mon	17-19 08-10 10-12 14-18	ETZ D61.1 ETZ D61.2 CHN E46 CHN E46 ETZ E7 ETA F5 ETF E1 HG F1	F. Yu L. Van Gool, E. Konukoglu F. Yu  H. Schmid H. Schmid K. Heutschi
227-0447-00 V 227-0447-00 U 227-0468-00L 227-0468-00 V 227-0468-00 U 227-0477-00L 227-0477-00 G 252-0535-00L 252-0535-00 V	The reserved room is meant for those stude the course from the campus.  Image Analysis and Computer Vision Image Analysis and Computer Vision Image Analysis and Computer Vision  Analog Signal Processing and Filtering Suitable for Master Students as well as Doctoral Students.  Analog Signal Processing and Filtering Analog Signal Processing and Filtering Analog Signal Processing and Filtering  Acoustics I  Advanced Machine Learning  Advanced Machine Learning  Freitag 8-10 HG F1 mit Videoübertragung	W W ins HG F	6 credits 6 credits 10 credits	3V+1U 3 hrs 1 hrs 2V+2U 2 hrs 2 hrs 4G 4 hrs 3V+2U+4	Wed Wed Mon Thu Fri Wed Thu	17-19  08-10 10-12  14-18  15-16  08-10  14-16 16-18 16-18	ETZ D61.1 ETZ D61.2 CHN E46 CHN E46 ETZ E7 ETA F5 ETF E1 HG F1 HG F3 CAB G61 CAB G61 ML F34	F. Yu L. Van Gool, E. Konukoglu F. Yu H. Schmid H. Schmid K. Heutschi J. M. Buhmann,
227-0468-00L 227-0468-00 V 227-0468-00 U 227-0477-00L 227-0477-00 G 252-0535-00 V 252-0535-00 U	The reserved room is meant for those stude the course from the campus.  Image Analysis and Computer Vision Image Analysis and Computer Vision Image Analysis and Computer Vision  Analog Signal Processing and Filtering Suitable for Master Students as well as Doctoral Students.  Analog Signal Processing and Filtering Analog Signal Processing and Filtering Analog Signal Processing and Filtering Acoustics I  Acoustics I  Advanced Machine Learning Advanced Machine Learning Freitag 8-10 HG F1 mit Videoübertragung Donnerstag 15-16 ETA F 5 mit Videoübertragung	W W ins HG F	6 credits 6 credits 10 credits	3V+1U 3 hrs 1 hrs 2V+2U 2 hrs 2 hrs 4G 4 hrs 3V+2U+4 3 hrs	Wed Wed Mon Thu Fri Wed	17-19  08-10 10-12  14-18  15-16  08-10  14-16 16-18	ETZ D61.1 ETZ D61.2 CHN E46 CHN E46 ETZ E7 ETA F5 ETF E1 HG F1 HG F3 CAB G61 CAB G61	F. Yu L. Van Gool, E. Konukoglu F. Yu  H. Schmid H. Schmid K. Heutschi  J. M. Buhmann, C. Cotrini Jimenez  J. M. Buhmann,

263-4640-00 V	Network Security			2 hrs	Tue	10-12	HG E1.2	<b>A. Perrig</b> , S. Frei, M. Legner, K. Paterson
263-4640-00 U	Network Security			2 hrs	Thu	16-18	CAB G61	<b>A. Perrig</b> , S. Frei, M. Legner, K. Paterson
263-4640-00 A	Network Security Project Work, no fixed presence required.			3 hrs				<b>A. Perrig</b> , S. Frei, M. Legner, K. Paterson
401-3055-64L	Algebraic Methods in Combinatorics	W	6 credits	2V+1U				
401-3055-64 V	Algebraic Methods in Combinatorics			2 hrs	Wed	10-12	IFW A36	B. Sudakov
401-3055-64 U	Algebraic Methods in Combinatorics			1 hrs	Mon	12-13 13-14	ML F34 ML F34	B. Sudakov
227-0147-10L	VLSI 3: Full-Custom Digital Circuit Design	W	6 credits	2V+3U				
227-0147-10 V	VLSI 3: Full-Custom Digital Circuit Design Permission from lecturers required for all study	ıdents		2 hrs	Mon	10-12	ETZ E8	<ul><li>C. Studer,</li><li>O. Castañeda Fernández</li></ul>
227-0147-10 U	VLSI 3: Full-Custom Digital Circuit Design Permission from lecturers required for all study	ıdents		3 hrs	Thu	13-16	ETZ G91	<ul><li>C. Studer,</li><li>O. Castañeda Fernández</li></ul>

# **▶▶▶** Computers and Networks

# ▶▶▶▶ Core Subjects

These core subjects are particularly recommended for the field of "Computers and Networks".

Number	Title	Type	ECTS	Hours				Lecturers
227-2210-00L	Computer Architecture	W	8 credits	6G+1A				
227-2210-00 G	Computer Architecture Online event: Will primarily take place onlin remain blocked on campus for students to there.				Thu Fri	13-16 13-16	HG D16.2 HG D16.2	O. Mutlu
227-2210-00 A	Computer Architecture			1 hrs				O. Mutlu
227-0575-00L	Advanced Topics in Communication Networks	W	6 credits	2V+2U				
227-0575-00 V	Advanced Topics in Communication Netwo	orks		2 hrs	Tue	14-16	ML E12	L. Vanbever
227-0575-00 U	Advanced Topics in Communication Netwo	orks		2 hrs	Tue	16-18	ML E12	L. Vanbever
227-0579-00L	Hardware Security	W	7 credits	2V+2U+	2A			
227-0579-00 V	Hardware Security An informal meeting is planned for Friday, 5 - 7 pm. The exact room will be announce Please note that the classes of October 5 a place from 08:00 - 11:00 instead of 08:00 -	ed later. and Octo	ber 19 take	2 hrs	Tue	08-10	HG E41	K. Razavi
227-0579-00 U	Hardware Security			2 hrs	Thu	10-12	IFW A32.1	K. Razavi
227-0579-00 A	Hardware Security Project Work, no fixed presence required.			2 hrs				K. Razavi
252-1414-00L	System Security	W	7 credits	2V+2U+	2A			
252-1414-00 V	System Security			2 hrs	Mon	10-12	HG D1.2	S. Capkun, A. Perrig
252-1414-00 U	System Security The exercises begin in the second week or	f the sen	nester.	2 hrs	Thu	14-16 16-18	HG D3.2 CAB G11	S. Capkun, A. Perrig
252-1414-00 A	System Security			2 hrs				S. Capkun, A. Perrig
263-4640-00L	Network Security	w	8 credits	2V+2U+	3A			
263-4640-00 V	Network Security			2 hrs	Tue	10-12	HG E1.2	A. Perrig, S. Frei, M. Legner, K. Paterson
263-4640-00 U	Network Security			2 hrs	Thu	16-18	CAB G61	A. Perrig, S. Frei, M. Legner K. Paterson
263-4640-00 A	Network Security  Project Work, no fixed presence required.			3 hrs				A. Perrig, S. Frei, M. Legner K. Paterson

# ▶▶▶▶ Recommended Subjects

These courses are recommended, but you are free to choose courses from any other special field. Please consult your tutor.

Number	Title	Type	ECTS	Hours				Lecturers
227-0101-00L	Discrete-Time and Statistical Signal Processing	W	6 credits	4G				
227-0101-00 G	Discrete-Time and Statistical Signal Proces	sing		4 hrs	Tue	14-18	HG F3	HA. Loeliger
227-0103-00L	Control Systems	W	6 credits	2V+2U				
227-0103-00 V	Regelsysteme			2 hrs	Mon	10-12	NO C60	F. Dörfler
227-0103-00 U	Regelsysteme			2 hrs	Tue 21.09.	10-12 12-14	CHN C14 CHN C14	F. Dörfler
227-0116-00L	VLSI 1: HDL based design for FPGAs	W	6 credits	5G				
227-0116-00 G	VLSI 1: HDL based design for FPGAs			5 hrs	Tue Wed	08-10 13-16	ETF C1 ETZ D61.1 ETZ D61.2 ETZ D96.1	F. K. Gürkaynak, L. Benini
227-0377-10L	Physics of Failure and Reliability of Electronic Devices and Systems	W	3 credits	2V				
227-0377-10 V	Physics of Failure and Reliability of Electror Systems	nic Devi	ces and	2 hrs	Thu	14-16	ETZ K91	I. Shorubalko, M. Held
227-0447-00L	Image Analysis and Computer Vision	W	6 credits	3V+1U				

227-0447-00 V	Image Analysis and Computer Vision			3 hrs	Thu	14-17	HG F1	<b>L. Van Gool</b> , E. Konukoglı F. Yu
227-0447-00 U	Image Analysis and Computer Vision			1 hrs	Thu	17-19	ETZ D61.1 ETZ D61.2	<b>L. Van Gool</b> , E. Konukoglı F. Yu
227-0555-00L	Distributed Systems  Enrolled students will be notified by e-mail about the lecture start.	W	4 credits	3G+1A				
227-0555-00 G	Distributed Systems Groups are selected in myStudies. The lecture start will be notified by e-mail.			3 hrs	Mon/2 Fri/2 Fri	10-12 10-12 14-16	CAB G61 CAB G61 CAB G57	R. Wattenhofer
227-0555-00 A	Distributed Systems			1 hrs				R. Wattenhofer
227-2210-00L	Computer Architecture	W	8 credits	6G+1A				
227-2210-00 G	Computer Architecture Online event: Will primarily take place onlin remain blocked on campus for students to there.				Thu Fri	13-16 13-16	HG D16.2 HG D16.2	O. Mutlu
227-2210-00 A	Computer Architecture			1 hrs				O. Mutlu
151-0593-00L	Embedded Control Systems	W	4 credits	6G				
151-0593-00 G	Embedded Control Systems This two-week block course take places de 20-24.09.2021) and is comprised of Lectures: 8-12 h	aily (13-	17.09.2021 &	80s hrs	17.09. 13.09	08-10 08-12 13-17	ML H44 HG G26.5 ML J44.1	J. S. Freudenberg, M. Schmid Daners
	- Exercises: 13-17 h				24.09. 20.09.	08-12	HG F26.3	
					20.09.	13-17	ML J44.1	
					21.09. 22.09.	08-12 08-12 15-17	HG F26.3 HG F26.3 ML F39	
					23.09. 24.09.	08-12 08-12	HG F26.3 LEE E101	
252-1411-00L	Security of Wireless Networks	W	6 credits	2V+1U+2	2A			
252-1411-00 V	Security of Wireless Networks			2 hrs	Tue	14-16	ML F34	S. Capkun, K. Kostiainen
252-1411-00 U	Security of Wireless Networks			1 hrs	Fri/2w	14-16	CAB E87.2	S. Capkun, K. Kostiainen
252-1411-00 A	Security of Wireless Networks includes a semester long project			2 hrs				S. Capkun, K. Kostiainen
401-3055-64L	Algebraic Methods in Combinatorics	W	6 credits	2V+1U				
401-3055-64 V	Algebraic Methods in Combinatorics			2 hrs	Wed	10-12	IFW A36	B. Sudakov
401-3055-64 U	Algebraic Methods in Combinatorics			1 hrs	Mon	12-13 13-14	ML F34 ML F34	B. Sudakov

# **▶▶▶** Electronics and Photonics

# ▶▶▶▶ Core Subjects

Number	Title	Type	ECTS	Hours				Lecturers
227-0146-00L	Analog-to-Digital Converters	W	6 credits	2V+2U				
227-0146-00 V	Analog-to-Digital Converters  Does not take place this semester.			2 hrs				
227-0146-00 U	Analog-to-Digital Converters  Does not take place this semester.			2 hrs				
227-0148-00L	VLSI III: Test and Fabrication of VLSI Circuits	W	6 credits	4G				
227-0148-00 G	VLSI III: Test and Fabrication of VLSI Circui Does not take place this semester. Will be offered in spring 2022 as "227-0148- VLSI: measurement and testing"		SI4: Practical	4 hrs				L. Benini
227-0301-00L	Optical Communication Fundamentals	W	6 credits	2V+1U+	1P			
227-0301-00 V	Optical Communication Fundamentals			2 hrs	Tue	14-16	ETZ K91	J. Leuthold
227-0301-00 U	Optical Communication Fundamentals			1 hrs	Tue	16-17	ETZ K91	J. Leuthold
227-0301-00 P	Optical Communication Fundamentals			1 hrs	Tue	17-18	ETZ K91	J. Leuthold
227-0663-00L	Nano-Optics	W	6 credits	2V+2U				
227-0663-00 V	Nano-Optics Does not take place this semester.			2 hrs				M. Frimmer
227-0663-00 U	Nano-Optics Does not take place this semester.			2 hrs				M. Frimmer
227-0655-00L	Nonlinear Optics	W	6 credits	2V+2U				
227-0655-00 V	Nonlinear Optics Does not take place this semester.			2 hrs				J. Leuthold
227-0655-00 U	Nonlinear Optics Does not take place this semester.			2 hrs				J. Leuthold
227-1033-00L	Neuromorphic Engineering I Registration in this class requires the permission of the instructors. Class size will be limited to available lab spots. Preference is given to students that require this class as part of their major.	W	6 credits	2V+3U				

Information for UZH students: Enrolment to this course unit only possible at ETH. No enrolment to module INI404 at UZH. Please mind the ETH enrolment deadlines for UZH students: https://www.ethz.ch/en/studies/nondegreecourses/special-

students/specialstudents-university-of-zurich.html

227-1033-00 V Neuromorphic Engineering I Permission from lecturers required for all students
\*\*together with University of Zurich\*\*

The lecturers will communicate the exact lesson times of ONLINE

courses.

227-1033-00 U Neuromorphic Engineering I

Permission from lecturers required for all students

\*\*together with University of Zurich\*\*

Dates by arrangement. 227-0147-10L **VLSI 3: Full-Custom Digital Circuit** 2V+3U 6 credits Design C. Studer,O. Castañeda Fernández 227-0147-10 V VLSI 3: Full-Custom Digital Circuit Design ETZ E8 2 hrs 10-12 Mon Permission from lecturers required for all students 227-0147-10 U VLSI 3: Full-Custom Digital Circuit Design ETZ G91 C. Studer, 3 hrs Thu 13-16 Permission from lecturers required for all students O. Castañeda Fernández

2 hrs

3 hrs

Mon

by appt.

14-16

T. Delbrück, G. Indiveri, S.-

T. Delbrück, G. Indiveri, S.-

C. Liu

C. Liu

ON LINE

#### **▶▶▶▶** Recommended Subjects

These courses are recommended, but you are free to choose courses from any other special field. Please consult your tutor.

Number	Title	Type	ECTS	Hours				Lecturers
227-0121-00L	Communication Systems	W	6 credits	4G				
227-0121-00 G	Kommunikationssysteme			4 hrs	Wed	08-12	ML F39	A. Wittneben
227-0155-00L	Machine Learning on Microcontrollers Registration in this class requires the permission of the instructors. Class size will be limited to 25. Preference is given to students in the MSc EEIT.	W	6 credits	3G				
227-0155-00 G	Machine Learning on Microcontrollers ■ Permission from lecturers required for all stu	ıdents		3 hrs	Mon 27.09.	13-16 13-16	LFO C13 ETZ K63	M. Magno, L. Benini
227-0157-00L	Semiconductor Devices: Physical Bases and Simulation	W	4 credits	3 <b>G</b>				
227-0157-00 G	Semiconductor Devices: Physical Bases and Falls alle Hörende es wünschen, kann die V Deutsch gehalten werden.			3 hrs	Mon	09-12	ETZ G91	A. Schenk, C. I. Roman
227-0166-00L	Analog Integrated Circuits	W	6 credits	2V+2U				
227-0166-00 V	Analog Integrated Circuits			2 hrs	Fri	10-12	ETZ E6	T. Jang
227-0166-00 U	Analog Integrated Circuits  Some of the exercise lessons will take place ETZ D61.1.  To be announced during the course lessons		outer room	2 hrs	Fri	14-16	ETZ E6	T. Jang
227-0377-10L	Physics of Failure and Reliability of Electronic Devices and Systems	W	3 credits	2V				
227-0377-10 V	Physics of Failure and Reliability of Electron Systems	ic Device	es and	2 hrs	Thu	14-16	ETZ K91	I. Shorubalko, M. Held
227-0468-00L	Analog Signal Processing and Filtering Suitable for Master Students as well as Doctoral Students.	W	6 credits	2V+2U				
227-0468-00 V	Analog Signal Processing and Filtering			2 hrs	Wed	08-10	CHN E46	H. Schmid
227-0468-00 U	Analog Signal Processing and Filtering			2 hrs	Wed	10-12	CHN E46	H. Schmid
227-0615-00L	Simulation of Photovoltaic Devices - From Materials to Modules	W	3 credits	2G				
227-0615-00 G	Simulation of Photovoltaic Devices - From M	1aterials	to Modules	2 hrs	Thu	14-16	LEE C104	U. Aeberhard
227-0617-00L	Solar Cells	W	4 credits	3 <b>G</b>				
227-0617-00 G	Solar Cells			3 hrs	Wed	09-12	HG D7.2	<b>A. N. Tiwari</b> , R. Carron, Y. Romanyuk
227-0618-00L	Modeling, Characterization and Reliability of Power Semiconductors	W	6 credits	4G				
227-0618-00 G	Modeling, Characterization and Reliability of Semiconductors	Power		4 hrs	Wed	12-16	ETZ F91	М. Р. М. Сіарра
227-0619-00L	Charge Transport in Energy Conversion and Storage Devices	W	6 credits	2V+2U				
227-0619-00 V	Charge Transport in Energy Conversion and	l Storage	e Devices	2 hrs	Fri	10-12	CAB G11	C. Battaglia
227-0619-00 U	Charge Transport in Energy Conversion and	l Storage	e Devices	2 hrs	Fri 24.09.	12-14 12-14	CAB G11 ML E12	C. Battaglia
227-0653-00L	Electromagnetic Precision	w	4 credits	2V+1U				<u> </u>

	Measurements and Opto-Mechanics							
227-0653-00 V	Electromagnetic Precision Measurements a The course will take place online until further			2 hrs	Fri	09-11	ML H34.3	M. Frimmer
227-0653-00 U	Electromagnetic Precision Measurements a The course will take place online until further			1 hrs	Fri	11-12	ML H34.3	M. Frimmer
<b>227-0659-00L</b> 227-0659-00 S	Integrated Systems Seminar Integrated Systems Seminar	W	1 credit	<b>1S</b> 1 hrs	Mon	18-20	ETZ J91	A. Schenk
227-0665-00L	Battery Integration Engineering Priority given to Electrical and Mechanical Engineering students	w	3 credits	2V+1U				
	Students are required to have attended one of the following courses: - 227-0664-00L Technology and Policy of Electrical Energy Storage - 529-0440-00L Physical Electrochemistry and Electrocatalysis - 529-0191-01L Renewable Energy Technologies II, Energy Storage and Conversion - 529-0659-00L Electrochemistry (Exception for PhD students).							
227-0665-00 V	Battery Integration Engineering			2 hrs	Mon	13-15	NO D11	T. J. Patey
227-0665-00 U	Battery Integration Engineering			1 hrs	Mon	15-16	NO D11	T. J. Patey
227-2037-00L	Physical Modelling and Simulation	W	6 credits	4G	The	00.40	ET7 E0	I 0
	Physical Modelling and Simulation			4 hrs	Thu	08-12	ETZ E6	J. Smajic
<b>151-0601-00</b> L 151-0601-00 G	Theory of Robotics and Mechatronics Theory of Robotics and Mechatronics Online event: Will primarily take place online remain blocked on campus for students to fe there.				Mon	08-10 10-11	HG D1.2 ML E12	P. Korba, S. Stoeter
151-0605-00L	Nanosystems	W	4 credits	4G				
151-0605-00 G	Nanosystems Lecture: Thursday 10-13. Online lecture: The take place online. Reserved rooms will remain campus for students to follow the course from Exercises: will take place in the laboratories.	ain bloc om there	ked on	4 hrs	Thu	10-13	ML F40	A. Stemmer
151-0620-00L	Embedded MEMS Lab	W	5 credits	3P				
151-0620-00 P	Embedded MEMS Lab - First part of the compulsory introductory le 27.09.2021 from 13:15h to 18h (venue: tbd) - Second part of the compulsory introductor 04.10.2021 from 13:15h to 18h (venue: tbd) - Practical portion of the course in the clean consecutive Mondays from 13:00 (exact) to Semester. Starting days for groups are stag - Attendance is required at all meetings of the	y lecture y lecture rooms o ~18:30 ggered.	e: Monday of CLA: 7 during the	45s hrs	Mon 27.09. 04.10.	13-14 13-17 13-18 13-18	ML J34.1 ML J34.3 ML J37.1 CLA G2 ML H43 ML H43	<b>C. Hierold</b> , S. Blunier, M. Haluska
151-0911-00L	Introduction to Plasmonics	W	4 credits	2V+1U				
151-0911-00 V	Introduction to Plasmonics  Does not take place this semester.  Will be offered again in HS22.			2 hrs				D. J. Norris
151-0911-00 U	Introduction to Plasmonics Does not take place this semester. Will be offered again in HS22.			1 hrs				D. J. Norris
327-2132-00L	Multifunctional Ferroic Materials: Growth and Characterisation	W	2 credits	2G				
327-2132-00 G	Multifunctional Ferroic Materials: Growth an	d Chara	cterization	2 hrs	Mon	14-16	HCI H8.1	M. Trassin
<b>363-0389-00L</b> 363-0389-00 G	Technology and Innovation Management Technology and Innovation Management The lecture takes place in classroom, online recorded.		3 credits	<b>2G</b> 2 hrs	Mon 27.09.	14-16 14-16	NO C60 HG D1.2	S. Brusoni, A. Zeijen
401-3055-64L	Algebraic Methods in Combinatorics	W	6 credits	2V+1U				
401-3055-64 V 401-3055-64 U	Algebraic Methods in Combinatorics Algebraic Methods in Combinatorics			2 hrs 1 hrs	Wed Mon	10-12 12-13 13-14	IFW A36 ML F34 ML F34	B. Sudakov B. Sudakov

# ▶▶▶ Energy and Power Electronics

# **▶▶▶▶** Core Subjects

These core subjects are particularly recommended for the field of "Energy and Power Electronics".

Number	Title	Туре	ECTS	Hours				Lecturers
227-0117-00L	High Voltage Engineering	w	6 credits	4G				
227-0117-00 G	High Voltage Engineering			4 hrs	Thu	14-18	ETZ E7	C. Franck, U. Straumann
227-0247-00L	Power Electronic Systems I	w	6 credits	4G				
227-0247-00 G	Power Electronic Systems I			4 hrs	Tue	14-16 16-18	HG D5.2 HG D5.2	J. Biela, F. Krismer
227-0526-00L	Power System Analysis	w	6 credits	4G				

The language of instruction will be chosen by the students in the first lecture (English or German)

#### **▶▶▶▶** Recommended Subjects

These courses are recommended, but you are free to choose courses from any other special field. Please consult your tutor.

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Number	Title	Type	ECTS	Hours				Lecturers
227-0101-00L	Discrete-Time and Statistical Signal Processing	W	6 credits	4G				
227-0101-00 G	Discrete-Time and Statistical Signal Process	sing		4 hrs	Tue	14-18	HG F3	HA. Loeliger
227-0121-00L	Communication Systems	W	6 credits	4G				
227-0121-00 G	Kommunikationssysteme			4 hrs	Wed	08-12	ML F39	A. Wittneben
227-0225-00L	Linear System Theory	W	6 credits	5G				
	Linear System Theory			5 hrs	Mon	09-12	IFW A36	A. lannelli
					Wed	10-12	ETZ E6	
					22.09.	10-12	HG D1.1	
227-0517-10L	Fundamentals of Electric Machines	W	6 credits	4G				
227-0517-10 G	Fundamentals of Electric Machines			4 hrs	Thu	08-10 10-12	HG D5.2 HG D5.2	D. Bortis
227-0523-00L	Railway Systems I	w	6 credits	4G				
	Eisenbahn-Systemtechnik I	••		4 hrs	Fri	08-12	LFW C1	M. Meyer
	Online-Veranstaltung: Diese Lehrveranstaltu Der reservierte Raum bleibt für die Studierer Campus Zentrum bestehen, um die Lehrver hören.	nden aเ	uf dem					
227-0536-00L	Multiphysics Simulations for Power Systems This course is defined so and planned to be an addition to the module "227-0537-00L Technology of Electric Power System Components". However, the students who are familiar with		4 credits	2V+2U				
	the fundamentals of electromagnetic fields could attend only this course without its 227-0537-00-complement.							
	Multiphysics Simulations for Power Systems			2 hrs	Mon	10-12	HG E22	J. Smajic
227-0536-00 U	Multiphysics Simulations for Power Systems	; 		2 hrs	Mon	08-10	HG E22	J. Smajic
227-0567-00L	Design of Power Electronic Systems	W	6 credits	4G				
227-0567-00 G	Design of Power Electronic Systems			4 hrs	Fri	14-18	HG D5.2	F. Krismer
227-0618-00L	Modeling, Characterization and Reliability of Power Semiconductors	W	6 credits	4G				
227-0618-00 G	Modeling, Characterization and Reliability of Semiconductors	Power		4 hrs	Wed	12-16	ETZ F91	M. P. M. Ciappa
227-0697-00L	Industrial Process Control	W	4 credits	3G				
227-0697-00 G	Industrial Process Control Upon special arrangement, on some afterno extended. Single lectures may be given onlin		e lecture will be	3 hrs	Tue	13-16	ETZ G91	A. Horch, M. Mercangöz
227-0731-00L	Power Market I - Portfolio and Risk Management	W	6 credits	4G				
227-0731-00 G	Power Market I - Portfolio and Risk Manager	ment		4 hrs	Tue	08-12	HG D7.1	D. Reichelt, G. A. Koeppel
227-0759-00L	International Business Management for Engineers This course will be offered for the last time in fall 2021	W	3 credits	2V				
227-0759-00 V	International Business Management for Eng The lecture will be held in three blocks each Saturday (starts on September 18, 2021). Et on one of the three main topics of the course Between the blocks the students will work of studies to deepen the subject matter. About third block a written examination will be conducted.	of then ach blo e. n specii	ck will focus fic case	24s hrs				W. Hofbauer
	This course will be offered for the last time in	n fall 20	21					

# ▶▶▶ Systems and Control

## ▶▶▶ Core Subjects

These core subjects are particularly recommended for the field of "Systems and Control".

Number	Title	Туре	ECTS	Hours				Lecturers
227-0225-00L	Linear System Theory	w	6 credits	5G				
227-0225-00 G	Linear System Theory			5 hrs	Mon Wed 22.09.	09-12 10-12 10-12	IFW A36 ETZ E6 HG D1.1	A. lannelli
227-0697-00L	Industrial Process Control	w	4 credits	3G				

227-0697-00 G	Industrial Process Control Upon special arrangement, on some afternoons the lecture will extended. Single lectures may be given online.	3 hrs be	Tue	13-16	ETZ G91	A. Horch, M. Mercangöz
151-0563-01L	Dynamic Programming and Optimal W 4 credits Control	2V+1U				
151-0563-01 V	Dynamic Programming and Optimal Control The lecture will start in the 2nd week of Semester. Online lecture: This lecture will primarily take place online. Reserved rooms will remain blocked on campus for students to follow the course from there.	2 hrs	Wed	14-16	HG F1	R. D'Andrea
151-0563-01 U	Dynamic Programming and Optimal Control The exercise will start in the 2nd week of Semester.	1 hrs	Wed 29.09.	16-17 16-17	CAB G51 HG F1 ML E12	R. D'Andrea

# **▶▶▶▶** Recommended Subjects

These courses are recommended, but you are free to choose courses from any other special field. Please consult your tutor.

Number	Title	Type	ECTS	Hours				Lecturers
		W	6 credits	4G				Locialois
<b>227-0102-00L</b> 227-0102-00 G	Discrete Event Systems Diskrete Ereignissysteme	VV	o credits	4 hrs	Thu	14-16 16-18	HG D7.2 HG D7.2	R. Jacob, L. Vanbever, R. Wattenhofer
227-0447-00L	Image Analysis and Computer Vision	W	6 credits	3V+1U				
227-0447-00 V	Image Analysis and Computer Vision			3 hrs	Thu	14-17	HG F1	<b>L. Van Gool</b> , E. Konukoglu F. Yu
227-0447-00 U	Image Analysis and Computer Vision			1 hrs	Thu	17-19	ETZ D61.1 ETZ D61.2	<b>L. Van Gool</b> , E. Konukoglu F. Yu
27-0526-00L	Power System Analysis	W	6 credits	4G				
227-0526-00 G	Power System Analysis The language of instruction will be chosen b first lecture (English or German)	y the st	udents in the	4 hrs	Wed	14-18	ETZ E6	G. Hug
227-0531-00L	Control of Power-Electronics-Dominated Power Systems	W	3 credits	2V+2U				
227-0531-00 V	Control of Power-Electronics-Dominated Po This course starts on September 28, 2021.	wer Sys	stems	2 hrs	Tue	08-10	CAB G52	E. Prieto Araujo
227-0531-00 U	Control of Power-Electronics-Dominated Po This course starts on September 28, 2021.	wer Sys	stems	2 hrs	Tue	10-12	CAB G52	E. Prieto Araujo
27-0689-00L	System Identification	W	4 credits	2V+1U				
227-0689-00 V	System Identification			2 hrs	Wed	10-12	HG D7.1	R. Smith
227-0689-00 U	System Identification			1 hrs	Wed	12-13	ETZ D61.1 HG D7.1	R. Smith
27-0945-00L	Cell and Molecular Biology for Engineers I This course is part I of a two-semester course.	W	3 credits	2G				
227-0945-00 G	Cell and Molecular Biology for Engineers I			2 hrs	Thu	10-12	LFW C5	C. Frei
51-0532-00L	Nonlinear Dynamics and Chaos I	w	4 credits	2V+2U				
51-0532-00 V	Nonlinear Dynamics and Chaos I			2 hrs	Wed	10-12	LFW B1	G. Haller
51-0532-00 U	Nonlinear Dynamics and Chaos I			2 hrs	Tue	16-18	ML F39	G. Haller
51-0573-00L	System Modeling	W	4 credits	2V+1U				
51-0573-00 V	System Modeling			2 hrs	Wed	08-10	HG E7	L. Guzzella
51-0573-00 U	System Modeling			1 hrs	Tue	13-14	LFV E41	L. Guzzella
	Groups are selected in myStudies.						LFW C5	
	Die Ubungen finden ab der zweiten Semest Di 13-14, Di 17-18 oder Do 8-9 gemäss Gru					17-18	CHN G42 HG D7.1	
	Di 15-14, Di 11-10 odei Do 6-9 geniass Gid	pperieii	nenung.		Thu	08-09	HG E1.1 LFV E41	
151-0601-00L	Theory of Robotics and Mechatronics	W	4 credits	3G				
151-0601-00 G	Theory of Robotics and Mechatronics Online event: Will primarily take place online remain blocked on campus for students to fo there.				Mon	08-10 10-11	HG D1.2 ML E12	P. Korba, S. Stoeter
151-0563-01L	Dynamic Programming and Optimal Control	W	4 credits	2V+1U				
151-0563-01 V	Dynamic Programming and Optimal Control The lecture will start in the 2nd week of Sen Online lecture: This lecture will primarily take Reserved rooms will remain blocked on can follow the course from there.	nester. e place		2 hrs	Wed	14-16	HG F1	R. D'Andrea
I51-0563-01 U	Dynamic Programming and Optimal Control The exercise will start in the 2nd week of Se			1 hrs	Wed	16-17	CAB G51 HG F1	R. D'Andrea
					29.09.	16-17	ML E12	
376-1219-00L	Rehabilitation Engineering II: Rehabilitation of Sensory and Vegetative Functions	W	3 credits	2V				
376-1219-00 V		of Sens	ory and	2 hrs	Tue	08-10	CAB G11	R. Riener, O. Lambercy
	Introduction to Mathematical	w	5 credits	2V+1U				

	Optimization							
401-0647-00 V	Introduction to Mathematical Optimization			2 hrs	Tue	16-18	HG F5	D. Adjiashvili
401-0647-00 U	Introduction to Mathematical Optimization Groups are selected in myStudies. Wed 12-13 or Wed 16-17			1 hrs	Wed	12-13 16-17	HG D1.2 IFW A36 ON LINE	D. Adjiashvili
401-3901-00L	Linear & Combinatorial Optimization	w	11 credits	4V+2U				
401-3901-00 V	Linear & Combinatorial Optimization (Mathe Online lecture: This lecture will take place o will remain reserved on campus for students from there.	nline. R	eserved rooms		Wed Thu	12-14 10-12	HG G5 HG G5	R. Zenklusen
401-3901-00 U	Linear & Combinatorial Optimization (Mathe Groups are selected in myStudies. Thu 14-16 or Fri 10-12 or Fr 12-14 or Fri 14 demand)		. ,	2 hrs	Thu Fri	14-16 10-12 12-14 14-16	HG F26.5 CAB G51 HG D3.2 HG F26.5	R. Zenklusen
636-0007-00L	Computational Systems Biology	W	6 credits	3V+2U				
636-0007-00 V	Computational Systems Biology Lecture: "inverted classroom". Students are lecture videos provided ahead of a Zoom Q held every Wednesday 16:15-17:00. Tutorials on Fridays 10:15-12:00 will be held In addition, students can sign up for Q&A se small groups (max. 30). They will be offered Wednesdays 15:15-16:00 in the lecture room HG D 3.2. If scheduling, see the course Moodle.	&A sess d via Zo essions I on sele	sion that will be om. in presence in ected	e	Wed	14-17	HG D3.2	J. Stelling
636-0007-00 U	Computational Systems Biology Tutorials on Fridays 10:15-12:00 will be held	d via Zo	om.	2 hrs	Fri	10-12	HG D1.2	J. Stelling
401-3055-64L	Algebraic Methods in Combinatorics	w	6 credits	2V+1U				
401-3055-64 V	Algebraic Methods in Combinatorics			2 hrs	Wed	10-12	IFW A36	B. Sudakov
401-3055-64 U	Algebraic Methods in Combinatorics			1 hrs	Mon	12-13 13-14	ML F34 ML F34	B. Sudakov
▶▶▶ Signa	I Processing and Machine Leari	ning						
_	e Subjects	Ū						
Number	Title	Туре	ECTS	Hours				Lecturers
227-0105-00L	Introduction to Estimation and Machine	W	6 credits	4G				
227-0105-00 G	Learning Introduction to Estimation and Machine Lea	rning <b>=</b>		4 hrs	Fri	14-18	ETF C1	HA. Loeliger
227-0423-00L	Neural Network Theory	W	4 credits	2V+1U				
	Neural Network Theory Neural Network Theory The exercise will take place online on: https://www.mins.ee.ethz.ch/teaching/nnt/de The reserved room is meant for those stude the course from the campus.			2 hrs 1 hrs	Tue Tue	10-12 12-13	HG F5 HG F5	H. Bölcskei H. Bölcskei
<b>227-0427-00L</b> 227-0427-00 G	Signal Analysis, Models, and Machine Learning This course was replaced by "Introduction to Estimation and Machine Learning" and "Advanced Signal Analysis, Modeling, and Machine Learning".  Signal Analysis, Models, and Machine Learning and Machine Learning and Machine Learning".	<b>W</b> nina	6 credits	4G 4 hrs				HA. Loeliger
	Does not take place this semester.							
<b>227-0447-00L</b> 227-0447-00 V	Image Analysis and Computer Vision Image Analysis and Computer Vision	W	6 credits	<b>3V+1U</b> 3 hrs	Thu	14-17	HG F1	<b>L. Van Gool</b> , E. Konukoglu, F. Yu
227-0447-00 U	Image Analysis and Computer Vision			1 hrs	Thu	17-19	ETZ D61.1 ETZ D61.2	<b>L. Van Gool</b> , E. Konukoglu, F. Yu
252-0535-00L	Advanced Machine Learning	w	10 credits	3V+2U+	4A			· · <del>·</del>
	Advanced Machine Learning			3 hrs	Thu	15-16	ETA F5	J. M. Buhmann,
	Freitag 8-10 HG F1 mit Videoübertragung i Donnerstag 15-16 ETA F 5 mit Videoübertra				Fri	08-10	ETF E1 HG F1 HG F3	C. Cotrini Jimenez
252-0535-00 U	Advanced Machine Learning			2 hrs	Wed Thu Fri	14-16 16-18 16-18 14-16	CAB G61 CAB G61 ML F34 CAB G61	J. M. Buhmann, C. Cotrini Jimenez
252-0535-00 A	Advanced Machine Learning  Project Work, no fixed presence required.			4 hrs		•		J. M. Buhmann, C. Cotrini Jimenez
►►►► Rec	ommended Subjects							
Number	Title	Туре	ECTS	Hours				Lecturers
227-0101-00L	Discrete-Time and Statistical Signal	W	6 credits	4G				
007.0404.00.0	Processing	-1		4	<b>T</b>	4440	110 50	II A Laguere
	Discrete-Time and Statistical Signal Proces		• •	4 hrs	Tue	14-18	HG F3	HA. Loeliger
227-0116-00L	VLSI 1: HDL based design for FPGAs	W	6 credits	5G				

227-015-00L   Machine Learning on Microcontrollers   W   6 credits   SG	227-0116-00 G	VLSI 1: HDL based design for FPGAs			5 hrs	Tue Wed	08-10 13-16	ETF C1 ETZ D61.1 ETZ D61.2 ETZ D96.1	F. K. Gürkaynak, L. Benini
227-0150-0   Machine Learning on Microcontrollers   Properties   Pro	227-0155-00L	Registration in this class requires the permission of the instructors. Class size will be limited to 25. Preference is given to students in the MSc	W	6 credits	3G				
	227-0155-00 G	Machine Learning on Microcontrollers ■	dents		3 hrs				M. Magno, L. Benini
227-047-00   Information Theory   A credits   Screw	<b>227-0225-00L</b> 227-0225-00 G		W	6 credits		Wed	10-12	ETZ E6	A. lannelli
Biological Neuronal Networks   227-0477-00   Deep Laming in Artificial and Biological Neuronal Networks   46	<b>227-0417-00L</b> 227-0417-00 G		W	6 credits	-	Wed	14-18	ETF C1	A. Lapidoth
227-0477-00   Coustics     W   6 credits   4C   4C   4C   4C   4C   4C   4C   4	227-0421-00L	Biological Neuronal Networks			3G				
227-047-70   C   Accustics     4 ms   Mon   14-18   ETZ E7   K. Heutschi	227-0421-00 G	Deep Learning in Artificial and Biological Neu	uronal N	Networks	3 hrs	Wed	09-12	ML F34	B. Grewe
283-5210-00 V Probabilistic Artificial Intelligence Fr 10-12 unt 13-14 Im ETA F5 int Videoübertragung ins ETF E1	<b>227-0477-00L</b> 227-0477-00 G		W	6 credits	-	Mon	14-18	ETZ E7	K. Heutschi
Fr 10-12 und 13-14 im ETĀ F5 mit Videoübertragung ins ETF E1  13-14 ETĀ F5 ETĀ F5 ETĀ E1  13-14 ETĀ F5 ETĀ E1  14-16 CAB G1  14-16 CAB G11  N. He  N. He  10-13-93-00 F Foundations of Reinforcement Learning 2 hrs  10-13-93-00 F Fir 10-12 Chā F3  10-13-93-00 F Fir 10-12 Chā G5  10-13-14 FĀ FĀ ETĀ F5  ETĀ F5  ETĀ F5  ETĀ F5  14-16 CHD C14  A. Krause  2 hrs 10-13-14 Mc F3  B. Sudakov  10-13-93-00 F Fir 10-12 Chā G5  S. van de Ger 10-13-93-00 F Fir 10-12 Chā G5  S. van de Ger 10-13-93-00 F Fir 10-12 Chā G5  S. van de Ger	263-5210-00L	Probabilistic Artificial Intelligence	w	8 credits	3V+2U+2	2A			
26.5-251-0.0 A Probabilistic Artificial Intelligence 2 hrs 2 hrs 2.5-255-0.0 Foundations of Reinforcement Learning W 5 credits 2.5-255-0.0 A Foundations of Reinforcement Learning W 1 credits 47-20 A Foundations of Reinforcement Learning W 2.5-255-0.0 A Foundations of Reinforcement Learning W 1 credits 47-20 A Foundations of Reinforcement Learning W 1 credits W 10-3901-00 U Linear & Combinatorial Optimization (Mathematical Optimization) W 11 credits W 10-3901-00 U Linear & Combinatorial Optimization (Mathematical Optimization) W 11 credits W 10-12-2 HG G5 W 10-12-2	263-5210-00 V	Probabilistic Artificial Intelligence Fr 10-12 und 13-14 im ETA F5 mit Videoübe	ertragui	ng ins ETF E1	3 hrs	Fri		ETF E1 ETA F5	A. Krause
263-5255-00	263-5210-00 U	· · · · · · · · · · · · · · · · · · ·			2 hrs	Thu	16-18	CHN C14	A. Krause
Number of participants limited to 190.	263-5210-00 A	Probabilistic Artificial Intelligence			2 hrs				A. Krause
263-5255-00 A Foundations of Reinforcement Learning 2 hrs	263-5255-00L	Number of participants limited to 190.	W	5 credits	2V+2A				
401-3901-00 V Linear & Combinatorial Optimization (Mathematical Optimization) 4 hrs Nill remain reserved on campus for students to follow the course from there.  401-3901-00 U Linear & Combinatorial Optimization (Mathematical Optimization) Union there.  401-3901-00 U Linear & Combinatorial Optimization (Mathematical Optimization) Union there.  401-3901-00 U Linear & Combinatorial Optimization (Mathematical Optimization) Union there.  401-3901-00 U Linear & Combinatorial Optimization (Mathematical Optimization) Union there.  401-3901-00 U Fundamentals of Mathematical Statistics W 10 credits 14-16 (depending on demand)  401-3621-00 V Fundamentals of Mathematical Statistics W 10 credits 14-16 (Hrs Tupe 10-12 Hrs Tue 10-12		9				Fri	14-16	CAB G11	
401-3901-00 U Linear & Combinatorial Optimization (Mathematical Optimization) 2 hrs Groups are selected in myStudies. Thu 14-16 (depending on demand) Fir 12-14 or Fir 12-14 or Fir 14-16 (depending on demand) Fundamentals of Mathematical Statistics W 10 credits 4V+1U 401-3621-00 V Fundamentals of Mathematical Statistics W 10 credits 4V+1U 401-3621-00 U Fundamentals of Mathematical Statistics W 10 credits 4V+1U 401-3621-00 U Fundamentals of Mathematical Statistics W 10 credits 4V+1U 401-3621-00 U Fundamentals of Mathematical Statistics W 10 credits 4V+1U 401-3621-00 U Fundamentals of Mathematical Statistics W 10 credits 4V+1U 401-3621-00 U Fundamentals of Mathematical Statistics W 10 credits 4V+1U 401-3621-00 U Fundamentals of Mathematical Statistics W 10 credits 4V+1U 401-3621-00 U Fundamentals of Mathematical Statistics W 10 credits 4V+1U 401-3621-00 U Fundamentals of Mathematical Statistics W 10 credits 4V+1U 401-3621-00 U Fundamentals of Mathematical Statistics W 1 hrs Tue 12-13 HG D7.1 HG D7.1 S. van de Geer 401-3625-64 U Algebraic Methods in Combinatorics W 2 hrs Wed 10-12 IFW A36 B. Sudakov 401-3055-64 U Algebraic Methods in Combinatorics 1 hrs Mon 12-13 ML F34 B. Sudakov 401-3055-64 U Algebraic Methods in Combinatorics 1 hrs Mon 12-13 ML F34 B. Sudakov 401-3055-64 U Algebraic Methods in Combinatorics 2 brown 401-3055-64 U Algebraic Methods in Combinatorics 4 brown 401-3055-64 U Algebraic Methods in Combinatorics 4 brown 401-3055-64 U Algebraic Methods in Combinatorics 4 brown 401-3055-64 U Algebraic Methods 4 brown 401-3055-64 U Algebraic Methods 4 brown 401-3055-64 U Algebraic Methods 4 brown 401-3055-64 U Algeb	<b>401-3901-00L</b> 401-3901-00 V	Linear & Combinatorial Optimization (Mather Online lecture: This lecture will take place or will remain reserved on campus for students	matical nline. R	Optimization) eserved rooms	4 hrs				R. Zenklusen
4 hrs Tue 08-10 Wed 10-12 HG E5 Wed 10-12 HG E7  401-3621-00 U Fundamentals of Mathematical Statistics 1 hrs Tue 12-13 HG D7.1 HG E7  401-3621-00 U Fundamentals of Mathematical Statistics 1 hrs Tue 12-13 HG D7.1 HG E7  401-3621-00 U Fundamentals of Mathematical Statistics 2 hrs Tue 12-13 HG D7.1 HG E7  401-3655-64 L Algebraic Methods in Combinatorics W 6 credits 2V+1U 401-3055-64 U Algebraic Methods in Combinatorics 1 hrs Mon 12-13 ML F34 B. Sudakov 401-3055-64 U Algebraic Methods in Combinatorics 1 hrs Mon 12-13 ML F34 B. Sudakov 401-3055-64 U Algebraic Methods in Combinatorics 1 hrs Mon 12-13 ML F34 B. Sudakov 401-3055-64 U Algebraic Methods in Combinatorics 2 hrs Mon 12-13 ML F34 B. Sudakov 401-3055-64 U Algebraic Methods in Combinatorics 2 hrs Mon 12-13 ML F34 B. Sudakov 401-3055-64 U Algebraic Methods in Combinatorics 2 hrs Mon 12-13 ML F34 B. Sudakov 401-3055-64 U Algebraic Methods in Combinatorics 2 hrs Mon 12-13 ML F34 B. Sudakov 401-3055-64 U Algebraic Methods in Combinatorics 2 hrs Mon 12-13 ML F34 B. Sudakov 401-3055-64 U Algebraic Methods in Combinatorics 2 hrs Mon 12-13 ML F34 B. Sudakov 401-3055-64 U Algebraic Methods in Combinatorics 2 hrs Mon 12-13 ML F34 B. Sudakov 401-3055-64 U Algebraic Methods in Combinatorics 2 hrs Mon 12-15 Lecturers 2 V Electurers 2 V Electure takes place online via (livestreaming or) zoom and recorded. Reserved rooms will remain blocked on campus for students to follow the course from there.  4 hrs Tue 08-10-10 HG E7  4 hrs Tue 18-20 HG E5  5 Van de Geer  5 Verture 12-13 HG D7.1 HG D7.1 HG D7.1 HG E7  5 Variation 12-13 ML F34  5 Variati	401-3901-00 U	Groups are selected in myStudies. Thu 14-16 or Fri 10-12 or Fr 12-14 or Fri 14-		,	2 hrs		10-12 12-14	CAB G51 HG D3.2	R. Zenklusen
401-3621-00 U Fundamentals of Mathematical Statistics	<b>401-3621-00L</b> 401-3621-00 V		W	10 credits	_				S. van de Geer
401-3055-64 V Algebraic Methods in Combinatorics 2 hrs Mon 12-13 ML F34	401-3621-00 U	Fundamentals of Mathematical Statistics			1 hrs			HG D7.1	S. van de Geer
401-3055-64 V Algebraic Methods in Combinatorics 401-3055-64 U Algebraic Methods in Combinatorics 401-305-64 U	401-3055-64L	Algebraic Methods in Combinatorics	w	6 credits	2V+1U				
These courses are suitable for several special fields. Please consult your tutor.  Number Title Type ECTS Hours Lecturers  Physics of Failure and Reliability of Electronic Devices and Systems  227-0377-10 V Physics of Failure and Reliability of Electronic Devices and Systems  227-0377-10 V Physics of Failure and Reliability of Electronic Devices and Systems  363-0790-00L Technology Entrepreneurship W 2 credits 2V  363-0790-00 V Technology Entrepreneurship 2 2 hrs Tue 18-20 HG E5 F. Hacklin  The lecture takes place online via (livestreaming or) zoom and recorded. Reserved rooms will remain blocked on campus for students to follow the course from there.  151-0317-00 C Visualization, Simulation and Interaction V 4 credits - Virtual Reality II Additional lecture hour in consultation with the students.  Internship in Industry		Algebraic Methods in Combinatorics					12-13	ML F34	
Number Title Type ECTS Hours  Lecturers  Physics of Failure and Reliability of Electronic Devices and Systems  227-0377-10 V Physics of Failure and Reliability of Electronic Devices and Systems  227-0377-10 V Physics of Failure and Reliability of Electronic Devices and Systems  363-0790-00L Technology Entrepreneurship W 2 credits Systems  363-0790-00 V Technology Entrepreneurship W 2 hrs Tue 18-20 HG E5 F. Hacklin  The lecture takes place online via (livestreaming or) zoom and recorded. Reserved rooms will remain blocked on campus for students to follow the course from there.  151-0317-00 C Visualization, Simulation and Interaction V 4 credits - Virtual Reality II Additional lecture hour in consultation with the students.  Non 12-15 CLA E4 A. Kunz  A. Kunz	-		Please	e consult vour	tutor				
Physics of Failure and Reliability of Electronic Devices and Systems  227-0377-10 V Physics of Failure and Reliability of Electronic Devices and Systems  24 hrs Thu 14-16 ETZ K91 I. Shorubalko, M. Held Systems  25 hrs Thu 14-16 ETZ K91 I. Shorubalko, M. Held Systems  26 hrs Thu 14-16 ETZ K91 I. Shorubalko, M. Held Systems  26 hrs Thu 14-16 ETZ K91 I. Shorubalko, M. Held Systems  27 hrs Thu 14-16 ETZ K91 II. Shorubalko, M. Held Systems  28 hrs Tue 18-20 HG E5 III. F. Hacklin  29 hrs Tue 18-20 HG E5 III. Hacklin  20 hrs Tue 18-20 HG E5 III. Hacklin  21 hrs Tue 18-20 HG E5 III. Hacklin  22 hrs Tue 18-20 HG E5 III. Hacklin  23 hrs Mon 12-15 CLA E4 III. Acklin  24 hrs Tue 18-20 HG E5 III. Hacklin  25 hrs Tue 18-20 HG E5 III. Hacklin  26 hrs Tue 18-20 HG E5 III. Hacklin  27 hrs Tue 18-20 HG E5 III. Hacklin  28 hrs Tue 18-20 HG E5 III. Hacklin  29 hrs Tue 18-20 HG E5 III. Hacklin  20 hrs Tue 18-20 HG E5 III. Hacklin  21 hrs Tue 18-20 HG E5 III. Hacklin  22 hrs Tue 18-20 HG E5 III. Hacklin  23 hrs Mon 12-15 CLA E4 III. Hacklin  24 hrs Tue 18-20 HG E7 Hacklin  25 hrs Tue 18-20 HG E7 Hacklin  26 hrs Tue 18-20 HG E7 Hacklin  26 hrs Tue 18-20 HG E7 Hacklin  27 hrs Tue 18-20 HG E7 Hacklin  28 hrs Tue 18-20 HG E7 Hacklin  29 hrs Tue 18-20 HG E7 Hacklin  20 hrs Tue 18-20 HG E7 Hacklin  20 hrs Tue 18-									Locturore
Physics of Failure and Reliability of Electronic Devices and Systems  Thu 14-16 ETZ K91 I. Shorubalko, M. Held Systems  Thu 14-16 ETZ K91 I. Shorubalko, M. Held Systems  Thu 14-16 ETZ K91 I. Shorubalko, M. Held Systems  The lecture recorded in the second of the students of the students to follow the course from there.  The lecture takes place online via (livestreaming or) zoom and recorded. Reserved rooms will remain blocked on campus for students to follow the course from there.  Thu 14-16 ETZ K91 I. Shorubalko, M. Held Systems  Thu 14-16 ETZ K91 I. Shorubalko, M. Held Systems  Thu 14-16 ETZ K91 I. Shorubalko, M. Held Systems  Thu 14-16 ETZ K91 II. Shorubalko,	227-0377-10L	Physics of Failure and Reliability of							Lecturers
Technology Entrepreneurship W 2 credits 2V  Technology Entrepreneurship 2 hrs Tue 18-20 HG E5 F. Hacklin  The lecture takes place online via (livestreaming or) zoom and recorded. Reserved rooms will remain blocked on campus for students to follow the course from there.  Technology Entrepreneurship 2 hrs Tue 18-20 HG E5 F. Hacklin  Tue	227-0377-10 V	Physics of Failure and Reliability of Electroni	c Devic	es and	2 hrs	Thu	14-16	ETZ K91	I. Shorubalko, M. Held
- Virtual Reality II  151-0317-00 G Visualization, Simulation and Interaction - Virtual Reality II 3 hrs Mon 12-15 CLA E4 A. Kunz  Additional lecture hour in consultation with the students.  ► Internship in Industry	<b>363-0790-00L</b> 363-0790-00 V	Technology Entrepreneurship Technology Entrepreneurship The lecture takes place online via (livestrean recorded. Reserved rooms will remain blocke	ning or)	zoom and		Tue	18-20	HG E5	F. Hacklin
Additional lecture hour in consultation with the students.  Internship in Industry	151-0317-00L		W	4 credits	3G				
·	151-0317-00 G				3 hrs	Mon	12-15	CLA E4	A. Kunz
·	►► Internsi	nip in Industry							
THE LATE TO THE CONTROL CONTROL	Number	· · · · · · · · · · · · · · · · · · ·	Type	ECTS	Hours				Lecturers

0 credits

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Internship in Industry
Only for Electrical Engineering and

227-1550-00L

external organisers

► Semeste	r Projects							
Number	Title	Туре	ECTS	Hours				Lecturers
227-1101-00L	How to Write Scientific Texts Strongly recommended prerequisite for Semester Projects and Master Theses at D-ITET (MSc BME, MSc EEIT, MSc EST).	E-	0 credits					
227-1101-00 S	How to Write Scientific Texts Room to be announced			4s hrs	04.11. 11.11.		n /a n /a	U. Koch
227-1572-01L	Semester Project (Nr 1) Registration in myStudies required! Supervisor must be a professor at D-ITET or associated, see https://www.ee.ethz.ch/studies/mainmaster/projects-and-master-thesis.html	0	12 credits	20A				
	The first semester project is compulsory both for students enrolled in the MSc EEIT under the 2008 regulations and for students enrolled under the 2018 regulations.							
227-1572-01 A	Semester Project (Nr 1) ■ Permission from lecturers required for all sta	udents		280s hrs	by appt	•		Supervisors
227-1572-02L	Semester Project (Nr 2) Registration in myStudies required! Supervisor must be a professor at D-ITET or associated, see https://www.ee.ethz.ch/studies/main-master/projects-and-master-thesis.html	W	12 credits	20A				
	The second semester project is compulsory for students enrolled in the MSc EEIT under the 2008 regulations, it is optional for students enrolled under the 2018 regulations.							
	Students enrolled in the MSc EEIT under the 2018 regulations must consult their tutor before enrolling for semester project 2.							
227-1572-02 A	Semester Project (Nr 2) ■ Permission from lecturers required for all sta	udents		280s hrs	by appt			Supervisors
► GESS Sc	ience in Perspective							
	see Science in Perspective: Language Courses ETH/UZH							
	see Science in Perspective: Type A: Enhancement of Reflection Capability							
	Recommended Science in Perspective (Type B) for D-ITET							
► Master's	Thesis							
Number	Title	Туре	ECTS	Hours				Lecturers
227-1101-00L	How to Write Scientific Texts Strongly recommended prerequisite for Semester Projects and Master Theses at D-ITET (MSc BME, MSc EEIT, MSc EST).	E-	0 credits					
227-1101-00 S	How to Write Scientific Texts Room to be announced			4s hrs	04.11. 11.11.		n /a n /a	U. Koch
227-1501-00L	Master's Thesis Admission only if ALL of the following apply: a) bachelor program successfully completed; b) acquired (if applicable) all credits from additional requirements for admission to master program; c) successfully completed both semester projects.	0	30 credits	68D				
	Note: the conditions above are not							
	applicable to incoming exchange students.							
	applicable to incoming exchange students.  Registration in mystudies required!  Supervisor must be a professor at D-ITET or associated, see https://www.ee.ethz.ch/studies/mainmaster/projects-and-master-thesis.html.							

# ► Generally Accessible Seminars and Colloquia

Number	Title	Type	ECTS	Hours				Lecturers
227-0919-00L	Knowledge-Based Image Interpretation	Z	0 credits	2S				
227-0919-00 S	Knowledge-Based Image Interpretation			2 hrs	Thu	10-12	ETZ F91	L. Van Gool
227-0920-00L	Seminar in Systems and Control	Z	0 credits	1S				
227-0920-00 S	Seminar in Systems and Control Detailed information on the seminars upon Several seminars will take place during the the available slots may remain unoccupied. Seminars will be announced individually, et received detailed information for each one	semeste nrolled s	er, but some of tudents will	1 hrs	Mon 21.09.	16-17 16-17	ML F38 ON LINE	F. Dörfler, R. D'Andrea, E. Frazzoli, M. H. Khammash, J. Lygeros, R. Smith
	Online lecture: This lecture will take place of Reserved room will remain reserved on car follow the course from there. From 01.11.21 in presence. Course website: https://nccr-automation.ch/news/2021/nccr-automation-	mpus for	students to					
227-0955-00L	Seminar in Electromagnetics, Photonics and Terahertz	Z	3 credits	<b>2</b> S				
227-0955-00 S	Seminar in Electromagnetics, Photonics an	d Terahe	ertz	2 hrs	Wed	10-12	ETZ K71	J. Leuthold
227-0970-00L	Research Topics in Biomedical Engineering	Z	0 credits	1K				
227-0970-00 K	Research Topics in Biomedical Engineering	9		1 hrs	Tue	18-19	ETZ E6	K. P. Prüssmann, S. Kozerke M. Stampanoni, K. Stephan, J. Vörös
227-0980-00L	Seminar on Biomedical Magnetic Resonance	Z	0 credits	18				
227-0980-00 S	Seminar on Biomedical Magnetic Resonand	ce		1 hrs	Thu	12-13	ETZ E6	K. P. Prüssmann, S. Kozerke. M. Weiger Senften
401-5680-00L	Foundations of Data Science Seminar	Z	0 credits					
401-5680-00 K	Foundations of Data Science Seminar https://www.math.ethz.ch/sfs/news- and-events/data-science-seminar.html Time: 16:15-17:15			3s hrs	23.09. 11.11. 02.12.	16-18 16-18 16-18	HG F3 HG G19.2 HG G19.1	<b>P. L. Bühlmann</b> , A. Bandeira, H. Bölcskei, F. Yang

# ► Course Units for Additional Admission Requirements

Any other students (e.g. incoming exchange students, doctoral students) CANNOT enrol for this course unit.

Course offered only in the autumn semester with an examination only in

winter.

The courses below are only available for MSc students with additional requirements.

Number	Title	Type	ECTS	Hours	Lecturers
227-0101-AAL	Discrete-Time and Statistical Signal Processing Enrolment ONLY for MSc students with a decree declaring this course unit as an additional admission requirement.  Any other students (e.g. incoming exchange students, doctoral students) CANNOT enrol for this course unit.	E-	6 credits	8R	
227-0101-AA R	Discrete-Time and Statistical Signal Proces Self-study course. No presence required. The underlying lecture is offered in autumn 13-17h).	Ü	er (Tuesday	112s hrs	HA. Loeliger
227-0103-AAL	Control Systems Enrolment ONLY for MSc students with a decree declaring this course unit as an additional admission requirement.	E-	6 credits	8R	
	Any other students (e.g. incoming exchange students, doctoral students) CANNOT enrol for this course unit.				
227-0103-AA R	Regelsysteme Self-study course. No presence required. The underlying lecture and exercise are offi semester (Monday 10-12h and Tuesday 10		nutumn	112s hrs	F. Dörfler
227-0166-AAL	Analog Integrated Circuits Enrolment ONLY for MSc students with a decree declaring this course unit as an additional admission requirement.	E-	6 credits	8R	

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227-0166-AA R Analog Integrated Circuits 112s hrs T. Jang

Self-study course. No presence required. The underlying lecture and exercise are offered in autumn semester (Friday 10-12h and 14-16h).

6 credits 8R E-

227-0117-AAL High Voltage Engineering

Enrolment ONLY for MSc students with a decree declaring this course unit as an additional admission requirement.

Any other students (e.g. incoming exchange students, doctoral students) CANNOT enrol for this course unit.

227-0117-AA R High Voltage Engineering
Self-study course. No presence required.
The underlying lecture and exercise are offered in the autumn semester (227-0117-00L)

C. Franck 112s hrs

Electric	Electrical Engineering and Information Technology Master - Key for Type										
0	Compulsory	E-	Recommended, not eligible for credits								
W+	Eligible for credits and recommended	Z	Courses outside the curriculum								
W	Eligible for credits	Dr	Suitable for doctorate								
	English for croate		- Canada to to accorde								

Key for Ho	ours		
V	lecture	P	practical/laboratory course
G	lecture with exercise	A	independent project
U	exercise	D	diploma thesis
S	seminar	R	revision course / private study
K	colloquium		

**ECTS** European Credit Transfer and Accumulation System

Special students and auditors need special permission from the lecturers.

# **Energy Science and Technology Master**

#### **▶** Core Courses

At least two core courses must be passed in each area.

All students must participate in the course offered in the area "Interdisciplinary Energy Management"

Students without a background in Electrical Engineering must list efficiency Circuits Defore laking 'Introduction to Electrical Placetic Placetic Circuits' Defore laking 'Introduction to Electrical Placetics' Defore the Correct Placetics	Number	Title	Type	ECTS	Hours				Lecturers
227-101-20	227-0122-00L		W	4 credits	2V+2U				
2	227-0122-00 V	Introduction to Electric Power Transmission:	System	. &	2 hrs	Thu	08-10	ML H44	C. Franck, G. Hug
## According to the Company of the	227-0122-00 U	Introduction to Electric Power Transmission:	System	١&	2 hrs	Thu	10-12	ML H44	C. Franck, G. Hug
Online course: This course takes place online. The reserved room the campus.  ▶ Energy Flows and Processes  Number Title Title Type ECTS Hours Lecturers  151-0293-00. Combustion and Reactive Processes in Energy and Materials Technology  151-0293-00. Combustion and Reactive Processes in Energy and Materials  151-0293-00. Combustion and Reactive Processes in Energy and Materials  151-0293-00. Combustion and Reactive Processes in Energy and Materials  151-0293-00. Combustion and Reactive Processes in Energy and Materials  151-0293-00. Combustion and Reactive Processes in Energy and Materials  151-0293-00. Combustion and Reactive Processes in Energy and Materials  151-0293-00. Combustion and Reactive Processes in Energy and Materials  151-0293-00. Combustion and Reactive Processes in Energy and Materials  151-0293-00. Combustion and Reactive Processes in Energy and Materials  151-1633-00. Energy Conversion  151-1633	227-1635-00L	Students without a background in Electrical Engineering must take "Electric Circuits" before taking "Introduction to Electric Power Transmission: System & Technology"		4 credits					
Number Title Title Type ECTS Hours 2V+1U+2A  151-0293-00 Combustion and Reactive Processes in Materials Technology (151-0293-00 V Combustion and Reactive Processes in Energy and Materials Technology (151-0293-00 V Combustion and Reactive Processes in Energy and Materials Technology (151-0293-00 U Combustion and Reactive Processes in Energy and Materials (151-0293-00 U Combustion and Reactive Processes in Energy and Materials (151-0293-00 U Combustion and Reactive Processes in Energy and Materials (151-0293-00 U Combustion and Reactive Processes in Energy and Materials (151-0293-00 A Combustion and Reactive Processes in Energy and Materials (151-0293-00 A Combustion and Reactive Processes in Energy and Materials (151-0293-00 A Combustion and Reactive Processes in Energy and Materials (151-0293-00 A Combustion and Reactive Processes in Energy and Materials (151-0293-00 A Combustion and Reactive Processes in Energy and Materials (151-0293-00 A Combustion and Reactive Processes in Energy and Materials (151-0293-00 A Combustion and Reactive Processes in Energy and Materials (151-0293-00 A Combustion and Reactive Processes in Energy and Materials (151-0293-00 A Combustion and Reactive Processes in Energy and Materials (151-0293-00 A Combustion and Reactive Processes in Energy and Materials (151-0293-00 A Combustion and Reactive Processes in Energy and Materials (151-0293-00 A Combustion and Reactive Processes in Energy State (151-0293-00 A Combustion and Reactive Processes in Energy State (151-0293-00 A Combustion and Reactive Processes in Energy State (151-0293-00 A Combustion and Reactive Processes in Energy State (151-0293-00 A Combustion and Reactive Processes (151-0293-00 A	227-1635-00 G	Online course: This course takes place online is meant for those students who want to follow				Mon	14-17	E12 E6	M. Zima, D. Shchetinin
15-1923-00   Combustion and Reactive Processes in W   4 credits   2V+1U+2K   15-1923-00   Combustion and Reactive Processes in Energy and Materials   2 hrs   Thu   10-12   CAB G61   C. E. Frouzakis   C. E. F	<b>▶▶</b> Energy	Flows and Processes							
Energy and Materials Technology   Combustion and Reactive Processes in Energy and Materials   2 hrs   Thu   10-12   CAB G61   N. Noiray, F. Ernst, C. E. Frouzakis   C. E.	Number	Title	Туре	ECTS	Hours				Lecturers
Technology		Energy and Materials Technology							
Technology		Technology	0,						C. E. Frouzakis
Technology		Technology	0,					ML F36	C. E. Frouzakis
This course is Intended for students outside of D-MAVT.  151-1633-00 G Energy Conversion  Number Title Type ECTS Hours  2GSS (Science in Perspective): This lecture is for MSC students only. BSc students	151-0293-00 A		rgy and	Materials	30s hrs	by appt			
Number Title Type ECTS Hours Lecturers  363-0503-00L Principles of Microeconomics (SES) (Science in Perspective): This lecture is for MSc students only. BSc students register for 363-1109-00L Einführung in die Mikroekonomie.  363-0503-00 G Principles of Microeconomics The lecture lakes place in classroom, online via livestreaming or zoom and recorded.  ▶ Interdisciplinary Energy Management  Number Title Studies: Energy Systems and Technology MSc.  227-1631-10 G Case Studies: Energy Systems and Technology MSc.  227-1631-10 G Case Studies: Energy Systems and Technology MSc.  227-1631-10 G Case Studies: Energy Systems and Technology MSc.  227-1631-10 G Case Studies: Energy Systems and Technology MSc.  227-1631-10 G Case Studies: Energy Systems and Technology MSc.  227-1631-10 G Case Studies: Energy Systems and Technology MSc.  227-1631-10 G Case Studies: Energy Systems and Technology MSc.  227-1631-10 G Case Studies: Energy Systems and Technology MSc.  227-1631-10 G Case Studies: Energy Systems and Technology MSc.  227-1631-10 G Case Studies: Energy Systems and Technology MSc.  227-1631-10 G Case Studies: Energy Systems and Technology MSc.  227-1631-10 G Case Studies: Energy Systems and Technology MSc.  227-1631-10 G Case Studies: Energy Systems and Technology MSc.  227-1631-10 G Case Studies: Energy Systems and Technology MSc.  227-1631-10 G Case Studies: Energy Systems and Technology MSc.  227-1631-10 G Case Studies: Energy Systems and Technology MSc.  227-1631-10 G Case Studies: Energy Systems and Technology MSc.  227-1631-10 G Case Studies: Energy Systems and Technology MSc.  227-1630-10 Internship Industry  Differ MSc BMc MSc Estif, MSc EST).  227-1650-10 Internship Industry  Final presentations: Tue., 17.05.2022, 15:15-18:00 (room tba)  30.11 16-19 HG E7  30.11 16-	151-1633-00L	This course is intended for students outside	W	4 credits	3G				
Number Title Title Type ECTS Hours Lecturers  363-0503-00L Principles of Microeconomics (CESS (Science in Perspective): This lecture is for MSc students only. BSc students register for 363-1709-00L Einführung in die Mikroökonomie.  363-0503-00 G Principles of Microeconomics The lecture takes place in classroom, online via livestreaming or zoom and recorded.  ▶ Interdisciplinary Energy Management  Number Title Type ECTS Hours Lecturers  1	151-1633-00 G	Energy Conversion			3 hrs	Mon	10-13	NO C6	I. Karlin, G. Sansavini
363-0503-00 L Principles of Microeconomics GESS (Science in Perspective): This lecture is for MSc students only. BSc students register for 363-1109-00 L Enriphrung in die Mikrokonomie.  363-0503-00 G Principles of Microeconomics The lecture takes place in classroom, online via livestreaming or zoom and recorded.  ▶▶ Interdisciplinary Energy Management  Number Title Type ECTS Hours Lecturers  227-1631-10 C Case Studies: Energy Systems and Technology: Part 1 Only for Energy Science and Technology (Part 1) Attendance is required at these sessions: - Kick-off: Tue., 05.10.2021, 16:15-19:00 (HG E7) - Progress update presentations: Tue., 30.11.2021, 16:15-19:00 (HG D1.1) - Final presentations: Tue., 30.11.2021, 16:15-19:00 (FG D1.1) - Final presentations: Tue., 17.05.2022, 15:15-18:00 (room tba)  ▶ Industrial Internship  Title Type ECTS Hours Lecturers  1	►► Energy	Economics and Policy							
GESS (Science in Perspective): This lecture is for MSc students only. BSc students register for 363-1109-00L Einführung in die Mikročkonomie.  363-0503-00 G Principles of Microeconomics The lecture takes place in classroom, online via livestreaming or zoom and recorded.  ▶▶ Interdisciplinary Energy Management  Number Title Type ECTS Hours Lecturers  227-1631-10L Case Studies: Energy Systems and Technology MSc.  227-1631-10 G Case Studies: Energy Systems and Technology MSc.  227-1631-10 G Case Studies: Energy Systems and Technology MSc.  227-1631-10 G Case Studies: Energy Systems and Technology MSc.  227-1631-10 G Internation in	Number	Title	Туре	ECTS	Hours				Lecturers
The lecture takes place in classroom, online via livestreaming or zoom and recorded.  ▶ Interdisciplinary Energy Management  Number Title Title Type ECTS Hours Lecturers  227-1631-10L Case Studies: Energy Systems and Technology MSc.  227-1631-10 G Case Studies: Energy Systems and Technology (Part 1) Altendance is required at these sessions: - Kick-off: Tue., 05. 10.2021, 16:15-19:00 (HG ET) - Progress update presentations: Tue., 30.11.2021, 16:15-19:00 (HG ET) - Progress update presentations: Tue., 17.05.2022, 15:15-18:00 (room tba)  ▶ Industrial Internship  Number Title Type ECTS Hours Lecturers  227-1650-10L Internship in Industry Only for Energy Science and Technology MSc.  227-1650-10 P Internship in Industry ■ ECTS Hours Lecturers  ▶ Semester Project  Number Title Type ECTS Hours Lecturers  E- O credits  227-1101-00 LHow to Write Scientific Texts Strongly recommended prerequisite for Semester Projects and Master Theses at D-ITET (MSc BME, MSc EEIT, MSc EST).	363-0503-00L	GESS (Science in Perspective): This lecture is for MSc students only. BSc students register for 363-1109-00L	W	3 credits	2G				
Number         Title         Type         ECTS         Hours         Lecturers           227-1631-10L 227-1631-10L 227-1631-10L 227-1631-10 G 227-1631-10 G 227	363-0503-00 G	The lecture takes place in classroom, online	via lives	streaming or		Thu	18-20	HG F7	M. Filippini
Number         Title         Type         ECTS         Hours         Lecturers           227-1631-10L         Case Studies: Energy Systems and Technology Part 1 Only for Energy Science and Technology MSc.         4G         Fachnology: Part 1 Only for Energy Science and Technology MSc.         60s hrs         05.10. 16-19 HG E7 Attendance is required at these sessions: - Kick-off: Tue., 05.10.2021, 16:15-19:00 (HG E7) - Progress update presentations: Tue., 30.11.2021, 16:15-19:00 (HG E7) - Progress update presentations: Tue., 30.11.2021, 16:15-19:00 (room tba)         HG D1.1 17.05. 16-19 N AG D1.1 17.	▶▶ Interdis	ciplinary Energy Management							
Technology: Part 1 Only for Energy Science and Technology MSc.  227-1631-10 G Case Studies: Energy Systems and Technology (Part 1) Attendance is required at these sessions: - Kick-Off: Tue., 05.10.2021, 16:15-19:00 (HG E7) - Progress update presentations: Tue., 30.11.2021, 16:15-19:00 (HG D1.1) - Final presentations: Tue., 17.05.2022, 15:15-18:00 (room tba)  Industrial Internship  Number Title Type ECTS Hours Lecturers  Page 127-1650-10 Internship in Industry Only for Energy Science and Technology MSc.  227-1650-10 P Internship in Industry ■ ECTS Hours Lecturers  P Semester Project  Number Title Type ECTS Hours Lecturers  P Semester Project  Number Title Type ECTS Hours Lecturers  - Attendance is required at these sat D-ITET (MSc BME, MSc EETI, MSc EST).  4 s hrs 04.11. 16-18 n /a U. Koch			Туре	ECTS	Hours				Lecturers
Attendance is required at these sessions: - Kick-off: Tue., 05.10.2021, 16:15-19:00 (HG E7) - Progress update presentations: Tue., 30.11.2021, 16:15-19:00 (HG D1.1) - Final presentations: Tue., 17.05.2022, 15:15-18:00 (room tba)  ▶ Industrial Internship  Number Title Type ECTS Hours Lecturers  227-1650-10L Internship in Industry Only for Energy Science and Technology MSc.  227-1650-10 P Internship in Industry ■ ECTS Hours Lecturers  ▶ Semester Project  Number Title Type ECTS Hours Lecturers  E- 0 credits  227-1101-00L How to Write Scientific Texts Strongly recommended prerequisite for Semester Projects and Master Theses at D-ITET (MSc BME, MSc ESIT). How to Write Scientific Texts  4s hrs 04.11. 16-18 n/a U. Koch	227-1631-10L	Technology: Part 1 Only for Energy Science and Technology	0	2 credits	4G				
Number Title Type ECTS Hours Lecturers  227-1650-10L Internship in Industry Only for Energy Science and Technology MSc.  227-1650-10 P Internship in Industry ■ external organisers  ► Semester Project  Number Title Type ECTS Hours Lecturers  227-1101-00L How to Write Scientific Texts Strongly recommended prerequisite for Semester Projects and Master Theses at D-ITET (MSc BME, MSc EEIT, MSc EST).  227-1101-00 S How to Write Scientific Texts  4s hrs 04.11. 16-18 n /a U. Koch	227-1631-10 G	Attendance is required at these sessions: - Kick-off: Tue., 05.10.2021, 16:15-19:00 (He-Progress update presentations: Tue., 30.1 (HG D1.1)	G E7) 1.2021,	16:15-19:00	60s hrs	30.11.	16-19	HG D1.1	C. Franck, C. Schaffner
227-1650-10L Internship in Industry Only for Energy Science and Technology MSc.  227-1650-10 P Internship in Industry ■ external organisers  ► Semester Project  Number Title Type ECTS Hours Lecturers  227-1101-00L How to Write Scientific Texts Strongly recommended prerequisite for Semester Projects and Master Theses at D-ITET (MSc BME, MSc EEIT, MSc EST).  227-1101-00 S How to Write Scientific Texts  4s hrs 04.11. 16-18 n /a U. Koch	▶ Industria	l Internship							
Only for Energy Science and Technology MSc.  227-1650-10 P Internship in Industry ■ external organisers  ➤ Semester Project  Number Title Type ECTS Hours Lecturers  227-1101-00L How to Write Scientific Texts Strongly recommended prerequisite for Semester Projects and Master Theses at D-ITET (MSc BME, MSc EEIT, MSc EST).  227-1101-00 S How to Write Scientific Texts 4s hrs 04.11. 16-18 n /a U. Koch	Number	Title	Туре	ECTS	Hours				Lecturers
► Semester Project  Number Title Type ECTS Hours Lecturers  227-1101-00L How to Write Scientific Texts Strongly recommended prerequisite for Semester Projects and Master Theses at D-ITET (MSc BME, MSc EEIT, MSc EST).  227-1101-00 S How to Write Scientific Texts 4s hrs 04.11. 16-18 n /a U. Koch		Only for Energy Science and Technology MSc.	0	12 credits					
Number Title Type ECTS Hours Lecturers  227-1101-00L How to Write Scientific Texts Strongly recommended prerequisite for Semester Projects and Master Theses at D-ITET (MSc BME, MSc EEIT, MSc EST).  227-1101-00 S How to Write Scientific Texts 4s hrs 04.11. 16-18 n/a U. Koch	227-1650-10 P	Internship in Industry ■							external organisers
227-1101-00L How to Write Scientific Texts E- Strongly recommended prerequisite for Semester Projects and Master Theses at D-ITET (MSc BME, MSc EEIT, MSc EST).  227-1101-00 S How to Write Scientific Texts 4s hrs 04.11. 16-18 n /a U. Koch	► Semeste	r Project							
Strongly recommended prerequisite for Semester Projects and Master Theses at D-ITET (MSc BME, MSc EEIT, MSc EST).  227-1101-00 S How to Write Scientific Texts  4s hrs 04.11. 16-18 n /a U. Koch	Number			ECTS	Hours				Lecturers
	227-1101-00L	Strongly recommended prerequisite for Semester Projects and Master Theses at	E-	0 credits					
		D-ITET (MSC BME, MSC EEIT, MSC EST).							

227-1671-10L	Semester Project	0	12 credits	20A		
227-1671-10 A	Semester Project			20 hrs	by appt.	Supervisors

#### **▶** Electives

These courses are particularly recommended, other ETH-courses from the field of Energy Science and Technology at large may be chosen in accordance with your tutor.

#### **▶▶** Electrical Power Engineering

Number	Title	Type	ECTS	Hours				Lecturers
227-0113-00L	Power Electronics	W	6 credits	4G				
227-0113-00 G	Leistungselektronik			4 hrs	Thu	14-18	HG E1.2	J. W. Kolar
227-0117-001	High Voltage Engineering	w	6 credits	4G				
	High Voltage Engineering		ouito	4 hrs	Thu	14-18	ETZ E7	C. Franck, U. Straumann
	Power Electronic Systems I	w	6 credits	4G				
	Power Electronic Systems I	••	o credits	4 hrs	Tue	14-16 16-18	HG D5.2 HG D5.2	J. Biela, F. Krismer
227-0311-00L	Qubits, Electrons, Photons	w	6 credits	3V+2U				
	Qubits, Electrons, Photons			3 hrs	Thu	08-10	CHN F42	T. Zambelli
					Fri	13-14	ETZ E9	
227-0311-00 U	Qubits, Electrons, Photons			2 hrs	Wed	10-12	HG D3.2	T. Zambelli
227-0523-00L	Railway Systems I	W	6 credits	4G				
227-0523-00 G	Eisenbahn-Systemtechnik I Online-Veranstaltung: Diese Lehrveranstalt Der reservierte Raum bleibt für die Studiere Campus Zentrum bestehen, um die Lehrve hören.	enden au	ıf dem	4 hrs	Fri	08-12	LFW C1	M. Meyer
227-0526-00L	Power System Analysis	w	6 credits	4G				
227-0526-00 G	Power System Analysis The language of instruction will be chosen first lecture (English or German)	by the st	udents in the	4 hrs	Wed	14-18	ETZ E6	G. Hug
227-0531-00L	Control of Power-Electronics-Dominated Power Systems	l W	3 credits	2V+2U				
	Control of Power-Electronics-Dominated Po This course starts on September 28, 2021.	•		2 hrs	Tue 	08-10	CAB G52	E. Prieto Araujo
227-0531-00 U	Control of Power-Electronics-Dominated Po This course starts on September 28, 2021.	ower Sys	stems	2 hrs	Tue	10-12	CAB G52	E. Prieto Araujo
	This course is defined so and planned to be an addition to the module "227-0537-00L Technology of Electric Power System Components". However, the students who are familiar with the fundamentals of electromagnetic fields could attend only this course without its 227-0537-00-complement.							
227-0536-00 V 227-0536-00 U	Multiphysics Simulations for Power System Multiphysics Simulations for Power System			2 hrs 2 hrs	Mon Mon	10-12 08-10	HG E22 HG E22	J. Smajic J. Smajic
227-0731-00L	Power Market I - Portfolio and Risk Management	W	6 credits	4G				
227-0731-00 G	Power Market I - Portfolio and Risk Manage	ement		4 hrs	Tue	08-12	HG D7.1	D. Reichelt, G. A. Koeppel
227-0615-00L	Simulation of Photovoltaic Devices - From Materials to Modules	W	3 credits	2G				
227-0615-00 G	Simulation of Photovoltaic Devices - From I	Materials	s to Modules	2 hrs	Thu	14-16	LEE C104	U. Aeberhard
227-0617-00L	Solar Cells	W	4 credits	3G				
227-0617-00 G	Solar Cells			3 hrs	Wed	09-12	HG D7.2	<b>A. N. Tiwari</b> , R. Carron, Y. Romanyuk
	Flows and Processes							
Number	Title	Туре		Hours				Lecturers
151-0123-00L	Experimental Methods for Engineers	W	4 credits	2V+2U				
151-0123-00 V	Lecture starts in the first week.			2 hrs	Thu	14-16	ML F39	T. Rösgen, B. Schuermans M. Tibbitt
	Experimental Methods for Engineers Exercises start in the first week.			2 hrs	Thu	08-10	ML F39	T. Rösgen, B. Schuermans M. Tibbitt
151-0163-00L	Nuclear Energy Conversion	W	4 credits	2V+1U				
151-0163-00 V	Nuclear Energy Conversion  Does not take place this semester.			2 hrs				A. Manera
151-0163-00 U	Nuclear Energy Conversion  Does not take place this semester.  Andere Übungstermine können abgesproci	hen werd	den.	1 hrs				A. Manera
151 0105 001				21/ . 411				
151-0185-00L	Radiation Heat Transfer	W	4 credits	2V+1U				

151-0185-00 V	Radiation Heat Transfer Online lecture: This lecture will primarily tak Reserved rooms will remain blocked on can follow the course from there.			2 hrs	Thu	10-12	ML F39	A. Steinfeld, P. Pozivil
151-0185-00 U	Radiation Heat Transfer Online event: Will primarily take place online remain blocked on campus for students to fo there.			1 hrs	Thu	12-13	ML F39	A. Steinfeld, P. Pozivil
151-0209-00L	Renewable Energy Technologies	W	4 credits	3G				
151-0209-00 G	Renewable Energy Technologies Online event: Will primarily take place online remain blocked on campus for students to fe there.			3 hrs	Tue	14-17	HG G5	A. Steinfeld, E. I. M. Casati
151-0216-00L	Wind Energy	W	4 credits	2V+1U				
151-0216-00 V	Online lecture: This lecture will primarily take Reserved rooms will remain blocked on can follow the course from there.			2 hrs	Thu	14-16	HG D7.1	N. Chokani
151-0216-00 U	Wind Energy Online exercises: Will primarily take place o rooms will remain blocked on campus for sti exercises from there.			1 hrs	Thu	16-17	HG D7.1	N. Chokani
151-0251-00L	Principles, Efficiency Optimization and Future Applications of IC Engines Note: previous course title until HS20 "IC-Engines: Principles, Thermodynamic Optimization and Future Applications".	W	4 credits	2V+1U				
151-0251-00 V	Principles, Efficiency Optimization and Future Engines			2 hrs	Tue	10-12	ML F34	Y. M. Wright, P. Soltic
	Principles, Efficiency Optimization and Futur Engines			1 hrs	Tue	12-13	ML F34	Y. M. Wright, P. Soltic
151-0293-00L	Combustion and Reactive Processes in Energy and Materials Technology		4 credits	2V+1U+2		10.10	CAR CC4	N Nairey E Erret
	Combustion and Reactive Processes in Ene Technology Combustion and Reactive Processes in Ene	0,		2 hrs 1 hrs	Thu Mon	10-12 17-18	CAB G61 ML F36	N. Noiray, F. Ernst, C. E. Frouzakis N. Noiray, F. Ernst,
01 0230 00 0	Technology	ngy and	Waterials	11113	WOII	17 10	WIE 1 00	C. E. Frouzakis
51-0293-00 A	Combustion and Reactive Processes in Ene Technology	ergy and	Materials	30s hrs	by appt.			<b>N. Noiray</b> , F. Ernst, C. E. Frouzakis
51-0567-00L	Engine Systems	W	4 credits	3G				
151-0567-00 G	Engine Systems Lecture: Monday 8-10h Exercises: Monday 12-13h			3 hrs	Mon 06.10.	08-10 12-13 12-14	ML F38 ML H41.1 ML E12	C. Onder
<b>151-0569-00L</b> 151-0569-00 G	Vehicle Propulsion Systems Vehicle Propulsion Systems	W	4 credits	<b>3G</b> 3 hrs	Fri	08-10 12-14	ML F34 CHN E46	C. Onder, P. Elbert
	Process Simulation and Flowsheeting Process Simulation and Flowsheeting The module combines theory-based lecture practical lectures based on Aspen (Wednes		6 credits lays) with	<b>3G</b> 3 hrs	Mon Wed	10-13 14-18	HCI J4 HCI G174	G. Guillén Gosálbez
►► Energy	Economics and Policy							
lumber	Title	Туре	ECTS	Hours				Lecturers
01-0577-00L	An Introduction to Sustainable Development in the Built Environment	W	3 credits	2G				
01-0577-00 G	An Introduction to Sustainable Development Environment	t in the E	Built	2 hrs	Tue	16-18	HIL E4	G. Habert, D. Kaushal
102-0317-00L	Advanced Environmental Assessments Master students in Environmental Engineering choosing module Ecological Systems Design are not allowed to enrol 102-0317-00 Advanced Environmental Assessments (3KP) as already included in 102-0307-01 Advanced Environmental, Social and Economic Assessments (5KP).	W	3 credits	2G				
102-0317-00 G	Advanced Environmental Assessments			2 hrs	Thu	10-12	HIL E9	S. Pfister, R. Frischknecht
02-0317-03L	Advanced Environmental Assessment (Computer Lab I)	W	1 credit	1U				
02-0317-03 U	Advanced Environmental Assessment (Com Takes place on Tuesday 8-9.45 at ETH Hör (7 times; starting in the second week of the to be confirmed).	nggerbei	rg	1 hrs				S. Pfister
102-0317-04L	Advanced Environmental Assessment (Computer Lab II) Not for master students in Environmental Engineering choosing module Ecological System Design as already included in Environment and Computer Laboratory I	W	2 credits	2P				

	(Year Course): 102-0527-00 and 102- 0528-00.							
102-0317-04 P	Advanced Environmental Assessment (Con Takes place on Tuesday 8-9.45 at ETH Hör (8 times; starting in the second week of the to be confirmed)	nggerbe	erg	2 hrs				S. Pfister
102-0327-01L	Implementation of Environmental and Other Sustainability Goals Master students in Environmental Engineering choosing module Ecological Systems Design are not allowed to enrol 102-0327-01 Advanced Environmental Assessments (2KP) as already included in 102-0307-01 Advanced Environmental, Social and Economic Assessments (5KP).	W	2 credits	2G				
102-0327-01 G	Implementation of Environmental and Other Remark: No course on 26.10.2021. The cou 02.11.2021 (room will be announced later o	ırse will		21s hrs	Tue/2w	09-12	HIL E9	A. E. Braunschweig
227-0759-00L	International Business Management for Engineers This course will be offered for the last time in fall 2021	W	3 credits	2V				
227-0759-00 V	International Business Management for Eng The lecture will be held in three blocks each Saturday (starts on September 18, 2021). E on one of the three main topics of the cours Between the blocks the students will work of studies to deepen the subject matter. About third block a written examination will be conducted.	of then ach blo e. n speci	ck will focus	24s hrs				W. Hofbauer
	This course will be offered for the last time in	n fall 20	021					
363-0537-00L	Resource and Environmental Economics	W	3 credits	2G				
363-0537-00 G	Resource and Environmental Economics The lecture takes place in classroom, online recorded.	e via live	estreaming and	2 hrs	Wed	10-12	HG G3	L. Bretschger
<b>363-0387-00L</b> 363-0387-00 G	Corporate Sustainability Corporate Sustainability The course combines online learning elemesome of which are recorded. Several course attendance. Details are provided on the modern of the sustainability.	e sessic	ons require live	<b>2G</b> 2 hrs	Wed/2 Wed Wed/2	16-18	HG E21 HG E22 HG F3 ML E12	V. Hoffmann, C. Bening-Bach N. U. Blum, J. Meuer
► GESS Sc	ience in Perspective							
	see GESS Science in Perspective: Language Courses ETH/UZH							
	see GESS Science in Perspective: Type A: Enhancement of Reflection Capability							
	Recommended GESS Science in Perspective (Type B) for D-ITET							
► Master's	Thesis							
Number	Title	Туре		Hours				Lecturers
227-1101-00L	How to Write Scientific Texts Strongly recommended prerequisite for Semester Projects and Master Theses at D-ITET (MSc BME, MSc EEIT, MSc EST).	E-	0 credits					
227-1101-00 S	How to Write Scientific Texts Room to be announced			4s hrs	04.11. 11.11.		n /a n /a	U. Koch
227-1601-00L	Master's Thesis Only students who fulfill the following criteria are allowed to enroll for and start with their master thesis: a. successful completion of the bachelor program; b. any additional requirements necessary to gain admission to the master program EST have been successfully completed; c. both the semester project and the internship have been successfully completed.	0	30 credits	40D				
	Designation in mustudies required							

40 hrs

by appt.

Supervisors

Registration in mystudies required!

227-1601-00 D Master's Thesis

Energy	Science and Technology Master - Key for Type		
W	Eligible for credits	Dr	Suitable for doctorate
E-	Recommended, not eligible for credits	0	Compulsory
Z	Courses outside the curriculum	W+	Eligible for credits and recommended
V	lecture	P	practical/laboratory course
Key for	Hours		
G	lecture with exercise	A	independent project
U	exercise	D	diploma thesis
S	seminar	R	revision course / private study

ECTS European Credit Transfer and Accumulation System

■ Special students and auditors need special permission from the lecturers.

# **Earth and Climate Sciences Bachelor**

#### ► Basic Courses I

#### **▶▶** First Year Examinations

Number	Title	Type	ECTS	Hours				Lecturers
529-2001-02L	Chemistry I	0	4 credits	2V+2U				
529-2001-02 V	Chemie I Vorlesung im HG F1 mit Videoübertragung	g ins HG	F3.	2 hrs	Tue	08-10	HG F1 HG F3	J. Cvengros
529-2001-02 U	Übungen:	<b>V</b> =		2 hrs	Wed Thu	14-16 10-12	CHN C14 ETZ E8 ETZ H91	J. Cvengros, J. E. E. Buschmann, P. Funck E. C. Meister, R. Verel
	Mi 14-16 für Umweltingenieurwissenschaf Do 10-12 für Agrar-, Lebensmittel-, Erdwis Fr 8-10 für Umweltnaturwissenschaften		ften		F.:	00.40	HG G26.3 IFW A34 IFW B42	
					Fri	08-10	ETZ J91 IFW A36	
401-0251-00L	Mathematics I	0	6 credits	4V+2U				
401-0251-00 V	Mathematik I: Analysis I und Lineare Algeb	ora		4 hrs	Mon Wed Thu	09-10 12-14 09-10	HG E7 HG E7 HG E7	F. Da Lio
401-0251-00 U	Mathematik I: Analysis I und Lineare Algeb Groups are selected in myStudies.	ora		2 hrs	Mon	14-16	CHN D44 CHN F42	F. Da Lio
	Die Übungen beginnen in der zweiten Sen Mo 14-16 für Studiengänge Erd- und Klima						ETZ E9 ETZ G91	
	Umweltnaturwissenschaften. Di 14-16 für Studiengänge Agrarwissensch	haften bz	w.				ETZ H91 ETZ K91	
	Lebensmittelwissenschaften.						HG F26.5 LFW C4	
	Zusätzlich wird das Mathe-Lab (Präsenzst 16-18 in CAB G 51 und Di 12-14 in HG E		ngeboten: Mo	)	Tue	14-16	CAB G56 CLA E4	
							LFO C13 LFW C5 RZ F21	
651-3001-00L	Dynamic Earth I	0	6 credits	4V+2U				
651-3001-00 V	Dynamische Erde I			4 hrs	Tue Thu	14-16 14-16	NO C60 NO C60	O. Bachmann, A. Fichtner, M. Schönbächler, S. Willett
651-3001-00 U	Dynamische Erde I Groups are selected in myStudies.			2 hrs	Mon	08-10	NO D1 NO D11	A. Galli
	Die Gruppeneinteilung wird über den Butto wählen" gemacht. Die Übungen beginnen Woche des Semesters.					10-12	NO D1 NO E51.1 NO G51.1	
	Woulle des Selliestels.					16-18	NO D1 NO D69	
					Tue	08-10	NO E51.1 NO F39	
						10-12	NO D1	
						16-18	NO D1	
							NO E11 NO E39	
							NO F39 NO G51.1	
					Wed	14-16	NO GS1.1	
					Thu	10-12	NO D69	
						16-18	NO D1	
							NO D11 NO E11	

# **▶▶** First Year Additional Compulsory Courses

Number	Title	Type	ECTS	Hours				Lecturers
529-0030-00L	Laboratory Course: Elementary Chemical Techniques	0	3 credits	6P				
529-0030-00 P	Praktikum Chemie Vorwiegend BSc UWIS: Kurs 1 Vorwiegend BSc ERD, AGR, LM: Kurs 2			6 hrs	17.01. 17.01 04.02.		CHN E46 CHN D42	N. Kobert, A. de Mello, M. H. Schroth
					•		CHN D44	
							CHN D46	
							CHN G22	
						13-15	CHN D42	
							CHN D44	
							CHN D46	
							CHN G22	
					19.01.	09-14	CHN E46	
					21.01.	13-17	CHN E46	
					24.01.	08-10	CHN E46	
					26.01.	09-14	CHN E46	
					28.01.	13-17	CHN E46	
					31.01.	08-10	CHN E46	
					02.02.	09-14	CHN E46	
					04.02.	13-17	CHN E46	

#### ► Basic Courses II

#### **▶▶** Core Courses

Number	Title	Type	ECTS	Hours				Lecturers
402-0000-03L	Laboratory Course in Physics for Students in Earth Sciences Enrollment is only possible under https://www.lehrbetrieb.ethz.ch/laborpraktik a. No registration required via myStudies. For further information visit: https://ap.phys.ethz.ch	0	2 credits	4P				
	Only students from 3rd Semester BSc Earth Sciences on are admitted to this Laboratory Course.							
402-0000-03 P	Praktikum Physik für Studierende in Erdwiss Das Praktikum wird remote angeboten. Am 21.09.2021 findet online eine Q&A Sess			4 hrs	Tue	14-18	HPP	A. Biland, A. Müller
	Informationen unter https://ap.phys.ethz.ch	SIOIT Stat	ii. Weiter					
	ation Block 1							
Number	Title	Туре	ECTS	Hours				Lecturers
<b>402-0063-00L</b> 402-0063-00 V	Physics II Physik II	0	5 credits	<b>3V+1U</b> 3 hrs	Mon	13-14	ML D28	A. Vaterlaus
402-0063-00 U	Physik II Fr 8-9 Uhr im Zentrum für UMNW Studierer.	de		1 hrs	Wed Wed	13-15 15-16	HPH G2 HCI D4 HCI D6 HCI E8 HCI F2 HCI F8 HCI J8 HIL C10.2 HIL E5 HIT H42 HIT J51 HPK D24.2	A. Vaterlaus
CE4 2400 001	Canahamistry		4 orodito	20	Fri	08-09	HG E21	
<b>651-3400-00L</b> 651-3400-00 G	Geochemistry I Geochemie I Die Lehrveranstaltung ist zweisprachig. Teil Schönbächler, Teil Englisch: D. Vance.	<b>O</b> Deutsc	4 credits	<b>3G</b> 3 hrs	Fri	13-16	NO C60	M. Schönbächler, D. Vance
701-0023-00L	Atmosphere	0	3 credits	2V	_			
701-0023-00 V	<u> </u>			2 hrs	Tue	10-12	HG E3	E. M. Fischer, T. Peter
	ation Block 2							
Number	Title	Туре	ECTS	Hours				Lecturers
<b>701-0071-00L</b> 701-0071-00 V	Mathematics III: Systems Analysis Mathematik III: Systemanalyse	0	4 credits	<b>2V+1U</b> 2 hrs	Fri	10-12	ML D28	R. Knutti, S. Schemm,
701-0071-00 U	Mathematik III: Systemanalyse			1 hrs	Mon	11-12	CAB G57 CHN F46 HG E33.3 HG F26.5 HG G26.3 LEE D101 LEE D105 LEE E101 ML E12 ML F34 NO E11 NO E39	H. Wernli  L. Brunner, S. Schemm, P. Zschenderlein
651-3543-00L	Geophysik I	0	4 credits	2V+1U				
651-3543-00 V 651-3543-00 U				2 hrs 1 hrs	Wed Mon	10-12 08-10	NO C44 ML H41.1	<ul><li>D. Giardini, M. O. Saar</li><li>D. Giardini, M. O. Saar</li></ul>
651-3507-00L	Introduction to Oceanography and Hydrogeology	0	3 credits	2V				
651-3507-00 V	Einführung in die Ozeanographie und Hydro Die Lehrveranstaltung ist zweisprachig. Teil Teil Englisch: D. Vance.			2 hrs	Thu	14-16	NO C6	D. Vance, M. O. Saar
► General E	Earth Sciences Courses							
Number	Title	Туре	ECTS	Hours				Lecturers
651-4143-00L	Geobiology Students registering for the course confirm having read and accepted the terms and conditions for excursions and field courses of D-ERDW: https://ethz.ch/content/dam/ethz/special-interest/erdw/department/dokumente/studiu	0	3 credits	2V+1U				

	m/exkursionen/AGB_ERDW_Exkursionen_ en.pdf							
651-4143-00 V	•	att.		2 hrs	Fri	10-12	LFW C5	T. I. Eglinton, C. Magnabosco , C. Welte, S. Wohlwend
651-4143-00 U	Geobiology Exercises Groups are selected in myStudies.			1 hrs	Wed	16-17	NO D11 NO E11 NO E51.1	C. Magnabosco
					22.09.	16-17	NO C44	
651-3301-00L	Crystals and Minerals	0	4 credits	2V+1.5U				
651-3301-00 V	Kristalle und Mineralien			2 hrs	Tue	10-12	CAB G11	M. Murakami
651-3301-00 U	Kristalle und Mineralien			1.5 hrs	Fri	08-10	NO D1 NO D69	S. Petitgirard, G. Spiekermann
651-4271-00L	Data Analysis and Visualisation with Matlab in Earth Sciences Information for D-INFK students: the course is only for 3rd semester BSc students.	0	3 credits	3G				
651-4271-00 G	Erdwissenschaftliche Datenanalyse und Vis	ualisieru	ung mit Matlab	3 hrs	Mon	13-14	HG E26.1 HG E26.3	<b>G. De Souza</b> , A. Obermann, S. Wiemer
					Wed	08-09 09-10	HG D5.2 HG D12 HG E27	
651-3402-00L	Magmatism and Metamorphose I	0	4 credits	2V+1U				
651-3402-00 V	Magmatismus und Metamorphose I			2 hrs	Thu	10-12	NO C6	M. W. Schmidt, P. Ulmer
651-3402-00 U	Magmatismus und Metamorphose I			1 hrs	Tue	08-10	NO D1 NO D69	M. W. Schmidt, P. Ulmer
► Integrate	d Earth Systems							
Number	Title	Туре	ECTS	Hours				Lecturers
651-4180-02L	Integrated Earth Systems II	0	5 credits	4G+1U				
651-4180-02 G	Integrierte Erdsysteme II ■			4 hrs	Tue	08-12	NO C6 NO D11 NO D53	H. Stoll, D. Vance, S. Willett
651-4180-02 U	Integrierte Erdsysteme II - Tutorials ■			1 hrs	Fri	10-11	NO D1 NO E39 NO E51.1	H. Stoll, D. Vance, S. Willett
						11-12	NO D1 NO E39 NO E51.1	
						12-13	NO D1 NO E39 NO E51.1	

# ► Majors

# ▶▶ Major: Geology and Geophysics

Advisors of the major in Geology and Geophysics are Dr. Vincenzo Picotti (Geology) and Dr. Jérôme Noir (Geophysics).

#### ▶▶▶ Methods

Number	Title	Type	ECTS	Hours				Lecturers
651-3527-00L	Earth Science Mapping Exercises II	W+	2 credits	2P				
651-3527-00 P	Erdwissenschaftliches Kartenpraktikum II			2 hrs	Mon	16-18	NO E11 NO E51.1	J. Ruh
401-0624-00L	Mathematics IV: Statistics	W+	4 credits	2V+1U				
401-0624-00 V	Mathematik IV: Statistik			2 hrs	Thu	08-10	ML D28	J. Ernest
401-0624-00 U	Mathematik IV: Statistik Groups are selected in myStudies.			1 hrs	Thu	10-11	ML F34 ML J34.1	J. Ernest
	Do 10-11 für Studiengang Lebensmittelwissenschaften. Do 13-14 für Studiengang Agrarwissenschaften. Do 16-17 für Studiengang Erd- und Klimawissenschaften.					13-14 16-17 18-19	HG E33.1 NO C44 ON LINE	
	Fr 9-10 für Studiengang Umweltnaturwisse Do 18-19 als Online-Übung ausschliesslich welche nicht an den regulären Übungen in können.	für Stud	lierende,		Fri	09-10	CAB G59 LFW E13 ML F40	
651-4031-00L	Geographic Information Systems Number of participants limited to 60.	W+	3 credits	4G				
651-4031-00 G	Geographic Information Systems			4 hrs	Wed/2	08-12	HG E26.1 HG E26.3	<b>A. Baltensweiler</b> , M. Hägeli- Golay
651-4131-00L	Introduction to Digital Mapping Number of participants limited to 20.	W	2 credits	3V				
651-4131-00 V	Introduction to Digital Mapping Does not take place this semester. The course will take place in FS 2022.			40s hrs				to be announced
▶▶▶ Advar	iced							
Number	Title	Туре	ECTS	Hours				Lecturers
651-3521-00L	Tectonics	W+	3 credits	2V				
651-3521-00 V	Tectonics			2 hrs	Fri	14-16	NO C6	W. Behr, S. Willett
CE4 2E04 001	Geochemistry II	W+	3 credits	2G				

651-3501-00 G Geochemie II			2 hrs	Wed	14-16	IFW A34	S. Bernasconi, M. Schönbächler
651-3440-02L Geophysics III	W+	4 credits	3G				
651-3440-02 G Geophysics III			3 hrs	Thu	10-12 13-14	NO D11 NO D11	A. Jackson, MA. Meier, P. Tacklev

### ▶▶▶ Applied

Number	Title	Type	ECTS	Hours				Lecturers
651-3525-00L	Introduction to Engineering Geology	W+	4 credits	2V+1U				
651-3525-00 V	Ingenieurgeologie			2 hrs	Mon	14-16	NO C6	S. Löw, M. Ziegler
651-3525-00 U	Ingenieurgeologie Groups are selected in myStudies. Die Übungen finden in zwei Gruppen statt, (12-13 oder 13-14).	jeweils (	eine Stunde	1 hrs	Tue	12-13 13-14	NO D11 NO D11	S. Löw, L. de Palézieux dit Falconnet, M. Ziegler
651-3541-00L	Exploration and Environmental Geophysics	W+	4 credits	3V				
651-3541-00 V	Exploration and Environmental Geophysics			3 hrs	Thu	14-17	NO F39	P. Edme, H. Maurer, A. Shakas
651-4903-00L	Quaternary Geology and Geomorphology	W+	3 credits	2G				
651-4903-00 G	Quartärgeologie und Geomorphologie			2 hrs	Fri	08-10	NO C6	<b>S. Ivy Ochs</b> , M. Luetscher, H. Stoll

#### ▶▶▶ Electives

The electives listed are recommended.

Additional courses can be chosen from the complete offerings of the ETH Zurich and University of Zurich.

Number	Title	Туре	ECTS	Hours				Lecturers
651-3561-00L	Cryosphere	W	3 credits	2V				
651-3561-00 V	Kryosphäre			2 hrs	Tue	16-18	CAB G11	<b>M. Huss</b> , A. Bauder, D. Farinotti
701-0565-00L	Fundamentals of Natural Hazards Management	W	3 credits	3G				
701-0565-00 G	Grundzüge des Naturgefahrenmanagem Does not take place this semester. Zusätzlich zwei obligatorische, ganztägig		onen.	3 hrs				<b>V. Griess</b> , B. Krummenacher, S. Löw
	Choice of courses from the complete offerings of ETH.							

#### ▶▶▶ Bachelor's Seminar

The Bachelor's Seminar is only offered in the spring semester.

	•							
Number	Title	Туре	ECTS	Hours				Lecturers
651-3597-00L	Bachelor's Seminar I	0	2 credits	2S				
651-3597-00 S	Bachelor-Seminar I			2 hrs	Wed	16-18	NO C60	W. Schatz, J. D. Rickli

### ▶▶ Major: Climate and Water

Advisor of the BSc-major "Climate and Water" is Dr. Hanna Joos, Institute for climate and atmosphere (IAC).

### ▶▶▶ Advanced

Number	Title	Type	ECTS	Hours				Lecturers
701-0471-01L	Atmospheric Chemistry	W	3 credits	2G				
701-0471-01 G	Atmosphärenchemie			2 hrs	Wed	08-10	CHN F46	M. Ammann, T. Peter
701-0475-00L	Atmospheric Physics	W	3 credits	2G				
701-0475-00 G	Atmosphärenphysik Im Anschluss an die LV findet ein freiwillige Tutorial im gleichen Raum (CHN F46) statt.		tündiges	2 hrs	Wed	10-12	CHN F46	U. Lohmann
651-3561-00L	Cryosphere	W	3 credits	2V				
651-3561-00 V	Kryosphäre			2 hrs	Tue	16-18	CAB G11	<b>M. Huss</b> , A. Bauder, D. Farinotti
701-0461-00L	Numerical Methods in Environmental Sciences	W	3 credits	2G				
701-0461-00 G	Numerische Methoden in der Umweltphysik	(		2 hrs	Thu	08-10	CHN E46	C. Schär
701-0473-00L	Weather Systems	W	3 credits	2G				
701-0473-00 G	Wettersysteme			2 hrs	Wed	14-16	CHN E46	M. A. Sprenger, F. Scholder Aemisegger

#### **▶▶** Electives

The electives listed are recommended.

Additional courses can be chosen from the complete offerings of the ETH Zurich and University of Zurich.

Number	Title	Type	ECTS	Hours				Lecturers
401-0649-00L	Applied Statistical Regression	W	5 credits	2V+1U				
401-0649-00 V	Applied Statistical Regression			2 hrs	Mon	08-10	HG E1.2	M. Dettling

401-0649-00 U	Applied Statistical Regression Mon 10-12 might not work for all different pr course is offered. On sufficient demand, oth Mon 15-17 or Fri 10-12) for the exercise ses	1 hrs	Mon/2w	10-12	HG E1.2	M. Dettling		
701-0535-00L	Environmental Soil Physics/Vadose Zone Hydrology	w	3 credits	2V+1U				
701-0535-00 V	Environmental Soil Physics/Vadose Zone H	vironmental Soil Physics/Vadose Zone Hydrology			Wed	16-18	CHN E46	<b>A. Carminati</b> , P. U. Lehmann Grunder
701-0535-00 U	Environmental Soil Physics/Vadose Zone H	1 hrs	Wed	18-19	CHN E46	<b>A. Carminati</b> , P. U. Lehmann Grunder		
401-0624-00L	Mathematics IV: Statistics	W	4 credits	2V+1U				
401-0624-00 V	Mathematik IV: Statistik			2 hrs	Thu	08-10	ML D28	J. Ernest
401-0624-00 U	Groups are selected in myStudies.			1 hrs	Thu	10-11	ML F34 ML J34.1	J. Ernest
	Do 10-11 für Studiengang Lebensmittelwiss		aften.			13-14	HG E33.1	
	Do 13-14 für Studiengang Agrarwissenscha Do 16-17 für Studiengang Erd- und Klimawi		hofton			16-17 18-19	NO C44 ON LINE	
	Fr 9-10 für Studiengang Umweltnaturwisse				Fri	09-10	CAB G59	
	Do 18-19 als Online-Übung ausschliesslich					00 10	LFW E13	
	welche nicht an den regulären Übungen in I können.	Präsenz	z teilnehmen				ML F40	
	Choice of courses from the complete offerings of ETH.							
701-0479-00L	Environmental Fluid Dynamics	W	3 credits	2G				
701-0479-00 G	Umwelt-Fluiddynamik			2 hrs	Fri	14-16	ML F38	H. Wernli, M. Röthlisberger
401-6215-00L	Using R for Data Analysis and Graphics (Part I)	W	1.5 credits	1G				
	Using R for Data Analysis and Graphics (Pa			14s hrs	Tue/1	14-16	CAB G11	M. Mächler

### **▶▶▶** Laboratory Course

The practical takes place in spring semester.

#### ▶▶▶ Bachelor's Seminar

Number	Title	Туре	ECTS	Hours				Lecturers
701-0459-00L	Seminar for Bachelor Students: Atmosphere and Climate	0	3 credits	2\$				
701-0459-00 S	Seminar für Bachelor-Studierende: Atmosp	häre un	d Klima	2 hrs	Thu	10-12	CHN F46	R. Knutti, H. Joos, O. Stebler

### ► GESS Science in Perspective

### ▶▶ Science in Perspective

see Science in Perspective: Type A: Enhancement of Reflection Capability

Recommended Science in Perspective (Type B) for D-ERDW

### **▶▶** Language Courses

see Science in Perspective: Language Courses ETH/UZH

### ► Bachelor's Thesis

The Bachelor Thesis and Bachelor-Seminar are offered once per year in the 6th semester, in the spring semester.

Earth an	d Climate Sciences Bachelor - Key for Type		
W+	Eligible for credits and recommended	Z	Courses outside the curriculum
W	Eligible for credits	Dr	Suitable for doctorate
E-	Recommended, not eligible for credits	0	Compulsory

Key for	Hours		
V	lecture	P	practical/laboratory course
G	lecture with exercise	A	independent project
U	exercise	D	diploma thesis
S	seminar	R	revision course / private study
K	colloquium		

### ECTS European Credit Transfer and Accumulation System

Special students and auditors need special permission from the lecturers.

### **Earth Sciences Master**

### ► Major in Geology

#### ▶▶ Compulsory Module in Analytical Methods in Earth Sciences

Students have to complete 6 credits in part A, and 6 credits in part B.

### ▶▶▶ Part A: Microscopy Courses

Number	Title	Type	ECTS	Hours				Lecturers
651-4045-00L	Microscopy of Metamorphic Rocks	W+	2 credits	2G				
651-4045-00 G	Microscopy of Metamorphic Rocks			28s hrs	Mon/1	12-14	NO D69	A. Galli
	The course will be taught twice.				Tue/1	12-14	NO D69	
	Group 1: Mon 12-14 and Tue 16-18					16-18	NO D69	
	Group 2: Tue 12-14 and Wed 8-10				Wed/1	08-10	NO D69	
651-4047-00L	Microscopy of Magmatic Rocks	W+	2 credits	2G				
651-4047-00 G	Microscopy of Magmatic Rocks			28s hrs	Mon/2	12-14	NO D69	P. Ulmer
	The course will be taught twice.				Tue/2	12-14	NO D69	
	Group 1: Mon 12-14 and Tue 16-18					16-18	NO D69	
	Group 2: Tue 12-14 and Wed 8-10				Wed/2	08-10	NO D69	
651-4051-00L	Reflected Light Microscopy and Ore Deposits Practical Number of participants limited to 19.	W+	2 credits	2P				
651-4051-00 P	Reflected Light Microscopy and Ore Depos	its Pract	ical	28s hrs	Thu/2	14-18	NO D69	T. Driesner
651-4113-00L	Sedimentary Petrography and Microscopy	W+	2 credits	2G				
651-4113-00 G	Sedimentary Petrography and Microscopy			28s hrs	Fri/1	10-12	NO D69	V. Picotti, M. G. Fellin
	, 11 10 14 y 11 11 11 11 11 11 11 11 11 11 11 11 1					14-16	NO D69	
▶▶▶ Part B	3: Methods							
Number	Title	Туре	ECTS	Hours				Lecturers

Number	Title	Type	ECTS	Hours				Lecturers
651-4055-00L	Analytical Methods in Petrology and Geology	W+	3 credits	2G				
651-4055-00 G	Analytical Methods in Petrology and Geolog Introductory lectures in the first week of the lab exercises during the first half of the sem Electron Probe Microanalyzer (EPMA), lase (LA-ICP-MS), mass spectroscopy for light is Diffraction (XRD), and X-ray Fluorescence	semeste nester ind er ablatio sotopes,	cluding: on ICP-MS	28s hrs	Thu 23.09. 30.09.	14-18 14-18 14-15	NO NO D11 NO D11	J. Allaz, S. Bernasconi, M. Guillong, L. Zehnder
651-4117-00L	Sediment Analysis Prerequisite: Successful completion of the MSc-course "Sedimentology I" (651- 4041-00L).	W+	3 credits	2G				
651-4117-00 G	Sediment Analysis			28s hrs	Thu/2	14-18	NW D86.1	M. G. Fellin, A. Gilli, V. Picotti
651-4063-00L	X-Ray Powder Diffraction Number of participants limited to 18.	W+	3 credits	2G				
651-4063-00 G	X-Ray Powder Diffraction Permission from lecturers required for all st Vorlesung: 27.9 18.10.2021 und zusät Übungen: 25.10.2021 - 24.12.2021 (HIL	zlich 20.		2 hrs	Mon/1 20.12.	08-10 08-10 08-10	HIL E15.2 HIL F10.3 HIL F10.3	M. Plötze
651-4131-00L	Introduction to Digital Mapping Number of participants limited to 20.	W+ Dr	2 credits	3V				
651-4131-00 V	Introduction to Digital Mapping Does not take place this semester. The course will take place in FS 2022.			40s hrs				to be announced

### **▶▶** Restricted Choice Modules Geology

A minimum of two restricted choice modules must be completed for the major Geology.

### **▶▶▶** Biogeochemistry

### ▶▶▶▶ Biogeochemistry: Compulsory Courses

The compulsory courses of the module take place in spring semester.

### ▶▶▶▶ Biogeochemistry: Courses of Choice

Number	Title	Type	ECTS	Hours				Lecturers
651-4043-00L	Sedimentology II: Biological and Chemical Processes in Lacustrine and Marine Systems Prerequisite: Successful completion of the MSc-course "Sedimentology I" (651- 4041-00L).	W	3 credits	2G				
651-4043-00 G	Sedimentology II: Biological and Chemical Lacustrine and Marine Systems	Process	es in	28s hrs	Tue/2 Wed/2	14-16 10-12	NO D11 NO D11	V. Picotti, A. Gilli, I. Hernández Almeida, H. Stoll
651-4057-00L	Climate History and Palaeoclimatology	w	3 credits	2G				
651-4057-00 G	Climate History and Palaeoclimatology			2 hrs	Fri	10-12	ML F39	<ul><li>H. Stoll, I. Hernández Almeida,</li><li>H. Zhang</li></ul>

### ▶▶▶ Palaeoclimatology

### ▶▶▶▶ Palaeoclimatology: Compulsory Courses

Mumbar	Title	Turna	FCTC	Цанта				Lasturara
Number 651-4057-00L	Title  Climate History and Palaeoclimatology	Type W+	ECTS 3 credits	Hours 2G				Lecturers
	Climate History and Palaeoclimatology  Climate History and Palaeoclimatology	***	3 Creuits	2 hrs	Fri	10-12	ML F39	<b>H. Stoll</b> , I. Hernández Almeid H. Zhang
▶▶▶▶ Pala	eoclimatology: Courses of Cho	ice						
Number	Title	Туре	ECTS	Hours				Lecturers
651-4043-00L	Sedimentology II: Biological and Chemical Processes in Lacustrine and Marine Systems  Prerequisite: Successful completion of the MSc-course "Sedimentology I" (651-4041-00L).	W	3 credits	2G				
651-4043-00 G	Sedimentology II: Biological and Chemical I Lacustrine and Marine Systems	Processe	es in	28s hrs	Tue/2 Wed/2	14-16 10-12	NO D11 NO D11	V. Picotti, A. Gilli, I. Hernández Almeida, H. Stol
▶▶▶ Sedim	nentology							
▶▶▶▶ Sedi	mentology: Compulsory Cours	es						
Number	Title	Туре	ECTS	Hours				Lecturers
651-4041-00L	Sedimentology I: Physical Processes and Sedimentary Systems	W+	3 credits	2G				
651-4041-00 G	Sedimentology I: Physical Processes and S	ediment	ary Systems	28s hrs	Tue/1 Wed/1	14-16 10-12	NO D11 NO D11	V. Picotti
651-4043-00L	Sedimentology II: Biological and Chemical Processes in Lacustrine and Marine Systems  Prerequisite: Successful completion of the MSc-course "Sedimentology I" (651-4041-00L).	W+	3 credits	2G				
651-4043-00 G	Sedimentology II: Biological and Chemical I Lacustrine and Marine Systems	Processe	es in	28s hrs	Tue/2 Wed/2	14-16 10-12	NO D11 NO D11	<b>V. Picotti</b> , A. Gilli, I. Hernández Almeida, H. Stol
▶▶▶▶ Sedi	mentology: Courses of Choice							
Number	Title	Туре	ECTS	Hours				Lecturers
651-4901-00L	Quaternary Dating Methods	W	3 credits	2G				
	Quaternary Dating Methods			2 hrs	Tue 12.10.	08-10 08-10	NO E11 HPK D24.2	I. Hajdas, M. Christl, S. Ivy Ochs
<b>651-4063-00L</b> 651-4063-00 G	X-Ray Powder Diffraction Number of participants limited to 18. X-Ray Powder Diffraction Permission from lecturers required for all st Vorlesung: 27.9 18.10.2021 und zusät Übungen: 25.10.2021 - 24.12.2021 (HIL	zlich 20.	3 credits	2 <b>G</b> 2 hrs	Mon Mon/1 20.12.	08-10 08-10 08-10	HIL E15.2 HIL F10.3 HIL F10.3	M. Plötze
	tural Geology							
	ctural Geology: Compulsory Co							
Number	Title		ECTS	Hours				Lecturers
<b>651-4132-00L</b> 651-4132-00 P	Field Course IV: Non Alpine Field Course Priority is given to D-ERDW students. If space is available UZH Geography and Earth System Sciences students may attend this field course at full cost.  No registration through myStudies. The registration for excursions and field courses goes through http://exkursionen.erdw.ethz.ch only. Field Course IV: Non Alpine Field Course Does not take place this semester.	W+	3 credits	90s hrs				W. Behr
▶▶▶▶ Stru	ctural Geology: Courses of Cho	ice						
Number	Title	Туре	ECTS	Hours				Lecturers
651-4111-00L	Experimental Rock Physics and	W	3 credits	2G				
651-4111-00 G	<b>Deformation</b> Experimental Rock Physics and Deformatio Lecture, practical exercises, research-base		roject	2 hrs	Tue	10-12	NO E11	A. S. Zappone, C. Madonna, L. Tokle
<b>651-3521-00L</b> 651-3521-00 V		W	3 credits	2V 2 hrs	Fri	14-16	NO C6	W. Behr, S. Willett
▶► Open C	hoice Modules Geology							
▶▶▶ Basin	Analysis							
▶▶▶► Basi	n Analysis: Compulsory Course	es						
Number	Title	Туре	ECTS	Hours				Lecturers

#### 28s hrs

Mon/1 14-16 Thu/1 10-12 NO E51.1 NO E51.1 T. I. Eglinton, J. Hemingway, S. Willett

#### ▶▶▶▶ Basin Analysis: Courses of Choice

	<u> </u>				
Number	Title	Type	ECTS	Hours	Lecturers
651-4243-00L	Seismic Stratigraphy and Facies	W	2 credits	3G	
651-4243-00 G	Seismic Stratigraphy and Facies  Block course			40s hrs	G. Eberli

### ▶▶▶ Earthquake Seismology

### ▶▶▶▶ Earthquake Seismology: Compulsory Courses

Number	Title	Type	ECTS	Hours				Lecturers
651-4021-00L	Engineering Seismology	W+	3 credits	2G				
651-4021-00 G	Engineering Seismology			2 hrs	Mon	14-16	HG D3.2	D. Fäh, V. Perron
651-4015-00L	Earthquakes I: Seismotectonics	0	3 credits	2G				
651-4015-00 G	Earthquakes I: Seismotectonics			28s hrs	Wed/2 Thu/2		NO E39 NO D11	A. P. Rinaldi, T. Diehl

#### ▶▶▶▶ Earthquake Seismology: Compulsory Courses

One additional elective course of at least 3KP has to be completed for this Module according to prior agreement with the Subject Advisor (Autumn or Spring Semester).

#### **▶▶▶** Geographic Information Systems

The courses of this module are offered by UZH and must be registered at UZH.

### ▶▶▶▶ Geographic Information Systems: Compulsory Courses

lumber	Title	Type	ECTS	Hours	Lecturers
51-4267-00L	Specializing in Geographic Information Science V (University of Zürich) No enrolment to this course at ETH Zurich. Book the corresponding module directly at UZH as an incoming student. UZH Module Code: GEO372	W+	5 credits	2V+2U	
	Mind the enrolment deadlines at UZH: https://www.uzh.ch/cmsssl/en/studies/appli cation/deadlines.html				
51-4267-00 V	Vertiefung Geographische Informationswiss Zürich) **Kurs an der Universität Zürich**	senschaf	t (Universität	2 hrs	University lecturers
51-4267-00 U	Vertiefung Geographische Informationswiss Zürich) **Kurs an der Universität Zürich**	senschaf	t (Universität	2 hrs	University lecturers

#### ▶▶▶▶ Geographic Information Systems: Courses of Choice

The Courses of Choice are offered by UZH and must be approved by the subject advisor.

#### **▶▶▶** Geomagnetics

#### ▶▶▶▶ Geomagnetics: Compulsory Courses

Courses are only offered in spring semester.

Number	Title	Туре	ECTS	Hours				Lecturers
651-4901-00L	Quaternary Dating Methods	0	3 credits	2G				
651-4901-00 G	Quaternary Dating Methods			2 hrs	Tue 12.10.	08-10 08-10	NO E11 HPK D24.2	I. Hajdas, M. Christl, S. Ivy Ochs

#### ▶▶▶▶ Geomagnetics: Courses of Choice

Additional elective courses of at least 6KP have to be completed for this Module according to prior agreement with the Subject Advisor (Autumn or Spring Semester).

#### **▶▶▶** Glaciology

### ▶▶▶▶ Glaciology: Compulsory Courses

Number	Title	Type	ECTS	Hours				Lecturers
651-3561-00L	Cryosphere	W+	3 credits	2V				
651-3561-00 V	Kryosphäre			2 hrs	Tue	16-18	CAB G11	<b>M. Huss</b> , A. Bauder, D. Farinotti
▶▶▶▶ Glac	iology: Courses of Choice							
Number	Title	Туре	ECTS	Hours				Lecturers
651-1581-00L	Seminar in Glaciology	W	3 credits	2S				
651-1581-00 S	Seminar in Glaciology Format and topics will be introduced in the September 2021. Attendence is required.	first ses	sion on 22	2 hrs	Wed	16-18	HPK D3	A. Bauder
651-4077-00L	Quantification and Modeling of the	w	3 credits	1V				

651-4077-00L Quantification and Modeling of the Cryosphere: Dynamic Processes (University of Zurich)

No enrolment to this course at ETH Zurich. Book the corresponding module directly at UZH as an incoming student. UZH Module Code: GEO815

Mind the enrolment deadlines at UZH: https://www.uzh.ch/cmsssl/en/studies/appli

cation/deadlines.html

651-4077-00 V Quantification and Modeling of the Cryosphere: Dynamic Processes (University of Zurich)

\*\*Course at University of Zurich\*\*

1 hrs

University lecturers

	Course at University of Zurich								
651-4101-00L	Physics of Glaciers	w	3 credits	3G					
651-4101-00 G	Physics of Glaciers			3 hrs	Mon	12-15	ML E12	<b>M. Lüthi</b> , F. T. Walter, M. Werder	
101-0289-00L	Applied Glaciology	W	4 credits	2G					_
101-0289-00 G	Applied Glaciology			2 hrs	Wed	08-10	HIL E8	<b>D. Farinotti</b> , A. Bauder, M. Werder	

### ▶▶▶ Lithosphere Structure and Tectonics

Number	Title	Туре	ECTS	Hours				Lecturers
651-3521-00L	Tectonics	W+	3 credits	2V				
651-3521-00 V	Tectonics			2 hrs	Fri	14-16	NO C6	W. Behr, S. Willett

### ▶▶▶ Palaeontology

### ▶▶▶▶ Palaeontology: Compulsory Courses

The compulsory courses take place in spring semester.

#### ▶▶▶▶ Palaeontology: Courses of Choice

The courses of choice are offered by UZH and must be registered at UZH.

Number	Title	Type	ECTS	Hours	Lecturers
651-1380-00L	Paleontological Excursions on Weekends (University of Zürich) No enrolment to this course at ETH Zurich. Book the corresponding module directly at UZH as an incoming student. UZH Module Code: BIO279	W	1 credit	1P	
	Mind the enrolment deadlines at UZH: https://www.uzh.ch/cmsssl/en/studies/appli cation/deadlines.html				
651-1380-00 P	Paläontologische Exkursionen an Wochene Zürich) **Kurs an der Universität Zürich**	nden (U	niversität	8s hrs	University lecturers

#### NAN Queternery Coolegy and Coomerphology

Number	Title	Type	ECTS	Hours				Lecturers
651-4901-00L	Quaternary Dating Methods	W	3 credits	2G				
651-4901-00 G	Quaternary Dating Methods			2 hrs	Tue 12.10.	08-10 08-10	NO E11 HPK D24.2	I. Hajdas, M. Christl, S. Ivy Ochs
651-4077-00L	Quantification and Modeling of the Cryosphere: Dynamic Processes (University of Zurich) No enrolment to this course at ETH Zurich. Book the corresponding module directly at UZH as an incoming student. UZH Module Code: GEO815	W	3 credits	1V				
	Mind the enrolment deadlines at UZH: https://www.uzh.ch/cmsssl/en/studies/appli cation/deadlines.html							
651-4077-00 V	Quantification and Modeling of the Cryosphi Processes (University of Zurich) **Course at University of Zurich**	ere: Dyr	namic	1 hrs				University lecturers

### ▶▶▶ Remote Sensing

The courses of this module are offered by UZH and must be registered at UZH.

### ▶▶▶▶ Remote Sensing: Compulsory Courses

Number	Title	Туре	ECTS	Hours	Lecturers
651-4263-00L	Remote Sensing and Geographic Information Science V (University of Zürich) No enrolment to this course at ETH Zurich. Book the corresponding module directly at UZH as an incoming student. UZH Module Code: GEO371	W+	5 credits	2V+2U	
651-4263-00 V	Mind the enrolment deadlines at UZH: https://www.uzh.ch/cmsssl/en/studies/appli cation/deadlines.html Methoden der Fernerkundung (Universität Zü **Kurs an der Universität Zürich**	ürich)		2 hrs	University lecturers

#### ▶▶▶▶ Remote Sensing: Courses of Choice

Number	Title	Type	ECTS	Hours	Lecturers
651-4269-00L	Specialisation in Remote Sensing: Spectroscopy of the Earth System (University of Zurich) No enrolment to this course at ETH Zurich. Book the corresponding module directly at UZH as an incoming student. UZH Module Code: GEO442	W	6 credits	2V+2U	
	Prerequisite: Remote Sensing Methods (UZH Module Code: GEO371)				
	Mind the enrolment deadlines at UZH: https://www.uzh.ch/cmsssl/en/studies/appli cation/deadlines.html				
651-4269-00 V	Spectroscopy of the Earth System (Universit**Course at University of Zurich**	ty of Zu	rich)	2 hrs	University lecturers
651-4269-00 U	Spectroscopy of the Earth System (University **Course at University of Zurich**	ty of Zu	rich)	2 hrs	University lecturers
651-4257-00L	Specialisation in Remote Sensing: SAR and LIDAR (University of Zurich) No enrolment to this course at ETH Zurich. Book the corresponding module directly at UZH as an incoming student. UZH Module Code: GEO443	W	6 credits	2V+2U	
	Prerequisite: Remote Sensing Methods (UZH Module Code: GE00371)				
	Mind the enrolment deadlines at UZH: https://www.uzh.ch/cmsssl/en/studies/appli cation/deadlines.html				
651-4257-00 V	SAR and LIDAR (University of Zurich) **Course at University of Zurich**			2 hrs	University lecturers
651-4257-00 U	SAR and LIDAR (University of Zurich)  **Course at University of Zurich**			2 hrs	University lecturers

### ▶▶▶ Shallow Earth Geophysics

Courses are only offered in spring semester.

### ▶▶▶ Modules from the Engineering Geology Major

Choice from Engineering Geology Required Modules

### ▶▶▶ Modules from the Geophysics Major

Choice from Geophysics Compulsory Modules

Choice from Geophysics Restricted Choice

Modules

### ▶▶▶ Modules from the Mineralogy and Geochemistry Major

Choice from the Mineralogy and Geochemistry Restricted Choice Modules

### ▶▶▶ Modules from the Major Geology Restricted Choice Modules

Choice from the Geology Restricted Choice Modules

### ► Major in Engineering Geology

### **▶▶** Compulsory Modules Engineering Geology

### ▶▶▶ Engineering Geology: Fundamentals

Number	Title	Type	ECTS	Hours				Lecturers
651-4025-00L	Rock Mechanics and Rock Engineering	0	4 credits	4V				
651-4025-00 V	Rock Mechanics and Rock Engineering			4 hrs	Tue	08-12	NO E39	O. Moradian, Q. Lei
651-4033-00L	Soil Mechanics and Foundation Engineering	0	4 credits	3V				
651-4033-00 V	Soil Mechanics and Foundation Engineering Permission from lecturers required for all st Lecture: every Friday from 9 - 11 h Exercise and tutorial: 11 - 12 h	_		3 hrs	Fri	09-11 11-12	NO D11 NO D11	M. Stolz, Q. Lei
651-4023-00L	Groundwater	0	4 credits	4G				
651-4023-00 G	Groundwater			4 hrs	Mon Thu	16-18 08-10	NO E39 NO C44	XZ. Kong, B. Marti

#### ▶▶▶ Engineering Geology: Methods

Number	Title	Type	ECTS	Hours				Lecturers
651-4065-00L	Geological Site Investigations	0	3 credits	3G				
651-4065-00 G	Geological Site Investigations			3 hrs	Mon	10-13	CAB G52	M. Ziegler
651-4125-00L	Rock and Soil Mechanical Lab Practical	0	3 credits	2P				
651-4025-00 P	Lab Practical of Rock Mechanics and Rock	Engine	ering	14s hrs	Fri/1	14-18	NO G39.3	O. Moradian
651-4033-00 P	Lab Practical of Soil Mechanics and Found Detailed information on the lab will be given			14s hrs	Fri/2	14-18	NO G39.3	L. de Palézieux dit Falconnet

#### ▶▶▶ Engineering Geology: Integration

Courses for this Module take place in spring semester.

### ▶▶▶ Engineering Geology: Industrial Internship

Number	Title	Type	ECTS	Hours	Lecturers
651-4071-00L	Industrial Internship Prerequisites: successful participation in all 3 compulsory modules of the Major in Engineering Geology (Fundamentals, Methods and Integration).	0	12 credits		
	The Industrial Internship of the Eng Geol Major takes place in the second MSc year after consultation with Dr. Ernst Kreuzer. Detailed regulations of this practical are published on the Engineering Geology Website.				
651-4071-00 P	Industriepraktikum ■ Permission from lecturers required for all sta	udents		by appt.	external organisers

### ► Major in Geophysics

### **▶▶** Compulsory Modules Geophysics

### ▶▶▶ Geophysics: Methods I

Number	Title	Туре	ECTS	Hours				Lecturers
651-4005-00L	Geophysical Data Processing	W+	3 credits	2G				
651-4005-00 G	Geophysical Data Processing			28s hrs	Wed/1 Thu/1	10-12 14-16	NO E39 NO E39	C. V. Cauzzi, L. Passarelli
651-4241-00L	Numerical Modelling I and II: Theory and Applications	W+	6 credits	4G				
651-4241-00 G	Numerical Modeling I: Theory			24s hrs	Mon/1	08-12	NO F39	T. Gerya
651-4241-01 G	Numerical Modeling II: Applications			28s hrs	Mon/2	08-12	NO F39	T. Gerya
▶▶▶ Geopl	nysics: Methods II							

Number	Title	Туре	ECTS	Hours				Lecturers
651-4001-00L	Geophysical Fluid Dynamics	W+	3 credits	2G				
651-4001-00 G	Geophysical Fluid Dynamics			2 hrs	Wed	08-10	NO C44	J. A. R. Noir
651-4007-00L	Continuum Mechanics	W+	3 credits	2V				
651-4007-00 V	Continuum Mechanics			2 hrs	Wed	14-16	NO E51.1	T. Gerya
651-4130-00L	Mathematical Methods	W+	3 credits	2G				
651-4130-00 G	Mathematical Methods			2 hrs	Fri	10-12	NO E11	A. Kuvshinov, A. Grayver

#### **▶▶** Restricted Choice Modules Geophysics

### ▶▶▶ Seismology

Number	Title	Type	ECTS	Hours				Lecturers
651-4014-00L	Seismic Waves II	W+	3 credits	2G				
651-4014-00 G	Seismic Waves II Remark: former title until HS 2020: Tom	nographic Im	naging	2 hrs	Tue	10-12	ML F40	<b>T. Diehl</b> , F. Lanza, A. Obermann
651-4015-00L	Earthquakes I: Seismotectonics	W+	3 credits	2G				
651-4015-00 G	Earthquakes I: Seismotectonics			28s hrs	Wed/2 Thu/2	10-12 14-16	NO E39 NO D11	A. P. Rinaldi, T. Diehl
651-4021-00L	Engineering Seismology	W+	3 credits	2G				
651-4021-00 G	Engineering Seismology			2 hrs	Mon	14-16	HG D3.2	D. Fäh, V. Perron
▶▶▶ Physic	cs of the Earth's Interior							
Number	Title	Туре	ECTS	Hours				Lecturers
651-4010-00L	Planetary Physics and Chemistry	W+	3 credits	2G				

2 hrs

Tue

14-16

NO F39

P. Tackley

### ▶▶▶ Applied Geophysics

651-4010-00 G Planetary Physics and Chemistry

### ▶▶▶▶ Applied Geophysics: Compulsory Courses

The compulsory courses take place in spring semester.

### ▶▶▶▶ Applied Geophysics: Courses of Choice

The compulsory courses take place in spring semester.

### ► Major in Mineralogy and Geochemistry

### ▶▶ Compulsory Module in Analytical Methods in Earth Sciences

Students have to complete 6 credits in part A (microscopy courses), and 6 credits in part B (methods).

#### **▶▶▶** Microscopy Courses

Compulsory Module in Analytical Methods in Earth Sciences: Microscopy Courses

#### **▶▶▶** Analytical Methods Courses

Compulsory Module in Analytical Methods in Earth Sciences: Analytical Methods Courses

#### **▶▶** Restricted Choice Modules Mineralogy and Geochemistry

A minimum of two restricted choice modules must be completed in the major Mineralogy and Geochemistry.

#### ▶▶▶ Mineralogy and Petrology

#### ▶▶▶▶ Mineralogy and Petrology: Compulsory Courses

Number	Title	Type	ECTS	Hours				Lecturers
651-4028-00L	Physical Properties of Minerals	W+	3 credits	2G				
651-4028-00 G	Physical Properties of Minerals			28s hrs	Mon/1 Tue/1	10-12 14-16	NO D69 NO D69	S. Petitgirard, G. Spiekerman
651-4039-00L	Thermodynamics Applied to Earth Materials	W+	3 credits	2G				
651-4039-00 G	Thermodynamics Applied to Earth Materials	;		2 hrs	Tue	10-12	NO C44	J. Connolly
▶▶▶▶ Mine	eralogy and Petrology: Courses	of Ch	noice					
Number	Title	Туре	ECTS	Hours				Lecturers
651-4063-00L	X-Ray Powder Diffraction Number of participants limited to 18.	W	3 credits	2G				
651-4063-00 G	X-Ray Powder Diffraction Permission from lecturers required for all str Vorlesung: 27.9 18.10.2021 und zusät Übungen: 25.10.2021 - 24.12.2021 (HIL	zlich 20		2 hrs	Mon/1 20.12.	08-10 08-10 08-10	HIL E15.2 HIL F10.3 HIL F10.3	M. Plötze
651-4233-00L	Geotectonic Environments and Deep Global Cycles	W	3 credits	2V				
651-4233-00 V	Geotectonic Environments and Deep Globa Does not take place this semester.	l Cycles	3	2 hrs				M. W. Schmidt, P. Ulmer
651-4097-00L	Applied Mineralogy and Non-Metallic Resources I	W	3 credits	2G				
651-4097-00 G	Applied Mineralogy and Non-Metallic Resource Starts in the second week of the		ter.	2 hrs	Thu	08-10	NO E39	R. Kündig

#### **▶▶▶** Petrology and Volcanology

#### ▶▶▶▶ Petrology and Volcanology: Compulsory Courses

The compulsory courses take place in spring semester.

### ▶▶▶▶ Petrology and Volcanology: Courses of Choice

Number	Title	Type	ECTS	Hours				Lecturers
651-4063-00L	X-Ray Powder Diffraction Number of participants limited to 18.	W	3 credits	2G				
651-4063-00 G	X-Ray Powder Diffraction Permission from lecturers required for all s Vorlesung: 27.9 18.10.2021 und zusä Übungen: 25.10.2021 - 24.12.2021 (HI	tzlich 20		2 hrs	Mon/1 20.12.	08-10 08-10 08-10	HIL E15.2 HIL F10.3 HIL F10.3	M. Plötze
651-4233-00L	Geotectonic Environments and Deep Global Cycles	W	3 credits	2V				
651-4233-00 V	Geotectonic Environments and Deep Globa Does not take place this semester.	al Cycles	3	2 hrs				M. W. Schmidt, P. Ulmer

#### ▶▶▶ Mineral Resources

#### ▶▶▶▶ Mineral Resources: Compulsory Courses

Number	Title	Type	ECTS	Hours				Lecturers
651-4097-00L	Applied Mineralogy and Non-Metallic Resources I	W+	3 credits	2G				
	Applied Mineralogy and Non-Metallic Resou The lecture starts in the second week of the	ter.	2 hrs	Thu	08-10	NO E39	R. Kündig	
651-4037-00L	Mineral Resources I Can be chosen as an elective course within the Bachelor. Prospective MSc-Students attending the module "Mineral Resources" should attend Mineral Resources I and II in the first year of their MSc studies.	W+	3 credits	2G				
651-4037-00 G	Mineral Resources I			2 hrs	Wed	14-16	NO D11	C. Chelle-Michou, P. Tollan

#### ▶▶▶▶ Mineral Resources: Courses of Choice

Number	Title T	уре	ECTS	Hours				Lecturers
651-4069-00L	Fluid and Melt Inclusions: Theory and V	٧	3 credits	3P				
651-4069-00 P	Fluid and Melt Inclusions: Theory and Practice Does not take place this semester. 5-day block course	е		40s hrs				T. Driesner, to be announced
651-4221-00L	Numerical Modelling of Ore Forming Hydrothermal Processes	V	3 credits	2G				
651-4221-00 G	Numerical Modelling of Ore Forming Hydrothe	ermal	Processes	2 hrs	Wed	10-12	NO E11	T. Driesner
651-4034-00L	Resource Economics and Mineral Exploration Block course 10 - 19 January 2022 at University of Geneva.  Restricted participation with priority for MSc Earth Science students taking the Module 'Mineral Resources and Applied Mineralogy'. Interested ETH students please register through myStudies by second semester	V	3 credits	3P				
651-4034-00 P	week. Resource Economics and Mineral Exploration Permission from lecturers required for all stud			48s hrs				<b>G. Beaudoin</b> , C. Chelle-Michou

### ▶▶▶▶ Geochemistry: Compulsory Courses

Number	Title	Туре	ECTS	Hours				Lecturers
651-4049-00L	Conceptual and Quantitative Methods Geochemistry Prerequisite: Successful completion of the BSc-course "Geochemistry" (651- 3400-00L).		3 credits	2G				
651-4049-00 G	Conceptual and Quantitative Methods in Geochemistry			2 hrs	Fri	08-10	NO D39 NO E11	O. Bachmann, G. De Souza, B. J. Peters
651-4227-00L	Planetary Geochemistry	W+	3 credits	2G				
651-4227-00 G	Planetary Geochemistry			2 hrs	Thu	10-12	NO E39	<b>M. Schönbächler</b> , H. Busemann, A. Hunt

### ▶▶▶▶ Geochemistry: Courses of Choice

Number	Title	Type	ECTS	Hours				Lecturers
651-4233-00L	Geotectonic Environments and Deep Global Cycles	W	3 credits	2V				
651-4233-00 V	Geotectonic Environments and Deep Global Does not take place this semester.	l Cycles		2 hrs				M. W. Schmidt, P. Ulmer
651-4057-00L	Climate History and Palaeoclimatology	W	3 credits	2G				
651-4057-00 G	Climate History and Palaeoclimatology			2 hrs	Fri	10-12	ML F39	<b>H. Stoll</b> , I. Hernández Almeida H. Zhang
651-4225-00L	Topics in Geochemistry	W	3 credits	2G				
651-4225-00 G	Topics in Geochemistry  Does not take place this semester.			2 hrs				S. Bernasconi, to be announced
651-4010-00L	Planetary Physics and Chemistry	W	3 credits	2G				
651-4010-00 G	Planetary Physics and Chemistry			2 hrs	Tue	14-16	NO F39	P. Tackley
651-4229-00L	Advanced Geochronology	W	3 credits	2G				
651-4229-00 G	Advanced Geochronology			2 hrs	Mon	16-18	NO C44	M. Guillong, H. Busemann, M. G. Fellin, JF. Wotzlaw

### ▶▶ Open Choice Modules Mineralogy and Geochemistry

#### ▶▶▶ Modules from the Geology Major

Choice from the Geolgy Restricted Choice Modules Choice from the Geology Open Choice Modules

### ▶▶▶ Modules from the Engineering Geology Major

Modules from the Engineering Geology Compulsory Modules

#### ▶▶▶ Modules from the Geophysics Major

Modules from the Geophysics Compulsory Modules

Modules from the Geophysics Restricted Choice Modules

### ▶▶▶ Restricted Choice Module of Mineralogy and Geochemistry

Choice from Mineralogy and Geochemistry Restricted Choice Modules

Choice from Mineralogy and Geochemistry Open Choice Modules

#### **▶** Electives

Courses can be chosen from the complete offerings of the ETH Zurich and University of Zurich (according to prior agreement with the subject advisor).

Number	Title	Туре	ECTS	Hours				Lecturers
651-1615-00L	Colloqium Geophysics	W	1 credit	1K	<b>-</b> ·	10.10	NO 044	• •
651-1615-00 K	Colloqium Geophysics The colloquium starts at 12:00			1 hrs	Fri	12-13	NO C44	A. Obermann
<b>651-0046-00L</b> 651-0046-00 G	<b>Electron Microprobe Course 1 - Theory</b> Electron Microprobe Course 1 - Theory	W Dr	2 credits	<b>2G</b> 2 hrs	Wed	16-18	NO E39	J. Allaz, L. Grafulha Morales
	<b>Electron Microprobe Course 2 - Practice</b>	W Dr	2 credits	2G				
651-0048-00 G	Electron Microprobe Course 2 - Practice  4-day Block course in January / February (former title: Electron Microprobe Course)			32s hrs				J. Allaz
651-1851-00L	Introduction to Scanning Electron Microscopy Course is replaced by 651-0046-00, it will no longer take place.	W	1 credit	2G				
651-1851-00 G	Introduction to Scanning Electron Microscop Does not take place this semester.	у		2 hrs				
327-0703-00L	<b>Electron Microscopy in Material Science</b>	W	4 credits	2V+2U				
327-0703-00 V	Electron Microscopy in Material Science			2 hrs	Fri	08-10	HCI H2.1	K. Kunze, R. Erni, S. Gerstl, F. Gramm, A. Käch, F. Krumeich, M. Willinger
327-0703-00 U	Electron Microscopy in Material Science			2 hrs	Fri	12-14	HCI H2.1	K. Kunze, R. Erni, S. Gerstl, F. Gramm, A. Käch, F. Krumeich, M. Willinger
651-3541-00L	Exploration and Environmental Geophysics	W	4 credits	3V				
651-3541-00 V	Exploration and Environmental Geophysics			3 hrs	Thu	14-17	NO F39	P. Edme, H. Maurer, A. Shakas
<b>651-4086-00L</b> 651-4086-00 P	Experimental Methods in Petrology Experimental Methods in Petrology	W	3 credits	<b>2P</b> 28s hrs	Tue/1	14-18	NO E51.1	C. Liebske, P. A. Sossi
651-4114-00L	Illustrations in Natural History (University of Zürich) No enrolment to this course at ETH Zurich. Book the corresponding module directly at UZH as an incoming student. UZH Module Code: BIO271	W	1 credit	1V				
	Mind the enrolment deadlines at UZH: https://www.uzh.ch/cmsssl/en/studies/appli cation/deadlines.html							
651-4114-00 V	Illustrations in Natural History (University of **Kurs an der Universität Zürich**	Zürich)		1 hrs				University lecturers
<b>651-4273-00L</b> 651-4273-00 V	Numerical Modelling in Fortran Numerical Modelling in Fortran	W	3 credits	<b>2V</b> 2 hrs	Mon	16-18	NO C6	P. Tackley
651-4273-01L	Numerical Modelling in Fortran (Project) Prerequisite: 651-4273-00L Numerical Modelling in Fortran	W	1 credit	1U				·
	Numerical Modelling in Fortran (Project)			1 hrs	by app	t.		P. Tackley
651-1392-00L	Palaeontological Colloquium (University of Zurich) No enrolment to this course at ETH Zurich. Book the corresponding module directly at UZH as an incoming student. UZH Module Code: BIO571 Mind the enrolment deadlines at UZH: https://www.uzh.ch/cmsssl/en/studies/appli	E-	0 credits	1K				
651-1392-00 K	cation/deadlines.html Palaeontological Colloquium (University of Z **Course at University of Zurich**	Zurich)		1 hrs				University lecturers
	Physics of Glaciers	w	3 credits	3 <b>G</b>			:	
651-4101-00 G	Physics of Glaciers			3 hrs	Mon	12-15	ML E12	<b>M. Lüthi</b> , F. T. Walter, M. Werder
<b>651-0254-00L</b> 651-0254-00 S	Seminar Geochemistry and Petrology Seminar Geochemistry and Petrology External and occasional internal speakers a research topics. Changing programs annous event calendar of the department of Earth S http://www.geopetro.ethz.ch/news-events.ht	nced thr ciences	ough the	<b>2S</b> 2 hrs	Thu	16-18	NO C6	O. Bachmann, M. Schönbächler, C. Chelle- Michou, M. W. Schmidt, D. Vance

651-1692-00L	Seminar in Applied and Environmental Geophysics	E-	0 credits	18				
651-1692-00 S	Seminar in Angewandter Geophysik und Un	nweltged	ophysik	1 hrs	by appt.			H. Maurer, J. Robertsson
<b>651-2915-00L</b> 651-2915-00 S	Seminar in Hydrology Seminar in Hydrology	E-	0 credits	<b>1S</b> 8s hrs				P. Burlando, J. W. Kirchner, S. Löw, C. Schär, M. Schirmer, S. I. Seneviratne, M. Stähli, C. H. Stamm, University lecturers
<b>651-1694-00L</b> 651-1694-00 S	Seminar in Seismology Seminar in Seismology The course has been rescheduled as a mor	E- nthly sen	<b>0 credits</b> minar	<b>1S</b> 1 hrs				S. Wiemer, D. Fäh, D. Giardini
<b>101-0317-00L</b> 101-0317-00 G	Tunnelling I Untertagbau I	W	3 credits	<b>2G</b> 2 hrs	Tue	10-12	HIL E7	G. Anagnostou, E. Pimentel
<b>651-1091-00L</b> 651-1091-00 K	Colloquium Department Earth Sciences Colloquium Department Earth Sciences	E- Dr	0 credits	1K 1 hrs	Tue	12-13	NO C60	A. Fichtner, J. Hemingway
651-2613-00L	Humangeography III (Geographies of Difference) (Universität Zürich) No enrolment to this course at ETH Zurich. Book the corresponding module directly at UZH as an incoming student. UZH Module Code: GEO232	W	5 credits	1G+2S				
	Recommended prerequisite: Human Geography II (UZH Module Code: GEO122)  Mind the enrolment deadlines at UZH:							
054 2042 00 0	https://www.uzh.ch/cmsssl/en/studies/appli cation/deadlines.html		lais sauaites af	440 600				Linite and the Landers
651-2613-00 G	Humangeography III (Geographies of Differe Zurich)  **Kurs an der Universität Zürich**	ence) (U	Iniversity of	14s hrs				University lecturers
651-2613-00 S	Humangeography III (Geographies of Differ Zurich)  **Kurs an der Universität Zürich**	ence) (U	Iniversity of	2 hrs				University lecturers
651-2601-00L	Human Geography I: One Earth - Many Worlds (University of Zurich) No enrolment to this course at ETH Zurich. Book the corresponding module directly at UZH as an incoming student. UZH Module Code: GEO112	W	5 credits	2V+2U				
054 0004 00 1/	Mind the enrolment deadlines at UZH: https://www.uzh.ch/cmsssl/en/studies/application/deadlines.html	(1.1 - 1	'4"4 <b>7</b> "' -\	O born				Habita and the Landause
	Humangeographie I: Eine Erde - viele Welte **Kurs an der Universität Zürich**		ersitat Zurich)					University lecturers
	Ubungen Humangeographie I (Universität Z **Kurs an der Universität Zürich**	uricn)		2 hrs				University lecturers
651-4088-03L	Phyisical Geography III (Geomorphology and Glaciology) (University of Zürich) No enrolment to this course at ETH Zurich. Book the corresponding module directly at UZH as an incoming student. UZH Module Code: GEO231 Mind the enrolment deadlines at UZH:	w	5 credits	1V+1U				
651-4088-03 V	https://www.uzh.ch/cmsssl/en/studies/application/deadlines.html  Physische Geographie III: Geomorphologie	und Gla	ziologie	14s hrs				University lecturers
054 4000 00 11	(Universität Zürich)  **Kurs an der Universität Zürich**	-ib 0		44				. Habita as the Landerson
651-4088-03 U	Physische Geographie III: Ubungen zu Phys Gruppen (Universität Zürich) **Kurs an der Universität Zürich**	sische G	seograpnie in	14s nrs				University lecturers
651-4088-01L	Phyisical Geography I (Fundamentals and Spheres) (University of Zürich) No enrolment to this course at ETH Zurich. Book the corresponding module directly at UZH as an incoming student. UZH Module Code: GEO111	W	5 credits	2V+2U				
651-4088-01 V	Mind the enrolment deadlines at UZH: https://www.uzh.ch/cmsssl/en/studies/application/deadlines.html Physische Geographie I: Grundzüge und Spzürich) **Kurs an der Universität Zürich**	ohären (I	Universität	2 hrs				University lecturers

651-4088-01 U	Physische Geographie I: Übungen zu Grund (Universität Zürich) **Kurs an der Universität Zürich**	dzüge uı	nd Sphären	2 hrs				University lecturers
51-1617-00L	Geophysical Fluid Dynamics and	E- Dr	0 credits	1S				
51-1617-00 S	Numerical Modelling Seminar Geophysical Fluid Dynamics and Numerical	l Modelli	ing Seminar	1 hrs	Wed	12-13	NO F39	P. Tackley, T. Gerya
51-4931-00L			1 credit	1S				<u> </u>
E1 4021 00 C	Magmatology	matalaa	n.,	14s hrs				O Pachmann C Challe
551-4931-00 5	Seminar I: Heat and Mass Transfers in Mag Does not take place this semester. This seminar will present some of the latest dynamics of magmatic systems on Earth an planets.	develop	oments in the	14S NrS				O. Bachmann, C. Chelle- Michou
<b>551-1091-02L</b> 551-1091-02 K	Geological Colloquium Geologisches Kolloquium	E- Dr	0 credits	2K 2 hrs	01.11. 15.11. 29.11. 13.12. 10.01.	18-20 18-20 18-20	NO C60 NO C60 NO C60 NO C60 NO C60	S. Bernasconi
551-3280-00L	Earth Science Excursions Only for MSc and doctorate students of D- ERDW. Only for excursions that are not part of the BSc excursion program 26. semester.	W	1 credit	2P	10.01.	10 20	NO 000	
	With the registration for an excursion or a field course students acknowledge having read and understood the General Terms and Conditions for Field Trips and Excursions  Excursions  Excursions  Excursions  Excursions  Excursions  Excursions	i						
	interest/erdw/department/dokumente/studiu m/exkursionen/AGB_ERDW_Exkursionen_ en.pdf	•						
51-3280-00 P	Earth Science Excursions Permission from lecturers required for all sti At least three excursion days must be comp			30s hrs	by appt.			I. Stössel
<b>651-2001-00L</b> 651-2001-00 A	Semester Research Project Semester Research Project ■ Permission from lecturers required for all sta	<b>W</b> udents	3 credits	<b>6A</b> 90s hrs	by appt.			Lecturers
6 <b>51-4191-00L</b> 651-4191-00 V	Radionuclides as Environmental Tracers Radionuclides as Environmental Tracers	W	3 credits	<b>2V</b> 2 hrs	Tue 13.10.	10-12 14-15	NO E51.1 HPK D24.2	N. Casacuberta Arola, M. Christl, L. Wacker, C. Welt
	Palaeomagnetism Palaeomagnetism block course	W	3 credits	<b>2G</b> 28s hrs				A. Biedermann
51-4906-00L	Radiocarbon Dating Number of participants limited to 6. Please contact the lecturer for details immediately after subscription.	W	2 credits	4P				
651-4906-00 P	Radiocarbon Dating  This is a lab practical course. Four days neel lab during two consecutive weeks.	ed to be	spent in the	60s hrs	by appt.			C. Welte, L. Wacker
51-4145-00L	Seminar on Precambrian Geobiology and Biogeochemical Cycles	W Dr	1 credit	1S				
651-4145-00 S	Seminar on Precambrian Geobiology and B	iogeoch	emical Cycles	1 hrs	Wed	13-14	NO E11	J. Hemingway, C. Magnabosco
	Choice of courses from the complete offerings in Earth Sciences MSc							
GESS Sc	ience in Perspective							
	see Science in Perspective: Language Courses ETH/UZH							
	see Science in Perspective: Type A: Enhancement of Reflection Capability							
	Recommended Science in Perspective (Type B) for D-ERDW.							
Master's	Project Proposal							
Number	Title	Туре	ECTS	Hours				Lecturers
551-4060-00L	MSc Project Proposal The introductory lecture on conduct as a scientist is an integral part of the course. The MSc Project Proposal is only offered in	0	10 credits	21A				
	autumn semester, a registration in spring semester is subject to special approval by							

► Master's T	hesis
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Number	Title	Type	ECTS	Hours	Lecturers
651-4062-00L	Master's Thesis Only students who fulfill the following criteria are allowed to begin with their master thesis: a. successful completion of the bachelor programme; b. fulfilling of any additional requirements necessary to gain admission to the master programme; c. have successful completed the MSc Project Proposal	0	30 credits	64D	
651-4062-00 D	Master's Thesis ■			900s hrs by appt.	Lecturers

### **▶** Course Units for Additional Admission Requirements

Number	Title	Type	ECTS	Hours	Lecturers
651-3050-AAL	Fundamentals of Geophysics Enrolment ONLY for MSc students with a decree declaring this course unit as an additional admission requirement.	E-	6 credits	13R	
	Any other students (e.g. incoming exchange students, doctoral students) CANNOT enrol for this course unit.				
651-3050-AA R	Fundamentals of Geophysics Self-study course. No presence required. Please contact the subject advisor Dr. Jérô	ime Noir.		180s hrs	J. A. R. Noir, T. Gerya
651-3070-AAL	Fundamentals of Geology Enrolment ONLY for MSc students with a decree declaring this course unit as an additional admission requirement.	E-	6 credits	13R	
	Any other students (e.g. incoming exchange students, doctoral students) CANNOT enrol for this course unit.				
651-3070-AA R	Fundamentals of Geology Self-study course. No presence required.			180s hrs	V. Picotti, W. Behr
	MSc in Earth Sciences students: Please co Dr. Vincenzo Picotti (Major Geology) for fu			or	
651-3400-AAL	Fundamentals of Geochemistry Enrolment ONLY for MSc students with a decree declaring this course unit as an additional admission requirement.	E-	6 credits	13R	
	Any other students (e.g. incoming exchange students, doctoral students) CANNOT enrol for this course unit.				
651-3400-AA R	Fundamentals of Geochemistry Self-study course; only for those who got the requirement with their admission. Contact:			180s hrs	C. Liebske, P. A. Sossi
406-0243-AAL	Analysis I and II Enrolment ONLY for MSc students with a decree declaring this course unit as an additional admission requirement.	E-	14 credits	30R	
	Any other students (e.g. incoming exchange students, doctoral students) CANNOT enrol for this course unit.				
406-0243-AA R	Analysis I and II Self-study course. No presence required.			420s hrs	M. Akveld
406-0062-AAL	Physics I Enrolment ONLY for MSc students with a decree declaring this course unit as an additional admission requirement.	E-	5 credits	11R	
	Any other students (e.g. incoming exchange students, doctoral students) CANNOT enrol for this course unit.				
406-0062-AA R	Physics I Self-study course. No presence required.			150s hrs	A. Vaterlaus
651-3521-AAL	Tectonics Enrolment ONLY for MSc students with a decree declaring this course unit as an	E-	3 credits	6R	

Any other students (e.g. incoming exchange students, doctoral students)

CANNOT enrol for this course unit. 651-3521-AA R Tectonics 90s hrs T. Gerya, W. Behr Self-study course. No presence required.
Please contact Prof. T. Gerya for further information. 529-2001-AAL Chemistry I and II 19R 9 credits Enrolment ONLY for MSc students with a decree declaring this course unit as an additional admission requirement. Any other students (e.g. incoming exchange students, doctoral students) CANNOT enrol for this course unit. 529-2001-AA R Chemistry I and II 270s hrs J. Cvengros Self-study course. No presence required. 406-0603-AAL Stochastics (Probability and Statistics) 4 credits 9R Enrolment ONLY for MSc students with a decree declaring this course unit as an additional admission requirement. Any other students (e.g. incoming exchange students, doctoral students) CANNOT enrol for this course unit. 406-0603-AA R Stochastics (Probability and Statistics) 120s hrs M. Kalisch Self-study course. No presence required. Introduction to Engineering Geology 651-3525-AAL 3 credits 6R Enrolment ONLY for MSc students with a decree declaring this course unit as an additional admission requirement. Any other students (e.g. incoming exchange students, doctoral students) CANNOT enrol for this course unit. 651-3525-AA R Introduction to Engineering Geology
Self-study course, based on book "Geological Engineering" and 90s hrs S. Löw, L. de Palézieux dit Falconnet exercises. Presence only required for supervised exercises (on

0	Compulsory	E-	Recommended, not eligible for credits
W+	Eligible for credits and recommended	Z	Courses outside the curriculum
W	Eligible for credits	Dr	Suitable for doctorate

Rey IOI	nours		
V	lecture	P	practical/laboratory course
G	lecture with exercise	A	independent project
U	exercise	D	diploma thesis
S	seminar	R	revision course / private study
K	colloquium		
		<u> </u>	

ECTS European Credit Transfer and Accumulation System

Special students and auditors need special permission from the lecturers.

### **Mathematics Education Master**

### ► Courses Offered

	Title	Type	ECTS	Hours				Lecturers
851-0240-00L	Human Learning (EW1) This lecture is only apt for students who intend to enrol in the programs "Teaching Diploma" or "Teaching Certificate". It is about learning in childhood and adolescence.	0	2 credits	2V				
851-0240-00 V	Menschliches Lernen (EW1)			2 hrs	Tue	18-20	HG F1	E. Stern
851-0238-01L	Support and Diagnosis of Knowledge Acquisition Processes (EW3)  Enrolment only possible with matriculation in Teaching Diploma (except for students of Sport Teaching Diploma, who complete the sport-specific course unit EW3) and for students who intend to enrol in the "Teaching Diploma".		3 credits	3S				
	Prerequisites: successful participation in 851-0240-00L "Human Learning (EW1)".							
851-0238-01 S	(EW3) ■			3 hrs	Tue	14-17	CHN D42 CHN D44	<b>P. Edelsbrunner</b> , J. Maue C. M. Thurn
	,						OI II V D I I	
	Bei grosser Anzahl an Teilnehmenden wir d in zwei Gruppen stattfinden.	lie Lehr	veranstaltung					
Mathematics	Bei grosser Anzahl an Teilnehmenden wir d	ie Lehr	veranstaltung				G V D	
	Bei grosser Anzahl an Teilnehmenden wir d in zwei Gruppen stattfinden.	lie Lehr	veranstaltung	Z	(	Courses ou	tside the curric	ulum
W	Bei grosser Anzahl an Teilnehmenden wir d in zwei Gruppen stattfinden.  Education Master - Key for Type	lie Lehr	veranstaltung	Z Dr		Courses ou Suitable for	tside the curric	ulum
W E-	Bei grosser Anzahl an Teilnehmenden wir d in zwei Gruppen stattfinden.  Education Master - Key for Type  Eligible for credits	lie Lehr	veranstaltung		5	Suitable for	tside the curric	
W E-	Bei grosser Anzahl an Teilnehmenden wir din zwei Gruppen stattfinden.  Education Master - Key for Type  Eligible for credits  Recommended, not eligible for credits  Compulsory	lie Lehr	veranstaltung	Dr	5	Suitable for	tside the currice doctorate	
W E- O <b>Key for Hours</b>	Bei grosser Anzahl an Teilnehmenden wir din zwei Gruppen stattfinden.  Education Master - Key for Type  Eligible for credits  Recommended, not eligible for credits  Compulsory	lie Lehr	veranstaltung	Dr	E	Suitable for Eligible for (	tside the currice doctorate credits and reco	ommended
W E- O <b>Key for Hours</b>	Bei grosser Anzahl an Teilnehmenden wir din zwei Gruppen stattfinden.  Education Master - Key for Type  Eligible for credits  Recommended, not eligible for credits  Compulsory	lie Lehr	veranstaltung	Dr W+	E E	Suitable for Eligible for (	tside the currice doctorate credits and reco	ommended
W E- O <b>Key for Hours</b> V G	Bei grosser Anzahl an Teilnehmenden wir din zwei Gruppen stattfinden.  Education Master - Key for Type  Eligible for credits Recommended, not eligible for credits Compulsory	lie Lehr	veranstaltung	Dr W+	E F ii	Suitable for Eligible for o	tside the currice doctorate credits and reco	ommended
W E- O <b>Key for Hours</b> V G U	Bei grosser Anzahl an Teilnehmenden wir din zwei Gruppen stattfinden.  Education Master - Key for Type  Eligible for credits Recommended, not eligible for credits Compulsory  selecture lecture with exercise	lie Lehr	veranstaltung	Dr W+	E F iii	Suitable for Eligible for o practical/lat ndependen diploma the	tside the currice doctorate credits and reco	ommended

■ Special students and auditors need special permission from the lecturers.

### **Science Education Master**

### ► Educational Science (for all Directions)

Number	Title Typ	e ECTS	Hours				Lecturers
851-0240-00L	Human Learning (EW1)  This lecture is only apt for students who intend to enrol in the programs "Teaching Diploma" or "Teaching Certificate". It is about learning in childhood and adolescence.	2 credits	2V				
851-0240-00 V	Menschliches Lernen (EW1)		2 hrs	Tue	18-20	HG F1	E. Stern
851-0238-01L	Support and Diagnosis of Knowledge Acquisition Processes (EW3) Enrolment only possible with matriculation in Teaching Diploma (except for students of Sport Teaching Diploma, who complete the sport-specific course unit EW3) and for students who intend to enrol in the "Teaching Diploma".	3 credits	3S				
	Prerequisites: successful participation in 851-0240-00L "Human Learning (EW1)".						
851-0238-01 S	(EW3) ■	•	3 hrs	Tue	14-17	CHN D42 CHN D44	<b>P. Edelsbrunner</b> , J. Maue, C. M. Thurn
	Bei grosser Anzahl an Teilnehmenden wir die Le in zwei Gruppen stattfinden.	hrveranstaltung					

### **▶** Biological Direction

### **▶▶** Specialised Courses

### **▶▶▶** Introductory Courses

Selection of courses will be agreed with the course coordinator.

### ▶▶▶ Spec. Courses in Respective Subject with Educational Focus

Number	Title	Туре	ECTS	Hours				Lecturers
551-0973-00L	Specialized Biology Course with an Educational Focus: Evolution	W	6 credits	2G+13A				
551-0973-00 G	Fachwissenschaftliche Vertiefung in Biologi Fokus: Evolution ■	e mit pä	dagogischem	2 hrs	Tue	09-12	HIT K52	<b>H. Stocker</b> , Y. Barral, K. Köhler
551-0973-00 A	Fachwissenschaftliche Vertiefung in Biologi Fokus: Evolution ■	e mit pä	dagogischem	180s hrs				<b>H. Stocker</b> , Y. Barral, K. Köhler

### **▶▶** Subject Didactics

Number	Title	Type	ECTS	Hours				Lecturers
551-0913-00L	Professional Exercises in Biology	w	2 credits	2U				
551-0913-00 U	Berufspraktische Übungen: biologische Sci 7 Halbtage (Samstagmorgen), alle 2 Woch Beginn in der ersten Semesterwoche Ort: KS Rychenberg, Winterthur (ev. eine B	nen im Semester,		2 hrs				P. Faller
551-0971-00L	Subject Didactics Biology I Simultaneous enrolment in Introductory Internship Biology - course 551-0968-00L - is compulsory.	. <b>W</b>	4 credits	3G				
551-0971-00 G	Fachdidaktik Biologie I ■			3 hrs	Thu	16-19	LFW C4	P. Faller
402-0091-00L	Teaching Science in Higher Education	w	3 credits	1V				
402-0091-00 V	aturwissenschaftsdidaktik auf Hochschulebene  Eröffnungstreffen: 24.9. 2021 16:00, Raum: tba. Hier werden e restlichen Termine festgelegt: x Arbeitssitzungen (ganzer Nachmittag, 14-18 Uhr) x Vorlesungsbesuch Physik I (2 Stunden)			20s hrs				G. Schiltz

### **▶** Chemical Direction

### **▶▶** Specialised Courses

### **▶▶▶** Introductory Courses

Selection of courses will be agreed with the course coordinator.

### ▶▶▶ Spec. Courses in Respective Subject with Educational Focus

Number	Title	Type	ECTS	Hours	Lecturers
529-0962-00L	Fundamental Aspects of Chemistry with an Educational Focus B Mentored Work with an Educational Focus Chemistry B for Teaching Diploma.		4 credits	2V	
	Information for UZH students: Enrolment to this course unit only possible at ETH. No enrolment to module CHE406 at UZH. Examination Registration only at ETH.				

Please mind the ETH enrolment deadlines

for UZH students:

https://www.ethz.ch/en/studies/non-

degreecourses/special-

students/special-

students-university-of-zurich.html

529-0962-00 V Vertiefte Grundlagen der Chemie B für Lehrdiplom \*\*gemeinsam mit der Universität Zürich\*\*

2 hrs Wed 18-20 HCI D8

A. Togni, R. Alberto

### **▶▶** Subject Didactics

Number	Title	Type	ECTS	Hours			Lecturers
529-0950-00L	Subject Didactics Chemistry I Simultaneous enrolment in Introductory Internship Chemistry - course 529- 0966-00L - is compulsory.	W	4 credits	3G			
529-0950-00 G	Fachdidaktik Chemie I ORT: Lageplan: http://fdchemie.pbworks.com/w/page/4580 %20Organisation	1830/Üb	ersicht%20ur	3 hrs	Fri	15-18	A. Baertsch
402-0091-00L	Teaching Science in Higher Education	w	3 credits	1V			
402-0091-00 V	Naturwissenschaftsdidaktik auf Hochschule	ebene <b>=</b>		20s hrs			G. Schiltz
	1 Eröffnungstreffen: 24.9. 2021 16:00, Rau die restlichen Termine festgelegt: 4x Arbeitssitzungen (ganzer Nachmittag, 1- 1x Vorlesungsbesuch Physik I (2 Stunden)	4-18 Uhi					

### **▶** Physical Direction

### **▶▶** Specialised Courses

### **▶▶▶** Introductory Courses

Selection of courses will be agreed with the course coordinator.

### ▶▶▶ Spec. Courses in Respective Subject with Educational Focus

Number	Title	Type	ECTS	Hours				Lecturers
402-0737-00L	Energy and Sustainability in the 21st Century (Part I)	W	6 credits	2V+1U				
402-0737-00 V	Energy and Sustainability in the 21st Centu	and Sustainability in the 21st Century (Part I)			Fri	09-11	HIT F32	P. Morf
402-0737-00 U	Energy and Sustainability in the 21st Centu	ıry (Part	I)	1 hrs	Fri 24.09.	11-12 08-12	HIT F32 HIT F12	P. Morf

102 0701 00 1	Energy and Sustainability in the 21st Sentary	y (i aiti	'/	21113	1 11	03-11	1111132	I . WIOTI
402-0737-00 U	Energy and Sustainability in the 21st Century	/ (Part	1)	1 hrs	Fri 24.09.	11-12 08-12	HIT F32 HIT F12	P. Morf
►► Subject	Didactics							
Number	Title	Туре	ECTS	Hours				Lecturers
402-0910-00L	Physics Didactics I: Special Didactics of Physics Teaching Limited number of participants. Further information is available from the lecturer via email: mamohr@ethz.ch Simultaneous enrolment in Introductory	W	4 credits	3G				
	Internship Physics - course 402-0920-00L - is compulsory for Teaching Diploma Physic							
	Information for UZH students: Enrolment to this course unit only possible at ETH. No enrolment to module 090Phy1 at UZH. Please mind the ETH enrolment deadlines for UZH students: https://www.ethz.ch/en/studies/non-degree-courses/special-students/special-students-university-of-zurich.html							
402-0910-00 G	Fachdidaktik Physik I: Spezielle Didaktik des **gemeinsam mit der Universität Zürich**	Physik	unterrichts	3 hrs	Thu	15-18	Ex tern	M. Mohr
	Zeit: Wöchentlich 15:30-18:00 Ort: Kantonsschule Zürcher Oberland, Schei Wetzikon, Zimmer 2.24	llerstras	sse 18, 8620					
	Blockveranstaltung am 7.10. Daten: keine Veranstaltung am 14.10. und 2 schriftliche Anmeldung bis 31.8.	1.10.						
	3	w	3 credits	1V				
402-0091-00 V	Naturwissenschaftsdidaktik auf Hochschuleb 1 Eröffnungstreffen: 24.9. 2021 16:00, Raum die restlichen Termine festgelegt: 4x Arbeitssitzungen (ganzer Nachmittag, 14- 1x Vorlesungsbesuch Physik I (2 Stunden)	ı: tba. F		20s hrs				G. Schiltz

### ► Natural Sciences

Number	Title	Type	ECTS	Hours				Lecturers
651-3001-00L	Dynamic Earth I	w	6 credits	4V+2U				
651-3001-00 V	Dynamische Erde I			4 hrs	Tue Thu	14-16 14-16	NO C60 NO C60	O. Bachmann, A. Fichtner, M. Schönbächler, S. Willett
651-3001-00 U	Dynamische Erde I Groups are selected in myStudies.			2 hrs	Mon	08-10	NO D1 NO D11	A. Galli
	Die Gruppeneinteilung wird über de wählen" gemacht. Die Übungen be Woche des Semesters.				10-12	NO D11 NO D1 NO E51.1 NO G51.1		
						16-18	NO D1 NO D69	
					Tue	08-10	NO E51.1 NO F39	
						10-12	NO D1	
						16-18	NO D1	
						.0.0	NO E11	
							NO E39	
							NO F39	
							NO G51.1	
					Wed	14-16	NO D1	
					Thu	10-12	NO D69	
						16-18	NO D1	
							NO D11	
							NO E11	
							NO E51.1	
Science Educ	ation Master - Key for Type							
N+	Eligible for credits and recommende	ed		0	С	ompulsory	,	
V	Eligible for credits			Z	С	ourses ou	tside the curricu	ulum
E-	Recommended, not eligible for cred	:4-		Dr	0	uitable for		

Key for	Hours		
V	lecture	P	practical/laboratory course
G	lecture with exercise	A	independent project
U	exercise	D	diploma thesis
S	seminar	R	revision course / private study
K	colloquium		

ECTS European Credit Transfer and Accumulation System

• Special students and auditors need special permission from the lecturers.

## **Geography Teaching Diploma**

More informations at: https://www.ethz.ch/de/studium/didaktische-ausbildung/studienangebot-zulassung/lehrdiplom-fuer-maturitaetsschulen.html

#### **▶** Educational Science

Course offerings in the category Educational Science are listed under "Programme: Educational Science for Teaching Diploma and TC".

Number	Title	Type	ECTS	Hours				Lecturers
	see Educational Science Teaching Diploma							
851-0242-06L	Cognitively Activating Instructions in MINT Subjects Enrolment only possible with matriculation in Teaching Diploma or Teaching Certificate (excluding Teaching Diploma Sport).	W	2 credits	2\$				
	This course unit can only be enrolled after successful participation in, or during enrollment in the course "Human Learning (EW 1)".							
851-0242-06 S	Kognitiv aktivierender Unterricht in den MIN Unregelmässige Lehrveranstaltung; für eine Semesterplanung wird um frühe Anmeldung Erscheinen zum ersten Lehrveranstaltungst	e reibung g und pe	gslose ersönliches	2 hrs	Wed	18-20	ML H41.1	R. Schumacher
851-0242-07L	Human Intelligence Enrolment only possible with matriculation in Teaching Diploma or Teaching Certificate (excluding Teaching Diploma Sport). Number of participants limited to 30. This course unit can only be enrolled after successful participation in, or during enrollment in the course "Human Learning (EW 1)".	W	1 credit	1\$				
851-0242-07 S	Menschliche Intelligenz Unregelmässige Lehrveranstaltung. An zwei Terminen findet die Lehrveranstalte TeilnehmerInnen statt und an den übrigen Teilnem Teil der Studierenden (Kleingruppen, gemeinsam vereinbart.	Terminer	n nur mit	14s hrs	Wed	16-18	ML F40	E. Stern
851-0242-08L	Research Methods in Educational Science Number of participants limited to 30 This course unit can only be enrolled after successful participation in, or during enrollment in the course "Human Learning (EW 1)".	W	1 credit	2S				
851-0242-08 S	Forschungsmethoden der empirischen Bildt Unregelmässige Lehrveranstaltung.  Zwei obligatorische Präsenztermine: 29.09.		-	21s hrs	Wed	12-15	LFW C1	P. Edelsbrunner, T. Braas, C. M. Thurn
	An den übrigen Terminen nur mit einem Tei (jeweils mit 1-2 Kleingruppen).							
851-0242-11L	<b>Gender Issues In Education and STEM</b> Number of participants limited to 30.	W	2 credits	2\$				
	Enrolment only possible with matriculation in Teaching Diploma or Teaching Certificate (excluding Teaching Diploma Sport).							
	Prerequisite: students should be taking the course 851-0240-00L Human Learning (EW1) in parallel, or to have successfully completed it.							
851-0242-11 S	Gender Issues In Education and STEM ■			2 hrs	Thu	10-12	LEE C114	M. Berkowitz Biran, T. Braas C. M. Thurn
851-0229-00L	Using Outdoor Education Number of participants limited to 40.	W	1 credit	18				
	Enrolment only possible with matriculation in Teaching Diploma Biology and Geography.							
851-0229-00 S	Ausserschulische Lernorte nutzen ■ Das erste Treffen findet in der 1. Semesterv folgen.	voche si	tatt. Details	15s hrs				R. Schumacher, P. Faller

### ► Subject Didactics in Geography

Important: You can only enrole in the courses of this category if you have not more than 12 CP left for possible additional requirements.

Number	Title	Туре	ECTS	Hours	Lecturers
651-4239-00L	Didactics Geography I (University of Zurich)	0	3 credits	2G	

No enrolment to this course at ETH Zurich. Book the corresponding module directly at UZH as an incoming student. UZH Module Code: 090GG1

Limited number of participants. In addition to the course enrollment a registration by email is required to Dr. Stefan Hesske (E-Mail: stefan.hesske @ife.uzh.ch).

Mind the enrolment deadlines at UZH:https://www.uzh.ch/cmsssl/en/studies/ application/deadlines.html

651-4239-00 G Fachdidaktik Geographie I (Universität Zürich)
\*\*gemeinsam mit der Universität Zürich\*\*

2 hrs

University lecturers

Wichtig: Startveranstaltung ist wichtig und deshalb obligatorisch

<b>651-4124-00L</b> 651-4124-00 G	Examination Didactics Prüfung Fachdidaktik ■	0	1 credit	<b>2G</b> 25s hrs	by appt.	S. Hesske, J. Rafflenbeul
	**gemeinsam mit der Universität Zürich**					
651-4120-00L	Geography Didactics IV: Mentored Project Prerequisites: successful participation in Geography Didactics of Geography Teaching I, II, III	0	2 credits	4A		
651-4120-00 A	Fachdidaktik Geographie IV: Mentorierte Arb **gemeinsam mit der Universität Zürich**  Bitte melden Sie sich bei den Dozierenden zund Terminplanung.		Einführung	60s hrs	by appt.	S. Hesske, J. Rafflenbeul
651-4118-00L	Geography Didactics of Geography Teaching III (University of Zurich) No enrolment to this course at ETH Zurich. Book the corresponding module directly at UZH as an incoming student. UZH Module Code: 090GG3	0	3 credits	2G		
	Limited number of participants. In addition to the course enrollment a registration by email is required no later than September 1 for autumn semester, February 1 for spring semester. Further details see UZH module.  Mind the enrolment deadlines at UZH:					
	https://www.uzh.ch/cmsssl/en/studies/application/deadlines.html					
651-4118-00 G	Fachdidaktik Geographie III (Universität Züri **gemeinsam mit der Universität Zürich**	ch)		2 hrs		University lecturers

### ► Professional Training in Geography

Number	Title	Type	ECTS	Hours		Lecturers
651-2519-01L	Introductory Internship (University of Zürich)	0	1 credit	2P		
	No enrolment to this course at ETH Zurich. Book the corresponding module directly at UZH as an incoming student. UZH Module Code: 090BPEP					
	Mind the enrolment deadlines at UZH: https://www.uzh.ch/cmsssl/en/studies/appli cation/deadlines.html					
651-2519-01 P	Hospitationspraktikum (Universität Zürich) **gemeinsam mit der Universität Zürich**			30s hrs	by appt.	University lecturers
651-2519-02L	Practice Lessons for Didactics (University of Zurich) No enrolment to this course at ETH Zurich. Book the corresponding module directly at UZH as an incoming student. UZH Module Code: 090BPUE	0	2 credits	4P		
	Mind the enrolment deadlines at UZH: https://www.uzh.ch/cmsssl/en/studies/appli cation/deadlines.html					
651-2519-02 P	Übungslektionen im Rahmen der Fachdidak **Kurs an der Universität Zürich**	ktik (Uni	versität Zürich	n) 60s hrs	by appt.	University lecturers
651-2517-00L	Teaching Internship I Geography (University of Zürich) No enrolment to this course at ETH Zurich. Book the corresponding module directly at UZH as an incoming student. UZH Module Code: 090BPP1	0	8 credits	17P		

Mind the enrolment deadlines at UZH: https://www.uzh.ch/cmsssl/en/studies/appli cation/deadlines.html 651-2517-00 P Unterrichtspraktikum I Geographie (Universität Zürich) University lecturers 240s hrs by appt. \*\*gemeinsam mit der Universität Zürich\*\* 50 Lektionen, davon 30 unterrichtet Es ist eine frühzeitige Anmeldung für das Praktikum erforderlich (spätester Termin für das FS: 15.12. und HS: 15.6.). Weitere Informationen unter http://www.ife.uzh.ch/de/llbm/lehrdiplomfuermaturitaetsschulen/be rufspraktischeausbildung.html 651-2520-01L **Examination Lesson I Geography** 1 credit 2P O To be completed together with Examination Lesson II 651-2520-02. 651-2520-01 P Prüfungslektion untere Stufe Geographie ■ S. Hesske, J. Rafflenbeul 30s hrs by appt. \*\*gemeinsam mit der Universität Zürich\*\* 651-2520-02L **Examination Lesson II Geography** 1 credit 2P To be completed together with Examination Lesson I 651-2520-01. 651-2520-02 P Prüfungslektion obere Stufe Geographie ■ S. Hesske, J. Rafflenbeul 30s hrs by appt. \*\*gemeinsam mit der Universität Zürich\*\* 651-4137-00L Semester Paper Within the 1st Teaching O 4P 2 credits Internship Geography (University of Zurich) No enrolment to this course at ETH Zurich. Book the corresponding module directly at UZH as an incoming student. UZH Module Code: 090BPPJ Mind the enrolment deadlines at UZH: https://www.uzh.ch/cmsssl/en/studies/appli cation/deadlines.html 651-4137-00 P Praktikumsjournal im Rahmen des 1. Unterrichtspraktikums 60s hrs by appt. University lecturers (Universität Zürich) \*\*gemeinsam mit der Universität Zürich\*\* ► Spec. Courses in Resp. Subj. w/ Educ. Focus & Further Subj. Didactics

Number	Title	Туре	ECTS	Hours	Lecturers
651-2517-02L	Teaching Internship II-E Geography (University of Zürich) No enrolment to this course at ETH Zurich. Book the corresponding module directly at UZH as an incoming student. UZH Module Code: 090BPP2 An additional registration at LLBM is needed for further details refer to the module of UZH.	0	6 credits	13P	
	Mind the enrolment deadlines at UZH: https://www.uzh.ch/cmsssl/en/studies/appli cation/deadlines.html				
651-2517-02 P	Unterrichtspraktikum II-E Geographie (Univ **gemeinsam mit der Universität Zürich**	ersität Z	ürich)	180s hrs by appt.	University lecturers
	40 Lektionen, davon 30 unterrichtet				
	Es ist eine frühzeitige Anmeldung für das P (spätester Termin für das FS: 15.12. und H: Weitere Informationen unter http://www.ife.uzh.ch/de/llbm/lehrdiplomfuei rufspraktischeausbildung.html	S: 15.6.)	).		
651-4136-00L	Learning Locations for Geography and Geography Didatctics (University of Zurich) No enrolment to this course at ETH Zurich. Book the corresponding module directly at UZH as an incoming student. UZH Module Code: GEO992	0	3 credits	6G	
651-4136-00 G	0 1	daktik (U	Iniversität	90s hrs	University lecturers
	Zürich) **gemeinsam mit der Universität Zürich**	(0			

### ► Compulsory Elective Courses

Further course offerings from the category Educational Science are listed under "Programme: Educational Science for Teaching Diploma and TC".

Number	Title	Type ECTS	Hours	Lecturers

	see Compulsory Elective Courses Teaching Diploma							
851-0229-00L	Using Outdoor Education Number of participants limited to 40.	W	1 credit	1S				
	Enrolment only possible with matriculation in Teaching Diploma Biology and Geography.							
851-0229-00 S	Ausserschulische Lernorte nutzen ■ Das erste Treffen findet in der 1. Semestern folgen.	oche :	statt. Details	15s hrs				R. Schumacher, P. Faller
860-0023-00L	International Environmental Politics Particularly suitable for students of D-ITET, D-USYS	W	3 credits	2V				
860-0023-00 V	International Environmental Politics			2 hrs	Mon	16-18	HG F3	T. Bernauer

## ► Additional Requirements (ETH-Masterstudents in ERDW and AC)

### ▶▶ Part 1

### **▶▶▶** Compulsory Modules

Number	Title	Type	ECTS	Hours	Lecturers
651-2601-00L	Human Geography I: One Earth - Many Worlds (University of Zurich) No enrolment to this course at ETH Zurich. Book the corresponding module directly at UZH as an incoming student. UZH Module Code: GEO112 Mind the enrolment deadlines at UZH: https://www.uzh.ch/cmsssl/en/studies/appli	0	5 credits	2V+2U	
	cation/deadlines.html				
651-2601-00 V	Humangeographie I: Eine Erde - viele Welte **Kurs an der Universität Zürich**	en (Univ	ersität Zürich)	2 hrs	University lecturers
651-2601-00 U	Übungen Humangeographie I (Universität Z **Kurs an der Universität Zürich**	ürich)		2 hrs	University lecturers
651-2613-00L	Humangeography III (Geographies of Difference) (Universität Zürich) No enrolment to this course at ETH Zurich. Book the corresponding module directly at UZH as an incoming student. UZH Module Code: GEO232  Recommended prerequisite: Human Geography II (UZH Module Code:	0	5 credits	1G+2S	
	GEO122)				
	Mind the enrolment deadlines at UZH: https://www.uzh.ch/cmsssl/en/studies/appli cation/deadlines.html				
651-2613-00 G	Humangeography III (Geographies of Differe Zurich)  **Kurs an der Universität Zürich**	ence) (L	Iniversity of	14s hrs	University lecturers
651-2613-00 S	Humangeography III (Geographies of Differe Zurich) **Kurs an der Universität Zürich**	ence) (L	Iniversity of	2 hrs	University lecturers

### **▶▶▶** Modules of Choice

Number	Title	Type	ECTS	Hours	Lecturers
651-2603-00L	Geography. Matters. (University of Zurich) No enrolment to this course at ETH Zurich. Book the corresponding module directly at UZH as an incoming student. UZH Module Code: GEO410	W	4 credits	2V	
	Mind the enrolment deadlines at UZH: https://www.uzh.ch/cmsssl/en/studies/appli cation/deadlines.html				
651-2603-00 V	Geography. Matters. (University of Zurich) **Kurs an der Universität Zürich**			2 hrs	University lecturers

#### ▶▶ Part 2

· · · · · · · · ·									
Number	Title	Туре	ECTS	Hours	Lecturers				
651-4088-03L	Phyisical Geography III (Geomorphology and Glaciology) (University of Zürich) No enrolment to this course at ETH Zurich. Book the corresponding module directly at UZH as an incoming student. UZH Module Code: GEO231	W	5 credits	1V+1U					

Mind the enrolment deadlines at UZH: https://www.uzh.ch/cmsssl/en/studies/appli cation/deadlines.html

651-4088-03 V Physische Geographie III: Geomorphologie und Glaziologie (Universität Zürich)
\*\*Kurs an der Universität Zürich\*\*

University lecturers

651-4088-03 U Physische Geographie III: Übungen zu Physische Geographie in 14s hrs Gruppen (Universität Zürich)
\*\*Kurs an der Universität Zürich\*\* University lecturers

14s hrs

#### ▶▶ Part 3

Number	Title	Type	ECTS	Hours				Lecturers
651-2338-00L	Remote Sensing and Geographic Information Science III (University of Zürich) No enrolment to this course at ETH Zurich. Book the corresponding module directly at UZH as an incoming student. UZH Module Code: GEO233	W	5 credits	2V+3U				
	Mind the enrolment deadlines at UZH: https://www.uzh.ch/cmsssl/en/studies/appli cation/deadlines.html							
651-2338-00 V	Grundlagen der Fernerkundung (Universität **Kurs an der Universität Zürich**	t Zürich)		2 hrs				University lecturers
651-2338-00 U	Übungen zu Grundlagen der Fernerkundung (Universität Zürich) **Kurs an der Universität Zürich**	g in Gru	ppen	3 hrs				University lecturers
103-0214-00L	Cartography Fundamentals	W	5 credits	4G				
103-0214-00 G	Kartografie GZ			4 hrs	Tue	14-18	HIL E7	L. Hurni

Geography Teaching Diploma - Key for Type										
0	Compulsory	E-	Recommended, not eligible for credits							
W+	Eligible for credits and recommended	Z	Courses outside the curriculum							
W	Eligible for credits	Dr	Suitable for doctorate							

Key for	Hours			
V	lecture	P	practical/laboratory course	
G	lecture with exercise	A	independent project	
U	exercise	D	diploma thesis	
S	seminar	R	revision course / private study	
K	colloquium			

**ECTS** European Credit Transfer and Accumulation System

Special students and auditors need special permission from the lecturers.

# **Geomatic Engineering Master**

### ► Major Courses

## ▶▶ Major in Engineering Geodesy and Photogrammetry

Number	Title	Type	ECTS	Hours				Lecturers
103-0287-00L	Image Interpretation	0	4 credits	3G				
103-0287-00 G	Image Interpretation			3 hrs	Thu	09-12	HIL D53	K. Schindler
03-0137-00L	Engineering Geodesy	0	4 credits	3G				
	Engineering Geodesy	•	4 Ground	3 hrs	Tue	13-16	HIL C71.3	A. Wieser, J. Qiao
03-0267-01L	Photogrammetry and 3D Vision Lab	w	3 credits	2G				
03-0267-01L	Priotogrammetry and 3D vision Lab Prerequisites: It is suggested that students take the course "Photogrammetrie" at bachelor level before this one.	vv	3 Credits	26				
03-0267-01 G	Photogrammetry and 3D Vision Lab			2 hrs	Fri	10-12	HIL D55.2	C. Albi
03-0787-00L	Project Parameter Estimation	w	3 credits	3P				
03-0787-00 P	Project Parameter Estimation			3 hrs	Fri	09-12	HIL C71.3	J. A. Butt, T. Medic
02-0617-00L	Basics and Principles of Radar Remote	W	3 credits	2G				
02-0617-00 G	Sensing for Environmental Applications Basics and Principles of Radar Remote Sen Environmental Applications	sing for		2 hrs	Wed	10-12	HIL E9	I. Hajnsek
103-0687-00L	Cadastral Systems	w	2 credits	2G				
	Cadastral Systems	••	Lorcano	2 hrs	Thu	17-19	HIT J51	D. M. Steudler
		14/	0			17 10		D. IIII Glodaloi
	Computer Vision	W	8 credits	3V+1U+3		1116	NO CGO	M Bellefeve S Tong E V
.63-5902-00 V	Computer Vision			3 hrs	Wed Thu	14-16 12-13	NO C60 HG G5	<b>M. Pollefeys</b> , <b>S. Tang</b> , F. Yu
263-5902-00 U	Computer Vision			1 hrs	Thu	13-14	CAB G51	M. Pollefeys, S. Tang, F. Yu
	,				Fri	13-14	CAB G51	, . ,
263-5902-00 A	Computer Vision			3 hrs				M. Pollefeys, S. Tang, F. Yu
03-0820-00L	Introduction to Scientific Computation	w	3 credits	2G				
03-0820-00 G	Introduction to Scientific Computation			2 hrs	Wed	08-10	HIL E6	M. Usvyatsov
351-0724-01L	Real Estate Property Law Particularly suitable for students of D-	w	3 credits	3V				·
51-0724-01 V	ARCH, D-BAUG, D-USYS Immobiliarsachenrecht			3 hrs	Mon	17-20	HIL E7	<b>M. Huser</b> , R. Müller-Wyss, S. Stucki
►► Major in	Space Geodesy and Navigatio	n						
Number	Title	Туре	ECTS	Hours				Lecturers
103-0187-01L	Space Geodesy	0	4 credits	3G				
	Space Geodesy			3 hrs	Mon	10-12	HIT H51	M. Rothacher
	opass could,				Tue	16-17	HIT H51	
103-0657-01L	Signal Processing, Modeling, Inversion	0	3 credits	2G				
	Signal Processing, Modeling, Inversion			2 hrs	Tue	10-12	HIL D53	B. Soja
03-0627-00L	Space Geodesy Lab	W	5 credits	3P				
	Space Geodesy Lab	••	Juleuns	3 hrs	Mon	13-16	HIL D10.2	<b>G. Möller</b> , R. Hohensinn, M. Rothacher, B. Soja
103-0787-00L	Project Parameter Estimation	W	3 credits	3P				
03-0787-00 P	Project Parameter Estimation			3 hrs	Fri	09-12	HIL C71.3	J. A. Butt, T. Medic
02-0617-00L	Basics and Principles of Radar Remote Sensing for Environmental Applications	W	3 credits	2G				
	Basics and Principles of Radar Remote Sen Environmental Applications			2 hrs	Wed	10-12	HIL E9	I. Hajnsek
	Cadastral Systems	W	2 credits	2G	<b>T</b> 1.	47.40	LUT 154	D. M. O(
03-0687-00 G	Cadastral Systems			2 hrs	Thu	17-19	HIT J51	D. M. Steudler
351-0724-01L	Real Estate Property Law Particularly suitable for students of D- ARCH, D-BAUG, D-USYS	W	3 credits	3V				
351-0724-01 V	Immobiliarsachenrecht			3 hrs	Mon	17-20	HIL E7	<b>M. Huser</b> , R. Müller-Wyss, S. Stucki
►► Major in	GIS and Cartography							
lumber	Title	Туре	ECTS	Hours				Lecturers
03-0227-00L	Cartography III	0	5 credits	4G				
	Cartography III			4 hrs	Mon	13-17	HIL G22	L. Hurni
03-0237-00L	GIS III	0	5 credits	3 <b>G</b>				
03-0237-00L		•	Jordana	3 hrs	Thu	14-17	HIL D53	W. Kuhn
		18/	C ====-!!-		u	,	500	
	•	W	6 credits	13A	by and			I Hurni
	Cartography Lab			180s hrs	by appt.			L. Hurni
	Cadastral Systems Cadastral Systems	W	2 credits	<b>2G</b> 2 hrs	Thu	17-19	HIT J51	D. M. Steudler

103-0230-00L	interoperability of GIS	**	4 Creuits	30				
103-0258-00 G	Interoperability of GIS			3 hrs	Fri	14-17	HIL G22	J. Schito
103-0778-00L	GIS and Geoinformatics Lab	W	4 credits	3P				
103-0778-00 P	GIS and Geoinformatics Lab			3 hrs	Tue 21.12.	14-17 10-18	HIL D54.1 HIT E51	P. Kiefer
851-0724-01L	Real Estate Property Law Particularly suitable for students of D- ARCH, D-BAUG, D-USYS	W	3 credits	3V				
851-0724-01 V	Immobiliarsachenrecht			3 hrs	Mon	17-20	HIL E7	<b>M. Huser</b> , R. Müller-Wyss, S. Stucki
▶▶ Major ir	n Planning							
Number	Title	Туре	ECTS	Hours				Lecturers
103-0347-00L	Landscape Planning and Environmental Systems	0	3 credits	2V				
103-0347-00 V	Landscape Planning and Environmental Sys	stems =		2 hrs	Fri	08-10	HIL E8	A. Grêt-Regamey
103-0337-00L	Site and Project Development	W	3 credits	2G				
103-0337-00 G	Standort- und Projektentwicklung			2 hrs	Fri 08.10. 15.10. 12.11.	12-14 12-14 12-14 12-14	HIL H40.9 HIT K51 HIT K51 HIT K51	A. Gonzalez Martinez, M. Sudau, J. Van Wezemael
103-0317-00L	Introduction to Spatial Development and Transformation Only for master students, otherwise a special permisson by the lecturer is required.	0	3 credits	2G				
103-0317-00 G	Introduction to Spatial Development and Tra	ansform	ation	2 hrs	Tue	10-12	HIL E6	M. Nollert, D. Kaufmann
103-0417-02L	Methodology of Planning Research and Practice Only for master students, otherwise a special permisson by the lecturer is required.	W	3 credits	2G				
103-0417-02 G	Methoden der Planung in Forschung und Pr	axis		2 hrs	Wed	14-16	HIL D60.1	A. Peric Momcilovic, T. B. Hug, R. Streit
101-0427-01L	Public Transport Design and Operations	W	6 credits	4G				
101-0427-01 G	Public Transport Design and Operations			4 hrs	Mon Thu	14-16 08-10	HIL E10.1 HIL E10.1	F. Corman, F. Leutwiler
101-0417-00L	Transport Planning Methods	W	6 credits	4G				
101-0417-00 G	Transport Planning Methods			4 hrs	Mon Wed 22.09. 27.09. 29.09. 04.10. 06.10.	10-12 10-12 10-12 10-12 10-12 10-12 10-12	HIL F36.1 HIL F36.1 HCP E47.1 HIL F10.3 HCP E47.1 HIL F10.3 HCP E47.1	K. W. Axhausen
103-0347-01L	Landscape Planning and Environmental Systems (GIS Exercises)	W	3 credits	2U				
103-0347-01 U	Landscape Planning and Environmental Sys	stems (0	GIS Exercises)	2 hrs	Wed	16-18	HIL E10.1 HIL E15.2 HIL F15.4	A. Grêt-Regamey, C. Brouillet, N. Klein
103-0569-00L	European Aspects of Spatial Development	W	3 credits	2G				
103-0569-00 G	European Aspects of Spatial Development Online lecture: This lecture will primarily take Reserved rooms will remain available for stu- seminar from there.			2 hrs	Tue	16-18	HIL D53	A. Peric Momcilovic

w

4 credits

3G

103-0258-00L Interoperability of GIS

### ► Electives

The entire course programs of ETH Zurich and the University of Zurich are open to the students to individual selection.

### **▶▶** Recommended Electives of Master Degree Programme

Number	Title	Туре	ECTS	Hours	Lecturers
363-1065-00L	Design Thinking: Human-Centred Solutions to Real World Challenges	W	5 credits	5G	
363-1065-00 G	Design Thinking: Human-Centred Solutions Challenges Does not take place this semester. From FS22 in the spring semester.	to Real	World	5 hrs	S. Brusoni
101-0193-00L	Systemic Design Labs: RE:GENERATE Alpine-Urban Circularity	W	4 credits	2 <b>S</b>	
101-0193-00 S	Systemic Design Labs: RE:GENERATE Alp Intro: 24.9.21, 14-17h Block (excursion/field work): 1317.10.21, 1 Final presentation: 10.12.21, 14-17h		Í	30s hrs	T. Luthe
263-5905-00L	Mixed Reality	W	5 credits	3G+1A	

263-5905-00 G Mixed Reality 3 hrs Mon 10-13 CAB G11 263-5905-00 A Mixed Reality 1 hrs

I. Armeni, F. Bogo, M. Pollefeys I. Armeni, F. Bogo, M. Pollefeys

#### **▶▶** Electives ETH Zurich

Course Catalogue of ETH Zurich

#### **▶** Seminar Work

Number	Title	Type	ECTS	Hours				Lecturers
103-0817-00L	Geomatics Seminar	0	4 credits	2S				
103-0817-00 S	Geomatics Seminar ■			2 hrs	Mon	08-10	HIL D53	K. Schindler, K. W. Axhausen, A. Grêt-Regamey, L. Hurni, W. Kuhn, M. Rothacher, A. Wieser

### ► Interdisciplinary Project Work

Number	Title	Type	ECTS	Hours	Lecturers
103-0298-02L	Interdisciplinary Project Registration via myStudies from mid-July	0	12 credits	24A	
103-0298-02 A	Interdisciplinary Project			330s hrs by appt.	Professors

### ► GESS Science in Perspective

see GESS Science in Perspective: Language Courses ETH/UZH see GESS Science in Perspective: Type A:

Enhancement of Reflection Capability
Recommended GESS Science in
Perspective (Type B) for D-BAUG.

#### ► Master's Thesis

Number	Title	Type	ECTS	Hours		Lecturers
103-0009-00L	Master's Thesis Before starting the Master's thesis, students must have a. obtained the Bachelor's degree; b. fulfilled all specified admission conditions, if any; c. acquired at least 90 credits in the Master's programme, including 12 credits in the area of the interdisciplinary project.		24 credits	51D		
103-0009-00 D	Master's Thesis ■ Permission from lecturers required for all st	udents		720s hrs	by appt.	Supervisors

#### ► Course Units for Additional Admission Requirements

The courses below are only available for MSc students with additional admission requirements.

Number	Title	Type	ECTS	Hours	Lecturers
103-0132-AAL	Geodetic Metrology Fundamentals Enrolment ONLY for MSc students with a decree declaring this course unit as an additional admission requirement.	E-	6 credits	13R	
	Any other students (e.g. incoming exchange students, doctoral students) CANNOT enrol for this course unit.				
103-0132-AA R	Geodetic Metrology Fundamentals Self-study course. No presence required.			180s hrs	A. Wieser
101-0414-AAL	Transport Planning (Transportation I) Enrolment ONLY for MSc students with a decree declaring this course unit as an additional admission requirement.	E-	3 credits	6R	
	Any other students (e.g. incoming exchange students, doctoral students) CANNOT enrol for this course unit.				
101-0414-AA R	Transport Planning (Transportation I) Self-study course. No presence required.			90s hrs	K. W. Axhausen
103-0153-AAL	Cartography II Enrolment ONLY for MSc students with a decree declaring this course unit as an additional admission requirement.	E-	6 credits	13R	
	Any other students (e.g. incoming exchange students, doctoral students) CANNOT enrol for this course unit.				
103-0153-AA R	Cartography II Self-study course. No presence required. References and other materials will be disti supervisors.	ributed b	y the	180s hrs	L. Hurni

103-0214-AAL	Cartography Fundamentals Enrolment ONLY for MSc students with a decree declaring this course unit as an additional admission requirement.	E-	5 credits	11R	
	Any other students (e.g. incoming exchange students, doctoral students) CANNOT enrol for this course unit.				
103-0214-AA R	Cartography Fundamentals Self-study course. No presence required. References and other materials will be distri- supervisors.	ibuted b	by the	150s hrs	L. Hurni
103-0253-AAL	Parameter Estimation Enrolment ONLY for MSc students with a decree declaring this course unit as an additional admission requirement.	E-	4 credits	9R	
103-0253-AA R	Any other students (e.g. incoming exchange students, doctoral students) CANNOT enrol for this course unit. Parameter Estimation Self-study course. No presence required.			120s hrs	E. Brockmann
103-0254-AAL	Photogrammetry Enrolment ONLY for MSc students with a decree declaring this course unit as an additional admission requirement.	E-	6 credits	13R	
103-0254-AA R	Any other students (e.g. incoming exchange students, doctoral students) CANNOT enrol for this course unit. Photogrammetry			180s hrs	K. Schindler
103-0274-AAL	Self-study course. No presence required.  Image Processing Enrolment ONLY for MSc students with a	E-	3 credits	6R	
	decree declaring this course unit as an additional admission requirement.  Any other students (e.g. incoming				
103-0274-AA R	exchange students, doctoral students) CANNOT enrol for this course unit. Image Processing			90s hrs	J. D. Wegner
	Self-study course. No presence required.				
103-0313-AAL	Spatial Planning and Landscape Development Enrolment ONLY for MSc students with a decree declaring this course unit as an additional admission requirement.	E-	5 credits	11R	
	Any other students (e.g. incoming exchange students, doctoral students) CANNOT enrol for this course unit.				
	Spatial Planning and Landscape Developme Self-study course. No presence required.			150s hrs	SE. Rabe
103-0325-AAL	Integrated Spatial Planning in Cities and Districts Enrolment ONLY for MSc students with a decree declaring this course unit as an additional admission requirement.	E-	6 credits	13R	
	Any other students (e.g. incoming exchange students, doctoral students) CANNOT enrol for this course unit.				
103-0325-AA R	Integrated Spatial Planning in Cities and Dis Self-study course. No presence required. References and other materials will be distri- supervisors.		by the	180s hrs	G. Di Carlo Alvarez
252-0846-AAL	Computer Science II Enrolment ONLY for MSc students with a decree declaring this course unit as an additional admission requirement.	E-	4 credits	9R	
	Any other students (e.g. incoming exchange students, doctoral students) CANNOT enrol for this course unit.				
252-0846-AA R	Computer Science II Self-study course. No presence required.			120s hrs	F. O. Friedrich Wicker, R. Sasse
406-0141-AAL	Linear Algebra Enrolment ONLY for MSc students with a decree declaring this course unit as an additional admission requirement.	E-	5 credits	11R	
	Any other students (e.g. incoming exchange students, doctoral students)				

	CANNOT enrol for this course unit.				
406-0141-AA R	Linear Algebra Self-study course. No presence required.			150s hrs	M. Akka Ginosar
106-0242-AAL	Analysis II Enrolment ONLY for MSc students with a decree declaring this course unit as an additional admission requirement.	E-	7 credits	15R	
	Any other students (e.g. incoming exchange students, doctoral students) CANNOT enrol for this course unit.				
106-0242-AA R	Analysis II Self-study course. No presence required.			210s hrs	M. Akveld
06-0243-AAL	Analysis I and II Enrolment ONLY for MSc students with a decree declaring this course unit as an additional admission requirement.	E-	14 credits	30R	
100 0242 AA D	Any other students (e.g. incoming exchange students, doctoral students) CANNOT enrol for this course unit.			420s hrs	M. Alexand
106-0243-AA R	Analysis I and II Self-study course. No presence required.			420S NIS	M. Akveld
106-0603-AAL	Stochastics (Probability and Statistics) Enrolment ONLY for MSc students with a decree declaring this course unit as an additional admission requirement.	E-	4 credits	9R	
	Any other students (e.g. incoming exchange students, doctoral students) CANNOT enrol for this course unit.				
106-0603-AA R	Stochastics (Probability and Statistics) Self-study course. No presence required.			120s hrs	M. Kalisch
03-0357-AAL	Environmental Planning Enrolment ONLY for MSc students with a decree declaring this course unit as an additional admission requirement.	E-	3 credits	6R	
	Any other students (e.g. incoming exchange students, doctoral students) CANNOT enrol for this course unit.				
03-0357-AA R	Environmental Planning Self-study course. No presence required.			90s hrs	SE. Rabe
06-0062-AAL	Physics I Enrolment ONLY for MSc students with a decree declaring this course unit as an additional admission requirement.	E-	5 credits	11R	
	Any other students (e.g. incoming exchange students, doctoral students)				
106-0062-AA R	CANNOT enrol for this course unit.  Physics I  Self-study course. No presence required.			150s hrs	A. Vaterlaus
106-0063-AAL	Physics II Enrolment ONLY for MSc students with a decree declaring this course unit as an additional admission requirement.	E-	5 credits	11R	
106-0063-AA R	Any other students (e.g. incoming exchange students, doctoral students) CANNOT enrol for this course unit.			150s hrs	A. Vaterlaus
	Self-study course. No presence required.				
:52-0856-AAL	Computer Science Enrolment ONLY for MSc students with a decree declaring this course unit as an additional admission requirement.	E-	4 credits	9R	
052_0956	Any other students (e.g. incoming exchange students, doctoral students) CANNOT enrol for this course unit.			120s hrs	E O Friedrich Wieker
	Computer Science Self-study course. No presence required.			1208 1118	F. O. Friedrich Wicker, R. Sasse
103-2233-AAL	GIS Basics Enrolment ONLY for MSc students with a decree declaring this course unit as an additional admission requirement.	E-	6 credits	13R	
	Any other students (e.g. incoming exchange students, doctoral students) CANNOT enrol for this course unit.				

103-2233-AA R	GIS Basics Self-study course. No presence required.			180s hrs	W. Kuhn
103-0187-AAL	Satellite Geodesy Enrolment ONLY for MSc students with a decree declaring this course unit as an additional admission requirement.	E-	4 credits	3R	
	Any other students (e.g. incoming exchange students, doctoral students) CANNOT enrol for this course unit.				
103-0187-AA R	Satellite Geodesy Self-study course. No presence required.			37s hrs	M. Rothacher
103-1115-AAL	Geodetic Metrology and Laserscanning Enrolment ONLY for MSc students with a decree declaring this course unit as an additional admission requirement.	E-	6 credits	13R	
	Any other students (e.g. incoming exchange students, doctoral students) CANNOT enrol for this course unit.				
103-1115-AA R	Geodetic Metrology and Laserscanning Self-study course. No presence required.			180s hrs	A. Wieser
	Former title until HS20: Geodetic Measuring Laserscanning.	Techno	ology and		
103-1184-AAL	Physical and Kinematic Geodesy Enrolment ONLY for MSc students with a decree declaring this course unit as an additional admission requirement.  Any other students (e.g. incoming	E-	6 credits	4R	
	exchange students, doctoral students) CANNOT enrol for this course unit.				
103-1184-AA R	Physical and Kinematic Geodesy Self-study course. No presence required.			56s hrs	M. Rothacher
103-0717-AAL	Geoinformation Technologies and Analysis Enrolment ONLY for MSc students with a decree declaring this course unit as an additional admission requirement.	E-	6 credits	13R	
	Any other students (e.g. incoming exchange students, doctoral students) CANNOT enrol for this course unit.				
103-0717-AA R	Geoinformation Technologies and Analysis Self-study course. No presence required.			180s hrs	W. Kuhn
103-0184-AAL	Higher Geodesy Enrolment ONLY for MSc students with a decree declaring this course unit as an additional admission requirement.	E-	5 credits	11R	
	Any other students (e.g. incoming exchange students, doctoral students) CANNOT enrol for this course unit.				
103-0184-AA R	Higher Geodesy Self-study course. No presence required.			150s hrs	M. Rothacher
103-0126-AAL	Geodetic Reference Systems Enrolment ONLY for MSc students with a decree declaring this course unit as an additional admission requirement.	E-	3 credits	6R	
	Any other students (e.g. incoming exchange students, doctoral students) CANNOT enrol for this course unit.				
103-0126-AA R	Geodetic Reference Systems Self-study course. No presence required.			90s hrs	M. Rothacher
103-0255-AAL	Geodata Analysis Enrolment ONLY for MSc students with a decree declaring this course unit as an additional admission requirement.	E-	2 credits	4R	
103-0255-AA R	Any other students (e.g. incoming exchange students, doctoral students) CANNOT enrol for this course unit. Geodata Analysis			60s hrs	W. Kuhn
	Self-study course. No presence required.				
103-0234-AAL	GIS II Enrolment ONLY for MSc students with a decree declaring this course unit as an additional admission requirement.	E-	5 credits	11R	
	Any other students (e.g. incoming				

	exchange students, doctoral students) CANNOT enrol for this course unit.				
103-0234-AA R	GIS II Self-study course. No presence required.			150s hrs	W. Kuhn
406-0353-AAL	Analysis III  Enrolment ONLY for MSc students with a decree declaring this course unit as an additional admission requirement.	E-	4 credits	9R	
	Any other students (e.g. incoming exchange students, doctoral students) CANNOT enrol for this course unit.				
406-0353-AA R	Analysis III Self-study course. No presence required.			120s hrs	A. lozzi
102-0675-AAL	Earth Observation Enrolment ONLY for MSc students with a decree declaring this course unit as an additional admission requirement.	E-	4 credits	9R	
	Any other students (e.g. incoming exchange students, doctoral students) CANNOT enrol for this course unit.				
102-0675-AA R	Earth Observation Self-study course. No presence required.			120s hrs	l. Hajnsek
103-0849-AAL	Multivariate Statistics and Machine Learning Enrolment ONLY for MSc students with a decree declaring this course unit as an additional admission requirement.	E-	4 credits	9R	
	Any other students (e.g. incoming exchange students, doctoral students) CANNOT enrol for this course unit.				
103-0849-AA R	Multivariate Statistics and Machine Learning Self-study course. No presence required.	)		120s hrs	K. Schindler
Geomatic Eng	ineering Master - Key for Type				
_	Compulsory			E-	Recommended, not eligible for credits
-	Eligible for credits and recommended			Z	Courses outside the curriculum
V V T					

Key for Hou	rs		
V	lecture	Р	practical/laboratory course
G	lecture with exercise	Α	independent project
U	exercise	D	diploma thesis
S	seminar	R	revision course / private study
K	colloquium		

**ECTS** 

European Credit Transfer and Accumulation System
Special students and auditors need special permission from the lecturers.

## History and Philosophy of Knowledge Master

### ► Basic Courses

### ▶▶ Lectures and Exercises

		_						
Number	Title	Туре	ECTS	Hours				Lecturers
862-0050-00L	<b>Theorie and Methodology MAGPW</b> Only for MA History and Philosophy of Knowledge.	W	3 credits	2G				
862-0050-00 G	Theorie und Methoden MAGPW			2 hrs	Thu	10-12	RZ F21	F. Forster, L. Schurrer
851-0101-88L	National Socialist Persecution, International Politics on Refugees and Science 1933-1945 Number of participants limited to 45	W	3 credits	2G				
851-0101-88 G	Nationalsozialistische Verfolgung, international Wissenschaft 1933-1945 Does not take place this semester.	onale Flü	ichtlingspolitik	2 hrs				
851-0157-00L	Mind and Brain	W	3 credits	2V				
	Gehirn und Geist			2 hrs	Tue 28.09. 05.10.	18-20 18-20 18-20	IFW A36 HG F3 HG F3	M. Hagner
851-0337-00L	African Intellectual and Artistic Presence: From "Négritude" to the "Ateliers de la pensée"	W	3 credits	2V				
851-0337-00 V	Présence intellectuelle et artistique Africain Ateliers de la pensée	e : de la	négritude aux	2 hrs	Tue	16-18	LFO C13	F. Sarr
851-0499-00L	Globalization – Theories, Concepts, Aspects	W	3 credits	2V				
851-0499-00 V	Globalisierung – Theorien, Konzepte, Aspe	kte		2 hrs	Wed	18-20	IFW A32.1	S. M. Scheuzger
<b>851-0336-00L</b> 851-0336-00 V	Eros: Athens, Rome, Vienna, Paris Eros: Atene, Roma, Vienna, Parigi	W	3 credits	2V 2 hrs	Thu	16-18	LFO C13	G. Sissa
851-0101-72L	The Modern City and Cultural Criticism. The "Knowledge of Life" in Reform Movements 1880-1933	W	3 credits	2V				
851-0101-72 V	Moderne Grossstadt und Kulturkritik. Das "V den Reformbewegungen 1880-1933	Wissen v	om Leben" in	2 hrs	Thu	14-16	IFW B42	S. S. Leuenberger
851-0125-65L	A Sampler of Histories and Philosophies of Mathematics Particularly suitable for students D-CHAB, D-INFK, D-ITET, D-MATH, D-PHYS	s W	3 credits	2V				
851-0125-65 V	A Sampler of Histories and Philosophies of	Mathem	atics	2 hrs	Mon	16-18	ML E12	R. Wagner
851-0197-00L	Medieval and Early Modern Science and Philosophy	W	3 credits	2V				
851-0197-00 V	Medieval and Early Modern Science and Ph	nilosoph	y	2 hrs	Thu	12-14	IFW A36	E. Sammarchi
851-0082-00L	Literature and the Knowledge of the Social	W	3 credits	2G				
851-0082-00 G	Literatur und das Wissen vom Sozialen Online-Veranstaltung: Diese Lehrveranstalt grundsätzlich online statt. Die reservierten I Studierenden auf dem Campus bestehen, u Lehrveranstaltung dort zu hören.	Räume l		2 hrs	Thu	18-20	IFW A32.1	A. Alon
851-0096-00L	Science in Society	W	3 credits	2G				
851-0096-00 G	Wissenschaft in der Gesellschaft			2 hrs	Thu	12-14	IFW A32.1	L. Wingert
851-0101-80L	Basic Problems of Environmental Ethics	W	3 credits	2G				
	Grundprobleme der Umweltethik	14/	0	2 hrs	Wed	16-18	HG G5	L. Wingert
851-0101-56L 851-0101-56 V	From Cotton to Cocaine: Commodities That Made History (c.1700-1950) From Cotton to Cocaine: Commodities That	<b>W</b> t Made F	3 credits	<b>2V</b> 2 hrs	Mon	12-14	IFW A36	H. Fischer-Tiné
853-0725-00L	(c.1700-1950)  History Part One: Europe (The Cradle of		3 credits	2V				The Figure 1 mile
853-0725-00 V	Modernity, Britain, 1789-1914) Geschichte I: Europa (Grossbritannien, Mut			2 hrs	Wed	14-16	ML E12	H. Fischer-Tiné
	1789-1914)		an moderne,				.,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,	
<b>851-0020-00L</b> 851-0020-00 V	Gender and Science Gender and Science	W	2 credits	<b>2V</b> 2 hrs	Tue	18-20	HG E33.1	C. L. Blaser, M. Ligtenberg
▶▶ Semina	rs							
Number	Title	Туре	ECTS	Hours				Lecturers
701-0019-00L	Readings in Environmental Thinking	W	3 credits	2S				
	Readings in Environmental Thinking			2 hrs	Fri	16-18	CHN G42 CHN G46	J. Ghazoul
<b>851-0430-00L</b> 851-0430-00 S	<b>Günther Anders: The Antiquity of Man</b> Günther Anders: Die Antiquiertheit des Mer	<b>W</b> nschen	3 credits	<b>2S</b> 2 hrs	Mon	18-20	IFW C33	M. Hagner

851-0011-00L								
	The Body in Global History The Body in Global History	W	3 credits	<b>2S</b> 2 hrs	Wed	10-12	HG E33.3	E. Valdameri
	•	\A/	2 aradita	2 TIIS	vveu	10-12	ПО ЕЗЗ.З	E. Valuallieli
8 <b>51-0175-00L</b> 8 <b>51-</b> 0175-00 G	Images of the Human Images of the Human The course consists of a lecture (Monday 6-8 (Tuesday 10am-12am).	<b>W</b> 3pm) ar	3 credits  and an exercise	28s hrs	Mon/2w Tue/2w		HG D1.2 RZ F21	J. L. Gastaldi
851-0422-00L	A Modern Utopia: Science and Visions of the Future	W	3 credits	28				
	A Modern Utopia: Science and Visions of the			2 hrs	Thu	18-20	IFW B42	A. Fryxell
<b>851-0421-00L</b> 851-0421-00 S	Sapiens: A Reading Course Sapiens – Ein wisssenschaftshistorischer Lei	<b>W</b> ktüreku	3 credits rs	2 <b>S</b> 2 hrs	Tue	10-12	IFW C33	N. Guettler
851-0527-00L	Introduction to the History of Technology: Concepts, and Current Debates	W	3 credits	<b>2</b> S				
851-0527-00 S	Einführung in die Technikgeschichte: Theme und aktuelle Debatten Online-Veranstaltung: Diese Lehrveranstaltun Der reservierte Raum bleibt für die Studieren Campus Zentrum bestehen, um die Lehrverahören.	ng finde nden au	et online statt. f dem	2 hrs	Tue	12-14	RZ F21	R. Wichum, R. Delucchi
851-0168-00L	Aristotle's Lecture on Physics	W	3 credits	2S				
851-0168-00 S	Die Physikvorlesung des Aristoteles			2 hrs	Mon	18-20	HG F3	M. Hampe
851-0162-00L	Philosophy of Physics Number of participants limited to 50.	W	3 credits	38				
851-0162-00 S	Philosophie der Physik			3 hrs	Thu Fri 01.10. 03.12.	17-18 14-16 14-16 14-16	IFW A36 IFW A36 HG E7 HG E7	M. Hampe, R. Wallny
851-0087-00L	Knowledge and Practice in Philosophy of War	W	3 credits	<b>2S</b>				
851-0087-00 S	Knowledge and Practice in Philosophy of Wa Does not take place this semester.	ır		2 hrs				
851-0536-00L	Technology and the Environment – on Course for Collision?	W	3 credits	28				
851-0536-00 S	Technology and the Environment – on Cours	e for C	ollision?	2 hrs	Wed	12-14	IFW C33	L. Müller
851-0081-00L		W	3 credits	2S				
851-0081-00 S	Perspectives Artificial Intelligence. Interdisciplinary Perspe The lecturers will communicate the exact less courses.		es of ONLINE	2 hrs	Tue	18-20	ON LINE	A. Schubbach, J. Noller
<b>851-0300-86L</b> 851-0300-86 S	Max Frisch: Experiments of Storytelling Max Frisch: Experimente des Erzählens	W	3 credits	<b>2S</b> 2 hrs	Tue	12-14	ML E12	A. Kilcher
851-0301-11L	Faust in European Literature	W	3 credits	2V				
851-0301-11 V	Unbedingtheit des Wissens: Faust in der eur	opäisch	en Literatur	2 hrs	Wed	12-14	IFW A32.1	A. Kilcher
	Colones and the Dublic, A Duchlam of	W	2 credits	40				
851-0107-00L	Science and the Public: A Problem of Mediation that the Media Have to Solve?			1S				
		ng finde äume b	et .	1 hrs	Wed/2w	14-16	IFW D42	U. J. Wenzel
851-0107-00 S 851-0537-00L	Mediation that the Media Have to Solve? Wissenschaft und Öffentlichkeit - ein Vermittl die Medien zu lösen haben? Online-Veranstaltung: Diese Lehrveranstaltun grundsätzlich online statt. Die reservierten Ri Studierenden auf dem Campus bestehen, un Lehrveranstaltung dort zu hören.  Architectures of Knowledge: Infrastructures of the University	ng finde äume b m die W	et leiben für die 3 credits	1 hrs				
851-0107-00 S 851-0537-00L 851-0537-00 S	Mediation that the Media Have to Solve? Wissenschaft und Öffentlichkeit - ein Vermittl die Medien zu lösen haben? Online-Veranstaltung: Diese Lehrveranstaltu grundsätzlich online statt. Die reservierten Ri Studierenden auf dem Campus bestehen, un Lehrveranstaltung dort zu hören.  Architectures of Knowledge: Infrastructures of the University Architekturen des Wissens: Infrastrukturen de	ng finde äume b n die <b>W</b> er Unive	et leiben für die 3 credits ersität	1 hrs 2S 2 hrs	Wed/2w	14-16	IFW D42	U. J. Wenzel  N. Bredella
851-0107-00 S 851-0537-00L 851-0537-00 S 851-0079-00L	Mediation that the Media Have to Solve? Wissenschaft und Öffentlichkeit - ein Vermittl die Medien zu lösen haben? Online-Veranstaltung: Diese Lehrveranstaltu grundsätzlich online statt. Die reservierten Ri Studierenden auf dem Campus bestehen, un Lehrveranstaltung dort zu hören.  Architectures of Knowledge: Infrastructures of the University Architekturen des Wissens: Infrastrukturen de	ng finde äume b m die W	et leiben für die 3 credits	1 hrs				
851-0107-00 S 851-0537-00L 851-0537-00 S 851-0079-00L 851-0079-00 S	Mediation that the Media Have to Solve? Wissenschaft und Öffentlichkeit - ein Vermittl die Medien zu lösen haben? Online-Veranstaltung: Diese Lehrveranstaltu grundsätzlich online statt. Die reservierten Ri Studierenden auf dem Campus bestehen, un Lehrveranstaltung dort zu hören.  Architectures of Knowledge: Infrastructures of the University Architekturen des Wissens: Infrastrukturen de Ignorance and Error in the Sciences Unwissen und Irrtum in den Wissenschaften Does not take place this semester.  Dialectics For students MA Philosophy and History of	ng finde äume b n die <b>W</b> er Unive	et leiben für die 3 credits ersität	1 hrs 2S 2 hrs 2S				
351-0107-00 S 351-0537-00L 351-0537-00 S 351-0079-00L 351-0079-00 S 362-0110-00L	Mediation that the Media Have to Solve? Wissenschaft und Öffentlichkeit - ein Vermittl die Medien zu lösen haben? Online-Veranstaltung: Diese Lehrveranstaltu grundsätzlich online statt. Die reservierten Ri Studierenden auf dem Campus bestehen, un Lehrveranstaltung dort zu hören.  Architectures of Knowledge: Infrastructures of the University Architekturen des Wissens: Infrastrukturen de Ignorance and Error in the Sciences Unwissen und Irrtum in den Wissenschaften Does not take place this semester.  Dialectics For students MA Philosophy and History of Science only.	ng finde äume b n die W er Unive	et leiben für die 3 credits ersität 3 credits	1 hrs  2S 2 hrs 2 hrs 2 hrs				
851-0107-00 S 851-0537-00L 851-0537-00 S 851-079-00L 851-0079-00 S 862-0110-00L 862-0110-00 S 851-0125-76L	Mediation that the Media Have to Solve? Wissenschaft und Öffentlichkeit - ein Vermittl die Medien zu lösen haben? Online-Veranstaltung: Diese Lehrveranstaltu grundsätzlich online statt. Die reservierten Ri Studierenden auf dem Campus bestehen, un Lehrveranstaltung dort zu hören.  Architectures of Knowledge: Infrastructures of the University Architekturen des Wissens: Infrastrukturen de Ignorance and Error in the Sciences Unwissen und Irrtum in den Wissenschaften Does not take place this semester.  Dialectics For students MA Philosophy and History of Science only. Dialektik ■  Critiques of Scientific Objectivity Number of participants limited to 30.	ng finde äume b n die W er Unive	et leiben für die 3 credits ersität 3 credits	1 hrs  2S 2 hrs 2S 2 hrs 2 hrs 2S 2 hrs	Mon	12-14	IFW C33	N. Bredella  M. Hampe
351-0107-00 S 351-0537-00L 351-0537-00 S 351-0079-00L 351-0079-00 S 362-0110-00 S 351-0125-76L 351-0125-76 S	Mediation that the Media Have to Solve? Wissenschaft und Öffentlichkeit - ein Vermittl die Medien zu lösen haben? Online-Veranstaltung: Diese Lehrveranstaltun grundsätzlich online statt. Die reservierten Ri Studierenden auf dem Campus bestehen, un Lehrveranstaltung dort zu hören.  Architectures of Knowledge: Infrastructures of the University Architekturen des Wissens: Infrastrukturen de Ignorance and Error in the Sciences Unwissen und Irrtum in den Wissenschaften Does not take place this semester.  Dialectics For students MA Philosophy and History of Science only. Dialektik   Critiques of Scientific Objectivity Number of participants limited to 30. Critiques of Scientific Objectivity	ng finde äume b n die W er Unive W	et eleiben für die 3 credits ersität 3 credits 3 credits	1 hrs  2S 2 hrs 2S 2 hrs 2 hrs 2S 2 hrs	Mon	12-14	IFW C33	N. Bredella
851-0107-00 S  851-0537-00L  851-0537-00 S  851-0079-00L  851-0079-00 S  862-0110-00 S  851-0125-76 L  851-0125-76 S  ▶ Semeste	Mediation that the Media Have to Solve? Wissenschaft und Öffentlichkeit - ein Vermittl die Medien zu lösen haben? Online-Veranstaltung: Diese Lehrveranstaltu grundsätzlich online statt. Die reservierten Ri Studierenden auf dem Campus bestehen, un Lehrveranstaltung dort zu hören.  Architectures of Knowledge: Infrastructures of the University Architekturen des Wissens: Infrastrukturen de Ignorance and Error in the Sciences Unwissen und Irrtum in den Wissenschaften Does not take place this semester.  Dialectics For students MA Philosophy and History of Science only. Dialektik  Critiques of Scientific Objectivity Number of participants limited to 30. Critiques of Scientific Objectivity er Report	ng finde äume b m die W er Unive W	at leiben für die 3 credits ersität 3 credits 3 credits 3 credits	1 hrs  2S 2 hrs 2S 2 hrs 2S 2 hrs 2 hrs 2 hrs	Mon	12-14	IFW C33	N. Bredella  M. Hampe  R. Wagner
851-0537-00L 851-0537-00 S 851-0079-00L 851-0079-00 S 862-0110-00 S 851-0125-76 L 851-0125-76 S ► Semest Number 862-0006-00L	Mediation that the Media Have to Solve? Wissenschaft und Öffentlichkeit - ein Vermittl die Medien zu lösen haben? Online-Veranstaltung: Diese Lehrveranstaltun grundsätzlich online statt. Die reservierten Re Studierenden auf dem Campus bestehen, un Lehrveranstaltung dort zu hören.  Architectures of Knowledge: Infrastructures of the University Architekturen des Wissens: Infrastrukturen de Ignorance and Error in the Sciences Unwissen und Irrtum in den Wissenschaften Does not take place this semester.  Dialectics For students MA Philosophy and History of Science only. Dialektik  Critiques of Scientific Objectivity Number of participants limited to 30. Critiques of Scientific Objectivity er Report Title	ng finde äume b n die W er Unive W	et eleiben für die 3 credits ersität 3 credits 3 credits	1 hrs  2S 2 hrs 2S 2 hrs 2 hrs 2S 2 hrs	Mon	12-14	IFW C33	N. Bredella  M. Hampe

Number	Title	Type	ECTS	Hours		Lecturers
862-0008-26L	Term Paper History of Technology (HS 2021)	W	5 credits	11A		
862-0008-00 A	Seminararbeit in Technikgeschichte ■			150s hrs	by appt.	Lecturers
862-0009-25L	Term Paper in Science of Knowledge (HS 2021)	W	5 credits	11A		
862-0009-00 A	Seminararbeit in Wissenschaftsforschung			150s hrs	by appt.	Lecturers
862-0010-25L	Term Paper in Theoretical Philosophy (HS 2021)	W	5 credits	11A		
862-0010-00 A	Seminararbeit in theoretischer Philosophie			150s hrs	by appt.	Lecturers
862-0011-24L	Term Paper in Practical Philosophy (HS 2021)	W	5 credits	11A		
862-0011-00 A	Seminararbeit in praktischer Philosophie ■			150s hrs	by appt.	Lecturers
862-0012-25L	Term Paper in Literature and Culture (HS 2021)	W	5 credits	11A		
862-0012-00 A	Seminararbeit in Literatur- und Kulturwisser	schaft <b>=</b>	•	150s hrs	by appt.	Lecturers
862-0013-25L	Term Paper History of the Modern World (HS 2021)	W	5 credits	11A		
862-0013-00 A	Seminararbeit in Geschichte der modernen	Welt <b>■</b>		150s hrs	by appt.	Lecturers
862-0015-06L	Term Paper in History and Philosophie of Mathematical Sciences (HS 2021)	W	5 credits	11A		
862-0015-00 A	Seminararbeit in Geschichte und Philosoph mathematischen Wissenschaften ■	e der		150s hrs		Lecturers

### ► Major Courses

### ▶▶ Essays

In each subject of the master reading lists are handed out. The books on these lists are the subject of the tutorials one has to attend with the teachers that are named in the Leitfaden. In three subjects essays are to be written about works on these lists.

Number	Title	Type	ECTS	Hours		Lecturers
862-0021-00L	Essay on Readings in History of Technology (HS)	W	10 credits	21A		
862-0021-00 A	Lektüreessay in Technikgeschichte ■			300s hrs	by appt.	Lecturers
862-0023-00L	Essay on Readings in Science Research (HS)	W	10 credits	21A		
862-0023-00 A	Lektüreessay in Wissenschaftsforschung			300s hrs	by appt.	Lecturers
862-0025-00L	Essay on Readings in Theoretical Philosophy (HS)	W	10 credits	21A		
862-0025-00 A	Lektüreessay in theoretischer Philosophie	I		300s hrs	by appt.	Lecturers
862-0027-00L	Essay on Readings in Practical Philosophy (HS)	W	10 credits	21A		
862-0027-00 A	Lektüreessay in praktischer Philosophie			300s hrs	by appt.	Lecturers
862-0029-00L	Essay on Readings in Literature and Culture (HS)	W	10 credits	21A		
862-0029-00 A	Lektüreessay in Literatur- und Kulturwissen	schaft ■		300s hrs	by appt.	Lecturers
862-0031-00L	Essay on Readings in History of the Modern World (HS)	W	10 credits	21A		
862-0031-00 A	Lektüreessay in Geschichte der modernen V	Welt <b>■</b>		300s hrs	by appt.	Lecturers
862-0035-00L	Essay on Readings in History and Philosophie of Mathematical Sciences (HS)	W	10 credits	21A		
862-0035-00 A	Lektüreessay in Geschichte und Philosophic Wissenschaften (HS) ■	e der ma	athematischen	300s hrs		Lecturers

#### **▶▶** Seminars

In the seminaries topics from the introductory courses are taught in more detail. Topics for essays are to be aranged with the teachers of the courses.

### ► Research Colloquium

Number	Title	Type	ECTS	Hours			Lecturers
862-0004-13L	Research Colloquium Philosophy for Master Students and PhD (HS 2021) For MAGPW and PhD students of D-GESS only.	W	2 credits	1K			
862-0004-00 K	Forschungskolloquium Philosophie mit Arbe Anmeldung bei Prof. Michael Hampe, Prof. Prof. Lutz Wingert		gner oder	14s hrs	Wed/2w 18-20	RZ F21	<b>R. Wagner</b> , M. Hampe, L. Wingert
862-0078-11L	Research Colloquium. Extra-European History and Global History (HS 2021) For PhD and postdoctoral students. Master students are welcome.	W	2 credits	1K			
	Information for UZH students: Enrolment to this course unit only possible						

at ETH. No enrolment to module 06SM600G125E at UZH. Please mind the ETH enrolment deadlines for UZH students: https://www.ethz.ch/en/studies/non-

degree-

courses/specialstudents/special-

students-university-of-zurich.html

862-0078-00 K Research Colloquium. Extra-European History and Global History 1 hrs

\*\*together with University of Zurich\*\*

IFW A36 30.09. 18-20 IFW A36 14.10. 18-20 IFW A36 28.10. 18-20 11.11.

16-18

16-18

02.12.

Wed

18-20 IFW A36 18-20 IFW A36

RZ F21

IFW E42

862-0088-09L **Research Colloquium Science Studies** w 2 credits 1K (HS 2021)

862-0088-00 K Forschungskolloquium Wissenschaftsforschung (mit Protokoll) ■ 14s hrs Wed

Permission from lecturers required for all students

Unregelmässige Lehrveransfaltung. Anmeldungen bitte per sekretariat@wiss.gess.ethz.ch

862-0089-09L **Advanced Colloquium in Literary** 2 credits 1K Studies (HS 2021)

Colloquium is designed for advanced and

graduated students. 862-0089-00 K Literaturwissenschaftliches Kolloquium ■

w 2 credits 1K

851-0551-18L Colloquium for Master and PhD Students History of Technology (HS

2021)

851-0551-18 K Master-/Doktoratskolloquium Technikgeschichte (HS 2021) Daten werden noch kommuniziert.

14s hrs

14s hrs

D. Gugerli

A. Kilcher

H. Fischer-Tiné,

M. Dusinberre

M. Hagner

#### ▶ Master's Thesis

The work on the master-thesis is supervised by one of the teachers that are allowed to offer tutorials for it, named in the Leitfaden.

Number	Title	Type	ECTS	Hours		Lecturers
862-0500-00L	Master's Thesis A student is only permitted to commence the Master thesis if a. the Bachelor degree programme has been completed b. any additional requirements for admission to the degree programme have been fulfilled c. all credits have been acquired in the categories basic courses and major courses and at least 6 credits have been acquired in the category research colloquium	0	30 credits	64D		
862-0500-00 D	Master-Arbeit ■			900s hrs	by appt.	Supervisors

History and Philosophy of Knowledge Master - Key for Type							
0	Compulsory	E-	Recommended, not eligible for credits				
W+	Eligible for credits and recommended	Z	Courses outside the curriculum				
W	Eligible for credits	Dr	Suitable for doctorate				

Key for Hours							
V	lecture	P	practical/laboratory course				
G	lecture with exercise	A	independent project				
U	exercise	D	diploma thesis				
S	seminar	R	revision course / private study				
K	colloquium						

**ECTS** European Credit Transfer and Accumulation System

Special students and auditors need special permission from the lecturers.

## **Humanities, Social and Political Sciences (General Courses)**

### ► Military Studies

Number	Title	Type	ECTS	Hours				Lecturers
853-0037-01L	Military Psychology and Pedagogy I (without Exercises)	Z	3 credits	2V				
853-0037-00 V	Militärpsychologie und -pädagogik I			2 hrs	Tue	10-12	HG E33.3	H. Annen
853-0063-02L	Military History I (without Exercises)	Z	3 credits	2V				
853-0063-00 V	Militärgeschichte I			2 hrs	Mon	16-18	HG D3.2	<b>A. Wettstein</b> , T. Cubito, M. Olsansky
853-0082-00L	Strategic Studies I	Z	3 credits	2V				
853-0082-00 V	Strategische Studien I			2 hrs	Tue	14-16	IFW A36	M. Mantovani
853-0064-00L	Military Sociology I	Z	3 credits	2V				
853-0064-00 V	Militärsoziologie I			2 hrs	Mon	14-16	IFW A32.1	T. Szvircsev Tresch, S. De Rosa, T. Ferst
853-0101-02L	Defense Economics I	Z	3 credits	2V				
853-0101-02 V	Militärökonomie I			2 hrs	Mon	12-14	HG F26.5	M. M. Keupp
853-0033-00L	Leadership I For BA Public Policy and DAS Military Sceinces only.	Z	3 credits	2V				
853-0033-00 V	Leadership I ■			2 hrs	Tue	16-18	LEE E101	<b>F. Kernic</b> , F. Demont, M. Holenweger
	Courses (no SiP-courses)							
Number	Title	Type	ECTS	Hours				Lecturers
851-0370-00L	Didactic Basics for Student Teaching Assistants	Z	1 credit	1S				
851-0370-00 S	Didactic Basics for Student Teaching Assis Self-paced online course: https://moodle- app2.let.ethz.ch/course/view.php?id=15127		14s hrs				S. Pedrocchi, B. Volk	
	Consolidation Workshops in November (da in the online course at the beginning of the			i				
851-0371-00L	Coaching Students	Z	1 credit	1S				
851-0371-00 S	Coaching Students			12s hrs	Mon/1	16-18	LFW C11	<b>B. Volk</b> , R. P. Haas,
	Kick-off: 4.10.2021 Online course: https://moodle-							S. Pedrocchi
	app2.let.ethz.ch/course/view.php?id=15146	ĵ						
851-0372-00L	Ready, Set, Go! This course is open to Student Teaching Assistants (students with teaching duties in exercises, practicals etc.) from all	Z	0 credits					
054 0055 55 ::	departments and chairs.							<b>K.B.</b> 5.4.11
851-0372-00 U	Ready, Set, Go!  This is an online course that participants ca own pace.	an work	through at the	6s hrs eir				K. Brown, B. Volk
851-0373-00L	Learning to Teach This programme is designed for ETH Doctoral Teaching Assistants with current teaching responsibilities.	Z	2 credits	2U				
851-0373-00 U	Learning to Teach ■ Consolidation Workshops in November (da in the online course at the beginning of the			21s hrs				B. Volk, M. Lehner, S. Pedrocchi
► Specializ	ed Continuing Education							
Specia	al internal ETH courses offered by LET and th	ne Teacl	hing Specialis	ts.				
Number	Title	Type	ECTS	Hours				Lecturers
999-9999-99L	EduApp Course This course unit is not a genuine ETH course unit. It is used by LET and the Teaching Specialists for EduApp demonstration purposes.	E-	0 credits	1V+1U				

Number	Title	Type	ECTS	Hours				Lecturers
999-9999-99L	EduApp Course This course unit is not a genuine ETH course unit. It is used by LET and the Teaching Specialists for EduApp demonstration purposes.	E-	0 credits	1V+1U				
999-9999-99 V	EduApp Kurs			1 hrs	Mon	08-09	HG E15	B. Volk
999-9999-99 U	EduApp Kurs			1 hrs	Mon	09-10	HG E15	B. Volk

Humanities, Social and Political Sciences (General Courses) - Key for Type							
0	Compulsory	E-	Recommended, not eligible for credits				
W+	Eligible for credits and recommended	Z	Courses outside the curriculum				
W	Eligible for credits	Dr	Suitable for doctorate				

Key for	Hours		
V	lecture	P	practical/laboratory course
G	lecture with exercise	A	independent project
U	exercise	D	diploma thesis
S	seminar	R	revision course / private study
K	colloquium		

**ECTS** 

European Credit Transfer and Accumulation System
Special students and auditors need special permission from the lecturers.

## **GESS Science in Perspective**

Only the topics listed in this paragraph can be chosen as GESS Science in Perspective.

Further below you will find the "type B courses Reflections about subject specific methods and content" as well as the language courses.

6 ECTS need to be acquired during the BA and 2 ECTS during the MA

Students who already took a course within their main study program are NOT allowed to take the course again.

# ► Type A: Enhancement of Reflection Competence

Suitable for all students.

Students who already took a course within their main study program are NOT allowed to take the course again.

## **▶▶** History

Number	Title	Туре	ECTS	Hours				Lecturers
853-0725-00L	History Part One: Europe (The Cradle of Modernity, Britain, 1789-1914)	W	3 credits	2V				
853-0725-00 V	Geschichte I: Europa (Grossbritannien, Mutt 1789-1914)	terland o	der Moderne,	2 hrs	Wed	14-16	ML E12	H. Fischer-Tiné
851-0105-00L	Background Knowledge Arabic World	W	2 credits	2V				
851-0105-00 V	Hintergrundwissen arabische Welt			2 hrs	Wed	18-20	HG E33.1	U. Gösken
851-0101-88L	National Socialist Persecution, International Politics on Refugees and Science 1933-1945 Number of participants limited to 45	W	3 credits	2G				
851-0101-88 G	Nationalsozialistische Verfolgung, internatio und Wissenschaft 1933-1945 Does not take place this semester.	nale Flü	chtlingspolitik	2 hrs				
052-0801-00L	Global History of Urban Design I	W	2 credits	2G				
052-0801-00 G	Global History of Urban Design I No course on 28.10. (seminar week) 16./23. critiques).	.12. (bei	fore final	2 hrs	Thu	10-12	HIL E4	T. Avermaete
851-0011-00L	The Body in Global History	W	3 credits	<b>2S</b>				
851-0011-00 S	The Body in Global History			2 hrs	Wed	10-12	HG E33.3	E. Valdameri
851-0175-00L	Images of the Human	W	3 credits	2G				
851-0175-00 G	Images of the Human The course consists of a lecture (Monday 6- (Tuesday 10am-12am).	-8pm) aı	nd an exercise	28s hrs	Mon/2w Tue/2w		HG D1.2 RZ F21	J. L. Gastaldi
851-0422-00L	A Modern Utopia: Science and Visions of the Future	W	3 credits	2S				
851-0422-00 S	A Modern Utopia: Science and Visions of the	e Future	)	2 hrs	Thu	18-20	IFW B42	A. Fryxell
851-0421-00L	Sapiens: A Reading Course	W	3 credits	2S				
851-0421-00 S	Sapiens – Ein wisssenschaftshistorischer Le	ektüreku	ırs	2 hrs	Tue	10-12	IFW C33	N. Guettler
851-0527-00L	Introduction to the History of Technology: Concepts, and Current Debates	W	3 credits	2\$				
851-0527-00 S	Einführung in die Technikgeschichte: Theme und aktuelle Debatten Online-Veranstaltung: Diese Lehrveranstaltu Der reservierte Raum bleibt für die Studiere. Campus Zentrum bestehen, um die Lehrverhören.	ung find nden au	et online statt. If dem	2 hrs	Tue	12-14	RZ F21	R. Wichum, R. Delucchi
851-0168-00L	Aristotle's Lecture on Physics	W	3 credits	2S				
851-0168-00 S	Die Physikvorlesung des Aristoteles			2 hrs	Mon	18-20	HG F3	M. Hampe
851-0499-00L	Globalization – Theories, Concepts, Aspects	W	3 credits	2V				
851-0499-00 V	Globalisierung - Theorien, Konzepte, Aspek	rte		2 hrs	Wed	18-20	IFW A32.1	S. M. Scheuzger
851-0101-72L	The Modern City and Cultural Criticism. The "Knowledge of Life" in Reform Movements 1880-1933	W	3 credits	2V				
851-0101-72 V	Moderne Grossstadt und Kulturkritik. Das "V den Reformbewegungen 1880-1933	Vissen v	om Leben" in	2 hrs	Thu	14-16	IFW B42	S. S. Leuenberger
851-0535-10L	Yemen: A Failed State?	W	2 credits	2V				
851-0535-10 V	Yemen: A Failed State?			2 hrs	Tue	12-14	HG E33.5	E. Manea
851-0125-65L	A Sampler of Histories and Philosophies of Mathematics Particularly suitable for students D-CHAB, D-INFK, D-ITET, D-MATH, D-PHYS		3 credits	2V				
851-0125-65 V	A Sampler of Histories and Philosophies of I	Mathem	atics	2 hrs	Mon	16-18	ML E12	R. Wagner
851-0107-00L	Science and the Public: A Problem of Mediation that the Media Have to Solve?	W	2 credits	1S				

851-0107-00 S	Wissenschaft und Öffentlichkeit - ein Vermit die Medien zu lösen haben? Online-Veranstaltung: Diese Lehrveranstalt grundsätzlich online statt. Die reservierten f Studierenden auf dem Campus bestehen, u Lehrveranstaltung dort zu hören.	ung find Räume b	et	1 hrs	Wed/2w	14-16	IFW D42	U. J. Wenzel
851-0537-00L	Architectures of Knowledge:	w	3 credits	2\$				
	Infrastructures of the University Architekturen des Wissens: Infrastrukturen			2 hrs	Mon	12-14	IFW C33	N. Bredella
					IVIOIT	12-17	11 VV 000	N. Diedella
851-0101-56L	From Cotton to Cocaine: Commodities That Made History (c.1700-1950)	W	3 credits	2V	Man	10.44	IEM AGG	II Finahar Tiná
851-0101-56 V	From Cotton to Cocaine: Commodities That (c.1700-1950)	: Made F	iistory	2 hrs	Mon	12-14	IFW A36	H. Fischer-Tiné
851-0008-00L	Ban on Alcohol and Science: A Global History of Prohibition 1918-1939	W	3 credits	2S				
851-0008-00 S	Alkoholverbot und Wissenschaft: Eine Glob Prohibition 1918-1939	algeschi	chte der	2 hrs	Tue	12-14	LEE C104	E. Biçer-Deveci
▶► Literatu	ire							
Number	Title	Type	ECTS	Hours				Lecturers
851-0337-00L	African Intellectual and Artistic Presence: From "Négritude" to the "Ateliers de la pensée"	W	3 credits	2V				
851-0337-00 V	-	e : de la	négritude aux	2 hrs	Tue	16-18	LFO C13	F. Sarr
851-0336-00L	, , ,	W	3 credits	2V				
851-0336-00 V	Eros: Atene, Roma, Vienna, Parigi			2 hrs	Thu	16-18	LFO C13	G. Sissa
<b>851-0300-86L</b> 851-0300-86 S	Max Frisch: Experiments of Storytelling Max Frisch: Experimente des Erzählens	W	3 credits	<b>2S</b> 2 hrs	Tue	12-14	ML E12	A. Kilcher
851-0301-11L	The Unconditionality of Knowledge: Faust in European Literature	W	3 credits	2V				
851-0301-11 V	Unbedingtheit des Wissens: Faust in der eu	ıropäisch	nen Literatur	2 hrs	Wed	12-14	IFW A32.1	A. Kilcher
851-0082-00L	Literature and the Knowledge of the Social	W	3 credits	2G				
851-0082-00 G	Literatur und das Wissen vom Sozialen Online-Veranstaltung: Diese Lehrveranstalt grundsätzlich online statt. Die reservierten H Studierenden auf dem Campus bestehen, u Lehrveranstaltung dort zu hören.	Räume b		2 hrs	Thu	18-20	IFW A32.1	A. Alon
851-0340-01L	Writing Technology: Symbols, Codes, and Translating Machines	W	3 credits	2V				
851-0340-01 V	Writing Technology: Symbols, Codes, and T	Franslati	ng Machines	2 hrs	Wed	12-14	LEE C114	P. Gerard
▶▶ Econon	nics							
Number	Title	Туре	ECTS	Hours				Lecturers
851-0626-01L	International Aid and Development Number of participants limited to 60	w	2 credits	2V				
	Prerequisites: Basic knowledge of economics							
851-0626-01 V	International Aid and Development			2 hrs	Tue	12-14	IFW A32.1	K. Harttgen, I. Günther
851-0609-06L	Governing the Energy Transition Primarily suited for Master and PhD level.	W	2 credits	2V				
851-0609-06 V	Governing the Energy Transition			2 hrs	Thu	16-18	NO C60	<b>T. Schmidt</b> , N. Schmid, S. Sewerin
151-0757-00L	Environmental Management	W	2 credits	2G				
151-0757-00 G	Umwelt-Management Online-Veranstaltung: Diese Lehrveranstalt grundsätzlich online statt. Die reservierten H Studierenden auf dem Campus bestehen, u Lehrveranstaltung dort zu hören.	Räume k		2 hrs	Wed	18-20	ML D28	R. Züst
363-1027-00L	Introduction to Health Economics and Policy	W	2 credits	1V				
363-1027-00 V	Introduction to Health Economics and Policy Does not take place this semester. Block course	y		16s hrs				C. Waibel
363-1050-00L	Simulation of Negotiations Limited number of participants.	w	3 credits	3V				
	Students who wish to register for this course have to apply no later than 18 September. Please send your application to Andreas Knobel: aknobel@ethz.ch, additionally register in mystudies (technical note for the registration: All registered students will initially be placed on a waiting							

363-1050-00 V	list). Simulation of Negotiations ■ Permission from lecturers required for all stu Irregular lecture  Additional dates: 2./3.12.2021, University of		۵	36s hrs	Tue 05.10. 02.12. 03.12.	10-12 09-10 10-17 10-17	HG D22 HG D22 Ex tern Ex tern	M. Ambühl, A. Knobel
202 2027 201	<u> </u>			20				
<b>363-0387-00L</b> 363-0387-00 G	Corporate Sustainability Corporate Sustainability The course combines online learning elements some of which are recorded. Several course attendance. Details are provided on the modern control of the c	sessio	ns require live	<b>2G</b> 2 hrs	Wed/2 Wed Wed/2	16-18	HG E21 HG E22 HG F3 ML E12	V. Hoffmann, C. Bening-Bach, N. U. Blum, J. Meuer
363-0503-00L	•	W	3 credits	2G	VVGU/2	10-10	WE E12	
363-0503-00 G	Principles of Microeconomics The lecture takes place in classroom, online zoom and recorded.	via live	estreaming or	2 hrs	Thu	18-20	HG F7	M. Filippini
363-0565-00L	Principles of Macroeconomics	W	3 credits	2V				
363-0565-00 V	Principles of Macroeconomics Di 16-18 im ETA F 5 mit Videoübertragung is The lecture takes place in classroom, online zoom and recorded.			2 hrs	Tue	16-18	ETA F5 ETF E1	JE. Sturm
363-0561-00L	Financial Market Risks	W	3 credits	2G				
363-0561-00 G	Financial Market Risks The lecture takes place in classroom, online zoom and recorded.	via live	estreaming or	2 hrs	Mon	10-12	ML H44	D. Sornette
<b>351-0555-00L</b> 351-0555-00 G	Open- and User Innovation Open- and User Innovation Block course The Kick-off event will take place ONLINE, 2 - 16.00.	<b>W</b> 22.09.20	3 credits 021 from 14.00	2G 23s hrs	22.09. 25.10. 26.10. 27.10.	14-16 09-17 09-17 09-17	ON LINE ML H37.1 ML H37.1 ML H37.1	S. Häfliger, S. Spaeth
701-0747-00L	Environmental Policy of Switzerland Number of participants limited to 130. Priority is given to the target group: Bachelor Study programme Environmental Sciences until September 27th,2021. Waiting list will be deleted October 1st, 2021.	W	3 credits	2G				
701-0747-00 G	Umweltpolitik der Schweiz			2 hrs	Mon	12-14	HG E1.1	E. Lieberherr
<b>351-1158-00L</b> 351-1158-00 G		esung : om, not	10.11.). recorded (4	2G 2 hrs	Wed	10-12	HG E41 LEE C104 LEE C114 LEE D101 LEE D105 ML D28 ML E12	U. Renold, T. Bolli, P. McDonald, M. E. Oswald- Egg, F. Pusterla
701-0985-00L		W	1 credit	1V				
701-0985-00 V	Environmental Risks Gesellschaftlicher Umgang mit aktuellen Um Does not take place this semester.	weltrisi	iken	1 hrs				B. Nowack
363-1109-00L	·	W	3 credits	2G				
	Students enrolled in a Master's degree programme may attend "Principles of Microeconomics" (LE 363-0503-00L) instead.							
	Note for D-MAVT students: If you have already successfully completed "Principles of Microeconomics" (LE 363-0503-00L), then you will not be permitted to attend it again.							
363-1109-00 G	Einführung in die Mikroökonomie Zusätzliche (freiwillige) Termine für Übunger werden zu Beginn der Vorlesung bekanntge			2 hrs	Tue	10-12	HG E5	M. Wörter, M. Beck
363-1044-00L	Applied Negotiation Seminar Number of participants limited to 30.  Prerequisites: Successful completion of lectures "363-1039-00L Introduction to	W	3 credits	2S				
	Negotiation".							

363-1044-00 S	Applied Negotiation Seminar ■ Permission from lecturers required for all stablock course	udents		22s hrs	01.10.	09-17	HG E33.1 HG E33.3	A. Knobel
	Block course						HG E33.5	
					02.10.	09-17	HG E33.1 HG E33.3	
					15.10.	09-17	HG E33.5 HG E33.1 HG E33.3	
					16.10.	09-17	HG E33.5 HG E33.1 HG E33.3	
363-1050-01L	Simulation of Negotiations (Exercises)	w	1 credit	1U			HG E33.5	
	Simulation of Negotiations (Exercises)  Simulation of Negotiations (Exercises)  Permission from lecturers required for all st		r credit	8s hrs	12.10. 09.11.	13-17 08-12	LFW B2 LFW B2	M. Ambühl, A. Knobel
►► Philoso	pphy							
Number	Title	Туре	ECTS	Hours				Lecturers
851-0180-00L	Research Ethics Number of participants limited to 40	W	2 credits	2G				
054 0400 00 0	Particularly suitable for students of D-BIOL, D-CHAB, D-HEST					40.00	LEWO	
851-0180-00 G	Research Ethics ■  One additional hour of home work per week	k will be	required	2 hrs	Wed	18-20	LFW C1	G. Achermann, P. Emch
701-0703-00L	Environmental Ethics	W	2 credits	2V				
	Ethik und Umwelt			2 hrs	Fri	12-14	HG F7	A. Deplazes Zemp
<b>851-0101-87L</b> 851-0101-87 S	World Views in the Digital Age Number of participants limited to 36. World Views in the Digital Age	W	3 credits	2 <b>S</b> 2 hrs	Fri	16-18	HG E21	J. Leuthold,
								C. aus der Au Heymann
851-0430-00L	. ,	W	3 credits	2S	Man	40.00	IEW Coo	M Hanner
851-0430-00 S 851-0162-00L	Günther Anders: Die Antiquiertheit des Mer Philosophy of Physics	w	3 credits	2 hrs	Mon	18-20	IFW C33	M. Hagner
051 0162 00 C	Number of participants limited to 50.  Philosophie der Physik			3 hrs	Thu	17-18	IFW A36	<b>M. Hampe</b> , R. Wallny
031-0102-00 3	rilliosopille del rilysik			31115	Fri 01.10. 03.12.	14-16 14-16 14-16	IFW A36 IFW A36 HG E7 HG E7	w. nampe, K. waimy
851-0087-00L	Knowledge and Practice in Philosophy	w	3 credits	28				
851-0087-00 S	of War Knowledge and Practice in Philosophy of W Does not take place this semester.	/ar		2 hrs				
851-0125-65L	A Sampler of Histories and Philosophies	W	3 credits	2V				
	of Mathematics Particularly suitable for students D-CHAB, D-INFK, D-ITET, D-MATH, D-PHYS							
851-0125-65 V	A Sampler of Histories and Philosophies of	Mathem	atics	2 hrs	Mon	16-18	ML E12	R. Wagner
851-0125-76L	Number of participants limited to 30.	W	3 credits	28				
	Critiques of Scientific Objectivity	14/	0	2 hrs	Fri	16-18	IFW A34	R. Wagner
851-0197-00L	Medieval and Early Modern Science and Philosophy		3 credits	2V	Thu	10.11	IE/A/ A 2 C	F. Cammarahi
	Medieval and Early Modern Science and Pharmachine Theory and Practice: Heterotopia,	W	2 credits	2 hrs	Thu	12-14	IFW A36	E. Sammarchi
052-0517-21L	Referential Space and Spatial Effects	vv	2 Credits	26				
052-0517-21 G	Theorie und Praxis: Heterotopie, referenzie Raumeffekte Kursdaten: Siehe Raumbelegungen!	ller Rauı	m und	2 hrs	Mon	14-18	HCI J6	C. Posthofen, A. Brandlhuber
851-0081-00L	Artificial Intelligence. Interdisciplinary Perspectives	W	3 credits	2S				
851-0081-00 S	Artificial Intelligence. Interdisciplinary Persp The lecturers will communicate the exact le courses.		es of ONLINE	2 hrs	Tue	18-20	ON LINE	A. Schubbach, J. Noller
<b>851-0079-00L</b> 851-0079-00 S	Ignorance and Error in the Sciences Unwissen und Irrtum in den Wissenschafter Does not take place this semester.	<b>W</b>	3 credits	<b>2S</b> 2 hrs				
<b>851-0096-00L</b> 851-0096-00 G	Science in Society Wissenschaft in der Gesellschaft	W	3 credits	<b>2G</b> 2 hrs	Thu	12-14	IFW A32.1	L. Wingert
851-0198-00L	Philosophy of Psychiatry	W	3 credits	2V				
851-0198-00 V	Philosophy of Psychiatry			2 hrs	Wed	16-18	IFW C33	J. Perez Escobar
851-0351-00L	Philosophy of Religion: Faith and Knowledge According to Kant	W	3 credits	28				

Book the corresponding module directly at UZH as an incoming student. UZH Module Code: 23LB002

Mind the enrolment deadlines at UZH: https://www.uzh.ch/cmsssl/en/studies/appli

cation/deadlines.html

851-0351-00 S Religionsphilosophie: Glauben und Wissen nach Kant (Universität 2 hrs UNI ZH. University lecturers Wed 16-18

Zürich)
\*\*Kurs an der Universität Zürich\*\*

Introductory Course in Philosophy of Religion (University of Zurich) 851-0352-00L 3 credits 2S

No enrolment to this course at ETH Zurich. Book the corresponding module directly at

UZH as an incoming student. UZH Module Code: 23LB006

Mind the enrolment deadlines at UZH: https://www.uzh.ch/cmsssl/en/studies/appli

cation/deadlines.html

▶▶ Political Science

Grundkurs Religionsphilosophie (Universität Zürich) \*\*Kurs an der Universität Zürich\*\* 851-0352-00 S 12-14 UNI ZH. University lecturers 2 hrs Thu

Number	Title	Туре	ECTS	Hours				Lecturers
851-0589-00L	Technology and Innovation for	W Dr	3 credits	2V				
	Development		3 0.0aito					
851-0589-00 V	Technology and Innovation for Developmen	ıt		2 hrs	Tue	12-14	LEE D101	P. Aerni
853-0038-00L	Swiss Foreign Policy	W	3 credits	2V				
853-0038-00 V	Schweizerische Aussenpolitik			2 hrs	Fri	14-16	CAB G51	D. Möckli
853-0047-01L	World Politics Since 1945: The History of International Relations (Without Exercises)	W	3 credits	2V				
853-0047-00 V	Weltpolitik seit 1945: Geschichte der interna	ationale	n Beziehungen	2 hrs	Wed	10-12	CAB G11	L. Horovitz
853-0015-01L	Conflict Research I: Political Violence	W	3 credits	2V				
853-0015-00 V	Konfliktforschung I: Politische Gewalt ■			2 hrs	Wed	14-16	LFW B3	A. Juon
853-0302-01L	European Integration (Seminar without Tutorial)	W	2 credits	2S				
853-0302-00 S	Europäische Integration: Seminar			2 hrs	Tue	09-11	CHN E42	R. Sczepanski
860-0023-00L	International Environmental Politics Particularly suitable for students of D-ITET, D-USYS	W	3 credits	2V				
860-0023-00 V	International Environmental Politics			2 hrs	Mon	16-18	HG F3	T. Bernauer
853-0061-00L	Introduction to Cybersecurity Politics	W	3 credits	2G				
853-0061-00 G	Einführung in die Cybersicherheitspolitik			2 hrs	Wed	14-16	HG F3	M. Dunn Cavelty, F. J. Egloff
853-8002-00L	The Role of Technology in National and International Security Policy	W	3 credits	2G				
853-8002-00 G	Die Rolle von Technologie in nationaler und Sicherheitspolitik	l interna	tionaler	2 hrs	Tue	08-10	IFW A36	<b>M. Haas</b> , A. Dossi, M. Leese, O. Thränert
851-0650-00L	Al4Good	W	3 credits	2G				
851-0650-00 G	Al4Good ■			2 hrs	Thu	10-12	IFW C33	J. D. Wegner
851-0536-00L	Technology and the Environment – on Course for Collision?	W	3 credits	2S				
851-0536-00 S	Technology and the Environment - on Cour	se for C	Collision?	2 hrs	Wed	12-14	IFW C33	L. Müller
851-0101-74L	Sustainable Development - Bridging Art and Science	W	3 credits	2G				
851-0101-74 G	Sustainable Development - Bridging Art and Unregelmässige Lehrveranstaltung	d Scienc	e	28s hrs	Wed	14-16	RZ F21	L. Hensgen, S. Patel
851-0535-10L	Yemen: A Failed State?	W	2 credits	2V				
851-0535-10 V	Yemen: A Failed State?			2 hrs	Tue	12-14	HG E33.5	E. Manea
851-0594-04L	One Study, Two Paths: The Dual-Use Dilemma in the Life Sciences Particularly suitable for students (from Bachelor 3rd year onwards) of D-BIOL, D- CHAB, D-HEST	W	3 credits	2\$				
	Maximum number of participants limited to 20							
851-0594-04 S	One Study, Two Paths: The Dual-Use Dilen Sciences	nma in t	he Life	2 hrs	Fri	08-10	IFW E42	M. Gemünden, O. Thränert

#### **▶▶** Psychology, Pedagogics

follow the seminar from there.

Online seminar: This seminar will primarily take place online. Reserved rooms will remain blocked on campus for students to

Number	Title	Type	ECTS	Hours				Lecturers
851-0240-00L	Human Learning (EW1) This lecture is only apt for students who intend to enrol in the programs "Teaching Diploma" or "Teaching Certificate". It is about learning in childhood and adolescence.	W	2 credits	2V				
851-0240-00 V	Menschliches Lernen (EW1)			2 hrs	Tue	18-20	HG F1	E. Stern
851-0238-01L	Support and Diagnosis of Knowledge Acquisition Processes (EW3)  Enrolment only possible with matriculation in Teaching Diploma (except for students o Sport Teaching Diploma, who complete the sport-specific course unit EW3) and for students who intend to enrol in the "Teaching Diploma".		3 credits	3S				
	Prerequisites: successful participation in 851-0240-00L "Human Learning (EW1)".							
851-0238-01 S	Unterstützung und Diagnose von Wissense	rwerbsp	rozessen	3 hrs	Tue	14-17	CHN D42	P. Edelsbrunner, J. Maue,
	(EW3) ■						CHN D44	C. M. Thurn
	Bei grosser Anzahl an Teilnehmenden wir o in zwei Gruppen stattfinden.	die Lehrv	eranstaltung					
851-0252-01L	Human-Computer Interaction: Cognition and Usability Number of participants limited to 35.	W	3 credits	2\$				
	Particularly suitable for students of D-							
851_0252_01 S	ARCH, D-INFK, D-ITET  Human-Computer Interaction: Cognition an	d Heabili	itv	2 hrs	Mon	14-16	ON LINE	H. Zhao, S. Credé, C. Hölscher
051-0252-01-5	The lecturers will communicate the exact le courses.				IVIOIT	14-10	ON LINE	n. 2nao, S. Ciede, C. Hoischei
851-0252-12L	The Science of Learning From Failure	W	2 credits	2S				
851-0252-12 S	Number of participants limited to 60.  The Science of Learning From Failure Groups are selected in myStudies.			2 hrs	Mon	16-18	HG D3.3 HG E33.3	M. Kapur, E. Ziegler
	This seminar is an interactive course, thus classroom participation are required, especiessions are essential.  The course is held as 2 separate courses were coursed in the course is selected.	ially the vith each	first two a maximum					
	of 30 students: one course in German and							
363-0311-00L	Psychological Aspects of Risk Management and Technology Number of participants limited to 65.	W	3 credits	2V				
363-0311-00 V	Psychological Aspects of Risk Managemen	t and Te	chnology	2 hrs	Wed	16-18	LFW B1	G. Grote, N. Bienefeld-Seall, J. Schmutz, R. Schneider, M. Zumbühl
701-0721-00L	Psychology	W	3 credits	2V				
701-0721-00 V	Psychologie Online-Veranstaltung: Diese Lehrveranstalt grundsätzlich online statt. Die reservierten i Studierenden auf dem Campus bestehen, u Lehrveranstaltung dort zu hören.	Räume k		2 hrs	Tue	14-16	HG D7.2	R. Hansmann, A. Bearth, M. Siegrist
851-0252-08L	Evidence-Based Design: Methods and Tools For Evaluating Architectural Design Number of participants limited to 40	W	3 credits	2\$				
	Particularly suitable for students of D-							
851-0252-08 S	ARCH Evidence-Based Design: Methods and Too Architectural Design	s For Ev	valuating	2 hrs	Fri	10-12	HIL E10.1	M. Gath Morad, C. Hölscher, L. Narvaez Zertuche, C. Veddeler
851-0253-07L	Consciousness Studies Number of participants limited to 80.	W	2 credits	2V				
851-0253-07 V	Consciousness Studies			2 hrs	Tue	16-18	IFW A36	K. Stocker
▶► Law								
Number	Title	Туре	ECTS	Hours				Lecturers
851-0735-09L	Workshop & Lecture Series on the Law	W	2 credits	2S				<del>-</del>
	& Economics of Innovation Workshop & Lecture Series on the Law & E	conomic	es of	28s hrs	Tue Wed	16-18 16-18	UNI ZH. IFW A32.1	S. Bechtold, H. Gersbach
851-0735-09 S	Innovation **together with University of Zurich**				22.09.	16-18	ML E12	
851-0735-09 S		rnierende	e an der UZH		22.09.	16-18	ML E12	

the lecture "Introduction to Law for Civil Engineering and Architecture " (851-0703-03L) or " Introduction to Law" (851-0708-00L), cannot register for this course

Particularly suitable for students of D-ARCH, D-MAVT, D-MATL

851-0703-00 V	ARCH, D-MAVT, D-MATL Grundzüge des Rechts			2 hrs	Mon	14-16	HG E1.2	O. Streiff Gnöpff
851-0742-00L	Contract Design I This course is taught by Professor	w	3 credits	2V	IVIOII	17-10	110 L1.2	C. Ottem Onoph
	Alexander Stremitzer (https://laweconbusiness.ethz.ch/group/professor/stremitzer.html). Note that this is NOT a legal drafting class that focuses on contractual language. Instead, in Contact Design I, you will learn what the content of a contract should be so that parties can reach their goals.	r						
	You can find all course materials and the most recent announcements on Moodle. Please log in to Moodle using your ETH or UZH credentials. Then search for "Contract Design I (851-0742-00L; Fall 2021)" and enroll. The password is "ContractDesign01".							
351-0742-00 V	Number of participants limited to 160. Max 80 ETHZ and 80 UZH Students Contract Design I The course is going to take place twice a w Thursday) during the first half of the Semes	eek (Mo ter.	nday and	28s hrs	Mon/1 Thu/1	16-18 12-14	ETF E1 ETF E1	A. Stremitzer
	Online lecture: This lecture will primarily tak Reserved rooms will remain blocked on can follow the course from there.	e place						
351-0703-04L	Law and Urban Space Number of participants limited to 45	W	2 credits	1V				
	Particularly suitable for students of D- ARCH							
51-0703-04 V	Recht und Stadtraum ■			18s hrs	Mon	18-20	HCI D2	O. Streiff Gnöpff
851-0707-00L	Space Planning Law and Environment Particularly suitable for students of D- ARCH, D-BAUG, D-USYS	W	2 credits	2G				
851-0707-00 G	Raumplanungsrecht und Umwelt Vorlesungs-/Übungsveranstaltung nach spe Online-Veranstaltung: Diese Lehrveranstalt grundsätzlich online statt. Die reservierten F Studierenden auf dem Campus bestehen, u Lehrveranstaltung dort zu hören.	ung find Räume l	let	2 hrs	Wed	16-18	HG F5	O. Bucher
351-0709-00L	Introduction to Civil Law	w	2 credits	2V				
351-0709-00 V	Introduction au Droit civil Mit Erklärungen auch in italienischer Sprach	ne.		2 hrs	Mon	18-20	HG F1	H. Peter
851-0727-02L	<b>E-Business-Law</b> Particularly suitable for students of D-INFK, D-ITET	W	2 credits	2V				
351-0727-02 V	E-Business-Recht			2 hrs	Fri	08-10	HG D1.2	D. Rosenthal
851-0735-10L	Business Law Number of participants limited to 100	W	2 credits	2V				
	Particularly suitable for students of D-ITET, D-MAVT							
851-0735-10 V	Wirtschaftsrecht			2 hrs	Thu	14-16	HG D1.2	P. Peyrot
851-0738-00L	Intellectual Property: Introduction Particularly suitable for students of D- CHAB, D-INFK, D-ITET, D-MAVT, D- MATL, D-MTEC	W	2 credits	2V				
851-0738-00 V	Geistiges Eigentum: Eine Einführung Online-Veranstaltung: Diese Lehrveranstalt Zoom) statt. Die reservierten Räume bleibei auf dem Campus bestehen, um die Lehrverhören.	n für die	Studierenden	2 hrs	Fri	10-12	HG D7.1	M. Schweizer
851-0738-01L	The Role of Intellectual Property in the Engineering and Technical Sector Particularly suitable for students of D-BAUG, D-BIOL, D-BSSE, D-CHAB, D-ITET, D-MAVT	W	2 credits	2V				
851-0738-01 V	Die Rolle des Geistigen Eigentums im Inger technischen Wissenschaften	nieurwes	sen und den	28s hrs	Fri/2w	14-18	LFW B1	K. Houshang Pour Islam

851-0760-00L								
	Building a Robot Judge: Data Science for Decision-Making Particularly suitable for students of D-INFK, D-ITET, D-MTEC	W	3 credits	2V				
851-0760-00 V	Building a Robot Judge: Data Science for D Online lecture: This seminar will primarily ta Reserved rooms will remain blocked on car follow the seminar from there.	ke place	e online.	2 hrs	Mon	14-16	ETZ E8	E. Ash
851-0761-00L	Building a Robot Judge: Data Science for Decision-Making (Course Project) This is the optional course project for "Building a Robot Judge: Data Science for the Law."	W	2 credits	2V				
	Please register only if attending the lecture course or with consent of the instructor.							
	Some programming experience in Python is required, and some experience with text mining is highly recommended.	5						
851-0761-00 V	Building a Robot Judge: Data Science for D (Course Project)  Mondays, 12 - 2 pm. Same dates and room course 851-0760-00 V Building a Robot Jud Decision-Making.	as for t	he lecture	28s hrs				E. Ash
<b>851-0746-00L</b> 851-0746-00 S	Algorithms and Fairness Algorithms and Fairness	W	2 credits	<b>1S</b> 14s hrs	03.12. 04.12.	09-17 09-17	HG E33.1 HG E33.1	A. Stremitzer, A. Nielsen
851-0742-01L	Contract Design II This course is taught by Professor Alexander Stremitzer (https://lawecon.ethz.ch/group/professors/s remitzer.html). To be considered for Contract Design II, you must have completed Contract Design I in the same semester. Students can only register for	W t	1 credit	1U				
	Contract Design II after having obtained approval by Prof. Stremitzer.							
851-0742-01 U	Contract Design II The course is going to take place twice a widuring the second half of the Semester (ET.			16s hrs	Mon/2 Thu/2	16-18 12-14	IFW E42 IFW E42	A. Stremitzer
▶► Sociolo	ду							
Number	Title	Туре	ECTS	Hours				Lecturers
851-0252-10L	Project in Behavioural Finance Number of participants limited to 40	W	3 credits	2\$				
	Particularly suitable for students of D-							
	MTEC			2 hrs				
851-0252-10 S	MTEC Project in Behavioural Finance The lecturers will communicate the exact le courses.	sson tim	es of ONLINE		Wed	10-12	ON LINE	S. Andraszewicz, C. Hölscher, A. C. Roberts
851-0252-10 S 851-0252-13L	Project in Behavioural Finance The lecturers will communicate the exact le	sson tim	es of ONLINE 3 credits		Wed	10-12	ON LINE	
	Project in Behavioural Finance The lecturers will communicate the exact le courses.  Network Modeling Particularly suitable for students of D-INFK				Wed	10-12	ON LINE	
851-0252-13L	Project in Behavioural Finance The lecturers will communicate the exact le courses.  Network Modeling Particularly suitable for students of D-INFK and in the MSc Data Science  Students are required to have basic knowledge in inferential statistics, such as regression models.				Wed	10-12	ON LINE	
851-0252-13L	Project in Behavioural Finance The lecturers will communicate the exact le courses.  Network Modeling Particularly suitable for students of D-INFK and in the MSc Data Science  Students are required to have basic knowledge in inferential statistics, such as regression models.			2V				A. C. Roberts
851-0252-13L 851-0252-13 V 851-0252-15L	Project in Behavioural Finance The lecturers will communicate the exact le courses.  Network Modeling Particularly suitable for students of D-INFK and in the MSc Data Science  Students are required to have basic knowledge in inferential statistics, such as regression models. Network Modeling  Network Analysis Particularly suitable for students of D-INFK,	W	3 credits	<b>2V</b> 2 hrs				A. C. Roberts
851-0252-13L 851-0252-13 V 851-0252-15L	Project in Behavioural Finance The lecturers will communicate the exact le courses.  Network Modeling Particularly suitable for students of D-INFK and in the MSc Data Science  Students are required to have basic knowledge in inferential statistics, such as regression models.  Network Modeling  Network Analysis Particularly suitable for students of D-INFK, D-MATH	W	3 credits	2V 2 hrs 2V	Mon	16-18	IFW A32.1	A. C. Roberts  C. Stadtfeld, V. Amati
851-0252-13 V 851-0252-13 V 851-0252-15L 851-0252-15 V 851-0585-41L	Project in Behavioural Finance The lecturers will communicate the exact le courses.  Network Modeling Particularly suitable for students of D-INFK and in the MSc Data Science  Students are required to have basic knowledge in inferential statistics, such as regression models. Network Modeling  Network Analysis Particularly suitable for students of D-INFK, D-MATH Network Analysis Computational Social Science	W W	3 credits 3 credits ce online.	2 hrs 2 hrs 2 hrs	Mon	16-18	IFW A32.1	A. C. Roberts  C. Stadtfeld, V. Amati  U. Brandes
851-0252-13 V 851-0252-13 V 851-0252-15L 851-0252-15 V 851-0585-41L	Project in Behavioural Finance The lecturers will communicate the exact le courses.  Network Modeling Particularly suitable for students of D-INFK and in the MSc Data Science  Students are required to have basic knowledge in inferential statistics, such as regression models. Network Modeling  Network Analysis Particularly suitable for students of D-INFK, D-MATH Network Analysis  Computational Social Science Number of participants limited to 50. Computational Social Science  Online seminar: This seminar will primarily a Reserved rooms will remain blocked on car follow the seminar from there.  Applied Network Science: Social Media Networks	W W	3 credits 3 credits ce online.	2 hrs 2 hrs 2 hrs 2 hrs 2 hrs	Mon	16-18	IFW A32.1 ML F36	A. C. Roberts  C. Stadtfeld, V. Amati  U. Brandes  D. Helbing, J. Argota Sánchez-
851-0252-13 V 851-0252-15 V 851-0252-15 V 851-0252-15 S 851-0585-41 S	Project in Behavioural Finance The lecturers will communicate the exact lecourses.  Network Modeling Particularly suitable for students of D-INFK and in the MSc Data Science  Students are required to have basic knowledge in inferential statistics, such as regression models.  Network Modeling  Network Analysis Particularly suitable for students of D-INFK, D-MATH Network Analysis  Computational Social Science Number of participants limited to 50.  Computational Social Science  Online seminar: This seminar will primarily and primar	W W take place	3 credits 3 credits ce online. students to 3 credits	2 hrs 2 hrs 2 hrs 2 hrs 2 hrs 2 hrs	Mon	16-18	IFW A32.1 ML F36	A. C. Roberts  C. Stadtfeld, V. Amati  U. Brandes  D. Helbing, J. Argota Sánchez-

851-0745-00L Ethics Workshop: The Impact of Digital W 2 credits 2S

Life on Society
Number of participants limited to 40.

Open to all Master level / PhD students.

**E. Vayena**, A. Blasimme, C. Brall, J. Sleigh 851-0745-00 S Ethics Workshop: The Impact of Digital Life on Society ■ 10.11. 09-17 IFW C42 24s hrs

Block course three days.

IFW C42 IFW C42 11.11. 09-17 24.11. 09-17

#### **▶▶** Science Research

Number	Title	Type	ECTS	Hours				Lecturers
851-0020-00L	Gender and Science	W	2 credits	2V				
851-0020-00 V	Gender and Science			2 hrs	Tue	18-20	HG E33.1	C. L. Blaser, M. Ligtenberg
851-0157-00L	Mind and Brain	W	3 credits	2V				
851-0157-00 V	Gehirn und Geist			2 hrs	Tue 28.09. 05.10.	18-20 18-20 18-20	IFW A36 HG F3 HG F3	M. Hagner

# ▶ Type B: Reflection About Subject-Specific Methods and Contents

Subject-specific courses: Recommended for doctoral, master and bachelor students (after first-year examination only).

Students who already took a course within their main study program are NOT allowed to take the course again.

These course units are also listed under "Type A", which basically means all students can enroll

#### ▶▶ D-ARCH

Number	Title	Type	ECTS	Hours				Lecturers
351-0703-00L	Introduction to Law Students who have attended or will attend the lecture "Introduction to Law for Civil Engineering and Architecture " (851- 0703-03L) or " Introduction to Law" (851- 0708-00L), cannot register for this course unit.	W	2 credits	2V				
	Particularly suitable for students of D-							
851-0703-00 V	ARCH, D-MAVT, D-MATL Grundzüge des Rechts			2 hrs	Mon	14-16	HG E1.2	O. Streiff Gnöpff
851-0742-00L	Contract Design I This course is taught by Professor Alexander Stremitzer (https://laweconbusiness.ethz.ch/group/professor/stremitzer.html). Note that this is NOT a legal drafting class that focuses on contractual language. Instead, in Contact Design I, you will learn what the content of a contract should be so that parties can reach their goals.	w	3 credits	2V				
	You can find all course materials and the most recent announcements on Moodle. Please log in to Moodle using your ETH or UZH credentials. Then search for "Contract Design I (851-0742-00L; Fall 2021)" and enroll. The password is "ContractDesign01".							
	Number of participants limited to 160. Max 80 ETHZ and 80 UZH Students							
851-0742-00 V	Contract Design I The course is going to take place twice a we Thursday) during the first half of the Semes		enday and	28s hrs	Mon/1 Thu/1	16-18 12-14	ETF E1 ETF E1	A. Stremitzer
	Online lecture: This lecture will primarily tak Reserved rooms will remain blocked on can follow the course from there.							
851-0703-04L	Law and Urban Space Number of participants limited to 45	W	2 credits	1V				
	Particularly suitable for students of D-ARCH							
851-0703-04 V	Recht und Stadtraum ■			18s hrs	Mon	18-20	HCI D2	O. Streiff Gnöpff
851-0707-00L	Space Planning Law and Environment Particularly suitable for students of D- ARCH, D-BAUG, D-USYS	W	2 credits	2G				
851-0707-00 G	Raumplanungsrecht und Umwelt Vorlesungs-/Übungsveranstaltung nach spe Online-Veranstaltung: Diese Lehrveranstalt grundsätzlich online statt. Die reservierten F Studierenden auf dem Campus bestehen, u Lehrveranstaltung dort zu hören.	ung find Räume i	let	2 hrs	Wed	16-18	HG F5	O. Bucher

### and Usability

Number of participants limited to 35.

Particularly suitable for students of D-

ARCH, D-INFK, D-ITET

851-0252-01 S Human-Computer Interaction: Cognition and Usability 2 hrs Mon 14-16 ON LINE **H. Zhao**, S. Credé, C. Hölscher *The lecturers will communicate the exact lesson times of ONLINE* 

courses

851-0252-08L Evidence-Based Design: Methods and W 3 credits 2S

Tools For Evaluating Architectural Design

Number of participants limited to 40

Particularly suitable for students of D-

ARCH

851-0421-00L

851-0252-08 S Evidence-Based Design: Methods and Tools For Evaluating 2 hrs Fri 10-12 HIL E10.1 M. Gath Morad, C. Hölscher,

Architectural Design

L. Narvaez Zertuche,
C. Veddeler

IFW C33

N. Guettler

10-12

Tue

Thu/2

12-14

IFW E42

851-0175-00L Images of the Human W 3 credits 2G

851-0175-00 G Images of the Human 28s hrs Mon/2w 18-20 HG D1.2 **J. L. Gastaldi**The course consists of a lecture (Monday 6-8pm) and an exercise Tue/2w 10-12 RZ F21

The course consists of a lecture (Monday 6-8pm) and an exercise (Tuesday 10am-12am).

Sapiens: A Reading Course W 3 credits 2S

851-0421-00 S Sapiens – Ein wisssenschaftshistorischer Lektürekurs 2 hrs

851-0724-01L Real Estate Property Law W 3 credits 3V

Particularly suitable for students of D-ARCH. D-BAUG. D-USYS

851-0724-01 V Immobiliarsachenrecht 3 hrs Mon 17-20 HIL E7 **M. Huser**, R. Müller-Wyss, S. Stucki

851-0467-00L From Traffic Modeling to Smart Cities W 3 credits 2S

and Digital Democracies

Number of participants limited to 50.

851-0467-00 S From Traffic Modeling to Smart Cities and Digital Democracies 2 hrs Mon 18-20 IFW A32.1 **D. Helbing**, S. Mahajan

Online seminar: This seminar will primarily take place online. Reserved rooms will remain blocked on campus for students to

follow the seminar from there.

851-0742-01L Contract Design II W 1 credit 1U

This course is taught by Professor

Alexander Stremitzer

(https://lawecon.ethz.ch/group/professors/st remitzer.html). To be considered for

Contract Design II, you must have completed Contract Design I in the same semester. Students can only register for Contract Design II after having obtained

Referential Space and Spatial Effects

approval by Prof. Stremitzer.

851-0742-01 U Contract Design II 16s hrs Mon/2 16-18 IFW E42 A. Stremitzer

The course is going to take place twice a week (Mon and Thurs)

during the second half of the Semester (ETH students only).

052-0517-21L Theory and Practice: Heterotopia, W 2 credits 2G

052-0517-21 G Theorie und Praxis: Heterotopie, referenzieller Raum und 2 hrs Mon 14-18 HCI J6 C. Posthofen, A. Brandlhuber

Raumeffekte

Kursdaten: Siehe Raumbelegungen!

851-0107-00L Science and the Public: A Problem of W 2 credits 1S Mediation that the Media Have to Solve?

851-0107-00 S Wissenschaft und Öffentlichkeit - ein Vermittlungsproblem, das 1 hrs Wed/2w 14-16 IFW D42 U. J. Wenzel

die Medien zu lösen haben?

Online-Veranstaltung: Diese Lehrveranstaltung findet

grundsätzlich online statt. Die reservierten Räume bleiben für die

Studierenden auf dem Campus bestehen, um die Lehrveranstaltung dort zu hören.

**851-0101-80L** Basic Problems of Environmental Ethics W 3 credits 2G 851-0101-80 G Grundprobleme der Umweltethik 2 hrs Wed 16-18 HG G5 L. Wingert

w

▶► D-BAUG

**ECTS** Number Type Hours Lecturers 851-0738-01L The Role of Intellectual Property in the 2 credits 2V **Engineering and Technical Sector** Particularly suitable for students of D-BAUG, D-BIOL, D-BSSE, D-CHAB, D-ITET. D-MAVT K. Houshang Pour Islam 851-0738-01 V Die Rolle des Geistigen Eigentums im Ingenieurwesen und den 28s hrs Fri/2w 14-18 LFW B1

2V

3 credits

technischen Wissenschaften

851-0742-00L Contract Design I

This course is taught by Professor

Alexander Stremitzer

(https://laweconbusiness.ethz.ch/group/professor/stremitzer.html). Note that this is

NOT a legal drafting class that focuses on contractual language. Instead, in Contact Design I, you will learn what the content of a contract should be so that parties can reach their goals.

You can find all course materials and the most recent announcements on Moodle. Please log in to Moodle using your ETH or UZH credentials. Then search for "Contract Design I (851-0742-00L; Fall 2021)" and enroll. The password is "ContractDesign01".

Number of participants limited to 160. Max 80 ETHZ and 80 UZH Students

851-0742-00 V Contract Design I

The course is going to take place twice a week (Monday and

Thursday) during the first half of the Semester.

Online lecture: This lecture will primarily take place online. Reserved rooms will remain blocked on campus for students to follow the course from there.

851-0707-00L **Space Planning Law and Environment** 2 credits 2G

Particularly suitable for students of D-ARCH, D-BAUG, D-USYS

851-0707-00 G Raumplanungsrecht und Umwelt

Vorlesungs-/Übungsveranstaltung nach speziellem Programm.

Online-Veranstaltung: Diese Lehrveranstaltung findet

grundsätzlich online statt. Die reservierten Räume bleiben für die Studierenden auf dem Campus bestehen, um die

	Lehrveranstaltung dort zu hören.	n, am arc						
701-0703-00L	Environmental Ethics	W	2 credits	2V				
701-0703-00 V	Ethik und Umwelt			2 hrs	Fri	12-14	HG F7	A. Deplazes Zemp
052-0801-00L	Global History of Urban Design I	w	2 credits	2G				
052-0801-00 G	Global History of Urban Design I No course on 28.10. (seminar week) 16. critiques).	/23.12. (b	pefore final	2 hrs	Thu	10-12	HIL E4	T. Avermaete
851-0650-00L	Al4Good	W	3 credits	2G				
851-0650-00 G	Al4Good ■			2 hrs	Thu	10-12	IFW C33	J. D. Wegner
851-0421-00L	Sapiens: A Reading Course	w	3 credits	2S				
851-0421-00 S	Sapiens – Ein wisssenschaftshistorische	er Lektüre	kurs	2 hrs	Tue	10-12	IFW C33	N. Guettler

28s hrs

2 hrs

Mon/1 16-18

12-14

16-18

Thu/1

Wed

ETF E1

ETF E1

HG F5

A. Stremitzer

O. Bucher

851-0724-01L **Real Estate Property Law** 3 credits

Particularly suitable for students of D-ARCH, D-BAUG, D-USYS

851-0724-01 V Immobiliarsachenrecht 3 hrs Mon 17-20 HIL E7 M. Huser, R. Müller-Wyss, S. Stucki

851-0742-01L Contract Design II w 1 credit **1U** 

This course is taught by Professor

Alexander Stremitzer

(https://lawecon.ethz.ch/group/professors/st remitzer.html). To be considered for Contract Design II, you must have completed Contract Design I in the same semester. Students can only register for Contract Design II after having obtained

approval by Prof. Stremitzer.

851-0742-01 U Contract Design II 16s hrs Mon/2 16-18 IFW E42 A. Stremitzer The course is going to take place twice a week (Mon and Thurs) Thu/2 12-14 IFW E42

during the second half of the Semester (ETH students only).

851-0101-80L Basic Problems of Environmental Ethics W 2G 3 credits

851-0101-80 G Grundprobleme der Umweltethik 2 hrs Wed 16-18 HG G5 L. Wingert

▶▶ D-BIOL

Number	Title	Type	ECTS	Hours				Lecturers
851-0180-00L	Research Ethics Number of participants limited to 40	W	2 credits	2G				
	Particularly suitable for students of D-BIOL, D-CHAB, D-HEST	,						
851-0180-00 G	Research Ethics ■			2 hrs	Wed	18-20	LFW C1	G. Achermann, P. Emch
	One additional hour of home work per week	k will be	required					
851-0738-01L	The Role of Intellectual Property in the Engineering and Technical Sector Particularly suitable for students of D-BAUG, D-BIOL, D-BSSE, D-CHAB, D-ITET, D-MAVT	W	2 credits	2V				
851-0738-01 V	Die Rolle des Geistigen Eigentums im Inge technischen Wissenschaften	nieurwe	sen und den	28s hrs	Fri/2w	14-18	LFW B1	K. Houshang Pour Islam

851-0732-06L								
331 0132-00L	Law & Tech Number of participants limited to 30.	w	3 credits	3S				
851-0732-06 S	• •			40s hrs	Tue	10-12	IFW A32.1	A. Stremitzer, J. Merane,
	Online lecture: This lecture will take place of will remain blocked on campus for students from there.			l	Wed	10-12	IFW A32.1	A. Nielsen
851-0175-00L	Images of the Human	W	3 credits	2G	14 /0	40.00	110 D4 0	
851-0175-00 G	Images of the Human The course consists of a lecture (Monday 6- (Tuesday 10am-12am).	·8pm) ar	nd an exercise	28s hrs	Mon/2w Tue/2w		HG D1.2 RZ F21	J. L. Gastaldi
<b>851-0101-80L</b> 851-0101-80 G	Basic Problems of Environmental Ethics Grundprobleme der Umweltethik	W	3 credits	<b>2G</b> 2 hrs	Wed	16-18	HG G5	L. Wingert
851-0594-04L	One Study, Two Paths: The Dual-Use Dilemma in the Life Sciences Particularly suitable for students (from Bachelor 3rd year onwards) of D-BIOL, D- CHAB, D-HEST	W	3 credits	2S				
	Maximum number of participants limited to 20							
851-0594-04 S	One Study, Two Paths: The Dual-Use Dilem Sciences Online seminar: This seminar will primarily to Reserved rooms will remain blocked on can follow the seminar from there.	ake plac	ce online.	2 hrs	Fri	08-10	IFW E42	M. Gemünden, O. Thränert
▶▶ D-BSSE	<u> </u>							
Number	Title	Туре	ECTS	Hours				Lecturers
851-0738-01L	The Role of Intellectual Property in the Engineering and Technical Sector Particularly suitable for students of D-BAUG, D-BIOL, D-BSSE, D-CHAB, D-ITET, D-MAVT	W	2 credits	2V				
851-0738-01 V	Die Rolle des Geistigen Eigentums im Inger technischen Wissenschaften		sen und den	28s hrs	Fri/2w	14-18	LFW B1	K. Houshang Pour Islam
	Images of the Human Images of the Human The course consists of a lecture (Monday 6- (Tuesday 10am-12am).	<b>W</b> -8pm) ar	3 credits  and an exercise	2 <b>G</b> 28s hrs	Mon/2w Tue/2w		HG D1.2 RZ F21	J. L. Gastaldi
851-0101-80L	Basic Problems of Environmental Ethics	W	3 credits	2G				
	Grundprobleme der Umweltethik			2 hrs	Wed	16-18	HG G5	L. Wingert
►► D-CHAE	Title	Type	ECTS					Locturoro
Number 851-0180-00L	Research Ethics	Type w	2 credits	Hours 2G				Lecturers
	Number of participants limited to 40  Particularly suitable for students of D-BIOL,		_ 0.000					
054 0400 00 0	D-CHAB, D-HEST							
851-0180-00 G	Research Ethics ■			O I	\	40.00	1 5 1 0 4	0 Ashannana D Farah
	One additional hour of home work per week	will be i	required	2 hrs	Wed	18-20	LFW C1	G. Achermann, P. Emch
851-0742-00L	One additional hour of home work per week  Contract Design I This course is taught by Professor Alexander Stremitzer (https://laweconbusiness.ethz.ch/group/professor/stremitzer.html). Note that this is NOT a legal drafting class that focuses on contractual language. Instead, in Contact Design I, you will learn what the content of a contract should be so that parties can reach their goals.	W	required 3 credits	2 hrs	Wed	18-20	LFW C1	G. Achermann, P. Emch
851-0742-00L	Contract Design I This course is taught by Professor Alexander Stremitzer (https://laweconbusiness.ethz.ch/group/professor/stremitzer.html). Note that this is NOT a legal drafting class that focuses on contractual language. Instead, in Contact Design I, you will learn what the content of a contract should be so that parties can	<b>w</b>			Wed	18-20	LFW C1	G. Achermann, P. Emch
	Contract Design I This course is taught by Professor Alexander Stremitzer (https://laweconbusiness.ethz.ch/group/professor/stremitzer.html). Note that this is NOT a legal drafting class that focuses on contractual language. Instead, in Contact Design I, you will learn what the content of a contract should be so that parties can reach their goals.  You can find all course materials and the most recent announcements on Moodle. Please log in to Moodle using your ETH or UZH credentials. Then search for "Contract Design I (851-0742-00L; Fall 2021)" and enroll. The password is	w:	3 credits		Mon/1	18-20 16-18 12-14	ETF E1 ETF E1	G. Achermann, P. Emch  A. Stremitzer
<b>851-0742-00L</b> 851-0742-00 V	Contract Design I This course is taught by Professor Alexander Stremitzer (https://laweconbusiness.ethz.ch/group/professor/stremitzer.html). Note that this is NOT a legal drafting class that focuses on contractual language. Instead, in Contact Design I, you will learn what the content of a contract should be so that parties can reach their goals.  You can find all course materials and the most recent announcements on Moodle. Please log in to Moodle using your ETH or UZH credentials. Then search for "Contract Design I (851-0742-00L; Fall 2021)" and enroll. The password is "ContractDesign01".  Number of participants limited to 160. Max 80 ETHZ and 80 UZH Students Contract Design I The course is going to take place twice a we	w eek (Mor ter. e place o	3 credits	2V	Mon/1	16-18	ETF E1	

Particularly suitable for students of D-CHAB, D-INFK, D-ITET, D-MAVT, D-MATL, D-MTEC 851-0738-00 V Geistiges Eigentum: Eine Einführung Fri 10-12 HG D7.1 M. Schweizer 2 hrs Online-Veranstaltung: Diese Lehrveranstaltung findet online (via Zoom) statt. Die reservierten Räume bleiben für die Studierenden auf dem Campus bestehen, um die Lehrveranstaltung dort zu hören The Role of Intellectual Property in the 851-0738-01L 2V 2 credits **Engineering and Technical Sector** Particularly suitable for students of D-BAUG, D-BIOL, D-BSSE, D-CHAB, D-ITET, D-MAVT 851-0738-01 V Die Rolle des Geistigen Eigentums im Ingenieurwesen und den LFW B1 K. Houshang Pour Islam 28s hrs Fri/2w 14-18 technischen Wissenschaften 851-0742-01L Contract Design II **1**U 1 credit This course is taught by Professor Alexander Stremitzer (https://lawecon.ethz.ch/group/professors/st remitzer.html). To be considered for Contract Design II, you must have completed Contract Design I in the same semester. Students can only register for Contract Design II after having obtained approval by Prof. Stremitzer. 851-0742-01 U Contract Design II IFW E42 A. Stremitzer 16s hrs Mon/2 16-18 The course is going to take place twice a week (Mon and Thurs) Thu/2 IFW E42 during the second half of the Semester (ETH students only). 851-0125-65L A Sampler of Histories and Philosophies W 2V of Mathematics Particularly suitable for students D-CHAB, D-INFK, D-ITET, D-MATH, D-PHYS 851-0125-65 V A Sampler of Histories and Philosophies of Mathematics 2 hrs Mon 16-18 **ML E12** R. Wagner 851-0101-801 Basic Problems of Environmental Ethics W 2G 3 credits 851-0101-80 G. Grundprobleme der Umweltethik 2 hrs Wed 16-18 HG G5 L. Wingert 851-0594-04L One Study, Two Paths: The Dual-Use 3 credits Dilemma in the Life Sciences Particularly suitable for students (from Bachelor 3rd year onwards) of D-BIOL, D-CHAB, D-HEST Maximum number of participants limited to IFW E42 851-0594-04 S One Study, Two Paths: The Dual-Use Dilemma in the Life 2 hrs Fri 08-10 M. Gemünden, O. Thränert Sciences Online seminar: This seminar will primarily take place online. Reserved rooms will remain blocked on campus for students to follow the seminar from there. ▶► D-ERDW Number Title **FCTS** Lecturers Type Hours **Environmental Ethics** 2V 701-0703-00L W 2 credits 701-0703-00 V Ethik und Umwelt 2 hrs Fri 12-14 HG F7 A. Deplazes Zemp 851-0650-001 AI4Good w 2G 3 credits 851-0650-00 G Al4Good ■ IFW C33 2 hrs Thu 10-12 J. D. Weaner w 851-0421-00L Sapiens: A Reading Course 25 3 credits 851-0421-00 S Sapiens - Ein wisssenschaftshistorischer Lektürekurs 2 hrs 10-12 IFW C33 N. Guettler Tue Basic Problems of Environmental Ethics W 851-0101-80L 2G 851-0101-80 G Grundprobleme der Umweltethik 2 hrs Wed 16-18 HG G5 L. Wingert ▶▶ D-HEST Number Title Type **ECTS** Hours Lecturers 851-0180-00L Research Ethics 2 credits 2G Number of participants limited to 40 Particularly suitable for students of D-BIOL, D-CHAB, D-HEST 851-0180-00 G Research Ethics ■ 2 hrs Wed 18-20 LFW C1 G. Achermann, P. Emch One additional hour of home work per week will be required 363-1027-00L Introduction to Health Economics and 2 credits **1V Policy** 363-1027-00 V Introduction to Health Economics and Policy 16s hrs C. Waibel Does not take place this semester. Block course 851-0745-00L Ethics Workshop: The Impact of Digital W 2 credits 25

Life on Society

Number of participants limited to 40.

851-0745-00 S	Open to all Master level / PhD students. Ethics Workshop: The Impact of Digital Life Block course three days.	on Soc	iety ■	24s hrs	11.11.	09-17 09-17 09-17	IFW C42 IFW C42 IFW C42	E. Vayena, A. Blasimme, C. Brall, J. Sleigh
<b>851-0011-00L</b> 851-0011-00 S	The Body in Global History The Body in Global History	W	3 credits	<b>2S</b> 2 hrs	Wed	10-12	HG E33.3	E. Valdameri
<b>851-0421-00L</b> 851-0421-00 S	Sapiens: A Reading Course Sapiens – Ein wisssenschaftshistorischer Le	<b>W</b> ektürekı	3 credits	<b>2S</b> 2 hrs	Tue	10-12	IFW C33	N. Guettler
	Basic Problems of Environmental Ethics Grundprobleme der Umweltethik	W	3 credits	<b>2G</b> 2 hrs	Wed	16-18	HG G5	L. Wingert
851-0594-04L	One Study, Two Paths: The Dual-Use Dilemma in the Life Sciences Particularly suitable for students (from Bachelor 3rd year onwards) of D-BIOL, D- CHAB, D-HEST	W	3 credits	2\$				
	Maximum number of participants limited to 20							
851-0594-04 S	One Study, Two Paths: The Dual-Use Dilem Sciences Online seminar: This seminar will primarily to Reserved rooms will remain blocked on can follow the seminar from there.	ake pla	ce online.	2 hrs	Fri	08-10	IFW E42	M. Gemünden, O. Thränert
►► D-INFK								
Number	Title	Туре	ECTS	Hours				Lecturers
<b>851-0252-01L</b> 851-0252-01 S	Human-Computer Interaction: Cognition and Usability Number of participants limited to 35.  Particularly suitable for students of D-ARCH, D-INFK, D-ITET Human-Computer Interaction: Cognition and The lecturers will communicate the exact leaguests.	d Usabil		2 <b>S</b> 2 hrs	Mon	14-16	ON LINE	H. Zhao, S. Credé, C. Hölscher
851-0742-00L	courses.  Contract Design I	w	3 credits	2V				
	This course is taught by Professor Alexander Stremitzer (https://laweconbusiness.ethz.ch/group/professor/stremitzer.html). Note that this is NOT a legal drafting class that focuses on contractual language. Instead, in Contact Design I, you will learn what the content of a contract should be so that parties can reach their goals.	F						
	You can find all course materials and the most recent announcements on Moodle. Please log in to Moodle using your ETH or UZH credentials. Then search for "Contract Design I (851-0742-00L; Fall 2021)" and enroll. The password is "ContractDesign01".							
	Number of participants limited to 160.							
851-0742-00 V	Max 80 ETHZ and 80 UZH Students Contract Design I The course is going to take place twice a we Thursday) during the first half of the Semes		enday and	28s hrs	Mon/1 Thu/1	16-18 12-14	ETF E1 ETF E1	A. Stremitzer
	Online lecture: This lecture will primarily tak Reserved rooms will remain blocked on can follow the course from there.							
851-0727-02L	E-Business-Law Particularly suitable for students of D-INFK, D-ITET	W	2 credits	2V				
851-0727-02 V	E-Business-Recht			2 hrs	Fri	08-10	HG D1.2	D. Rosenthal
851-0738-00L	Intellectual Property: Introduction Particularly suitable for students of D- CHAB, D-INFK, D-ITET, D-MAVT, D- MATL, D-MTEC	W	2 credits	2V				
851-0738-00 V	· · · · · · · · · · · · · · · · · · ·	n für die	Studierenden	2 hrs	Fri	10-12	HG D7.1	M. Schweizer
851-0252-13L	Network Modeling Particularly suitable for students of D-INFK and in the MSc Data Science	W	3 credits	2V				

Students are required to have basic knowledge in inferential statistics, such as regression models.

851-0252-13 V Network Modeling

951 0252 12 V	regression models.			2 hrs	Mon	16-18	IFW A32.1	C Stadtfold \/ Amati
	Network Modeling				IVIOIT	10-10	IFW A32.1	C. Stadtfeld, V. Amati
851-0252-15L	Network Analysis Particularly suitable for students of D-INFK, D-MATH	W	3 credits	2V				
851-0252-15 V	Network Analysis			2 hrs	Wed	18-20	ML F36	U. Brandes
851-0732-06L	Law & Tech	W	3 credits	3S				
851-0732-06 S	Number of participants limited to 30.			10c bro	Tue	10-12	IFW A32.1	A Stromitzer   Morano
051-0752-00 5	Online lecture: This lecture will take place o will remain blocked on campus for students from there.			40s hrs s	Wed	10-12	IFW A32.1	A. Stremitzer, J. Merane, A. Nielsen
851-0101-86L	Complex Social Systems: Modeling	w	3 credits	2S				
	Agents, Learning, and Games Number of participants limited to 100.							
	Prerequisites: Basic programming skills, elementary probability and statistics.							
851-0101-86 S	Complex Social Systems: Modeling Agents,	Learnir	ng, and Game	s 2 hrs	Mon	16-18	HG D7.2	N. Antulov-Fantulin, T. Asikis,
	Online seminar: This seminar will primarily t Reserved rooms will remain blocked on can follow the seminar from there.							D. Helbing
851-0760-00L	Building a Robot Judge: Data Science	W	3 credits	2V				
	<b>for Decision-Making</b> Particularly suitable for students of D-INFK, D-ITET, D-MTEC							
851-0760-00 V	Building a Robot Judge: Data Science for D Online lecture: This seminar will primarily ta Reserved rooms will remain blocked on can follow the seminar from there.	ke place	e online.	2 hrs	Mon	14-16	ETZ E8	E. Ash
851-0761-00L	Building a Robot Judge: Data Science for Decision-Making (Course Project) This is the optional course project for "Building a Robot Judge: Data Science for the Law."	W	2 credits	2V				
	Please register only if attending the lecture course or with consent of the instructor.  Some programming experience in Python is required, and some experience with text	<b>S</b>						
	mining is highly recommended.							
851-0761-00 V	Building a Robot Judge: Data Science for D (Course Project) Mondays, 12 - 2 pm. Same dates and room course 851-0760-00 V Building a Robot Jud Decision-Making.	as for t	he lecture	28s hrs				E. Ash
<b>851-0650-00L</b> 851-0650-00 G	Al4Good	W	3 credits	<b>2G</b> 2 hrs	Thu	10-12	IFW C33	J. D. Wegner
851-0175-00L	Images of the Human	w	3 credits	2G				
	Images of the Human The course consists of a lecture (Monday 6- (Tuesday 10am-12am).	-8pm) aı	nd an exercise	28s hrs	Mon/2w Tue/2w		HG D1.2 RZ F21	J. L. Gastaldi
851-0467-00L	From Traffic Modeling to Smart Cities and Digital Democracies  Number of participants limited to 50.	W	3 credits	2S				
851-0467-00 S	From Traffic Modeling to Smart Cities and D Online seminar: This seminar will primarily t Reserved rooms will remain blocked on can follow the seminar from there.	take plad	ce online.	2 hrs	Mon	18-20	IFW A32.1	D. Helbing, S. Mahajan
851-0125-65L	A Sampler of Histories and Philosophies of Mathematics Particularly suitable for students D-CHAB, D-INFK, D-ITET, D-MATH, D-PHYS	W	3 credits	2V				
851-0125-65 V	A Sampler of Histories and Philosophies of	Mathem	atics	2 hrs	Mon	16-18	ML E12	R. Wagner
▶▶ D-ITET								
Number	Title	Туре	ECTS	Hours				Lecturers
		W	3 credits	2V				<del>-</del>
860-0023-00L	International Environmental Politics	VV	Julgania					
	Particularly suitable for students of D-ITET, D-USYS	VV	3 credits			40.1-		
860-0023-00 V	Particularly suitable for students of D-ITET, D-USYS International Environmental Politics			2 hrs	Mon	16-18	HG F3	T. Bernauer
	Particularly suitable for students of D-ITET, D-USYS International Environmental Politics	W	2 credits		Mon	16-18	HG F3	T. Bernauer

851-0252-01L	Human-Computer Interaction: Cognition and Usability Number of participants limited to 35.	W	3 credits	2S				
	Particularly suitable for students of D-							
851-0252-01 S	ARCH, D-INFK, D-ITET Human-Computer Interaction: Cognition an The lecturers will communicate the exact le courses.			2 hrs	Mon	14-16	ON LINE	H. Zhao, S. Credé, C. Hölschei
851-0735-10L	Business Law Number of participants limited to 100	W	2 credits	2V				
	Particularly suitable for students of D-ITET, D-MAVT							
	Wirtschaftsrecht			2 hrs	Thu	14-16	HG D1.2	P. Peyrot
851-0738-01L	The Role of Intellectual Property in the Engineering and Technical Sector Particularly suitable for students of D-BAUG, D-BIOL, D-BSSE, D-CHAB, D-ITET, D-MAVT	W	2 credits	2V				
851-0738-01 V	Die Rolle des Geistigen Eigentums im Inge technischen Wissenschaften	nieurwe	esen und den	28s hrs	Fri/2w	14-18	LFW B1	K. Houshang Pour Islam
851-0738-00L	Intellectual Property: Introduction Particularly suitable for students of D- CHAB, D-INFK, D-ITET, D-MAVT, D- MATL, D-MTEC	W	2 credits	2V				
851-0738-00 V	Geistiges Eigentum: Eine Einführung Online-Veranstaltung: Diese Lehrveranstalt Zoom) statt. Die reservierten Räume bleibe auf dem Campus bestehen, um die Lehrve hören.	en für di	e Studierenden	2 hrs	Fri	10-12	HG D7.1	M. Schweizer
851-0732-06L	Law & Tech Number of participants limited to 30.	W	3 credits	3S				
851-0732-06 S				40s hrs	Tue Wed	10-12 10-12	IFW A32.1 IFW A32.1	A. Stremitzer, J. Merane, A. Nielsen
851-0101-86L	Complex Social Systems: Modeling Agents, Learning, and Games Number of participants limited to 100.	W	3 credits	2\$				
851-0101-86 S	Prerequisites: Basic programming skills, elementary probability and statistics.  Complex Social Systems: Modeling Agents	Learn	ing, and Games	s 2 hrs	Mon	16-18	HG D7.2	N. Antulov-Fantulin, T. Asikis,
	Online seminar: This seminar will primarily Reserved rooms will remain blocked on car follow the seminar from there.	take pla	ace online.					D. Helbing
851-0760-00L	Building a Robot Judge: Data Science for Decision-Making Particularly suitable for students of D-INFK D-ITET, D-MTEC	W ,	3 credits	2V				
851-0760-00 V	Building a Robot Judge: Data Science for Donline lecture: This seminar will primarily to Reserved rooms will remain blocked on car follow the seminar from there.	ake plad	ce online.	2 hrs	Mon	14-16	ETZ E8	E. Ash
851-0761-00L	Building a Robot Judge: Data Science for Decision-Making (Course Project) This is the optional course project for "Building a Robot Judge: Data Science for the Law."	W	2 credits	2V				
	Please register only if attending the lecture course or with consent of the instructor.							
	Some programming experience in Python is required, and some experience with text mining is highly recommended.							
851-0761-00 V	Building a Robot Judge: Data Science for E (Course Project)  Mondays, 12 - 2 pm. Same dates and roon course 851-0760-00 V Building a Robot Judecision-Making.	n as for	the lecture	28s hrs				E. Ash
<b>851-0650-00L</b> 851-0650-00 G	Al4Good ■	W	3 credits	<b>2G</b> 2 hrs	Thu	10-12	IFW C33	J. D. Wegner
851-0467-00L	From Traffic Modeling to Smart Cities and Digital Democracies Number of participants limited to 50.	W	3 credits	28				

851-0467-00 S	From Traffic Modeling to Smart Cities and D Online seminar: This seminar will primarily t Reserved rooms will remain blocked on can follow the seminar from there.	ake pla	ce online.	2 hrs	Mon	18-20	IFW A32.1	<b>D. Helbing</b> , S. Mahajan
851-0125-65L	A Sampler of Histories and Philosophies of Mathematics Particularly suitable for students D-CHAB, D-INFK, D-ITET, D-MATH, D-PHYS	W	3 credits	2V				
851-0125-65 V	A Sampler of Histories and Philosophies of	Mathem	natics	2 hrs	Mon	16-18	ML E12	R. Wagner
►► D-MATH	ł							
Number	Title	Туре	ECTS	Hours				Lecturers
851-0742-00L	Contract Design I This course is taught by Professor Alexander Stremitzer (https://laweconbusiness.ethz.ch/group/professor/stremitzer.html). Note that this is NOT a legal drafting class that focuses on contractual language. Instead, in Contact Design I, you will learn what the content of a contract should be so that parties can reach their goals.	W	3 credits	2V				
	You can find all course materials and the most recent announcements on Moodle. Please log in to Moodle using your ETH or UZH credentials. Then search for "Contract Design I (851-0742-00L; Fall 2021)" and enroll. The password is "ContractDesign01".							
851-0742-00 V	Number of participants limited to 160. Max 80 ETHZ and 80 UZH Students Contract Design I The course is going to take place twice a we Thursday) during the first half of the Semesi		onday and	28s hrs	Mon/1 Thu/1	16-18 12-14	ETF E1 ETF E1	A. Stremitzer
	Online lecture: This lecture will primarily tak Reserved rooms will remain blocked on can follow the course from there.							
851-0252-15L	Network Analysis Particularly suitable for students of D-INFK, D-MATH	W	3 credits	2V				
851-0252-15 V	Network Analysis			2 hrs	Wed	18-20	ML F36	U. Brandes
<b>353-0061-00L</b> 353-0061-00 G	Introduction to Cybersecurity Politics Einführung in die Cybersicherheitspolitik	W	3 credits	<b>2G</b> 2 hrs	Wed	14-16	HG F3	M. Dunn Cavelty, F. J. Eglot
353-8002-00L	The Role of Technology in National and International Security Policy	W	3 credits	2G				
853-8002-00 G	Die Rolle von Technologie in nationaler und Sicherheitspolitik	interna	tionaler	2 hrs	Tue	08-10	IFW A36	<b>M. Haas</b> , A. Dossi, M. Leese O. Thränert
<b>851-0650-00L</b> 851-0650-00 G	Al4Good ■	W	3 credits	<b>2G</b> 2 hrs	Thu	10-12	IFW C33	J. D. Wegner
851-0175-00L	Images of the Human	W	3 credits	2G				
351-0175-00 G	Images of the Human The course consists of a lecture (Monday 6- (Tuesday 10am-12am).	⋅8pm) a	nd an exercise	28s hrs	Mon/2w Tue/2w		HG D1.2 RZ F21	J. L. Gastaldi
851-0742-01L	Contract Design II This course is taught by Professor Alexander Stremitzer (https://lawecon.ethz.ch/group/professors/stremitzer.html). To be considered for Contract Design II, you must have completed Contract Design I in the same semester. Students can only register for Contract Design II after having obtained approval by Prof. Stremitzer.	W	1 credit	1U				
851-0742-01 U	Contract Design II The course is going to take place twice a we during the second half of the Semester (ETI			16s hrs	Mon/2 Thu/2	16-18 12-14	IFW E42 IFW E42	A. Stremitzer
851-0125-65L	A Sampler of Histories and Philosophies of Mathematics Particularly suitable for students D-CHAB, D-INFK, D-ITET, D-MATH, D-PHYS	W	3 credits	2V				
851-0125-65 V	A Sampler of Histories and Philosophies of	Mathem	natics	2 hrs	Mon	16-18	ML E12	R. Wagner
851-0197-00L	Medieval and Early Modern Science and Philosophy		3 credits	2V				
	Medieval and Early Modern Science and Ph			2 hrs	Thu	12-14	IFW A36	E. Sammarchi

Number	Title	Type	ECTS	Hours				Lecturers
851-0703-00L	Introduction to Law Students who have attended or will attend the lecture "Introduction to Law for Civil Engineering and Architecture" (851- 0703-03L) or " Introduction to Law" (851- 0708-00L), cannot register for this course unit.	W	2 credits	2V				
	Particularly suitable for students of D- ARCH, D-MAVT, D-MATL							
851-0703-00 V				2 hrs	Mon	14-16	HG E1.2	O. Streiff Gnöpff
851-0738-00L	Intellectual Property: Introduction Particularly suitable for students of D- CHAB, D-INFK, D-ITET, D-MAVT, D- MATL, D-MTEC	W	2 credits	2V				
851-0738-00 V	Geistiges Eigentum: Eine Einführung Online-Veranstaltung: Diese Lehrveranstalt Zoom) statt. Die reservierten Räume bleibe auf dem Campus bestehen, um die Lehrver hören.	n für die	Studierenden	2 hrs	Fri	10-12	HG D7.1	M. Schweizer
853-0047-01L	World Politics Since 1945: The History of International Relations (Without Exercises)	W	3 credits	2V				
853-0047-00 V	Weltpolitik seit 1945: Geschichte der interna	ationaler	n Beziehungen	2 hrs	Wed	10-12	CAB G11	L. Horovitz
<b>701-0703-00L</b>	Environmental Ethics Ethik und Umwelt	W	2 credits	<b>2V</b> 2 hrs	Fri	12-14	HG F7	A. Deplazes Zemp
701-0703-00 V	Social Intercourse with Current	w	1 credit	2 nrs	1 11	14-14	119 F1	A. Debiases Sellib
	Environmental Risks Gesellschaftlicher Umgang mit aktuellen Ur Does not take place this semester.			1 hrs				B. Nowack
853-0061-00L	Introduction to Cybersecurity Politics	w	3 credits	2G				
853-0061-00 G	Einführung in die Cybersicherheitspolitik			2 hrs	Wed	14-16	HG F3	M. Dunn Cavelty, F. J. Egloff
853-8002-00L	The Role of Technology in National and International Security Policy	W	3 credits	2G				
	Die Rolle von Technologie in nationaler und Sicherheitspolitik			2 hrs	Tue	08-10	IFW A36	M. Haas, A. Dossi, M. Leese, O. Thränert
<b>851-0650-00L</b> 851-0650-00 G	Al4Good ■	W	3 credits	<b>2G</b> 2 hrs	Thu	10-12	IFW C33	J. D. Wegner
►► D-MTE	C							
Number	Title	Туре	ECTS	Hours				Lecturers
851-0252-10L	Project in Behavioural Finance Number of participants limited to 40	W	3 credits	2\$				
851-0252-10 S	Particularly suitable for students of D- MTEC Project in Behavioural Finance The lecturers will communicate the exact le courses.	sson tim	es of ONLINE	2 hrs	Wed	10-12	ON LINE	S. Andraszewicz, C. Hölscher, A. C. Roberts
851-0738-00L	Intellectual Property: Introduction Particularly suitable for students of D- CHAB, D-INFK, D-ITET, D-MAVT, D- MATL, D-MTEC	W	2 credits	2V				
851-0738-00 V	Geistiges Eigentum: Eine Einführung Online-Veranstaltung: Diese Lehrveranstalt Zoom) statt. Die reservierten Räume bleibe auf dem Campus bestehen, um die Lehrver hören.	n für die	Studierenden	2 hrs	Fri	10-12	HG D7.1	M. Schweizer
363-0565-00L	Principles of Macroeconomics	W	3 credits	2V				
363-0565-00 V	Principles of Macroeconomics  Di 16-18 im ETA F 5 mit Videoübertragung  The lecture takes place in classroom, online zoom and recorded.			2 hrs	Tue	16-18	ETA F5 ETF E1	JE. Sturm
	200/// 4//4 / 000/404.							
363-0503-00L	Principles of Microeconomics GESS (Science in Perspective): This lecture is for MSc students only. BSc students register for 363-1109-00L Einführung in die Mikroökonomie.	W	3 credits	2G				
	Principles of Microeconomics GESS (Science in Perspective): This lecture is for MSc students only. BSc students register for 363-1109-00L			2G 2 hrs	Thu	18-20	HG F7	M. Filippini
	Principles of Microeconomics GESS (Science in Perspective): This lecture is for MSc students only. BSc students register for 363-1109-00L Einführung in die Mikroökonomie. Principles of Microeconomics The lecture takes place in classroom, online				Thu	18-20	HG F7	M. Filippini

Note for D-MAVT students: If you have already successfully completed "Principles of Microeconomics" (LE 363-0503-00L), then you will not be permitted to attend it again. 363-1109-00 G Einführung in die Mikroökonomie 2 hrs 10-12 HG E5 M. Wörter, M. Beck Tue Zusätzliche (freiwillige) Termine für Übungen zur Vorlesung werden zu Beginn der Vorlesung bekanntgegeben. **Applied Negotiation Seminar** 363-1044-00L 3 credits 28 Number of participants limited to 30. Prerequisites: Successful completion of lectures "363-1039-00L Introduction to Negotiation". 363-1044-00 S Applied Negotiation Seminar ■ 22s hrs 01.10. 09-17 HG E33.1 A. Knobel Permission from lecturers required for all students HG E33.3 Block course HG E33.5 02.10. 09-17 HG E33.1 HG E33.3 HG E33.5 15.10. 09-17 HG E33.1 HG E33.3 HG E33.5 16.10 09-17 HG F33.1 HG F33.3 HG E33.5 851-0742-00L Contract Design I w 3 credits 2V This course is taught by Professor Alexander Stremitzer (https://laweconbusiness.ethz.ch/group/prof essor/stremitzer.html). Note that this is NOT a legal drafting class that focuses on contractual language. Instead, in Contact Design I, you will learn what the content of a contract should be so that parties can reach their goals. You can find all course materials and the most recent announcements on Moodle. Please log in to Moodle using your ETH or UZH credentials. Then search for "Contract Design I (851-0742-00L; Fall 2021)" and enroll. The password is "ContractDesign01". Number of participants limited to 160. Max 80 ETHZ and 80 UZH Students Contract Design I 851-0742-00 V A. Stremitzer 28s hrs Mon/1 16-18 FTF F1 The course is going to take place twice a week (Monday and Thu/1 12-14 FTF F1 Thursday) during the first half of the Semester. Online lecture: This lecture will primarily take place online. Reserved rooms will remain blocked on campus for students to follow the course from there. 851-0732-06L Law & Tech 3 credits 38 Number of participants limited to 30. 851-0732-06 S Law & Tech = 40s hrs Tue 10-12 IFW A32.1 A. Stremitzer, J. Merane, Wed 10-12 IFW A32.1 A. Nielsen Online lecture: This lecture will take place online. Reserved rooms will remain blocked on campus for students to follow the seminar from there. 851-0760-00L **Building a Robot Judge: Data Science** 3 credits 2V for Decision-Making
Particularly suitable for students of D-INFK, D-ITET, D-MTEC 851-0760-00 V Building a Robot Judge: Data Science for Decision-Making 2 hrs 14-16 ETZ E8 F Ash Mon Online lecture: This seminar will primarily take place online. Reserved rooms will remain blocked on campus for students to follow the seminar from there. 851-0761-00L **Building a Robot Judge: Data Science** 2 credits for Decision-Making (Course Project) This is the optional course project for "Building a Robot Judge: Data Science for the Law. Please register only if attending the lecture course or with consent of the instructor. Some programming experience in Python is required, and some experience with text

programme may attend "Principles of Microeconomics" (LE 363-0503-00L)

mining is highly recommended.

instead.

851-0761-00 V Building a Robot Judge: Data Science for Decision-Making 28s hrs E. Ash (Course Project) Mondays, 12 - 2 pm. Same dates and room as for the lecture course 851-0760-00 V Building a Robot Judge: Data Science for Decision-Making. 2G 851-0650-00L Al4Good w 3 credits 851-0650-00 G Al4Good = 2 hrs Thu 10-12 IFW C33 J. D. Wegner 851-0742-01L Contract Design II w 1U 1 credit This course is taught by Professor Alexander Stremitzer (https://lawecon.ethz.ch/group/professors/st remitzer.html). To be considered for Contract Design II, you must have completed Contract Design I in the same semester. Students can only register for Contract Design II after having obtained approval by Prof. Stremitzer. 851-0742-01 U Contract Design II IFW E42 Mon/2 16-18 A. Stremitzer 16s hrs The course is going to take place twice a week (Mon and Thurs) IFW F42 Thu/2 12-14 during the second half of the Semester (ETH students only). 851-0101-80L Basic Problems of Environmental Ethics W 2G 3 credits 851-0101-80 G Grundprobleme der Umweltethik 2 hrs Wed 16-18 HG G5 L. Wingert ▶► D-MAVT Number **ECTS** Type Hours Lecturers 851-0742-00L Contract Design I w 3 credits 2V This course is taught by Professor Alexander Stremitzer (https://laweconbusiness.ethz.ch/group/prof essor/stremitzer.html). Note that this is NOT a legal drafting class that focuses on contractual language. Instead, in Contact Design I, you will learn what the content of a contract should be so that parties can reach their goals. You can find all course materials and the most recent announcements on Moodle. Please log in to Moodle using your ETH or UZH credentials. Then search for "Contract Design I (851-0742-00L; Fall 2021)" and enroll. The password is "ContractDesign01". Number of participants limited to 160. Max 80 ETHZ and 80 UZH Students 851-0742-00 V Contract Design I 28s hrs Mon/1 16-18 ETF E1 A. Stremitzer The course is going to take place twice a week (Monday and 12-14 ETF E1 Thu/1 Thursday) during the first half of the Semester. Online lecture: This lecture will primarily take place online. Reserved rooms will remain blocked on campus for students to follow the course from there 851-0738-01L The Role of Intellectual Property in the 2 credits 2V **Engineering and Technical Sector** Particularly suitable for students of D-BAUG, D-BIOL, D-BSSE, D-CHAB, D-ITET, D-MAVT 851-0738-01 V Die Rolle des Geistigen Eigentums im Ingenieurwesen und den 28s hrs Fri/2w 14-18 LFW B1 K. Houshang Pour Islam technischen Wissenschaften Intellectual Property: Introduction w 851-0738-00L 2 credits **2V** Particularly suitable for students of D-CHAB, D-INFK, D-ITET, D-MAVT, D-MATL, D-MTEC Geistiges Eigentum: Eine Einführung Fri HG D7.1 M. Schweizer 851-0738-00 V 2 hrs 10-12 Online-Veranstaltung: Diese Lehrveranstaltung findet online (via Zoom) statt. Die reservierten Räume bleiben für die Studierenden auf dem Campus bestehen, um die Lehrveranstaltung dort zu hören. W 851-0735-10L **Business Law** 2 credits 2V Number of participants limited to 100 Particularly suitable for students of D-ITET, D-MAVT 851-0735-10 V Wirtschaftsrecht 2 hrs Thu 14-16 HG D1.2 P. Peyrot 851-0703-00L Introduction to Law 2 credits 2V Students who have attended or will attend the lecture "Introduction to Law for Civil Engineering and Architecture " (851-

0703-03L) or " Introduction to Law" (851-0708-00L), cannot register for this course

unit.

	Particularly suitable for students of D-							
851-0703-00 V	ARCH, D-MAVT, D-MATL Grundzüge des Rechts			2 hrs	Mon	14-16	HG E1.2	O. Streiff Gnöpff
853-0047-01L	World Politics Since 1945: The History of International Relations (Without Exercises)	w	3 credits	2V				
853-0047-00 V	Weltpolitik seit 1945: Geschichte der interna	ationaler	Beziehungen	2 hrs	Wed	10-12	CAB G11	L. Horovitz
853-0725-00L	History Part One: Europe (The Cradle of Modernity, Britain, 1789-1914)	W	3 credits	2V				
853-0725-00 V	Geschichte I: Europa (Grossbritannien, Mut 1789-1914)	terland o	der Moderne,	2 hrs	Wed	14-16	ML E12	H. Fischer-Tiné
<b>701-0703-00L</b> 701-0703-00 V	Environmental Ethics Ethik und Umwelt	W	2 credits	<b>2V</b> 2 hrs	Fri	12-14	HG F7	A. Deplazes Zemp
701-0985-00L		W	1 credit	1V				
701-0985-00 V	Environmental Risks Gesellschaftlicher Umgang mit aktuellen Un Does not take place this semester.	nweltrisi	ken	1 hrs				B. Nowack
<b>853-0061-00L</b> 853-0061-00 G	Introduction to Cybersecurity Politics Einführung in die Cybersicherheitspolitik	W	3 credits	<b>2G</b> 2 hrs	Wed	14-16	HG F3	M. Dunn Cavelty, F. J. Egloff
853-8002-00L	The Role of Technology in National and International Security Policy	w	3 credits	2G				
853-8002-00 G	Die Rolle von Technologie in nationaler und Sicherheitspolitik	l internat	ionaler	2 hrs	Tue	08-10	IFW A36	M. Haas, A. Dossi, M. Leese, O. Thränert
<b>851-0650-00L</b> 851-0650-00 G	Al4Good ■	W	3 credits	<b>2G</b> 2 hrs	Thu	10-12	IFW C33	J. D. Wegner
<b>851-0742-01L</b> 851-0742-01 U	Contract Design II This course is taught by Professor Alexander Stremitzer (https://lawecon.ethz.ch/group/professors/stremitzer.html). To be considered for Contract Design II, you must have completed Contract Design I in the same semester. Students can only register for Contract Design II after having obtained approval by Prof. Stremitzer. Contract Design II The course is going to take place twice a we during the second half of the Semester (ETI	eek (Moi		1U 16s hrs	Mon/2 Thu/2	16-18 12-14	IFW E42 IFW E42	A. Stremitzer
▶► D-PHYS		- Studer	ns orny).					
Number	Title	Туре	ECTS	Hours				Lecturers
851-0101-86L	Complex Social Systems: Modeling Agents, Learning, and Games Number of participants limited to 100.	W	3 credits	28				
851-0101-86 S	Prerequisites: Basic programming skills, elementary probability and statistics. Complex Social Systems: Modeling Agents, Online seminar: This seminar will primarily the Reserved rooms will remain blocked on can follow the seminar from there.	ake plac	e online.	2 hrs	Mon	16-18	HG D7.2	N. Antulov-Fantulin, T. Asikis, D. Helbing
<b>851-0650-00L</b> 851-0650-00 G		W	3 credits	<b>2G</b> 2 hrs	Thu	10-12	IFW C33	J. D. Wegner
<b>851-0175-00L</b> 851-0175-00 G	Images of the Human Images of the Human The course consists of a lecture (Monday 6- (Tuesday 10am-12am).	<b>W</b> -8pm) ar	3 credits	<b>2G</b> 28s hrs	Mon/2w Tue/2w		HG D1.2 RZ F21	J. L. Gastaldi
851-0125-65L	A Sampler of Histories and Philosophies of Mathematics Particularly suitable for students D-CHAB, D-INFK, D-ITET, D-MATH, D-PHYS	W	3 credits	2V				
	A Sampler of Histories and Philosophies of			2 hrs	Mon	16-18	ML E12	R. Wagner
851-0197-00L	Philosophy		3 credits	2V	Thu	10 14	IEW Age	E Sammarah:
851-0197-00 V 851-0742-01L	Medieval and Early Modern Science and Phemodern Design II This course is taught by Professor Alexander Stremitzer (https://lawecon.ethz.ch/group/professors/stremitzer.html). To be considered for Contract Design II, you must have completed Contract Design I in the same semester. Students can only register for Contract Design II after having obtained	W	/ 1 credit	2 hrs	Thu	12-14	IFW A36	E. Sammarchi

The course is going to take place twice a week (Mon and Thurs
during the second half of the Semester (ETH students only).

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Number	Title	Type	ECTS	Hours				Lecturers
860-0023-00L	International Environmental Politics Particularly suitable for students of D-ITET, D-USYS	W	3 credits	2V				
860-0023-00 V	International Environmental Politics			2 hrs	Mon	16-18	HG F3	T. Bernauer
851-0707-00L	Space Planning Law and Environment Particularly suitable for students of D- ARCH, D-BAUG, D-USYS	W	2 credits	2G				
851-0707-00 G	Raumplanungsrecht und Umwelt Vorlesungs-/Übungsveranstaltung nach spe Online-Veranstaltung: Diese Lehrveranstalt grundsätzlich online statt. Die reservierten F Studierenden auf dem Campus bestehen, u Lehrveranstaltung dort zu hören.	ung find Räume l	let	2 hrs	Wed	16-18	HG F5	O. Bucher
701-0703-00L	Environmental Ethics	W	2 credits	2V				
701-0703-00 V	Ethik und Umwelt			2 hrs	Fri	12-14	HG F7	A. Deplazes Zemp
701-0747-00L	Environmental Policy of Switzerland Number of participants limited to 130. Priority is given to the target group: Bachelor Study programme Environmental Sciences until September 27th,2021. Waiting list will be deleted October 1st, 2021.	W	3 credits	2G				
701-0747-00 G	Umweltpolitik der Schweiz			2 hrs	Mon	12-14	HG E1.1	E. Lieberherr
701-0985-00L	Social Intercourse with Current Environmental Risks	W	1 credit	1V				
701-0985-00 V	Gesellschaftlicher Umgang mit aktuellen Un Does not take place this semester.	nweltrisi	ken	1 hrs				B. Nowack
851-0650-00L	Al4Good	W	3 credits	2G				
851-0650-00 G	Al4Good ■			2 hrs	Thu	10-12	IFW C33	J. D. Wegner
851-0175-00L	Images of the Human	W	3 credits	2G				
851-0175-00 G	Images of the Human The course consists of a lecture (Monday 6-(Tuesday 10am-12am).	-8pm) aı	nd an exercise	28s hrs	Mon/2w Tue/2w		HG D1.2 RZ F21	J. L. Gastaldi
851-0421-00L	Sapiens: A Reading Course	W	3 credits	2S				
851-0421-00 S	Sapiens – Ein wisssenschaftshistorischer Le	ektüreku	ırs	2 hrs	Tue	10-12	IFW C33	N. Guettler
851-0724-01L	Real Estate Property Law Particularly suitable for students of D- ARCH, D-BAUG, D-USYS	W	3 credits	3V				
851-0724-01 V	Immobiliarsachenrecht			3 hrs	Mon	17-20	HIL E7	<b>M. Huser</b> , R. Müller-Wyss, S. Stucki
851-0101-80L	Basic Problems of Environmental Ethics	w	3 credits	2G				
851-0101-80 G	Grundprobleme der Umweltethik			2 hrs	Wed	16-18	HG G5	L. Wingert

#### ► Language Courses of the UZH and ETH Zurich

A maximum of three credits from language courses may be recognised. In addition, only advanced courses (level B2 upwards) in the European languages English, French, Italian and Spanish are recognised. German language courses are recognised from level C2 upwards.

Course fees: https://www.sprachenzentrum.uzh.ch/en/angebot/Kursgebuehren.html Registration dates: https://www.sprachenzentrum.uzh.ch/en/angebot.html

Number	Title	Type	ECTS	Hours	Lecturers
851-0816-07L	French B2-C1: Language and Literature No enrolment to this course at ETH Zurich. Book the corresponding course directly at "Language Center of UZH and ETH Zürich".	W	2 credits	1G	
	Course fees: https://www.sprachenzentrum.uzh.ch/en/Sprachkurse/Kursgebuehren1.html	)			
	Registration dates: https://www.sprachenzentrum.uzh.ch/en/an gebot.html				
851-0816-07 G	Français B2-C1 : Langue et littérature (Spra **Kurs vom Sprachenzentrum der UZH und			14s hrs	University lecturers
851-0815-04L	French B2: Brush Up Your Skills No enrolment to this course at ETH Zurich. Book the corresponding course directly at "Language Center of UZH and ETH Zürich".	W	2 credits	2G	
	Course fees:				

https://www.sprachenzentrum.uzh.ch/en/Sp rachkurse/Kursgebuehren1.html Registration dates: https://www.sprachenzentrum.uzh.ch/en/an gebot.html 851-0815-04 G Français B2 : Mise à niveau (Sprachenzentrum) 2 hrs University lecturers \*\*Kurs vom Sprachenzentrum der UZH und der ETH Zürich\*\* 851-0816-15L French B2: Debating and Presentation 1 credit 1G Skills No enrolment to this course at ETH Zurich. Book the corresponding course directly at "Language Center of UZH and ETH Zürich". Course fees: https://www.sprachenzentrum.uzh.ch/en/Sp rachkurse/Kursgebuehren1.html Registration dates: https://www.sprachenzentrum.uzh.ch/en/an gebot.html 851-0816-15 G Français B2 : Débat et présentation orale (Sprachenzentrum)
\*\*Kurs vom Sprachenzentrum der UZH und der ETH Zürich\*\* University lecturers 14s hrs 851-0816-08L French B2-C1: Debating and 1 credit 1G **Presentation Skills** No enrolment to this course at ETH Zurich. Book the corresponding course directly at "Language Center of UZH and ETH Zürich". Course fees: https://www.sprachenzentrum.uzh.ch/en/Sprachkurse/Kursgebuehren1.html Registration dates: https://www.sprachenzentrum.uzh.ch/en/an gebot.html 851-0816-08 G Français B2-C1 : Débat et présentation orale (Sprachenzentrum) 14s hrs University lecturers \*\*Kurs vom Sprachenzentrum der UZH und der ETH Zürich\*\* 851-0816-05L French B2-C1: Textual Grammar 2 credits 1G No enrolment to this course at ETH Zurich. Book the corresponding course directly at "Language Center of UZH and ETH Zürich". Course fees: https://www.sprachenzentrum.uzh.ch/en/Sp rachkurse/Kursgebuehren1.htmll Registration dates: https://www.sprachenzentrum.uzh.ch/en/an gebot.html 851-0816-05 G Français B2-C1: Grammaire textuelle (Sprachenzentrum) University lecturers 20s hrs \*\*Kurs vom Sprachenzentrum der UZH und der ETH Zürich\*\* 851-0826-06L Italian B2-C1: Outside the Classroom 2 credits 2G No enrolment to this course at ETH Zurich. Book the corresponding course directly at "Language Center of UZH and ETH Zürich". Course fees: https://www.sprachenzentrum.uzh.ch/en/Sp rachkurse/Kursgebuehren1.html Registration dates: https://www.sprachenzentrum.uzh.ch/en/an gebot.html 851-0826-06 G Italiano B2-C1: Fuori dall'aula (Sprachenzentrum) 2 hrs University lecturers Does not take place this semester. \*\*Kurs vom Sprachenzentrum der UZH und der ETH Zürich\*\* 2 credits 2G

851-0826-03L Italian B2-C1: Language Structure

No enrolment to this course at ETH Zurich. Book the corresponding course directly at "Language Center of UZH and ETH Zürich".

Course fees:

https://www.sprachenzentrum.uzh.ch/en/Sp rachkurse/Kursgebuehren1.html

Registration dates:

https://www.sprachenzentrum.uzh.ch/en/an gebot.html

851-0849-00L **Brazilian Portuguese A1** 

No enrolment to this course at ETH Zurich. Book the corresponding course directly at "Language Center of UZH and ETH

Zürich".

Course fees:

https://www.sprachenzentrum.uzh.ch/en/Sp

rachkurse/Kursgebuehren1.html

Registration dates:

https://www.sprachenzentrum.uzh.ch/en/an

gebot.html

2 credits

2G

851-0849-00 G	Português brasileiro A1 (Sprachenzentrum) **Kurs vom Sprachenzentrum der UZH und der ETH Z	Zürich**	2 hrs	University lecturers
	Untowighteen weeks, Duesilianisch, Doutunischen			
851-0849-01L	Unterrichtssprache: Brasilianisch-Portugiesisch  Brazilian Portuguese A2 W 2  No enrolment to this course at ETH Zurich. Book the corresponding course directly at "Language Center of UZH and ETH Zürich".	credits	2G	
	Course fees: https://www.sprachenzentrum.uzh.ch/en/Sp rachkurse/Kursgebuehren1.html			
	Registration dates: https://www.sprachenzentrum.uzh.ch/en/an gebot.html			
851-0849-01 G	Português brasileiro A2 (Sprachenzentrum) **Kurs vom Sprachenzentrum der UZH und der ETH 2	Zürich**	2 hrs	University lecturers
	Unterrichtssprache: Brasilianisch-Portugiesisch			
851-0849-02L	Brazilian Portuguese B1 W 2 No enrolment to this course at ETH Zurich. Book the corresponding course directly at "Language Center of UZH and ETH Zürich".	credits	2G	
	Course fees: https://www.sprachenzentrum.uzh.ch/en/Sp rachkurse/Kursgebuehren1.html			
	Registration dates: https://www.sprachenzentrum.uzh.ch/en/an gebot.html			
851-0849-02 G	Português brasileiro B1 (Sprachenzentrum) **Kurs vom Sprachenzentrum der UZH und der ETH Z	Zürich**	2 hrs	University lecturers
	Unterrichtssprache: Brasilianisch-Portugiesisch			
851-0885-09L	Modern Greek Language I A1.1 W No enrolment to this course at ETH Zurich. Book the corresponding course directly at "Language Center of UZH and ETH Zürich".	credits	2G	
	Course fees: https://www.sprachenzentrum.uzh.ch/en/Sp rachkurse/Kursgebuehren1.html			
	Registration dates: https://www.sprachenzentrum.uzh.ch/en/an gebot.html			
851-0885-09 G	Neugriechisch I A1.1 Sprachenzentrum) **Kurs vom Sprachenzentrum der UZH und der ETH Z	Zürich**	2 hrs	University lecturers
851-0885-10L	Modern Greek Language III A2.1 W 2 No enrolment to this course at ETH Zurich. Book the corresponding course directly at "Language Center of UZH and ETH Zürich".	credits	2G	
	Course fees: https://www.sprachenzentrum.uzh.ch/en/Sp rachkurse/Kursgebuehren1.html			
054 0005 40 0	Registration dates: https://www.sprachenzentrum.uzh.ch/en/an gebot.html			
851-0885-10 G	Neugriechisch III A2.1 (Sprachenzentrum) **Kurs vom Sprachenzentrum der UZH und der ETH 2	Zürich**	2 hrs	University lecturers
851-0889-00L	Swedish I A1.2 W 2 No enrolment to this course at ETH Zurich. Book the corresponding course directly at "Language Center of UZH and ETH Zürich".	credits	2G	
	Course fees: https://www.sprachenzentrum.uzh.ch/en/Sp rachkurse/Kursgebuehren1.html			
	Registration dates: https://www.sprachenzentrum.uzh.ch/en/an gebot.html			
851-0889-00 G	Schwedisch I A1.2 (Sprachenzentrum) **Kurs vom Sprachenzentrum der UZH und der ETH 2	Zürich**	2 hrs	University lecturers
	Die Lehrveranstaltung wird in 2 Parallelkursen angebo	ten.		

851-0889-02L	Swedish II A2.1  No enrolment to this course at ETH Zurich.  Book the corresponding course directly at "Language Center of UZH and ETH Zürich".	W	2 credits	2G	
	Course fees: https://www.sprachenzentrum.uzh.ch/en/Sprachkurse/Kursgebuehren1.html				
	Registration dates: https://www.sprachenzentrum.uzh.ch/en/an gebot.html				
851-0889-02 G	Schwedisch II A2.1 (Sprachenzentrum) **Kurs vom Sprachenzentrum der UZH und	der ETH	H Zürich**	2 hrs	University lecturers
851-0851-00L	Russian I A1.1 No enrolment to this course at ETH Zurich. Book the corresponding course directly at "Language Center of UZH and ETH Zürich".	W	2 credits	2G	
	Course fees: https://www.sprachenzentrum.uzh.ch/en/Sp rachkurse/Kursgebuehren1.html				
	Registration dates: https://www.sprachenzentrum.uzh.ch/en/an gebot.html				
851-0851-00 G	Russisch I A1.1 (Sprachenzentrum) **Kurs vom Sprachenzentrum der UZH und	der ETI	H Zürich**	2 hrs	University lecturers
851-0853-00L	Russian III A2.1 No enrolment to this course at ETH Zurich. Book the corresponding course directly at "Language Center of UZH and ETH Zürich".	W	2 credits	2G	
	Course fees: https://www.sprachenzentrum.uzh.ch/en/Sp rachkurse/Kursgebuehren1.html				
	Registration dates: https://www.sprachenzentrum.uzh.ch/en/an gebot.html				
851-0853-00 G	Russisch III A2.1 (Sprachenzentrum) **Kurs vom Sprachenzentrum der UZH und	der ETH	H Zürich**	2 hrs	University lecturers
851-0855-00L	Russian V A2.2+ No enrolment to this course at ETH Zurich. Book the corresponding course directly at "Language Center of UZH and ETH Zürich".	W	2 credits	2G	
	Course fees: https://www.sprachenzentrum.uzh.ch/en/Sp rachkurse/Kursgebuehren1.html				
	Registration dates: https://www.sprachenzentrum.uzh.ch/en/an gebot.html				
851-0855-00 G	Russisch V A2.2+ (Sprachenzentrum) **Kurs vom Sprachenzentrum der UZH und	der ETH	H Zürich**	2 hrs	University lecturers
851-0861-01L	Arabic I A1.1 No enrolment to this course at ETH Zurich. Book the corresponding course directly at "Language Center of UZH and ETH Zürich".	W	2 credits	3 <b>G</b>	
	Course fees: https://www.sprachenzentrum.uzh.ch/en/Sp rachkurse/Kursgebuehren1.html				
	Registration dates: https://www.sprachenzentrum.uzh.ch/en/an gebot.html				
851-0861-01 G	Arabisch I A1.1 (Sprachenzentrum) **Kurs vom Sprachenzentrum der UZH und	der ETH	H Zürich**	3 hrs	University lecturers
851-0863-00L	Arabic III A2.1 No enrolment to this course at ETH Zurich. Book the corresponding course directly at "Language Center of UZH and ETH Zürich".	W	2 credits	2G	
	Course fees:				

https://www.sprachenzentrum.uzh.ch/en/Sp rachkurse/Kursgebuehren1.html Registration dates: https://www.sprachenzentrum.uzh.ch/en/an gebot.html Arabisch III A2.1 (Sprachenzentrum) 851-0863-00 G 2 hrs University lecturers \*\*Kurs vom Sprachenzentrum der UZH und der ETH Zürich\*\* 851-0877-00L Chinese I A1.1 3 credits 4G No enrolment to this course at ETH Zurich. Book the corresponding course directly at "Language Center of UZH and ETH Zürich". Course fees: https://www.sprachenzentrum.uzh.ch/en/Sp rachkurse/Kursgebuehren1.html Registration dates: https://www.sprachenzentrum.uzh.ch/en/an gebot.html 851-0877-00 G Chinesisch I A1.1 (Sprachenzentrum) 4 hrs University lecturers \*\*Kurs vom Sprachenzentrum der UZH und der ETH Zürich\*\* Die Lehrveranstaltung wird in 2 Parallelkursen angeboten. 851-0879-00L Chinese III A2.1 3 credits 4G No enrolment to this course at ETH Zurich. Book the corresponding course directly at "Language Center of UZH and ETH Zürich". Course fees: https://www.sprachenzentrum.uzh.ch/en/Sprachkurse/Kursgebuehren1.html Registration dates: https://www.sprachenzentrum.uzh.ch/en/an gebot.html Chinesisch III A2.1 (Sprachenzentrum) 851-0879-00 G University lecturers 4 hrs \*\*Kurs vom Sprachenzentrum der UZH und der ETH Zürich\*\* 851-0881-00L Japanese I A1.1 4G 3 credits No enrolment to this course at ETH Zurich. Book the corresponding course directly at "Language Center of UZH and ETH Zürich". Course fees: https://www.sprachenzentrum.uzh.ch/en/Sp rachkurse/Kursgebuehren1.html Registration dates: https://www.sprachenzentrum.uzh.ch/en/an gebot.html 851-0881-00 G Japanisch I A1.1 (Sprachenzentrum) University lecturers 4 hrs \*\*Kurs vom Sprachenzentrum der UZH und der ETH Zürich\*\* Die Lehrveranstaltung wird in 2 Parallelkursen angeboten. 851-0881-02L Japanese 1 (A1.1) 2 credits 2G No enrolment to this course at ETH Zurich. Book the corresponding course directly at "Language Center of UZH and ETH Zürich". Course fees: https://www.sprachenzentrum.uzh.ch/en/Sp rachkurse/Kursgebuehren1.html Registration dates: https://www.sprachenzentrum.uzh.ch/en/an gebot.html 851-0881-02 G Japanisch 1 (A1.1) (Sprachenzentrum)

\*\*Kurs vom Sprachenzentrum der UZH und der ETH Zürich\*\* University lecturers 2 hrs 851-0883-00L Japanese III A2.1 2 credits 2G No enrolment to this course at ETH Zurich. Book the corresponding course directly at "Language Center of UZH and ETH Zürich". Course fees: https://www.sprachenzentrum.uzh.ch/en/Sprachkurse/Kursgebuehren1.html Registration dates: https://www.sprachenzentrum.uzh.ch/en/an

gebot.html

S9-14882-Q2   Jaganice V A2 2- Bit 1   General City 2 and City 2   City 2   City 3	851-0883-00 G	Japanisch III A2.1 (Sprachenzentrum) **Kurs vom Sprachenzentrum der UZH und	der ETH	H Zürich**	2 hrs	University lecturers
https://www.apanchenzenthum.uzh.ch/en/Sp rechested in the company of the company	851-0882-02L	No enrolment to this course at ETH Zurich. Book the corresponding course directly at "Language Center of UZH and ETH	W	2 credits	2G	
https://www.aprachenzentrum.uzh.ch/en/up 851-0862-02 G Japanisch V A22 - Bi.1 (Sprachenzentrum) 951-0862-03 G Japanisch V A22 - Bi.1 (Sprachenzentrum) 951-0862-03 G Japanisch V A22 - Bi.1 (Sprachenzentrum) 951-0862-04 Latin Reading Course: "Carmina W 2 credits 951-0862-04 Latin Reading Course: "Carmina Survana" 951-0862-05 Latin Reading Course: "Carmina Survana" 951-0862-05 Latin Reading Course: "Carmina Survana" 951-0862-05 Latin Reading Course: "Carmina Survana" 951-0862-06 Latin Reading Course: "Carmina Survana" 951-0862-07 Latin Reading Course: "Carmina Survana" 951-0862-07 Latin Reading Course: "Carmina Survana" 951-0862-08 Latin Reading Course: "Carmina Survana" 951-0862-09 Latin Reading Course: "Carmina Survana" 951-0862-09 Latin Reading Course: "Carmina Survana" 951-0862-09 Latin Reading Latin Lat		https://www.sprachenzentrum.uzh.ch/en/Sp				
\$51-0820_20 G Japanisch W A2.2 - B.1.1 (Sprachenzenhurm)  ### Str.		https://www.sprachenzentrum.uzh.ch/en/an				
Burana: Vagabond Songs and their Sources! No errollmost course at ETH Zutich. No errollmost course at ETH Zutich. Programme descript at Language Center of UZH and ETH Zutich. Course flees: https://www.sprachensentrum.ush.ch/en/Sp rachibuse/Ringebuchens.html Registration dates: https://www.sprachenzentrum.ush.ch/en/Sp rachibuse/Ringebuchens.html Registra	851-0882-02 G	Japanisch V A2.2 - B1.1 (Sprachenzentrum) **Kurs vom Sprachenzentrum der UZH und	) der ETH	H Zürich**	2 hrs	University lecturers
https://www.spracherzentrum.uzh.ch/en/Sp rachkusso/Kursgobushnon i.hml and special transport of the semester.  Registration dates: https://www.spracherzentrum.uzh.ch/en/an gebot.html and special transport of the semester.  10	851-0890-00L	Burana: Vagabond Songs and their Sources" No enrolment to this course at ETH Zurich. Book the corresponding course directly at "Language Center of UZH and ETH	W	2 credits	2G	
Sti-0890-00   G   Lateinischer Lektürekurs: "Carmina Burana: Vagantendichtungen   2 hrs		https://www.sprachenzentrum.uzh.ch/en/Sp				
und linke Vorbilder" Does not take place this semester. "*Kurs vom Sprachenzentrum der UZH und der ETH Zürich**  851-0900-031. Advanced Nowegian Practice (University of Zürich). Book the corresponding module directly at UZH and ober ETH Zürich. Book the corresponding module directly at UZH handule Code: 360-214  Number of participants limited to 20. No simultaneous online registration at the "Language Center of UZH and ETH Zürich* necessary.  Mind the enrolment deadlines at UZH: https://www.uzh.ch/cmsss/en/studies/appil cation/redistrations.html  851-0800-03 G Sprachpraxis Norwegisch (Universität Zürich)  851-0856-061. Spanish B2-Ct: The Realities of the Warkurs and er Umberstät Zürich*  Spanish B2-Ct: The Realities of the Thispanic World No enrolment to this course at ETH Zürich. Book the corresponding course directly at "Language Center of UZH and ETH Zürich"  Course fees: https://www.sprachenzentrum.uzh.ch/en/Sp rachkurse/Rursgebuehren1.html  Registration dates: https://www.sprachenzentrum.uzh.ch/en/sp rachkurse/Rursgebuehren1.html		https://www.sprachenzentrum.uzh.ch/en/an				
(University of Zurich) No enrolment to this course at ETH Zurich. Book the corresponding module directly at UZH as an incoming student. UZH Module Code: 360-214  Number of participants limited to 20. No simultaneous online registration at the "Language Center of UZH and ETH Zurich" necessary.  Mind the enrolment deadlines at UZH: https://www.uzh.ch/cmsss/len/studies/appli cation/deadlines.html  851-0900-03 G Sprachpraxis Norwegisch (Universität Zurich)  851-0856-06L  Spanish B2-C1: The Realities of the Hispanic World Hispanic World Hispanic World Source at ETH Zurich. Book the corresponding course directly at "Language Center of UZH and ETH Zürich".  Course fees: https://www.sprachenzentrum.uzh.ch/en/an gebot.html  Registration dates: https://www.sprachenzentrum der UZH und der ETH Zürich**  851-0856-06 G Spanish B2-C1: Realidades del mundo hispano (Sprachenzentrum) Dese not take place this semester. "*Kurs vom Sprachenzentrum der UZH und der ETH Zürich**  851-0827-01L  French B2-C-C1: Society and Current U 2 credits  No enrolment to this course at ETH Zurich. Book the corresponding course directly at "Language Center of UZH and ETH Zürich".  Course fees: https://www.sprachenzentrum.uzh.ch/en/Sprachkusgi/kur	851-0890-00 G	und ihre Vorbilder"  Does not take place this semester.		-	2 hrs	University lecturers
No simultaneous online registration at the "Language Center of UZH and ETH Zurich" necessary.  Mind the enrolment deadlines at UZH: https://www.uzh.ch/cmsssl/en/studies/application/deadlines.html  851-090-03 G Sprachpraxis Norwegisch (Universität Zürich) 2 hrs University lecturers "Kurs an der Universität Zürich" 2 credits  851-0856-06L Spanish B2-C1: The Realities of the Hispanic World No enrolment to this course at ETH Zurich. Book the corresponding course directly at "Language Center of UZH and ETH Zürich".  Course fees: https://www.sprachenzentrum.uzh.ch/en/Sprachkurse/Kursgebuehren1.html  Registration dates: https://www.sprachenzentrum.uzh.ch/en/an gebot.html  851-0856-06 G Espanio B2-C1: Realidades del mundo hispano (Sprachenzentrum) Does not take place this semester. "Kurs vom Sprachenzentrum der UZH und der ETH Zürich"*  851-0827-01L French B2-2-C1: Society and Current W 2 credits Issues No enrolment to this course at ETH Zurich. Book the corresponding course directly at "Language Center of UZH and ETH Zürich."  Course fees: https://www.sprachenzentrum.uzh.ch/en/Sprachkurse/Kursgebuehren1.html  Registration dates: https://www.sprachenzentrum.uzh.ch/en/Sprachkurse/Kursgebuehren1.html  Registration dates: https://www.sprachenzentrum.uzh.ch/en/sp	851-0900-03L	(University of Zürich) No enrolment to this course at ETH Zurich. Book the corresponding module directly at UZH as an incoming student.	W	3 credits	2G	
https://www.uzh.ch/cmssst/en/studies/application/deadlines.html 851-0900-03 G Sprachpraxis Norwegisch (Universität Zürich) 2 hrs University lecturers "Kurs an der Universität Zürich" 2 credits 851-0856-06L Spanish B2-C1: The Realities of the Hispanic World No enrolment to this course at ETH Zurich. Book the corresponding course directly at "Language Center of UZH and ETH Zürich".  Course fees: https://www.sprachenzentrum.uzh.ch/en/Sprachkurse/Kursgebuehren1.html  Registration dates: https://www.sprachenzentrum.uzh.ch/en/an gebot.html Does not take place this semester. "Kurs vom Sprachenzentrum der UZH und der ETH Zürich"*  851-0827-01L French B2.2-C1: Society and Current W 2 credits Issues No enrolment to this course at ETH Zurich. Book the corresponding course directly at "Language Center of UZH and ETH Zürich".  Course fees: https://www.sprachenzentrum.uzh.ch/en/Sprachkurse/Kursgebuehren1.html Registration dates: https://www.sprachenzentrum.uzh.ch/en/Sprachkurse/Kursgebuehren1.html Registration dates: https://www.sprachenzentrum.uzh.ch/en/Sprachkurse/Kursgebuehren1.html		No simultaneous online registration at the "Language Center of UZH and ETH Zurich"				
### Kurs an der Universität Zürich**  851-0856-06L Spanish B2-C1: The Realities of the Hispanic World No enrolment to this course at ETH Zurich. Book the corresponding course directly at "Language Center of UZH and ETH Zürich".  Course fees: https://www.sprachenzentrum.uzh.ch/en/Sprachkurse/Kursgebuehren1.html  Registration dates: https://www.sprachenzentrum.uzh.ch/en/angebueh.html  Registration dates: https://www.sprachenzentrum.uzh.ch/en/angebueh.thml  Does not take place this semester. "Kurs vom Sprachenzentrum der UZH und der ETH Zürich**  851-0827-01L French B2.2-C1: Society and Current Issues No enrolment to this course at ETH Zurich. Book the corresponding course directly at "Language Center of UZH and ETH Zürich".  Course fees: https://www.sprachenzentrum.uzh.ch/en/Sprachkurse/Kursgebuehren1.html  Registration dates: https://www.sprachenzentrum.uzh.ch/en/An		https://www.uzh.ch/cmsssl/en/studies/appli				
Hispanic World No enrolment to this course at ETH Zurich. Book the corresponding course directly at "Language Center of UZH and ETH Zürich".  Course fees: https://www.sprachenzentrum.uzh.ch/en/Sp rachkurse/Kursgebuehren1.html  Registration dates: https://www.sprachenzentrum.uzh.ch/en/an gebot.html  851-0856-06 G Español B2-C1: Realidades del mundo hispano (Sprachenzentrum) Does not take place this semester. "*Kurs vom Sprachenzentrum der UZH und der ETH Zürich**  851-0827-01L French B2-2-C1: Society and Current Issues No enrolment to this course at ETH Zurich. Book the corresponding course directly at "Language Center of UZH and ETH Zürich".  Course fees: https://www.sprachenzentrum.uzh.ch/en/Sp rachkurse/Kursgebuehren1.html Registration dates: https://www.sprachenzentrum.uzh.ch/en/an	851-0900-03 G		<b>า</b> )		2 hrs	University lecturers
https://www.sprachenzentrum.uzh.ch/en/Sprachkurse/Kursgebuehren1.html  Registration dates: https://www.sprachenzentrum.uzh.ch/en/an gebot.html  851-0856-06 G Español B2-C1: Realidades del mundo hispano (Sprachenzentrum) Does not take place this semester. **Kurs vom Sprachenzentrum der UZH und der ETH Zürich**  851-0827-01L Issues No enrolment to this course at ETH Zurich. Book the corresponding course directly at "Language Center of UZH and ETH Zürich".  Course fees: https://www.sprachenzentrum.uzh.ch/en/Sprachkurse/Kursgebuehren1.html Registration dates: https://www.sprachenzentrum.uzh.ch/en/an	851-0856-06L	Hispanic World  No enrolment to this course at ETH Zurich.  Book the corresponding course directly at "Language Center of UZH and ETH	W	2 credits	2G	
https://www.sprachenzentrum.uzh.ch/en/an gebot.html  851-0856-06 G Español B2-C1: Realidades del mundo hispano (Sprachenzentrum) Does not take place this semester. ***Kurs vom Sprachenzentrum der UZH und der ETH Zürich**  851-0827-01L French B2.2-C1: Society and Current W 2 credits Issues No enrolment to this course at ETH Zurich. Book the corresponding course directly at "Language Center of UZH and ETH Zürich".  Course fees: https://www.sprachenzentrum.uzh.ch/en/Sp rachkurse/Kursgebuehren1.html  Registration dates: https://www.sprachenzentrum.uzh.ch/en/an		https://www.sprachenzentrum.uzh.ch/en/Sp				
(Sprachenzentrum) Does not take place this semester. ***Kurs vom Sprachenzentrum der UZH und der ETH Zürich**  851-0827-01L French B2.2-C1: Society and Current W 1ssues No enrolment to this course at ETH Zurich. Book the corresponding course directly at "Language Center of UZH and ETH Zürich".  Course fees: https://www.sprachenzentrum.uzh.ch/en/Sprachkurse/Kursgebuehren1.html  Registration dates: https://www.sprachenzentrum.uzh.ch/en/an		https://www.sprachenzentrum.uzh.ch/en/an				
Issues No enrolment to this course at ETH Zurich. Book the corresponding course directly at "Language Center of UZH and ETH Zürich".  Course fees: https://www.sprachenzentrum.uzh.ch/en/Sp rachkurse/Kursgebuehren1.html  Registration dates: https://www.sprachenzentrum.uzh.ch/en/an	851-0856-06 G	(Sprachenzentrum)  Does not take place this semester.		H Zürich**	2 hrs	University lecturers
https://www.sprachenzentrum.uzh.ch/en/Sp rachkurse/Kursgebuehren1.html Registration dates: https://www.sprachenzentrum.uzh.ch/en/an	851-0827-01L	Issues No enrolment to this course at ETH Zurich. Book the corresponding course directly at "Language Center of UZH and ETH	W	2 credits	1G	
https://www.sprachenzentrum.uzh.ch/en/an		https://www.sprachenzentrum.uzh.ch/en/Sp				
<del>-</del>		https://www.sprachenzentrum.uzh.ch/en/an				

(Sprachenzentrum)

Does not take place this semester.

\*\*Kurs vom Sprachenzentrum der UZH und der ETH Zürich\*\*

851-0849-03L Brazilian Portuguese A2-B2: Urban 2 credits 1G **Popular Music** 

No enrolment to this course at ETH Zurich. Book the corresponding course directly at "Language Center of UZH and ETH

Zürich".

Course fees:

https://www.sprachenzentrum.uzh.ch/en/Sp

rachkurse/Kursgebuehren1.html

Registration dates:

https://www.sprachenzentrum.uzh.ch/en/an

gebot.html

851-0849-03 G Português brasileiro A2-B2: Música popular urbana

(Sprachenzentrum)
\*\*Kurs vom Sprachenzentrum der UZH und der ETH Zürich\*\*

Unterrichtssprache: Brasilianisch-Portugiesisch

851-0846-02L Spanish B2-C1: Language and Cinema 2 credits 2G

No enrolment to this course at ETH Zurich. Book the corresponding course directly at "Language Center of UZH and ETH

Zürich".

Course fees:

https://www.sprachenzentrum.uzh.ch/en/Sp

rachkurse/Kursgebuehren1.htmll

Registration dates:

https://www.sprachenzentrum.uzh.ch/en/an

gebot.html

851-0846-02 G Español B2-C1: Lengua y cine (Sprachenzentrum)
\*\*Kurs vom Sprachenzentrum der UZH und der ETH Zürich\*\* 2 hrs University lecturers

1 hrs

2 hrs

14s hrs

University lecturers

University lecturers

University lecturers

851-0856-04L Spanish B2-C1: Grammar and 2 credits 2G Communication

No enrolment to this course at ETH Zurich. Book the corresponding course directly at "Language Center of UZH and ETH

Zürich".

Course fees:

https://www.sprachenzentrum.uzh.ch/en/Sp

rachkurse/Kursgebuehren1.html

Registration dates:

https://www.sprachenzentrum.uzh.ch/en/an

gebot.html

851-0856-04 G Español B2-C1: Gramática y comunicación (Sprachenzentrum)

Does not take place this semester.

\*\*Kurs vom Sprachenzentrum der UZH und der ETH Zürich\*\*

851-0816-13L French B2.2-C2: Practising French in 1 credit 1G Context

No enrolment to this course at ETH Zurich. Book the corresponding course directly at

"Language Center of UZH and ETH

Zürich".

Course fees:

https://www.sprachenzentrum.uzh.ch/en/Sp

rachkurse/Kursgebuehren1.htmll

Registration dates:

https://www.sprachenzentrum.uzh.ch/en/an

gebot.html

851-0816-13 G Français B2.2-C2: Pratiques du français en contexte

(Sprachenzentrum)

Does not take place this semester.

\*\*Kurs vom Sprachenzentrum der UZH und der ETH Zürich\*\*

851-0820-01L French B2-C1: Language and Cinema 2 credits 1G

No enrolment to this course at ETH Zurich. Book the corresponding course directly at "Language Center of UZH and ETH

Zürich".

Course fees:

https://www.sprachenzentrum.uzh.ch/en/Sp

rachkurse/Kursgebuehren1.html

Registration dates:

851-0820-01 G	https://www.sprachenzentrum.uzh.ch/en/an gebot.html Français B2-C1: Langue et cinéma (Sprach Does not take place this semester. **Kurs vom Sprachenzentrum der UZH und	nenzenti	,	20s hrs	University lecturers
851-0834-17L	Spanish B2: Oral Interaction No enrolment to this course at ETH Zurich. Book the corresponding course directly at "Language Center of UZH and ETH Zürich".	W	2 credits	2G	
	Course fees:https://www.sprachenzentrum.uzh.ch/e n/Sprachkurse/Kursgebuehren1.html	•			
	Registration dates: https://www.sprachenzentrum.uzh.ch/en/an gebot.html				
851-0834-17 G	Español B2: Interacción oral (Sprachenzent Does not take place this semester. **Kurs vom Sprachenzentrum der UZH und	-	H Zürich**	2 hrs	University lecturers
851-0826-04L	Italian B2-C1: Language and Literature No enrolment to this course at ETH Zurich. Book the corresponding course directly at "Language Center of UZH and ETH Zürich".	W	2 credits	2G	
	Course fees: https://www.sprachenzentrum.uzh.ch/en/Sp rachkurse/Kursgebuehren1.html				
	Registration dates: https://www.sprachenzentrum.uzh.ch/en/an gebot.html				
851-0826-04 G	Italiano B2-C1: Lingua e letteratura (Sprach **Kurs vom Sprachenzentrum der UZH und			2 hrs	University lecturers
851-0826-05L	Italian B2: Italian for Academic Purposes No enrolment to this course at ETH Zurich. Book the corresponding course directly at "Language Center of UZH and ETH Zürich".	W	2 credits	1G	
	Course fees: https://www.sprachenzentrum.uzh.ch/en/Sprachkurse/Kursgebuehren1.html				
	Registration dates: https://www.sprachenzentrum.uzh.ch/en/an gebot.html				
851-0826-05 G	Italiano B2: Lingua in contesto specifico (Sp **Kurs vom Sprachenzentrum der UZH und			14s hrs	University lecturers
851-0879-01L	Chinese V 2.2+ No enrolment to this course at ETH Zurich. Book the corresponding course directly at "Language Center of UZH and ETH Zürich".	W	2 credits	2G	
	Course fees: https://www.sprachenzentrum.uzh.ch/en/Sprachkurse/Kursgebuehren1.html	ı			
	Registration dates: https://www.sprachenzentrum.uzh.ch/en/an gebot.html				
851-0879-01 G	Chinesisch V A2.2+ ■  **Kurs vom Sprachenzentrum der UZH und			2 hrs	University lecturers

GESS S	cience in Perspective - Key for Type		
W+	Eligible for credits and recommended	E-	Recommended, not eligible for credits
0	Compulsory	Z	Courses outside the curriculum
W	Eligible for credits	Dr	Suitable for doctorate

Key for	Key for Hours										
V	lecture	P	practical/laboratory course								
G	lecture with exercise	A	independent project								
U	exercise	D	diploma thesis								
S	seminar	R	revision course / private study								
K	colloquium										

**ECTS** 

European Credit Transfer and Accumulation System
Special students and auditors need special permission from the lecturers.

# **Health Sciences and Technology Bachelor**

- ► Bachelor Studies (Programme Regulations 2020)
- **▶▶** First Year Core Courses
- **▶▶▶** First Year Examinations

#### ▶▶▶▶ First Year Examinations Part 1

Number	Title	Type	ECTS	Hours				Lecturers
51-0033-00L	Molecular Genetics and Cell Biology Only for Health Sciences and Technology BSc and Human Medicine BSc.	0	5 credits	5G				
51-0033-00 G	Molekulare Genetik und Zellbiologie Vorlesung mit Übungen: Mi 14-16 h			5 hrs	Wed	14-16	HG E1.2 HG E7	J. Corn, F. Allain, K. Köhle
	Vorlesung: Do 10-12 h				Thu	10-12	HPH G1	
	Übungen: Fr 11-12 h				Fri	11-12	HCI D8 HCI E2 HIL B21 HIL D10.2 HIT K51 HPL D32	
							HPL D34	
529-1001-03L	General Chemistry (for HST)	0	6 credits	4V+2U				
529-1001-01 V	Allgemeine Chemie (für Biol./Pharm.Wiss./l Di 10-12 Uhr im HG F1 mit Videoübertragu	ng ins H		4 hrs	Tue	10-12	HG F1 HG F3	J. Cvengros
	Do 8-10 Uhr im HCl G3 mit Videoübertragu	ıng ins F	iCi G7		Thu	08-10	HCI G3 HCI G7	
529-1001-03 U	Allgemeine Chemie (für HST)			2 hrs	Wed	16-18	CHN E42 CHN F42 LFO C13 ML F38 NO C6	J. Cvengros
252-0852-00L	Foundations of Computer Science	0	4 credits	2V+2U				
252-0852-00 V	Grundlagen der Informatik Vorlesung im HG F1 mit Videoübertragung	ins HG	F3.	2 hrs	Mon	14-16	HG F1 HG F3	L. E. Fässler, M. Dahinder
252-0852-00 U Grundlagen der Informatik Es gibt keine fixen Übungsgruppen. Stattdessen besprechen die Studierenden alle 2 Wochen eine Projektaufgabe individuell mit einer Assistenzperson. Die restlichen Zeiten stehen für die Bearbeitung der Projektaufgaben zur Verfügung.			esprechen die ndividuell mit	2 hrs	Mon	10-12	CAB H56 CAB H57 HG E26.1 HG E26.3 HG E27	L. E. Fässler, M. Dahinder
	, ,					16-18	CAB H56 CAB H57 HG E19 HG E26.1 HG E26.3	
					Wed	18-19	HG E19 HG E26.1 HG E26.3 HG E27	
					Fri	16-18	HG D12	
376-0003-00L	Introduction to Health Sciences and Technology I	0	4 credits	2V+2U				
376-0003-00 V	Einführung Gesundheitswissenschaften und	d Techn	ologie I ■	2 hrs	Mon	12-14	HG E7	R. Müller
376-0003-00 U	Einführung Gesundheitswissenschaften und Technologie I ■ Groups are selected in myStudies. Die Übungen starten erst in der 3. Semesterwoche!				Wed	08-10	HCP E47.1 HCP E47.2 HCP E47.4 HIT F31.1	R. Müller
							HIT F32 HIT H42 HIT H51 HIT J51 HIT J52 HIT J53	

		-			
Number	Title	Туре	ECTS	Hours	Lecturers
529-1011-00L	Organic Chemistry I (for Biol./Pharm.Sc./HST)	0	4 credits	4G	

Organische Chemie I (für Biol./Pharm.Wiss./HST)	4 hrs	Wed	10-12	HCI G3	C. Thilgen
Vorlesung: Mi 10-12 Uhr im HCl G3 mit Videoübertragung ins HC	I	Fri	14-16	HCI D2	
In den ersten beiden Wochen findet auch Fr 14-16 Vorlesung im HPH G 1 statt.				HCI D6 HCI D8	
Die Übungen beginnen in der dritten Semesterwoche und sind wie folgt vorgesehen: Fr 14-16 oder 16-18 Uhr (nach Einteilung).			16-18	HCI E8 HCI F2 HCI F8 HCI G7 HPK D24.2 HPV G4 HPV G5 HCI D2 HCI D4 HCI D6 HCI D8 HCI E2 HCI E8 HCI F2 HCI F8 HCI G7	
				HPV G4	
				HPV G5 HPH G1 HPH G1	
Mathematics I O 6 credits	4V+2U				
Mathematik I	4 hrs	Mon	08-10	HG F5	A. Caspar
voriesung im HG F7 mit videoubertragung ins HG F5.		Tue	08-10	HG F7 HG F5 HG F7	
Mathematik I Groups are selected in myStudies. Di 14-16 für Studiengang Gesundheitswissenschaften und Technologie. Mi 14-16 für Studiengänge Biologie bzw. Pharmazeutische Wissenschaften. StudyCenter: Steht den Studierenden am Dienstag und Mittwoch ab 16 Uhr in Begleitung der Übungen zur Verfügung.	2 hrs	Tue	14-16	CHN D48 ETZ E7 ETZ E8 ETZ F91 ETZ H91 HG D5.1 HG D5.3 HG E33.3 HG G26.1 ML H34.3 CHN D44 CHN D46 CHN D48 CHN G46 CLA E4 HG F26.5 IFW C31 ML J34.1	A. Caspar
	Groups are selected in myStudies. Vorlesung: Mi 10-12 Uhr im HCI G3 mit Videoübertragung ins HC G7 In den ersten beiden Wochen findet auch Fr 14-16 Vorlesung im HPH G 1 statt.  Die Übungen beginnen in der dritten Semesterwoche und sind wie folgt vorgesehen: Fr 14-16 oder 16-18 Uhr (nach Einteilung).  Mathematics I O 6 credits  Mathematik I Vorlesung im HG F7 mit Videoübertragung ins HG F5.  Mathematik I Groups are selected in myStudies. Di 14-16 für Studiengang Gesundheitswissenschaften und Technologie. Mi 14-16 für Studiengänge Biologie bzw. Pharmazeutische Wissenschaften. StudyCenter: Steht den Studierenden am Dienstag und Mittwoch	Groups are selected in myStudies. Vorlesung: Mi 10-12 Uhr im HCl G3 mit Videoübertragung ins HCl G7 In den ersten beiden Wochen findet auch Fr 14-16 Vorlesung im HPH G 1 statt.  Die Übungen beginnen in der dritten Semesterwoche und sind wie folgt vorgesehen: Fr 14-16 oder 16-18 Uhr (nach Einteilung).  Mathematics I O 6 credits 4V+2U Mathematik I Vorlesung im HG F7 mit Videoübertragung ins HG F5.  Mathematik I S croups are selected in myStudies. Di 14-16 für Studiengang Gesundheitswissenschaften und Technologie. Mi 14-16 für Studiengänge Biologie bzw. Pharmazeutische Wissenschaften. StudyCenter: Steht den Studierenden am Dienstag und Mittwoch	Groups are selected in myStudies. Vorlesung: Mi 10-12 Uhr im HCl G3 mit Videoübertragung ins HCl G7 In den ersten beiden Wochen findet auch Fr 14-16 Vorlesung im HPH G 1 statt.  Die Übungen beginnen in der dritten Semesterwoche und sind wie folgt vorgesehen: Fr 14-16 oder 16-18 Uhr (nach Einteilung).  Mathematics I  Mathematik I  Vorlesung im HG F7 mit Videoübertragung ins HG F5.  Tue  Mathematik I  Mathematik I  Groups are selected in myStudies. Di 14-16 für Studiengänge Biologie bzw. Pharmazeutische Wissenschaften. StudyCenter: Steht den Studierenden am Dienstag und Mittwoch ab 16 Uhr in Begleitung der Übungen zur Verfügung.	Groups are selected in myStudies. Vorlesung: Mi 10-12 Uhr im HCl G3 mit Videoübertragung ins HCl G7 In den ersten beiden Wochen findet auch Fr 14-16 Vorlesung im HPH G 1 statt.  Die Übungen beginnen in der dritten Semesterwoche und sind wie folgt vorgesehen: Fr 14-16 oder 16-18 Uhr (nach Einteilung).  16-18  Mathematics I O 6 credits 4V+2U  Mathematik I  Vorlesung im HG F7 mit Videoübertragung ins HG F5.  Mathematik I  Groups are selected in myStudies.  Di 14-16 für Studiengänge Biologie bzw. Pharmazeutische Wissenschaften. StudyCenter: Steht den Studierenden am Dienstag und Mittwoch ab 16 Uhr in Begleitung der Übungen zur Verfügung.	HCI G7

# ▶▶ Second and Third Year Core Courses

# **▶▶▶** Examination Blocks

## ▶▶▶▶ Examination Block A

	Title	Type O	ECTS	Hours				Lecturers
	Anatomy and Physiology I		5 credits	4V				
	Anatomie und Physiologie I Mi 8-10h Vorlesung im Hörsaal I24 G 55 mit Videoübertragung			4 hrs	Wed	08-10	103 G85 124 G55	<b>D. P. Wolfer</b> , K. De Bock, R. Fiore, S. Meissner,
	ins 103 G 85				Thu	10-12	HCI G3	L. Slomianka, C. Spengler M. Willecke
401-0293-00L	Mathematics III	0	5 credits	3V+2U				
401-0293-00 V	Mathematik III  - Montags findet die Vorlesung online (via z reservierte Raum steht den Studierenden je um die Vorlesung von dort aus zu verfolger	edoch zu		3 hrs	Mon Tue	08-10 13-14	HG G5 HG G5	E. W. Farkas

401-0293-00 U	Groups are selected in myStudies.			2 hrs	Tue/1 Tue/2	14-16 14-16 14-16 14-16 14-16 14-16 16-18 16-18 16-18 16-18 16-18 16-18	ETZ E9 ETZ E9 ETZ J91 ETZ J91 IFW C33 IFW C33 LFW C1 LFW C1 ETZ E9 ETZ J91 IFW C33 IFW C33 IFW C33 IFW C33 LFW C1 LFW C1	E. W. Farkas
401-0643-13L	Statistics II	0	3 credits	2V+1U				
401-0643-13 V	Statistik II (für Biologie/Biochemie – Chem. Biologie/Pharmazeutische Wiss./HST) Findet im HG F 1 mit Videoüberttragung im		3 statt.	2 hrs	Wed	10-12	HG F1 HG F3	M. Kalisch
401-0643-13 U	Statistik II (für Biologie/Biochemie – Chem. Biologie/Pharmazeutische Wiss./HST) Groups are selected in myStudies. Do 9-10, Do 12-13 oder Do 13-14 für Studi Gesundheitswissenschaften und Technolo Do 9-10 für Studiengang Biochemie – Che Do 8-9, Do 10-11 oder Do 11-12. für Studiengang Phar Wissenschaften.	iengang gie. mische i engang i	Biologie.	1 hrs	Thu	08-09 09-10 10-11 11-12 12-13 13-14	HCI H2.1 HCI H8.1 HCI H8.1 HCI H8.1 HCI H2.1 HCI H2.1 HCI J7 HIT H51 HCI J7 HIT H51 HIT F31.2 HIT F31.2	M. Kalisch

#### ▶▶▶ Examination Block B

Number	Title	Туре	ECTS	Hours				Lecturers
402-0083-00L	Physics I	0	4 credits	3V+1U				
402-0083-00 V	Physik I			3 hrs	Wed Fri	15-16 10-12	HPH G1 HPH G1	K. S. Kirch
402-0083-00 U	Physik I			1 hrs	Wed	16-17	HCI D4 HCI H8.1 HCI J8 HIL C10.2 HIL D10.2 HIL F10.3 HIT F31.1 HIT F31.2 HIT H42 HIT H51 HIT J51 HIT K51 HIT K51	K. S. Kirch

## ▶▶▶ Examination Block C

The examination block will not be offered until Spring Semester 2022.

# ▶▶▶ Individual Subjects and Laboratory Courses

Number	Title	Type	ECTS	Hours				Lecturers
376-0019-00L	Laboratory Course in Medical Technology	0	2 credits	2P				
376-0019-00 P	Praktikum Medizintechnik On Campus Balgrist. The exact lesson time on Moodle	es/rooms	s can be foun	2 hrs d	Tue	08-12	Ex tern	J. G. Snedeker, O. Lambercy
376-0002-01L	Product Design in Medical Engineering Only for Health Sciences and Technology BSc, Programme Regulations 2020.	0	4 credits	2V+2U				
376-0002-01 V	Produktentwicklung in der Medizintechnik			2 hrs	Mon	10-12	HG G3	S. J. Ferguson
376-0002-01 U	Produktentwicklung in der Medizintechnik			2 hrs	Thu	14-16	HCI D2 HCI D6 HCI E8 HCI F8 HIL E5 HIL F10.3	S. J. Ferguson

## **▶▶** Focus Courses

# ▶▶▶ Human Movement Sciences and Sports

Number	Title	Туре	ECTS	Hours	Lecturers
376-0203-00L	Movement and Sport Biomechanics	W	4 credits	3G	

376-0203-00 G	Bewegungs- und Sportbiomechanik Die Vorlesungen und Übungen finden im Hs online statt. Die reservierten Räume bleiber auf dem Campus bestehen, um die Lehrver hören.  Vorlesung: Fr 14-16 Übungen: Fr 16-17	3 hrs	Fri	14-16 16-17	HCI J3 HCP E47.3 HIT F31.2 HIT F32 HIT H51 HIT J51 HIT J52 HIT J53 HIT K52	<b>B. Taylor</b> , R. List		
<b>376-0207-00L</b> 376-0207-00 G	Exercise Physiology Sportphysiologie Der Hörsaal I35-F-32 steht zur Verfügung, u	<b>W</b> um der '	<b>4 credits</b> Vorlesung via	<b>3G</b> 3 hrs	Thu	14-17	I17 M5 I35 F32	C. Spengler, R. M. Rossi
►►► Medic	zoom auf dem eigenen Laptop zu folgen.  al Technology							
Number	Title	Туре	ECTS	Hours				Lecturers
227-0386-00L	Biomedical Engineering	W	4 credits	3G				Locturers
	Biomedical Engineering **together with University of Zurich**	••	4 ordans	3 hrs	Wed	08-10 10-11	ETF E1 ETF E1	<b>J. Vörös</b> , S. J. Ferguson, S. Kozerke, M. P. Wolf, M. Zenobi-Wong
<b>376-0021-00L</b> 376-0021-00 G	Materials and Mechanics in Medicine Materials and Mechanics in Medicine Groups are selected in myStudies. lecture: Di 14-16h exercises: Di 16-17h, start at the secound w The lecturers will communicate the exact le			<b>3G</b> 3 hrs	Tue	14-16 16-17	HG F1 CHN G42 ETZ E8 HG D7.1 ML H41.1	M. Zenobi-Wong, J. G. Snedeker
	ONLINE-exercises.	550H แม	ies oi trie				ON LINE	
<b>376-1714-00L</b> 376-1714-00 V	Biocompatible Materials Biocompatible Materials Vorlesung 9-11h Uebungen/Gruppenarbeiten 11-12h	W	4 credits	<b>3V</b> 3 hrs	Fri	09-12	HG G3	K. Maniura, M. Rottmar, M. Zenobi-Wong
▶▶▶ Molec	ular Health Sciences							
Number	Title	Туре	ECTS	Hours				Lecturers
551-0309-00L	Concepts in Modern Genetics Information for UZH students: Enrolment to this course unit only possible at ETH. No enrolment to module BIO348 at UZH.	w	6 credits	4V				
551-0309-00 V	Please mind the ETH enrolment deadlines for UZH students: https://www.ethz.ch/en/studies/non-degree-courses/special-students/special-students-university-of-zurich.html Concepts in Modern Genetics			4 hrs	Mon	12-14	HG E5	<b>Y. Barral</b> , D. Bopp, A. Hajnal,
	**gemeinsam mit der Universität Zürich**				Tue	08-10	I15 G60	O. Voinnet
<b>551-0317-00L</b> 551-0317-00 V	<b></b>	W	3 credits	<b>2V</b> 2 hrs	Tue	08-10	HG G3	M. Kopf, A. Oxenius
▶►► Neuro				21113	Tuc	00-10	110 03	m. Ropi, A. Oxemus
Number	Title	Туре	ECTS	Hours				Lecturers
376-1305-00L	Development of the Nervous System (University of Zurich) No enrolment to this course at ETH Zurich. Book the corresponding module directly at UZH as an incoming student. UZH Module Code: BIO344  Mind the enrolment deadlines at UZH: https://www.uzh.ch/cmsssl/en/studies/application/deadlines.html	W	3 credits	2V				
376-1305-00 V		ersity of Zurich)		2 hrs	Mon	08-10	I15 G40	University lecturers
	One hour of self-study per week is included	in the c	course.					
376-1305-01L	Neural Systems for Sensory, Motor and Higher Brain Functions Information for UZH students: Enrolment to this course unit only possible at ETH. No enrolment to module BIO343 at UZH. Please mind the ETH enrolment deadlines for UZH students: https://www.ethz.ch/en/studies/nondegree-courses/special-		3 credits	2V				

	students-university-of-zurich.html							
376-1305-01 V	•	in Functions	2 hrs	Mon 20.09.	10-12 10-12	I15 G40 I15 G40	<b>G. Schratt</b> , J. Bohacek, L. Filli, W. von der Behrens, further lecturers	
	BE AWARE: Lecture starts already on 20.09	9.2021.						
	4 hours of self-study (preparation and post-sincluded in the course.	ן (study	oer week are					
551-0309-00L	Concepts in Modern Genetics Information for UZH students: Enrolment to this course unit only possible at ETH. No enrolment to module BIO348 at UZH.	W	6 credits	4V				
	Please mind the ETH enrolment deadlines for UZH students: https://www.ethz.ch/en/studies/non- degree- courses/special- students/special-							

4 hrs

HG E5 I15 G60

12-14 08-10

Mon Tue Y. Barral, D. Bopp, A. Hajnal, O. Voinnet

### ► Bachelor Studies (Programme Regulations 2017)

students-university-of-zurich.html

# **▶▶** Second Year Compulsary Courses

551-0309-00 V Concepts in Modern Genetics
\*\*gemeinsam mit der Universität Zürich\*\*

### ▶▶▶ Examination Blocks

### ▶▶▶▶ Examination Block 1

Number	Title	Туре	ECTS	Hours				Lecturers
376-0002-00L	Product Design in Medical Engineering Only for Health Sciences and Technology BSc, Programme Regulations 2017.	0	4 credits	2V+2U				
376-0002-01 V	Produktentwicklung in der Medizintechnik			2 hrs	Mon	10-12	HG G3	S. J. Ferguson
376-0002-01 U	Produktentwicklung in der Medizintechnik			2 hrs	Thu	14-16	HCI D2 HCI D6 HCI E8 HCI F8 HIL E5 HIL F10.3	S. J. Ferguson
551-0103-00L	Fundamentals of Biology II: Cell Biology Only for - Biologie BSc (Programme Regulations 2013), - Pharmaceutical Sciences BSc (Programme Regulations 2013) - Health Sciences and Technology BSc (Programme Regulations 2017)	0	5 credits	5V				
551-0103-00 V	Grundlagen der Biologie II: Zellbiologie Lehrveranstaltung im Selbststudium. Keine erforderlich. Videoaufzeichnungen des Herbstsemesters Studierenden zur Verfügung gestellt.			5 hrs				S. Werner, Y. Barral, U. Kutay, G. Schertler, U. Suter, I. Zemp
	Die Lehrveranstaltung wird zum letzten Mal angeboten.	im HS 2	2021					

### ▶▶▶▶ Examination Block 2

Number	Title	Type	ECTS	Hours				Lecturers
376-0151-00L	Anatomy and Physiology I	0	5 credits	4V				
376-0151-00 V	Anatomie und Physiologie I Mi 8-10h Vorlesung im Hörsaal I24 G 55 m	nit Video	übertragung	4 hrs	Wed	08-10	103 G85 124 G55	<b>D. P. Wolfer</b> , K. De Bock, R. Fiore, S. Meissner,
	ins 103 G 85		0 0		Thu	10-12	HCI G3	L. Slomianka, C. Spengler M. Willecke
401-0293-00L	Mathematics III	0	5 credits	3V+2U				
401-0293-00 V	Mathematik III - Montags findet die Vorlesung online (via Z reservierte Raum steht den Studierenden je um die Vorlesung von dort aus zu verfolgen - Dienstags findet die Vorlesung in Präsenz	edoch zu n.		3 hrs	Mon Tue	08-10 13-14	HG G5 HG G5	E. W. Farkas

401-0293-00 U	Mathematik III			2 hrs	Tue/1	14-16	ETZ E9	E. W. Farkas
	Groups are selected in myStudies.				Tue/2	14-16	ETZ E9	
							ETZ J91	
					Tue/1	14-16	ETZ J91	
					Tue/2	14-16	IFW C33	
					Tue/1	14-16	IFW C33	
							LFW C1	
					Tue/2	14-16	LFW C1	
						16-18	ETZ E9	
					Tue/1	16-18	ETZ E9	
							ETZ J91	
					Tue/2	16-18	ETZ J91	
					Tue/1	16-18	IFW C33	
					Tue/2	16-18	IFW C33	
					Tue/1	16-18	LFW C1	
					Tue/2	16-18	LFW C1	
401-0643-13L	Statistics II	0	3 credits	2V+1U				
401-0643-13 V	Statistik II (für Biologie/Biochemie – Chem.			2 hrs	Wed	10-12	HG F1 HG F3	M. Kalisch
	Biologie/Pharmazeutische Wiss./HST) Findet im HG F 1 mit Videoüberttragung im	HG F	3 statt.				пого	
401-0643-13 U	Statistik II (für Biologie/Biochemie - Chem.			1 hrs	Thu	08-09	HCI H2.1	M. Kalisch
	Biologie/Pharmazeutische Wiss./HST)						HCI H8.1	
	Groups are selected in myStudies.					09-10	HCI H2.1	
	Do 9-10, Do 12-13 oder Do 13-14 für Studi	engang	1				HCI H8.1	
	Gesundheitswissenschaften und Technolog	gie.				10-11	HCI H2.1	
	Do 9-10 für Studiengang Biochemie – Che	mische	Biologie.			11-12	HCI H2.1	
	Do 8-9, Do 10-11 oder Do 11-12. für Studie	engang	Biologie.			12-13	HCI J4	
	Do 8-9 oder Do 9-10 für Studiengang Phan	mazeut	ische				HCI J7	
	Wissenschaften.						HIT H51	
						13-14	HCI J4	
							HCI J7	
							HIT H51	
					Fri	10-11	HIT F31.2	
						11-12	HIT F31.2	

### ▶▶▶ Examination Block 3

Number	Title	Type	ECTS	Hours				Lecturers
376-0007-00L	Neuroanatomy and Neurophysiology Only for Health Sciences and Technology BSc. Offered in the spring semester from HS21/FS22 onwards.	0	2 credits	2V				
376-0007-00 V	Neuroanatomie und Neurophysiologie Does not take place this semester. Wird ab FS22 im Frühlingssemester angeb	oten.		2 hrs				N. Wenderoth, D. P. Wolfer
402-0083-00L	Physics I	0	4 credits	3V+1U				
402-0083-00 V	Physik I			3 hrs	Wed Fri	15-16 10-12	HPH G1 HPH G1	K. S. Kirch
402-0083-00 U	Physik I			1 hrs	Wed	16-17	HCI D4 HCI H8.1 HCI J8 HIL C10.2 HIL D10.2 HIL F10.3 HIT F31.1 HIT F31.2 HIT H42 HIT H51 HIT J51 HIT J51 HIT K52 HPK D24.2	K. S. Kirch

### **▶▶** Focus Courses

# ▶▶▶ Human Movement Science and Sport

Number	Title	Type	ECTS	Hours				Lecturers
376-0203-00L	Movement and Sport Biomechanics	W	4 credits	3G				
376-0203-00 G	Bewegungs- und Sportbiomechanik Die Vorlesungen und Übungen finden im HS21 grundsätzlich online statt. Die reservierten Räume bleiben für die Studierenden auf dem Campus bestehen, um die Lehrveranstaltung dort zu hören.  Vorlesung: Fr 14-16 Übungen: Fr 16-17				Fri	14-16 16-17	HCI J3 HCP E47.3 HIT F31.2 HIT F32 HIT H51 HIT J51 HIT J52 HIT J53 HIT K52	<b>B. Taylor</b> , R. List
376-0207-00L	Exercise Physiology	W	4 credits	3G				
376-0207-00 G	Sportphysiologie Der Hörsaal 135-F-32 steht zur Verfügung, zoom auf dem eigenen Laptop zu folgen.	um der '	Vorlesung via	3 hrs	Thu	14-17	I17 M5 I35 F32	C. Spengler, R. M. Rossi

551-0309-00L	Title	Туре	ECTS	Hours				Lecturers
55. 5505-00L	Concepts in Modern Genetics Information for UZH students: Enrolment to this course unit only possible at ETH. No enrolment to module BIO348 at UZH.	W	6 credits	4V				
	Please mind the ETH enrolment deadlines for UZH students: https://www.ethz.ch/en/studies/non-degree-courses/special-students/special-							
551-0309-00 V	students-university-of-zurich.html Concepts in Modern Genetics **gemeinsam mit der Universität Zürich**			4 hrs	Mon Tue	12-14 08-10	HG E5 I15 G60	Y. Barral, D. Bopp, A. Hajnal, O. Voinnet
<b>551-0317-00L</b> 551-0317-00 V	Immunology I Immunology I	w	3 credits	<b>2V</b> 2 hrs	Tue	08-10	HG G3	M. Kopf, A. Oxenius
▶▶▶ Medic	al Technology							
Number	Title	Туре	ECTS	Hours				Lecturers
227-0386-00L	Biomedical Engineering	w	4 credits	3 <b>G</b>				
227-0386-00 G				3 hrs	Wed	08-10 10-11	ETF E1 ETF E1	<b>J. Vörös</b> , S. J. Ferguson, S. Kozerke, M. P. Wolf, M. Zenobi-Wong
<b>376-0021-00L</b> 376-0021-00 G	Materials and Mechanics in Medicine Materials and Mechanics in Medicine Groups are selected in myStudies. lecture: Di 14-16h exercises: Di 16-17h, start at the secound w			<b>3G</b> 3 hrs	Tue	14-16 16-17	HG F1 CHN G42 ETZ E8 HG D7.1 ML H41.1	M. Zenobi-Wong, J. G. Snedeker
	The lecturers will communicate the exact les ONLINE-exercises.	SSON UIT	ies oi trie				ON LINE	
<b>376-1714-00L</b> 376-1714-00 V	Biocompatible Materials Biocompatible Materials Vorlesung 9-11h Uebungen/Gruppenarbeiten 11-12h	W	4 credits	<b>3V</b> 3 hrs	Fri	09-12	HG G3	K. Maniura, M. Rottmar, M. Zenobi-Wong
▶▶▶ Neuro	sciences							
Number	Title	Туре	ECTS	Hours				Lecturers
376-1305-00L	Development of the Nervous System (University of Zurich) No enrolment to this course at ETH Zurich. Book the corresponding module directly at UZH as an incoming student. UZH Module Code: BIO344	W	3 credits	2V				
	Mind the enrolment deadlines at UZH:							
	https://www.uzh.ch/cmsssl/en/studies/application/deadlines.html							
376-1305-00 V	cation/deadlines.html	ersity of	Zurich)	2 hrs	Mon	08-10	I15 G40	University lecturers
376-1305-00 V	cation/deadlines.html Development of the Nervous System (Unive **together with University of Zurich**  One hour of self-study per week is included	in the c	ourse.	-	Mon	08-10	I15 G40	University lecturers
	cation/deadlines.html Development of the Nervous System (University of Zurich**	in the c	ŕ	2 hrs	Mon	08-10	I15 G40	University lecturers
376-1305-01L	cation/deadlines.html Development of the Nervous System (University of Zurich**  One hour of self-study per week is included  Neural Systems for Sensory, Motor and Higher Brain Functions Information for UZH students: Enrolment to this course unit only possible at ETH. No enrolment to module BIO343 at UZH.  Please mind the ETH enrolment deadlines for UZH students: https://www.ethz.ch/en/studies/non-degree-courses/special-students/special-	in the c	ourse. 3 credits	-	Mon 20.09.	10-12 10-12	I15 G40 I15 G40 I15 G40	University lecturers  G. Schratt, J. Bohacek, L. Filli W. von der Behrens, further lecturers
376-1305-01L	cation/deadlines.html Development of the Nervous System (University of Zurich**  One hour of self-study per week is included  Neural Systems for Sensory, Motor and Higher Brain Functions Information for UZH students: Enrolment to this course unit only possible at ETH. No enrolment to module BIO343 at UZH.  Please mind the ETH enrolment deadlines for UZH students: https://www.ethz.ch/en/studies/non-degree-courses/special-students-university-of-zurich.html  Neural Systems for Sensory, Motor and Hig **together with University of Zurich**  BE AWARE: Lecture starts already on 20.08	in the c W her Brai	ourse. 3 credits	2V	Mon	10-12	I15 G40	G. Schratt, J. Bohacek, L. Filli W. von der Behrens, further
376-1305-00 V  376-1305-01L	cation/deadlines.html Development of the Nervous System (University of Zurich**  One hour of self-study per week is included  Neural Systems for Sensory, Motor and Higher Brain Functions Information for UZH students: Enrolment to this course unit only possible at ETH. No enrolment to module BIO343 at UZH.  Please mind the ETH enrolment deadlines for UZH students: https://www.ethz.ch/en/studies/non-degree-courses/special-students/special-students-university-of-zurich.html  Neural Systems for Sensory, Motor and Hig **together with University of Zurich**	in the c W her Brai	ourse. 3 credits	2V	Mon	10-12	I15 G40	G. Schratt, J. Bohacek, L. Filli W. von der Behrens, further
376-1305-01L	cation/deadlines.html Development of the Nervous System (University of Zurich**  One hour of self-study per week is included  Neural Systems for Sensory, Motor and Higher Brain Functions Information for UZH students: Enrolment to this course unit only possible at ETH. No enrolment to module BIO343 at UZH.  Please mind the ETH enrolment deadlines for UZH students: https://www.ethz.ch/en/studies/non-degree-courses/special-students-university-of-zurich.html  Neural Systems for Sensory, Motor and Hig **together with University of Zurich**  BE AWARE: Lecture starts already on 20.0844 hours of self-study (preparation and post-	her Brai	ourse. 3 credits	2V	Mon	10-12	I15 G40	G. Schratt, J. Bohacek, L. Filli W. von der Behrens, further

for UZH students: https://www.ethz.ch/en/studies/nondegree-courses/special-students/special-students-university-of-zurich.html

551-0309-00 V Concepts in Modern Genetics
\*\*gemeinsam mit der Universität Zürich\*\* HG E5 I15 G60 Y. Barral, D. Bopp, A. Hajnal, O. Voinnet 12-14 08-10 4 hrs Mon Tue

► Elective:	S
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Number	Title	Туре	ECTS	Hours				Lecturers
151-0575-01L	Signals and Systems	W	4 credits	2V+2U				
151-0575-01 V				2 hrs	Thu	14-16	ETF C1	A. Carron
151-0575-01 U	Signals and Systems The exercise will start in the 3rd week of the			2 hrs	Thu	16-18	ETF C1	A. Carron
151-0604-00L	Microrobotics	w	4 credits	3G				
151-0604-00 G	Microrobotics The class starts in the second week.			3 hrs	Mon Thu	16-18 11-12	NO C60 NO C60	B. Nelson, N. Shamsudhin
151-0917-00L	Mass Transfer	W	4 credits	2V+2U				
151-0917-00 V	Mass Transfer			2 hrs	Wed	10-12	ML H44	<b>S. E. Pratsinis</b> , V. Mavrantzas CJ. Shih
151-0917-00 U	Mass Transfer The exercise will start in the 2nd week of the	e Seme	ster.	2 hrs	Tue	14-16	HG E1.1	S. E. Pratsinis, V. Mavrantzas CJ. Shih
227-0045-00L	Signals and Systems I	W	4 credits	2V+2U				
227-0045-00 V	Signal- und Systemtheorie I			2 hrs	Thu	08-10	HG F1	H. Bölcskei
227-0045-00 U	Signal- und Systemtheorie I			2 hrs	Tue	16-18	ETZ E6 HG E22 LEE C104 LEE C114 LFV E41	H. Bölcskei
327-0113-00L	Foundations of Materials Science I	W	2 credits	2G	ام ۱۸۸	10.11	III. FC	l laa
	Materialwissenschaftliche Grundlagen I			2 hrs	Wed	12-14	HIL E6	L. Isa
376-0130-00L	Laboratory Course in Exercise Physiology Number of participants limited to 48.  HST: Possible from the 5th semester on. Praktikum Sportphysiologie *** BITTE BEACHTEN ***: Aufgrund der Uit bezüglich Pandemie-Lage wird evtl. die mat Praktikums kurzfristig reduziert. Die Zulassung zum Praktikum erfolgt in dies des Belegungstermins.  Die Veranstaltung findet wöchentlich statt, in Zürichs. Details zum Praktikumsablauf werden in de Praktikumsbeginn schriftlich bekanntgegebe Der Besuch aller Praktikumstage ist obligate Für absehbare, zwingende Abwesenheiten Wochen vor Semesterbeginn ein schriftliche einzureichen.	ximale E sem Fall n- und a r Woche en. orisch. ist bis s	Belegung des I entsprechend ausserhalb e vor pätestens 4	4P 4 hrs	Thu	08-12	I17 M5	C. Spengler
376-1033-00L	History of Sports	W	2 credits	2V	ть	10.10	LIC F22.2	M. Cialar
	Sportgeschichte			2 hrs	Thu	16-18	HG E33.3	M. Gisler
<b>376-1107-00L</b> 376-1107-00 V	Sport Pedagogy Sportpädagogik Diese Lehrveranstaltung findet grundsätzlic reservierten Räume bleiben für die Studiere Campus bestehen, um die Lehrveranstaltur	nden at	uf dem	2V 2 hrs	Thu	10-12	NO C44	C. Herrmann
376-1117-00L	Sport Psychology	W	2 credits	2V				
376-1117-00 V	Sportpsychologie Exkursion: Sa 18.12.2021 Skispringen Welt (Die Termine 12.10./19.10./16.11. entfallen)		gelberg	2 hrs	Tue	14-16	HG E1.2	H. Gubelmann
376-1121-00L	Socio-Scientific Health Research: A Thematic Insight and Overview	W	2 credits	2G				
376-1121-00 G	Sozialwissenschaftliche Gesundheitsforsche Ein- und Überblick	ung: Ein	thematischer	2 hrs	Thu	10-12	LFW C11	<b>O. Hämmig</b> , R. Brauchli, S. T. Güntert
<b>376-1127-00L</b> 376-1127-00 V	Sociology of Sport Sportsoziologie	W	2 credits	2V 2 hrs	Thu	08-10	NO C6	R. Bürgi, M. Lamprecht
376-1581-00L	Cancer: Fundamentals, Origin and Therapy	W	2 credits	2G				
376-1581-00 G	Krebs: Grundlagen, Ursachen und Therapie			2 hrs	Tue	10-12	HG D7.2	H. Nägeli
376-1661-00L	Ethics of Life Sciences and Biotechnology	W	3 credits	2V				
376-1661-00 V	•			2 hrs	Mon	16-18	LEE E101	A. Blasimme, E. Vayena

376-1716-00L	Basics of Exercise Therapy Number of participants limited to 30.	W	2 credits	2V				
070 4740 00 1/	Possible from the 5th semester on. Requirement: 376-1715-00L "Introduction to Exercise Therapy" passed.			0.5	<b>14</b> /	4.4.40	OUN O40	K Massahall
376-1716-00 V				2 hrs	Wed/2v	V 14-18	CHN G42	K. Marschall
376-1717-00L	Applied Basics in Sports and Exercise Therapy Number of participants limited to 30.	W	2 credits	2V				
	Possible from the 5th semester on. Requirement: 376-1715-00L "Introduction to Exercise Therapy" passed.							
376-1717-00 V	Bewegungs- und Sporttherapie III Zusätzlich findet ein externer Blocktag zu ei definierenden Zeitpunkt statt.	inem no	ch zu	2 hrs	Wed/2v	v 14-18	CHN G42	B. Spörri Kälin, M. Gwerder
376-1722-00L	Spinal Cord Injury and Exercise Prerequisite: Anatomy and Physiology	W	2 credits	2V	T	44.40	UC D2 2	C. Parret
	Paraplegie und Sport			2 hrs	Tue	14-16	HG D3.2	C. Perret
529-0731-00L	Nucleic Acids and Carbohydrates Note for BSc Biology students: Only one of the two concept courses 529-0731-00 Nucleic Acids and Carbohydrates (autumn semester) or 529-0732-00 Proteins and Lipids (spring semester) can be counted for the Bachelor's degree.	<b>W</b>	6 credits	3 <b>G</b>				
529-0731-00 G	Nucleic Acids and Carbohydrates Lecture 2 hours on Tue 9:45-11:30. Exercises: 1 hour according to agreement, 8:30 or 8:45-9:30. Exercises will start in the semester.			3 hrs	Tue	08-09 09-10 10-12	HCI D2 HCI D2 HCI J3	D. Hilvert, P. A. Kast, S. J. Sturla, H. Wennemers
<b>535-0230-00L</b> 535-0230-00 V	Medicinal Chemistry I Medizinische Chemie I	W	2 credits	<b>2V</b> 2 hrs	Mon 27.09. 04.10.	10-12 10-12 10-12	HCI J3 HIL E8 HIL E8	J. Hall
<b>535-0521-00L</b> 535-0521-00 V	Pharmacology and Toxicology I Pharmakologie und Toxikologie I Online-Veranstaltung: Diese Lehrveranstalt grundsätzlich online statt. Die reservierten I Studierenden auf dem Campus bestehen, u Lehrveranstaltung dort zu hören.	Räume i		2V 2 hrs	Fri	08-10	HCI J7	<b>U. Quitterer</b> , J. Abd Alla
<b>535-0810-00L</b> 535-0810-00 G	Gene Technology Gene Technology	W	2 credits	<b>2G</b> 2 hrs	Wed	10-12	HCI J6	K. Eyer, J. Scheuermann
	Pharmaceutical Immunology Pharmaceutical Immunology	W	2 credits	<b>2G</b> 2 hrs	Wed	08-10	HCI J6	C. Halin Winter, V. Collado Diaz
<b>551-0319-00L</b> 551-0319-00 V	Cellular Biochemistry (Part I) Cellular Biochemistry (Part I)	W	3 credits	<b>2V</b> 2 hrs	Mon	14-16	HCI J3	U. Kutay, G. Neurohr, M. Peter, K. Weis, I. Zemp
752 2420 001	Camariman Bahardarin I	\A/	0	2)/				Wi. Feler, K. Weis, I. Zerrip
<b>752-2120-00L</b> 752-2120-00 V	Consumer Behaviour I Consumer Behaviour I Online-Veranstaltung: Diese Lehrveranstalt grundsätzlich online statt. Die reservierten I Studierenden auf dem Campus bestehen, u Lehrveranstaltung dort zu hören.	Räume i		2V 2 hrs	Fri	14-16	HG G3	M. Siegrist, A. Bearth, A. Berthold
752-4005-00L	Food Microbiology I	W	3 credits	2V				
752-4005-00 V	Lebensmittel-Mikrobiologie I			2 hrs	Tue	10-12	HG E1.1	M. Loessner
<b>752-6001-00L</b> 752-6001-00 V	Introduction to Nutritional Science Introduction to Nutritional Science Course is taught in English (M. Zimmerman Wolfrum)	<b>W</b> nn) and (	<b>3 credits</b> German (Ch.	<b>2V</b> 2 hrs	Fri	08-10	HG F7	M. B. Zimmermann, C. Wolfrum
752-6301-00L	Selected Topics in Physiology Related to Nutrition	W	3 credits	2V				
752-6301-00 V	Selected Topics in Physiology Related to N	utrition		2 hrs	Thu	10-12	CAB G51	F. von Meyenn
<b>752-6403-00L</b> 752-6403-00 V	Nutrition and Performance Nutrition and Performance	W	2 credits	2V 2 hrs	Thu	14-16	ML E12	S. Mettler, M. B. Zimmermann
	ience in Perspective							,
	in Perspective							
	see Science in Perspective: Type A: Enhancement of Reflection Capability							
	December of all October in December (in							
	Recommended Science in Perspective (Type B) for D-HEST.							

	Courses ETT/OZIT		
► Spoi	rt Practical		
	Sport Practical Basic Education		
	Sport Practical Advanced Education		
	Assessments		
1114-0	No. 1		
Health S	Sciences and Technology Bachelor - Key for Type		
0	Compulsory	E-	Recommended, not eligible for credits
W+	Eligible for credits and recommended	Z	Courses outside the curriculum
W	Eligible for credits	Dr	Suitable for doctorate
Key for	Hours		
V	lecture	P	practical/laboratory course
G	lecture with exercise	A	independent project
U	exercise	D	diploma thesis
S	seminar	R	revision course / private study
K	colloquium		,,

ECTS European Credit Transfer and Accumulation System

Special students and auditors need special permission from the lecturers.

# **Health Sciences and Technology TC**

More information at: https://www.ethz.ch/de/studium/didaktische-ausbildung/studienangebot-zulassung/didaktik-zertifikat.html

### ► Educational Science

Number	Title		ECTS	Hours				Lecturers
851-0240-00L	Human Learning (EW1) This lecture is only apt for students who intend to enrol in the programs "Teaching Diploma" or "Teaching Certificate". It is about learning in childhood and adolescence.	0	2 credits	2V				
851-0240-00 V	Menschliches Lernen (EW1)			2 hrs	Tue	18-20	HG F1	E. Stern
851-0240-22L	Coping with Psychosocial Demands of Teaching (EW4 DZ) Number of participants limited to 20.  The successful participation in EW1 ("Human Learning") and EW2 ("Designing")	W	2 credits	3S				
	Learning Environments for School") is recommended, but not a mandatory prerequisite.							
851-0240-22 S	Bewältigung psychosozialer Anforderungen DZ) ■	im Leh	beruf (EW4	3 hrs	Tue	09-12	HG E33.1 HG F26.5 HG G26.1	<b>U. Markwalder</b> , S. Maurer, S. Peteranderl
851-0242-06L	Cognitively Activating Instructions in MINT Subjects Enrolment only possible with matriculation in Teaching Diploma or Teaching Certificate (excluding Teaching Diploma Sport).	w	2 credits	2\$				
	This course unit can only be enrolled after successful participation in, or during enrollment in the course "Human Learning (EW 1)".							
851-0242-06 S	Kognitiv aktivierender Unterricht in den MIN Unregelmässige Lehrveranstaltung; für eine Semesterplanung wird um frühe Anmeldung Erscheinen zum ersten Lehrveranstaltungs	e reibun g und pe	gslose ersönliches	2 hrs	Wed	18-20	ML H41.1	R. Schumacher
851-0242-07L	Human Intelligence Enrolment only possible with matriculation in Teaching Diploma or Teaching Certificate (excluding Teaching Diploma Sport). Number of participants limited to 30. This course unit can only be enrolled after successful participation in, or during enrollment in the course "Human Learning (EW 1)".	W	1 credit	18				
851-0242-07 S	Menschliche Intelligenz Unregelmässige Lehrveranstaltung. An zwei Terminen findet die Lehrveranstaltu TeilnehmerInnen statt und an den übrigen Teinem Teil der Studierenden (Kleingruppen, gemeinsam vereinbart.	Termine.	n nur mit	14s hrs	Wed	16-18	ML F40	E. Stern
851-0242-08L	Research Methods in Educational Science Number of participants limited to 30 This course unit can only be enrolled after successful participation in, or during enrollment in the course "Human Learning (EW 1)".	W	1 credit	2\$				
851-0242-08 S	Forschungsmethoden der empirischen Bildu Unregelmässige Lehrveranstaltung.  Zwei obligatorische Präsenztermine: 29.09. An den übrigen Terminen nur mit einem Tei (jeweils mit 1-2 Kleingruppen).	und 17.	.11.	21s hrs	Wed	12-15	LFW C1	P. Edelsbrunner, T. Braas, C. M. Thurn
851-0242-11L	Gender Issues In Education and STEM Number of participants limited to 30.  Enrolment only possible with matriculation in Teaching Diploma or Teaching Diploma Sport).  Prerequisite: students should be taking the course 851-0240-00L Human Learning (EW1) in parallel, or to have successfully completed it.	W	2 credits	2\$				
851-0242-11 S	Gender Issues In Education and STEM ■			2 hrs	Thu	10-12	LEE C114	<b>M. Berkowitz Biran</b> , T. Braas C. M. Thurn

# ► Subject Didactics and Professional Training

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Number	Title	Туре	ECTS	Hours				Lecturers
376-8001-00L	Didactics of Health Sciences and Technology I Only for Health Sciences and Technology TC students.	0	4 credits	3G				
	Enrolment at the earliest possible with the lecture 851-0240-00 "Human Learning"							
376-8001-00 G	Fachdidaktik Gesundheitswissenschaften u	nd Tech	nnologie I <b>=</b>	3 hrs	Thu	13-16	HIT F31.1	S. Maurer, S. Sinistaj
376-8008-00L	Teaching Internship Including Examination Lessons Health Sciences and Technologie Only for Health Sciences and Technology TC students.	0	6 credits	13P				
	The teaching internship can just be visited in all other courses of TC are completed. Repetition of the teaching internship is excluded even if the examination lessons are to be repeated.	f						
376-8008-00 P	Unterrichtspraktikum mit Prüfungslektionen Gesundheitswissenschaften und Technolog			180s hrs	by appt	•		S. Maurer, S. Sinistaj

### ► Further Subject Didactics

For students enrolled from HS 2019: The courses offered here are credited under the category «Subject Didactics and Professional Training».

Number	Title	Type	ECTS	Hours		Lecturers
376-8011-00L	Mentored Work Subject Didactics Health Sciences and Technologie Only for Health Sciences and Technology TC students.	0	2 credits	4A		
376-8011-00 A	Mentorierte Arbeit Fachdidaktik Gesundheits Technologie ■	swissen	schaften und	60s hrs	by appt.	S. Maurer, S. Sinistaj

Health S	ciences and Technology TC - Key for Type		
0	Compulsory	E-	Recommended, not eligible for credits
W+	Eligible for credits and recommended	Z	Courses outside the curriculum
W	Eligible for credits	Dr	Suitable for doctorate

Key for	Hours			
V	lecture	P	practical/laboratory course	
G	lecture with exercise	A	independent project	
U	exercise	D	diploma thesis	
S	seminar	R	revision course / private study	
K	colloquium			

ECTS European Credit Transfer and Accumulation System

Special students and auditors need special permission from the lecturers.

# **Health Sciences and Technology Master**

# ► Major in Human Movement Science and Sport

# **▶▶** Compulsory Courses

Number	Title	Type	ECTS	Hours				Lecturers
376-0300-00L	Translational Science for Health and Medicine	0	3 credits	2G				
376-0300-00 G	Translational Science for Health and Medic	ine =		2 hrs	Fri	10-12	IFW A36	J. Goldhahn, C. Wolfrum
376-0302-01L	GCP Basic Course (Modules 1 and 2) Only for Health Sciences and Technology MSc.	0	1 credit	1G				
376-0302-01 G	GCP Basic Course (Modules 1 and 2) Courses for German speaking students: Ple from: http://www.ctc- zkf.usz.ch/forschung/gcp-kurse/seiten/gcp- New dates are published quaterly.			16s hrs				G. Senti
	For accreditation of TRREE online modules Supplement) certificates (CHF 50.00) have claudia.fila@usz.ch.		, ,					
	Course for English speaking students only: Registration required: Email: roland.muelle		ethz.ch					
	Dates 2022 for English speaking students: 2.6.2022, Module 2: 9.6.2022	GCP-M	odule 1:					

#### **▶▶** Electives

# ▶▶▶ Electives Courses I

Number	Title	Type	ECTS	Hours				Lecturers
376-0221-00L	Methods and Concepts in Human Systems Neuroscience and Motor Control Number of participants limited to 12	W	4 credits	3P				
376-0221-00 P	Methods and Concepts in Human Systems Motor Control ■	Neuros	cience and	3 hrs	Mon	10-13	HPS D29	M. Schrafl-Altermatt
376-0223-00L	Advanced Topics in Exercise Physiology Number of participants limited to 18.	W	4 credits	2S				
376-0223-00 S	Advanced Topics in Exercise Physiology			2 hrs	Mon	08-10	I17 M5	<b>C. Spengler</b> , G. D'Hulst, F. Gabe Beltrami
376-0225-00L	Physical Activities and Health	W	3 credits	2V				
376-0225-00 V	Physical Activities and Health			2 hrs	Fri	14-16	HIL E6	<b>R. Knols</b> , E. de Bruin, further speakers
376-1651-00L	Clinical and Movement Biomechanics Number of participants limited to 50.	W	4 credits	3G				
376-1651-00 G	Clinical and Movement Biomechanics			3 hrs	Wed	14-17	HIL E9	N. Singh, R. List, P. Schütz
752-6101-00L	Dietary Etiologies of Chronic Disease	W	3 credits	2V				
752-6101-00 V	Dietary Etiologies of Chronic Disease			2 hrs	Thu	08-10	CAB G11	M. B. Zimmermann
▶▶▶ Electi	ve Courses II							
Number	Title	Туре	ECTS	Hours				Lecturers
227-0385-10L	Biomedical Imaging	W	6 credits	5G				
227-0385-10 G	Biomedical Imaging **together with University of Zurich**			5 hrs	Mon Tue	14-16 13-16	HG E19 HG E7	S. Kozerke, K. P. Prüssmanr
227-0386-00L	Biomedical Engineering	W	4 credits	3G				
227-0386-00 G	Biomedical Engineering **together with University of Zurich**			3 hrs	Wed	08-10 10-11	ETF E1 ETF E1	J. Vörös, S. J. Ferguson, S. Kozerke, M. P. Wolf, M. Zenobi-Wong
227-0447-00L	Image Analysis and Computer Vision	W	6 credits	3V+1U				
227-0447-00 V	Image Analysis and Computer Vision			3 hrs	Thu	14-17	HG F1	<b>L. Van Gool</b> , E. Konukoglu, F. Yu
227-0447-00 U	Image Analysis and Computer Vision			1 hrs	Thu	17-19	ETZ D61.1 ETZ D61.2	<b>L. Van Gool</b> , E. Konukoglu, F. Yu
327-2125-00L	Microscopy Training SEM I - Introduction to SEM  The number of participants is limited. In case of overbooking, the course will be repeated once. All registrations will be recorded on the waiting list.  For PhD students, postdocs and others, a fee will be charged (http://www.scopem.ethz.ch/education/MTP)	w	2 credits	3P				

	All applicants must additionally register on this form: (link will follow) The selected applicants will be contacted							
327-2125-00 P	and asked for confirmation a few weeks before the course date. Microscopy Training SEM I - Introduction to This block course will take place during 5 fu October 2529., 2021. Lectures will be held	ll days	(9am-5pm) on	35s hrs	25.10. 26.10. 27.10.	09-12 09-12	HIT F11.1 HIT F11.1 HIT F11.1	P. Zeng, A. G. Bittermann, S. Gerstl, L. Grafulha Morales, K. Kunze, J. Reuteler
	practical exercises in rooms of ScopeM.  The repetition (if needed) of this course will	take pi	lace on Jan 24		29.10.	13-16	HIT F11.1	
327-2126-00L	28., 2022.  Microscopy Training TEM I - Introduction to TEM The number of participants is limited. In case of overbooking, the course will be repeated once. All registrations will be recorded on the waiting list.	W	2 credits	3P				
	For PhD students, postdocs and others, a fee will be charged (http://www.scopem.ethz.ch/education/MTP.html).							
	All applicants must additionally register on this form: (link will follow) The selected applicants will be contacted and asked for confirmation a few weeks before the course date.							
327-2126-00 P	Microscopy Training TEM I - Introduction to This block course will take place during 5 fu. November 15., 2021. Lectures will be held practical exercises in rooms of ScopeM.	ll days		35s hrs	01.11. 02.11. 03.11. 05.11.	09-12 09-12	HIT F11.1 HIT F11.1 HIT F11.1 HIT F11.1	P. Zeng, E. J. Barthazy Meier, A. G. Bittermann, F. Gramm, A. Sologubenko, M. Willinger
	The repetition (if needed) of this course will 29.1103.12.2021.	take pi	lace from					
<b>363-0301-00L</b> 363-0301-00 G	Work Design and Organizational Change Work Design and Organizational Change The lecture takes place in classroom, online recorded.		3 credits restreaming and	<b>2G</b> 2 hrs	Tue	10-12	LFW C5	G. Grote
376-0121-00L	Multiscale Bone Biomechanics Number of participants limited to 30	W	6 credits	4S				
376-0121-00 S	Multiscale Bone Biomechanics ■			4 hrs	Fri	12-16	HCP E47.2	R. Müller, XH. Qin
363-0790-00L		144						
363-0790-00 V	Technology Entrepreneurship Technology Entrepreneurship The lecture takes place online via (livestreal recorded. Reserved rooms will remain block students to follow the course from there.			<b>2V</b> 2 hrs	Tue	18-20	HG E5	F. Hacklin
363-0790-00 V	Technology Entrepreneurship The lecture takes place online via (livestreal recorded. Reserved rooms will remain block students to follow the course from there.  Laboratory Course in Exercise Physiology Number of participants limited to 48.	ming o	r) zoom and		Tue	18-20	HG E5	F. Hacklin
376-0130-00L	Technology Entrepreneurship The lecture takes place online via (livestrear recorded. Reserved rooms will remain block students to follow the course from there.  Laboratory Course in Exercise Physiology	ming of the control o	ar) zoom and campus for  3 credits  Theiten Belegung des	2 hrs 4P 4 hrs	Tue	18-20	HG E5	F. Hacklin  C. Spengler
376-0130-00L	Technology Entrepreneurship The lecture takes place online via (livestreat recorded. Reserved rooms will remain block students to follow the course from there.  Laboratory Course in Exercise Physiology Number of participants limited to 48.  HST: Possible from the 5th semester on. Praktikum Sportphysiologie **** BITTE BEACHTEN ***: Aufgrund der Ur bezüglich Pandemie-Lage wird evtl. die max Praktikums kurzfristig reduziert. Die Zulassung zum Praktikum erfolgt in dies	ming on seed on working on the seem Farmander Wochen. Drisch. ist bis s	r) zoom and campus for  3 credits  Theiten Belegung des all entsprechence ausserhalb ne vor	2 hrs 4P 4 hrs				
376-0130-00L 376-0130-00 P	Technology Entrepreneurship The lecture takes place online via (livestreat recorded. Reserved rooms will remain block students to follow the course from there.  Laboratory Course in Exercise Physiology Number of participants limited to 48.  HST: Possible from the 5th semester on. Praktikum Sportphysiologie *** BITTE BEACHTEN ***: Aufgrund der Urbezüglich Pandemie-Lage wird evtl. die max Praktikums kurzfristig reduziert. Die Zulassung zum Praktikum erfolgt in dies des Belegungstermins.  Die Veranstaltung findet wöchentlich statt, in Zürichs. Details zum Praktikumsablauf werden in der Praktikumsbeginn schriftlich bekanntgegebe Der Besuch aller Praktikumstage ist obligate Für absehbare, zwingende Abwesenheiten Wochen vor Semesterbeginn ein schriftliche einzureichen.  Movement and Sport Biomechanics Bewegungs- und Sportbiomechanik Die Vorlesungen und Übungen finden im HS online statt. Die reservierten Räume bleiben auf dem Campus bestehen, um die Lehrvernhören.	ming on seed on w  W  Insicher kimale seem Famer Wochen. sees Gester w  See Gester w  See 1 grund für die die seen für die	rheiten Belegung des ausserhalb ne vor spätestens 4 uch 4 credits undsätzlich e Studierenden	2 hrs 4P 4 hrs			HCI J3 HCP E47.3 HIT F31.2 HIT F32 HIT H51 HIT J51	
376-0130-00L 376-0130-00 P 376-0203-00L 376-0203-00 G	Technology Entrepreneurship The lecture takes place online via (livestreat recorded. Reserved rooms will remain block students to follow the course from there.  Laboratory Course in Exercise Physiology Number of participants limited to 48.  HST: Possible from the 5th semester on. Praktikum Sportphysiologie *** BITTE BEACHTEN ***: Aufgrund der Urbezüglich Pandemie-Lage wird evtl. die mater Praktikums kurzfristig reduziert. Die Zulassung zum Praktikum erfolgt in dies des Belegungstermins.  Die Veranstaltung findet wöchentlich statt, in Zürichs. Details zum Praktikumsablauf werden in der Praktikumsbeginn schriftlich bekanntgegebe Der Besuch aller Praktikumstage ist obligate Für absehbare, zwingende Abwesenheiten Wochen vor Semesterbeginn ein schriftliche einzureichen.  Movement and Sport Biomechanics Bewegungs- und Sportbiomechanik Die Vorlesungen und Übungen finden im HS online statt. Die reservierten Räume bleiben auf dem Campus bestehen, um die Lehrveren	ming on seed on w  W  Insicher kimale seem Famer Wochen. sees Gester w  See Gester w  See 1 grund für die die seen für die	rheiten Belegung des ausserhalb ne vor spätestens 4 uch 4 credits undsätzlich e Studierenden	2 hrs 4P 4 hrs	Thu	08-12	HCI J3 HCP E47.3 HIT F31.2 HIT F32 HIT H51	C. Spengler

Exercise and Muscle Regeneration -   Protected Aspects   Protect									
Exercise and Musche Regenération -   Principal Aspects   Princip	376-0207-00 G	Der Hörsaal I35-F-32 steht zur Verfügung, u	ım der V	orlesung via	3 hrs	Thu	14-17		C. Spengler, R. M. Rossi
Regeneration - Practical Aspices   W   2 credits   2V   2 http://doi.org/10.1001/j.com/pace/pace/pace/pace/pace/pace/pace/pace	376-0208-00L	Exercise and Muscle Regeneration - Practical Aspects Prerequisites: Advanced Physiology and Pathophysiology (376-0008-00L) Laboratory Course in Molecular Biology		3 credits	2G				
376-117-00   Sport Pedagogy   W   2 credits   2V   2 hrs   Thu   10-12   NO C44   C. Herrmann   Sport Pedagogy   W   2 credits   2V   2 hrs   Thu   10-12   NO C44   C. Herrmann   Sport Pedagogy   W   2 credits   2V   2 hrs   Thu   10-12   NO C44   C. Herrmann   Sport Pedagogy   W   2 credits   2V   2 hrs   Thu   10-12   NO C44   C. Herrmann   Sport Pedagogy   W   2 credits   2V   2 hrs   Thu   08-10   NO C6   R. Bürgi M. Lamprocht   Sport Pedagogy   W   2 credits   2V   2 hrs   Thu   08-10   NO C6   R. Bürgi M. Lamprocht   Sport Pedagogy   W   2 credits   2V   2 hrs   Thu   08-10   NO C6   R. Bürgi M. Lamprocht   Sport Pedagogy   W   2 credits   2V   2 hrs   Thu   08-10   NO C6   R. Bürgi M. Lamprocht   Sport Pedagogy   W   2 credits   2V   2 hrs   Thu   08-10   NO C6   R. Bürgi M. Lamprocht   Sport Pedagogy   W   2 credits   2V   2 hrs   Thu   08-10   NO C6   R. Bürgi M. Lamprocht   Sport Pedagogy   W   2 credits   2V   2 hrs   Thu   08-10   NO C6   R. Bürgi M. Lamprocht   Sport Pedagogy   W   2 credits   2V   2 hrs   Thu   08-10   NO C6   R. Bürgi M. Lamprocht   Sport Pedagogy   W   2 credits   2V   2 hrs   Thu   08-10   NO C6   R. Bürgi M. Lamprocht   W   2 credits   2V   2 hrs   Thu   08-10   NO C6   R. Bürgi M. Lamprocht   W   2 credits   2V   2 hrs   Thu   08-10   NO C6   R. Bürgi M. Lamprocht   W   2 credits   2V   2 hrs   Thu   08-10   NO C6   R. Bürgi M. Lamprocht   W   2 hrs   W   3 credits   2 hrs   W   3 credits   2 hrs   W   3 credits   2 hrs   W   4 hrs   4	376-0208-00 G		and Musc	cle	2 hrs	Wed/2	13-17	SLA B91	O. Bar-Nur, K. De Bock
276-1107-00   Sociological Disease Librium state and the company of the state of the search frame bleiben für die Studierenden auf dem Carpus bestehen, und et leibrium erhaltung dort zu nören.   276-1127-00   Sociology of Sport   W   2 credits   2V   2 hrs   Thu   08-10   NO C6   R. Bürgl, M. Lamprecht   276-1127-00   Sociology of Sport   W   2 credits   2V   2 hrs   Thu   08-10   NO C6   R. Bürgl, M. Lamprecht   276-1127-00   Sociology of Sport   W   2 credits   2V   2 hrs   Thu   08-10   NO C6   R. Bürgl, M. Lamprecht   W. Discovered the state of the sta	<b>376-1033-00L</b> 376-1033-00 V	* · · · · · · · · · · · · · · · · · · ·	W	2 credits		Thu	16-18	HG E33.3	M. Gisler
376-117-00   Sportspychology	<b>376-1107-00L</b> 376-1107-00 V	Sportpädagogik Diese Lehrveranstaltung findet grundsätzlich reservierten Räume bleiben für die Studiere	h online s	statt. Die f dem		Thu	10-12	NO C44	C. Herrmann
2	<b>376-1127-00L</b> 376-1127-00 V		W	2 credits		Thu	08-10	NO C6	R. Bürgi, M. Lamprecht
From Genetics and Molecular   Muchanisms of Aging   Number of participants limited to 30.		Sportpsychologie Exkursion: Sa 18.12.2021 Skispringen Welt	cup Enge			Tue	14-16	HG E1.2	H. Gubelmann
376-1179-00 \ Applications of Cybernetics in Ergonomics	<b>376-1151-00L</b> 376-1151-00 V	from Genetics and Molecular Mechanisms of Aging Number of participants limited to 30. Translation of Basic Research Findings from Molecular Mechanisms of Aging Does not take place this semester.	n Genetio	cs and					to be announced
2 hrs	376-1177-00L	Human Factors I	w	3 credits	2V				
376-1179-00 U Applications of Cybernetics in Ergonomics			-	0.00000		Tue	14-16	HG G3	
376-1219-00L Rehabilitation Engineering II: W 3 credits 2V		Ergonomics	W	1 credit	1U				
Rehabilitation of Sensory and Vegetative Functions   2 hrs   Tue   08-10   CAB G11   R. Riener, O. Lambercy   76-1353-00L   7	376-1179-00 U	Applications of Cybernetics in Ergonomics			1 hrs	Wed/2w	14-16	HG E21	
Vegetative Functions   Vegetative Function		Rehabilitation of Sensory and Vegetative Functions				Tue	00.40	CAR C44	D. Bianas O. Lambaras
376-1724-00L Biocompatible Materials Safety		Vegetative Functions				rue	08-10	CABGII	R. Riener, O. Lambercy
376-1714-00L Biocompatible Materials 376-1714-00 V Biocompatible Materials 376-1714-00 V Biocompatible Materials Vorlesung 9-11h Uebungen/Gruppenarbeiten 11-12h  376-1720-00L Application of MATLAB in the Human Movement Sciences 376-1720-00 G Application of MATLAB in the Human Movement Sciences 376-1720-00 G Application of MATLAB in the Human Movement Sciences 376-1720-00 G Application of MATLAB in the Human Movement Sciences 376-1720-00 G Application of MATLAB in the Human Movement Sciences 376-1720-00 G Application of MATLAB in the Human Movement Sciences 376-1720-00 G Application of MATLAB in the Human Movement Sciences 376-1720-00 G Application of MATLAB in the Human Movement Sciences 376-1722-00 G Application of MATLAB in the Human Movement Sciences 376-1722-00 G Application of MATLAB in the Human Movement Sciences 376-1722-00 G Application of MATLAB in the Human Movement Sciences 376-1722-00 G Application of MATLAB in the Human Movement Sciences 376-1722-00 G Application of MATLAB in the Human Movement Sciences 376-1722-00 G Application of MATLAB in the Human Movement Sciences 376-1722-00 G Application of MATLAB in the Human Movement Sciences 376-1722-00 G Application of MATLAB in the Human Movement Sciences 376-1722-00 G Application of MATLAB in the Human Movement Sciences 376-1722-00 G Application of MATLAB in the Human Movement Sciences 376-1722-00 G Application of MATLAB in the Human Movement Sciences 376-1722-00 G Application of MATLAB in the Human Movement Sciences 376-1722-00 G Application of MATLAB in the Human Movement Sciences 376-1722-00 G Application of MATLAB in the Human Movement Sciences 376-1722-00 G Application of MATLAB in the Human Movement Sciences 376-1722-00 G Application of MATLAB in the Human Movement Sciences 376-1722-00 G Application of MATLAB in the Human Movement Sciences 376-1722-00 G Application of MATLAB in the Human Movement Sciences 376-1722-00 G Application of MATLAB in the Human Movement Sciences 376-1722-00 G Application of MATLAB in the Human Movement Sciences 376-1722			W	2 credits		Fri/1	12-14	CHN F46	P. Wick
376-1720-00L Application of MATLAB in the Human Movement Sciences 376-1720-00 G Application of MATLAB in the Human Movement Sciences 376-1720-00 G Application of MATLAB in the Human Movement Sciences 376-1720-00 G Application of MATLAB in the Human Movement Sciences 376-1720-00 G Application of MATLAB in the Human Movement Sciences 376-1720-00 G Application of MATLAB in the Human Movement Sciences 376-1720-00 G Application of MATLAB in the Human Movement Sciences 376-1720-00 G Application of MATLAB in the Human Movement Sciences 376-1720-00 In the course from the primarily take place online. Reserved rooms will remain blocked on campus for students to follow the course from there. Further information is available on Moodle.  376-1722-00 Spinal Cord Injury and Exercise Purrequisite: Anatomy and Physiology Paraplegie und Sport 2 hrs Tue 14-16 HG D3.2 C. Perret  376-1723-00 Big Data Analysis in Biomedical Research ■ 2 hrs Fri 08-10 ETZ F91 E. Araldi, M. Ristow 876-1723-00 U Big Data Analysis in Biomedical Research ■ 2 hrs Wed 16-18 ETZ F91 E. Araldi, M. Ristow 24-109 10-14 ETZ F91 E. Araldi, M. Ristow 274-194-00 K Colloquium in Biomechanics W 2 credits 2 kr 2 hrs Wed 08-10 HG D3.2 B. Helgason, S. J. Ferguson, R. Müller, J. G. Snedeker, B. Taylor, M. Zenobi-Wong 376-1985-00 V Trauma Biomechanics W 4 credits 2V+1U Trauma Biomechanics N 5 credits 2V+1U Trauma Biomechanics N 4 credits 2V+1U Trauma Biomechanics N 4 credits 2V+1U Trauma Biomechanics N 4 credit	376-1714-001	·	w	4 credits	3\/				
Movement Sciences 376-1720-00 G Application of MATLAB in the Human Movement Sciences Online event: Will primarily take place online. Reserved rooms will remain blocked on campus for students to follow the course from there. Further information is available on Moodle.  376-1722-00L Spinal Cord Injury and Exercise Prerequisite: Anatomy and Physiology 376-1722-00 V Paraplegie und Sport 2 hrs Tue 14-16 HG D3.2 C. Perret  376-1723-00L Big Data Analysis in Biomedical Research ■ 2 hrs Fri 08-10 ETZ F91 E. Araldi, M. Ristow 376-1723-00 U Big Data Analysis in Biomedical Research ■ 2 hrs Wed 16-18 ETZ F91 E. Araldi, M. Ristow 376-1723-00 U Big Data Analysis in Biomedical Research ■ 2 hrs Wed 16-18 ETZ F91 E. Araldi, M. Ristow 376-1974-00 C Colloquium in Biomechanics W 2 credits 2 krs Wed 08-10 HG D3.2 B. Helgason, S. J. Ferguson, ONLINE: This course will take place online. Reserved rooms will remain available for students to follow the seminar from there.  376-1985-00 V Trauma Biomechanics W 4 credits 2V+1U 2 hrs Thu 10-12 HG D7.1 KU. Schmitt, M. H. Muser		Biocompatible Materials Vorlesung 9-11h	••	4 creuits		Fri	09-12	HG G3	
Online event: Will primarily take place online. Reserved rooms will remain blocked on campus for students to follow the course from there.  Struther information is available on Moodle.  376-1722-00L  Spinal Cord Injury and Exercise Prerequisite: Anatomy and Physiology 376-1722-00 V  Paraplegie und Sport  Paraplegie und Sport  Sig Data Analysis in Biomedical Research  Sig Data Analysis in Biomedical Resear	376-1720-00L	• •	W	2 credits	2G				
Prerequisite: Anatomy and Physiology  376-1722-00 V Paraplegie und Sport  2 hrs Tue 14-16 HG D3.2 C. Perret  376-1723-00L Big Data Analysis in Biomedical Research  376-1723-00 V Big Data Analysis in Biomedical Research  376-1723-00 U Big Data Analysis in Biomedical Research  2 hrs Fri 08-10 ETZ F91 E. Araldi, M. Ristow  2 hrs Wed 16-18 ETZ F91 E. Araldi, M. Ristow  2 hrs Wed 16-18 ETZ F91 E. Araldi, M. Ristow  376-1974-00 Colloquium in Biomechanics  376-1974-00 K Tris course will take place online. Reserved rooms will remain available for students to follow the seminar from there.  376-1985-00 V Trauma Biomechanics  W 4 credits 2 hrs Thu 10-12 HG D7.1 KU. Schmitt, M. H. Muser	376-1720-00 G	Online event: Will primarily take place online remain blocked on campus for students to for there.	e. Reserv	ed rooms will		Tue	10-12	HG D5.2	R. van de Langenberg
376-1723-00L Big Data Analysis in Biomedical Research 376-1723-00 V Big Data Analysis in Biomedical Research ■ 2 hrs Fri 08-10 ETZ F91 E. Araldi, M. Ristow 376-1723-00 U Big Data Analysis in Biomedical Research ■ 2 hrs Wed 16-18 ETZ F91 E. Araldi, M. Ristow 376-1974-00L Colloquium in Biomechanics W 2 credits 376-1974-00 K Colloquium in Biomechanics ONLINE: This course will take place online. Reserved rooms will remain available for students to follow the seminar from there.  376-1985-00 V Trauma Biomechanics W 4 credits 2 V+1U 376-1985-00 V Trauma Biomechanics W 10-12 HG D7.1 KU. Schmitt, M. H. Muser	376-1722-00L		W	2 credits	2V				
Research  376-1723-00 V Big Data Analysis in Biomedical Research ■ 2 hrs Fri 08-10 ETZ F91 E. Araldi, M. Ristow  376-1723-00 U Big Data Analysis in Biomedical Research ■ 2 hrs Wed 16-18 ETZ F91 E. Araldi, M. Ristow  376-1974-00 L Colloquium in Biomechanics W 2 credits  376-1974-00 K Colloquium in Biomechanics ONLINE: This course will take place online. Reserved rooms will remain available for students to follow the seminar from there.  376-1985-00 V Trauma Biomechanics W 4 credits 2 hrs Thu 10-12 HG D7.1 KU. Schmitt, M. H. Muser	376-1722-00 V	Paraplegie und Sport			2 hrs	Tue	14-16	HG D3.2	C. Perret
376-1723-00 U Big Data Analysis in Biomedical Research ■ 2 hrs Wed 16-18 ETZ F91 E. Araldi, M. Ristow  376-1974-00L Colloquium in Biomechanics W 2 credits 2 hrs Wed 08-10 HG D3.2 B. Helgason, S. J. Ferguson, R. Müller, J. G. Snedeker, B. Taylor, M. Zenobi-Wong  376-1985-00L Trauma Biomechanics W 4 credits 276-1985-00 V Trauma Biomechanics W 2 credits 2 hrs Thu 10-12 HG D7.1 KU. Schmitt, M. H. Muser		Research		4 credits					
376-1974-00L Colloquium in Biomechanics W 2 credits 376-1974-00 K Colloquium in Biomechanics ONLINE: This course will take place online. Reserved rooms will remain available for students to follow the seminar from there.  376-1985-00L Trauma Biomechanics W 4 credits 2 ky+1U 376-1985-00 V Trauma Biomechanics 2 ky-1U 2 krs Thu 10-12 HG D7.1 KU. Schmitt, M. H. Muser		• ,							
376-1974-00 K Colloquium in Biomechanics ONLINE: This course will take place online. Reserved rooms will remain available for students to follow the seminar from there.  376-1985-00 V Trauma Biomechanics  W 4 credits 2 hrs Wed 08-10 HG D3.2 B. Helgason, S. J. Ferguson, R. Müller, J. G. Snedeker, B. Taylor, M. Zenobi-Wong 2 V+1U 2 hrs Thu 10-12 HG D7.1 KU. Schmitt, M. H. Muser	376-1723-00 U	Big Data Analysis in Biomedical Research	ı		2 hrs				E. Araldi, M. Ristow
376-1974-00 K Colloquium in Biomechanics ONLINE: This course will take place online. Reserved rooms will remain available for students to follow the seminar from there.  376-1985-00 V Trauma Biomechanics  W 4 credits 2 hrs Wed 08-10 HG D3.2 B. Helgason, S. J. Ferguson, R. Müller, J. G. Snedeker, B. Taylor, M. Zenobi-Wong 2 V+1U 2 hrs Thu 10-12 HG D7.1 KU. Schmitt, M. H. Muser	376-1974-00L	Colloquium in Biomechanics	W	2 credits	2K				
remain available for students to follow the seminar from there.  B. Taylor, M. Zenobi-Wong  376-1985-00L  Trauma Biomechanics  W 4 credits 2V+1U  2 hrs Thu 10-12 HG D7.1  KU. Schmitt, M. H. Muser		Colloquium in Biomechanics				Wed	08-10	HG D3.2	
376-1985-00 V Trauma Biomechanics 2 hrs Thu 10-12 HG D7.1 <b>KU. Schmitt</b> , M. H. Muser		ONLINE: This course will take place online. remain available for students to follow the se	eminar fr	om there.					R. Müller, J. G. Snedeker,
,			W	4 credits		<b>T</b> 1	10.15	110 57 4	K II O-b- 10 14 11 14
					2 hrs 1 hrs			HG D7.1 HG E33.3	KU. Schmitt, M. H. Muser KU. Schmitt, M. H. Muser

376-2017-00L	Biomechanics of Sports Injuries and Rehabilitation	W	3 credits	2V				
376-2017-00 V	Biomechanik von Sportverletzungen und Re	ehabilit	tation	2 hrs	Mon	16-18	HG D5.2	KU. Schmitt, J. Goldhahn
376-2019-00L	Applied Movement Analysis	W	2 credits	2G				
376-2019-00 G	Angewandte Bewegungsanalyse			2 hrs	Tue	10-12	HPS C21.3 HPS D29	R. Scharpf, P. Schütz
551-1153-00L	Systems Biology of Metabolism  Number of participants limited to 15.	W	4 credits	2V				
551-1153-00 V	Systems Biology of Metabolism			2 hrs	Mon	10-12	HPL D34	<b>U. Sauer</b> , N. Zamboni, M. Zampieri
752-3105-00L	Physiology Guided Food Structure and Process Design	W	3 credits	2V				
752-3105-00 V	Physiology Guided Food Structure and Pro Irregular course. Exact dates and time are 'Lehrveranstaltungen/ courses. The dates a course "Selected Topics in Food Technology	listed a are adju	t usted with the	2 hrs	Thu	10-12 14-16	HG E33.3 LFV E41	E. J. Windhab, M. Devezeaux de Lavergne, S. Michlig Gonzalez, T. Wooster
752-6105-00L	Epidemiology and Prevention	W	3 credits	2V				
752-6105-00 V	Epidemiology and Prevention			2 hrs	Wed	12-14	CHN C14	M. Puhan, R. Heusser
752-6151-00L	Public Health Concepts	W	3 credits	2V				
752-6151-00 V	Public Health Concepts			2 hrs	Mon 27.09.	14-16 14-16	HG D1.1 CHN G42	R. Heusser
752-6403-00L	Nutrition and Performance	W	2 credits	2V				
752-6403-00 V	Nutrition and Performance			2 hrs	Thu	14-16	ML E12	S. Mettler, M. B. Zimmermann

# ► Major in Human Health, Nutrition and Environment

# **▶▶** Compulsory Courses

Number	Title	Type	ECTS	Hours				Lecturers
701-1701-00L	Human Health, Nutrition and Environment: Term Paper Only for students of the Major Human Health, Nutrition and Environment.	0	6 credits	13A				
701-1701-00 A	Human Health, Nutrition and Environment: Permission from lecturers required for all state introduction of the term paper course to Sept 2021 from 16:15 to 18:00 h.  An additional compulsory input lecture take 2021 from 16:15 to 18:00 h.  Dates for oral presentation are 17th and 18	tudents akes pla es place 8th Feb 2	ce on 30th on 25th Nov	180s hrs				<b>J. Nuessli Guth</b> , T. Julian, K. McNeill, M. B. Zimmermanr
	More details and locations are announced							
376-0300-00L	Translational Science for Health and Medicine	0	3 credits	2G				
376-0300-00 G	Translational Science for Health and Medic	ine <b>=</b>		2 hrs	Fri	10-12	IFW A36	J. Goldhahn, C. Wolfrum
376-0302-01L	GCP Basic Course (Modules 1 and 2) Only for Health Sciences and Technology MSc.	0	1 credit	1G				
376-0302-01 G	GCP Basic Course (Modules 1 and 2) Courses for German speaking students: Pl from: http://www.ctc- zkf.usz.ch/forschung/gcp-kurse/seiten/gcp- New dates are published quaterly.			16s hrs				G. Senti
	For accreditation of TRREE online modules Supplement) certificates (CHF 50.00) have claudia.fila@usz.ch.			-				
	Course for English speaking students only: Registration required: Email: roland.muelle		ethz.ch					
	Dates 2022 for English speaking students: 2.6.2022, Module 2: 9.6.2022	GCP-M	odule 1:					

### **▶▶** Electives

# ▶▶▶ Elective Courses I

Number	Title	Type	ECTS	Hours				Lecturers
401-0629-00L	Applied Biostatistics	W	4 credits	3G				
401-0629-00 G	Applied Biostatistics			3 hrs	Tue	13-16	CAB G51	M. Tanadini
	Online lecture: This lecture will take pl will remain reserved on campus for ste from there.							
752-6105-00L	Epidemiology and Prevention	W	3 credits	2V				
752-6105-00 V	Epidemiology and Prevention			2 hrs	Wed	12-14	CHN C14	M. Puhan, R. Heusser
752-6151-00L	Public Health Concepts	W	3 credits	2V				
752-6151-00 V	Public Health Concepts			2 hrs	Mon 27.09.	14-16 14-16	HG D1.1 CHN G42	R. Heusser

# ▶▶▶ Elective Courses II

### ▶▶▶▶ Module: Infectious Diseases

Title	Туре	ECTS	Hours				Lecturers
Immunology III Immunology III	W	4 credits	<b>2V</b> 2 hrs	Mon	10-12	HCI H8.1	M. Kopf, S. B. Freigang, J. Kisielow, S. R. Leibundgut, A. Oxenius, C. Schneider, R. Spörri, L. Tortola, E. Wetter Slack
Seminar in Evolutionary Ecology of Infectious Diseases	W	3 credits	2G				
Seminar in Evolutionary Ecology of Infectious	ıs Disea	ises	2 hrs	Tue	16-18	CHN F42	R. R. Regös, S. Bonhoeffer
Ecological Parasitology Number of participants limited to 20. A minimum of 6 students is required that the course will take place.  Waiting list will be deleted on October 1st,	W	3 credits	1V+1P				
2021. Ecological Parasitology ■			14s hrs	Tue	08-10	CHN G46	J. Jokela, C. Vorburger
The lecture takes place irregularly.  Ecological Parasitology ■			12s hrs	05.10.	08-12		J. Jokela, C. Vorburger
Daten der Veranstaltung: 05.10.; 19.10.; 09. Zeit: 8:15 - 12:00 Ort der Veranstaltung: EAWAG Dübendorf	11					EAW -EAWAG EAW -EAWAG	
Evolutionary Medicine for Infectious Diseases Number of participants limited to 35.	W	3 credits	2G				
2021.	_		0.5	F.:	10.10	110 544	A 11-11
·		<b>.</b>		Fri	10-12	HG E41	A. Hall
Pathogens	W	3 credits		Thu	10.12	HC E1 2	M. Loessner, M. Schmelcher
Molecular biology of Foodbottle Patriogens			21115	THU	10-12	NG E1.2	M. Schuppler, E. Wetter Slac
ule: Nutrition and Health							
Title	Туре	ECTS	Hours				Lecturers
Food and Consumer Behaviour Online lecture: This lecture will primarily tak	e place	online.	<b>2V</b> 2 hrs	Mon	10-12	LFW B1	M. Siegrist, C. Hartmann
Online event: Will primarily take place online				Wed	14-16	HG D7.1	C. Lacroix, A. Geirnaert, A. Greppi
Dietary Etiologies of Chronic Disease Dietary Etiologies of Chronic Disease	W	3 credits	<b>2V</b> 2 hrs	Thu	08-10	CAB G11	M. B. Zimmermann
ule: Environment and Health							
Title	Type	ECTS	Hours				Lecturers
Nanostructured Materials Safety	W	2 credits	1V				
Nanostructured Materials Safety			1 hrs	Fri/1	12-14	CHN F46	P. Wick
Online event: Will primarily take place online remain blocked on campus for students to for				Fri	08-10	CAB G11	S. Hug, M. Berg, F. Hammes, U. von Gunten
sory Courses							
Title	Type	ECTS	Hours				Lecturers
T 14: 10: ( 11 14) 1	0	3 credits	2G				
Translational Science for Health and Medicine	•	0 0.000					
	Seminar in Evolutionary Ecology of Infectious Diseases Seminar in Evolutionary Ecology of Infectious Diseases Seminar in Evolutionary Ecology of Infectious Disease Seminar in Evolutionary Ecology Infectious Disease Infiliated to 20. A minimum of 6 students is required that the course will take place.  Waiting list will be deleted on October 1st, 2021. Ecological Parasitology Infectious Disease Daten der Veranstaltung: 05.10.; 19.10.; 09.2eit: 8:15 - 12:00 Ort der Veranstaltung: EAWAG Dübendorf Evolutionary Medicine for Infectious Diseases Number of participants limited to 35.  Waiting list will be deleted October 3rd, 2021. Evolutionary Medicine for Infectious Disease Molecular Biology of Foodborne Pathogens Molecular Biology of Foodborne Pathogens Molecular Biology of Foodborne Pathogens  Wale: Nutrition and Health Title Food and Consumer Behaviour Food and	Seminar in Evolutionary Ecology of Infectious Diseases Seminar in Evolutionary Ecology of Infectious Diseases Seminar in Evolutionary Ecology of Infectious Disease Ecological Parasitology Number of participants limited to 20. A minimum of 6 students is required that the course will take place.  Waiting list will be deleted on October 1st, 2021. Ecological Parasitology ■ Daten der Veranstaltung: 05.10.; 19.10.; 09.11 Zeit: 8:15 - 12:00 Ort der Veranstaltung: EAWAG Dübendorf Evolutionary Medicine for Infectious Diseases Number of participants limited to 35.  Waiting list will be deleted October 3rd, 2021. Evolutionary Medicine for Infectious Diseases Molecular Biology of Foodborne Pathogens Molecular Biology of Foodborne Pathogens  Mele: Nutrition and Health  Title Type Food and Consumer Behaviour Food and Consumer Benaviour Food a	Seminar in Evolutionary Ecology of Infectious Diseases Seminar in Evolutionary Ecology of Infectious Diseases Seminar in Evolutionary Ecology of Infectious Diseases Ecological Parasitology Number of participants limited to 20. A minimum of 6 students is required that the course will take place.  Waiting list will be deleted on October 1st, 2021. Ecological Parasitology ■ The lecture takes place irregularly. Ecological Parasitology ■ Daten der Veranstaltung: 05.10.; 19.10.; 09.11 Zeit: 8:15 - 12:00 Ort der Veranstaltung: EAWAG Dübendorf Evolutionary Medicine for Infectious Diseases Number of participants limited to 35.  Waiting list will be deleted October 3rd, 2021. Evolutionary Medicine for Infectious Diseases Molecular Biology of Foodborne Pathogens  Molecular Biology of Foodborne Pathogens  W 2 credits  Food and Consumer Behaviour Online lecture: This lecture will primarily take place online. Reserved rooms will remain blocked on campus for students to follow the course from there.  Prunctional Microorganisms in Foods ■ Online event: Will primarily take place online. Reserved rooms weremain blocked on campus for students to follow the course from there.  Dietary Etiologies of Chronic Disease Dietary Etiologies of Ch	Seminar in Evolutionary Ecology of Infectious Diseases Seminar in Evolutionary Ecology of Infectious Diseases Seminar in Evolutionary Ecology of Infectious Diseases 2 hrs Ecological Parasitology Number of participants limited to 20. A minimum of 6 students is required that the course will take place.  Waiting list will be deleted on October 1st, 2021. Ecological Parasitology ■ 14s hrs The lecture takes place irregularly. Ecological Parasitology ■ 12s hrs Daten der Veranstaltung: 05.10; 19.10.; 09.11 Zeit: 8:15 - 12:00 Ort der Veranstaltung: EAWAG Dübendorf Evolutionary Medicine for Infectious Diseases Number of participants limited to 35.  Waiting list will be deleted October 3rd, 2021. Evolutionary Medicine for Infectious Diseases Number of participants limited to 35.  Waiting list will be deleted October 3rd, 2021. Evolutionary Medicine for Infectious Diseases Number of participants limited to 35.  Waiting list will be deleted October 3rd, 2021. Evolutionary Medicine for Infectious Diseases Number of participants limited to 35.  Waiting list will be deleted October 3rd, 2021. Evolutionary Medicine for Infectious Diseases Number of participants limited to 35.  Waiting list will be deleted October 3rd, 2021. Evolutionary Medicine for Infectious Diseases Number of participants limited to 35.  Waiting list will be deleted October 3rd, 2021. 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Ecological Parasitology ■ Ecological Parasitology ■ Daten der Veranstaltung: 05.10,: 19.10,: 09.11 Daten der Veranstaltung: 05.10,: 19.10,: 09.11 Daten der Veranstaltung: EAWAG Dübendorf  Evolutionary Medicine for Infectious Diseases Number of participants limited to 35.  Waiting list will be deleted October 3rd, 2021.  Evolutionary Medicine for Infectious Diseases Number of participants limited to 35.  Waiting list will be deleted October 3rd, 2021.  Evolutionary Medicine for Infectious Diseases Number of participants limited to 35.  Waiting list will be deleted Detail Diseases Number of Participants limited to 35.  Waiting list will be deleted October 3rd, 2021.  Evolutionary Medicine for Infectious Diseases Number of participants limited to 35.  Waiting list will be deleted October 3rd, 2021.  Evolutionary Medicine for Infectious Diseases Number of participants limited to 35.  Waiting list will be deleted October 3rd, 2021.  Evolutionary Medicine for Infectious Diseases Number of participants limited to 35.  Waiting list will be deleted October 3rd, 2021.  Evolutionary Medicine for Infectious Diseases Number of participants limited to 35.  Waiting list will be deleted October 3rd, 2021.  Evolutionary Medicine for Infectious Diseases Number of participants limited to 35.  Waiting list will be deleted October 3rd, 2021.  Evolutionary Medicine for Infectious Value 2 bris Thu  Utle: Nutrition and Health  Title Type ECTS Hours  Prood and Consumer Behaviour Online lecture: This fecture will primarily take place online. Reserved rooms will remain blocked on campus for students to follow the course f	Seminar in Evolutionary Ecology of Infectious Diseases Seminar in Evolutionary Ecology with the seminary Ecological Parasitology with the seminary of Students is required that the course will take place.  Waiting list will be deleted on October 1st, 2021. Ecological Parasitology with the seminary of the seminary o	Seminar in Evolutionary Ecology of Infectious Diseases Recological Parasitology Number of participants limited to 20. Aminimum of Satudents is required that the course will be deleted on October 1st, 2021. Ecological Parasitology  Ecological Parasitology  The lecture fakes place inequiarly. Ecological Parasitology  Ecological Parasitology  Ecological Parasitology  Aminimum of Satudents is required that the course will be deleted on Cotober 1st, 2021. Ecological Parasitology  Ecological Parasitology  Solutionary Medicine for Infectious Diseases Number of participants limited to 35.  Waiting list will be deleted October 3rd, 2021. Evolutionary Medicine for Infectious Diseases Number of participants limited to 35.  Waiting list will be deleted October 3rd, 2021. Evolutionary Medicine for Infectious Diseases Number of participants limited to 35.  Waiting list will be deleted October 3rd, 2021. 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16s hrs

G. Senti

Courses for German speaking students: Please select courses from:

http://www.ctc-

zkf.usz.ch/forschung/gcp-kurse/seiten/gcp-basiskurse.aspx New dates are published quaterly.

For accreditation of TRREE online modules (1, 2.1, 3.1, 3.2, CH-Supplement) certificates (CHF 50.00) have to be handed in to claudia.fila@usz.ch.

Course for English speaking students only: Registration required: Email: roland.mueller@hest.ethz.ch

Dates 2022 for English speaking students: GCP-Module 1: 2.6.2022, Module 2: 9.6.2022

#### **▶▶** Elective Courses

Number	Title	Type	ECTS	Hours				Lecturers
151-0604-00L	Microrobotics	W	4 credits	3G				
151-0604-00 G	Microrobotics The class starts in the second week.			3 hrs	Mon Thu	16-18 11-12	NO C60 NO C60	B. Nelson, N. Shamsudhin
227-0385-10L	Biomedical Imaging	W	6 credits	5G				
227-0385-10 G	Biomedical Imaging **together with University of Zurich**			5 hrs	Mon Tue	14-16 13-16	HG E19 HG E7	S. Kozerke, K. P. Prüssmann
227-0386-00L	Biomedical Engineering	W	4 credits	3G				
227-0386-00 G	Biomedical Engineering **together with University of Zurich**			3 hrs	Wed	08-10 10-11	ETF E1 ETF E1	<b>J. Vörös</b> , S. J. Ferguson, S. Kozerke, M. P. Wolf, M. Zenobi-Wong
227-0393-10L	<b>Bioelectronics and Biosensors</b>	W	6 credits	2V+2U				
227-0393-10 V	Bioelectronics and Biosensors			2 hrs	Fri	09-11	HG E1.2	J. Vörös, M. F. Yanik
227-0393-10 U	Bioelectronics and Biosensors			2 hrs	Fri	08-09 11-12	HG E1.2 HG E1.2	M. F. Yanik, J. Vörös
227-0447-00L	Image Analysis and Computer Vision	W	6 credits	3V+1U				
227-0447-00 V	Image Analysis and Computer Vision			3 hrs	Thu	14-17	HG F1	<b>L. Van Gool</b> , E. Konukoglu, F. Yu
227-0447-00 U	Image Analysis and Computer Vision			1 hrs	Thu	17-19	ETZ D61.1 ETZ D61.2	<b>L. Van Gool</b> , E. Konukoglu, F. Yu
227-0939-00L	Cell Biophysics	W	6 credits	4G				
227-0939-00 G	Cell Biophysics			4 hrs	Tue Thu	16-18 16-18	HG D7.2 ML F38	T. Zambelli
227-0965-00L	Micro and Nano-Tomography of Biological Tissues	W	4 credits	3G				
227-0965-00 G	Micro and Nano-Tomography of Biological T	issues		3 hrs	Mon	09-12	ETZ E9	<b>M. Stampanoni</b> , F. Marone Welford
227-0969-00L	Methods & Models for fMRI Data Analysis	W	6 credits	4V				
227-0969-00 V	Methods & Models for fMRI Data Analysis			4 hrs	Tue	08-12	ETZ E6	K. Stephan
327-0505-00L	Surfaces, Interfaces and their Applications I	W	3 credits	2V+1U				
327-0505-00 V	Surfaces, Interfaces and their Applications I			2 hrs	Mon	09-11	HCI J7	N. Spencer, M. P. Heuberger, L. Isa
327-0505-00 U	Surfaces, Interfaces and their Applications I			1 hrs	Mon	11-12	HCI J7	<b>N. Spencer</b> , M. P. Heuberger, L. Isa
327-2125-00L	Microscopy Training SEM I - Introduction to SEM The number of participants is limited. In case of overbooking, the course will be repeated once. All registrations will be recorded on the waiting list.  For PhD students, postdocs and others, a	W	2 credits	3P				
	fee will be charged (http://www.scopem.ethz.ch/education/MTP .html).							
	All applicants must additionally register on this form: (link will follow) The selected applicants will be contacted and asked for confirmation a few weeks before the course date.							
327-2125-00 P	Microscopy Training SEM I - Introduction to This block course will take place during 5 fur October 2529., 2021. Lectures will be held practical exercises in rooms of ScopeM.	ll days (	. ,	35s hrs	25.10. 26.10. 27.10. 29.10.	09-12	HIT F11.1 HIT F11.1 HIT F11.1 HIT F11.1	P. Zeng, A. G. Bittermann, S. Gerstl, L. Grafulha Morales K. Kunze, J. Reuteler
	The repetition (if needed) of this course will 28., 2022.	take pla	ace on Jan 24	•				

	Introduction to TEM The number of participants is limited. In case of overbooking, the course will be repeated once. All registrations will be recorded on the waiting list.							
	For PhD students, postdocs and others, a fee will be charged (http://www.scopem.ethz.ch/education/MTFhtml).	D						
	All applicants must additionally register on this form: (link will follow) The selected applicants will be contacted and asked for confirmation a few weeks before the course date.							
327-2126-00 P	Microscopy Training TEM I - Introduction to This block course will take place during 5 for November 15., 2021. Lectures will be held practical exercises in rooms of ScopeM.	ull days		35s hrs	03.11.	09-12 09-12 09-12 13-16	HIT F11.1 HIT F11.1 HIT F11.1 HIT F11.1	<b>P. Zeng</b> , E. J. Barthazy Meier, A. G. Bittermann, F. Gramm, A. Sologubenko, M. Willinger
	The repetition (if needed) of this course will 29.1103.12.2021.	l take pl	ace from					
<b>363-0790-00L</b> 363-0790-00 V	Technology Entrepreneurship Technology Entrepreneurship The lecture takes place online via (livestrearecorded. Reserved rooms will remain bloostudents to follow the course from there.			2V 2 hrs	Tue	18-20	HG E5	F. Hacklin
363-1065-00L	Design Thinking: Human-Centred Solutions to Real World Challenges	W	5 credits	5G				
363-1065-00 G	Design Thinking: Human-Centred Solutions Challenges Does not take place this semester. From FS22 in the spring semester.	s to Rea	ıl World	5 hrs				S. Brusoni
<b>376-0021-00L</b> 376-0021-00 G	Materials and Mechanics in Medicine Materials and Mechanics in Medicine Groups are selected in myStudies. lecture: Di 14-16h exercises: Di 16-17h, start at the secound	<b>W</b> week af	4 credits	<b>3G</b> 3 hrs	Tue	14-16 16-17	HG F1 CHN G42 ETZ E8 HG D7.1 ML H41.1	<b>M. Zenobi-Wong</b> , J. G. Snedeker
	The lecturers will communicate the exact le ONLINE-exercises.	esson tir	mes of the				ON LINE	
376-0121-00L	Multiscale Bone Biomechanics Number of participants limited to 30	W	6 credits	4S				
376-0121-00 S	Multiscale Bone Biomechanics ■			4 hrs	Fri	12-16	HCP E47.2	R. Müller, XH. Qin
376-0208-00L	Molecular and Cellular Biology of Exercise and Muscle Regeneration - Practical Aspects Prerequisites: Advanced Physiology and Pathophysiology (376-0008-00L) Laboratory Course in Molecular Biology (376-0006-02L)	<b>w</b>	3 credits	2G				
376-0208-00 G	Molecular and Cellular Biology of Exercise Regeneration - Practical Aspects	and Mu	scle	2 hrs	Wed/2	13-17	SLA B91	O. Bar-Nur, K. De Bock
376-1151-00L	Translation of Basic Research Findings from Genetics and Molecular Mechanisms of Aging Number of participants limited to 30.	W	3 credits	2V				
376-1151-00 V	Translation of Basic Research Findings from Molecular Mechanisms of Aging Does not take place this semester. Diese Lehrveranstaltung wird nicht mehr au			2 hrs				to be announced
376-1103-00L	Frontiers in Nanotechnology	W	4 credits	4V				
376-1103-00 V	Frontiers in Nanotechnology			4 hrs	Mon Fri	10-12 14-16	HCP E47.3 HCP E47.3	V. Vogel, further lecturers
<b>376-1177-00L</b> 376-1177-00 V	Human Factors I Human Factors I	W	3 credits	<b>2V</b> 2 hrs	Tue	14-16	HG G3	M. Menozzi Jäckli, R. Huang, M. Siegrist
376-1179-00L	Applications of Cybernetics in Ergonomics	W	1 credit	1U				
376-1179-00 U	Applications of Cybernetics in Ergonomics			1 hrs	Wed/2v	v 14-16	HG E21	<b>M. Menozzi Jäckli</b> , Y Y. Hedinger Huang, R. Huang
376-1219-00L	Rehabilitation Engineering II: Rehabilitation of Sensory and Vegetative Functions	W e	3 credits	2V				
376-1219-00 V	Rehabilitation Engineering II: Rehabilitation	of Sen	sory and	2 hrs	Tue	08-10	CAR G11	R Riener O Lambercy

2 credits

2 hrs

2V

Tue

08-10 CAB G11

R. Riener, O. Lambercy

376-1219-00 V Rehabilitation Engineering II: Rehabilitation of Sensory and Vegetative Functions

376-1351-00L

Micro/Nanotechnology and Microfluidics W for Biomedical Applications

376-1351-00 V	Micro/Nanotechnology and Microfluidics for Applications	Biomed	ical	2 hrs	Wed	16-18	ML H41.1	E. Delamarche
<b>376-1353-00L</b> 376-1353-00 V	Nanostructured Materials Safety Nanostructured Materials Safety	w	2 credits	<b>1V</b> 1 hrs	Fri/1	12-14	CHN F46	P. Wick
		14/	4 anadita		1 11/ 1	12-14	CHINT 40	r. Wick
376-1504-00L	Physical Human Robot Interaction (pHRI)	W	4 credits	2V+2U				
376-1504-00 V	Physical Human-Robot Interaction (pHRI) To apply for the course, please prepare a la (max. one A4 page). Please include in the laprogram and semester you are in. Please of like to attend the course and what you expective. The letter should be sent to Jan Dit (jan.dittli@hest.ethz.ch) by 05.09.2021.	etter of m letter whi lescribe ect to lea	ich study why you would	2 hrs	Thu	08-10	NO E11	O. Lambercy
376-1504-00 U	Physical Human-Robot Interaction (pHRI)	1		2 hrs	Thu	10-12	NO E11	O. Lambercy
376-1622-00L	Practical Methods in Tissue Engineering Number of participants limited to 12.	W	5 credits	4P				
376-1622-00 P	Practical Methods in Tissue Engineering ■			4 hrs	Mon	13-17	HPL D21.2	M. Zenobi-Wong, S. J. Ferguson, S. Grad, S. Schürle-Finke
376-1651-00L	Clinical and Movement Biomechanics Number of participants limited to 50.	W	4 credits	3G				
376-1651-00 G	Clinical and Movement Biomechanics			3 hrs	Wed	14-17	HIL E9	N. Singh, R. List, P. Schütz
376-1714-00L	Biocompatible Materials	W	4 credits	3V				
376-1714-00 V	Biocompatible Materials Vorlesung 9-11h Uebungen/Gruppenarbeiten 11-12h			3 hrs	Fri	09-12	HG G3	K. Maniura, M. Rottmar, M. Zenobi-Wong
376-1723-00L	Big Data Analysis in Biomedical Research	W	4 credits	2V+2U				
	Big Data Analysis in Biomedical Research			2 hrs	Fri	08-10	ETZ F91	E. Araldi, M. Ristow
376-1723-00 U	Big Data Analysis in Biomedical Research			2 hrs	Wed 24.09.	16-18 10-14	ETZ F91 ETZ F91	E. Araldi, M. Ristow
276 409E 00I	Trauma Biomechanics	w	4 credits	2V+1U	24.09.	10-14	EIZF9I	
376-1985-00L	Trauma Biomechanics Trauma Biomechanics	VV	4 Credits	2 hrs	Thu	10-12	HG D7.1	KU. Schmitt, M. H. Muser
	Trauma Biomechanics			1 hrs	Thu/2w		HG E33.3	KU. Schmitt, M. H. Muser
376-1974-00L	Colloquium in Biomechanics	W	2 credits	2K				,
	Colloquium in Biomechanics ONLINE: This course will take place online. remain available for students to follow the s	Reserve	ed rooms will	2 hrs	Wed	08-10	HG D3.2	<b>B. Helgason</b> , S. J. Ferguson, R. Müller, J. G. Snedeker, B. Taylor, M. Zenobi-Wong
<b>401-0629-00L</b> 401-0629-00 G	Applied Biostatistics Applied Biostatistics Online lecture: This lecture will take place of will remain reserved on campus for student from there.			<b>3G</b> 3 hrs	Tue	13-16	CAB G51	M. Tanadini
402-0674-00L	Physics in Medical Research: From Atoms to Cells	W	6 credits	2V+1U				
402-0674-00 V	Physics in Medical Research: From Atoms	to Cells		2 hrs	Fri	14-16	HCI H8.1	B. K. R. Müller
402-0674-00 U	Physics in Medical Research: From Atoms	to Cells		1 hrs	Fri	16-17	HCI H8.1	B. K. R. Müller
<b>535-0423-00L</b> 535-0423-00 V	Drug Delivery and Drug Targeting Drug Delivery and Drug Targeting	W	2 credits	<b>1.5V</b> 1.5 hrs	Tue/1	13-16	HIL E9	JC. Leroux, A. Steinauer
551-0317-00L	Immunology I	w	3 credits	2V				
551-0317-00 V	•			2 hrs	Tue	08-10	HG G3	M. Kopf, A. Oxenius
<b>551-0319-00L</b> 551-0319-00 V	Cellular Biochemistry (Part I) Cellular Biochemistry (Part I)	W	3 credits	<b>2V</b> 2 hrs	Mon	14-16	HCI J3	U. Kutay, G. Neurohr, M. Peter, K. Weis, I. Zemp
636-0108-00L	Biological Engineering and Biotechnology	W	4 credits	3V				,
636-0108-00 V	Biological Engineering and Biotechnology		to al mon viale e	3 hrs	Wed	13-16	BSA E46 HG D16.2	M. Fussenegger
	Takes place at the D-BSSE in Basel and is conference to Zürich (HG D16.2). Attention: Lecture starts on Wednesday, Se		•					
752-3105-00L	Takes place at the D-BSSE in Basel and is conference to Zürich (HG D16.2).	eptembe	•	2V				
<b>752-3105-00L</b> 752-3105-00 V	Takes place at the D-BSSE in Basel and is conference to Zürich (HG D16.2). Attention: Lecture starts on Wednesday, Se Physiology Guided Food Structure and Process Design	w cess Des listed at are adjus	29 2021 3 credits sign	<b>2V</b> 2 hrs	Thu	10-12 14-16	HG E33.3 LFV E41	E. J. Windhab, M. Devezeaux de Lavergne, S. Michlig Gonzalez, T. Wooster
752-3105-00 ∨  ► Major in I	Takes place at the D-BSSE in Basel and is conference to Zürich (HG D16.2). Attention: Lecture starts on Wednesday, Se Physiology Guided Food Structure and Process Design Physiology Guided Food Structure and Pro Irregular course. Exact dates and time are inchrered the start of t	w cess Des listed at are adjus	29 2021 3 credits sign		Thu			M. Devezeaux de Lavergne, S. Michlig Gonzalez,
752-3105-00 ∨  ► Major in I  ► Compul	Takes place at the D-BSSE in Basel and is conference to Zürich (HG D16.2). Attention: Lecture starts on Wednesday, Se Physiology Guided Food Structure and Process Design Physiology Guided Food Structure and ProIrregular course. Exact dates and time are l'Lehrveranstaltungen/ courses. The dates a course "Selected Topics in Food Technology Molecular Health Sciences Isory Courses	w w cess Desisted at irre adjus gy" (752-	3 credits sign ted with the 2003-00L).	2 hrs	Thu			M. Devezeaux de Lavergne, S. Michlig Gonzalez, T. Wooster
752-3105-00 ∨  ► Major in I  ► Compul  Number	Takes place at the D-BSSE in Basel and is conference to Zürich (HG D16.2). Attention: Lecture starts on Wednesday, Set Physiology Guided Food Structure and Process Design Physiology Guided Food Structure and Pro Irregular course. Exact dates and time are l'Lehrveranstaltungen/ courses. The dates a course "Selected Topics in Food Technology Molecular Health Sciences Isory Courses Title	eptember W cess Desiristed at are adjustif (752-	3 credits sign ted with the 2003-00L).	2 hrs	Thu			M. Devezeaux de Lavergne, S. Michlig Gonzalez,
752-3105-00 ∨  ► Major in I  ► Compul  Number  376-0300-00L	Takes place at the D-BSSE in Basel and is conference to Zürich (HG D16.2). Attention: Lecture starts on Wednesday, Se Physiology Guided Food Structure and Process Design Physiology Guided Food Structure and ProIrregular course. Exact dates and time are l'Lehrveranstaltungen/ courses. The dates a course "Selected Topics in Food Technology Molecular Health Sciences Isory Courses	w cess Desiisted at the adjusting (752-	3 credits sign ted with the 2003-00L).	2 hrs	Thu			M. Devezeaux de Lavergne, S. Michlig Gonzalez, T. Wooster

376-0302-01L GCP Basic Course (Modules 1 and 2) O 1 credit 1G

Only for Health Sciences and Technology

MSc.

376-0302-01 G GCP Basic Course (Modules 1 and 2)

Courses for German speaking students: Please select courses

http://www.ctc-zkf.usz.ch/forschung/gcp-kurse/seiten/gcp-basiskurse.aspx

New dates are published quaterly.

For accreditation of TRREE online modules (1, 2.1, 3.1, 3.2, CH-Supplement) certificates (CHF 50.00) have to be handed in to

claudia.fila@usz.ch.

Course for English speaking students only: Registration required: Email: roland.mueller@hest.ethz.ch

Dates 2022 for English speaking students: GCP-Module 1: 2.6.2022, Module 2: 9.6.2022

►► Elective	e Courses							
Number	Title	Туре	ECTS	Hours				Lecturers
<b>227-0939-00L</b> 227-0939-00 G	Cell Biophysics Cell Biophysics	W	6 credits	<b>4G</b> 4 hrs	Tue Thu	16-18 16-18	HG D7.2 ML F38	T. Zambelli
327-2125-00L	Microscopy Training SEM I - Introduction to SEM  The number of participants is limited. In case of overbooking, the course will be repeated once. All registrations will be recorded on the waiting list.	W	2 credits	3P				
	For PhD students, postdocs and others, a fee will be charged (http://www.scopem.ethz.ch/education/MTP.html).							
	All applicants must additionally register on this form: (link will follow) The selected applicants will be contacted and asked for confirmation a few weeks before the course date.							
327-2125-00 P	Microscopy Training SEM I - Introduction to This block course will take place during 5 ful October 2529., 2021. Lectures will be held practical exercises in rooms of ScopeM.	ll days (	(9am-5pm) on seminar room,	35s hrs	25.10. 26.10. 27.10. 29.10.	09-12	HIT F11.1 HIT F11.1 HIT F11.1 HIT F11.1	P. Zeng, A. G. Bittermann, S. Gerstl, L. Grafulha Morales K. Kunze, J. Reuteler
	The repetition (if needed) of this course will 28., 2022.	take pla	ice on Jan 24.	-				
327-2126-00L	Microscopy Training TEM I - Introduction to TEM The number of participants is limited. In case of overbooking, the course will be repeated once. All registrations will be recorded on the waiting list.	W	2 credits	3P				
	For PhD students, postdocs and others, a fee will be charged (http://www.scopem.ethz.ch/education/MTP .html).							
	All applicants must additionally register on this form: (link will follow) The selected applicants will be contacted and asked for confirmation a few weeks before the course date.							
327-2126-00 P	Microscopy Training TEM I - Introduction to This block course will take place during 5 fur. November 15., 2021. Lectures will be held practical exercises in rooms of ScopeM.	ll days (		35s hrs	03.11.	09-12 09-12 09-12 13-16	HIT F11.1 HIT F11.1 HIT F11.1 HIT F11.1	P. Zeng, E. J. Barthazy Meier, A. G. Bittermann, F. Gramm, A. Sologubenko, M. Willinger
	The repetition (if needed) of this course will 29.1103.12.2021.	take pla	nce from					
376-0121-00L	Multiscale Bone Biomechanics Number of participants limited to 30	W	6 credits	<b>4S</b>				
376-0121-00 S	Multiscale Bone Biomechanics ■			4 hrs	Fri	12-16	HCP E47.2	R. Müller, XH. Qin
376-0208-00L	Molecular and Cellular Biology of Exercise and Muscle Regeneration - Practical Aspects Prerequisites: Advanced Physiology and Pathophysiology (376-0008-00L) Laboratory Course in Molecular Biology (376-0006-02L)	W	3 credits	2G				

16s hrs

G. Senti

376-0208-00 G	Molecular and Cellular Biology of Exercise a Regeneration - Practical Aspects	ind Mus	cle	2 hrs	Wed/2	13-17	SLA B91	O. Bar-Nur, K. De Bock
76-0303-00L	Colloquium in Translational Science (Autumn Semester)	W	1 credit	1K				
76-0303-00 K	Colloquium in Translational Science (Autum 3 block seminars à 3,5 hrs à 60 minutes 09.  Mittwoch 29.09.2021 09:15 – 12:15  Mittwoch 27.10.2021 09:15 – 12:15  Mittwoch 01.12.2021 09:15 – 12:15		,	1 hrs				M. Ristow, A. Alimonti, N. Cesarovic, C. Ewald, V. Falk, J. Goldhahn, K. Maniura, R. M. Rossi, S. Schürle-Finke, G. Shivashankar, E. Vayena V. Vogel
376-1151-00L	Translation of Basic Research Findings from Genetics and Molecular Mechanisms of Aging Number of participants limited to 30.	W	3 credits	2V				<u> </u>
376-1151-00 V	Translation of Basic Research Findings from Molecular Mechanisms of Aging Does not take place this semester. Diese Lehrveranstaltung wird nicht mehr an			2 hrs				to be announced
	Nanostructured Materials Safety Nanostructured Materials Safety	W	2 credits	1V 1 hrs	Fri/1	12-14	CHN F46	P. Wick
376-1622-00L	Practical Methods in Tissue Engineering Number of participants limited to 12.	W	5 credits	4P				
376-1622-00 P	Practical Methods in Tissue Engineering ■			4 hrs	Mon	13-17	HPL D21.2	M. Zenobi-Wong, S. J. Ferguson, S. Grad, S. Schürle-Finke
376-1723-00L	Big Data Analysis in Biomedical Research	W	4 credits	2V+2U				
	0 ,			2 hrs	Fri	08-10	ETZ F91	E. Araldi, M. Ristow
	Big Data Analysis in Biomedical Research ■			2 hrs	Wed 24.09.	16-18 10-14	ETZ F91 ETZ F91	E. Araldi, M. Ristow
	Immunology III Immunology III	w	4 credits	2V 2 hrs	Mon	10-12	HCI H8.1	M. Kopf, S. B. Freigang, J. Kisielow, S. R. Leibundgut A. Oxenius, C. Schneider, R. Spörri, L. Tortola, E. Wetter Slack
551-0309-00L	Concepts in Modern Genetics Information for UZH students: Enrolment to this course unit only possible at ETH. No enrolment to module BIO348 at UZH.  Please mind the ETH enrolment deadlines for UZH students:	W	6 credits	4V				
551-0309-00 V	•			4 hrs	Mon	12-14	HG E5	Y. Barral, D. Bopp, A. Hajna
551-0317-00L	**gemeinsam mit der Universität Zürich** Immunology I	w	3 credits	2V	Tue	08-10	I15 G60	O. Voinnet
551-0317-00 V	Immunology I			2 hrs	Tue	08-10	HG G3	M. Kopf, A. Oxenius
51-0512-00L	Current Topics in Molecular and Cellular Neurobiology Number of participants limited to 8.	W	2 credits	18				
551-0512-00 S	Current Topics in Molecular and Cellular Ne	urobiolo	an (	1 hrs				U. Suter
	Does not take place this semester.  Permission from lecturers required for all stu.  This course may be taken only once, either or in the autumn semester.	ıdents	0,					
	Does not take place this semester. Permission from lecturers required for all stu This course may be taken only once, either	ıdents	0,					
551-0571-00L	Does not take place this semester. Permission from lecturers required for all state This course may be taken only once, either or in the autumn semester.  From DNA to Diversity (University of Zurich) No enrolment to this course at ETH Zurich. Book the corresponding module directly at UZH as an incoming student. UZH Module Code: BIO336  Mind the enrolment deadlines at UZH: https://www.uzh.ch/cmsssl/en/studies/application/deadlines.html	udents in the sp W	oring semeste	2V				A Hainal D Ropp
551-0571-00L 551-0571-00 V	Does not take place this semester. Permission from lecturers required for all state This course may be taken only once, either or in the autumn semester.  From DNA to Diversity (University of Zurich) No enrolment to this course at ETH Zurich. Book the corresponding module directly at UZH as an incoming student. UZH Module Code: BIO336  Mind the enrolment deadlines at UZH: https://www.uzh.ch/cmsssl/en/studies/application/deadlines.html  From DNA to Diversity (University of Zurich) **Course at University of Zurich**	udents in the s <sub>i</sub>	oring semeste  2 credits	zV 2V 2 hrs				A. Hajnal, D. Bopp
551-0571-00L 551-0571-00 V 551-1153-00L	Does not take place this semester. Permission from lecturers required for all state. This course may be taken only once, either or in the autumn semester.  From DNA to Diversity (University of Zurich) No enrolment to this course at ETH Zurich. Book the corresponding module directly at UZH as an incoming student. UZH Module Code: BIO336  Mind the enrolment deadlines at UZH: https://www.uzh.ch/cmsssl/en/studies/application/deadlines.html From DNA to Diversity (University of Zurich)	udents in the sp W	oring semeste	2V	Mon	10-12	HPL D34	A. Hajnal, D. Bopp  U. Sauer, N. Zamboni, M. Zampieri

551-1171-00 S	Current Topics Immunology: From Milestones to Current Top Online lecture: This lecture will take place on will remain reserved on campus for students from there.	line. Re		2 hrs	Tue	14-16	HIT H51	<b>B. Ludewig</b> , J. Kisielow, A. Oxenius, L. Tortola, University lecturers
551-1303-00L	Cellular Biochemistry of Health and	w	4 credits	2S				
	Disease							
551-1303-00 S	Number of participants limited to 20. Cellular Biochemistry of Health and Disease			2 hrs	Fri	10-12	HIT H42	V. Korkhov, Y. Barral, T. Ishikawa, M. Jagannathan, R. Kroschewski, G. Neurohr, M. Peter, A. E. Smith, B. Snijder, K. Weis
636-0017-00L	Computational Biology	w	6 credits	3G+2A				
636-0017-00 G	Computational Biology			3 hrs	Mon	16-18	BSA E46	T. Vaughan
	The lecture will be held each Monday (16-18 Basel and will be transmitted via videoconfere location. Tutorials will happen in both location Tutorials in Zürich: Monday 18-19h (HG D 16 Tutorials in Basel: Thursday 12-13h (BSA E 4 Lecture on Monday and the Tutorial on Thurs available for participation via Zoom. ATTENTION: Lecture starts on Monday, 27.0 Basel on Thursday 30.09	ence to ns. 6.2) 46) sday wii	the second		Thu	18-19 12-13	HG D16.2 HG D16.2 BSA E46	
636-0017-00 A	Computational Biology Project Work (compulsory continuous perforn no fixed presence required.	nance a	assessments),	2 hrs				T. Vaughan
636-0108-00L	<u> </u>	W	4 credits	3V				
636-0108-00 V	Biological Engineering and Biotechnology Takes place at the D-BSSE in Basel and is tra- conference to Zürich (HG D16.2). Attention: Lecture starts on Wednesday, Sept		•	3 hrs	Wed	13-16	BSA E46 HG D16.2	M. Fussenegger
636-0507-00L	Synthetic Biology II Students in the MSc Biotechnology (Programme Regulations 2017) may select Synthetic Biology II instead of the Research Project 1.	W	8 credits	4A				
636-0507-00 A	•		mn Semester	4 hrs	by appt			S. Panke, Y. Benenson, J. Stelling
701-1703-00L	<b>Diseases</b> Number of participants limited to 35.	W	3 credits	2G				
	Waiting list will be deleted October 3rd, 2021.							
701-1703-00 G	Evolutionary Medicine for Infectious Diseases	3		2 hrs	Fri	10-12	HG E41	A. Hall
752-3105-00L	Physiology Guided Food Structure and Name Process Design	W	3 credits	2V				
752-3105-00 V	Physiology Guided Food Structure and Proce Irregular course. Exact dates and time are list 'Lehrveranstaltungen/ courses. The dates are course "Selected Topics in Food Technology	ted at e adjust	ted with the	2 hrs	Thu	10-12 14-16	HG E33.3 LFV E41	E. J. Windhab, M. Devezeaux de Lavergne, S. Michlig Gonzalez, T. Wooster
752-4009-00L	Molecular Biology of Foodborne Nathogens	W	3 credits	2V				
752-4009-00 V	Molecular Biology of Foodborne Pathogens			2 hrs	Thu	10-12	HG E1.2	<b>M. Loessner</b> , M. Schmelcher, M. Schuppler, E. Wetter Slack
752-6101-00L	Dietary Etiologies of Chronic Disease	w	3 credits	2V				
752-6101-00 V	Dietary Etiologies of Chronic Disease			2 hrs	Thu	08-10	CAB G11	M. B. Zimmermann
<b>752-6105-00L</b> 752-6105-00 V	<b>Epidemiology and Prevention</b> Epidemiology and Prevention	W	3 credits	<b>2V</b> 2 hrs	Wed	12-14	CHN C14	M. Puhan, R. Heusser
-	Neurosciences							
►► Compu	Isory Courses							
Number	Title	Туре	ECTS	Hours				Lecturers
376-0300-00L	Translational Science for Health and Medicine	0	3 credits	2G				
376-0300-00 G	Translational Science for Health and Medicine	e <b>■</b>		2 hrs	Fri	10-12	IFW A36	J. Goldhahn, C. Wolfrum
376-0302-01L	GCP Basic Course (Modules 1 and 2) Only for Health Sciences and Technology MSc.	0	1 credit	1G				

16s hrs

G. Senti

Courses for German speaking students: Please select courses

http://www.ctc-

zkf.usz.ch/forschung/gcp-kurse/seiten/gcp-basiskurse.aspx New dates are published quaterly.

For accreditation of TRREE online modules (1, 2.1, 3.1, 3.2, CH-Supplement) certificates (CHF 50.00) have to be handed in to claudia.fila@usz.ch.

Course for English speaking students only: Registration required: Email: roland.mueller@hest.ethz.ch

Dates 2022 for English speaking students: GCP-Module 1: 2.6.2022, Module 2: 9.6.2022

#### **▶▶** Elective Courses

Number	Title	Type	ECTS	Hours				Lecturers
376-1305-00L	Development of the Nervous System (University of Zurich) No enrolment to this course at ETH Zurich. Book the corresponding module directly at UZH as an incoming student. UZH Module Code: BIO344	W	3 credits	2V				
	Mind the enrolment deadlines at UZH: https://www.uzh.ch/cmsssl/en/studies/appli cation/deadlines.html							
376-1305-00 V	Development of the Nervous System (University of Zurich**	rsity of I	Zurich)	2 hrs	Mon	08-10	I15 G40	University lecturers
	One hour of self-study per week is included	in the c	ourse.					
376-1305-01L	Neural Systems for Sensory, Motor and Higher Brain Functions Information for UZH students: Enrolment to this course unit only possible at ETH. No enrolment to module BIO343 at UZH. Please mind the ETH enrolment deadlines for UZH students: https://www.ethz.ch/en/studies/non-degree-courses/special-students/special-students-university-of-zurich.html	W	3 credits	2V				
376-1305-01 V	Neural Systems for Sensory, Motor and Hig **together with University of Zurich**	her Brai	n Functions	2 hrs	Mon 20.09.	10-12 10-12	I15 G40 I15 G40	G. Schratt, J. Bohacek, L. Filli W. von der Behrens, further lecturers
	BE AWARE: Lecture starts already on 20.09	9.2021.						locturors
	4 hours of self-study (preparation and post- included in the course.	study) p	er week are					
551-0309-00L	Concepts in Modern Genetics Information for UZH students: Enrolment to this course unit only possible at ETH. No enrolment to module BIO348 at UZH.	W	6 credits	4V				
	Please mind the ETH enrolment deadlines for UZH students: https://www.ethz.ch/en/studies/non-degree-courses/special-students/special-students-university-of-zurich.html							
551-0309-00 V	Concepts in Modern Genetics **gemeinsam mit der Universität Zürich**			4 hrs	Mon Tue	12-14 08-10	HG E5 I15 G60	Y. Barral, D. Bopp, A. Hajnal, O. Voinnet
<b>227-0447-00L</b> 227-0447-00 V	Image Analysis and Computer Vision Image Analysis and Computer Vision	W	6 credits	<b>3V+1U</b> 3 hrs	Thu	14-17	HG F1	<b>L. Van Gool</b> , E. Konukoglu, F. Yu
227-0447-00 U	Image Analysis and Computer Vision			1 hrs	Thu	17-19	ETZ D61.1 ETZ D61.2	<b>L. Van Gool</b> , E. Konukoglu, F. Yu
227-1037-00L	Introduction to Neuroinformatics	W	6 credits	2V+1U+	1 Δ			
	Introduction to Neuroinformatics	••	Joiouna	2 hrs	Thu	08-10	NO C60	V. Mante, M. Cook, B. Grewe, G. Indiveri, D. Kiper, W. von der Behrens
227-1037-00 U	Introduction to Neuroinformatics			1 hrs	Thu	10-11	NO C60	V. Mante, M. Cook, B. Grewe, G. Indiveri, D. Kiper, W. von der Behrens
227-1037-00 A	Introduction to Neuroinformatics Self-study, no fixed presence required.			1 hrs				V. Mante

	Neuroscience (University of Zurich) No enrolment to this course at ETH Zurich. Book the corresponding module directly at UZH as an incoming student. UZH Module Code: INI410							
	Mind the enrolment deadlines at UZH: https://www.uzh.ch/cmsssl/en/studies/appli cation/deadlines.html							
227-1047-00 V	Consciousness: From Philosophy to Neuros Zurich)  **Course at University of Zurich**	science	(University of	2 hrs	Thu	17-19	UNI ZH.	D. Kiper
327-2125-00L	Microscopy Training SEM I - Introduction to SEM The number of participants is limited. In case of overbooking, the course will be repeated once. All registrations will be recorded on the waiting list.	w	2 credits	3P				
	For PhD students, postdocs and others, a fee will be charged (http://www.scopem.ethz.ch/education/MTP.html).	,						
	All applicants must additionally register on this form: (link will follow) The selected applicants will be contacted and asked for confirmation a few weeks before the course date.							
327-2125-00 P	Microscopy Training SEM I - Introduction to This block course will take place during 5 fu October 2529., 2021. Lectures will be held practical exercises in rooms of ScopeM.	ll days (		35s hrs	25.10. 26.10. 27.10. 29.10.	09-12	HIT F11.1 HIT F11.1 HIT F11.1 HIT F11.1	P. Zeng, A. G. Bittermann, S. Gerstl, L. Grafulha Morales, K. Kunze, J. Reuteler
	The repetition (if needed) of this course will 28., 2022.	take pla	ace on Jan 24	•				
327-2126-00L	Microscopy Training TEM I - Introduction to TEM  The number of participants is limited. In case of overbooking, the course will be repeated once. All registrations will be recorded on the waiting list.	W	2 credits	3P				
	For PhD students, postdocs and others, a fee will be charged (http://www.scopem.ethz.ch/education/MTP.html).	,						
327-2126-00 P	All applicants must additionally register on this form: (link will follow) The selected applicants will be contacted and asked for confirmation a few weeks before the course date.  Microscopy Training TEM I - Introduction to	TFM		35s hrs	01.11.	09-12	HIT F11.1	<b>P. Zeng</b> , E. J. Barthazy Meier,
027 2120 001	This block course will take place during 5 fu November 15., 2021. Lectures will be held practical exercises in rooms of ScopeM.	ll days ( ' in the s	seminar room,	3031113	02.11. 03.11. 05.11.	09-12 09-12	HIT F11.1 HIT F11.1 HIT F11.1	A. G. Bittermann, F. Gramm, A. Sologubenko, M. Willinger
	The repetition (if needed) of this course will 29.1103.12.2021.	таке ріа	ace from					
376-0221-00L	Methods and Concepts in Human Systems Neuroscience and Motor Control	W	4 credits	3P				
376-0221-00 P	Number of participants limited to 12  Methods and Concepts in Human Systems  Motor Control ■	Neuroso	cience and	3 hrs	Mon	10-13	HPS D29	M. Schrafl-Altermatt
376-1151-00L	Translation of Basic Research Findings from Genetics and Molecular Mechanisms of Aging Number of participants limited to 30.	W	3 credits	2V				
376-1151-00 V				2 hrs				to be announced
	Human Factors I Human Factors I	W	3 credits	<b>2V</b> 2 hrs	Tue	14-16	HG G3	M. Menozzi Jäckli, R. Huang, M. Siegrist
376-1179-00L	Applications of Cybernetics in	W	1 credit	1U				
376-1179-00 U	Ergonomics Applications of Cybernetics in Ergonomics			1 hrs	Wed/2v	<i>i</i> 14-16	HG E21	M. Menozzi Jäckli, Y Y. Hedinger Huang, R. Huang
376-1414-00L	Current Topics in Brain Research (HS)	W	1 credit	1.5K				

376-1414-00 K	Current Topics in Brain Research (HS)  **together with University of Zurich** Morer information at: https://studentservices.uzh.ch/uzh/anonyllanguage=DE&sap- ui-language=DE#/details/2021/003/SM/50		•	1.5 hrs	Mon	12-14	l35 F32	I. Mansuy, C. Földy, F. Helmchen, S. Jessberger, T. Karayannis
376-1504-00L	Physical Human Robot Interaction (pHRI)	W	4 credits	2V+2U				
376-1504-00 V	Physical Human-Robot Interaction (pHRI) To apply for the course, please prepare a (max. one A4 page). Please include in the program and semester you are in. Please like to attend the course and what you excourse. The letter should be sent to Jan L (jan.dittli@hest.ethz.ch) by 05.09.2021.	letter of e letter w describ pect to le	rhich study e why you wou		Thu	08-10	NO E11	O. Lambercy
376-1504-00 U	Physical Human-Robot Interaction (pHRI)	•		2 hrs	Thu	10-12	NO E11	O. Lambercy
376-1723-00L	Big Data Analysis in Biomedical Research	W	4 credits	2V+2U				
376-1723-00 V	Big Data Analysis in Biomedical Research	า ■		2 hrs	Fri	08-10	ETZ F91	E. Araldi, M. Ristow
376-1723-00 U	Big Data Analysis in Biomedical Research	า ■		2 hrs	Wed 24.09.	16-18 10-14	ETZ F91 ETZ F91	E. Araldi, M. Ristow
551-0317-00L	Immunology I	w	3 credits	2V				
551-0317-00 V	Immunology I			2 hrs	Tue	08-10	HG G3	M. Kopf, A. Oxenius
551-0319-00L	Cellular Biochemistry (Part I)	w	3 credits	2V				
551-0319-00 V	Cellular Biochemistry (Part I)			2 hrs	Mon	14-16	HCI J3	U. Kutay, G. Neurohr,M. Peter, K. Weis, I. Zemp
752-4009-00L	Molecular Biology of Foodborne Pathogens	W	3 credits	2V				
752-4009-00 V	Molecular Biology of Foodborne Pathoger	ns		2 hrs	Thu	10-12	HG E1.2	M. Loessner, M. Schmelcher, M. Schuppler, E. Wetter Slack
752-6403-00L	Nutrition and Performance	W	2 credits	2V				
752-6403-00 V	Nutrition and Performance			2 hrs	Thu	14-16	ML E12	S. Mettler, M. B. Zimmermann

### ► Practical Training

Practical Training (foirmer name: Practical Training and Semester project) only for majors mentioned below:
-Human Movement Science and Sport
-Medical Technology
-Molecular Health Sciences
-Neurosciences

Number	Title	Type	ECTS	Hours	Lecturers
376-2110-00L	Practical Training 12 Weeks (Job or Research Oriented)	W	15 credits		
376-2110-00 A	Practical Training 12 Weeks (Job or Researmin. 12 weeks full-time equivalent (12x40h)		nted) ■		Supervisors
376-2111-00L	Practical Training 8 Weeks (Job or Research Oriented)	W	10 credits		
376-2111-00 A	Practical Training 8 Weeks (Job or Research min. 8 weeks full-time equivalent (8x40h)	h Orient	red) ■		Supervisors
376-2112-00L	Practical Training 4 Weeks (Job or Research Oriented)	W	5 credits		
376-2112-00 A	Practical Training 4 Weeks (Job or Research min. 4 weeks full-time equivalent (4x40h)	h Orient	ed) ■		Supervisors
► GESS Sc	ience in Perspective				
	see Science in Perspective: Language Courses ETH/UZH				
	see Science in Perspective:Type A: Enhancement of Reflection Capability				
	Recommended Science in Perspective (Type B) for D-HEST.				

### ► Research Internship

Number	Title	Туре	ECTS	Hours	Lecturers
376-2100-00L	Research Internship	0	15 credits		
376-2100-00 A	Research Internship ■				Supervisors
	min. 12 weeks full-time equivalent (12x40h,	)			

### ► Master's Thesis

Number	Title	Туре	ECTS	Hours	Lecturers
376-2000-00L	Master's Thesis Only students fulfilling the following criteria can start with their master thesis: a. successful completion of the bachelor programme; b. fulfillment of any additional requirements	0	30 credits	71D	

376-2000-00 D Master's Thesis ■ 1000s hrs Supervisors

### ► Course Units for Additional Admission Requirements

The courses below are only for MSc students with additional admission requirements.

## A A A A A A A A A A A A A A A A A A	Mathematics I & II  Enrolment ONLY for MSc students with a decree declaring this course unit as an additional admission requirement.  Any other students (e.g. incoming exchange students, doctoral students) CANNOT enrol for this course unit.  Mathematics I & II Self-study course. No presence required.  Movement and Sport Biomechanics Enrolment ONLY for MSc students with a decree declaring this course unit as an additional admission requirement.  Any other students (e.g. incoming exchange students, doctoral students) CANNOT enrol for this course!  Movement and Sport Biomechanics	E-	13 credits 4 credits	28R 390s hrs 3R	L. Halbeisen
406-0253-AA R M S S 376-0203-AAL M E dd Aa A A A A A A A A A A A A A A A A A	exchange students, doctoral students) CANNOT enrol for this course unit. Mathematics I & II Self-study course. No presence required.  Movement and Sport Biomechanics Enrolment ONLY for MSc students with a decree declaring this course unit as an additional admission requirement.  Any other students (e.g. incoming exchange students, doctoral students) CANNOT enrol for this course!	E-	4 credits		L. Halbeisen
S 376-0203-AAL ME do and A E C C 376-0203-AA R M S 406-0062-AAL P E do and A e C C 376-0203-AA R M S 376-0203-AA R M S 60 A A 60 C C C C C C C C C C C C C	Self-study course. No presence required.  Movement and Sport Biomechanics Enrolment ONLY for MSc students with a decree declaring this course unit as an additional admission requirement.  Any other students (e.g. incoming exchange students, doctoral students) CANNOT enrol for this course!	E-	4 credits		L. Halbeisen
## A R M R M R M R M R M R M R M R M R M R	Enrolment ONLY for MSc students with a decree declaring this course unit as an additional admission requirement.  Any other students (e.g. incoming exchange students, doctoral students) CANNOT enrol for this course!	E-	4 credits	3R	
876-0203-AA R M S S 406-0062-AAL P E d d au A e C C 406-0062-AA R P S S 376-1714-AAL B E d d d au A A B E d d au A B E	exchange students, doctoral students) CANNOT enrol for this course!				
S 406-0062-AAL P E do ac A A C C 406-0062-AA R P S 376-1714-AAL B E do	Movement and Sport Biomechanics				
E do an A e: C C 406-0062-AA R P S S 376-1714-AAL B E do	Self-study course. No presence required.			42s hrs	<b>B. Taylor</b> , N. Singh
6.2 C C C C C C C C C C C C C C C C C C C	Physics I Enrolment ONLY for MSc students with a decree declaring this course unit as an additional admission requirement.	E-	5 credits	11R	
S 376-1714-AAL B E do	Any other students (e.g. incoming exchange students, doctoral students) CANNOT enrol for this course unit.				
E de	Physics I Self-study course. No presence required.			150s hrs	A. Vaterlaus
a	Biocompatible Materials Enrolment ONLY for MSc students with a decree declaring this course unit as an additional admission requirement.	E-	4 credits	9R	
e	Any other students (e.g. incoming exchange students, doctoral students) CANNOT enrol for this course unit.				
	Biocompatible Materials Self-study course. No presence required.			120s hrs	<b>K. Maniura</b> , M. Zenobi-Wong
Health Sciences	es and Technology Master - Key for Ty	/pe			
O Co	Compulsory			E-	Recommended, not eligible for credits
	ligible for credits and recommended			Z	Courses outside the curriculum
N Eli	ligible for credits			Dr	Suitable for doctorate
Key for Hours					
V lec	ecture			Р	practical/laboratory course
	ecture with exercise			A	independent project
U exe	xercise			D	diploma thesis
S ser	eminar			R	revision course / private study
K col	olloquium				·
ECTS Eu	·	System			

# **High-Energy Physics (Joint Master with IP Paris)**

# ► Core Subjects

# **▶▶** Core Courses in Theoretical Physics

Number	Title 1	Гуре	ECTS	Hours				Lecturers
2-0843-00L	Quantum Field Theory I Special Students UZH must book the module PHY551 directly at UZH.	N	10 credits	4V+2U				
43-00 V	Quantum Field Theory I **together with University of Zurich**			4 hrs	Mon Thu	14-16 10-12	HPV G4 HPV G5	G. M. Graf
	Lecture starts on 23 September 2021.							
843-00 U	Quantum Field Theory I **together with University of Zurich**			2 hrs	Thu	14-16	HCP E47.4 HIL B21 HIL D10.2	G. M. Graf
	Thu 14-16 or Fri 10-12						HIT H42	
	Exercises start in the second week of the sen	nester			Fri	10-12	HIT J51 HIT J53 HIT K52	

# **▶▶** Core Courses in Experimental Physics

module PHY511 directly at UZH.

Number	Title	Туре	ECTS	Hours				Lecturers
402-0891-00L	Phenomenology of Particle Physics I	W	10 credits	3V+2U				
402-0891-00 V	Phenomenology of Particle Physics I			3 hrs	Mon Tue	12-14 13-14	HPV G5 HPV G5	P. Crivelli, A. de Cosa
402-0891-00 U	Phenomenology of Particle Physics I Tue 14-16 or Wed 8-10			2 hrs	Tue	14-16	HCP E47.1 HCP E47.2	P. Crivelli, A. de Cosa
					Wed	08-10	HIT K51 HPT C103	

### ► Electives

# ▶▶ Optional Subjects in Physics

Number	Title	Type	ECTS	Hours				Lecturers
402-0715-00L	Low Energy Particle Physics	w	6 credits	2V+1U				
402-0715-00 V	Low Energy Particle Physics Online lecture: This lecture will primarily to Reserved rooms will remain blocked on co follow the course from there.			2 hrs	Mon	09-11	HIT F31.1	A. Soter, P. A. Schmidt- Wellenburg
402-0715-00 U	Low Energy Particle Physics Online exercises: Will primarily take place rooms will remain blocked on campus for exercises from there.			1 hrs	Mon	11-12	HIT F31.1	A. Soter, P. A. Schmidt- Wellenburg
402-0725-00L	Experimental Methods and Instruments of Particle Physics Special Students UZH must book the module PHY461 directly at UZH.	s W	6 credits	3V+1U				
402-0725-00 V	Experimental Methods and Instruments of **together with University of Zurich**	Particle	Physics	3 hrs	Wed Thu	14-16 13-14	UNI ZH. UNI ZH.	<ul><li>U. Langenegger,</li><li>T. Schietinger, University lecturers</li></ul>
402-0725-00 U	Experimental Methods and Instruments of **together with University of Zurich**	Particle	Physics	1 hrs	Thu	14-15	UNI ZH.	<ul><li>U. Langenegger,</li><li>T. Schietinger, University lecturers</li></ul>
402-0713-00L	Astro-Particle Physics I	w	6 credits	2V+1U				
402-0713-00 V	Astro-Particle Physics I Online event: Will primarily take place onli remain blocked on campus for students to there.				Thu	14-16	HIT F32	A. Biland
402-0713-00 U	Astro-Particle Physics I or by appointment			1 hrs	Thu	16-17	HIT F32 HIT H51	A. Biland
	Online event: Will primarily take place onli remain blocked on campus for students to there.							
402-0833-00L	Particle Physics in the Early Universe	W	6 credits	2V+1U				
402-0833-00 V	Particle Physics in the Early Universe Does not take place this semester.			2 hrs				
402-0833-00 U	Particle Physics in the Early Universe Does not take place this semester.			1 hrs				
402-0767-00L	Neutrino Physics	w	6 credits	2V+1U				
402-0767-00 V	Neutrino Physics			2 hrs	Tue	14-16	HIL C10.2	A. Rubbia, D. Sgalaberna
402-0767-00 U	Neutrino Physics			1 hrs	Tue	16-17	HIT F31.1	A. Rubbia, D. Sgalaberna
402-0830-00L	General Relativity Special Students UZH must book the	W	10 credits	4V+2U				

401-3531-00L	At most one of the three course units	W	10 credits	4V+1U				
Number		Туре	ECTS 10 credits	Hours				Lecturers
	Il Subjects in Mathematics	T	ECTE	Uarra				Lastinara
NA Ontions	https://www.physik.uzh.ch/en/teaching/PHY5	78.htm	I					
	**together with University of Zurich**  More information at:						πιι ΝθΖ	
402-0845-61 U	https://www.physik.uzh.ch/en/teaching/PHY5 Effective Field Theories for Particle Physics	78.htm	I	1 hrs	Tue	16-17	HCI H8.1 HIT K52	P. Stoffer
	**together with University of Zurich**  More information at:							
402-0845-61 V	module PHY578 directly at UZH. Effective Field Theories for Particle Physics			2 hrs	Tue	14-16	HCI H8.1	P. Stoffer
402-0845-61L	Effective Field Theories for Particle Physics Special Students UZH must book the	W	6 credits	2V+1U				
402-0945 641	in the autumn semester.			21/1411				
402-0886-00 U	Quantum Chromodynamics **together with University of Zurich** Former "Introduction to Quantum Chromodyn	namics'	'. from HS21	1 hrs	Mon	12-13	HCP E47.1	T. K. Gehrmann
	Former "Introduction to Quantum Chromodyn in the autumn semester.	namics'	, from HS21					
402-0886-00 V	module PHY564 directly at UZH.  Quantum Chromodynamics  **together with University of Zurich**			2 hrs	Mon	10-12	HCP E47.1	T. K. Gehrmann
402-0886-00L	Special Students UZH must book the	W	6 credits	2V+1U				
<del>-</del> 02-0040-00 U	Does not take place this semester. **together with University of Zurich**	סטויס		11115				OTHER STATE OF THE
102 <u>-</u> 0845.00 I I	Does not take place this semester. **together with University of Zurich** Scattering Amplitudes in Quantum Field Theo	ories		1 hrs				University lecturers
402-0845-80 V	module PHY577 directly at UZH. Scattering Amplitudes in Quantum Field Theo	ories		2 hrs				University lecturers
402-0845-80L	Scattering Amplitudes in Quantum Field \ Theories Special Students UZH must book the	٧V	6 credits	2V+1U				
	<u> </u>		C and dir	1 hrs	Wed	10-11	HCI J4 HPL D32	J. Brödel
	Introduction to String Theory Introduction to String Theory			2 hrs	Tue	10-12 10-11	HPV G5	J. Brödel
402-0897-00L	3,	w	6 credits	2V+1U				
	Block course							
3_ 330. 00 0	Does not take place this semester. **together with University of Zurich**							lecturers
	QCD: Theory and Experiment  QCD: Theory and Experiment	W	3 credits	<b>3G</b> 40s hrs				G. Dissertori, University
	Particle Accelerator Physics and Modeling I			1 hrs	Fri	13-14	HIT J51	A. Adelmann
	Particle Accelerator Physics and Modeling I			2 hrs	Fri	10-12	HIT J52	A. Adelmann
402-0777-00L	Particle Accelerator Physics and Modeling I	W	6 credits	2V+1U				
400 0777 001				27.411	Fri	12-14	HCI D2 HCI D8 HIL F10.3 HIT J52	
402-0830-00 U	General Relativity **together with University of Zurich**			2 hrs	Thu	16-18	HIT F31.1 HIT F31.2 HIT J53 HIT K52	C. Anastasiou
	Online lecture: This lecture will primarily take Reserved rooms will remain blocked on camp follow the course from there."							
					Thu	12-14	HPV G5	

Number	Title	Type	ECTS	Hours	Lecturers
401-3531-00L	Differential Geometry I At most one of the three course units (Bachelor Core Courses) 401-3461-00L Functional Analysis I 401-3531-00L Differential Geometry I 401-3601-00L Probability Theory can be recognised for the Master's degree in Mathematics or Applied Mathematics. In this case, you cannot change the category assignment by yourself in myStudies but must take contact with the Study Administration Office (www.math.ethz.ch/studiensekretariat) after having received the credits.		10 credits	4V+1U	

401-3531-00 V 401-3531-00 U	Differential Geometry I			4 hrs 1 hrs	Mon Wed Thu	14-16 14-16 13-14	ML H44 HG E5 HG E22	J. Serra J. Serra
.0. 000. 00 0	Groups are selected in myStudies. Thu 13-14 or Thu 16-17 or Fri 13-14			0	Fri	16-17 13-14	IFW C31 HG F3	
401-3461-00L	Functional Analysis I At most one of the three course units (Bachelor Core Courses) 401-3461-00L Functional Analysis I 401-3531-00L Differential Geometry I 401-3601-00L Probability Theory can be recognised for the Master's degree in Mathematics or Applied Mathematics. In this case, you cannot change the category assignment by yourself in myStudies but must take contact with the Study Administration Office (www.math.ethz.ch/studiensekretariat) after having received the credits.	w	10 credits	4V+1U				
401-3461-00 V	Functional Analysis I			4 hrs	Mon Thu	10-12 14-16	HG D7.1 HG G5	J. Teichmann
401-3461-00 U	Functional Analysis I Groups are selected in myStudies.			1 hrs	Mon	09-10	HG G26.1 HG G26.5 ML J34.1	J. Teichmann

# ► Proseminars and Semester Papers To organise a semester project take contact with one of the instructors.

Number	Title	Type	ECTS	Hours				Lecturers
402-0717-MSL	Particle Physics at CERN	w	8 credits	15P				
	Particle Physics at CERN ■ Permission from lecturers required for all s			210s hrs	by appt	•		W. Lustermann
402-0719-MSL	Particle Physics at PSI (Paul Scherrer Institute)	W	8 credits	15P				
402-0719-00 P	Particle Physics at PSI (Paul Scherrer Insti Permission from lecturers required for all s Usually three weeks during summer semes on available PSI beam times. The exact da during FS. Please consult the lecturer.	tudents ster brea	, ,	210s hrs				A. Soter, A. S. Antognini
402-0210-MSL	Proseminar Theoretical Physics The number of participants is limited.	W	8 credits	<b>4</b> S				
402-0210-MS S	Proseminar Theoretical Physics (Physics Naster) ■ Permission from lecturers required for all s First meeting will be communicated. During this meeting, the list of student par finalised, topics and tutors will be assigned Since Proseminar presentations during the semester are often thematically linked, we deregistrations from the module be done b of the semester. No shows after this will re grade.	tudents ticipants l. course courses suggest y the firs	will be of the that all t three weeks	4 hrs	Mon	08-12	HIT F32 HIT J52	Supervisors
102_0217 MCI	Semester Project in Theoretical Physics	w	8 credits	15A				
402-02 i / -IVIOL								
	Semester Project in Theoretical Physics Permission from lecturers required for all s	tudents		210s hrs	by appt	•		Supervisors
402-0217-MS A	Semester Project in Theoretical Physics ■ Permission from lecturers required for all s	tudents <b>W</b>	8 credits	210s hrs 3S	by appt			Supervisors
402-0217-MS A 402-0740-00L	Semester Project in Theoretical Physics  Permission from lecturers required for all s  Experimental Foundations of Particle	w	8 credits		by appt	09-12	HCI E2	Supervisors  M. Backhaus, M. Donegà
402-0217-MS A 402-0740-00L 402-0740-00 S	Semester Project in Theoretical Physics ■ Permission from lecturers required for all s Experimental Foundations of Particle Physics	w	8 credits	3S			HCI E2	<u>'</u>
402-0217-MS A 402-0740-00L 402-0740-00 S 402-0215-MSL	Semester Project in Theoretical Physics  Permission from lecturers required for all s  Experimental Foundations of Particle  Physics  Experimental Foundations of Particle Physics  Experimental Semester Project in	w ics w (Physics	8 credits	3S 3 hrs 15A	Tue	09-12	HCI E2	<u>'</u>
402-0217-MS A 402-0740-00L 402-0740-00 S 402-0215-MSL 402-0215-MS A	Semester Project in Theoretical Physics  Permission from lecturers required for all s  Experimental Foundations of Particle  Physics  Experimental Foundations of Particle Physics  Experimental Semester Project in  Physics  Experimental Semester Project in Physics  Experimental Physics  Experimenta	w ics w (Physics	8 credits	3S 3 hrs 15A	Tue	09-12	HCI E2	M. Backhaus, M. Donegà
402-0217-MS A 402-0740-00L 402-0740-00 S 402-0215-MSL 402-0215-MS A	Semester Project in Theoretical Physics  Permission from lecturers required for all s  Experimental Foundations of Particle  Physics Experimental Foundations of Particle Phys  Experimental Semester Project in  Physics Experimental Semester Project in Physics Experimental Semester Project in Physics Energy Physics Master)  Permission from lecturers required for all s	w ics w (Physics	8 credits	3S 3 hrs 15A	Tue	09-12	HCI E2	M. Backhaus, M. Donegà
402-0217-MS A 402-0740-00L 402-0740-00 S 402-0215-MSL 402-0215-MS A	Semester Project in Theoretical Physics Permission from lecturers required for all s  Experimental Foundations of Particle Physics Experimental Foundations of Particle Phys  Experimental Semester Project in Physics Experimental Semester Project in Physics Experimental Semester Project in Physics Energy Physics Master) Permission from lecturers required for all s  ience in Perspective  see GESS Science in Perspective:	W ics W (Physics	8 credits	3S 3 hrs 15A	Tue	09-12	HCI E2	M. Backhaus, M. Donegà

#### ► Master's Thesis

Number	Title	Type	ECTS	Hours	Lecturers
402-2000-00L	Scientific Works in Physics Target audience: Master students who cannot document to have received an adequate training in working scientifically.	0	0 credits		

Directive

https://www.ethz.ch/content/dam/ethz/com mon/docs/weisungssammlung/filesen/declaration-of-originality.pdf

402-2000-00 V Scientific Works in Physics

The lecture will be performed twice: on 28 October 2021 und 9

December 2021 from 16:45-18:30. Only one lecture has to be

0

attended.

Master's Thesis
Further information: 462-0900-00L

www.phys.ethz.ch/phys/education/master/

msc-theses

462-0900-00 D Master's Thesis (High Energy Physics) ■ Permission from lecturers required for all students

2s hrs

57D

800s hrs by appt.

C. Eichler

Supervisors

High Engray Physics	Loint Mactor with	ID Borio) Koy for	Tymo

night-Ellergy	ngir-chergy Friysics (John Master With IF Faris) - Key for Type								
0	Compulsory	E-	Recommended, not eligible for credits						
W+	Eligible for credits and recommended	Z	Courses outside the curriculum						
W	Eligible for credits	Dr	Suitable for doctorate						

30 credits

#### **Key for Hours**

V	lecture	P	practical/laboratory course	
G	lecture with exercise	A	independent project	
U	exercise	D	diploma thesis	
S	seminar	R	revision course / private study	
K	colloquium			

**ECTS** European Credit Transfer and Accumulation System

Special students and auditors need special permission from the lecturers.

# **Human Medicine Bachelor**

### ► First Year Examinations

### ▶▶ First Year Examination Block 1

	Title	Type	ECTS	Hours				Lecturers
377-0105-00L	Musculoskeletal System Only for Human Medicine BSc	0	5 credits	5V				
377-0105-00 V	Bewegungsapparat ■ Findet in der 1. Semesterhälfte statt (29.09	012.11.2	2021)!	5 hrs	Mon/1 Tue/1	13-17 08-10 14-16	I17 M5 I17 M5 HCI J3	J. Goldhahn, O. Distler, C. Maake, M. Steinwachs, R. Stocker
	Die Vorlesung findet am 22.10.21 ausnahr statt.	nsweise	im HPH G 1		Wed/1 Fri/1 22.10.	16-18 14-18 14-18	HG D1.2 HCI G3 HPH G1	rt. Glocker
377-0107-00L	Nervous System Only for Human Medicine BSc	0	5 credits	5V				
377-0107-00 V	Nervensystem ■ Findet in der 2. Semesterhälfte statt (15.11	'24.12.2	2021).	5 hrs	Mon/2 Tue/2 Wed/2 Fri/2 23.12. 24.12.	13-17 08-10 14-16 16-18 14-18 12-14 08-11	117 M5 117 M5 HCI J3 HG D1.2 HCI G3 HIL E3 HIL E3	D. P. Wolfer, I. Amrein, J. Bohacek, D. Burdakov, G. Schratt, L. Slomianka, O. Ullrich, N. Wenderoth, further lecturers
551-0033-00L	Molecular Genetics and Cell Biology Only for Health Sciences and Technology BSc and Human Medicine BSc.	0	5 credits	5G				
551-0033-00 G	Molekulare Genetik und Zellbiologie Vorlesung mit Übungen: Mi 14-16 h Vorlesung: Do 10-12 h Übungen: Fr 11-12 h			5 hrs	Wed Thu Fri	14-16 10-12 11-12	HG E1.2 HG E7 HPH G1 HCI D8 HCI E2 HIL B21 HIL D10.2 HIT K51 HPL D32 HPL D34	<b>J. Corn</b> , F. Allain, K. Köhlei
529-5000-00L	Chemistry (for Medical Students) Only for Human Medicine BSc	0	4 credits	3V+1U				
529-5000-00 V	Chemie (für Mediziner)			3 hrs	Tue/2w Wed	12-14 08-10	HIL E6 HG D1.2	S. Wolfrum
529-5000-00 U	Chemie (für Mediziner) Groups are selected in myStudies.			1 hrs	Fri/2w	08-10	HIL D60.1 HIL E10.1 HIL F10.3 HIT F31.2 HIT H51 HIT J52 HIT J53 HIT K51	S. Wolfrum
►► First Ye	ar Examination Block 2							
	ar Examination Block 2	Туре	ECTS	Hours				Lecturers
Number		Туре	ECTS 4 credits	Hours 3V+1U				Lecturers
Number 401-0281-00L	Title  Mathematics I Only for Human Medicine BSc. Mathematik I Der Kurs "Mathematik I" beginnt erst in der Semesterwoche.	<b>O</b>	4 credits		Wed Thu/2w	10-12 08-10	HG D1.2 HIL E8	Lecturers  L. Keller
Number 401-0281-00L 401-0281-00 V	Title  Mathematics I Only for Human Medicine BSc. Mathematik I Der Kurs "Mathematik I" beginnt erst in der Semesterwoche. Vorlesungsbeginn am Donnerstag um 07:4	O zweiten	4 credits	3V+1U		08-10	-	
Number 401-0281-00L 401-0281-00 V 401-0281-00 U	Title  Mathematics I Only for Human Medicine BSc. Mathematik I Der Kurs "Mathematik I" beginnt erst in der Semesterwoche. Vorlesungsbeginn am Donnerstag um 07:4 Mathematik I Groups are selected in myStudies. Zusätzlich ist ab der dritten Semesterwoch	O zweiten	4 credits	<b>3V+1U</b> 3 hrs	Thu/2w	08-10	HIL E8 HCI E8 HCI J8 HIT H42	L. Keller
Number 401-0281-00L 401-0281-00 V 401-0281-00 U ► Additiona	Mathematics I Only for Human Medicine BSc. Mathematik I Der Kurs "Mathematik I" beginnt erst in der Semesterwoche. Vorlesungsbeginn am Donnerstag um 07:4 Mathematik I Groups are selected in myStudies. Zusätzlich ist ab der dritten Semesterwoch geöffnet: Di 18-20 im HCP E 47.2	O zweiten	4 credits	<b>3V+1U</b> 3 hrs	Thu/2w	08-10	HIL E8 HCI E8 HCI J8 HIT H42	L. Keller
Number 401-0281-00L 401-0281-00 V 401-0281-00 U ► Additiona Number	Mathematics I Only for Human Medicine BSc. Mathematik I Der Kurs "Mathematik I" beginnt erst in der Semesterwoche. Vorlesungsbeginn am Donnerstag um 07:4 Mathematik I Groups are selected in myStudies. Zusätzlich ist ab der dritten Semesterwoch geöffnet: Di 18-20 im HCP E 47.2  al First Year Courses  Title Fundamentals of Medicine and the Human Body	O zweiten 15. e das St	4 credits  udyCentre	3V+1U 3 hrs 1 hrs	Thu/2w	08-10	HIL E8 HCI E8 HCI J8 HIT H42	L. Keller L. Keller
Number 401-0281-00L 401-0281-00 V 401-0281-00 U  ► Additiona Number 377-0101-00L	Mathematics I Only for Human Medicine BSc. Mathematik I Der Kurs "Mathematik I" beginnt erst in der Semesterwoche. Vorlesungsbeginn am Donnerstag um 07:4 Mathematik I Groups are selected in myStudies. Zusätzlich ist ab der dritten Semesterwoch geöffnet: Di 18-20 im HCP E 47.2  al First Year Courses  Title Fundamentals of Medicine and the	O zweiten 15. e das St Type O erwoche an die	4 credits  udyCentre  ECTS 2 credits	3V+1U 3 hrs 1 hrs	Thu/2w	08-10	HIL E8 HCI E8 HCI J8 HIT H42	L. Keller L. Keller

377-0111-00 G	Ärztliche Anamnesetechnik ■	2 hrs	Thu	15-17	CA REUM	S. Markun, S. Neuner-Jehle
	1. Vorlesung am 30.09.2021 im Careum Auditorium		07.10.	15-17	ON LINE	
			21.10.	15-17	Ex tern	
	Ort: Careum Auditorium oder Online		04.11.	15-17	ON LINE	
			18.11.	15-17	Ex tern	
	Anwesenheit erforderlich bei Terminen in den Pflegezentren		25.11.	15-17	ON LINE	
	(21.10./18.11./16.12.2021).		09.12.	15-17	ON LINE	
			16.12.	15-17	Ex tern	
	Die genauen Unterrichtszeiten von ONLINE - Veranstaltungen werden von den Dozierenden kommuniziert.					

# ► Courses in Organ Systems and Clinical Practice

### **▶▶** Examination Block A

Number	Title	Type	ECTS	Hours				Lecturers
377-0301-11L	Blood, Immune System Only for Human Medicine BSc	0	4 credits	5V				
377-0301-11 V	Blut, Immunsystem ■ Die Lehrveranstaltung findet vom 20.0922. Lehrsprachen Deutsch und Englisch.	.10.202	1 statt.	5 hrs	Mon/1 Tue/1 Thu/1 Fri	14-18 15-17 13-17 08-10	CHN C14 I17 M5 I03 G85 HCP E47.2 HCP E47.3	<b>F. Sallusto</b> , L. Flatz, G. Guarda, S. Monticelli, A. Theocharides, O. Ullrich, further lecturers
					Fri/1	14-18	HG D1.2	
377-0301-02L	Nutrition and Digestion Only for Human Medicine BSc	0	5 credits	5V				
377-0301-02 V	Ernährung und Verdauung ■ Findet vom 25.10 26.11.2021 statt.			5 hrs	Mon/1 Tue/1 Thu/1 Fri/1	14-18 15-17 13-17 14-18	CHN C14 I17 M5 I03 G85 HG D1.2	W. Langhans, L. Käser, C. Stockmann
377-0301-03L	Endocrinology, Metabolism Only for Human Medicine BSc	0	5 credits	5V				
377-0301-03 V	Endokrinologie, Stoffwechsel ■ Findet vom 29.11 24.12.2021 statt.			5 hrs	Mon/2 Tue/2 Thu/2 Fri/2	14-18 15-17 13-17 14-18	CHN C14 I17 M5 I03 G85 HG D1.2	M. Stoffel, F. Beuschlein, A. Hall, C. Wolfrum

### **▶▶** Examination Block B

Number	Title	Type	ECTS	Hours				Lecturers
402-0083-00L	Physics I	0	4 credits	3V+1U				
402-0083-00 V	Physik I			3 hrs	Wed Fri	15-16 10-12	HPH G1 HPH G1	K. S. Kirch
402-0083-00 U	Physik I			1 hrs	Wed	16-17	HCI D4 HCI H8.1 HCI J8 HIL C10.2 HIL D10.2 HIL F10.3 HIT F31.1 HIT F31.2 HIT H42 HIT H51 HIT J51 HIT K51 HIT K52 HPK D24.2	K. S. Kirch

### ▶▶ Additional Courses 2nd Year

Number	Title	Туре	ECTS	Hours				Lecturers
	Clinical Anatomy Lab Only for Human Medicine BSc	0	5 credits	7P				
377-0311-00 P	Praktikum klinische Anatomie ■			92s hrs	Mon	08-12	UNI ZH.	J. Loffing, O. Ullrich,
	Beginn der Lehrveranstaltung für die 1. Gru	ope am	20.09.2021!		Tue	08-12	UNI ZH.	I. Amrein, G. Colacicco, N. Lier,
					Wed	08-12	UNI ZH.	further lecturers
	Unterricht gemäss Gruppeneinteilung!				Thu	08-12	UNI ZH.	
	Ort: Präpariersäle I 42 G25/33 Universität In	chel			20.09.	08-12	UNI ZH.	
	Anwesenheit wird vorausgesetzt!							

### ▶▶ Additional Courses 3rd Year

Number	Title	Type	ECTS	Hours				Lecturers
377-0503-01L	<b>Geriatrics</b> Only for Human Medicine BSc	0	1 credit	1V				
377-0503-01 V	Später Lebenszyklus ■ Findet vom 03.12 10.12.2021 statt.			1 hrs	Mon/2 Tue/2 Fri/2	14-18 14-18 12-16	IFW A36 ML F36 ML F36	<b>M. Ristow</b> , J. Goldhahn, R. W. Kressig, M. Martin, further lecturers
377-0503-02L	Rheumatology Only for Human Medicine BSc	0	2 credits	2V				
377-0503-02 V	Rheumatologie ■ Findet vom 13.12 21.12.2021 statt.			2 hrs	Mon/2 Tue/2 Fri/2	14-18 14-18 12-16	IFW A36 ML F36 ML F36	O. Distler, S. Blumhardt

377-0503-03L	Paediatrics Only for Human Medicine BSc	0	2 credits	2V				
377-0503-03 V	Früher Lebenszyklus ■ Findet von 16.11.2021 bis 30.11.2021 statt	<u>.</u>		2 hrs	Mon/2 Tue/2 Fri/2	14-18 14-18 12-16	IFW A36 ML F36 ML F36	<b>M. Seiler</b> , C. Berger, A. Möller M. Wolff, further lecturers
	Anwesenheit Impfkurs wird vorausgesetzt.				111/2	12 10	IVIL 1 00	
377-0511-00L	Emergency Medicine	0	2 credits	2P				
377-0511-00 P	Only for Human Medicine BSc  Notfallmedizin ■  Blockwoche vom 20.09 24.09.2021 im T	essin		2 hrs				M. Guigli Poretti, M. Lepori
	Ein Besuch wird auch bei Nichtbestehen vor dringend empfohlen!	on Prüful	ngsblöcken					
377-0509-00L	Pathology	0	6 credits	6G				
377-0509-00 G	Only for Human Medicine BSc Allgemeine Pathologie ■			2 hrs	27.09	08-18	HG D1.1	V. Kölzer, J. Loffing, H. Moch,
	Blockkurs vom 27.09 01.10.2021 Findet online statt (s. Informationen dazu ir Online-Veranstaltung: Diese Lehrveranstal grundsätzlich online statt. Die reservierten Studierenden auf dem Campus bestehen, Lehrveranstaltung dort zu hören.	tung fina Räume l	let		01.10.			N. Rupp, J. Rüschoff, A. Sobottka-Brillout, further lecturers
377-0509-10 G	Spezielle Pathologie ■			4 hrs	Wed	08-12	ML F36	V. Kölzer, T. Cerny, H. Moch
	Findet online statt (s. Informationen dazu ir Online-Veranstaltung: Diese Lehrveranstal grundsätzlich online statt. Die reservierten Studierenden auf dem Campus bestehen, Lehrveranstaltung dort zu hören.	tung fina Räume l	let					
377-0513-00L	Ethics and Legal Aspects and Communication Only for Human Medicine BSc	0	4 credits	2G				
377-0513-00 G	Ethik und Recht und Kommunikation  Beginn: Semesterwoche 3 (ab 8.10.2021)  Anwesenheit bei den Skills Trainings wird v s. Moodle)	orausge/	esetzt (Termine	2 hrs	Fri	08-10	NO C60	<b>S. Goldhahn</b> , T. Krones, B. Tag
377-0515-00L	Patient Journeys	0	3 credits	3G				
377-0515-00 G	Only for Human Medicine BSc Interprofessionelle Versorgungsketten ■ Beginn: Semesterwoche 3 (ab 7.10.2021) Teilnahme an 3 externen Terminen obligate	orisch!		3 hrs	Wed Thu 07.10.	14-16 14-17 14-17	ML F36 ML F36 HG F3	C. Schlegel, E. Kut Bacs, G. Mang, T. Moser, P. Schütz, D. Stämpfli
377-0501-00L	Reproduction	0	4 credits	5V				
377-0501-00 V	Only for Human Medicine BSc Reproduktion ■ Findet vom 15.10 15.11.2021 statt.			5 hrs	Mon Tue Fri	14-18 14-18 12-16	IFW A36 ML F36 ML F36	P. Imesch, G. Hasenberg, B. Leeners, C. Maake
	100% Anwesenheit an den Skilltagen (s.Md 12.11.2021) in Winterthur und Bern werde				FII	12-10	WL F30	
377-0517-00L	Oncology	0	2 credits	2V				
377-0517-00 V	Only for Human Medicine BSc Onkologie ■ Findet vom 04.1012.10.2021 statt.			2 hrs	Mon/1 Tue/1 Fri/1	14-18 14-18 12-16	IFW A36 ML F36 ML F36	A. Alimonti, A. Calcinotto, A. Fontecedro-Curioni, A. Stathis, JP. Theurillat
377-0519-00L	Ultrasound Basics	0	1 credit	1P				,
377-0519-00 P	Only for Human Medicine BSc Ultraschall-Grundkurs ■			1 hrs				M. Rominger
	Beginn: Semesterwoche 3 Wird extern durchgeführt.			11113				m. Kominger
	in Medical Sciences ourses 2nd Year							
Number	Title	Туре	ECTS	Hours				Lecturers
401-0683-00L	Statistics II	O	3 credits	2V+1U				Lecturer 5
401-0683-00 V		-	o oround	2 hrs	Tue	13-15	I17 M5	D. Stekhoven
401-0683-00 U	Statistik II Groups are selected in myStudies.			1 hrs	Wed	17-18	HCI D4 HCI H8.1 HCI J8 HIT J51	D. Stekhoven
►► Core Co	ourses 3rd Year							
Number	Title	Туре	ECTS	Hours				Lecturers
252-0866-00L	Foundations of Computer Science for Human Medicine Only for Human Medicine BSc	0	2 credits	2G				
252-0866-00 G	Only for Human Medicine BSc  Informatikgrundlagen für Humanmedizin ■  Die Vorlesung findet ab der 3. Semesterwo  Vorlesung: Do 8-10  Abgabegespräche: Mo 14-16 oder Do 10-1		t.	2 hrs	Mon Thu	14-16 08-10 10-12	CAB H56 HG D7.2 HG D7.2	HJ. Böckenhauer, D. Komm

377-0523-00L Medical Technology I O 3 credits 4G
Only for Human Medicine BSc

377-0523-00 G Medizintechnik I ■ 4 hrs Mon 08-12 HG D7.2 **O. Lambercy** 

Beginn: Semesterwoche 3 (ab 4.10.2021) **▶▶** Compensatory Courses Title Number Type **ECTS** Hours Lecturers 376-0021-00L **Materials and Mechanics in Medicine** w 4 credits 3G M. Zenobi-Wong, 376-0021-00 G Materials and Mechanics in Medicine 3 hrs Tue 14-16 HG F1 CHN G42 Groups are selected in myStudies. 16-17 J. G. Snedeker lecture: Di 14-16h ETZ E8 exercises: Di 16-17h, start at the secound week af the semester. HG D7.1 ML H41.1 The lecturers will communicate the exact lesson times of the ON LINE ONI INF-exercises 376-1103-00L Frontiers in Nanotechnology 4 credits 4V 376-1103-00 V Frontiers in Nanotechnology 4 hrs Mon 10-12 HCP E47.3 V. Vogel, further lecturers 14-16 HCP E47.3 Fri 376-1714-00L **Biocompatible Materials** W 4 credits **3V** 376-1714-00 V **Biocompatible Materials** 3 hrs Fri 09-12 HG G3 K. Maniura, M. Rottmar, Vorlesung 9-11h M. Zenobi-Wong Uebungen/Gruppenarbeiten 11-12h 376-1651-00L **Clinical and Movement Biomechanics** 4 credits w 3G Number of participants limited to 50. 376-1651-00 G Clinical and Movement Biomechanics 3 hrs Wed 14-17 HIL E9 N. Singh, R. List, P. Schütz 1V 535-0022-001 Computer-Assisted Drug Design w 1 credit 535-0022-00 V Computer-Assisted Drug Design 1 hrs Mon/1 08-10 HCI D8 S. Riniker, G. Landrum 535-0250-00L **Biotransformation of Drugs and** W 1 credit Xenobiotics 535-0250-00 V Biotransformation of Drugs and Xenobiotics 1 hrs Tue/1 08-10 HIL E7 S.-D. Krämer 535-0310-00L **Glycobiology in Drug Development** 1V w 1 credit 535-0310-00 V Glycobiology in Drug Development Wed/1 14-16 HIL E8 V. I. Otto 1 hrs 535-0423-00L **Drug Delivery and Drug Targeting** w 2 credits 1.5V Drug Delivery and Drug Targeting HIL E9 J.-C. Leroux, A. Steinauer 535-0423-00 V 1.5 hrs Tue/1 13-16 551-0307-00L Molecular and Structural Biology I: W 3 credits 2V Protein Structure and Function D-BIOL students are obliged to take part I and part II (next semester) as a two-551-0307-00 V Molecular and Structural Biology I: Protein Structure and Function 2 hrs Mon 14-16 HCI J7 R. Glockshuber, K. Locher, E. Weber-Ban 551-0309-00L w 6 credits 4V **Concepts in Modern Genetics** Information for UZH students. Enrolment to this course unit only possible at ETH. No enrolment to module BIO348 at UZH. Please mind the ETH enrolment deadlines for UZH students: https://www.ethz.ch/en/studies/nondegreecourses/specialstudents/specialstudents-university-of-zurich.html 551-0309-00 V Concepts in Modern Genetics 4 hrs Mon 12-14 HG F5 Y. Barral, D. Bopp, A. Hajnal, \*\*gemeinsam mit der Universität Zürich\*\* Tue 08-10 115 G60 O. Voinnet 551-0313-00L w 3 credits 2V Microbiology (Part I) 551-0313-00 V Microbiology (Part I) 2 hrs 10-12 HCI G7 W.-D. Hardt, L. Eberl, J. Piel, Mon M. Pilhofer 551-0319-00L Cellular Biochemistry (Part I) w 3 credits 2V 551-0319-00 V Cellular Biochemistry (Part I) 2 hrs Mon 14-16 HCL J3 U. Kutay, G. Neurohr, M. Peter, K. Weis, I. Zemp 701-2413-00L Evolutionary Genetics w 6 credits 4V 701-1413-00 V Population and Quantitative Genetics 2 hrs 14-16 HG D7.2 T. Städler, J. Stapley Mon A. Widmer, S. Fior, 701-1413-01 V Ecological Genetics 2 hrs Mon 10-12 ML F36 M. C. Fischer 752-4009-00L Molecular Biology of Foodborne W 3 credits 2V 752-4009-00 V Molecular Biology of Foodborne Pathogens 2 hrs Thu 10-12 HG E1.2 M. Loessner, M. Schmelcher, M. Schuppler, E. Wetter Slack 752-5103-00L w 3 credits 2G **Functional Microorganisms in Foods** 752-5103-00 G Functional Microorganisms in Foods ■ Wed 14-16 HG D7.1 C. Lacroix, A. Geirnaert, 2 hrs Online event: Will primarily take place online. Reserved rooms will A. Greppi remain blocked on campus for students to follow the course from

there

Human	Medicine Bachelor - Key for Type		
0	Compulsory	E-	Recommended, not eligible for credits
W+	Eligible for credits and recommended	Z	Courses outside the curriculum
W	Eligible for credits	Dr	Suitable for doctorate
Key for	Hours		
Key for	Hours		
V	lecture	P	practical/laboratory course
G	lecture with exercise	A	independent project
U	exercise	D	diploma thesis
S	seminar	R	revision course / private study
K	colloquium		

ECTS

European Credit Transfer and Accumulation System
Special students and auditors need special permission from the lecturers.

# **Computer Science (General Courses)**

# ► Computer Science for Non-Computer Scientists

Number	Title	Туре	ECTS	Hours				Lecturers
252-0834-00L	Information Systems for Engineers	Z	4 credits	2V+1U				
252-0834-00 V	Information Systems for Engineers Online lecture: This lecture will primarily ta Reserved rooms will remain blocked on ca follow the course from there.			2 hrs	Fri	14-16	HG E5	G. Fourny
252-0834-00 U	Information Systems for Engineers Groups are selected in myStudies.			1 hrs	Fri	16-17	CAB G52 CAB G56 CAB G57 CAB G59 ON LINE ON LINE ON LINE	G. Fourny
252-0836-00L	Computer Science II	Z	4 credits	2V+2U				
252-0836-00 V	Informatik II			2 hrs	Thu	10-12	HG E7	M. Schwerhoff,F. O. Friedrich Wicker
252-0836-00 U	Informatik II			2 hrs	Fri	16-18	CHN D42 CHN D44 CHN D46 CHN D48 LFW B3 LFW C1 LFW C11 LFW E13	M. Schwerhoff, F. O. Friedrich Wicker
252-0839-00L	Informatics	Z	2 credits	2G				
252-0839-00 G	Einsatz von Informatikmitteln Vorlesung: Fr 14-16 Uhr			2 hrs	Mon	18-19	HG E19 HG E26.3	L. E. Fässler, M. Dahinden
	Individuelle Präsentation Projektaufgaben: Wochen nach Voranmeldung	restliche	e Zeiten alle 2		Thu	18-19	HG E27 HG E19 HG E26.1 HG E26.3 HG E27	
					Fri	14-16 16-18	HG F7 HG E19 HG E26.1 HG E26.3 HG E27	
252-0845-00L	Computer Science I	Z	5 credits	2V+2U				
252-0845-00 V 252-0845-00 U				2 hrs 2 hrs	Mon Thu	12-14 14-16 16-18	HG F1 ETZ J91 HG E33.1 IFW C33 LFW C5 ON LINE CHN D46 ETZ G91 ETZ J91 HG E33.1 ON LINE	C. Cotrini Jimenez, R. Sasse C. Cotrini Jimenez, R. Sasse
252-0847-00L	Computer Science	Z	5 credits	2V+2U				
252-0847-00 V	Informatik  Vorlesung im HG F7 mit Videoübertragung	g ins HG	F5.	2 hrs	Tue	14-16	HG F5 HG F7	R. Sasse, F. O. Friedrich Wicker
252-0847-00 U	Informatik Zusätzlich wird das StudyCenter angebote http://studycenter.ethz.ch/	en:		2 hrs	Tue	16-18	CAB G59 CHN D48 CHN E42 HG E21 HG E33.1 HG E33.5 HG F26.5 LFW C4	R. Sasse, F. O. Friedrich Wicker
					Wed	10-12	CFW C4 CHN G46 HG D3.1 HG D5.3 HG D5.1 HG E21 HG E33.5 HG G26.1 HG G26.3 LFV E41 LFW E13 ML H41.1 ML H34.3	
252-0851-00L	Algorithms and Complexity	Z	4 credits	2V+1U				
	Algorithmen und Komplexität	_		2 hrs	Tue	08-10	HG D1.2	J. Lengler, A. Steger

252-0851-00 LI	Algorithmen und Komplexität			1 hrs	Wed	12-13	CHN D44	J. Lengler, A. Steger
232-0031-00 0	Groups are selected in myStudies.			11115	wea	12-13	CHN D46 CHN E42	J. Leligier, A. Steger
						13-14	CHN D44 CHN D46 CHN E42	
252-0852-00L	Foundations of Computer Science	Z	4 credits	2V+2U				
252-0852-00 V	Grundlagen der Informatik Vorlesung im HG F1 mit Videoübertragung	ins HG	F3.	2 hrs	Mon	14-16	HG F1 HG F3	L. E. Fässler, M. Dahinden
252-0852-00 U	Grundlagen der Informatik Es gibt keine fixen Übungsgruppen. Stattde Studierenden alle 2 Wochen eine Projektau einer Assistenzperson. Die restlichen Zeite Bearbeitung der Projektaufgaben zur Verfü	ufgabe ir n steher	ndividuell mit	2 hrs	Mon	10-12	CAB H56 CAB H57 HG E26.1 HG E26.3 HG E27	L. E. Fässler, M. Dahinden
						16-18	CAB H56 CAB H57 HG E19 HG E26.1 HG E26.3	
					Wed	18-19	HG E19 HG E26.1 HG E26.3 HG E27	
252-0855-00L	Computer Science in Secondary School Mathematics	Z	4 credits	3G	Fri	16-18	HG D12	
252-0855-00 G	Informatik im gymnasialen Mathematikunte Permission from lecturers required for all si			3 hrs	Wed	10-13	CAB G57	J. Hromkovic, G. Serafini
252-0856-00L	Computer Science	Z	4 credits	2V+2U				
252-0856-00 V	Informatik			2 hrs	Mon 22.09.	08-10 10-12	ML E12 HG D1.2	F. O. Friedrich Wicker, R. Sasse
252-0856-00 U	Informatik Übungen finden ab der zweiten Semesterw	oche sta	att.	2 hrs	Tue Wed	14-16 10-12	HIT K51 HIT K52 CAB G56 LFW B3	<b>F. O. Friedrich Wicker</b> , R. Sasse
► Generall	y Accessible Seminars and Col	loquia	1					
Number	Title	Type	ECTS	Hours				Lecturers
251-0100-00L	Computer Science Colloquium	E-	0 credits	2K				
251-0100-00 K	Kolloquium für Informatik			2 hrs	Mon	16-18	CAB G61	Lecturers
401-5960-00L	Colloquium on Mathematics, Computer Science, and Education Subject didactics for mathematics and computer science teachers.	E-	0 credits					
401-5960-00 K	Kolloquium über Mathematik, Informatik un Programm: https://www.math.ethz.ch/math und-ausbildung/weiterbildung/kolloquium.h	ematik-	icht	4s hrs				N. Hungerbühler, M. Akveld, D. Grawehr Morath, J. Hromkovic, P. Spindler
Computer Sc	ience (General Courses) - Key for Type							
)	Compulsory			E-	R	ecommen	ded, not eligible	for credits
N+	Eligible for credits and recommended			Z			tside the curricu	
N	Eligible for credits			Dr	S	uitable for	doctorate	
Key for Hours	s							
/	lecture			Р	р	ractical/lab	oratory course	
3	lecture with exercise			Α	-	dependen	•	
J	exercise			D	d	iploma the	sis	
S	seminar			R	re	evision cou	ırse / private stu	ıdy
K	colloquium							
ECTS	European Credit Transfer and Accumulation	System						

European Credit Transfer and Accumulation System Special students and auditors need special permission from the lecturers.

# **Computer Science Bachelor**

# ► First Year Examinations

### ▶▶ First Year Examination Block 1

Number	Title	Type	ECTS	Hours				Lecturers
401-0131-00L	Linear Algebra	0	7 credits	4V+2U				
401-0131-00 V	Lineare Algebra Vorlesung im HG F7 mit Videoübertragun	ng ins HG i	F5.	4 hrs	Wed	10-12	HG F5 HG F7	Ö. Imamoglu, O. Sorkine Hornung
					Fri	10-12	HG F5 HG F7	•
401-0131-00 U	Lineare Algebra Groups are selected in myStudies. Do 8-10, Do 16-18 oder Fr 14-16 gemäss	s Gruppen	einteilung	2 hrs	Thu	08-10	CAB G56 CAB G57 CHN C14 CHN D42 CHN D46 IFW A32.1 IFW B42 ML F34 ML J37.1	Ö. Imamoglu, O. Sorkine Hornung
						16-18	RZ F21 CHN D42 CHN D44 ETZ E9 ETZ H91 LFW C11	
					Fri	14-16	CHN G46 ETZ E7 IFW A34 IFW C31 IFW D42 LFW C11	
252-0025-01L	Discrete Mathematics	0	7 credits	4V+2U				
252-0025-01 V	Diskrete Mathematik Findet im ETA F 5 mit Videoübertragung	im ETF E	1 statt.	4 hrs	Mon	14-16	ETA F5 ETF E1	U. Maurer
					Wed	14-16	ETA F5 ETF E1	
252-0025-01 U	Diskrete Mathematik Groups are selected in myStudies. Keine Übungsstunden in der ersten Seme	esterwoch	e.	2 hrs	Tue	14-16	CAB G52 CAB G56 CAB G57 CHN D42 CHN D44 CHN D48 CHN E42 ETZ F91 ETZ F91 ETZ H91 ETZ K91 HG F26.5 LFW B3 LFW E13 CAB G57 CHN D46 CHN G22 HG E21 HG E33.5 HG G26.5 IFW A34 IFW C31 LFW E13 NO E11 NO E39	U. Maurer
252-0027-00L	0 0	0	7 credits	4V+2U				
252-0027-00 V	Einführung in die Programmierung Vorlesung im ML D28 mit Videoübertragu	ıng ins ML	E12.	4 hrs	Tue	10-12	ML D28 ML E12	T. Gross
					Fri	08-10	ML D28 ML E12	

252-0027-00 U	Einführung in die Programmierung Groups are selected in myStudies. Donnerstag 8-10 Übungsgruppe nur für Studierende Interdisziplinäre Naturwissenschaften. Die genauen Unterrichtszeiten von ONLINE - Veranstaltungen werden von den Dozierenden kommuniziert.	2 hrs	Wed	08-10	CAB G56 CAB G59 CHN D42 CHN D44 CHN D46 CHN G46 CHN G46 CLA E4 ETZ F91 ETZ G91 ETZ H91 ETZ H91 ETZ K91 HG D3.1 HG D3.3 HG D5.1 HG D5.3 HG F26.5 LFW B3 LFW C11 ML J37.1 ON LINE ON LINE ON LINE ON LINE HPL D32	T. Gross
050 0000 001	Almosithus and Data Olympitus 2	0)/- 011		00-10	HFL D32	
<b>252-0026-00L</b> 252-0026-00 V	Algorithms and Data Structures O 7 credits Algorithmen und Datenstrukturen Donnerstag 10-12 Vorlesung im HG F7 mit Videoübertragung ins HG F5. Donnerstag 14-15 Vorlesung im ETA F 5 mit Videoübertragung ins ETF E 1.	<b>3V+2U+</b> 3 hrs	<b>1A</b> Thu	10-12 14-15	HG F5 HG F7 ETA F5 ETF E1	M. Püschel, D. Steurer
	Algorithmen und Datenstrukturen plus jeweils eine Stunde Nachbearbeitungszeit (montags 11-12)	2 hrs	Mon	09-11	CAB G59 CAB H53 CHN D42 CHN D44 CHN D46 CHN D48 CHN F42 CHN G22 ETZ F91 ETZ H91 ETZ J91 ETZ K91 HG D3.3 HG D5.1 IFW A34 IFW B42 IFW C31 IFW C41 LEE C114 LFW C1 ML J37.1 ON LINE	M. Püschel, D. Steurer
202 0020-00 A	Algorithmen und Datenstrukturen	1 1113				M. Püschel, D. Steurer

### ▶▶ First Year Examination Block 2

Offered in the spring semester.

### **▶** Basic Courses

Number	Title	Type	ECTS	Hours				Lecturers
252-0057-00L	Theoretical Computer Science	0	7 credits	4V+2U				
252-0057-00 V	Theoretische Informatik			4 hrs	Tue Fri	08-10 08-10	HG E7 HG E7	J. Hromkovic, H J. Böckenhauer
252-0057-00 U	Theoretische Informatik			2 hrs	Tue	14-16	CAB G52 CAB G59 HG E22 LFW C4 ML J37.1	J. Hromkovic, H J. Böckenhauer
					Wed	16-18	CAB G52 CAB G57 CAB G59 CHN D48 ETZ E7 ETZ G91 HG D3.3	
					Thu	16-18	HG D5.1 HG D5.3 HG E33.5 HG F26.5	
252-0061-00L	Systems Programming and Comput Architecture	er O	7 credits	4V+2U			ПС Г20.5	

252-0061-00 V	Systems Programming and Computer Archit	tecture		4 hrs	Tue	10-12	HG E7	T. Roscoe, A. Klimovic
252-0061-00 U	Systems Programming and Computer Archit Groups are selected in myStudies. The lecturers will communicate the exact les courses.		es of ONLINE	2 hrs	Wed Wed	10-12 12-14 14-16	NO C60 CAB G56 CAB G59 CHN D48 CHN G46 ETZ G91 CHN D42 CHN G22 ETZ G91 ETZ J91 ETZ K91 HG G26.3 LEE D105 ML H34.3 ON LINE	T. Roscoe, A. Klimovic
401-0213-16L	Analysis II	0	5 credits	<b>2V+2U</b> 2 hrs	Thu	14.16	HG E7	M Durger
401-0213-16 V	Am 23.09.21 findet die Vorlesung ausnahms statt.	sweise i	m HG F 7	21115	23.09.	14-16 14-16	HG F7	M. Burger
401-0213-16 U	Analysis II Groups are selected in myStudies. Mo 10-12 oder Mo 14-16			2 hrs	Mon	10-12	CHN E42 CHN G46 ETZ E7 HG G26.1 LFW C11 ML F38 NO C44 CHN G46 HG G26.5 IFW A34 LFW C1 ML F34 NO C44	M. Burger
401-0663-00L	Numerical Methods for Computer Science	0	7 credits	2V+2U+2	2P			
401-0663-00 V	Numerical Methods for Computer Science This course is designed in a flipped classrod video tutorials and supplemented by a week and-answer session, for which attendance is recommended.	ly ques		2 hrs	Thu	10-12	HG F1	R. Hiptmair
401-0663-00 U	Numerical Methods for Computer Science Groups are selected in myStudies. Mon 10-12 or Mon 14-16 according to exerc	ise grou	up allocation.	2 hrs	Mon	10-12	CLA E4 LFW E13 ML H41.1 ML J34.1 ML J34.3 HG E33.3 LEE D105 LFW B3 LFW C5 ML F40	R. Hiptmair
401-0663-00 P	Numerical Methods for Computer Science Self-study based on video tutorial and lectur	e notes		2 hrs			WILL TO	R. Hiptmair
► Core Cou								
-	Information and Data Processing		E0=0					1
Number	Title	Туре	ECTS	Hours				Lecturers
<b>252-0206-00L</b> 252-0206-00 V	Visual Computing Visual Computing	0	8 credits	<b>4V+3U</b> 4 hrs	Tue Thu	10-12 14-16	HG G3 HG G3	S. Coros, M. Pollefeys
252-0206-00 U	Visual Computing			3 hrs	Tue Thu	13-16 09-12	CHN G42 IFW A36	S. Coros, M. Pollefeys
►► Major: <sup>1</sup>	Theoretical Computer Science							
Number	Title	Туре	ECTS	Hours				Lecturers
252-0209-00L	Algorithms, Probability, and Computing	0	8 credits	4V+2U+	1A			
	Algorithms, Probability, and Computing			4 hrs	Mon Tue	14-16 14-16	ML D28 ML D28	B. Gärtner, M. Ghaffari, R. Kyng, A. Steger, D. Steurer
252-0209-00 U	Algorithms, Probability, and Computing			2 hrs	Wed	14-16 16-18	CAB G56 CAB G57 CAB G56	B. Gärtner, M. Ghaffari, R. Kyng, A. Steger, D. Steurer
	Algorithms, Probability, and Computing Project Work, no fixed presence required.			1 hrs				B. Gärtner, M. Ghaffari, R. Kyng, A. Steger, D. Steurer
►► Major: \$	Systems and Software Engineer	ing						
Number	Title	Туре	ECTS	Hours				Lecturers
000 0040 001	<u> </u>	_						

4V+3U

8 credits

0

252-0210-00L Compiler Design

252-0210-00 V	Compiler Design Online event: Will primarily take place onlin remain blocked on campus for students to t there.			4 hrs	Wed Thu	14-16 16-18	ML H44 ML H44	Z. Su
252-0210-00 U	Compiler Design Online event: Will primarily take place onlin remain blocked on campus for students to there.			3 hrs	Mon	16-19	HG G3	Z. Su
252-0217-00L	Computer Systems	0	8 credits	4V+2U+	1A			
252-0217-00 V	Computer Systems			4 hrs	Mon Fri	10-12 10-12	CAB G61 CAB G61	T. Roscoe, S. Shinde, R. Wattenhofer
252-0217-00 U	Computer Systems Groups are selected in myStudies.			2 hrs	Fri	14-16	CHN D42 CHN D48 ETZ G91 ETZ H91 HG D3.1 HG D5.3	T. Roscoe, S. Shinde, R. Wattenhofer
252-0217-00 A	Computer Systems			1 hrs				T. Roscoe, S. Shinde, R. Wattenhofer

#### **▶** Electives

Students may also choose courses from the Master's program in Computer Science. It is their responsibility to make sure that they meet the requirements and conditions for these courses.

Number	Title	Type	ECTS	Hours				Lecturers
252-0293-00L	Wireless Networking and Mobile Computing	W	4 credits	2V+1U				
252-0293-00 V	Wireless Networking and Mobile Computing	I		2 hrs	Mon	16-18	HG E5	S. Mangold
252-0293-00 U	Wireless Networking and Mobile Computing	I		1 hrs	Mon	18-19	HG E5	S. Mangold
252-3110-00L	Human Computer Interaction Number of participants limited to 150.	W	6 credits	2V+1U+	2A			
252-3110-00 V	Human Computer Interaction			2 hrs	Wed	14-16	HG D7.2	O. Hilliges, C. Holz
252-3110-00 U	Human Computer Interaction			1 hrs	Thu	12-13	CAB G56 CHN F46 LFW B3	O. Hilliges, C. Holz
252-3110-00 A	Human Computer Interaction			2 hrs				O. Hilliges, C. Holz
151-0107-20L	High Performance Computing for Science and Engineering (HPCSE) I	W	4 credits	4G				
151-0107-20 G	High Performance Computing for Science a (HPCSE) I Lecture: 12-14h Exercises: 14-16h	nd Engi	neering	4 hrs	Fri	12-14 14-16	ML H44 ML H44	P. Koumoutsakos, S. M. Martin
227-0124-00L	Embedded Systems	w	6 credits	4G				
227-0124-00 G	Embedded Systems Exercises in groups.			4 hrs	Mon Wed	14-16 16-18	ETF C1 ETZ D61.1 ETZ D96.1	L. Thiele, M. Magno
					Fri	16-18	ETF E1 ETZ D61.1 ETZ D96.1	
227-1037-00L	Introduction to Neuroinformatics	W	6 credits	2V+1U+	1A			
227-1037-00 V	Introduction to Neuroinformatics			2 hrs	Thu	08-10	NO C60	V. Mante, M. Cook, B. Grewe, G. Indiveri, D. Kiper, W. von der Behrens
227-1037-00 U	Introduction to Neuroinformatics			1 hrs	Thu	10-11	NO C60	V. Mante, M. Cook, B. Grewe, G. Indiveri, D. Kiper, W. von der Behrens
227-1037-00 A	Introduction to Neuroinformatics Self-study, no fixed presence required.			1 hrs				V. Mante
402-0209-00L	Quantum Physics for Non-Physicists	w	6 credits	3V+2U				
402-0209-00 V	Quantum Physics for Non-Physicists			3 hrs	Tue Thu	10-12 12-13	ML H44 ML F36	L. Pacheco Cañamero B. del Rio
402-0209-00 U	Quantum Physics for Non-Physicists			2 hrs	Thu	10-12	ML F36	L. Pacheco Cañamero B. del Rio
► Seminar								
Number	Title	Туре	ECTS	Hours				Lecturers
252-2300-00L	Dependency Structures and Lexicalized Grammars The deadline for deregistering expires at the end of the second week of the semester. Students who are still registered after that date, but do not attend the seminar, will officially fail the seminar.	W	2 credits	2\$				
050 0000 00 0	Number of participants limited to 25.				_		0	<b>-</b>
252 2222 22 6	Demander of the continues and be of the defendance			0 1	T	40 40	OLINI DAG	D 0-11II

2 credits

2 hrs

2S

Tue

16-18

CHN D46

R. Cotterell

252-2300-00 S Dependency Structures and Lexicalized Grammars

252-2600-05L

Software Engineering Seminar Number of participants limited to 22. The deadline for deregistering expires at the end of the second week of the semester. Students who are still registered after that date, but do not attend the seminar, will officially fail the seminar.

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M: 0 :								
	Online seminar: This seminar will primarily t Reserved rooms will remain blocked on can follow the seminar from there.			21113	inu	.5 10	50.2	J. Gómez Luna
227-2211-00 S	The deadline for deregistering expires at the end of the second week of the semester. Students who are still registered after that date, but do not attend the seminar, will officially fail the seminar. Seminar in Computer Architecture			2 hrs	Thu	16-18	HG D3.2	<b>O. Mutlu</b> , M. H. K. Alser,
227-2211-00L	Seminar in Computer Architecture Number of participants limited to 28.	W	2 credits	2\$				
52-5707-00 S	Seminar on Media Innovation			2 hrs	Tue	14-16	CHN F46	S. Kalloori Saikishore, S. Klingler
	The deadline for deregistering expires at the end of the second week of the semester. Students who are still registered after that date, but do not attend the seminar, will officially fail the seminar.							
252-5707-00L	Seminar on Media Innovation Number of participants limited to 24.	w	2 credits	28				
	Saturday sessions: November 13/20/27, 20, room tba	21; fron	n 8:30 to 13:3	0;				
252-4811-00 S	seminar, will officially fail the seminar.  Machine Learning Seminar  Kick-off Meeting: September 29, 2021;11-13	3; HG E	23	2 hrs				V. Boeva, G. Rätsch
	The deadline for deregistering expires at the end of the second week of the semester. Students who are still registered after that date, but do not attend the							
52-4811-00L	Machine Learning Seminar Number of participants limited to 24.	W	2 credits	2S				
JZ-3011-UU S	Case Studies from Practice Seminar			2 hrs	21.09. 28.09. 05.10. 12.10.	16-18 16-18 16-18 16-18	CAB H52 CAB H52 CAB H52 CAB H52	IVI. DI AIIUIS
52 2011 00 <b>S</b>	The deadline for deregistering expires at the end of the second week of the semester. Students who are still registered after that date, but do not attend the seminar, will officially fail the seminar.			2 hro	21.00	16 10	CAB H52	M. Brandis
52-3811-00L	Case Studies from Practice Seminar Number of participants limited to 24.	W	4 credits	2\$				
52-3400-00 S	seminar, will officially fail the seminar. Seminar on Machine Learning Systems			2 hrs	Wed	14-16	CAB H52	A. Klimovic, C. Zhang
52-3400-00L	Seminar on Machine Learning Systems Number of participants limited to 40. The deadline for deregistering expires at the end of the second week of the semester. Students who are still registered after that date, but do not attend the	W	2 credits	2S				
50.0400.001	Reserved rooms will remain blocked on can follow the seminar from there.							
52-2600-05 S	Software Engineering Seminar Online seminar: This seminar will primarily to			2 hrs	Wed	16-18	CHN D42	Z. Su, M. Vechev

J. Sellie	551CI							
Number	Title	Type	ECTS	Hours				Lecturers
	Cell and Molecular Biology for Engineers I This course is part I of a two-semester course.	W	3 credits	2G				
227-0945-00 G	Cell and Molecular Biology for Engineers I			2 hrs	Thu	10-12	LFW C5	C. Frei
351-0778-00L	Discovering Management Entry level course in management for BSc, MSc and PHD students at all levels not belonging to D-MTEC. This course can be complemented with Discovering Management (Excercises) 351-0778-01.	W	3 credits	3G				

351-0778-00 G	Discovering Management Diese Lehrveranstaltung wird ab dem HS 20 angeboten. The lecture takes place in classroom, online zoom and recorded.			3 hrs	Fri	08-11	HG E1.1	B. Clarysse, S. Brusoni, E. Fleisch, G. Grote, V. Hoffmann, T. Netland, Y. R. Shrestha, P. Tinguely, L. P. T. Vandeweghe
351-0778-01L	Discovering Management (Exercises)	w	1 credit	1U				<b>J</b> ·
331-0770-012	Complementary exercises for the module Discovering Managment.	••	rcredit	10				
	Prerequisite: Participation and successful completion of the module Discovering Management (351-0778-00L) is mandatory.							
351-0778-01 U	Discovering Management (Exercises)			1 hrs	Fri	11-12	HG E1.1	<b>B. Clarysse</b> , L. P. T. Vandeweghe
376-1177-00L	Human Factors I	w	3 credits	2V				
376-1177-00 V	Human Factors I			2 hrs	Tue	14-16	HG G3	M. Menozzi Jäckli, R. Huang M. Siegrist
401-7855-00L	Computational Astrophysics (University of Zurich)	w	6 credits	2V				-
	No enrolment to this course at ETH Zurich. Book the corresponding module directly at UZH as an incoming student. UZH Module Code: AST245							
	Mind the enrolment deadlines at UZH: https://www.uzh.ch/cmsssl/en/studies/appli cation/deadlines.html							
401-7855-00 V	Computational Astrophysics (University of Zeta) **Course at University of Zurich**	urich)		2 hrs	Tue	12-14	UNI ZH.	L. M. Mayer
102-1701-00L	Physics I	W	7 credits	4V+2U				
02-1701-00 V	Physik I			4 hrs	Tue	10-12	HCI G7	K. Ensslin
	Findet im HPH G1 statt mit Videoübertragun G7 und Do 14-16 ins HCI J7	ng Di 10-	12 ins HCI		Thu	14-16	HPH G1 HCI J7	
100 4704 00 11	Di ii i			0.1	<b>-</b> .	40.44	HPH G1	
351-4271-00 U	Physik I Zusätzlich wird das StudyCenter angeboten. http://studycenter.ethz.ch/  Data Analysis and Visualisation with Matlab in Earth Sciences Information for D-INFK students: the course is only for 3rd semester BSc students. Erdwissenschaftliche Datenanalyse und Visu	W	3 credits	3 <b>G</b> 3 hrs	Mon	13-14	HCI D4 HCI D6 HCI E2 HCI E8 HCI F2 HCI J8 HCP E47.3 HCP E47.4 HIL B21 HIL D10.2 HIL D60.1 HIL E10.1 HIL E5 HIL F10.3 HIT F31.2 HIT F32 HIT H32 HIT K51 HIT K52 HPK D34.2 HPK D3 HPL D34 HPT C103  HG E26.1 HG E26.3	G. De Souza, A. Obermann, S. Wiemer
					Wed	08-09 09-10	HG E26.3 HG D5.2 HG D12	S. Wiemer
							HG E27	
<b>701-0071-00L</b> <b>7</b> 01-0071-00 V	Mathematics III: Systems Analysis Mathematik III: Systemanalyse	W	4 credits	<b>2V+1U</b> 2 hrs	Fri	10-12	ML D28	R. Knutti, S. Schemm, H. Wernli
701-0071-00 U	Mathematik III: Systemanalyse			1 hrs	Mon	11-12	CAB G57 CHN F46 HG E33.3 HG F26.5 HG G26.3 LEE D101 LEE D105 LEE E101 ML E12 ML F34 NO E11 NO E39	L. Brunner, S. Schemm, P. Zschenderlein

## ▶▶ 5. Semester

Number	Title	Туре	ECTS	Hours				Lecturers
101-0250-00L	Solving Partial Differential Equations in parallel on GPUs		4 credits	3G				
01-0250-00 G	Solving Partial Differential Equations in par	allel on	GPUs	3 hrs	Tue	13-16	HCI E8	L. Räss, S. Omlin, M. Werde
02-0227-00L	Systems Analysis and Mathematical Modeling in Urban Water Management Number of participants limited to 50.	W	6 credits	4G				
02-0227-00 G	Systems Analysis and Mathematical Model Management	ing in U	rban Water	4 hrs	Fri	08-10 10-12	HIL E9 HIL E15.2	E. Morgenroth, M. Maurer
51-0573-00L	System Modeling	W	4 credits	2V+1U				
	System Modeling			2 hrs	Wed	08-10	HG E7 LFV E41	L. Guzzella
51-0573-00 0	System Modeling Groups are selected in myStudies.			1 hrs	Tue	13-14	LFW C5	L. Guzzella
	Die Übungen finden ab der zweiten Semes					17-18	CHN G42	
	Di 13-14, Di 17-18 oder Do 8-9 gemäss Gr	uppenei	nteilung.		Thu	08-09	HG D7.1 HG E1.1	
							LFV E41	
51-0575-01L	Signals and Systems	W	4 credits	2V+2U				
51-0575-01 V	Signals and Systems The least use will start in the 2nd week of the	Comoo	tor	2 hrs	Thu	14-16	ETF C1	A. Carron
I51-0575-01 II	The lecture will start in the 2nd week of the Signals and Systems	Semes	ter.	2 hrs	Thu	16-18	ETF C1	A. Carron
31-0373-010	The exercise will start in the 3rd week of th	e Seme	ster.	21113	ma	10-10	LII OI	A. Garron
151-0591-00L	Control Systems I	W	4 credits	2V+2U				
151-0591-00 V	Regelungstechnik I		. = -	2 hrs	Fri	10-12	HG E5	L. Guzzella
151 0501 00 LL	Vorlesung im HG E 7 mit Videoübertragung	g ins HG	i E 5.	2 hrc	E~:	14.10	HG E7	I Guzzollo
151-0591-00 U	Regelungstechnik I  Groups are selected in myStudies.			2 hrs	Fri	14-16	CHN D44 CHN D46	L. Guzzella
	Die Übungen starten in der 2. Woche des S	Semeste	ers.				CHN F46	
	Zusätzlich wird das Study Center angebote	n: ab de	er 3.				CHN G42 ETZ E9	
	Semesterwoche, Montags, 18-20 Uhr im H	G E 1.1	und Mittwoch				ETZ J91	
	18-20 Uhr im HG E 1.1, wo die Möglichkeit angeboten wird. Im Study Center können S			าร			ETZ K91 HG D3.2	
	Vorlesungsstoff vor- oder nachbereiten und						HG D5.2 HG D5.1	
							HG E21	
							HG G26.3 IFW B42	
							LEE D105	
							LEE D105 LFW C4	
							LEE D105	
							LEE D105 LFW C4 ML F34 ML F39 ML J34.3	
							LEE D105 LFW C4 ML F34 ML F39	
							LEE D105 LFW C4 ML F34 ML F39 ML J34.3 ML J37.1	
	Theory of Robotics and Mechatronics	w	4 credits	3 <b>G</b>			LEE D105 LFW C4 ML F34 ML F39 ML J34.3 ML J37.1 NO E11 NO E39	
	Theory of Robotics and Mechatronics			3 hrs	Mon	08-10 10-11	LEE D105 LFW C4 ML F34 ML F39 ML J34.3 ML J37.1 NO E11 NO E39	P. Korba, S. Stoeter
	•	e. Rese	rved rooms w	3 hrs	Mon	08-10 10-11	LEE D105 LFW C4 ML F34 ML F39 ML J34.3 ML J37.1 NO E11 NO E39	P. Korba, S. Stoeter
151-0601-00 G	Theory of Robotics and Mechatronics Online event: Will primarily take place onlin remain blocked on campus for students to	e. Rese	rved rooms w	3 hrs	Mon	10-11	LEE D105 LFW C4 ML F34 ML F39 ML J34.3 ML J37.1 NO E11 NO E39	P. Korba, S. Stoeter
51-0601-00 G 51-0709-00L	Theory of Robotics and Mechatronics Online event: Will primarily take place onlin remain blocked on campus for students to there.  Stochastic Methods for Engineers and	ne. Rese follow th	erved rooms we course from	3 hrs vill n	Mon		LEE D105 LFW C4 ML F34 ML F39 ML J34.3 ML J37.1 NO E11 NO E39	P. Korba, S. Stoeter  D. W. Meyer-Massetti
51-0601-00 G 51-0709-00L 51-0709-00 G	Theory of Robotics and Mechatronics Online event: Will primarily take place onlin remain blocked on campus for students to there.  Stochastic Methods for Engineers and Natural Scientists Stochastic Methods for Engineers and Natu Lecture: 10-12 Exercises: 12-14	ne. Rese follow th	erved rooms we course from	3 hrs vill a		10-11	LEE D105 LFW C4 ML F34 ML F39 ML J34.3 ML J37.1 NO E11 NO E39 HG D1.2 ML E12	
151-0601-00 G 151-0709-00L 151-0709-00 G	Theory of Robotics and Mechatronics Online event: Will primarily take place onlin remain blocked on campus for students to there.  Stochastic Methods for Engineers and Natural Scientists Stochastic Methods for Engineers and Natu Lecture: 10-12	we. Rese follow th W ural Scie	erved rooms we course from 4 credits entists	3 hrs vill 4G 4 hrs		10-11	LEE D105 LFW C4 ML F34 ML F39 ML J34.3 ML J37.1 NO E11 NO E39 HG D1.2 ML E12	
151-0601-00 G 151-0709-00L 151-0709-00 G 227-0076-00L 227-0076-00 V	Theory of Robotics and Mechatronics Online event: Will primarily take place onlin remain blocked on campus for students to a there.  Stochastic Methods for Engineers and Natural Scientists Stochastic Methods for Engineers and Natu Lecture: 10-12 Exercises: 12-14  Electrical Engineering II Elektrotechnik II Elektrotechnik II	we. Rese follow th W ural Scie	erved rooms we course from 4 credits entists	3 hrs iiii 4G 4 hrs	Wed	10-11	LEE D105 LFW C4 ML F34 ML F39 ML J34.3 ML J37.1 NO E11 NO E39 HG D1.2 ML E12 NO C6	D. W. Meyer-Massetti
151-0601-00 G 151-0709-00L 151-0709-00 G 227-0076-00L 227-0076-00 V	Theory of Robotics and Mechatronics Online event: Will primarily take place onlin remain blocked on campus for students to a there.  Stochastic Methods for Engineers and Natural Scientists Stochastic Methods for Engineers and Natu Lecture: 10-12 Exercises: 12-14  Electrical Engineering II Elektrotechnik II	we. Rese follow th W ural Scie	erved rooms we course from 4 credits entists	3 hrs viill 4G 4 hrs 2V+2U 2 hrs	Wed	10-11	LEE D105 LFW C4 ML F34 ML F39 ML J34.3 ML J37.1 NO E11 NO E39 HG D1.2 ML E12 NO C6	D. W. Meyer-Massetti C. Studer
151-0601-00 G 151-0709-00L 151-0709-00 G 227-0076-00L 227-0076-00 V	Theory of Robotics and Mechatronics Online event: Will primarily take place onlin remain blocked on campus for students to a there.  Stochastic Methods for Engineers and Natural Scientists Stochastic Methods for Engineers and Natu Lecture: 10-12 Exercises: 12-14  Electrical Engineering II Elektrotechnik II Elektrotechnik II	we. Rese follow th W ural Scie	erved rooms we course from 4 credits entists	3 hrs viill 4G 4 hrs 2V+2U 2 hrs	Wed	10-11	LEE D105 LFW C4 ML F34 ML F39 ML J34.3 ML J37.1 NO E11 NO E39 HG D1.2 ML E12 NO C6	D. W. Meyer-Massetti C. Studer
151-0601-00 G 151-0709-00L 151-0709-00 G 227-0076-00L 227-0076-00 V	Theory of Robotics and Mechatronics Online event: Will primarily take place onlin remain blocked on campus for students to a there.  Stochastic Methods for Engineers and Natural Scientists Stochastic Methods for Engineers and Natu Lecture: 10-12 Exercises: 12-14  Electrical Engineering II Elektrotechnik II Elektrotechnik II	we. Rese follow th W ural Scie	erved rooms we course from 4 credits entists	3 hrs viill 4G 4 hrs 2V+2U 2 hrs	Wed Wed Wed	10-11 10-14 10-12 16-18	LEE D105 LFW C4 ML F34 ML F39 ML J34.3 ML J37.1 NO E11 NO E39  HG D1.2 ML E12  NO C6  HG E5 CLA E4 HG D3.1 HG D5.1 CAB G52 LEE C104	D. W. Meyer-Massetti C. Studer
151-0601-00 G 151-0709-00L 151-0709-00 G 227-0076-00L 227-0076-00 V	Theory of Robotics and Mechatronics Online event: Will primarily take place onlin remain blocked on campus for students to a there.  Stochastic Methods for Engineers and Natural Scientists Stochastic Methods for Engineers and Natu Lecture: 10-12 Exercises: 12-14  Electrical Engineering II Elektrotechnik II Elektrotechnik II	we. Rese follow th W ural Scie	erved rooms we course from 4 credits entists	3 hrs viill 4G 4 hrs 2V+2U 2 hrs	Wed Wed Wed	10-11 10-14 10-12 16-18	LEE D105 LFW C4 ML F34 ML F39 ML J34.3 ML J37.1 NO E11 NO E39  HG D1.2 ML E12  NO C6  HG E5 CLA E4 HG D3.1 HG D5.1 CAB G52 LEE C104 LEE C114	D. W. Meyer-Massetti C. Studer
151-0601-00 G 151-0709-00L 151-0709-00 G 227-0076-00L 227-0076-00 V	Theory of Robotics and Mechatronics Online event: Will primarily take place onlin remain blocked on campus for students to a there.  Stochastic Methods for Engineers and Natural Scientists Stochastic Methods for Engineers and Natu Lecture: 10-12 Exercises: 12-14  Electrical Engineering II Elektrotechnik II Elektrotechnik II	we. Rese follow th W ural Scie	erved rooms we course from 4 credits entists	3 hrs viill 4G 4 hrs 2V+2U 2 hrs	Wed Wed Wed	10-11 10-14 10-12 16-18	LEE D105 LFW C4 ML F34 ML F39 ML J34.3 ML J37.1 NO E11 NO E39  HG D1.2 ML E12  NO C6  HG E5 CLA E4 HG D3.1 HG D5.1 CAB G52 LEE C104	D. W. Meyer-Massetti C. Studer
151-0601-00 G 151-0709-00L 151-0709-00 G 227-0076-00L 227-0076-00 V 227-0076-00 U	Theory of Robotics and Mechatronics Online event: Will primarily take place onlin remain blocked on campus for students to a there.  Stochastic Methods for Engineers and Natural Scientists Stochastic Methods for Engineers and Natu Lecture: 10-12 Exercises: 12-14  Electrical Engineering II Elektrotechnik II Elektrotechnik II	we. Rese follow th W ural Scie	erved rooms we course from 4 credits entists	3 hrs viill 4G 4 hrs 2V+2U 2 hrs	Wed Wed Wed	10-11 10-14 10-12 16-18	LEE D105 LFW C4 ML F34 ML F39 ML J34.3 ML J37.1 NO E11 NO E39  HG D1.2 ML E12  NO C6  HG E5 CLA E4 HG D3.1 HG D5.1 CAB G52 LEE C104 LEE C114 LEE D101	D. W. Meyer-Massetti C. Studer
151-0601-00 G 151-0709-00L 151-0709-00 G 227-0076-00L 227-0076-00 U	Theory of Robotics and Mechatronics Online event: Will primarily take place onlin remain blocked on campus for students to a there.  Stochastic Methods for Engineers and Natural Scientists Stochastic Methods for Engineers and Natu Lecture: 10-12 Exercises: 12-14  Electrical Engineering II Elektrotechnik II Elektrotechnik II Groups are selected in myStudies.	w Wural Scie	erved rooms we course from 4 credits entists 4 credits	3 hrs viill 4G 4 hrs  2V+2U 2 hrs 2 hrs	Wed Wed Wed Thu	10-11 10-14 10-12 16-18 08-10	LEE D105 LFW C4 ML F34 ML F39 ML J34.3 ML J37.1 NO E11 NO E39  HG D1.2 ML E12  NO C6  HG E5 CLA E4 HG D3.1 HG D5.1 CAB G52 LEE C104 LEE C114 LEE D101 LEE D105	D. W. Meyer-Massetti C. Studer
151-0709-00L 151-0709-00 G 227-0076-00L 227-0076-00 V 227-0076-00 U	Theory of Robotics and Mechatronics Online event: Will primarily take place onlin remain blocked on campus for students to a there.  Stochastic Methods for Engineers and Natural Scientists Stochastic Methods for Engineers and Natu Lecture: 10-12 Exercises: 12-14  Electrical Engineering II Elektrotechnik II Elektrotechnik II Groups are selected in myStudies.	w Wural Scie	erved rooms we course from 4 credits entists 4 credits	3 hrs iiii  4G 4 hrs  2V+2U 2 hrs 2 hrs 5G	Wed Wed Wed	10-11 10-14 10-12 16-18 08-10	LEE D105 LFW C4 ML F34 ML F39 ML J34.3 ML J37.1 NO E11 NO E39  HG D1.2 ML E12  NO C6  HG E5 CLA E4 HG D3.1 HG D5.1 CAB G52 LEE C104 LEE C114 LEE D101	D. W. Meyer-Massetti  C. Studer C. Studer
151-0601-00 G 151-0709-00L 151-0709-00 G 227-0076-00L 227-0076-00 U	Theory of Robotics and Mechatronics Online event: Will primarily take place onlin remain blocked on campus for students to a there.  Stochastic Methods for Engineers and Natural Scientists Stochastic Methods for Engineers and Natu Lecture: 10-12 Exercises: 12-14  Electrical Engineering II Elektrotechnik II Elektrotechnik II Groups are selected in myStudies.	w Wural Scie	erved rooms we course from 4 credits entists 4 credits	3 hrs iiii  4G 4 hrs  2V+2U 2 hrs 2 hrs 5G	Wed Wed Wed Thu	10-11 10-14 10-12 16-18 08-10	LEE D105 LFW C4 ML F34 ML F39 ML J34.3 ML J37.1 NO E11 NO E39  HG D1.2 ML E12  NO C6  HG E5 CLA E4 HG D3.1 HG D5.1 CAB G52 LEE C104 LEE C104 LEE C114 LEE D101 LEE D105	D. W. Meyer-Massetti  C. Studer C. Studer
151-0601-00 G 151-0709-00L 151-0709-00 G 227-0076-00 U 227-0076-00 U 227-0116-00 G	Theory of Robotics and Mechatronics Online event: Will primarily take place onlin remain blocked on campus for students to it there.  Stochastic Methods for Engineers and Natural Scientists Stochastic Methods for Engineers and Natu Lecture: 10-12 Exercises: 12-14  Electrical Engineering II Elektrotechnik II Elektrotechnik II Groups are selected in myStudies.  VLSI 1: HDL based design for FPGAs VLSI 1: HDL based design for FPGAs	w Wural Scie	erved rooms we course from 4 credits entists 4 credits	3 hrs iiii  4G 4 hrs  2V+2U 2 hrs 2 hrs 5G	Wed Wed Wed Thu	10-11 10-14 10-12 16-18 08-10	LEE D105 LFW C4 ML F34 ML F39 ML J34.3 ML J37.1 NO E11 NO E39  HG D1.2 ML E12  NO C6  HG E5 CLA E4 HG D3.1 HG D5.1 CAB G52 LEE C104 LEE C114 LEE D101 LEE D105  ETF C1 ETZ D61.1 ETZ D61.2	D. W. Meyer-Massetti  C. Studer C. Studer
151-0601-00 G 151-0709-00L 151-0709-00 G 1227-0076-00 U 1227-0076-00 U 1227-0116-00 G 1227-0116-00 G	Theory of Robotics and Mechatronics Online event: Will primarily take place onlin remain blocked on campus for students to it there.  Stochastic Methods for Engineers and Natural Scientists Stochastic Methods for Engineers and Natu Lecture: 10-12 Exercises: 12-14  Electrical Engineering II Elektrotechnik II Elektrotechnik II Groups are selected in myStudies.  VLSI 1: HDL based design for FPGAs VLSI 1: HDL based design for FPGAs Power Market I - Portfolio and Risk Management	w W W W	arved rooms we course from 4 credits entists 4 credits 6 credits	3 hrs will 4 4 4 hrs 2V+2U 2 hrs 2 hrs 5 5 5 hrs	Wed Wed Thu	10-11 10-14 10-12 16-18 08-10 08-10 13-16	LEE D105 LFW C4 ML F34 ML F39 ML J34.3 ML J37.1 NO E11 NO E39  HG D1.2 ML E12  NO C6  HG E5 CLA E4 HG D3.1 HG D5.1 CAB G52 LEE C104 LEE C104 LEE C114 LEE D101 LEE D105  ETF C1 ETZ D61.1 ETZ D61.2 ETZ D96.1	D. W. Meyer-Massetti  C. Studer C. Studer F. K. Gürkaynak, L. Benini
151-0601-00 G 151-0709-00L 151-0709-00 G 1227-0076-00L 227-0076-00 U 227-0116-00 G 227-0116-00 G	Theory of Robotics and Mechatronics Online event: Will primarily take place onlin remain blocked on campus for students to it there.  Stochastic Methods for Engineers and Natural Scientists Stochastic Methods for Engineers and Natu Lecture: 10-12 Exercises: 12-14  Electrical Engineering II Elektrotechnik II Elektrotechnik II Groups are selected in myStudies.  VLSI 1: HDL based design for FPGAs VLSI 1: HDL based design for FPGAs  Power Market I - Portfolio and Risk Management Power Market I - Portfolio and Risk Manage	w w w w w	4 credits 4 credits 6 credits	3 hrs will 4G 4 hrs  2V+2U 2 hrs 2 hrs 5G 5 hrs  4G 4 hrs	Wed Wed Wed Thu	10-11 10-14 10-12 16-18 08-10	LEE D105 LFW C4 ML F34 ML F39 ML J34.3 ML J37.1 NO E11 NO E39  HG D1.2 ML E12  NO C6  HG E5 CLA E4 HG D3.1 HG D5.1 CAB G52 LEE C104 LEE C114 LEE D101 LEE D105  ETF C1 ETZ D61.1 ETZ D61.2	D. W. Meyer-Massetti  C. Studer C. Studer
151-0601-00 G 151-0709-00L 151-0709-00 G 227-0076-00L 227-0076-00 U 227-0116-00 G 227-0116-00 G	Theory of Robotics and Mechatronics Online event: Will primarily take place onlin remain blocked on campus for students to it there.  Stochastic Methods for Engineers and Natural Scientists Stochastic Methods for Engineers and Natu Lecture: 10-12 Exercises: 12-14  Electrical Engineering II Elektrotechnik II Elektrotechnik II Groups are selected in myStudies.  VLSI 1: HDL based design for FPGAs VLSI 1: HDL based design for FPGAs Power Market I - Portfolio and Risk Management	w W W W	arved rooms we course from 4 credits entists 4 credits 6 credits	3 hrs will 4 4 4 hrs 2V+2U 2 hrs 2 hrs 5 5 5 hrs	Wed Wed Thu	10-11 10-14 10-12 16-18 08-10 08-10 13-16	LEE D105 LFW C4 ML F34 ML F39 ML J34.3 ML J37.1 NO E11 NO E39  HG D1.2 ML E12  NO C6  HG E5 CLA E4 HG D3.1 HG D5.1 CAB G52 LEE C104 LEE C104 LEE C114 LEE D101 LEE D105  ETF C1 ETZ D61.1 ETZ D61.2 ETZ D96.1	D. W. Meyer-Massetti  C. Studer C. Studer F. K. Gürkaynak, L. Benini

227-0945-00 G	Cell and Molecular Biology for Engineers I			2 hrs	Thu	10-12	LFW C5	C. Frei
227-2037-00L	Physical Modelling and Simulation	W	6 credits	4G				
227-2037-00 G	Physical Modelling and Simulation			4 hrs	Thu	08-12	ETZ E6	J. Smajic
<b>351-0778-00L</b> 351-0778-00 G	Discovering Management Entry level course in management for BSc, MSc and PHD students at all levels not belonging to D-MTEC. This course can be complemented with Discovering Management (Excercises) 351-0778-01. Discovering Management Diese Lehrveranstaltung wird ab dem HS 20 angeboten. The lecture takes place in classroom, online zoom and recorded.	•		3G 3 hrs	Fri	08-11	HG E1.1	B. Clarysse, S. Brusoni, E. Fleisch, G. Grote, V. Hoffmann, T. Netland, Y. R. Shrestha, P. Tinguely, L. P. T. Vandeweghe
351-0778-01L	<b>Discovering Management (Exercises)</b> Complementary exercises for the module Discovering Managment.	W	1 credit	1U				
351-0778-01 U	Prerequisite: Participation and successful completion of the module Discovering Management (351-0778-00L) is mandatory. Discovering Management (Exercises)			1 hrs	Fri	11-12	HG E1.1	B. Clarysse,
								L. P. T. Vandeweghe
<b>363-0541-00L</b> 363-0541-00 G	Systems Dynamics and Complexity Systems Dynamics and Complexity Lecture: Thursday, 08-10 h Exercises: Tuesday, 12-13 h The lecture takes place in classroom, online zoom and recorded.	<b>W</b> e via live	3 credits estreaming or	<b>3G</b> 3 hrs	Tue Thu	12-13 08-10	HG D1.2 HG D1.2	F. Schweitzer
363-1082-00L	Enabling Entrepreneurship: From Science to Startup Students should provide a brief overview (unto 1 page) of their business ideas that they would like to commercialise through the course. If they do not have an idea, they are required to provide a motivation letter stating why they would like to do this elective. If you are unsure about the readiness of your idea or technology to be converted into a startup, please drop me a line to schedule a call or meeting to discuss.	W	3 credits	2V				
	The total number of students will be limited to 40. It is preferable that the students already form teams of at least two persons, where both the team-members would like to to the course. The names of the team-members should be provided together with the business idea or the motivation letter submitted by the students.	)						
000 4000 00 V	The students should submit the necessary information until September 13 and apply to anilsethi@ethz.ch					40.40	110 500 4	
363-1082-00 V 363-1109-00L		o Startu <b>W</b>	3 credits	2 hrs <b>2G</b>	Mon	16-18	HG E33.1	A. Sethi
363-1109-00L	Introduction to Microeconomics GESS (Science in Perspective): This course is only for students enrolled in a Bachelor's degree programme. Students enrolled in a Master's degree	vv	3 creans	2G				
	programme may attend "Principles of Microeconomics" (LE 363-0503-00L) instead.							
	Note for D-MAVT students: If you have already successfully completed "Principles of Microeconomics" (LE 363-0503-00L), then you will not be permitted to attend it again.							
363-1109-00 G	Einführung in die Mikroökonomie Zusätzliche (freiwillige) Termine für Übunge werden zu Beginn der Vorlesung bekanntge			2 hrs	Tue	10-12	HG E5	M. Wörter, M. Beck
376-1177-00L	Human Factors I	W	3 credits	2V	_			
376-1177-00 V	Human Factors I			2 hrs	Tue	14-16	HG G3	M. Menozzi Jäckli, R. Huang, M. Siegrist
<b>401-0353-00L</b> 401-0353-00 V	Analysis 3 Analysis 3	W	4 credits	<b>2V+2U</b> 2 hrs	Mon	08-10	HG G3	M. lacobelli

401-0353-00 U	Analysis 3 Groups are selected in myStudies. Exercises start in the second week of the st Es wird auch mindestens eine Übungsgrup, angeboten.			2 hrs	Fri	10-12	CAB G56 CLA E4 ETZ E7 ETZ J91 ETZ K91 LEE C114 LFV E41 LFW B3	M. lacobelli
401-0625-01L	Applied Analysis of Variance and Experimental Design	W	5 credits	2V+1U				
	Applied Analysis of Variance and Experime Applied Analysis of Variance and Experime		-	2 hrs 1 hrs	Mon Mon/2w	14-16 16-18	HG G5 HG E1.1	L. Meier L. Meier
<b>401-4623-00L</b> 401-4623-00 G	Time Series Analysis Time Series Analysis Does not take place this semester.	W	6 credits	<b>3G</b> 3 hrs				F. Balabdaoui
401-7855-00L	Computational Astrophysics (University of Zurich) No enrolment to this course at ETH Zurich. Book the corresponding module directly at UZH as an incoming student. UZH Module Code: AST245 Mind the enrolment deadlines at UZH:	W	6 credits	2V				
401-7855-00 V	https://www.uzh.ch/cmsssl/en/studies/appli cation/deadlines.html Computational Astrophysics (University of Z	Zurich)		2 hrs	Tue	12-14	UNI ZH.	L. M. Mayer
	**Course at University of Zurich**						0111 2111	
	Introduction to Computational Physics Introduction to Computational Physics Introduction to Computational Physics	W	8 credits	2V+2U 2 hrs 2 hrs	Tue Tue	10-12 08-10	HCI J7 HCI J7	A. Adelmann A. Adelmann
<b>402-1701-00L</b> 402-1701-00 V	•	W	7 credits	<b>4V+2U</b> 4 hrs	Tue	10-12	HCI G7	K. Ensslin
402-1701-00 V	Findet im HPH G1 statt mit Videoübertragu G7 und Do 14-16 ins HCl J7	ng Di 10	)-12 ins HCl	41113	Thu	14-16	HPH G1 HCI J7	R. Liissiiii
402-1701-00 U	Physik I Zusätzlich wird das StudyCenter angeboter http://studycenter.ethz.ch/	n:	6 credits	2 hrs	Thu	12-14	HPH G1 HCI D4 HCI D6 HCI E2 HCI E8 HCI F2 HCI J8 HCP E47.3 HCP E47.4 HIL B21 HIL D10.2 HIL E10.1 HIL E5 HIL F10.3 HIT F31.2 HIT F32 HIT J51 HIT J53 HIT K51 HIT K52 HPK D24.2 HPK D34 HPT C103	K. Ensslin
636-0007-00 V	, ,	expecte &A sess d via Zo essions d on sele	ed to watch the sion that will be om. in presence in ected	3 hrs e e	Wed	14-17	HG D3.2	J. Stelling
636-0007-00 U	Computational Systems Biology Tutorials on Fridays 10:15-12:00 will be hel	d via Zo	om.	2 hrs	Fri	10-12	HG D1.2	J. Stelling
651-4241-00L	Numerical Modelling I and II: Theory and Applications	w	6 credits	4G				
	Numerical Modeling I: Theory Numerical Modeling II: Applications			24s hrs 28s hrs	Mon/1 Mon/2	08-12 08-12	NO F39 NO F39	T. Gerya T. Gerya
<b>701-0071-00L</b> 701-0071-00 V	Mathematics III: Systems Analysis Mathematik III: Systemanalyse	W	4 credits	<b>2V+1U</b> 2 hrs	Fri	10-12	ML D28	R. Knutti, S. Schemm, H. Wernli

701-0071-00 U	Mathematik III: Systemanalyse			1 hrs	Mon	11-12	CAB G57 CHN F46 HG E33.3 HG F26.5 HG G26.3 LEE D101 LEE D105 LEE E101 ML E12 ML F34 NO E11 NO E39	L. Brunner, S. Schemm, P. Zschenderlein
701-0901-00L	All ETH Bachelor's, Master's and exchange students can take part in the	W	1 credit	3S				
701-0901-00 S	ETH week. No prior knowledge is required ETH Week 2021: Health for Tomorrow The ETH Week 2021 takes place from Selis open to Bachelor and Master students from popertments. All students must apply through lication process at www.ethz.ch/ethwesubject to successful selection through this	ot. 12-17. rom all E ugh a co ek. Partic	TH mpetitive cipation is	45s hrs				C. Bratrich, S. Brusoni, A. Burden, A. Cabello Llamas, R. Knutti, I. Mansuy, F. Rittiner A. Vaterlaus, C. Wolfrum
851-0370-00L	Didactic Basics for Student Teaching Assistants	W	1 credit	1S				
851-0370-00 S	Didactic Basics for Student Teaching Assis Self-paced online course: https://moodle- app2.let.ethz.ch/course/view.php?id=1512			14s hrs				S. Pedrocchi, B. Volk
	Consolidation Workshops in November (dain the online course at the beginning of the							
► GESS Sc	cience in Perspective							
	e in Perspective							
	see Science in Perspective: Type A: Enhancement of Reflection Capability							
	Recommended Science in Perspective (Type B) for D-INFK.							
▶► Langua	age Courses							
	see Science in Perspective: Language Courses ETH/UZH							
► Bachelo	r's Thesis							
Number	Title	Туре	ECTS	Hours				Lecturers
252-0500-00L	Bachelor's Thesis	0	10 credits	21D				
252-0500-00 D	Bachelor-Arbeit			300s hrs	by ap	ot.		Professors
Computer Sc	ience Bachelor - Key for Type							
-	Compulsory		I	E-		Rosommon	ded, not eligible	for gradita
	Eligible for credits and recommended			Z-			side the curricu	
W	Eligible for credits			Dr		Suitable for		
Key for Hours	e							
•				D		rootical/lab	orotony course	
V G	lecture lecture with exercise			P A		oracticai/iab ndependen	oratory course	
U	exercise			D		naepenaen liploma the	. ,	
S	seminar			R		-	sis rse / private stu	ıdv
-						2		<i>,</i>

colloquium

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European Credit Transfer and Accumulation System Special students and auditors need special permission from the lecturers.

## **Computer Science TC**

Detailed information on the programme at: www.didaktischeausbildung.ethz.ch

### ► Educational Science

General course offerings in the category Educational Science are listed under "Programme: Educational Science for Teaching Diploma and TC".

Number	Title		ECTS	Hours				Lecturers
351-0240-00L	Human Learning (EW1) This lecture is only apt for students who intend to enrol in the programs "Teaching Diploma" or "Teaching Certificate". It is about learning in childhood and adolescence.	0	2 credits	2V				
351-0240-00 V	Menschliches Lernen (EW1)			2 hrs	Tue	18-20	HG F1	E. Stern
351-0240-22L	Coping with Psychosocial Demands of Teaching (EW4 DZ)  Number of participants limited to 20.	W	2 credits	3\$				
	The successful participation in EW1 ("Human Learning") and EW2 ("Designing Learning Environments for School") is recommended, but not a mandatory prerequisite.							
351-0240-22 S	Bewältigung psychosozialer Anforderungen DZ) ■	im Leh	rberuf (EW4	3 hrs	Tue	09-12	HG E33.1 HG F26.5 HG G26.1	<ul><li>U. Markwalder, S. Maurer,</li><li>S. Peteranderl</li></ul>
851-0242-06L	Cognitively Activating Instructions in MINT Subjects Enrolment only possible with matriculation in Teaching Diploma or Teaching Certificate (excluding Teaching Diploma Sport).	W	2 credits	2\$				
	This course unit can only be enrolled after successful participation in, or during enrollment in the course "Human Learning (EW 1)".							
351-0242-06 S	Kognitiv aktivierender Unterricht in den MIN Unregelmässige Lehrveranstaltung; für eine Semesterplanung wird um frühe Anmeldung Erscheinen zum ersten Lehrveranstaltungs	e reibung g und pe	gslose ersönliches	2 hrs	Wed	18-20	ML H41.1	R. Schumacher
51-0242-07L	Human Intelligence Enrolment only possible with matriculation in Teaching Diploma or Teaching Certificate (excluding Teaching Diploma Sport). Number of participants limited to 30. This course unit can only be enrolled after successful participation in, or during enrollment in the course "Human Learning (EW 1)".	w	1 credit	18				
51-0242-07 S	Menschliche Intelligenz Unregelmässige Lehrveranstaltung. An zwei Terminen findet die Lehrveranstalt TeilnehmerInnen statt und an den übrigen einem Teil der Studierenden (Kleingruppen gemeinsam vereinbart.	Termine	n nur mit	14s hrs	Wed	16-18	ML F40	E. Stern
51-0242-08L	Research Methods in Educational Science Number of participants limited to 30 This course unit can only be enrolled after successful participation in, or during enrollment in the course "Human Learning (EW 1)".	W	1 credit	2\$				
851-0242-08 S	Forschungsmethoden der empirischen Bildi Unregelmässige Lehrveranstaltung.	ungsfors	schung	21s hrs	Wed	12-15	LFW C1	<b>P. Edelsbrunner</b> , T. Braas, C. M. Thurn
	Zwei obligatorische Präsenztermine: 29.09. An den übrigen Terminen nur mit einem Te (jeweils mit 1-2 Kleingruppen).							
351-0242-11L	<b>Gender Issues In Education and STEM</b> Number of participants limited to 30.	W	2 credits	2\$				
	Enrolment only possible with matriculation in Teaching Diploma or Teaching Certificate (excluding Teaching Diploma Sport).							
	Prerequisite: students should be taking the course 851-0240-00L Human Learning (EW1) in parallel, or to have successfully completed it.							

Thu 2 hrs

10-12 LEE C114

**M. Berkowitz Biran**, T. Braas, C. M. Thurn

## ► Subject Didactics and Professional Training

Number	Title	Type	ECTS	Hours				Lecturers
272-0101-00L	Subject Didactics of Computer Science I Simultaneous enrolment in Introductory Practical in Computer Science - course 272-0201-00L - is compulsory.		4 credits	3G				
272-0101-00 G	Fachdidaktik Informatik I ■ Permission from lecturers required for all stu	ıdents		3 hrs	Wed	10-13	CAB G52	G. Serafini, J. Hromkovic
271-0102-00L	Teaching Internship Including Examination Lessons in Computer Science Teaching Internship Computer Science for TC.	0	4 credits	9P				
_	Repetition of the Teaching Internship is excluded even if Examination Lessons are to be repeated.							
271-0102-00 P	Unterrichtspraktikum mit Prüfungslektionen Permission from lecturers required for all stu		tik ■	120s hrs	by appt.			J. Hromkovic, G. Serafini
272-0103-00L	Mentored Work Subject Didactics Computer Science A Mentored Work Subject Didactics in Computer Science for TC and Teaching Diploma.	0	2 credits	4A				
272-0103-00 A	Mentorierte Arbeit Fachdidaktik Informatik A Lehrdiplom ■ Permission from lecturers required for all stu		und	60s hrs	by appt.			J. Hromkovic, G. Serafini
► Specializ	ed Courses in Respective Subje			ional Fo	cus			
Number	Title	Туре	ECTS	Hours				Lecturers
272-0400-00L	Mentored Work Specialised Courses in the Respective Subject with Educational Focus Computer Sc A	W+	2 credits	4A				
272-0400-00 A	Mentorierte Arbeit Fachwissenschaftliche Verpädagogischem Fokus Informatik A ■ Permission from lecturers required for all stu		g mit	60s hrs	by appt.			J. Hromkovic, G. Serafini
252-0237-00L	Concepts of Object-Oriented Programming	W	8 credits	3V+2U+2	A			
252-0237-00 V				3 hrs s	Thu	09-12	HG E1.1	P. Müller
252-0237-00 U	Concepts of Object-Oriented Programming			2 hrs	Fri	08-10 10-12	CAB G57 CHN D42 CAB G57 CHN D42 CHN D44	P. Müller
252-0237-00 A	Concepts of Object-Oriented Programming			2 hrs				P. Müller
252-0417-00L	Randomized Algorithms and Probabilistic Methods	W	10 credits	3V+2U+4	A			
252-0417-00 V	Randomized Algorithms and Probabilistic Me	ethods		3 hrs	Wed Thu	08-09 16-18	ML D28 ML D28	A. Steger
252-0417-00 U	Randomized Algorithms and Probabilistic Me	ethods		2 hrs	Tue	14-16 16-18	HG D1.2 HG D1.2	A. Steger
252-0417-00 A	Randomized Algorithms and Probabilistic Machinery Project Work, no fixed presence required.	ethods		4 hrs				A. Steger
252-0535-00L	Advanced Machine Learning	W	10 credits	3V+2U+4	Α			
252-0535-00 V	Advanced Machine Learning Freitag 8-10 HG F1 mit Videoübertragung in Donnerstag 15-16 ETA F 5 mit Videoübertra			3 hrs	Thu Fri	15-16 08-10	ETA F5 ETF E1 HG F1	<b>J. M. Buhmann</b> , C. Cotrini Jimenez
252-0535-00 U	Advanced Machine Learning	gang m	o = = .	2 hrs	Wed Thu	14-16 16-18 16-18	HG F3 CAB G61 CAB G61 ML F34	J. M. Buhmann, C. Cotrini Jimenez
252-0535-00 A	Advanced Machine Learning Project Work, no fixed presence required.			4 hrs	Fri	14-16	CAB G61	J. M. Buhmann, C. Cotrini Jimenez
252-1407-00L	Algorithmic Game Theory	w	7 credits	3V+2U+1	Α			
	Algorithmic Game Theory			3 hrs	Fri	10-13	CHN C14	P. Penna
	Algorithmic Game Theory			2 hrs	Tue	10-12 16-18	CAB G57 CAB G59 LFW B3	P. Penna

263-2800-00L	Design of Parallel and High-Performance W 9 cred Computing Number of participants limited to 125.	its 3V+2U+	+3A			
263-2800-00 V	Design of Parallel and High-Performance Computing	3 hrs	Mon	13-16	CAB G11	T. Hoefler, M. Püschel
263-2800-00 U	Design of Parallel and High-Performance Computing	2 hrs	Thu	14-16	CHN C14	T. Hoefler, M. Püschel
263-2800-00 A	Design of Parallel and High-Performance Computing Project Work, no fixed presence required.	3 hrs				T. Hoefler, M. Püschel
Computer Sci	ience TC - Key for Type					
0	Compulsory	E-	F	Recommen	ded, not eligibl	le for credits
W+	Eligible for credits and recommended	Z	(	Courses ou	tside the curric	culum
W	Eligible for credits	Dr		Suitable for	doctorate	
Key for Hours						
V	lecture	P	F	oractical/lab	oratory course	e
G	lecture with exercise	Α	i	ndependen	t project	
U	exercise	D	(	diploma the	sis	
S	seminar	R	r	revision cou	ırse / private s	tudy
K	colloquium					

## **Computer Science Teaching Diploma**

More informations at: https://www.ethz.ch/de/studium/didaktische-ausbildung/studienangebot-zulassung/lehrdiplom-fuer-maturitaetsschulen.html

#### **▶** Educational Science

Course offerings in the category Educational Science are listed under "Programme: Educational Science for Teaching Diploma and TC".

Number	Title	Type	ECTS	Hours				Lecturers
851-0242-06L	Cognitively Activating Instructions in MINT Subjects Enrolment only possible with matriculation in Teaching Diploma or Teaching Certificate (excluding Teaching Diploma Sport).  This course unit can only be enrolled after successful participation in, or during	W	2 credits	28				
	enrollment in the course "Human Learning (EW 1)".							
851-0242-06 S	Kognitiv aktivierender Unterricht in den MIN Unregelmässige Lehrveranstaltung; für eine Semesterplanung wird um frühe Anmeldung Erscheinen zum ersten Lehrveranstaltungs	e reibung g und pe	gslose ersönliches	2 hrs	Wed	18-20	ML H41.1	R. Schumacher
851-0242-07L	Human Intelligence Enrolment only possible with matriculation in Teaching Diploma or Teaching Certificate (excluding Teaching Diploma Sport). Number of participants limited to 30. This course unit can only be enrolled after successful participation in, or during enrollment in the course "Human Learning (EW 1)".	W	1 credit	15				
851-0242-07 S	` '	Terminer	n nur mit	14s hrs	Wed	16-18	ML F40	E. Stern
851-0242-08L	Research Methods in Educational Science Number of participants limited to 30 This course unit can only be enrolled after successful participation in, or during enrollment in the course "Human Learning (EW 1)".	W	1 credit	2S				
851-0242-08 S	Forschungsmethoden der empirischen Bildi Unregelmässige Lehrveranstaltung. Zwei obligatorische Präsenztermine: 29.09. An den übrigen Terminen nur mit einem Te (jeweils mit 1-2 Kleingruppen).	und 17.	11.	21s hrs	Wed	12-15	LFW C1	P. Edelsbrunner, T. Braas, C. M. Thurn
851-0242-11L	Gender Issues In Education and STEM Number of participants limited to 30.  Enrolment only possible with matriculation in Teaching Diploma or Teaching Certificate (excluding Teaching Diploma Sport).  Prerequisite: students should be taking the course 851-0240-00L Human Learning (EW1) in parallel, or to have successfully	W	2 credits	2\$				
851-0242-11 S	completed it. Gender Issues In Education and STEM ■			2 hrs	Thu	10-12	LEE C114	M. Berkowitz Biran, T. Braas, C. M. Thurn
	see Educational Science Teaching Diploma	1						
851-0238-01L	Support and Diagnosis of Knowledge Acquisition Processes (EW3)  Enrolment only possible with matriculation in Teaching Diploma (except for students of Sport Teaching Diploma, who complete the sport-specific course unit EW3) and for students who intend to enrol in the "Teaching Diploma".		3 credits	3S				
851-0238-01 S	Prerequisites: successful participation in 851-0240-00L "Human Learning (EW1)". Unterstützung und Diagnose von Wissense (EW3) ■ Bei grosser Anzahl an Teilnehmenden wir din zwei Gruppen stattfinden.	·		3 hrs	Tue	14-17	CHN D42 CHN D44	<b>P. Edelsbrunner</b> , J. Maue, C. M. Thurn

## ► Subject Didactics in Computer Science

Number	Title	Туре	ECTS	Hours				Lecturers
272-0101-00L	Subject Didactics of Computer Science I Simultaneous enrolment in Introductory Practical in Computer Science - course 272-0201-00L - is compulsory.	0	4 credits	3 <b>G</b>				
272-0101-00 G	Fachdidaktik Informatik I ■ Permission from lecturers required for all st	udents		3 hrs	Wed	10-13	CAB G52	G. Serafini, J. Hromkovic
272-0103-00L	Mentored Work Subject Didactics Computer Science A Mentored Work Subject Didactics in Computer Science for TC and Teaching Diploma.	0	2 credits	4A				
272-0103-00 A	Mentorierte Arbeit Fachdidaktik Informatik A Lehrdiplom • Permission from lecturers required for all st		und	60s hrs	by appt			J. Hromkovic, G. Serafini
272-0104-00L	Mentored Work Subject Didactics Computer Science B Mentored Work Subject Didactics in Computer Science for Teaching Diploma and for students upgrading TC to Teaching Diploma.	0	2 credits	4A				
272-0104-00 A	Mentorierte Arbeit Fachdidaktik Informatik E Permission from lecturers required for all st		olom ■	60s hrs	by appt	•		J. Hromkovic, G. Serafini
	onal Training		.,			D . " .		
· · · · · · · · · · · · · · · · · · ·	ant: You can only enrole in the courses of thi				nan 12 C	r left for	possible additio	· ·
Number	Title	Туре	ECTS	Hours				Lecturers
272-0201-00L	Introductory Practical in Computer Science Simultaneous enrolment in Subject Didactics of Computer Science I - course 272-0101-00L - is compulsory.	0	3 credits	6P				
272-0201-00 P	Einführungspraktikum Informatik ■ Permission from lecturers required for all st	udents		90s hrs	by appt			J. Hromkovic, G. Serafini
	Professional Exercises Berufspraktische Übungen ■ Permission from lecturers required for all st	<b>O</b> udents	2 credits	<b>4U</b> 60s hrs	by appt			J. Hromkovic, G. Serafini
272-0203-00L	Teaching Internship in Computer Science	0	8 credits	17P				
272-0203-00 P	Unterrichtspraktikum Informatik Lehrdiplom Permission from lecturers required for all st			240s hrs	by appt			J. Hromkovic, G. Serafini
272-0204-00L	Teaching Internship in Computer Science II Teaching Internship for students upgrading TC to Teaching Diploma.	W	4 credits	9P				
272-0204-00 P	Unterrichtspraktikum II Informatik (ohne Prü Permission from lecturers required for all st	•	ktionen) ■	120s hrs	by appt			J. Hromkovic, G. Serafini
272-0205-01L	Examination Lesson I in Computer Science Simultaneous enrolment in "Examination Lesson II in Computer Science" (272- 0205-02L) is compulsory.	0	1 credit	2P				
272-0205-01 P	Prüfungslektion untere Stufe Informatik ■ Permission from lecturers required for all st	udents		30s hrs	by appt			J. Hromkovic, G. Serafini
272-0205-02L	Examination Lesson II in Computer Science Simultaneous enrolment in "Examination Lesson I in Computer Science" (272- 0205-01L) is compulsory.	0	1 credit	2P				
272-0205-02 P	Prüfungslektion obere Stufe Informatik ■ Permission from lecturers required for all st	udents		30s hrs	by appt			J. Hromkovic, G. Serafini
► Spec. Co	urses in Resp. Subj. w/ Educ. F	ocus	& Furthe	r Subj. D	idactio	s		
Number	Title	Туре	ECTS	Hours				Lecturers
272-0400-00L	Mentored Work Specialised Courses in the Respective Subject with Educational Focus Computer Sc A	0	2 credits	4A				
272-0400-00 A	Mentorierte Arbeit Fachwissenschaftliche V pädagogischem Fokus Informatik A ■ Permission from lecturers required for all st	·	g mit	60s hrs	by appt	•		J. Hromkovic, G. Serafini
272-0401-00L	Mentored Work Specialised Courses in the Respective Subject with Educational		2 credits	4A				

272-0401-00 A	Programming  O V Concepts of Object-Oriented Programming Online lecture: This lecture will take place online will remain blocked on campus for students to form there.  O U Concepts of Object-Oriented Programming  O A Randomized Algorithms and Probabilistic Methology  O V Randomized Algorithms and Probabilistic Methology  O A Randomized Algorithms and Probabilistic Methology  O A Randomized Algorithms and Probabilistic Methology  O A Advanced Machine Learning  W Advanced Machine Learning  Freitag 8-10 HG F1 mit Videoübertragung ins Hoonnerstag 15-16 ETA F5 mit Videoübertragung  O V Advanced Machine Learning  Project Work, no fixed presence required.  O A Advanced Machine Learning  Project Work, no fixed presence required.  O A Algorithmic Game Theory  Project Work, no fixed presence required.  O Design of Parallel and High-Performance W  Computing  Number of participants limited to 125.  O V Design of Parallel and High-Performance Computing  O A Desig	g mit	60s hrs	by a	opt.		J. Hromkovic, G. Serafini
252-0237-00L		8 credits	3V+2U+2	2 <b>A</b>			
252-0237-00 V	Concepts of Object-Oriented Programming Online lecture: This lecture will take place online. R will remain blocked on campus for students to follow		3 hrs s	Thu	09-12	HG E1.1	P. Müller
252-0237-00 U	Concepts of Object-Oriented Programming		2 hrs	Fri	08-10 10-12	CAB G57 CHN D42 CAB G57 CHN D42 CHN D44	P. Müller
252-0237-00 A	Concepts of Object-Oriented Programming		2 hrs				P. Müller
252-0417-00L		10 credits	3V+2U+4	1A			
	· ·		3 hrs	Wed Thu	16-18	ML D28 ML D28	A. Steger
	· ·		2 hrs	Tue	14-16 16-18	HG D1.2 HG D1.2	A. Steger
	Project Work, no fixed presence required.		4 hrs				A. Steger
252-0535-00L	J	10 credits	3V+2U+4		45.40	CT 4 CC	LM Determent
252-0535-00 V	Advanced Machine Learning Freitag 8-10 HG F1 mit Videoübertragung ins HG I Donnerstag 15-16 ETA F 5 mit Videoübertragung ir		3 hrs	Thu Fri	15-16 08-10	ETA F5 ETF E1 HG F1 HG F3	J. M. Buhmann, C. Cotrini Jimenez
252-0535-00 U	Advanced Machine Learning		2 hrs	Wed	16-18	CAB G61 CAB G61	J. M. Buhmann, C. Cotrini Jimenez
				Thu Fri	16-18 14-16	ML F34 CAB G61	
252-0535-00 A	•		4 hrs		14 10	O/12 G01	<b>J. M. Buhmann</b> , C. Cotrini Jimenez
252-1407-00L	Algorithmic Game Theory W	7 credits	3V+2U+1	1A			
252-1407-00 V	Algorithmic Game Theory		3 hrs	Fri	10-13	CHN C14	P. Penna
252-1407-00 U	Algorithmic Game Theory		2 hrs	Tue	10-12 16-18	CAB G57 CAB G59 LFW B3	P. Penna
252-1407-00 A			1 hrs		.00	2 20	P. Penna
263-2800-00L	Computing	9 credits	3V+2U+3	3A			
263-2800-00 V		ıq	3 hrs	Mon	13-16	CAB G11	T. Hoefler, M. Püschel
263-2800-00 U	Design of Parallel and High-Performance Computin	ıg	2 hrs	Thu	14-16	CHN C14	T. Hoefler, M. Püschel
	Design of Parallel and High-Performance Computin		3 hrs				T. Hoefler, M. Püschel
•	cory Elective Courses r course offerings from the category Educational Scie	ence are listen	under "Pr	ogrami	me: Educatio	onal Science fo	r Teaching Dinloma and TC"
, and to	see Compulsory Elective Courses Teaching Diploma			- y. w	Zadodio	20.01100 10	
Computer Sci	ence Teaching Diploma - Key for Type						
•	Compulsory	ı	_		Doggmass	ded, not eligible	o for gradita
	Compulsory Eligible for credits and recommended		E- Z			dea, not eligible tside the curric	
	Eligible for credits		Dr		Suitable for		шшп
Key for Hours	<b>.</b>						
V	lecture		Р		practical/lab	oratory course	
	lecture with exercise		A		independen	-	
U	exercise		D		diploma the		
_			D				
S	seminar		R		revision cou	ırse / private st	udy

ECTS European Credit Transfer and Accumulation System

Special students and auditors need special permission from the lecturers.

## **Computer Science Master**

## ► Master Studies (Programme Regulations 2020)

## **▶▶** Majors

## ▶▶▶ Major in Data Management Systems

### **▶▶▶▶** Core Courses

Number	Title T	уре	ECTS	Hours				Lecturers
263-3010-00L	Big Data W	ı	10 credits	3V+2U+	-4A			
263-3010-00 V	Big Data Online lecture: This lecture will primarily take p Reserved rooms will remain blocked on campu follow the course from there.			3 hrs	Tue Wed	14-16 09-10	CAB G61 ML H44	G. Fourny
263-3010-00 U	Big Data Groups are selected in myStudies.			2 hrs	Wed	14-16	CAB G52 HG E33.1 HG G26.1 ON LINE	G. Fourny
					Fri	14-16	CAB G52 ON LINE	
263-3010-00 A	Big Data Individual work to get hands-on experience wit covered, no fixed presence required.	th the	technologies	4 hrs			ON EINE	G. Fourny
263-3845-00L	Data Management Systems W	ī	8 credits	3V+1U+	-3A			
263-3845-00 V	Data Management Systems			3 hrs	Wed Fri	10-12 08-09	CAB G61 HG G3	G. Alonso
263-3845-00 U	Data Management Systems			1 hrs	Fri	09-10	HG D5.1 HG E21 HG G26.1	G. Alonso
263-3845-00 A	Data Management Systems			3 hrs				G. Alonso

## **▶▶▶** Elective Courses

Number	Title	Type	ECTS	Hours				Lecturers
252-0535-00L	Advanced Machine Learning	w	10 credits	3V+2U+4	4A			
252-0535-00 V	Advanced Machine Learning			3 hrs	Thu	15-16	ETA F5	J. M. Buhmann,
	Freitag 8-10 HG F1 mit Videoübertragung Donnerstag 15-16 ETA F 5 mit Videoübert				Fri	08-10	ETF E1 HG F1 HG F3	C. Cotrini Jimenez
252-0535-00 U	Advanced Machine Learning			2 hrs	Wed	14-16 16-18	CAB G61 CAB G61	J. M. Buhmann, C. Cotrini Jimenez
					Thu Fri	16-18 14-16	ML F34 CAB G61	
252-0535-00 A	Advanced Machine Learning Project Work, no fixed presence required.			4 hrs				<b>J. M. Buhmann</b> , C. Cotrini Jimenez
252-1414-00L	System Security	w	7 credits	2V+2U+2	2A			
252-1414-00 V	System Security			2 hrs	Mon	10-12	HG D1.2	S. Capkun, A. Perrig
252-1414-00 U	System Security The exercises begin in the second week or	the sem	nester.	2 hrs	Thu	14-16 16-18	HG D3.2 CAB G11	S. Capkun, A. Perrig
252-1414-00 A	System Security			2 hrs				S. Capkun, A. Perrig
263-2800-00L	Design of Parallel and High-Performanc Computing Number of participants limited to 125.	e W	9 credits	3V+2U+	3A			
263-2800-00 V	Design of Parallel and High-Performance (	Computin	ıg	3 hrs	Mon	13-16	CAB G11	T. Hoefler, M. Püschel
263-2800-00 U	Design of Parallel and High-Performance (	Computin	ıg	2 hrs	Thu	14-16	CHN C14	T. Hoefler, M. Püschel
263-2800-00 A	Design of Parallel and High-Performance of Project Work, no fixed presence required.	Computin	g	3 hrs				T. Hoefler, M. Püschel
263-3210-00L	Deep Learning Number of participants limited to 320.	W	8 credits	3V+2U+2	2A			
263-3210-00 V	Deep Learning			3 hrs	Wed Thu	13-14 14-16	ML D28 ML D28	F. Perez Cruz, A. Lucchi
263-3210-00 U	Deep Learning			2 hrs	Mon Wed	16-18 16-18	HG G5 ML D28	F. Perez Cruz, A. Lucchi
263-3210-00 A	Deep Learning			2 hrs				F. Perez Cruz, A. Lucchi
263-3850-00L	Informal Methods	w	5 credits	2G+2A				
263-3850-00 G	Informal Methods			2 hrs	Thu	10-12	CAB G59	D. Cock
	Informal Methods			2 hrs				D. Cock

## ▶▶▶ Major in Machine Intelligence

### **▶▶▶** Core Courses

Number	Title	Type ECTS					Lecturers	
252-0535-00L	Advanced Machine Learning	W	10 credits	3V+2U+	-4A			
252-0535-00 V	Advanced Machine Learning Freitag 8-10 HG F1 mit Videoübertragung	ins HG F	=3	3 hrs	Thu	15-16	ETA F5 ETF E1	<b>J. M. Buhmann</b> , C. Cotrini Jimenez
	Donnerstag 15-16 ETA F 5 mit Videoübertr	ragung ir	is ETF E 1		Fri	08-10	HG F1 HG F3	

252-0535-00 A Adva	anced Machine Learning			2 hrs	Wed	14-16 16-18	CAB G61 CAB G61	J. M. Buhmann, C. Cotrini Jimenez
252-0535-00 A Adva					Thu	16-18	ML F34	3. 33mm 3mm3m3
252-0535-00 A Adva					Fri	14-16	CAB G61	
	anced Machine Learning ect Work, no fixed presence required.			4 hrs				J. M. Buhmann, C. Cotrini Jimenez
	p Learning	w	8 credits	3V+2U+	-2A			
	nber of participants limited to 320.			0.5	\A/I	40.44	MI Doo	E Danie Owe A Lucabi
263-3210-00 V Deep	p Learning			3 hrs	Wed Thu	13-14 14-16	ML D28 ML D28	F. Perez Cruz, A. Lucchi
263-3210-00 U Deep	p Learning			2 hrs	Mon	16-18	HG G5	F. Perez Cruz, A. Lucchi
263-3210-00 A Deep	n Loorning			2 hrs	Wed	16-18	ML D28	F. Perez Cruz, A. Lucchi
		147	0		0.4			F. Ferez Cruz, A. Lucciii
	pabilistic Artificial Intelligence pabilistic Artificial Intelligence	W	8 credits	3V+2U+ 3 hrs	- <b>za</b> Fri	10-12	ETA F5	A. Krause
	0-12 und 13-14 im ETA F5 mit Videoül	bertragu	ng ins ETF E1			10 12	ETF E1	711 111 111000
						13-14	ETA F5 ETF E1	
263-5210-00 U Prob	pabilistic Artificial Intelligence			2 hrs	Thu	16-18	CHN C14	A. Krause
	A session: Monday, 17-18, via zoom							
263-5210-00 A Prob	pabilistic Artificial Intelligence			2 hrs				A. Krause
▶▶▶▶ Elective	Courses							
Number Title	<del></del>	Туре	ECTS	Hours				Lecturers
252-3005-00L Natu	ıral Language Processing	W	5 credits	2V+2U+	-1A			
	nber of participants limited to 400.							
	ral Language Processing  MRS21 in the autumn semester.			2 hrs	Mon	12-14	HG F7	R. Cotterell
252-3005-00 U Natu	ıral Language Processing			2 hrs	Wed	12-14	HG F7	R. Cotterell
252-3005-00 A Natu	ıral Language Processing			1 hrs				R. Cotterell
	putational Biomedicine	W	5 credits	2V+1U+	-1A			
	nber of participants limited to 120.  Apputational Biomedicine			2 hrs	Tue	10-12	ML F39	V Poova G Pätsch
	ne lecture: This lecture will take place o	online. R	eserved room		rue	10-12	IVIL F39	V. Boeva, G. Rätsch
	remain on campus for students to follow	v the cou	ırse from					
there 261-5100-00 U Com	e. Iputational Biomedicine			1 hrs	Tue	13-14	ML F39	V. Boeva, G. Rätsch
Onlin	ne lecture: This lecture will take place o				1 40	10 11	WE TOO	20014, 0
will r there	remain on campus for students to follov	v the cou	ırse from					
	putational Biomedicine			1 hrs				V. Boeva, G. Rätsch
263-2400-00L Relia	able and Trustworthy Artificial	W	6 credits	2V+2U+	-1A			
	lligence			0 h.m	\\/ a al	11.10	HG G3	M. Vechev
	able and Trustworthy Artificial Intelligen ne event: Will primarily take place onlin		rved rooms wi	2 hrs	Wed	14-16	по оз	W. Vecnev
rema	ain blocked on campus for students to i							
there 263-2400-00 U Relia	e. able and Trustworthy Artificial Intelligen	ice		2 hrs	Mon	12-14	CAB G56	M. Vechev
Exer	rcise session will start in the second we	ek of the			Wed	12-14	CAB G51	
	ne event: Will primarily take place onlin ain blocked on campus for students to i							
	•							
there	able and Trustworthy Artificial Intelligen	ice		1 hrs				M. Vechev
263-2400-00 A Relia	anced Algorithms	W	9 credits	3V+2U+				
263-2400-00 A Relia 263-4500-00L Adva 263-4500-00 V Adva	anced Algorithms			<b>3V+2U+</b> 3 hrs	-3A Wed	09-12	HG D5.2	M. Ghaffari, G. Zuzic
263-2400-00 A Relia 263-4500-00 L Adva 263-4500-00 V Adva Onlin Rese	anced Algorithms ne lecture: This lecture will primarily tal erved rooms will remain blocked on cal	ke place	online.			09-12	HG D5.2	M. Ghaffari, G. Zuzic
263-2400-00 A Relia 263-4500-00 L Adva 263-4500-00 V Adva Onlin Rese folloo	anced Algorithms ne lecture: This lecture will primarily tal erved rooms will remain blocked on can w the course from there.	ke place	online.	3 hrs	Wed			
263-2400-00 A Relia 263-4500-00 L Adva 263-4500-00 V Adva Onlin Ress follo 263-4500-00 U Adva	anced Algorithms ne lecture: This lecture will primarily tak erved rooms will remain blocked on can w the course from there. anced Algorithms	ke place	online.	3 hrs 2 hrs		09-12	HG D5.2 CAB G59	M. Ghaffari, G. Zuzic
263-2400-00 A Relia 263-4500-00 V Adva 263-4500-00 V Adva 60100 263-4500-00 U Adva 263-4500-00 A Adva	anced Algorithms ne lecture: This lecture will primarily tak erved rooms will remain blocked on can w the course from there. anced Algorithms anced Algorithms	ke place mpus for	online. students to	3 hrs 2 hrs 3 hrs	Wed Fri			
263-2400-00 A Relia 263-4500-00 L Adva 263-4500-00 V Adva Onlin Resa follor 263-4500-00 U Adva 263-4500-00 A Adva 263-5005-00L Artif	anced Algorithms ne lecture: This lecture will primarily tak erved rooms will remain blocked on can w the course from there. anced Algorithms	ke place	online.	3 hrs 2 hrs	Wed Fri			M. Ghaffari, G. Zuzic
263-2400-00 A Relia 263-4500-00 L Adva 263-4500-00 V Adva Conlin Ress follor 263-4500-00 U Adva 263-4500-00 A Adva 263-5005-00 L Artif Num 263-5005-00 V Artifi	anced Algorithms ne lecture: This lecture will primarily takerved rooms will remain blocked on car w the course from there. anced Algorithms anced Algorithms ficial Intelligence in Education aber of participants limited to 75. icial Intelligence in Education	ke place mpus for W	online. students to  5 credits	3 hrs 2 hrs 3 hrs 2V+1U+ 2 hrs	Wed Fri			M. Ghaffari, G. Zuzic
263-2400-00 A Relia 263-4500-00 L Adva 263-4500-00 V Adva Ress follo 263-4500-00 U Adva 263-4500-00 A Adva 263-5005-00 L Artif Num 263-5005-00 V Artifi Onlin	anced Algorithms ne lecture: This lecture will primarily take erved rooms will remain blocked on car w the course from there. anced Algorithms anced Algorithms ficial Intelligence in Education aber of participants limited to 75.	ke place mpus for W online. R	online. students to  5 credits eserved room	3 hrs 2 hrs 3 hrs 2V+1U+ 2 hrs	Wed Fri	10-12	CAB G59	M. Ghaffari, G. Zuzic M. Ghaffari, G. Zuzic
263-2400-00 A Relia 263-4500-00 L Adva 263-4500-00 V Adva Conlin Ress follo 263-4500-00 U Adva 263-4500-00 A Adva 263-5005-00 L Artiff Num 263-5005-00 V Artiff Conlin will r from	anced Algorithms ne lecture: This lecture will primarily takerved rooms will remain blocked on car w the course from there. anced Algorithms anced Algorithms ficial Intelligence in Education aber of participants limited to 75. Icial Intelligence in Education ne lecture: This lecture will take place of the common blocked on campus for students of there.	ke place mpus for W online. R	online. students to  5 credits eserved room	3 hrs  2 hrs 3 hrs  2V+1U+ 2 hrs	Wed Fri -1A Thu	10-12	CAB G59	M. Ghaffari, G. Zuzic M. Ghaffari, G. Zuzic M. Sachan, T. Sinha
263-2400-00 A Relia 263-4500-00 L Adva 263-4500-00 V Adva 00/lin Rese follo 263-4500-00 U Adva 263-4500-00 A Adva 263-5005-00 L Artifi 0nlin will r from 263-5005-00 U Artifi	anced Algorithms ne lecture: This lecture will primarily takerved rooms will remain blocked on car w the course from there. anced Algorithms anced Algorithms ficial Intelligence in Education nber of participants limited to 75. icial Intelligence in Education ne lecture: This lecture will take place of the company of the students of there. icial Intelligence in Education	w  w  online. R  s to follow	online. students to  5 credits esserved room v the course	3 hrs 2 hrs 3 hrs 2V+1U+ 2 hrs	Wed Fri	10-12	CAB G59	M. Ghaffari, G. Zuzic M. Ghaffari, G. Zuzic
263-2400-00 A Relia 263-4500-00 L Adva 263-4500-00 V Adva 263-4500-00 U Adva 263-4500-00 A Adva 263-5005-00 L Artif Num 263-5005-00 U Artifi Onlin roon	anced Algorithms ne lecture: This lecture will primarily take erved rooms will remain blocked on car w the course from there. anced Algorithms anced Algorithms ficial Intelligence in Education nber of participants limited to 75. icial Intelligence in Education ne lecture: This lecture will take place of remain blocked on campus for students icial Intelligence in Education ne exercises: Will primarily take place on ns will remain blocked on campus for si	w wonline. R to follow	online. students to  5 credits eserved room v the course	3 hrs  2 hrs 3 hrs  2V+1U+ 2 hrs	Wed Fri -1A Thu	10-12	CAB G59	M. Ghaffari, G. Zuzic M. Ghaffari, G. Zuzic M. Sachan, T. Sinha
263-2400-00 A Relia 263-4500-00 L Adva 263-4500-00 V Adva 60lin Rese follo 263-4500-00 U Adva 263-4500-00 A Adva 263-5005-00 L Artif Num 263-5005-00 V Artifi Onlin room exer	anced Algorithms ne lecture: This lecture will primarily take erved rooms will remain blocked on car w the course from there. anced Algorithms anced Algorithms ficial Intelligence in Education nber of participants limited to 75. icial Intelligence in Education ne lecture: This lecture will take place of the remain blocked on campus for students of there. icial Intelligence in Education ne exercises: Will primarily take place of the swill remain blocked on campus for stroises from there.	w wonline. R to follow	online. students to  5 credits eserved room v the course	2 hrs 3 hrs 2V+1U+ 2 hrs s	Wed Fri -1A Thu	10-12	CAB G59	M. Ghaffari, G. Zuzic M. Ghaffari, G. Zuzic M. Sachan, T. Sinha M. Sachan, T. Sinha
263-2400-00 A Relia 263-4500-00 L Adva 263-4500-00 V Adva Conlin Rese folloo 263-4500-00 U Adva 263-4500-00 A Artiff Num 263-5005-00 U Artifi Onlin roon exer 263-5005-00 A Artiff	anced Algorithms ne lecture: This lecture will primarily takerved rooms will remain blocked on car w the course from there. anced Algorithms anced Algorithms ficial Intelligence in Education nber of participants limited to 75. Icial Intelligence in Education ne lecture: This lecture will take place of the emain blocked on campus for students of there. Icial Intelligence in Education ne exercises: Will primarily take place of the will remain blocked on campus for stroises from there. Icial Intelligence in Education	W  online. R  online. R  tudents t	5 credits eserved rooms the course eserved to follow the	2 hrs 3 hrs 2V+1U+ 2 hrs 1 hrs	Wed Fri -1A Thu	10-12	CAB G59	M. Ghaffari, G. Zuzic M. Ghaffari, G. Zuzic M. Sachan, T. Sinha
263-2400-00 A Relia 263-4500-00 L Adva 263-4500-00 V Adva 263-4500-00 U Adva 263-4500-00 A Adva 263-5005-00 L Artifi Onlin roon exer 263-5005-00 L Artifi 263-5255-00 Foul	anced Algorithms ne lecture: This lecture will primarily take erved rooms will remain blocked on car w the course from there. anced Algorithms anced Algorithms ficial Intelligence in Education nber of participants limited to 75. icial Intelligence in Education ne lecture: This lecture will take place of the remain blocked on campus for students of there. icial Intelligence in Education ne exercises: Will primarily take place of the swill remain blocked on campus for stroises from there.	W  online. R  online. R  tudents t	online. students to  5 credits eserved room v the course	2 hrs 3 hrs 2V+1U+ 2 hrs s	Wed Fri -1A Thu	10-12	CAB G59	M. Ghaffari, G. Zuzic M. Ghaffari, G. Zuzic M. Sachan, T. Sinha M. Sachan, T. Sinha
263-2400-00 A Relia 263-4500-00 L Adva 263-4500-00 V Adva 263-4500-00 U Adva 263-4500-00 A Artifi Num 263-5005-00 U Artifi Onlin roon exer 263-5005-00 L Artifi 263-5255-00 Four Num 263-5255-00 V Four	anced Algorithms ne lecture: This lecture will primarily take leved rooms will remain blocked on call with the course from there. Inced Algorithms Inced Algorithms Inced Algorithms Incial Intelligence in Education Indations of Reinforcement Learning Indations Inda	W  online. R  online. R  tudents t	5 credits eserved rooms the course eserved to follow the	2 hrs 3 hrs 2V+1U+ 2 hrs 1 hrs 1 hrs 2V+2A 2 hrs	Wed Fri -1A Thu	10-12	CAB G59	M. Ghaffari, G. Zuzic M. Ghaffari, G. Zuzic M. Sachan, T. Sinha M. Sachan, T. Sinha M. Sachan, T. Sinha
263-2400-00 A Relia 263-4500-00 L Adva 263-4500-00 V Adva 263-4500-00 U Adva 263-4500-00 A Artifi Num 263-5005-00 U Artifi Onlii roon exer 263-5005-00 L Artifi 263-5255-00 Four Num 263-5255-00 V Four	anced Algorithms ne lecture: This lecture will primarily take lerved rooms will remain blocked on car with the course from there. Inced Algorithms Inced Algorithms Inced Algorithms Inced Algorithms Inced Algorithms Inced Intelligence in Education Intel	W  online. R  online. R  tudents t	5 credits eserved rooms the course eserved to follow the	2 hrs 3 hrs 2V+1U+ 2 hrs s 1 hrs 1 hrs 2V+2A	Fri Thu Fri	10-12 16-18 18-19	CAB G59  RZ F21  RZ F21	M. Ghaffari, G. Zuzic M. Ghaffari, G. Zuzic M. Sachan, T. Sinha M. Sachan, T. Sinha M. Sachan, T. Sinha

263-5902-00 V Computer Vision	3 hrs	Wed Thu	14-16 12-13	NO C60 HG G5	M. Pollefeys, S. Tang, F. Yu
263-5902-00 U Computer Vision	1 hrs	Thu Fri	13-14 13-14	CAB G51 CAB G51	M. Pollefeys, S. Tang, F. Yu
263-5902-00 A Computer Vision	3 hrs		10-14	OAD 031	M. Pollefeys, S. Tang, F. Yu

## ▶▶▶ Major in Secure and Reliable Systems

## **▶▶▶▶** Core Courses

Number	Title	Type	ECTS	Hours				Lecturers
252-0237-00L	Concepts of Object-Oriented Programming	W	8 credits	3V+2U+	-2A			
252-0237-00 V	Concepts of Object-Oriented Programming Online lecture: This lecture will take place will remain blocked on campus for students from there.	online. R		3 hrs s	Thu	09-12	HG E1.1	P. Müller
252-0237-00 U	Concepts of Object-Oriented Programming			2 hrs	Fri	08-10 10-12	CAB G57 CHN D42 CAB G57 CHN D42 CHN D44	P. Müller
252-0237-00 A	Concepts of Object-Oriented Programming			2 hrs				P. Müller
252-0463-00L	Security Engineering	w	7 credits	2V+2U+	-2A			
252-0463-00 V	Security Engineering			2 hrs	Wed	10-12	CAB G51	S. Krstic
252-0463-00 U	Security Engineering Lab sessions every Friday in CAB H52 from	n 10-12		2 hrs	Wed Fri	14-16 10-12	CAB G51 CAB H52	S. Krstic
252-0463-00 A	Security Engineering			2 hrs				S. Krstic
252-1414-00L	System Security	W	7 credits	2V+2U+	-2A			
252-1414-00 V	System Security			2 hrs	Mon	10-12	HG D1.2	S. Capkun, A. Perrig
252-1414-00 U	System Security The exercises begin in the second week or	f the sem	ester.	2 hrs	Thu	14-16 16-18	HG D3.2 CAB G11	S. Capkun, A. Perrig
252-1414-00 A	System Security			2 hrs				S. Capkun, A. Perrig
263-2800-00L	Design of Parallel and High-Performanc Computing Number of participants limited to 125.	e W	9 credits	3V+2U+	-3A			
263-2800-00 V	Design of Parallel and High-Performance (	Computin	g	3 hrs	Mon	13-16	CAB G11	T. Hoefler, M. Püschel
263-2800-00 U	Design of Parallel and High-Performance (	Computin	g	2 hrs	Thu	14-16	CHN C14	T. Hoefler, M. Püschel
263-2800-00 A	Design of Parallel and High-Performance of Project Work, no fixed presence required.	Computin	g	3 hrs				T. Hoefler, M. Püschel
263-4640-00L	Network Security	w	8 credits	2V+2U+	-3A			
263-4640-00 V	Network Security			2 hrs	Tue	10-12	HG E1.2	A. Perrig, S. Frei, M. Legner K. Paterson
263-4640-00 U	Network Security			2 hrs	Thu	16-18	CAB G61	A. Perrig, S. Frei, M. Legner K. Paterson
263-4640-00 A	Network Security			3 hrs				A. Perrig, S. Frei, M. Legne K. Paterson

Number	Title	Type	ECTS	Hours				Lecturers
252-1411-00L	Security of Wireless Networks	W	6 credits	2V+1U+	-2A			
252-1411-00 V	Security of Wireless Networks			2 hrs	Tue	14-16	ML F34	S. Capkun, K. Kostiainer
252-1411-00 U	Security of Wireless Networks			1 hrs	Fri/2w	14-16	CAB E87.2	S. Capkun, K. Kostiainer
252-1411-00 A	Security of Wireless Networks includes a semester long project			2 hrs				S. Capkun, K. Kostiainer
263-2400-00L	Reliable and Trustworthy Artificial Intelligence	W	6 credits	2V+2U+	-1A			
263-2400-00 V	Reliable and Trustworthy Artificial Intellig Online event: Will primarily take place or remain blocked on campus for students there.	line. Rese			Wed	14-16	HG G3	M. Vechev
263-2400-00 U	Reliable and Trustworthy Artificial Intellig Exercise session will start in the second Online event: Will primarily take place or remain blocked on campus for students there.	week of the line. Rese	rved rooms w		Mon Wed	12-14 12-14	CAB G56 CAB G51	M. Vechev
263-2400-00 A	Reliable and Trustworthy Artificial Intellig	ence		1 hrs				M. Vechev
263-4657-00L	Advanced Encryption Schemes	w	5 credits	2V+1U+	-1A			
263-4657-00 V	Advanced Encryption Schemes			2 hrs	Thu	12-14	CAB G59	R. Gay
263-4657-00 U	Advanced Encryption Schemes			1 hrs	Wed/2v	и 16-17	HG E33.5	R. Gay
263-4657-00 A	Advanced Encryption Schemes			1 hrs				R. Gay
263-4665-00L	Zero-Knowledge Proofs Number of participants limited to 50.	W	5 credits	2V+1U+	-1A			
263-4665-00 V	Zero-Knowledge Proofs			2 hrs	Fri	12-14	CHN G42	J. Bootle
263-4665-00 U	Zero-Knowledge Proofs			1 hrs	Fri	15-16	CHN F42	J. Bootle
262 466E 00 A	Zero-Knowledge Proofs			1 hrs				J. Bootle

227-0579-00L	Hardware Security	W	7 credits	2V+2U+2	2A			
227-0579-00 V	Hardware Security			2 hrs	Tue	08-10	HG E41	K. Razavi
	An informal meeting is planned for Friday, 1	17 Decei	mber between					
	5 - 7 pm. The exact room will be announced	d later.						
	Please note that the classes of October 5 a	nd Octo	ber 19 take					
	place from 08:00 - 11:00 instead of 08:00 -	10:00 in	ETZ G71.2.					
227-0579-00 U	Hardware Security			2 hrs	Thu	10-12	IFW A32.1	K. Razavi
227-0579-00 A	Hardware Security			2 hrs				K. Razavi
	Project Work, no fixed presence required.							
	Please note that the classes of October 5 a place from 08:00 - 11:00 instead of 08:00 - Hardware Security Hardware Security	nd Octo			Thu	10-12	IFW A32.1	

## ▶▶▶ Major in Theoretical Computer Science

#### ▶▶▶ Core Courses

Number	Title	Type	ECTS	Hours				Lecturers
252-0417-00L	Randomized Algorithms and Probabilistic Methods	w	10 credits	3V+2U+	4A			
252-0417-00 V	Randomized Algorithms and Probabilistic M	1ethods		3 hrs	Wed Thu	08-09 16-18	ML D28 ML D28	A. Steger
252-0417-00 U	Randomized Algorithms and Probabilistic N	Methods		2 hrs	Tue	14-16 16-18	HG D1.2 HG D1.2	A. Steger
252-0417-00 A	Randomized Algorithms and Probabilistic No. Project Work, no fixed presence required.	1ethods		4 hrs				A. Steger
252-0535-00L	Advanced Machine Learning	w	10 credits	3V+2U+	4A			
252-0535-00 V	Advanced Machine Learning Freitag 8-10 HG F1 mit Videoübertragung Donnerstag 15-16 ETA F 5 mit Videoübertr			3 hrs	Thu Fri	15-16 08-10	ETA F5 ETF E1 HG F1	J. M. Buhmann, C. Cotrini Jimenez
							HG F3	
252-0535-00 U	Advanced Machine Learning			2 hrs	Wed	14-16	CAB G61 CAB G61	J. M. Buhmann, C. Cotrini Jimenez
					Thu	16-18 16-18	ML F34	C. Cottilii Jimenez
					Fri	14-16	CAB G61	
252-0535-00 A	Advanced Machine Learning Project Work, no fixed presence required.			4 hrs				<b>J. M. Buhmann</b> , C. Cotrini Jimenez
252-1425-00L	Geometry: Combinatorics and Algorithms	W	8 credits	3V+2U+	2A			
252-1425-00 V	Geometry: Combinatorics and Algorithms			3 hrs	Mon Thu	13-14 14-16	CAB G51 CAB G51	B. Gärtner, E. Welzl, M. Hoffmann, M. Wettsteir
252-1425-00 U	Geometry: Combinatorics and Algorithms			2 hrs	Mon 23.09. 30.09.	14-16 16-18 16-18	CAB G51 CAB G51 CAB G51	B. Gärtner, E. Welzl, M. Hoffmann, M. Wettsteir
252-1425-00 A	Geometry: Combinatorics and Algorithms <i>Project Work, no fixed presence required.</i>			2 hrs				B. Gärtner, E. Welzl, M. Hoffmann, M. Wettsteir
263-4500-00L	Advanced Algorithms	w	9 credits	3V+2U+	3A			
263-4500-00 V	Advanced Algorithms Online lecture: This lecture will primarily tal Reserved rooms will remain blocked on cal follow the course from there.			3 hrs	Wed	09-12	HG D5.2	M. Ghaffari, G. Zuzic
263-4500-00 U	Advanced Algorithms			2 hrs	Fri	10-12	CAB G59	M. Ghaffari, G. Zuzic
263-4500-00 A	Advanced Algorithms			3 hrs				M. Ghaffari, G. Zuzic
▶▶▶▶ Elec	tive Courses							
Number	Title	Туре	ECTS	Hours				Lecturers
	A1 10 1 A =0	144	- "		4.4			

Number	Title	Type	ECTS	Hours				Lecturers
252-1407-00L	Algorithmic Game Theory	w	7 credits	3V+2U+	1A			
252-1407-00 V	Algorithmic Game Theory			3 hrs	Fri	10-13	CHN C14	P. Penna
252-1407-00 U	Algorithmic Game Theory			2 hrs	Tue	10-12	CAB G57 CAB G59	P. Penna
252-1407-00 A	Algorithmic Game Theory Project Work, no fixed presence required.			1 hrs		16-18	LFW B3	P. Penna
227-0417-00L	Information Theory I	w	6 credits	4G				
227-0417-00 G	Information Theory I			4 hrs	Wed	14-18	ETF C1	A. Lapidoth
401-3055-64L	Algebraic Methods in Combinatorics	w	6 credits	2V+1U				
401-3055-64 V	Algebraic Methods in Combinatorics			2 hrs	Wed	10-12	IFW A36	B. Sudakov
401-3055-64 U	Algebraic Methods in Combinatorics			1 hrs	Mon	12-13 13-14	ML F34 ML F34	B. Sudakov
401-3901-00L	Linear & Combinatorial Optimization	w	11 credits	4V+2U				
401-3901-00 V	Linear & Combinatorial Optimization (Math- Online lecture: This lecture will take place of will remain reserved on campus for student from there.	online. R	eserved rooms		Wed Thu	12-14 10-12	HG G5 HG G5	R. Zenklusen
401-3901-00 U	Linear & Combinatorial Optimization (Math Groups are selected in myStudies. Thu 14-16 or Fri 10-12 or Fr 12-14 or Fri 14 demand)		,	2 hrs	Thu Fri	14-16 10-12 12-14 14-16	HG F26.5 CAB G51 HG D3.2 HG F26.5	R. Zenklusen

## ▶▶▶ Major in Visual and Interactive Computing

## ▶▶▶▶ Core Courses

Number	Title	Туре	ECTS	Hours				Lecturers
252-0543-01L	Computer Graphics	W	8 credits	3V+2U+	2A			
252-0543-01 V	Computer Graphics  Does not take place this semester.			3 hrs				
252-0543-01 U	Computer Graphics Does not take place this semester.			2 hrs				
252-0543-01 A	Computer Graphics Does not take place this semester.			2 hrs				
263-5902-00L	Computer Vision	w	8 credits	3V+1U+	3A			
	Computer Vision			3 hrs	Wed	14-16	NO C60	M. Pollefeys, S. Tang, F. Yu
263-5902-00 U	Computer Vision			1 hrs	Thu Thu	12-13 13-14	HG G5 CAB G51	M. Pollefeys, S. Tang, F. Yu
263-5902-00 A	Computer Vision			3 hrs	Fri	13-14	CAB G51	M. Pollefeys, S. Tang, F. Yu
▶▶▶ Elec	tive Courses							
Number	Title	Туре	ECTS	Hours				Lecturers
252-0546-00L	Physically-Based Simulation in	w	5 credits	2V+1U+	1A			
	Computer Graphics			_				
252-0546-00 V	Physically-Based Simulation in Computer G	Graphics		2 hrs	Tue	10-12	CAB G51	V. da Costa de Azevedo, B. Solenthaler, B. Thomaszewski
252-0546-00 U	Physically-Based Simulation in Computer G	Graphics		1 hrs	Tue	16-17	CAB G51	V. da Costa de Azevedo, B. Solenthaler, B. Thomaszewski
252-0546-00 A	Physically-Based Simulation in Computer G	Braphics		1 hrs				V. da Costa de Azevedo, B. Solenthaler, B. Thomaszewski
263-5905-00L	Mixed Reality	W	5 credits	3G+1A				
263-5905-00 G	Mixed Reality			3 hrs	Mon	10-13	CAB G11	I. Armeni, F. Bogo,
263-5905-00 A	Mixed Reality			1 hrs				M. Pollefeys I. Armeni, F. Bogo, M. Pollefeys
▶▶ Semina	ır							
Number	Title	Туре	ECTS	Hours				Lecturers
252-3811-00L	Case Studies from Practice Seminar	w	4 credits	28				
	The deadline for deregistering expires at the end of the second week of the semester. Students who are still registered after that date, but do not attend the seminar, will officially fail the seminar.							
252-3811-00 S	Case Studies from Practice Seminar			2 hrs	21.09. 28.09. 05.10. 12.10.	16-18 16-18 16-18 16-18	CAB H52 CAB H52 CAB H52 CAB H52	M. Brandis
252-4601-00L	Current Topics in Information Security Number of participants limited to 24.	W	2 credits	28				
252-4601-00 S	The deadline for deregistering expires at the end of the second week of the semester. Students who are still registered after that date, but do not attend the seminar, will officially fail the seminar. Current Topics in Information Security Online seminar: This seminar will primarily	take pla		2 hrs	Mon	14-16	CAB G57	S. Capkun, K. Paterson, A. Perrig, S. Shinde
	Reserved rooms will remain blocked on car follow the seminar from there.	mpus for						
252-5051-00L	Advanced Topics in Machine Learning Number of participants limited to 40.	W	2 credits	28				
050 5054 22 2	The deadline for deregistering expires at the end of the fourth week of the semester. Students who are still registered after that date, but do not attend the seminar, will officially fail the seminar.			0.1	<b>-</b>	40.45	040.055	LM Dub
∠5∠-5051-00 S	Advanced Topics in Machine Learning ■			2 hrs	Tue Thu	16-18 16-18	CAB G56 CAB G57	J. M. Buhmann, R. Cotterell, J. Vogt, F. Yang
252-5701-00L	Advanced Topics in Computer Graphics and Vision  Number of participants limited to 24.	W	2 credits	2\$				
	The deadline for deregistering expires at the end of the third week of the semester. Students who are still registered after that date, but do not attend the seminar, will officially fail the seminar.							

252-5701-00 S	Advanced Topics in Computer Graphics and	vision				14-16	CAB G56	
263-2100-00L	Research Topics in Software	w	2 credits	2S				O. Sorkine Hornung, S. Tan
	Engineering Number of participants limited to 22.		_ 0.000					
63-2100-00 S	The deadline for deregistering expires at the end of the second week of the semester. Students who are still registered after that date, but do not attend the seminar, will officially fail the seminar.  Research Topics in Software Engineering Online lecture: This lecture will take place o will remain blocked on campus for students from there.			2 hrs	Tue	14-16	CHN G46	P. Müller, M. Püschel
63-3504-00L	Hardware Acceleration for Data	W	2 credits	2S				
	Processing Number of participants limited to 24.  The deadline for deregistering expires at the end of the second week of the semester. Students who are still registered							
	after that date, but do not attend the seminar, will officially fail the seminar.							
263-3504-00 S	Hardware Acceleration for Data Processing Online seminar: This seminar will take place rooms will remain blocked on campus for st course from there.			2 hrs	Tue	14-16	ML J34.1	G. Alonso
63-3713-00L	Advanced Topics in Human-Centric Computer Vision Numbers of participants limited to 20.	W	2 credits	2\$				
	The deadline for deregistering expires at the end of the third week of the semester. Students who are still registered after that date, but do not attend the seminar, will officially fail the seminar.							
63-3713-00 S	Advanced Topics in Human-Centric Compu	ter Visio	on	2 hrs	Thu	16-18	CAB G52	O. Hilliges
	Seminar on Advanced Graph Algorithms and Optimization  Number of participants limited to 6!	W	2 credits	2\$				
	and Optimization Number of participants limited to 6!  The deadline for deregistering expires at the end of the second week of the semester. Students who are still registered after that date, but do not attend the seminar, will officially fail	W	2 credits	2S				
263-4410-00L	and Optimization Number of participants limited to 6!  The deadline for deregistering expires at the end of the second week of the semester. Students who are still registered after that date, but do not attend the seminar, will officially fail the seminar.							R. Kyna
263-4410-00L	and Optimization Number of participants limited to 6!  The deadline for deregistering expires at the end of the second week of the semester. Students who are still registered after that date, but do not attend the seminar, will officially fail			2 hrs 2 S				R. Kyng
263-4410-00L 263-4410-00 S	and Optimization Number of participants limited to 6!  The deadline for deregistering expires at the end of the second week of the semester. Students who are still registered after that date, but do not attend the seminar, will officially fail the seminar.  Seminar on Advanced Graph Algorithms an  Beyond iid Learning: Causality, Dynamics, and Interactions Number of participants limited to 60.  The deadline for deregistering expires at the end of the second week of the semester. Students who are still registered after that date, but do not attend the seminar, will officially fail the seminar.	d Optim <b>W</b>	nization 2 credits	2 hrs				R. Kyng
63-4410-00L 63-4410-00 S 63-5156-00L	The deadline for deregistering expires at the end of the seminar.  The deadline for deregistering expires at the end of the second week of the semester. Students who are still registered after that date, but do not attend the seminar, will officially fail the seminar.  Seminar on Advanced Graph Algorithms an Beyond iid Learning: Causality, Dynamics, and Interactions Number of participants limited to 60.  The deadline for deregistering expires at the end of the second week of the semester. Students who are still registered after that date, but do not attend the seminar, will officially fail the seminar.	d Optim <b>W</b>	nization 2 credits	2 hrs 2S	Wed	16-18	ON LINE	R. Kyng  M. Mühlebach, A. Krause, B. Schölkopf
263-4410-00L 263-4410-00 S 263-5156-00L	The deadline for deregistering expires at the end of the seminar.  Seminar on Advanced Graph Algorithms an Beyond iid Learning: Causality, Dynamics, and Interactions Number of participants limited to 60.  The deadline for deregistering expires at the end of the second week of the seminar.  Seminar on Advanced Graph Algorithms an Beyond iid Learning: Causality, Dynamics, and Interactions Number of participants limited to 60.  The deadline for deregistering expires at the end of the second week of the semester. Students who are still registered after that date, but do not attend the seminar, will officially fail the seminar.  Beyond iid Learning: Causality, Dynamics, a The lecturers will communicate the exact leacourses.	d Optim <b>W</b>	nization 2 credits	2 hrs 2S	Wed	16-18	ON LINE	<b>M. Mühlebach</b> , A. Krause,
.63-4410-00L .63-4410-00 S .63-5156-00L .63-5156-00 S .►► Practica	The deadline for deregistering expires at the end of the seminar.  Seminar on Advanced Graph Algorithms an Beyond iid Learning: Causality, Dynamics, and Interactions Number of participants limited to 60.  The deadline for deregistering expires at the end of the second week of the seminar.  Seminar on Advanced Graph Algorithms an Beyond iid Learning: Causality, Dynamics, and Interactions Number of participants limited to 60.  The deadline for deregistering expires at the end of the second week of the semester. Students who are still registered after that date, but do not attend the seminar, will officially fail the seminar.  Beyond iid Learning: Causality, Dynamics, a The lecturers will communicate the exact leacourses.	d Optim W and Inte	nization  2 credits  ractions nes of ONLINE	2 hrs 2S  2 hrs Hours	Wed	16-18	ON LINE	M. Mühlebach, A. Krause,
63-4410-00L 63-4410-00 S 63-5156-00L 63-5156-00 S ►► Practica Jumber 52-0811-00L	The deadline for deregistering expires at the end of the second week of the semester. Students who are still registered after that date, but do not attend the seminar, will officially fail the seminar on Advanced Graph Algorithms and Beyond iid Learning: Causality, Dynamics, and Interactions Number of participants limited to 60.  The deadline for deregistering expires at the end of the second week of the semester. Students who are still registered after that date, but do not attend the seminar, will officially fail the seminar. Beyond iid Learning: Causality, Dynamics, at the lecturers will communicate the exact lescourses.	d Optim W	nization  2 credits  ractions nes of ONLINE	2 hrs 2S 2 hrs	Wed	16-18	ON LINE	<b>M. Mühlebach</b> , A. Krause, B. Schölkopf
63-4410-00L 63-4410-00 S 63-5156-00L 63-5156-00 S ►► Practica lumber 52-0811-00 P 52-0817-00L	The deadline for deregistering expires at the end of the second week of the semester. Students who are still registered after that date, but do not attend the seminar, will officially fail the seminar on Advanced Graph Algorithms and Beyond iid Learning: Causality, Dynamics, and Interactions Number of participants limited to 60.  The deadline for deregistering expires at the end of the second week of the semester. Students who are still registered after that date, but do not attend the seminar, will officially fail the seminar. Beyond iid Learning: Causality, Dynamics, at The lecturers will communicate the exact leccourses.  Al Work  Title  Applied Security Laboratory  Distributed Systems Laboratory	d Optim W and Inte	nization 2 credits ractions nes of ONLINE	2 hrs 2S  2 hrs  Hours 7P 7 hrs 9P	Thu	10-13		M. Mühlebach, A. Krause, B. Schölkopf  Lecturers  C. Sprenger
263-4410-00L 263-4410-00 S 263-5156-00L 263-5156-00 S ►► Practical Number 252-0811-00 P 252-0817-00L	The deadline for deregistering expires at the end of the second week of the semester. Students who are still registered after that date, but do not attend the seminar, will officially fail the seminar on Advanced Graph Algorithms and Beyond iid Learning: Causality, Dynamics, and Interactions Number of participants limited to 60.  The deadline for deregistering expires at the end of the second week of the semester. Students who are still registered after that date, but do not attend the seminar, will officially fail the seminar. Beyond iid Learning: Causality, Dynamics, at The lecturers will communicate the exact lescourses.  Al Work  Title  Applied Security Laboratory	d Optim W and Inte	ractions nes of ONLINE  ECTS 8 credits  10 credits	2 hrs 2S  2 hrs  Hours 7P 7 hrs		10-13		M. Mühlebach, A. Krause, B. Schölkopf Lecturers
263-4410-00L 263-4410-00 S 263-5156-00L 263-5156-00 S ►► Practica Number 252-0811-00 P 252-0817-00 P 263-0650-00L	The deadline for deregistering expires at the end of the second week of the semester. Students who are still registered after that date, but do not attend the seminar, will officially fail the seminar on Advanced Graph Algorithms an Beyond iid Learning: Causality, Dynamics, and Interactions Number of participants limited to 60.  The deadline for deregistering expires at the end of the second week of the semester. Students who are still registered after that date, but do not attend the seminar, will officially fail the seminar.  Beyond iid Learning: Causality, Dynamics, after that date, but do not attend the seminar, will officially fail the seminar.  Beyond iid Learning: Causality, Dynamics, afthe lecturers will communicate the exact lescourses.  Al Work  Title  Applied Security Laboratory  Distributed Systems Laboratory  Distributed Systems Laboratory  Lab projects are typically carried out in ground	d Optim W and Intesson tim Type W	ractions nes of ONLINE  ECTS 8 credits  10 credits	2 hrs 2S  2 hrs  Hours 7P 7 hrs 9P	Thu by appt.	10-13		M. Mühlebach, A. Krause, B. Schölkopf  Lecturers  C. Sprenger  G. Alonso, T. Hoefler, A. Klimovic, T. Roscoe,
263-4410-00L 263-4410-00 S 263-4410-00 S 263-5156-00L 263-5156-00 S ►► Practica Number 252-0811-00 P 252-0817-00L 252-0817-00 P 263-0650-00L 263-0650-00 A	The deadline for deregistering expires at the end of the second week of the semester. Students who are still registered after that date, but do not attend the seminar, will officially fail the seminar on Advanced Graph Algorithms and Beyond iid Learning: Causality, Dynamics, and Interactions Number of participants limited to 60.  The deadline for deregistering expires at the end of the second week of the semester. Students who are still registered after that date, but do not attend the seminar, will officially fail the seminar. Beyond iid Learning: Causality, Dynamics, a The lecturers will communicate the exact lecourses.  Al Work  Title  Applied Security Laboratory  Applied Security Laboratory  Distributed Systems Laboratory  Lab projects are typically carried out in ground students.  Practical Work	d Optim W and Intesson tim Type W w	ractions res of ONLINE  ECTS 8 credits  10 credits	2 hrs 2S 4 hrs 7P 7 hrs 9P 9 hrs	Thu by appt.	10-13		M. Mühlebach, A. Krause, B. Schölkopf  Lecturers  C. Sprenger  G. Alonso, T. Hoefler, A. Klimovic, T. Roscoe, R. Wattenhofer, C. Zhang
63-4410-00L 63-4410-00 S 63-5156-00L 63-5156-00 S ►► Practica Jumber 52-0811-00 P 52-0817-00L 52-0817-00 P 63-0650-00 A ►► Minors	The deadline for deregistering expires at the end of the second week of the semester. Students who are still registered after that date, but do not attend the seminar, will officially fail the seminar on Advanced Graph Algorithms and Beyond iid Learning: Causality, Dynamics, and Interactions Number of participants limited to 60.  The deadline for deregistering expires at the end of the second week of the semester. Students who are still registered after that date, but do not attend the seminar, will officially fail the seminar. Beyond iid Learning: Causality, Dynamics, a The lecturers will communicate the exact lecourses.  Al Work  Title  Applied Security Laboratory  Applied Security Laboratory  Distributed Systems Laboratory  Lab projects are typically carried out in ground students.  Practical Work	d Optim W and Intesson tim Type W w	ractions res of ONLINE  ECTS 8 credits  10 credits	2 hrs 2S 4 hrs 7P 7 hrs 9P 9 hrs	Thu by appt.	10-13		M. Mühlebach, A. Krause, B. Schölkopf  Lecturers  C. Sprenger  G. Alonso, T. Hoefler, A. Klimovic, T. Roscoe, R. Wattenhofer, C. Zhang
263-4410-00L 263-4410-00 S 263-5156-00L 263-5156-00 S  Practica Number 252-0811-00 P 252-0817-00 P 263-0650-00L 263-0650-00 A  P Minors	The deadline for deregistering expires at the end of the second week of the semester. Students who are still registered after that date, but do not attend the seminar, will officially fail the seminar.  Seminar on Advanced Graph Algorithms an Beyond iid Learning: Causality, Dynamics, and Interactions Number of participants limited to 60.  The deadline for deregistering expires at the end of the second week of the semester. Students who are still registered after that date, but do not attend the seminar, will officially fail the seminar. Beyond iid Learning: Causality, Dynamics, a The lecturers will communicate the exact lec courses.  Al Work  Title  Applied Security Laboratory Distributed Systems Laboratory Distributed Systems Laboratory Lab projects are typically carried out in grous students.  Practical Work  Praktische Arbeit ■	d Optim W and Intesson tim Type W w	ractions res of ONLINE  ECTS 8 credits  10 credits	2 hrs 2S 4 hrs 7P 7 hrs 9P 9 hrs	Thu by appt.	10-13		M. Mühlebach, A. Krause, B. Schölkopf  Lecturers  C. Sprenger  G. Alonso, T. Hoefler, A. Klimovic, T. Roscoe, R. Wattenhofer, C. Zhang

252-0546-00 V								
	Physically-Based Simulation in Compute	r Graphics		2 hrs	Tue	10-12	CAB G51	V. da Costa de Azevedo, B. Solenthaler, B. Thomaszewski
252-0546-00 U	Physically-Based Simulation in Compute	r Graphics		1 hrs	Tue	16-17	CAB G51	V. da Costa de Azevedo, B. Solenthaler, B. Thomaszewski
252-0546-00 A	Physically-Based Simulation in Compute	r Graphics		1 hrs				V. da Costa de Azevedo, B. Solenthaler, B. Thomaszewski
252-0543-01L	Computer Graphics	W	8 credits	3V+2U+2	2A			
	Computer Graphics Does not take place this semester.			3 hrs				
	Computer Graphics  Does not take place this semester.  Computer Graphics			2 hrs 2 hrs				
	Does not take place this semester.							
2 <b>63-5905-00L</b> 2 <b>63-</b> 5905-00 G	Mixed Reality Mixed Reality	W	5 credits	<b>3G+1A</b> 3 hrs	Mon	10-13	CAB G11	I. Armeni, F. Bogo, M. Pollefeys
263-5905-00 A	Mixed Reality			1 hrs				I. Armeni, F. Bogo, M. Pollefeys
►►► Minor	in Computer Vision							
Number	Title	Type	ECTS	Hours				Lecturers
263-3210-00L	Deep Learning Number of participants limited to 320.	W	8 credits	3V+2U+2				
263-3210-00 V				3 hrs	Wed Thu	13-14 14-16	ML D28 ML D28	F. Perez Cruz, A. Lucchi
263-3210-00 U 263-3210-00 A				2 hrs 2 hrs	Mon Wed	16-18 16-18	HG G5 ML D28	F. Perez Cruz, A. Lucchi F. Perez Cruz, A. Lucchi
	<u> </u>	w	0 arad:+-		2 A			
2 <b>63-5902-00L</b> 2 <b>63-</b> 5902-00 V	Computer Vision Computer Vision	vv	8 credits	<b>3V+1U+</b> 3 hrs	Wed Thu	14-16 12-13	NO C60 HG G5	M. Pollefeys, S. Tang, F. Yu
263-5902-00 U	Computer Vision			1 hrs	Thu Fri	13-14 13-14	CAB G51 CAB G51	M. Pollefeys, S. Tang, F. Yo
263-5902-00 A	Computer Vision			3 hrs				M. Pollefeys, S. Tang, F. Yu
263-5905-00L	Mixed Reality	W	5 credits	3G+1A				
<b>263-5905-00L</b> 263-5905-00 G	Mixed Reality	W	5 credits	3 hrs	Mon	10-13	CAB G11	I. Armeni, F. Bogo, M. Pollefeys
	Mixed Reality	W	5 credits		Mon	10-13	CAB G11	. 0 .
263-5905-00 G 263-5905-00 A ▶▶▶ Minor	Mixed Reality Mixed Reality in Data Management			3 hrs 1 hrs	Mon	10-13	CAB G11	M. Pollefeys I. Armeni, F. Bogo, M. Pollefeys
263-5905-00 G 263-5905-00 A ▶▶▶ Minor	Mixed Reality Mixed Reality	Туре	5 credits ECTS	3 hrs 1 hrs Hours		10-13	CAB G11	M. Pollefeys I. Armeni, F. Bogo,
263-5905-00 G 263-5905-00 A ►►► Minor Number 252-0535-00L	Mixed Reality  Mixed Reality  in Data Management  Title  Advanced Machine Learning			3 hrs 1 hrs Hours 3V+2U+4	4A			M. Pollefeys I. Armeni, F. Bogo, M. Pollefeys  Lecturers
263-5905-00 G 263-5905-00 A ►►► Minor Number 252-0535-00L	Mixed Reality  Mixed Reality  in Data Management  Title  Advanced Machine Learning	Type W	ECTS 10 credits	3 hrs 1 hrs Hours		10-13 15-16 08-10	ETA F5 ETF E1 HG F1	M. Pollefeys I. Armeni, F. Bogo, M. Pollefeys
263-5905-00 G 263-5905-00 A ►►► Minor Number 252-0535-00 V	Mixed Reality  Mixed Reality  in Data Management  Title  Advanced Machine Learning  Advanced Machine Learning  Freitag 8-10 HG F1 mit Videoübertragur	Type W	ECTS 10 credits	3 hrs 1 hrs Hours 3V+2U+4	<b>4A</b> Thu	15-16	ETA F5 ETF E1	M. Pollefeys I. Armeni, F. Bogo, M. Pollefeys  Lecturers  J. M. Buhmann,
263-5905-00 G 263-5905-00 A ►►► Minor Number 252-0535-00 V 252-0535-00 U	Mixed Reality  in Data Management  Title  Advanced Machine Learning  Advanced Machine Learning  Freitag 8-10 HG F1 mit Videoübertragur  Donnerstag 15-16 ETA F 5 mit Videoübert  Advanced Machine Learning	Type W	ECTS 10 credits	3 hrs 1 hrs  Hours 3V+2U+4 3 hrs	<b>4A</b> Thu Fri	15-16 08-10 14-16	ETA F5 ETF E1 HG F1 HG F3 CAB G61	M. Pollefeys I. Armeni, F. Bogo, M. Pollefeys  Lecturers  J. M. Buhmann, C. Cotrini Jimenez  J. M. Buhmann, C. Cotrini Jimenez
263-5905-00 G 263-5905-00 A ►►► Minor Number 252-0535-00 V 252-0535-00 U 252-0535-00 A	Mixed Reality  in Data Management  Title  Advanced Machine Learning Advanced Machine Learning Freitag 8-10 HG F1 mit Videoübertragur Donnerstag 15-16 ETA F 5 mit Videoübe  Advanced Machine Learning Advanced Machine Learning Project Work, no fixed presence required	Type W ng ins HG I ertragung ir	ECTS 10 credits F3 as ETF E 1	3 hrs 1 hrs  Hours 3V+2U+4 3 hrs 2 hrs	4A Thu Fri Wed Thu Fri	15-16 08-10 14-16 16-18 16-18	ETA F5 ETF E1 HG F1 HG F3 CAB G61 CAB G61 ML F34	M. Pollefeys I. Armeni, F. Bogo, M. Pollefeys  Lecturers  J. M. Buhmann, C. Cotrini Jimenez  J. M. Buhmann,
263-5905-00 G 263-5905-00 A  ►►► Minor Number 252-0535-00 V 252-0535-00 U 252-0535-00 A	Mixed Reality  in Data Management  Title  Advanced Machine Learning Advanced Machine Learning Freitag 8-10 HG F1 mit Videoübertragur Donnerstag 15-16 ETA F 5 mit Videoüber  Advanced Machine Learning  Advanced Machine Learning	Type W ng ins HG I ertragung ir	ECTS 10 credits	3 hrs 1 hrs  Hours 3V+2U+4 3 hrs	4A Thu Fri Wed Thu Fri	15-16 08-10 14-16 16-18 16-18	ETA F5 ETF E1 HG F1 HG F3 CAB G61 CAB G61 ML F34	M. Pollefeys I. Armeni, F. Bogo, M. Pollefeys  Lecturers  J. M. Buhmann, C. Cotrini Jimenez  J. M. Buhmann, C. Cotrini Jimenez  J. M. Buhmann,
263-5905-00 G 263-5905-00 A  ►►► Minor Number 252-0535-00 V 252-0535-00 U 252-0535-00 A	Mixed Reality  in Data Management  Title  Advanced Machine Learning Advanced Machine Learning Freitag 8-10 HG F1 mit Videoübertragur Donnerstag 15-16 ETA F 5 mit Videoüber  Advanced Machine Learning Advanced Machine Learning Project Work, no fixed presence required  Design of Parallel and High-Performat Computing Number of participants limited to 125.	Type W ng ins HG I ertragung ir	ECTS 10 credits =3 as ETF E 1	3 hrs 1 hrs  Hours 3V+2U+4 3 hrs 2 hrs	4A Thu Fri Wed Thu Fri	15-16 08-10 14-16 16-18 16-18	ETA F5 ETF E1 HG F1 HG F3 CAB G61 CAB G61 ML F34	M. Pollefeys I. Armeni, F. Bogo, M. Pollefeys  Lecturers  J. M. Buhmann, C. Cotrini Jimenez  J. M. Buhmann, C. Cotrini Jimenez
263-5905-00 G 263-5905-00 A  ►►► Minor Number 252-0535-00 V 252-0535-00 U 252-0535-00 A  263-2800-00 V	Mixed Reality  in Data Management  Title  Advanced Machine Learning Advanced Machine Learning Freitag 8-10 HG F1 mit Videoübertragur Donnerstag 15-16 ETA F 5 mit Videoüber  Advanced Machine Learning  Advanced Machine Learning Project Work, no fixed presence required  Design of Parallel and High-Performant Computing Number of participants limited to 125.  Design of Parallel and High-Performance	Type W ng ins HG I ertragung ir	ECTS 10 credits =3 as ETF E 1  9 credits	3 hrs 1 hrs  Hours 3V+2U+4 3 hrs 2 hrs 4 hrs	Thu Fri Wed Thu Fri	15-16 08-10 14-16 16-18 16-18 14-16	ETA F5 ETF E1 HG F1 HG F3 CAB G61 CAB G61 ML F34 CAB G61	M. Pollefeys I. Armeni, F. Bogo, M. Pollefeys  Lecturers  J. M. Buhmann, C. Cotrini Jimenez  J. M. Buhmann, C. Cotrini Jimenez  J. M. Buhmann, C. Cotrini Jimenez
263-5905-00 G 263-5905-00 A  ►►► Minor Number 252-0535-00 V 252-0535-00 U 252-0535-00 A  263-2800-00 V 263-2800-00 U	Mixed Reality  in Data Management  Title  Advanced Machine Learning Advanced Machine Learning Freitag 8-10 HG F1 mit Videoübertragur Donnerstag 15-16 ETA F 5 mit Videoüber  Advanced Machine Learning  Advanced Machine Learning  Project Work, no fixed presence required  Design of Parallel and High-Performant Computing Number of participants limited to 125.  Design of Parallel and High-Performance	Type W org ins HG I ertragung ir  d. ce Computin e Computin e Computin	ECTS 10 credits =3 as ETF E 1  9 credits	3 hrs 1 hrs  Hours 3V+2U+4 3 hrs 2 hrs 4 hrs 3V+2U+3	Thu Fri Wed Thu Fri AM	15-16 08-10 14-16 16-18 16-18 14-16	ETA F5 ETF E1 HG F1 HG F3 CAB G61 CAB G61 ML F34 CAB G61	M. Pollefeys I. Armeni, F. Bogo, M. Pollefeys  Lecturers  J. M. Buhmann, C. Cotrini Jimenez  J. M. Buhmann, C. Cotrini Jimenez  J. M. Buhmann, C. Cotrini Jimenez  T. Hoefler, M. Püschel
263-5905-00 G 263-5905-00 A  ►►► Minor Number 252-0535-00 V 252-0535-00 U 252-0535-00 A  263-2800-00 U 263-2800-00 U 263-2800-00 U 263-2800-00 A	Mixed Reality  in Data Management  Title  Advanced Machine Learning Advanced Machine Learning Freitag 8-10 HG F1 mit Videoübertragur Donnerstag 15-16 ETA F 5 mit Videoüber  Advanced Machine Learning Project Work, no fixed presence required  Design of Parallel and High-Performant Computing Number of participants limited to 125.  Design of Parallel and High-Performance Design of Parallel and High-Performance Design of Parallel and High-Performance	Type W org ins HG I ertragung ir  d. ce Computin e Computin e Computin	ECTS 10 credits =3 as ETF E 1  9 credits	3 hrs 1 hrs  Hours 3V+2U+4 3 hrs 2 hrs 3V+2U+4 3 hrs 3V+2U+4 3 hrs 2 hrs 3 hrs	Thu Fri Wed Thu Fri  Mon Thu	15-16 08-10 14-16 16-18 16-18 14-16	ETA F5 ETF E1 HG F1 HG F3 CAB G61 CAB G61 ML F34 CAB G61	M. Pollefeys I. Armeni, F. Bogo, M. Pollefeys  Lecturers  J. M. Buhmann, C. Cotrini Jimenez  J. M. Buhmann, C. Cotrini Jimenez  J. M. Buhmann, C. Cotrini Jimenez  T. Hoefler, M. Püschel T. Hoefler, M. Püschel
263-5905-00 G 263-5905-00 A  ►►► Minor Number 252-0535-00 V 252-0535-00 U 252-0535-00 A 263-2800-00 U 263-2800-00 U 263-2800-00 U 263-2800-00 A	Mixed Reality  in Data Management  Title  Advanced Machine Learning Advanced Machine Learning Freitag 8-10 HG F1 mit Videoübertragur Donnerstag 15-16 ETA F 5 mit Videoüber  Advanced Machine Learning Advanced Machine Learning Project Work, no fixed presence required  Design of Parallel and High-Performance Project Work, no fixed presence required	Type W ng ins HG I ertragung ir d. ce Computin e Computin d. W take place	ECTS 10 credits =3 as ETF E 1  9 credits  9 10 credits  online.	3 hrs 1 hrs  Hours 3V+2U+4 3 hrs 2 hrs 3V+2U+5 3 hrs 2 hrs 3 hrs 2 hrs 3 hrs	Thu Fri Wed Thu Fri Mon Thu	15-16 08-10 14-16 16-18 16-18 14-16	ETA F5 ETF E1 HG F1 HG F3 CAB G61 CAB G61 ML F34 CAB G61	M. Pollefeys I. Armeni, F. Bogo, M. Pollefeys  Lecturers  J. M. Buhmann, C. Cotrini Jimenez  J. M. Buhmann, C. Cotrini Jimenez  J. M. Buhmann, C. Cotrini Jimenez  T. Hoefler, M. Püschel T. Hoefler, M. Püschel
263-5905-00 G 263-5905-00 A  ►►► Minor Number 252-0535-00 V 252-0535-00 V 252-0535-00 A  263-2800-00 L 263-2800-00 U 263-2800-00 U 263-2800-00 U 263-2800-00 V	Mixed Reality  in Data Management  Title  Advanced Machine Learning Advanced Machine Learning Freitag 8-10 HG F1 mit Videoübertragur Donnerstag 15-16 ETA F 5 mit Videoüber Advanced Machine Learning  Advanced Machine Learning  Advanced Machine Learning  Project Work, no fixed presence required  Design of Parallel and High-Performance Computing  Number of participants limited to 125.  Design of Parallel and High-Performance Design of Parallel and High-Performance Design of Parallel and High-Performance Project Work, no fixed presence required  Big Data  Big Data  Online lecture: This lecture will primarily Reserved rooms will remain blocked on of follow the course from there.	Type W ng ins HG I ertragung ir d. ce Computin e Computin d. W take place	ECTS 10 credits =3 as ETF E 1  9 credits  9 10 credits  online.	3 hrs 1 hrs  Hours 3V+2U+4 3 hrs 2 hrs 3V+2U+4 3 hrs 3V+2U+4 3 hrs 2 hrs 3 hrs	Thu Fri Wed Thu Fri  Mon Thu  4A Tue	15-16 08-10 14-16 16-18 16-18 14-16	ETA F5 ETF E1 HG F1 HG F3 CAB G61 CAB G61 ML F34 CAB G61 CAB G61 CAB G61 ML H44	M. Pollefeys I. Armeni, F. Bogo, M. Pollefeys  Lecturers  J. M. Buhmann, C. Cotrini Jimenez  J. M. Buhmann, C. Cotrini Jimenez  J. M. Buhmann, C. Cotrini Jimenez  T. Hoefler, M. Püschel T. Hoefler, M. Püschel T. Hoefler, M. Püschel
263-5905-00 G 263-5905-00 A  ►►► Minor Number 252-0535-00 V 252-0535-00 U 252-0535-00 A  263-2800-00 L 263-2800-00 U 263-2800-00 U 263-2800-00 U 263-2800-00 V	Mixed Reality  in Data Management  Title  Advanced Machine Learning Advanced Machine Learning Freitag 8-10 HG F1 mit Videoübertragur Donnerstag 15-16 ETA F 5 mit Videoüber  Advanced Machine Learning Project Work, no fixed presence required  Design of Parallel and High-Performance Computing Number of participants limited to 125. Design of Parallel and High-Performance Design of Parallel and High-Performance Design of Parallel and High-Performance Project Work, no fixed presence required  Big Data Online lecture: This lecture will primarily Reserved rooms will remain blocked on of follow the course from there.  Big Data Big Data	Type W ng ins HG I ertragung ir ce W e Computin e Computin d Computin d W take place	ECTS 10 credits =3 as ETF E 1  9 credits  9 10 credits  online.	3 hrs 1 hrs  Hours 3V+2U+3 3 hrs 2 hrs 4 hrs 3V+2U+3 3 hrs 2 hrs 3 hrs 2 hrs 3 hrs	4A Thu Fri Wed Thu Fri  3A Mon Thu 4A Tue Wed	15-16 08-10 14-16 16-18 16-18 14-16 13-16 14-16	ETA F5 ETF E1 HG F1 HG F3 CAB G61 CAB G61 ML F34 CAB G61 CAB G61 CHN C14	M. Pollefeys I. Armeni, F. Bogo, M. Pollefeys  Lecturers  J. M. Buhmann, C. Cotrini Jimenez  J. M. Buhmann, C. Cotrini Jimenez  J. M. Buhmann, C. Cotrini Jimenez  T. Hoefler, M. Püschel
263-5905-00 G 263-5905-00 A  ►►► Minor Number 252-0535-00 V 252-0535-00 U 252-0535-00 A  263-2800-00 V 263-2800-00 U	Mixed Reality  in Data Management  Title  Advanced Machine Learning Advanced Machine Learning Freitag 8-10 HG F1 mit Videoübertragur Donnerstag 15-16 ETA F 5 mit Videoüber  Advanced Machine Learning Project Work, no fixed presence required  Design of Parallel and High-Performant Computing Number of participants limited to 125.  Design of Parallel and High-Performance Design of Parallel and High-Performance Design of Parallel and High-Performance Project Work, no fixed presence required  Big Data Big Data Online lecture: This lecture will primarily Reserved rooms will remain blocked on of follow the course from there.  Big Data Groups are selected in myStudies.	Type W ng ins HG I ertragung ir ce W e Computin e Computin d Computin d W take place	ECTS 10 credits =3 as ETF E 1  9 credits  9 10 credits  online.	3 hrs 1 hrs  Hours 3V+2U+3 3 hrs 2 hrs 4 hrs 3V+2U+3 3 hrs 2 hrs 3 hrs 2 hrs 3 hrs	Thu Fri Wed Thu Fri  AA  Mon Thu  Thu  Wed  Wed	15-16 08-10 14-16 16-18 16-18 14-16 14-16	ETA F5 ETF E1 HG F1 HG F3 CAB G61 CAB G61 ML F34 CAB G61 CAB G61 CAB G61 ML H44 CAB G61 ML H44 CAB G52 HG E33.1 HG G26.1 ON LINE	M. Pollefeys I. Armeni, F. Bogo, M. Pollefeys  Lecturers  J. M. Buhmann, C. Cotrini Jimenez  J. M. Buhmann, C. Cotrini Jimenez  J. M. Buhmann, C. Cotrini Jimenez  T. Hoefler, M. Püschel

263-3210-00L	Deep Learning	W	8 credits	3V+2U+	2A			
202 2240 00 1/	Number of participants limited to 320.			2 6 40	ام ۱۸۷	10.11	MI DOG	F Barra Cruz A Lucabi
263-3210-00 V	Deep Learning			3 hrs	Wed Thu	13-14 14-16	ML D28 ML D28	F. Perez Cruz, A. Lucchi
263-3210-00 U	Deep Learning			2 hrs	Mon	16-18	HG G5	F. Perez Cruz, A. Lucchi
263-3210-00 A	Deep Learning			2 hrs	Wed	16-18	ML D28	F. Perez Cruz, A. Lucchi
	·							- I I GIGZ GIUZ, A. LUCCIII
263-3845-00L	Data Management Systems	W	8 credits	3V+1U+		10.12	CAR C61	C. Alexan
263-3845-00 V	Data Management Systems			3 hrs	Wed Fri	10-12 08-09	CAB G61 HG G3	G. Alonso
263-3845-00 U	Data Management Systems			1 hrs	Fri	09-10	HG D5.1	G. Alonso
							HG E21 HG G26.1	
263-3845-00 A	Data Management Systems			3 hrs			110 020.1	G. Alonso
263-3850-00L	Informal Methods	w	5 credits	2G+2A				
	Informal Methods	•••	0.000.00	2 hrs	Thu	10-12	CAB G59	D. Cock
263-3850-00 A	Informal Methods			2 hrs				D. Cock
▶▶▶ Minor	in Information Security							
	Title	Type	ECTS	Цошто				Locturoro
Number		Туре	ECTS	Hours				Lecturers
252-0463-00L	Security Engineering Security Engineering	W	7 credits	2V+2U+	<b>2A</b> Wed	10-12	CAB G51	S. Krstic
252-0463-00 V 252-0463-00 U	Security Engineering Security Engineering			2 hrs	Wed	14-16	CAB G51 CAB G51	S. Krstic
	Lab sessions every Friday in CAB H52 from	10-12		•	Fri	10-12	CAB H52	-
252-0463-00 A	Security Engineering			2 hrs				S. Krstic
252-1411-00L	Security of Wireless Networks	W	6 credits	2V+1U+	2A		<u> </u>	
252-1411-00 V	•			2 hrs	Tue	14-16	ML F34	S. Capkun, K. Kostiainen
	Security of Wireless Networks			1 hrs	Fri/2w	14-16	CAB E87.2	S. Capkun, K. Kostiainen
252-1411-00 A	Security of Wireless Networks includes a semester long project			2 hrs				S. Capkun, K. Kostiainen
252-1414-00L	System Security	w	7 credits	2V+2U+	2Δ			
252-1414-00 V	System Security	••	roround	2 hrs	Mon	10-12	HG D1.2	S. Capkun, A. Perrig
252-1414-00 U				2 hrs	Thu	14-16	HG D3.2	S. Capkun, A. Perrig
	The exercises begin in the second week of	the sem	ester.			16-18	CAB G11	
252-1414-00 A	System Security			2 hrs				S. Capkun, A. Perrig
263-4640-00L	Network Security	w	8 credits	2V+2U+	3Δ			
263-4640-00 V	-	••	o orcans	2 hrs	Tue	10-12	HG E1.2	A. Perrig, S. Frei, M. Legner,
				21113	rue			
	,							K. Paterson
	Network Security			2 hrs	Thu	16-18	CAB G61	A. Perrig, S. Frei, M. Legner,
263-4640-00 U	Network Security						CAB G61	A. Perrig, S. Frei, M. Legner, K. Paterson
263-4640-00 U	,			2 hrs			CAB G61	A. Perrig, S. Frei, M. Legner,
263-4640-00 U 263-4640-00 A <b>263-4657-00L</b>	Network Security  Network Security  Project Work, no fixed presence required.  Advanced Encryption Schemes	W	5 credits	2 hrs	Thu		CAB G61	A. Perrig, S. Frei, M. Legner, K. Paterson A. Perrig, S. Frei, M. Legner,
263-4640-00 U 263-4640-00 A <b>263-4657-00L</b> 263-4657-00 V	Network Security  Network Security  Project Work, no fixed presence required.  Advanced Encryption Schemes  Advanced Encryption Schemes	W	5 credits	2 hrs 3 hrs 2V+1U+ 2 hrs	Thu  1A  Thu	16-18	CAB G59	A. Perrig, S. Frei, M. Legner, K. Paterson A. Perrig, S. Frei, M. Legner, K. Paterson
263-4640-00 U 263-4640-00 A <b>263-4657-00</b> L 263-4657-00 V 263-4657-00 U	Network Security  Network Security  Project Work, no fixed presence required.  Advanced Encryption Schemes  Advanced Encryption Schemes  Advanced Encryption Schemes	w	5 credits	2 hrs 3 hrs  2V+1U+ 2 hrs 1 hrs	Thu	16-18		A. Perrig, S. Frei, M. Legner, K. Paterson A. Perrig, S. Frei, M. Legner, K. Paterson R. Gay R. Gay
263-4640-00 U 263-4640-00 A <b>263-4657-00</b> U 263-4657-00 U 263-4657-00 A	Network Security  Network Security  Project Work, no fixed presence required.  Advanced Encryption Schemes  Advanced Encryption Schemes  Advanced Encryption Schemes  Advanced Encryption Schemes			2 hrs 3 hrs  2V+1U+ 2 hrs 1 hrs 1 hrs	Thu 1 <b>A</b> Thu Wed/2v	16-18	CAB G59	A. Perrig, S. Frei, M. Legner, K. Paterson A. Perrig, S. Frei, M. Legner, K. Paterson
263-4640-00 U 263-4640-00 A <b>263-4657-00</b> U 263-4657-00 U 263-4657-00 A	Network Security  Network Security  Project Work, no fixed presence required.  Advanced Encryption Schemes  Advanced Encryption Schemes  Advanced Encryption Schemes  Advanced Encryption Schemes  Zero-Knowledge Proofs	w	5 credits	2 hrs 3 hrs  2V+1U+ 2 hrs 1 hrs	Thu 1 <b>A</b> Thu Wed/2v	16-18	CAB G59	A. Perrig, S. Frei, M. Legner, K. Paterson A. Perrig, S. Frei, M. Legner, K. Paterson R. Gay R. Gay
263-4640-00 U 263-4640-00 A 263-4657-00L 263-4657-00 U 263-4657-00 A 263-4665-00L	Network Security  Network Security  Project Work, no fixed presence required.  Advanced Encryption Schemes  Advanced Encryption Schemes  Advanced Encryption Schemes  Advanced Encryption Schemes			2 hrs 3 hrs  2V+1U+ 2 hrs 1 hrs 1 hrs	Thu 1 <b>A</b> Thu Wed/2v	16-18	CAB G59	A. Perrig, S. Frei, M. Legner, K. Paterson A. Perrig, S. Frei, M. Legner, K. Paterson R. Gay R. Gay
263-4640-00 U 263-4640-00 A 263-4657-00 V 263-4657-00 U 263-4657-00 A 263-4665-00 V	Network Security  Network Security  Project Work, no fixed presence required.  Advanced Encryption Schemes  Advanced Encryption Schemes  Advanced Encryption Schemes  Advanced Encryption Schemes  Zero-Knowledge Proofs  Number of participants limited to 50.			2 hrs 3 hrs  2V+1U+ 2 hrs 1 hrs 1 hrs 2V+1U+	Thu  1A  Thu  Wed/2v	16-18 12-14 v 16-17	CAB G59 HG E33.5	A. Perrig, S. Frei, M. Legner, K. Paterson A. Perrig, S. Frei, M. Legner, K. Paterson R. Gay R. Gay R. Gay
263-4640-00 U 263-4640-00 A <b>263-4657-00</b> L 263-4657-00 U 263-4657-00 A <b>263-4665-00</b> U 263-4665-00 U	Network Security  Network Security  Project Work, no fixed presence required.  Advanced Encryption Schemes  Advanced Encryption Schemes  Advanced Encryption Schemes  Advanced Encryption Schemes  Zero-Knowledge Proofs  Number of participants limited to 50.  Zero-Knowledge Proofs			2 hrs 3 hrs  2V+1U+ 2 hrs 1 hrs 1 hrs 2V+1U+	Thu  Thu  Wed/2v  1A  Fri	16-18 12-14 v 16-17	CAB G59 HG E33.5 CHN G42	A. Perrig, S. Frei, M. Legner, K. Paterson A. Perrig, S. Frei, M. Legner, K. Paterson  R. Gay R. Gay R. Gay J. Bootle
263-4640-00 U 263-4640-00 A 263-4657-00 V 263-4657-00 A 263-4665-00 V 263-4665-00 U 263-4665-00 U 263-4665-00 A	Network Security Project Work, no fixed presence required.  Advanced Encryption Schemes Zero-Knowledge Proofs Number of participants limited to 50. Zero-Knowledge Proofs Zero-Knowledge Proofs			2 hrs 3 hrs  2V+1U+ 2 hrs 1 hrs 1 hrs 2V+1U+ 2 hrs 1 hrs	Thu  Thu  Wed/2v  1A  Fri  Fri	16-18 12-14 v 16-17	CAB G59 HG E33.5 CHN G42	A. Perrig, S. Frei, M. Legner, K. Paterson A. Perrig, S. Frei, M. Legner, K. Paterson R. Gay R. Gay R. Gay J. Bootle J. Bootle
263-4640-00 U 263-4657-00L 263-4657-00 V 263-4657-00 A 263-4665-00 L 263-4665-00 U 263-4665-00 U 263-4665-00 A 227-0579-00L	Network Security Project Work, no fixed presence required.  Advanced Encryption Schemes Zero-Knowledge Proofs Number of participants limited to 50. Zero-Knowledge Proofs Zero-Knowledge Proofs Zero-Knowledge Proofs Zero-Knowledge Proofs Hardware Security Hardware Security	w	5 credits 7 credits	2 hrs 3 hrs  2V+1U+ 2 hrs 1 hrs 2V+1U+ 2 hrs 1 hrs 1 hrs 1 hrs	Thu  Thu  Wed/2v  1A  Fri  Fri	16-18 12-14 v 16-17	CAB G59 HG E33.5 CHN G42	A. Perrig, S. Frei, M. Legner, K. Paterson A. Perrig, S. Frei, M. Legner, K. Paterson R. Gay R. Gay R. Gay J. Bootle J. Bootle
263-4640-00 U 263-4657-00L 263-4657-00 V 263-4657-00 A 263-4665-00 L 263-4665-00 U 263-4665-00 U 263-4665-00 A 227-0579-00L	Network Security Project Work, no fixed presence required.  Advanced Encryption Schemes Zero-Knowledge Proofs Number of participants limited to 50. Zero-Knowledge Proofs Zero-Knowledge Proofs Zero-Knowledge Proofs Zero-Knowledge Proofs Hardware Security Hardware Security An informal meeting is planned for Friday, 10	W W	5 credits 7 credits	2 hrs 3 hrs  2V+1U+ 2 hrs 1 hrs 1 hrs 2V+1U+ 2 hrs 1 hrs 1 hrs 2V+2U+	Thu Thu Wed/2v  1A Fri Fri	16-18 12-14 v 16-17 12-14 15-16	CAB G59 HG E33.5 CHN G42 CHN F42	A. Perrig, S. Frei, M. Legner, K. Paterson A. Perrig, S. Frei, M. Legner, K. Paterson R. Gay R. Gay R. Gay J. Bootle J. Bootle J. Bootle
263-4640-00 U 263-4657-00L 263-4657-00 V 263-4657-00 A 263-4665-00 L 263-4665-00 U 263-4665-00 U 263-4665-00 A 227-0579-00L	Network Security Project Work, no fixed presence required.  Advanced Encryption Schemes Zero-Knowledge Proofs Number of participants limited to 50. Zero-Knowledge Proofs Zero-Knowledge Proofs Zero-Knowledge Proofs Zero-Knowledge Proofs Hardware Security Hardware Security	W W 17 Deceid later.	5 credits 7 credits mber between	2 hrs 3 hrs  2V+1U+ 2 hrs 1 hrs 1 hrs 2V+1U+ 2 hrs 1 hrs 1 hrs 2V+2U+	Thu Thu Wed/2v  1A Fri Fri	16-18 12-14 v 16-17 12-14 15-16	CAB G59 HG E33.5 CHN G42 CHN F42	A. Perrig, S. Frei, M. Legner, K. Paterson A. Perrig, S. Frei, M. Legner, K. Paterson R. Gay R. Gay R. Gay J. Bootle J. Bootle J. Bootle
263-4640-00 U 263-4657-00L 263-4657-00 V 263-4657-00 U 263-4657-00 A 263-4665-00L 263-4665-00 U 263-4665-00 U 263-4665-00 U 263-4665-00 V 263-47-0579-00L	Network Security Project Work, no fixed presence required.  Advanced Encryption Schemes  Zero-Knowledge Proofs Number of participants limited to 50. Zero-Knowledge Proofs Zero-Knowledge Proofs Zero-Knowledge Proofs Tero-Knowledge Proofs Ardware Security Hardware Security An informal meeting is planned for Friday, 15 - 7 pm. The exact room will be announced Please note that the classes of October 5 a place from 08:00 - 11:00 instead of 08:00 -	W  17 Deceid later. and Octoo	5 credits 7 credits mber between	2 hrs 3 hrs  2V+1U+ 2 hrs 1 hrs 1 hrs 2V+1U+ 2 hrs 1 hrs 2 hrs 1 hrs 2 hrs 1 hrs	Thu Thu Wed/2v  1A Fri Fri ZA Tue	12-14 v 16-17 12-14 15-16	CAB G59 HG E33.5 CHN G42 CHN F42 HG E41	A. Perrig, S. Frei, M. Legner, K. Paterson A. Perrig, S. Frei, M. Legner, K. Paterson R. Gay R. Gay R. Gay J. Bootle J. Bootle J. Bootle K. Razavi
263-4640-00 U 263-4657-00L 263-4657-00 V 263-4657-00 U 263-4657-00 A 263-4665-00L 263-4665-00 U 263-4665-00 U 263-4665-00 V 263-4665-00 V 263-47-0579-00 V	Network Security Project Work, no fixed presence required.  Advanced Encryption Schemes  Zero-Knowledge Proofs Number of participants limited to 50. Zero-Knowledge Proofs Zero-Knowledge Proofs Zero-Knowledge Proofs  Zero-Knowledge Proofs  Hardware Security  Hardware Security An informal meeting is planned for Friday, 15 - 7 pm. The exact room will be announced Please note that the classes of October 5 a place from 08:00 - 11:00 instead of 08:00 - Hardware Security	W  17 Deceid later. and Octoo	5 credits 7 credits mber between	2 hrs 3 hrs  2V+1U+ 2 hrs 1 hrs 1 hrs 2V+1U+ 2 hrs 1 hrs 2V+2U+ 2 hrs 2 hrs	Thu Thu Wed/2v  1A Fri Fri	16-18 12-14 v 16-17 12-14 15-16	CAB G59 HG E33.5 CHN G42 CHN F42	A. Perrig, S. Frei, M. Legner, K. Paterson A. Perrig, S. Frei, M. Legner, K. Paterson R. Gay R. Gay R. Gay J. Bootle J. Bootle J. Bootle K. Razavi
263-4640-00 U 263-4657-00L 263-4657-00 V 263-4657-00 U 263-4657-00 A 263-4665-00L 263-4665-00 U 263-4665-00 U 263-4665-00 V 263-4665-00 V 263-47-0579-00 V	Network Security Project Work, no fixed presence required.  Advanced Encryption Schemes  Zero-Knowledge Proofs Number of participants limited to 50. Zero-Knowledge Proofs Zero-Knowledge Proofs Zero-Knowledge Proofs Advanced Encryption Schemes  Hardware Security Hardware Security Hardware Security For any of the security of the security Hardware Security	W  17 Deceid later. and Octoo	5 credits 7 credits mber between	2 hrs 3 hrs  2V+1U+ 2 hrs 1 hrs 1 hrs 2V+1U+ 2 hrs 1 hrs 2 hrs 1 hrs 2 hrs 1 hrs	Thu Thu Wed/2v  1A Fri Fri ZA Tue	12-14 v 16-17 12-14 15-16	CAB G59 HG E33.5 CHN G42 CHN F42 HG E41	A. Perrig, S. Frei, M. Legner, K. Paterson A. Perrig, S. Frei, M. Legner, K. Paterson R. Gay R. Gay R. Gay J. Bootle J. Bootle J. Bootle K. Razavi
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263-4640-00 U 263-4657-00L 263-4657-00 V 263-4657-00 U 263-4657-00 A 263-4665-00L 263-4665-00 U 263-4665-00 U 263-4665-00 U 227-0579-00 U 227-0579-00 U 227-0579-00 A  ▶▶▶ Minor Number	Network Security Project Work, no fixed presence required.  Advanced Encryption Schemes  Zero-Knowledge Proofs Number of participants limited to 50. Zero-Knowledge Proofs Zero-Knowledge Proofs Zero-Knowledge Proofs  Hardware Security Hardware Security An informal meeting is planned for Friday, 15 - 7 pm. The exact room will be announced Please note that the classes of October 5 a place from 08:00 - 11:00 instead of 08:00 - Hardware Security Hardware Security Hardware Security Project Work, no fixed presence required.  In Machine Learning Title	W  17 Decend later. Ind Octo. 10:00 in	5 credits 7 credits mber between ber 19 take ETZ G71.2.	2 hrs 3 hrs  2V+1U+ 2 hrs 1 hrs 1 hrs 2V+1U+ 2 hrs 1 hrs 2 hrs 1 hrs 2 hrs 2 hrs 2 hrs Hours	Thu  Thu  Wed/2v  1A  Fri  Fri  ZA  Tue  Thu	12-14 v 16-17 12-14 15-16	CAB G59 HG E33.5 CHN G42 CHN F42 HG E41	A. Perrig, S. Frei, M. Legner, K. Paterson A. Perrig, S. Frei, M. Legner, K. Paterson R. Gay R. Gay R. Gay J. Bootle J. Bootle J. Bootle K. Razavi
263-4640-00 U 263-4657-00L 263-4657-00 V 263-4657-00 U 263-4657-00 A 263-4665-00L 263-4665-00 U 263-4665-00 U 263-4665-00 U 227-0579-00 U 227-0579-00 U 227-0579-00 A  ▶▶▶ Minor Number 252-0535-00L	Network Security Project Work, no fixed presence required.  Advanced Encryption Schemes  Zero-Knowledge Proofs Number of participants limited to 50. Zero-Knowledge Proofs Zero-Knowledge Proofs Zero-Knowledge Proofs Zero-Knowledge Proofs Hardware Security Hardware Security An informal meeting is planned for Friday, 15 - 7 pm. The exact room will be announced Please note that the classes of October 5 a place from 08:00 - 11:00 instead of 08:00 - Hardware Security Hardware Security Hardware Security Project Work, no fixed presence required.  in Machine Learning  Title  Advanced Machine Learning	W  17 Deceil later. nd Octo. 10:00 in	7 credits  The credits of the control of the contro	2 hrs 3 hrs  2V+1U+ 2 hrs 1 hrs 1 hrs 2V+1U+ 2 hrs 1 hrs 2 hrs 1 hrs 1 hrs 2V+2U+ 2 hrs  Hours 3V+2U+	Thu  Thu  Wed/2v  1A  Fri  Fri  ZA  Tue  Thu	16-18  12-14 v 16-17  12-14 15-16  08-10	CAB G59 HG E33.5 CHN G42 CHN F42 HG E41	A. Perrig, S. Frei, M. Legner, K. Paterson A. Perrig, S. Frei, M. Legner, K. Paterson R. Gay R. Gay R. Gay J. Bootle J. Bootle J. Bootle K. Razavi K. Razavi Lecturers
263-4640-00 U 263-4657-00L 263-4657-00 V 263-4657-00 U 263-4657-00 A 263-4665-00L 263-4665-00 U 263-4665-00 U 263-4665-00 U 227-0579-00 U 227-0579-00 U 227-0579-00 A  ▶▶▶ Minor Number	Network Security Project Work, no fixed presence required.  Advanced Encryption Schemes  Zero-Knowledge Proofs Number of participants limited to 50. Zero-Knowledge Proofs Zero-Knowledge Proofs Zero-Knowledge Proofs Advanced Proofs Zero-Knowledge Proofs  Hardware Security Hardware Security Hardware Security An informal meeting is planned for Friday, 15 - 7 pm. The exact room will be announced Please note that the classes of October 5 a place from 08:00 - 11:00 instead of 08:00 - Hardware Security Hardware Security Hardware Security Project Work, no fixed presence required.  in Machine Learning  Title  Advanced Machine Learning Advanced Machine Learning	W 17 Deceil di later. nd Octo. 10:00 in  Type W	7 credits  7 credits  mber between ber 19 take ETZ G71.2.	2 hrs 3 hrs  2V+1U+ 2 hrs 1 hrs 1 hrs 2V+1U+ 2 hrs 1 hrs 2 hrs 1 hrs 2 hrs 2 hrs 2 hrs Hours	Thu  Thu  Wed/2v  1A  Fri  Fri  ZA  Tue  Thu	12-14 v 16-17 12-14 15-16	CAB G59 HG E33.5 CHN G42 CHN F42 HG E41	A. Perrig, S. Frei, M. Legner, K. Paterson A. Perrig, S. Frei, M. Legner, K. Paterson R. Gay R. Gay R. Gay J. Bootle J. Bootle J. Bootle K. Razavi K. Razavi
263-4640-00 U 263-4657-00L 263-4657-00 V 263-4657-00 U 263-4657-00 A 263-4665-00L 263-4665-00 U 263-4665-00 U 263-4665-00 U 227-0579-00 U 227-0579-00 U 227-0579-00 A  ▶▶▶ Minor Number 252-0535-00L	Network Security Project Work, no fixed presence required.  Advanced Encryption Schemes  Zero-Knowledge Proofs Number of participants limited to 50. Zero-Knowledge Proofs Zero-Knowledge Proofs Zero-Knowledge Proofs Zero-Knowledge Proofs Hardware Security Hardware Security An informal meeting is planned for Friday, 15 - 7 pm. The exact room will be announced Please note that the classes of October 5 a place from 08:00 - 11:00 instead of 08:00 - Hardware Security Hardware Security Hardware Security Project Work, no fixed presence required.  in Machine Learning  Title  Advanced Machine Learning	W  17 Deceil di later. Ind Octo. 10:00 in  Type W  ins HG F	7 credits  7 credits  mber between ber 19 take ETZ G71.2.  ECTS 10 credits	2 hrs 3 hrs  2V+1U+ 2 hrs 1 hrs 1 hrs 2V+1U+ 2 hrs 1 hrs 2 hrs 1 hrs 1 hrs 2V+2U+ 2 hrs  Hours 3V+2U+	Thu  Thu  Wed/2v  1A  Fri  Fri  ZA  Tue  Thu	16-18  12-14 v 16-17  12-14 15-16  08-10	CAB G59 HG E33.5  CHN G42 CHN F42  HG E41  IFW A32.1  ETA F5 ETF E1 HG F1	A. Perrig, S. Frei, M. Legner, K. Paterson A. Perrig, S. Frei, M. Legner, K. Paterson R. Gay R. Gay R. Gay J. Bootle J. Bootle J. Bootle K. Razavi K. Razavi Lecturers J. M. Buhmann,
263-4640-00 U 263-4657-00L 263-4657-00 V 263-4657-00 A 263-4657-00 A 263-4665-00 U 263-4665-00 U 263-4665-00 U 227-0579-00 U 227-0579-00 U 227-0579-00 A  ▶▶▶ Minor Number 252-0535-00 V	Network Security Project Work, no fixed presence required.  Advanced Encryption Schemes  Zero-Knowledge Proofs Number of participants limited to 50. Zero-Knowledge Proofs Zero-Knowledge Proofs Zero-Knowledge Proofs Hardware Security Hardware Security Hardware Security An informal meeting is planned for Friday, 16 5 - 7 pm. The exact room will be announced Please note that the classes of October 5 a place from 08:00 - 11:00 instead of 08:00 - Hardware Security Hardware Security Project Work, no fixed presence required.  in Machine Learning Title  Advanced Machine Learning Advanced Machine Learning Freitag 8-10 HG F1 mit Videoübertragung Donnerstag 15-16 ETA F 5 mit Videoübertragung Do	W  17 Deceil di later. Ind Octo. 10:00 in  Type W  ins HG F	7 credits  7 credits  mber between ber 19 take ETZ G71.2.  ECTS 10 credits	2 hrs 3 hrs  2V+1U+ 2 hrs 1 hrs 1 hrs 2V+1U+ 2 hrs 1 hrs 2V+2U+ 2 hrs 2 hrs 2 hrs 3 hrs  Hours 3V+2U+ 3 hrs	Thu  Thu Wed/2v  1A  Fri Fri  2A  Thu  Thu  4A  Thu  Fri	16-18  12-14 v 16-17  12-14 15-16  08-10  15-16 08-10	CAB G59 HG E33.5  CHN G42 CHN F42  HG E41  IFW A32.1  ETA F5 ETF E1 HG F1 HG F3	A. Perrig, S. Frei, M. Legner, K. Paterson A. Perrig, S. Frei, M. Legner, K. Paterson R. Gay R. Gay R. Gay J. Bootle J. Bootle J. Bootle K. Razavi K. Razavi Lecturers J. M. Buhmann, C. Cotrini Jimenez
263-4640-00 U 263-4657-00L 263-4657-00 V 263-4657-00 A 263-4657-00 A 263-4665-00 U 263-4665-00 U 263-4665-00 U 227-0579-00 U 227-0579-00 U 227-0579-00 A  ▶▶▶ Minor Number 252-0535-00 V	Network Security Project Work, no fixed presence required.  Advanced Encryption Schemes  Zero-Knowledge Proofs Number of participants limited to 50. Zero-Knowledge Proofs Zero-Knowledge Proofs Zero-Knowledge Proofs Hardware Security Hardware Security Hardware Security An informal meeting is planned for Friday, 15 - 7 pm. The exact room will be announced Please note that the classes of October 5 a place from 08:00 - 11:00 instead of 08:00 - Hardware Security Hardware Security Hardware Security Hardware Security Troject Work, no fixed presence required.  in Machine Learning Title  Advanced Machine Learning Freitag 8-10 HG F1 mit Videoübertragung in the security of the security in	W  17 Deceil di later. Ind Octo. 10:00 in  Type W  ins HG F	7 credits  7 credits  mber between ber 19 take ETZ G71.2.  ECTS 10 credits	2 hrs 3 hrs  2V+1U+ 2 hrs 1 hrs 1 hrs 2V+1U+ 2 hrs 1 hrs 2 hrs 1 hrs 1 hrs 2V+2U+ 2 hrs  Hours 3V+2U+	Thu  Thu  Wed/2v  1A  Fri Fri  2A  Tue  Thu	16-18  12-14 v 16-17  12-14 15-16  08-10  10-12	CAB G59 HG E33.5  CHN G42 CHN F42  HG E41  IFW A32.1  ETA F5 ETF E1 HG F1	A. Perrig, S. Frei, M. Legner, K. Paterson A. Perrig, S. Frei, M. Legner, K. Paterson R. Gay R. Gay R. Gay J. Bootle J. Bootle J. Bootle K. Razavi K. Razavi K. Razavi C. Cotrini Jimenez J. M. Buhmann, C. Cotrini Jimenez
263-4640-00 U 263-4657-00L 263-4657-00 V 263-4657-00 A 263-4657-00 A 263-4665-00 U 263-4665-00 U 263-4665-00 U 227-0579-00 U 227-0579-00 U 227-0579-00 A  ▶▶▶ Minor Number 252-0535-00 V	Network Security Project Work, no fixed presence required.  Advanced Encryption Schemes  Zero-Knowledge Proofs Number of participants limited to 50. Zero-Knowledge Proofs Zero-Knowledge Proofs Zero-Knowledge Proofs Hardware Security Hardware Security Hardware Security An informal meeting is planned for Friday, 16 5 - 7 pm. The exact room will be announced Please note that the classes of October 5 a place from 08:00 - 11:00 instead of 08:00 - Hardware Security Hardware Security Project Work, no fixed presence required.  in Machine Learning Title  Advanced Machine Learning Advanced Machine Learning Freitag 8-10 HG F1 mit Videoübertragung Donnerstag 15-16 ETA F 5 mit Videoübertragung Do	W  17 Deceil di later. Ind Octo. 10:00 in  Type W  ins HG F	7 credits  7 credits  mber between ber 19 take ETZ G71.2.  ECTS 10 credits	2 hrs 3 hrs  2V+1U+ 2 hrs 1 hrs 1 hrs 2V+1U+ 2 hrs 1 hrs 2V+2U+ 2 hrs 2 hrs 2 hrs 3 hrs  Hours 3V+2U+ 3 hrs	Thu  Thu Wed/2v  TA  Fri Fri  ZA  Thu  Thu  HA  Thu  Fri Wed Thu	16-18  12-14 v 16-17  12-14 15-16  08-10  10-12  15-16  08-10  14-16 16-18 16-18	CAB G59 HG E33.5  CHN G42 CHN F42  HG E41  IFW A32.1  ETA F5 ETF E1 HG F1 HG F3 CAB G61 CAB G61 ML F34	A. Perrig, S. Frei, M. Legner, K. Paterson A. Perrig, S. Frei, M. Legner, K. Paterson R. Gay R. Gay R. Gay J. Bootle J. Bootle J. Bootle K. Razavi K. Razavi Lecturers J. M. Buhmann, C. Cotrini Jimenez
263-4640-00 U 263-4657-00L 263-4657-00 V 263-4657-00 U 263-4657-00 A 263-4665-00 U 263-4665-00 U 263-4665-00 A 227-0579-00 U 227-0579-00 U 227-0579-00 U 227-0579-00 V	Network Security Project Work, no fixed presence required.  Advanced Encryption Schemes  Zero-Knowledge Proofs Number of participants limited to 50. Zero-Knowledge Proofs Zero-Knowledge Proofs Zero-Knowledge Proofs  Hardware Security Title  Advanced Machine Learning Freitag 8-10 HG F1 mit Videoübertragung in Donnerstag 15-16 ETA F 5 mit Videoübertra Advanced Machine Learning	W  17 Deceil di later. Ind Octo. 10:00 in  Type W  ins HG F	7 credits  7 credits  mber between ber 19 take ETZ G71.2.  ECTS 10 credits	2 hrs 3 hrs  2V+1U+ 2 hrs 1 hrs 1 hrs 2V+1U+ 2 hrs 1 hrs 2V+2U+ 2 hrs  2 hrs 2 hrs  2 hrs 2 hrs 2 hrs 2 hrs 2 hrs	Thu  Thu  Wed/2v  TA  Fri  Fri  ZA  Thu  Thu  Thu  Wed  Wed  Wed	16-18  12-14 v 16-17  12-14 15-16  08-10  10-12  15-16  08-10  14-16 16-18	CAB G59 HG E33.5  CHN G42 CHN F42  HG E41  IFW A32.1  ETA F5 ETF E1 HG F1 HG F3 CAB G61 CAB G61 CAB G61	A. Perrig, S. Frei, M. Legner, K. Paterson A. Perrig, S. Frei, M. Legner, K. Paterson R. Gay R. Gay R. Gay J. Bootle J. Bootle J. Bootle K. Razavi K. Razavi Lecturers J. M. Buhmann, C. Cotrini Jimenez J. M. Buhmann, C. Cotrini Jimenez
263-4640-00 U 263-4657-00L 263-4657-00 V 263-4657-00 U 263-4657-00 A 263-4665-00 U 263-4665-00 U 263-4665-00 A 227-0579-00 U 227-0579-00 U 227-0579-00 A  ▶▶▶ Minor Number 252-0535-00 U	Network Security Project Work, no fixed presence required.  Advanced Encryption Schemes  Zero-Knowledge Proofs Number of participants limited to 50. Zero-Knowledge Proofs Zero-Knowledge Proofs Zero-Knowledge Proofs Hardware Security Hardware Security Hardware Security An informal meeting is planned for Friday, 16 5 - 7 pm. The exact room will be announced Please note that the classes of October 5 a place from 08:00 - 11:00 instead of 08:00 - Hardware Security Hardware Security Project Work, no fixed presence required.  in Machine Learning Title  Advanced Machine Learning Advanced Machine Learning Freitag 8-10 HG F1 mit Videoübertragung Donnerstag 15-16 ETA F 5 mit Videoübertragung Do	W  17 Deceil di later. Ind Octo. 10:00 in  Type W  ins HG F	7 credits  7 credits  mber between ber 19 take ETZ G71.2.  ECTS 10 credits	2 hrs 3 hrs  2V+1U+ 2 hrs 1 hrs 1 hrs 2V+1U+ 2 hrs 1 hrs 2V+2U+ 2 hrs 2 hrs 2 hrs 3 hrs  Hours 3V+2U+ 3 hrs	Thu  Thu Wed/2v  TA  Fri Fri  ZA  Thu  Thu  HA  Thu  Fri Wed Thu	16-18  12-14 v 16-17  12-14 15-16  08-10  10-12  15-16  08-10  14-16 16-18 16-18	CAB G59 HG E33.5  CHN G42 CHN F42  HG E41  IFW A32.1  ETA F5 ETF E1 HG F1 HG F3 CAB G61 CAB G61 ML F34	A. Perrig, S. Frei, M. Legner, K. Paterson A. Perrig, S. Frei, M. Legner, K. Paterson R. Gay R. Gay R. Gay J. Bootle J. Bootle J. Bootle K. Razavi K. Razavi K. Razavi C. Cotrini Jimenez J. M. Buhmann, C. Cotrini Jimenez

252-3005-00L	Natural Language Processing Number of participants limited to 400.	w	5 credits	2V+2U+	1A			
252-3005-00 V	Natural Language Processing From HS21 in the autumn semester.			2 hrs	Mon	12-14	HG F7	R. Cotterell
252-3005-00 U	Natural Language Processing			2 hrs	Wed	12-14	HG F7	R. Cotterell
	Natural Language Processing			1 hrs				R. Cotterell
263-2400-00L	Reliable and Trustworthy Artificial	W	6 credits	2V+2U+	1A			
263-2400-00 V	Intelligence Reliable and Trustworthy Artificial Intelligence Online event: Will primarily take place online	e. Reser		2 hrs	Wed	14-16	HG G3	M. Vechev
	remain blocked on campus for students to f there.	ollow the	e course trom					
263-2400-00 U	Reliable and Trustworthy Artificial Intelligent Exercise session will start in the second we Online event: Will primarily take place online remain blocked on campus for students to there.	ek of the e. Reser	ved rooms will	2 hrs	Mon Wed	12-14 12-14	CAB G56 CAB G51	M. Vechev
263-2400-00 A	Reliable and Trustworthy Artificial Intelligen	ce		1 hrs				M. Vechev
263-3210-00L	Deep Learning	W	8 credits	3V+2U+	2A			
263-3210-00 \/	Number of participants limited to 320.  Deep Learning			3 hrs	Wed	13-14	ML D28	F. Perez Cruz, A. Lucchi
203-3210-00 V	Deep Learning			31113	Thu	14-16	ML D28	1. Ferez Oruz, A. Lucciii
263-3210-00 U	Deep Learning			2 hrs	Mon Wed	16-18 16-18	HG G5 ML D28	F. Perez Cruz, A. Lucchi
263-3210-00 A	Deep Learning			2 hrs	Wed	10-10	WIL DZO	F. Perez Cruz, A. Lucchi
263-5005-00L	Artificial Intelligence in Education	W	5 credits	2V+1U+	1A			
263-5005-00 V	Number of participants limited to 75.  Artificial Intelligence in Education			2 hrs	Thu	16-18	RZ F21	M. Sachan, T. Sinha
200-3003-00 V	Online lecture: This lecture will take place o will remain blocked on campus for students from there.				mu	10-10	NZ 1Z I	w. Gachan, 1. Omna
263-5005-00 U	Artificial Intelligence in Education Online exercises: Will primarily take place or rooms will remain blocked on campus for st exercises from there.			1 hrs	Thu	18-19	RZ F21	M. Sachan, T. Sinha
263-5005-00 A	Artificial Intelligence in Education			1 hrs				M. Sachan, T. Sinha
263-5210-00L	Probabilistic Artificial Intelligence	W	8 credits	3V+2U+	2A			
263-5210-00 V	Probabilistic Artificial Intelligence Fr 10-12 und 13-14 im ETA F5 mit Videoük	pertragur	ng ins ETF E1	3 hrs	Fri	10-12 13-14	ETA F5 ETF E1 ETA F5	A. Krause
263-5210-00 U	Probabilistic Artificial Intelligence Q&A session: Monday, 17-18, via zoom			2 hrs	Thu	16-18	ETF E1 CHN C14	A. Krause
263-5210-00 A	Probabilistic Artificial Intelligence			2 hrs				A. Krause
263-5255-00L	Foundations of Reinforcement Learning Number of participants limited to 190.	W	5 credits	2V+2A				
	Foundations of Reinforcement Learning Foundations of Reinforcement Learning			2 hrs 2 hrs	Fri	14-16	CAB G11	N. He N. He
				21113				IV. IIG
	in Networking							
Number	Title			Hours				Lecturers
	Security of Wireless Networks	W	6 credits	2V+1U+		1110	MI FOA	Combun I/ Kastisinan
	Security of Wireless Networks Security of Wireless Networks			2 hrs 1 hrs	Tue Fri/2w	14-16 14-16	ML F34 CAB E87.2	S. Capkun, K. Kostiainen S. Capkun, K. Kostiainen
	Security of Wireless Networks includes a semester long project			2 hrs	,	1110	0/10/201.2	S. Capkun, K. Kostiainen
263-4640-00L	Network Security	W	8 credits	2V+2U+	3A			
263-4640-00 V	Network Security			2 hrs	Tue	10-12	HG E1.2	A. Perrig, S. Frei, M. Legner K. Paterson
263-4640-00 U	Network Security			2 hrs	Thu	16-18	CAB G61	A. Perrig, S. Frei, M. Legner K. Paterson
263-4640-00 A	Network Security Project Work, no fixed presence required.			3 hrs				A. Perrig, S. Frei, M. Legner K. Paterson
227-0575-00L	Advanced Topics in Communication Networks	W	6 credits	2V+2U				
227-0575-00 V	Advanced Topics in Communication Network	rks		2 hrs	Tue	14-16	ML E12	L. Vanbever
227-0575-00 U	Advanced Topics in Communication Network	rks		2 hrs	Tue	16-18	ML E12	L. Vanbever
►►► Minor	in Programming Languages an	d Soft	ware Eng	ineerin	g			
Number	Title	Туре	ECTS	Hours				Lecturers
252-0237-00L	Concepts of Object-Oriented Programming	W	8 credits	3V+2U+	2A			
	უ			3 hrs	Thu	09-12	HG E1.1	P. Müller

252-0237-00 U	Concepts of Object-Oriented Programming	J		2 hrs	Fri	08-10 10-12	CAB G57 CHN D42 CAB G57 CHN D42	P. Müller
							CHN D42 CHN D44	
252-0237-00 A	Concepts of Object-Oriented Programming	1		2 hrs				P. Müller
263-2400-00L	Reliable and Trustworthy Artificial	W	6 credits	2V+2U+	-1A			
263-2400-00 V	Intelligence Reliable and Trustworthy Artificial Intelliger Online event: Will primarily take place onlir remain blocked on campus for students to there.	ne. Resei			Wed	14-16	HG G3	M. Vechev
263-2400-00 U	Reliable and Trustworthy Artificial Intelliger Exercise session will start in the second we Online event: Will primarily take place onlin remain blocked on campus for students to there.	eek of the ne. Resei	rved rooms w		Mon Wed	12-14 12-14	CAB G56 CAB G51	M. Vechev
263-2400-00 A	Reliable and Trustworthy Artificial Intelligen	nce		1 hrs				M. Vechev
263-2800-00L	Design of Parallel and High-Performanc Computing Number of participants limited to 125.	e W	9 credits	3V+2U+	-3A			
263-2800-00 V	Design of Parallel and High-Performance C	Computin	g	3 hrs	Mon	13-16	CAB G11	T. Hoefler, M. Püschel
	Design of Parallel and High-Performance C	•	•	2 hrs	Thu	14-16	CHN C14	T. Hoefler, M. Püschel
263-2800-00 A	Design of Parallel and High-Performance ( Project Work, no fixed presence required.	Computin	g	3 hrs				T. Hoefler, M. Püschel
►►► Minor	in Systems Software							
Number	Title	Туре	ECTS	Hours				Lecturers
252-1414-00L	System Security	W	7 credits	2V+2U+	-2A			
	System Security			2 hrs	Mon	10-12	HG D1.2	S. Capkun, A. Perrig
252-1414-00 U	System Security The exercises begin in the second week of	f the sem	ester.	2 hrs	Thu	14-16 16-18	HG D3.2 CAB G11	S. Capkun, A. Perrig
252-1414-00 A	System Security			2 hrs				S. Capkun, A. Perrig
263-2800-00L	Design of Parallel and High-Performanc Computing Number of participants limited to 125.	e W	9 credits	3V+2U+	-3A			
263-2800-00 V	Design of Parallel and High-Performance C	Computin	a	3 hrs	Mon	13-16	CAB G11	T. Hoefler, M. Püschel
	Design of Parallel and High-Performance (	•	•	2 hrs	Thu	14-16	CHN C14	T. Hoefler, M. Püschel
263-2800-00 A	Design of Parallel and High-Performance Of Project Work, no fixed presence required.	Computin	g	3 hrs				T. Hoefler, M. Püschel
263-3845-00L	Data Management Systems	W	8 credits	3V+1U+	-3A			
263-3845-00 V	Data Management Systems			3 hrs	Wed	10-12	CAB G61	G. Alonso
263-3845-00 U	Data Management Systems			1 hrs	Fri Fri	08-09 09-10	HG G3 HG D5.1 HG E21 HG G26.1	G. Alonso
263-3845-00 A	Data Management Systems			3 hrs			110 020.1	G. Alonso
263-3850-00L	Informal Methods	w	5 credits	2G+2A				
263-3850-00 G	Informal Methods			2 hrs	Thu	10-12	CAB G59	D. Cock
263-3850-00 A	Informal Methods			2 hrs				D. Cock
►►► Minor	in Theoretical Computer Scien	ice						
Number	Title	Туре	ECTS	Hours				Lecturers
252-0417-00L	Randomized Algorithms and Probabilistic Methods	W	10 credits	3V+2U+	-4A			
252-0417-00 V	Randomized Algorithms and Probabilistic N	Methods		3 hrs	Wed Thu	08-09 16-18	ML D28 ML D28	A. Steger
252-0417-00 U	Randomized Algorithms and Probabilistic M	Methods		2 hrs	Tue	14-16 16-18	HG D1.2 HG D1.2	A. Steger
252-0417-00 A	Randomized Algorithms and Probabilistic No. Project Work, no fixed presence required.	Methods		4 hrs				A. Steger
252-0535-00L	Advanced Machine Learning	W	10 credits	3V+2U+				
252-0535-00 V	Advanced Machine Learning Freitag 8-10 HG F1 mit Videoübertragung Donnerstag 15-16 ETA F 5 mit Videoübert	ins HG F ragung in	=3 ns <i>ETF E 1</i>	3 hrs	Thu Fri	15-16 08-10	ETA F5 ETF E1 HG F1	J. M. Buhmann, C. Cotrini Jimenez
252-0535-00 U	Advanced Machine Learning			2 hrs	Wed Thu Fri	14-16 16-18 16-18 14-16	HG F3 CAB G61 CAB G61 ML F34 CAB G61	J. M. Buhmann, C. Cotrini Jimenez
252-0535-00 A	Advanced Machine Learning Project Work, no fixed presence required.			4 hrs	1 11	14-10	OND GOT	<b>J. M. Buhmann</b> , C. Cotrini Jimenez
252-1407-00L	Algorithmic Game Theory	W	7 credits	3V+2U+	-1A			
252-1407-00 V	Algorithmic Game Theory			3 hrs	Fri	10-13	CHN C14	P. Penna

252-1407-00 U	Algorithmic Game Theory			2 hrs	Tue	10-12	CAB G57 CAB G59	P. Penna
252-1407-00 A	Algorithmic Game Theory Project Work, no fixed presence required.			1 hrs		16-18	LFW B3	P. Penna
252-1425-00L	Geometry: Combinatorics and Algorithms	W	8 credits	3V+2U+2	2 <b>A</b>			
252-1425-00 V	Geometry: Combinatorics and Algorithms			3 hrs	Mon Thu	13-14 14-16	CAB G51 CAB G51	B. Gärtner, E. Welzl, M. Hoffmann, M. Wettstein
252-1425-00 U	Geometry: Combinatorics and Algorithms			2 hrs	Mon 23.09. 30.09.	14-16 16-18 16-18	CAB G51 CAB G51 CAB G51	B. Gärtner, E. Welzl, M. Hoffmann, M. Wettstein
252-1425-00 A	Geometry: Combinatorics and Algorithms Project Work, no fixed presence required.			2 hrs				B. Gärtner, E. Welzl, M. Hoffmann, M. Wettstein
263-4500-00L	Advanced Algorithms	W	9 credits	3V+2U+3	BA			
263-4500-00 V	Advanced Algorithms Online lecture: This lecture will primarily tak Reserved rooms will remain blocked on can follow the course from there.			3 hrs	Wed	09-12	HG D5.2	M. Ghaffari, G. Zuzic
263-4500-00 U	Advanced Algorithms			2 hrs	Fri	10-12	CAB G59	M. Ghaffari, G. Zuzic
263-4500-00 A	Advanced Algorithms			3 hrs				M. Ghaffari, G. Zuzic
401-3055-64L	Algebraic Methods in Combinatorics	W	6 credits	2V+1U				
401-3055-64 V	Algebraic Methods in Combinatorics			2 hrs	Wed	10-12	IFW A36	B. Sudakov
401-3055-64 U	Algebraic Methods in Combinatorics			1 hrs	Mon	12-13 13-14	ML F34 ML F34	B. Sudakov
401-3901-00L	Linear & Combinatorial Optimization	W	11 credits	4V+2U				
<b>401-3901-00L</b> 401-3901-00 V	•	ematical Inline. R	Optimization) Reserved rooms	4 hrs	Wed Thu	12-14 10-12	HG G5 HG G5	R. Zenklusen

## ▶▶ Elective Courses (only for Programme Regulations 2020)

Students can individually chose from the entire Master course offerings from ETH Zurich, EPF Lausanne, the University of Zurich and - but only with the consent of the Director of Studies - from all other Swiss universities.

Number	Title	Туре	ECTS	Hours				Lecturers
252-0293-00L	Wireless Networking and Mobile Computing	W	4 credits	2V+1U				
252-0293-00 V	Wireless Networking and Mobile Computing	J		2 hrs	Mon	16-18	HG E5	S. Mangold
252-0293-00 U	Wireless Networking and Mobile Computing	J		1 hrs	Mon	18-19	HG E5	S. Mangold
263-0600-00L	Research in Computer Science Only for Computer Science MSc.	W	5 credits	11A				
263-0600-00 A	Research in Computer Science			150s hrs	by app	t.		Professors
227-2210-00L	Computer Architecture	W	8 credits	6G+1A				
227-2210-00 G	Computer Architecture Online event: Will primarily take place online remain blocked on campus for students to f there.				Thu Fri	13-16 13-16	HG D16.2 HG D16.2	O. Mutlu
227-2210-00 A	Computer Architecture			1 hrs				O. Mutlu

## ► Master Studies (Programme Regulations 2009)

## **▶▶** Focus Courses

## ▶▶▶ Focus Courses in Distributed Systems

#### ▶▶▶▶ Focus Core Courses Distributed Systems

Number	Title	Type	ECTS	Hours				Lecturers
252-1414-00L	System Security	W	7 credits	2V+2U+	-2A			
252-1414-00 V	System Security			2 hrs	Mon	10-12	HG D1.2	S. Capkun, A. Perrig
252-1414-00 U	System Security The exercises begin in the second week	k of the sem	ester.	2 hrs	Thu	14-16 16-18	HG D3.2 CAB G11	S. Capkun, A. Perrig
252-1414-00 A	System Security			2 hrs				S. Capkun, A. Perrig
263-3845-00L	Data Management Systems	W	8 credits	3V+1U+	-3A			
263-3845-00 V	Data Management Systems			3 hrs	Wed Fri	10-12 08-09	CAB G61 HG G3	G. Alonso
263-3845-00 U	Data Management Systems			1 hrs	Fri	09-10	HG D5.1 HG E21 HG G26.1	G. Alonso
263-3845-00 A	Data Management Systems			3 hrs				G. Alonso
►►►► Focu	us Elective Courses Distribut	ed Syste	ems					
Number	Title	Туре	ECTS	Hours				Lecturers

252-0817-00L	Distributed Systems Laboratory	W	10 credits	9P				O Alama 7 !! "
252-0817-00 P	Distributed Systems Laboratory Lab projects are typically carried out in ground students.	ups of tw	o or three	9 hrs	by appt			G. Alonso, T. Hoefler, A. Klimovic, T. Roscoe, R. Wattenhofer, C. Zhang
	Computer Architecture	W	8 credits	6G+1A				
27-2210-00 G	Computer Architecture Online event: Will primarily take place online remain blocked on campus for students to it			6 hrs	Thu Fri	13-16 13-16	HG D16.2 HG D16.2	O. Mutlu
27-2210-00 A	there. Computer Architecture			1 hrs				O. Mutlu
63-3850-00L	Informal Methods	w	5 credits	2G+2A				
63-3850-00 G	Informal Methods			2 hrs	Thu	10-12	CAB G59	D. Cock
63-3850-00 A	Informal Methods			2 hrs				D. Cock
-▶►► Sem	inar in Distributed Systems							
Number	Title	Туре	ECTS	Hours				Lecturers
63-3504-00L	Hardware Acceleration for Data Processing Number of participants limited to 24.	W	2 credits	2S				
263-3504-00 S	The deadline for deregistering expires at the end of the second week of the semester. Students who are still registered after that date, but do not attend the seminar, will officially fail the seminar. Hardware Acceleration for Data Processing Online seminar: This seminar will take place rooms will remain blocked on campus for scourse from there.	e online.		2 hrs	Tue	14-16	ML J34.1	G. Alonso
	Courses in Visual Computing as Core Courses Visual Compu	tina						
Number	Title	Type	ECTS	Hours				Lecturers
52-0535-00L	Advanced Machine Learning	W	10 credits	3V+2U+	44			Lecturers
52-0535-00 V	•	ins HG F	=3	3 hrs	Thu Fri	15-16 08-10	ETA F5 ETF E1 HG F1	J. M. Buhmann, C. Cotrini Jimenez
252-0535-00 U	Advanced Machine Learning	-gg		2 hrs	Wed Thu	14-16 16-18 16-18	HG F3 CAB G61 CAB G61 ML F34	J. M. Buhmann, C. Cotrini Jimenez
252-0535-00 A	Advanced Machine Learning Project Work, no fixed presence required.			4 hrs	Fri	14-16	CAB G61	J. M. Buhmann, C. Cotrini Jimenez
63-5902-00L	Computer Vision	w	8 credits	3V+1U+	3A			O. Commonice
	Computer Vision		0.000.00	3 hrs	Wed	14-16	NO C60	M. Pollefeys, S. Tang, F. Yu
263-5902-00 U	Computer Vision			1 hrs	Thu Thu	12-13 13-14	HG G5 CAB G51	M. Pollefeys, S. Tang, F. Yu
263-5902-00 A	Computer Vision			3 hrs	Fri	13-14	CAB G51	M. Pollefeys, S. Tang, F. Yu
-▶►► Focu	s Elective Courses Visual Com	putin	а					
lumber	Title	Туре		Hours				Lecturers
52-0543-01L	Computer Graphics	W	8 credits	3V+2U+	2A			
	Computer Graphics Does not take place this semester.			3 hrs				
52-0543-01 U	Computer Graphics Does not take place this semester.			2 hrs				
252-0543-01 A	Computer Graphics  Does not take place this semester.			2 hrs				
52-0546-00L	Physically-Based Simulation in Computer Graphics	W	5 credits	2V+1U+	1A			
.52-0546-00 V	Physically-Based Simulation in Computer G	Graphics		2 hrs	Tue	10-12	CAB G51	V. da Costa de Azevedo, B. Solenthaler, B. Thomaszewski
	Physically-Based Simulation in Computer G Physically-Based Simulation in Computer G	·		1 hrs 1 hrs	Tue	16-17	CAB G51	V. da Costa de Azevedo, B. Solenthaler, B. Thomaszewski V. da Costa de Azevedo,
								B. Solenthaler, B. Thomaszewski
263-2400-00L	Reliable and Trustworthy Artificial Intelligence	W	6 credits	2V+2U+	1A			
263-2400-00 V	Reliable and Trustworthy Artificial Intelligen Online event: Will primarily take place onlin remain blocked on campus for students to	e. Reser		2 hrs	Wed	14-16	HG G3	M. Vechev

000 0400 00 11	B. B. L. J. T. J. J. A. SECTION			0.1		10.11	045.050	
263-2400-00 U	Reliable and Trustworthy Artificial Intelligence Exercise session will start in the second we Online event: Will primarily take place online remain blocked on campus for students to for	ek of the e. Rese	rved rooms wi		Mon Wed	12-14 12-14	CAB G56 CAB G51	M. Vechev
263-2400-00 A	there. Reliable and Trustworthy Artificial Intelligence	20		1 hrs				M. Vechev
263-5210-00L	· · · · · · · · · · · · · · · · · · ·	W	8 credits	3V+2U-	. 2 ^			W. Vecnev
	Probabilistic Artificial Intelligence Probabilistic Artificial Intelligence	VV	o creuits	3 hrs	Fri	10-12	ETA F5	A. Krause
	Fr 10-12 und 13-14 im ETA F5 mit Videoüb	ertragu	ng ins ETF E1			13-14	ETF E1 ETA F5	
263-5210-00 U	Probabilistic Artificial Intelligence			2 hrs	Thu	16-18	ETF E1 CHN C14	A. Krause
263-5210-00 A	Q&A session: Monday, 17-18, via zoom Probabilistic Artificial Intelligence			2 hrs				A. Krause
▶▶▶▶ Sem	inar in Visual Computing							
Number	Title	Туре	ECTS	Hours				Lecturers
263-3713-00L	Advanced Topics in Human-Centric Computer Vision Numbers of participants limited to 20.	W	2 credits	2\$				
	The deadline for deregistering expires at the end of the third week of the semester. Students who are still registered after that date, but do not attend the seminar, will officially fail the seminar.							
263-3713-00 S	Advanced Topics in Human-Centric Compu	ter Visio	on	2 hrs	Thu	16-18	CAB G52	O. Hilliges
252-5051-00L	Advanced Topics in Machine Learning Number of participants limited to 40.	W	2 credits	2S				
	The deadline for deregistering expires at the end of the fourth week of the semester. Students who are still registered after that date, but do not attend the seminar, will officially fail the seminar.							
252-5051-00 S	Advanced Topics in Machine Learning ■			2 hrs	Tue Thu	16-18 16-18	CAB G56 CAB G57	J. M. Buhmann, R. Cotterell, J. Vogt, F. Yang
252-5701-00L	Advanced Topics in Computer Graphics and Vision Number of participants limited to 24.	W	2 credits	2S				
	The deadline for deregistering expires at the end of the third week of the semester. Students who are still registered after that date, but do not attend the seminar, will officially fail the seminar.							
252-5701-00 S	Advanced Topics in Computer Graphics and	d Vision		2 hrs	Thu	14-16	CAB G56	M. Pollefeys, O. Sorkine Hornung, S. Tanç
▶▶▶ Focus	Courses General Studies							
►►► Core	Focus Courses General Studie	es.						
Number	Title	Туре	ECTS	Hours				Lecturers
252-0237-00L	Concepts of Object-Oriented Programming	W	8 credits	3V+2U-	+2A			
252-0237-00 V				3 hrs	Thu	09-12	HG E1.1	P. Müller
252-0237-00 U	Concepts of Object-Oriented Programming			2 hrs	Fri	08-10	CAB G57 CHN D42	P. Müller
						10-12	CAB G57 CHN D42 CHN D44	
252-0237-00 A	Concepts of Object-Oriented Programming			2 hrs				P. Müller
252-0417-00L	Randomized Algorithms and	W	10 credits	3V+2U-	+4A			
252-0417-00 V	<b>Probabilistic Methods</b> Randomized Algorithms and Probabilistic M	ethods		3 hrs	Wed	08-09 16-18	ML D28	A. Steger
252-0417-00 U	Randomized Algorithms and Probabilistic M	ethods		2 hrs	Thu Tue	16-18 14-16 16-18	ML D28 HG D1.2 HG D1.2	A. Steger
252-0417-00 A	Randomized Algorithms and Probabilistic M Project Work, no fixed presence required.	ethods		4 hrs		.0 10	110 01.2	A. Steger

2V+2U+2A

3V+2U+4A

Wed

Wed

Fri

10-12

14-16

10-12

CAB G51

CAB G51

CAB H52

S. Krstic

S. Krstic

S. Krstic

2 hrs

2 hrs

2 hrs

7 credits

10 credits

w

w

**252-0463-00L** Security Engineering 252-0463-00 V Security Engineering

252-0463-00 A Security Engineering

252-0535-00L Advanced Machine Learning

252-0463-00 U Security Engineering
 Lab sessions every Friday in CAB H52 from 10-12

050 0505 00 1/								
252-0535-00 V	Advanced Machine Learning Freitag 8-10 HG F1 mit Videoübertragung Donnerstag 15-16 ETA F 5 mit Videoübert.			3 hrs	Thu Fri	15-16 08-10	ETA F5 ETF E1 HG F1	J. M. Buhmann, C. Cotrini Jimenez
252-0535-00 U	Advanced Machine Learning			2 hrs	Wed	14-16 16-18	HG F3 CAB G61 CAB G61	<b>J. M. Buhmann</b> , C. Cotrini Jimenez
					Thu Fri	16-18 14-16	ML F34 CAB G61	
252-0535-00 A	Advanced Machine Learning Project Work, no fixed presence required.			4 hrs				<b>J. M. Buhmann</b> , C. Cotrini Jimenez
252-1414-00L	System Security	W	7 credits	2V+2U+	2A			
	System Security			2 hrs	Mon	10-12	HG D1.2	S. Capkun, A. Perrig
252-1414-00 U	System Security The exercises begin in the second week or	f the ser	mester.	2 hrs	Thu	14-16 16-18	HG D3.2 CAB G11	S. Capkun, A. Perrig
252-1414-00 A	System Security			2 hrs				S. Capkun, A. Perrig
263-2800-00L	Design of Parallel and High-Performanc Computing Number of participants limited to 125.	e W	9 credits	3V+2U+	3A			
263-2800-00 V	Design of Parallel and High-Performance (	Computi	ng	3 hrs	Mon	13-16	CAB G11	T. Hoefler, M. Püschel
263-2800-00 U	Design of Parallel and High-Performance (	Computi	ng	2 hrs	Thu	14-16	CHN C14	T. Hoefler, M. Püschel
263-2800-00 A	Design of Parallel and High-Performance of Project Work, no fixed presence required.	Computi	ng	3 hrs				T. Hoefler, M. Püschel
263-3010-00L	Big Data	W	10 credits	3V+2U+	4A			
263-3010-00 V	Online lecture: This lecture will primarily ta Reserved rooms will remain blocked on ca follow the course from there.			3 hrs	Tue Wed	14-16 09-10	CAB G61 ML H44	G. Fourny
263-3010-00 U	Big Data Groups are selected in myStudies.			2 hrs	Wed	14-16	CAB G52 HG E33.1 HG G26.1 ON LINE	G. Fourny
					Fri	14-16	CAB G52	
							ON LINE	
263-3010-00 A	Big Data Individual work to get hands-on experience covered, no fixed presence required.	e with th	e technologies	4 hrs			ON LINE	G. Fourny
263-3010-00 A 263-3845-00L	Individual work to get hands-on experience	with the	e technologies		3A		ON LINE	G. Fourny
263-3845-00L	Individual work to get hands-on experience covered, no fixed presence required.			•	<b>3A</b> Wed Fri	10-12 08-09	CAB G61 HG G3	G. Alonso
<b>263-3845-00</b> L 263-3845-00 V	Individual work to get hands-on experience covered, no fixed presence required.  Data Management Systems			3V+1U+	Wed		CAB G61	•
<b>263-3845-00L</b> 263-3845-00 V 263-3845-00 U	Individual work to get hands-on experience covered, no fixed presence required.  Data Management Systems  Data Management Systems			3V+1U+ 3 hrs	Wed Fri	08-09	CAB G61 HG G3 HG D5.1 HG E21	G. Alonso
<b>263-3845-00</b> L 263-3845-00 V 263-3845-00 U 263-3845-00 A	Individual work to get hands-on experience covered, no fixed presence required.  Data Management Systems  Data Management Systems  Data Management Systems			3V+1U+ 3 hrs 1 hrs	Wed Fri Fri	08-09	CAB G61 HG G3 HG D5.1 HG E21	G. Alonso G. Alonso
263-3845-00 V 263-3845-00 U 263-3845-00 A 263-4640-00L	Individual work to get hands-on experience covered, no fixed presence required.  Data Management Systems  Data Management Systems  Data Management Systems  Data Management Systems	W	8 credits	3V+1U+ 3 hrs 1 hrs 3 hrs	Wed Fri Fri	08-09	CAB G61 HG G3 HG D5.1 HG E21	G. Alonso G. Alonso
263-3845-00 V 263-3845-00 U 263-3845-00 A 263-4640-00L 263-4640-00 V	Individual work to get hands-on experience covered, no fixed presence required.  Data Management Systems  Data Management Systems  Data Management Systems  Data Management Systems  Network Security	W	8 credits	3V+1U+ 3 hrs 1 hrs 3 hrs 2V+2U+	Wed Fri Fri	08-09 09-10	CAB G61 HG G3 HG D5.1 HG E21 HG G26.1	G. Alonso G. Alonso G. Alonso A. Perrig, S. Frei, M. Legner,
263-3845-00 V 263-3845-00 U 263-3845-00 A 263-4640-00 V 263-4640-00 U	Individual work to get hands-on experience covered, no fixed presence required.  Data Management Systems  Data Management Systems  Data Management Systems  Data Management Systems  Network Security  Network Security	w	8 credits	3V+1U+ 3 hrs 1 hrs 3 hrs 2V+2U+ 2 hrs	Wed Fri Fri 3A Tue	08-09 09-10	CAB G61 HG G3 HG D5.1 HG E21 HG G26.1	G. Alonso G. Alonso G. Alonso A. Perrig, S. Frei, M. Legner, K. Paterson A. Perrig, S. Frei, M. Legner,
263-3845-00 L 263-3845-00 V 263-3845-00 A 263-4640-00 L 263-4640-00 U 263-4640-00 A	Individual work to get hands-on experience covered, no fixed presence required.  Data Management Systems  Data Management Systems  Data Management Systems  Data Management Systems  Network Security  Network Security  Network Security  Network Security	w	8 credits	3V+1U+ 3 hrs 1 hrs 3 hrs 2V+2U+ 2 hrs 2 hrs	Wed Fri Fri 3A Tue	08-09 09-10	CAB G61 HG G3 HG D5.1 HG E21 HG G26.1	G. Alonso G. Alonso G. Alonso A. Perrig, S. Frei, M. Legner, K. Paterson A. Perrig, S. Frei, M. Legner, K. Paterson A. Perrig, S. Frei, M. Legner, K. Paterson A. Perrig, S. Frei, M. Legner, M. Legne
263-3845-00 V 263-3845-00 U 263-3845-00 A 263-4640-00 L 263-4640-00 U 263-4640-00 A 263-5902-00L	Individual work to get hands-on experience covered, no fixed presence required.  Data Management Systems  Data Management Systems  Data Management Systems  Data Management Systems  Network Security  Project Work, no fixed presence required.	w	8 credits	3V+1U+ 3 hrs 1 hrs 3 hrs 2V+2U+ 2 hrs 2 hrs 3 hrs	Wed Fri Fri 3A Tue Thu	08-09 09-10 10-12 16-18	CAB G61 HG G3 HG D5.1 HG E21 HG G26.1 HG E1.2 CAB G61	G. Alonso G. Alonso G. Alonso A. Perrig, S. Frei, M. Legner, K. Paterson
263-3845-00 L 263-3845-00 V 263-3845-00 A 263-4640-00 L 263-4640-00 U 263-4640-00 A 263-5902-00 V	Individual work to get hands-on experience covered, no fixed presence required.  Data Management Systems  Data Management Systems  Data Management Systems  Data Management Systems  Network Security  Network Security  Network Security  Network Security  Network Security  Network Security  Computer Vision	w	8 credits	3V+1U+ 3 hrs 1 hrs 3 hrs 2V+2U+ 2 hrs 2 hrs 3 hrs	Wed Fri Fri 3A Tue Thu	08-09 09-10 10-12 16-18	CAB G61 HG G3 HG D5.1 HG E21 HG G26.1 HG E1.2 CAB G61	G. Alonso G. Alonso A. Perrig, S. Frei, M. Legner, K. Paterson M. Pollefeys, S. Tang, F. Yu
263-3845-00 L 263-3845-00 V 263-3845-00 A 263-4640-00 L 263-4640-00 U 263-4640-00 A 263-5902-00 L 263-5902-00 U	Individual work to get hands-on experience covered, no fixed presence required.  Data Management Systems  Data Management Systems  Data Management Systems  Data Management Systems  Network Security  Network Security  Network Security  Network Security  Network Security  Computer Vision  Computer Vision	w	8 credits	3V+1U+ 3 hrs 1 hrs 2V+2U+ 2 hrs 2 hrs 3 hrs 3V+1U+ 3 hrs 1 hrs 3 hrs	Wed Fri Fri 3A Tue Thu 3A Wed Thu Thu	08-09 09-10 10-12 16-18 14-16 12-13 13-14	CAB G61 HG G3 HG D5.1 HG E21 HG G26.1 HG E1.2 CAB G61 NO C60 HG G5 CAB G51	G. Alonso G. Alonso A. Perrig, S. Frei, M. Legner, K. Paterson M. Pollefeys, S. Tang, F. Yu
263-3845-00 L 263-3845-00 V 263-3845-00 A 263-3845-00 A 263-4640-00 V 263-4640-00 U 263-4640-00 A 263-5902-00 L 263-5902-00 U	Individual work to get hands-on experience covered, no fixed presence required.  Data Management Systems  Data Management Systems  Data Management Systems  Data Management Systems  Network Security  Network Security  Network Security  Network Security  Network Security  Computer Vision  Computer Vision  Computer Vision	w	8 credits	3V+1U+ 3 hrs 1 hrs 2V+2U+ 2 hrs 2 hrs 3 hrs 3V+1U+ 3 hrs 1 hrs	Wed Fri Fri 3A Tue Thu 3A Wed Thu Thu	08-09 09-10 10-12 16-18 14-16 12-13 13-14	CAB G61 HG G3 HG D5.1 HG E21 HG G26.1 HG E1.2 CAB G61 NO C60 HG G5 CAB G51	G. Alonso G. Alonso A. Perrig, S. Frei, M. Legner, K. Paterson M. Pollefeys, S. Tang, F. Yu
263-3845-00 L 263-3845-00 V 263-3845-00 A 263-4640-00 L 263-4640-00 U 263-4640-00 A 263-5902-00 L 263-5902-00 U 263-5902-00 A 636-0007-00L	Individual work to get hands-on experience covered, no fixed presence required.  Data Management Systems  Data Management Systems  Data Management Systems  Data Management Systems  Network Security  Network Security  Network Security  Network Security  Network Security  Computer Vision  Compute	W  W  e expeci Q&A ses	8 credits  8 credits  8 credits  6 credits  ted to watch the sion that will be com. So in presence in lected	3V+1U+ 3 hrs 1 hrs 2V+2U+ 2 hrs 2 hrs 3 hrs 3V+1U+ 3 hrs 1 hrs 3 hrs 3V+2U 3 hrs 6e	Wed Fri Fri 3A Tue Thu 3A Wed Thu Thu	08-09 09-10 10-12 16-18 14-16 12-13 13-14	CAB G61 HG G3 HG D5.1 HG E21 HG G26.1 HG E1.2 CAB G61 NO C60 HG G5 CAB G51	G. Alonso G. Alonso A. Perrig, S. Frei, M. Legner K. Paterson M. Pollefeys, S. Tang, F. Yu M. Pollefeys, S. Tang, F. Yu
263-3845-00 L 263-3845-00 V 263-3845-00 A 263-4640-00 L 263-4640-00 U 263-4640-00 A 263-5902-00 L 263-5902-00 U 263-5902-00 A 636-0007-00L	Individual work to get hands-on experience covered, no fixed presence required.  Data Management Systems  Data Management Systems  Data Management Systems  Data Management Systems  Network Security  Network Security  Network Security  Network Security  Network Security  Computer Vision  Compute	W  W  e expeci Q&A ses	8 credits  8 credits  8 credits  6 credits  ted to watch the sion that will be com. So in presence in lected	3V+1U+ 3 hrs 1 hrs 2V+2U+ 2 hrs 2 hrs 3 hrs 3V+1U+ 3 hrs 1 hrs 3 hrs 3V+2U 3 hrs 6e	Wed Fri Fri  3A Tue Thu  3A Wed Thu Thu Fri	10-12 16-18 14-16 12-13 13-14 13-14	CAB G61 HG G3 HG D5.1 HG E21 HG G26.1 HG E1.2 CAB G61 NO C60 HG G5 CAB G51 CAB G51	G. Alonso G. Alonso A. Perrig, S. Frei, M. Legner, K. Paterson A. Perrig, S. Frei, M. Legner, K. Paterson A. Perrig, S. Frei, M. Legner, K. Paterson M. Pollefeys, S. Tang, F. Yu

## ▶▶▶▶ Focus Elective Courses General Studies

Number	Title	Type	ECTS	Hours	Lecturers
252-0543-01L	Computer Graphics	W	8 credits	3V+2U+2A	
252-0543-01 V	Computer Graphics  Does not take place this semester.			3 hrs	

252-0543-01 U	Computer Graphics			2 hrs				
252-0543-01 A	Does not take place this semester.  Computer Graphics			2 hrs				
	Does not take place this semester.			21113				
252-0546-00L	Physically-Based Simulation in Computer Graphics	W	5 credits	2V+1U+	1A			
252-0546-00 V	Physically-Based Simulation in Computer G	raphics		2 hrs	Tue	10-12	CAB G51	V. da Costa de Azevedo, B. Solenthaler, B. Thomaszewski
252-0546-00 U	Physically-Based Simulation in Computer G	raphics		1 hrs	Tue	16-17	CAB G51	V. da Costa de Azevedo, B. Solenthaler, B. Thomaszewski
252-0546-00 A	Physically-Based Simulation in Computer G	raphics		1 hrs				V. da Costa de Azevedo, B. Solenthaler, B. Thomaszewski
252-0811-00L	Applied Security Laboratory	W	8 credits	7P	<b>-</b> .	10.10	1 EE D404	
	Applied Security Laboratory	14/	10 aradita	7 hrs	Thu	10-13	LEE D101	C. Sprenger
<b>252-0817-00L</b> 252-0817-00 P	Distributed Systems Laboratory Distributed Systems Laboratory Lab projects are typically carried out in groustudents.	<b>W</b> ıps of tw	10 credits	<b>9P</b> 9 hrs	by appt			G. Alonso, T. Hoefler, A. Klimovic, T. Roscoe, R. Wattenhofer, C. Zhang
252-1407-00L	Algorithmic Game Theory	W	7 credits	3V+2U+	1A			
	Algorithmic Game Theory			3 hrs	Fri	10-13	CHN C14	P. Penna
252-1407-00 U	Algorithmic Game Theory			2 hrs	Tue	10-12 16-18	CAB G57 CAB G59 LFW B3	P. Penna
252-1407-00 A	Algorithmic Game Theory  Project Work, no fixed presence required.			1 hrs				P. Penna
252-1411-00L	Security of Wireless Networks	w	6 credits	2V+1U+	2A			
252-1411-00 V	Security of Wireless Networks			2 hrs	Tue	14-16	ML F34	S. Capkun, K. Kostiainen
	Security of Wireless Networks			1 hrs	Fri/2w	14-16	CAB E87.2	S. Capkun, K. Kostiainen
252-1411-00 A	Security of Wireless Networks includes a semester long project			2 hrs				S. Capkun, K. Kostiainen
252-1425-00L	Geometry: Combinatorics and Algorithms	W	8 credits	3V+2U+	2A			
252-1425-00 V	Geometry: Combinatorics and Algorithms			3 hrs	Mon	13-14	CAB G51 CAB G51	B. Gärtner, E. Welzl,
252-1425-00 U	Geometry: Combinatorics and Algorithms			2 hrs	Thu Mon 23.09. 30.09.	14-16 14-16 16-18 16-18	CAB G51 CAB G51 CAB G51 CAB G51	M. Hoffmann, M. Wettstein <b>B. Gärtner</b> , <b>E. Welzl</b> ,  M. Hoffmann, M. Wettstein
252-1425-00 A	Geometry: Combinatorics and Algorithms Project Work, no fixed presence required.			2 hrs	30.03.	10-10	OAD OOT	B. Gärtner, E. Welzl, M. Hoffmann, M. Wettstein
227-2210-00L	Computer Architecture	W	8 credits	6G+1A				
227-2210-00 G	Computer Architecture Online event: Will primarily take place onlin- remain blocked on campus for students to f there.				Thu Fri	13-16 13-16	HG D16.2 HG D16.2	O. Mutlu
227-2210-00 A	Computer Architecture			1 hrs				O. Mutlu
263-2400-00L	Reliable and Trustworthy Artificial	W	6 credits	2V+2U+	1A			
263-2400-00 V	Intelligence Reliable and Trustworthy Artificial Intelligence Online event: Will primarily take place online remain blocked on campus for students to f there.	e. Resei			Wed	14-16	HG G3	M. Vechev
263-2400-00 U	Reliable and Trustworthy Artificial Intelligent Exercise session will start in the second we Online event: Will primarily take place online remain blocked on campus for students to fithere.	ek of the e. Resei	rved rooms wi		Mon Wed	12-14 12-14	CAB G56 CAB G51	M. Vechev
263-2400-00 A	Reliable and Trustworthy Artificial Intelligen	се		1 hrs				M. Vechev
252-3005-00L	Natural Language Processing	W	5 credits	2V+2U+	1A			
252-3005-00 V	Number of participants limited to 400.  Natural Language Processing From HS21 in the autumn semester.			2 hrs	Mon	12-14	HG F7	R. Cotterell
252-3005-00 U	Natural Language Processing			2 hrs	Wed	12-14	HG F7	R. Cotterell
	Natural Language Processing			1 hrs				R. Cotterell
263-3210-00L		W	8 credits	3V+2U+	2A			
263-3210-00 V	Number of participants limited to 320.  Deep Learning			3 hrs	Wed	13-14	ML D28	F. Perez Cruz, A. Lucchi
263-3210-00 U	Deep Learning			2 hrs	Thu Mon	14-16 16-18	ML D28 HG G5	F. Perez Cruz, A. Lucchi
263-3210-00 A	Deep Learning			2 hrs	Wed	16-18	ML D28	F. Perez Cruz, A. Lucchi
263-3850-00L	Informal Methods	w	5 credits	2G+2A				,
	Informal Methods			2 hrs	Thu	10-12	CAB G59	D. Cock
263-3850-00 A	Informal Methods			2 hrs				D. Cock

<b>263-4500-00L</b> 263-4500-00 V	Advanced Algorithms Advanced Algorithms	w	9 credits	<b>3V+2U+</b> 3 hrs	<b>3A</b> Wed	09-12	HG D5.2	<b>M. Ghaffari</b> , G. Zuzic
200 1000 00 1	Online lecture: This lecture will primarily tak Reserved rooms will remain blocked on car follow the course from there.			01110	wou	00 12	110 20.2	Chanan, c. Zazio
	Advanced Algorithms Advanced Algorithms			2 hrs 3 hrs	Fri	10-12	CAB G59	M. Ghaffari, G. Zuzic M. Ghaffari, G. Zuzic
263-5210-00L	Probabilistic Artificial Intelligence	W	8 credits	3V+2U+	2A			
263-5210-00 V	Probabilistic Artificial Intelligence			3 hrs	Fri	10-12	ETA F5	A. Krause
	Fr 10-12 und 13-14 im ETA F5 mit Videoük	oertragu	ng ins ETF E1			13-14	ETF E1 ETA F5 ETF E1	
263-5210-00 U	Probabilistic Artificial Intelligence Q&A session: Monday, 17-18, via zoom			2 hrs	Thu	16-18	CHN C14	A. Krause
263-5210-00 A	Probabilistic Artificial Intelligence			2 hrs				A. Krause
<b>263-5905-00L</b> 263-5905-00 G	Mixed Reality Mixed Reality	W	5 credits	<b>3G+1A</b> 3 hrs	Mon	10-13	CAB G11	I. Armeni, F. Bogo, M. Pollefeys
263-5905-00 A	Mixed Reality			1 hrs				I. Armeni, F. Bogo, M. Pollefeys
261-5100-00L	Computational Biomedicine Number of participants limited to 120.	W	5 credits	2V+1U+	1A			
261-5100-00 V	Computational Biomedicine Online lecture: This lecture will take place of will remain on campus for students to follow there.			2 hrs	Tue	10-12	ML F39	V. Boeva, G. Rätsch
261-5100-00 U	Computational Biomedicine Online lecture: This lecture will take place of will remain on campus for students to follow there.			1 hrs s	Tue	13-14	ML F39	V. Boeva, G. Rätsch
261-5100-00 A	Computational Biomedicine			1 hrs				V. Boeva, G. Rätsch
227-0575-00L	Advanced Topics in Communication Networks	W	6 credits	2V+2U				
	Advanced Topics in Communication Network			2 hrs	Tue	14-16	ML E12	L. Vanbever
	Advanced Topics in Communication Network			2 hrs	Tue	16-18	ML E12	L. Vanbever
	Linear & Combinatorial Optimization Linear & Combinatorial Optimization (Mathe Online lecture: This lecture will take place of will remain reserved on campus for students from there.	nline. R	eserved rooms		Wed Thu	12-14 10-12	HG G5 HG G5	R. Zenklusen
401-3901-00 U	Linear & Combinatorial Optimization (Mathe Groups are selected in myStudies. Thu 14-16 or Fri 10-12 or Fr 12-14 or Fri 14 demand)			2 hrs	Thu Fri	14-16 10-12 12-14 14-16	HG F26.5 CAB G51 HG D3.2 HG F26.5	R. Zenklusen
636-0017-00L	Computational Biology	W	6 credits	3G+2A				
636-0017-00 G	Computational Biology The lecture will be held each Monday (16-1 Basel and will be transmitted via videoconfe location. Tutorials will happen in both locatio Tutorials in Zürich: Monday 18-19h (HB D n Tutorials in Basel: Thursday 12-13h (BSA E Lecture on Monday and the Tutorial on Thu available for participation via Zoom. ATTENTION: Lecture starts on Monday, 27	erence to ons. 16.2) E 46) ersday w	o the second	3 hrs	Mon	16-18 18-19 12-13	BSA E46 HG D16.2 HG D16.2 BSA E46	T. Vaughan
636-0017-00 A	Basel on Thursday 30.09 Computational Biology Project Work (compulsory continuous perfo	rmance	assessments)	2 hrs				T. Vaughan
▶▶▶ Sem	inar in General Studies							
Number	Title	Туре	ECTS	Hours				Lecturers
252-4601-00L	Current Topics in Information Security Number of participants limited to 24.	W	2 credits	28				
252-4601-00 S	The deadline for deregistering expires at the end of the second week of the semester. Students who are still registered after that date, but do not attend the seminar, will officially fail the seminar. Current Topics in Information Security Online seminar: This seminar will primarily in the seminar will be seminar wi			2 hrs	Mon	14-16	CAB G57	S. Capkun, K. Paterson, A. Perrig, S. Shinde
	Reserved rooms will remain blocked on car follow the seminar from there.	<u></u>						
252-5051-00L	Advanced Topics in Machine Learning Number of participants limited to 40.  The deadline for deregistering expires at	W	2 credits	2\$				
	the end of the fourth week of the semester. Students who are still registered after that							

252-5701-00L	Advanced Topics in Computer Graphics W and Vision	2 credits	28				
252-5051-00 S	Advanced Topics in Machine Learning ■		2 hrs	Tue Thu	16-18 16-18	CAB G56 CAB G57	J. M. Buhmann, R. Cotterell, J. Vogt, F. Yang
	date, but do not attend the seminar, will officially fail the seminar.						

The deadline for deregistering expires at the end of the third week of the semester. Students who are still registered after that date, but do not attend the seminar, will officially fail the seminar.

Number of participants limited to 24.

252-5701-00 S Advanced Topics in Computer Graphics and Vision 2 hrs Thu 14-16 CAB G56 M. Pollefeys,

O. Sorkine Hornung, S. Tang

263-2100-00L Research Topics in Software W 2 credits 2S Engineering

Number of participants limited to 22.

The deadline for deregistering expires at the end of the second week of the semester. Students who are still registered after that date, but do not attend the seminar, will officially fail the seminar.

263-2100-00 S Research Topics in Software Engineering 2 hrs Tue 14-16 CHN G46 **P. Müller, M. Püschel** Online lecture: This lecture will take place online. Reserved rooms

Online lecture: This lecture will take place online. Reserved rooms will remain blocked on campus for students to follow the course from there.

263-3504-00L Hardware Acceleration for Data W 2 credits 2S

Processing

Number of participants limited to 24.

The deadline for deregistering expires at the end of the second week of the semester. Students who are still registered after that date, but do not attend the seminar, will officially fail the seminar.

263-3504-00 S Hardware Acceleration for Data Processing 2 hrs Tue 14-16 ML J34.1 **G. Alonso**Online seminar: This seminar will take place online. Reserved

rooms will remain blocked on campus for students to follow the course from there.

263-3713-00L Advanced Topics in Human-Centric W 2 credits 2S

Computer Vision
Numbers of participants limited to 20.

The deadline for deregistering expires at the end of the third week of the semester. Students who are still registered after that date, but do not attend the seminar, will officially fail the seminar.

263-3713-00 S Advanced Topics in Human-Centric Computer Vision 2 hrs Thu 16-18 CAB G52 O. Hilliges

#### **▶▶** Computer Science Elective Courses

The Elective Computer Science Courses can be selected from all Master level courses offered by D-INFK.

Number	Title	Type	ECTS	Hours				Lecturers	
252-0293-00L	Wireless Networking and Mobile Computing	W	4 credits	2V+1U					
252-0293-00 V	Wireless Networking and Mobile Computing			2 hrs	Mon	16-18	HG E5	S. Mangold	
252-0293-00 U	Wireless Networking and Mobile Computing			1 hrs	Mon	18-19	HG E5	S. Mangold	
263-0600-00L	Research in Computer Science Only for Computer Science MSc.	W	5 credits	11A					
263-0600-00 A	Research in Computer Science			150s hrs	by app	t.		Professors	
227-0423-00L	Neural Network Theory	W	4 credits	2V+1U					
227-0423-00 V	Neural Network Theory			2 hrs	Tue	10-12	HG F5	H. Bölcskei	
227-0423-00 U	Neural Network Theory The exercise will take place online on: https://www.mins.ee.ethz.ch/teaching/nnt/dc The reserved room is meant for those stude				Tue	12-13	HG F5	H. Bölcskei	

#### ▶▶ Internship

	1				
Number	Title	Туре	ECTS	Hours	Lecturers
252-0700-00L	Internship Only for Computer Science MSc.	W	0 credits		
252-0700-00 P	Industriepraktikum				external organisers

#### ▶▶ Elective Courses (only for Programme Regulations 2009)

Students can individually chose from the entire Master course offerings from ETH Zurich, EPF Lausanne, the University of Zurich and - but only with the consent of the Director of Studies - from all other Swiss universities.

Number	Title	Type	ECTS	Hours				Lecturers
263-0610-00L	Direct Doctorate Research Project Only for Direct Doctorate Students	0	15 credits	23A				
263-0610-00 A	Direct Doctorate Research Project			320s hrs				Professors
263-0620-00L	Direct Doctorate Research Plan Only for Direct Doctorate Students	0	15 credits	23A				
263-0620-00 A	Direct Doctorate Research Plan			320s hrs				Professors
► Interfocu	s Courses							
Number	Title	Туре	ECTS	Hours				Lecturers
263-0006-00L	Algorithms Lab Only for master students!	0	8 credits	4P+3A				
263-0006-00 P	Algorithms Lab			4 hrs	Mon Tue Wed Thu	14-16 16-18 16-18 16-18	CAB H57 HG E26.1 HG E26.3 ML H34.3 CAB G11 ML H34.3	A. Steger, E. Welzl
263-0006-00 A	Algorithms Lab Project Work, no fixed presence required.			3 hrs				A. Steger, E. Welzl
263-0009-00L	Information Security Lab Only for master students! Number of participants limited to 250.	0	8 credits	2V+1U+3	P+1A			
263-0009-00 V	Information Security Lab			2 hrs	Mon	16-18	ML D28	<ul><li>K. Paterson, S. Capkun</li><li>D. Hofheinz, A. Perrig,</li><li>S. Shinde</li></ul>
263-0009-00 U	Information Security Lab			1 hrs	Tue Wed	16-17 08-09	CHN F46 CAB G11	<ul><li>K. Paterson, S. Capkun</li><li>D. Hofheinz, A. Perrig,</li><li>S. Shinde</li></ul>
263-0009-00 P	Information Security Lab			3 hrs	Thu	16-19	CAB H56 CAB H57 CHN E42 CHN G42 ETZ E6	K. Paterson, S. Capkun D. Hofheinz, A. Perrig, S. Shinde
263-0009-00 A	Information Security Lab			1 hrs				<ul><li>K. Paterson, S. Capkun</li><li>D. Hofheinz, A. Perrig,</li><li>S. Shinde</li></ul>
► GESS Sc	ience in Perspective							
	see GESS Science in Perspective: Language Courses ETH/UZH							
	see GESS Science in Perspective: Type A: Enhancement of Reflection Capability							
	Recommended GESS Science in Perspective (Type B) for D-INFK.							
► Master's	Thesis							
Number	Title	Туре	ECTS	Hours				Lecturers
263-0800-00L	Master's Thesis Only students who fulfill the following criteria are allowed to begin with their master thesis: a. successful completion of the bachelor programme; b. fulfilling any additional requirements necessary to gain admission to the master programme; c. "Inter focus courses" (12 credits) completed; d. "Focus courses" (26 credits) completed.	0	30 credits	64D				
263-0800-00 D	Master's Thesis ■			900s hrs	by app	t.		Supervisors
Computer Sci	ence Master - Key for Type							
0	Compulsory			E-	Re	ecommen	ded, not eligible	e for credits
	· · · · · · · · · · · · · · · · · · ·		1	7		oureae ou	-	

Z

Dr

Courses outside the curriculum

Suitable for doctorate

W+

W

Eligible for credits and recommended

Eligible for credits

Key for	Hours		
V	lecture	P	practical/laboratory course
G	lecture with exercise	A	independent project
U	exercise	D	diploma thesis
S	seminar	R	revision course / private study
K	colloquium		

**ECTS** 

European Credit Transfer and Accumulation System
Special students and auditors need special permission from the lecturers.

# **Integrated Building Systems Master**

## ► Main Courses

## **▶▶** Fundamental Courses

Number	Title	Туре	ECTS	Hours				Lecturers
151-1633-00L	Energy Conversion This course is intended for students outside of D-MAVT.	W	4 credits	3G				
151-1633-00 G	Energy Conversion			3 hrs	Mon	10-13	NO C6	I. Karlin, G. Sansavini
401-0203-00L	Mathematics	W	4 credits	3V+1U				
401-0203-00 V	Mathematics In some weeks, the lecture is planned Mon 16-17 (details to be announced by the lectu.		stead of Mon	3 hrs	Mon Tue	16-17 12-14	HG G26.3 HG G26.3	C. Busch
401-0203-00 U	Mathematics In some weeks, the lecture is planned Mon 16-17, so that the exercise session will be s (details to be announced by the lecturer).			1 hrs	Mon Fri/2w	17-18 13-14	HG G26.3 HG G26.3	C. Busch
066-0427-00L	Design and Building Process MIBS ITA Pool - information event on the courses offered at the institute ITA: Wednesday 8th September 2021, 10-11 h, ONLINE. ZoomLink: https://ethz.zoom.us/j/66588100789	W	2 credits	2V				
066-0427-00 V	Design and Building Process MIBS No course on 26.10. (seminar week).			2 hrs	Tue	08-10	HCP E47.2	A. Paulus
103-0317-00L	Introduction to Spatial Development and Transformation Only for master students, otherwise a special permisson by the lecturer is required.	W	3 credits	2G				
103-0317-00 G	Introduction to Spatial Development and Tra	ansform	ation	2 hrs	Tue	10-12	HIL E6	M. Nollert, D. Kaufmann
▶► Core Co	ourses							
Number	Title	Туре	ECTS	Hours				Lecturers
<b>101-0527-10L</b> 101-0527-10 G	Materials and Constructions Materials and Constructions	0	3 credits	2G 2 hrs	Mon	08-10	HIL D10.2	G. Habert, D. Sanz Pont
<b>151-8011-00L</b> 151-8011-00 V	Permission from lecturers required for all stu		4 credits	<b>3V+1U</b> 3 hrs	Wed	13-16	HIL D10.2	A. Kubilay, X. Zhou
151-8011-00 U	No course on 27.10.2021 (seminar week). Building Physics: Theory and Applications Permission from lecturers required for all stuncturers on 27.10.2021 (seminar week). Online event: This event will primarily take prooms will remain blocked on campus for studies from there	olace on		1 hrs	Wed	17-18	HIL D10.2	X. Zhou, L. D'Amato, A. Kubilay, A. Rubin, D. A. Strebel
363-0389-00L	Technology and Innovation Management	0	3 credits	2G				
363-0389-00 G	Technology and Innovation Management The lecture takes place in classroom, online recorded.	e via zoo	om and	2 hrs	Mon 27.09.	14-16 14-16	NO C60 HG D1.2	S. Brusoni, A. Zeijen
363-0503-00L	Principles of Microeconomics GESS (Science in Perspective): This lecture is for MSc students only. BSc students register for 363-1109-00L Einführung in die Mikroökonomie.	0	3 credits	2G				
363-0503-00 G	Principles of Microeconomics The lecture takes place in classroom, online zoom and recorded.	e via live	estreaming or	2 hrs	Thu	18-20	HG F7	M. Filippini
066-0423-00L	Application of CFD in Buildings Limited number of participants. Enrolment is only possible in agreement with the chair.	W	3 credits	3V				
066-0423-00 V	Application of CFD in Buildings Permission from lecturers required for all stu No course on 28.10. (seminar week)	udents		3 hrs	Thu	16-19	HCP E47.2	D. Lakehal
<b>151-8007-00L</b> 151-8007-00 G	Urban Physics Urban Physics No course on 28.10 (seminar week) and no 23.12.2021.	<b>O</b> course	3 credits	<b>3G</b> 3 hrs	Thu	13-16	HIL E9	J. Carmeliet, D. W. Brunner, A. Rubin, C. Schär, D. A. Strebel, H. Wernli, J. M. Wunderli, Y. Zhao

	Building Systems I Building Systems I No course on 27.10. (seminar week).	0	3 credits	<b>3G</b> 3 hrs	Wed	09-12	HCI E8	A. Schlüter, L. Baldini, I. Hischier, F. Khayatian,
101-0524-00L	Lean, Integrated and Digital Project Delivery	w	4 credits	3G				M. Sulzer
101-0524-00 G	Lean, Integrated and Digital Project Deliver	у		3 hrs	Mon 04.10. 11.10.	16-19 16-19 16-19	HPV G5 HIT E51 HIT E51	D. Hall
101-0608-00L	Design-Integrated Life Cycle Assessment	W	3 credits	2G				
101-0608-00 G	Design-Integrated Life Cycle Assessment Former title: Building Materials and Sustain	ability		2 hrs	Tue	14-16	HPT C103	G. Habert
<b>151-0209-00L</b> 151-0209-00 G	Renewable Energy Technologies Renewable Energy Technologies Online event: Will primarily take place onlin remain blocked on campus for students to there.				Tue	14-17	HG G5	A. Steinfeld, E. I. M. Casati
<b>101-0123-00L</b> 101-0123-00 G	Structural Design Structural Design	W	3 credits	<b>2G</b> 2 hrs	Thu	10-12	HPT C103	P. Ohlbrock, P. Block, J. Schwartz
529-0010-00L	Chemistry	w	3 credits	2V+1U				0. Conwartz
529-0010-00 V	Do 10-12 im ETA F 5 mit Videoübertragung		2 hrs	Thu	10-12	ETA F5 ETF E1	A. de Mello, C. Mondelli, D. J. Norris, S. Stavrakis	
529-0010-00 U	Groups are selected in myStudies. Bitte melden Sie sich für die Übungsgruppe Eine englischsprachige Gruppe wird für die Masterstudiengangs in Integrated Building (HIL E 5). Übungslektionen beginnen nach Vorlesung.	ystudies an. enden des s angeboten iten	1 hrs	Fri	10-12 14-15	HIL E5 CAB G59 CHN E46 CHN F42 CLA E4 IFW C33 LEE C114 LEE D101	F. Jenny	
	Please subscribe to the exercise groups in speaking group is offered to the students o Integrated Building Systems (HIL E 5). Prol Lecture 2.  Zusätzlich wird das Study Center angebote Uhr ab der 3. Semesterwoche im HG E1.2,	f the Mas blem clas	ster course in sses start afte ochs 18-20				LFV E41 LFW B3 LFW C1 LFW C5 ML H41.1 ML J34.1	
	des betreuten Lernens angeboten wird. Im Studierende Vorlesungsstoff vor- oder nach lösen.	Study C	enter können					
▶▶ Special	ised Courses							
Number	Title	Туре	ECTS	Hours				Lecturers
<b>151-0185-00L</b> 151-0185-00 V	Radiation Heat Transfer Radiation Heat Transfer Online lecture: This lecture will primarily tak Reserved rooms will remain blocked on car follow the course from there.			<b>2V+1U</b> 2 hrs	Thu	10-12	ML F39	A. Steinfeld, P. Pozivil
151-0185-00 U	Radiation Heat Transfer Online event: Will primarily take place onlin remain blocked on campus for students to a there.				Thu	12-13	ML F39	A. Steinfeld, P. Pozivil
<b>151-0103-00</b> L 151-0103-00 V	Fluid Dynamics II Fluiddynamik II In der 1. und 2. Semesterwoche findet am i jeweils eine Vorlesung, anstelle von Übung 1).			<b>2V+1U</b> 2 hrs	Mon 21.09. 28.09.	10-12 11-12 11-12	HG E7 ETF C1 ETF C1	P. Jenny
151-0103-00 U	Fluiddynamik II Groups are selected in myStudies. Die Übungen beginnen in der 3. Semesterv	voche.		1 hrs	Tue	11-12	CAB G61 HG D1.1 IFW A36	P. Jenny
401-0647-00L	Introduction to Mathematical Optimization	W	5 credits	2V+1U				
	Introduction to Mathematical Optimization Introduction to Mathematical Optimization Groups are selected in myStudies. Wed 12-13 or Wed 16-17			2 hrs 1 hrs	Tue Wed	16-18 12-13 16-17	HG F5 HG D1.2 IFW A36 ON LINE	D. Adjiashvili D. Adjiashvili
227-0477-00L	Acoustics I	W	6 credits	4G	Max	14.40		V Hautach:
227-0477-00 G	An Introduction to Sustainable	w	3 credits	4 hrs <b>2G</b>	Mon	14-18	ETZ E7	K. Heutschi
	<b>Development in the Built Environment</b> An Introduction to Sustainable Development			2G 2 hrs	Tue	16-18	HIL E4	G. Habert, D. Kaushal
	Environment							

101-0417-00 G	Transport Planning Methods			4 hrs	Mon Wed 22.09. 27.09. 29.09. 04.10. 06.10.	10-12 10-12 10-12 10-12 10-12 10-12 10-12	HIL F36.1 HIL F36.1 HCP E47.1 HIL F10.3 HCP E47.1 HIL F10.3 HCP E47.1	K. W. Axhausen
101-0507-00L	Infrastructure Management 3:	W	6 credits	2G				
101-0507-00 G	Optimisation Tools Infrastructure Management 3: Optimisation Does not take place this semester. Next time in HS22.	Tools		2 hrs				B. T. Adey
363-0387-00L	Corporate Sustainability	W	3 credits	2G				
363-0387-00 G	Corporate Sustainability The course combines online learning elemesome of which are recorded. Several course	e sessio	ns require live	2 hrs	Wed/2 Wed	16-18 16-18	HG E21 HG E22 HG F3	V. Hoffmann, C. Bening-Bach, N. U. Blum, J. Meuer
	attendance. Details are provided on the mo	odle cou	ırse page.		Wed/2	16-18	ML E12	
402-0809-01L	Introduction to Computational Physics (for Civil Engineers)	W	4 credits	2V+1U				
402-0809-00 V	Introduction to Computational Physics			2 hrs	Tue	10-12	HCI J7	A. Adelmann
402-0809-01 U	Introduction to Computational Physics			1 hrs	Tue	08-10	HIT F21	A. Adelmann
402-0809-00L	•	W	8 credits	2V+2U				
	Introduction to Computational Physics			2 hrs	Tue	10-12	HCI J7	A. Adelmann
	Introduction to Computational Physics			2 hrs	Tue	08-10	HCI J7	A. Adelmann
<b>101-0187-00L</b> 101-0187-00 G	Structural Reliability and Risk Analysis Structural Reliability and Risk Analysis	W	3 credits	<b>2G</b> 2 hrs	Fri	10-12	HCI J6	S. Marelli
701-1346-00L	Carbon Mitigation Number of participants limited to 90. Priority is given to the target groups: Bachelor and Master Environmental Sciences and PHD Environmental Sciences until September 21st,2021. Waiting list will be deleted October 1st, 2021.	W	3 credits	2G				
701-1346-00 G	Carbon Mitigation			2 hrs	Mon	10-12	CHN C14	N. Gruber
363-0537-00L	Resource and Environmental	W	3 credits	2G				
363-0537-00 G	Economics Resource and Environmental Economics The lecture takes place in classroom, online recorded.	e via live	estreaming and	2 hrs	Wed	10-12	HG G3	L. Bretschger
363-0565-00L	Principles of Macroeconomics	W	3 credits	2V				
363-0565-00 V	Principles of Macroeconomics Di 16-18 im ETA F 5 mit Videoübertragung The lecture takes place in classroom, online zoom and recorded.			2 hrs	Tue	16-18	ETA F5 ETF E1	JE. Sturm
101-0587-00L	Workshop on Sustainable Building Certification	W	3 credits	2G				
101-0587-00 @	Number of participants limited to 25 Workshop on Sustainable Building Certifica	tion		2 hrs	Fri	10-12	HCP E47.1	D. Kellenberger
	· · · · · · · · · · · · · · · · · · ·		2 0 0 0 0 1 1 1 -		FII	10-12	HOF E41.1	D. Nelleliberger
063-0611-00L	, ,	W	2 credits	1V+2U				
	Prerequisite: Successful completion of the course "Structural Design VI" (063-0606-00L), "Design III" (052-0541/43/45) or "Das Digitale in der Architektur" (063-0610-00L).  This core course (ending with «00L») can only be passed once! Please check before signing up.							
	course "Structural Design VI" (063- 0606-00L), "Design III" (052-0541/43/45) or "Das Digitale in der Architektur" (063- 0610-00L). This core course (ending with «00L») can only be passed once! Please check before signing up. ITA Pool - information event on the courses offered at the institute ITA: Wednesday 8th September 2021, 10-11 h, ONLINE. ZoomLink:							
063-0611-00 V	course "Structural Design VI" (063-0606-00L), "Design III" (052-0541/43/45) or "Das Digitale in der Architektur" (063-0610-00L). This core course (ending with «00L») can only be passed once! Please check before signing up.  ITA Pool - information event on the courses offered at the institute ITA: Wednesday 8th September 2021, 10-11 h, ONLINE. ZoomLink: https://ethz.zoom.us/j/66588100789  The Digital in Architecture II No course on 28.10. (seminar week) 16./23		fore final	1 hrs	Thu	16-17	HIB D13.1	J. Medina Ibañez
063-0611-00 V 063-0611-00 U	course "Structural Design VI" (063-0606-00L), "Design III" (052-0541/43/45) or "Das Digitale in der Architektur" (063-0610-00L). This core course (ending with «00L») can only be passed once! Please check before signing up.  ITA Pool - information event on the courses offered at the institute ITA: Wednesday 8th September 2021, 10-11 h, ONLINE. ZoomLink: https://ethz.zoom.us/j/66588100789  The Digital in Architecture II No course on 28.10. (seminar week) 16./23 critiques).	.12. (bei		1 hrs 2 hrs	Thu	16-17 17-19	HIB D13.1 HIB D13.1	J. Medina Ibañez J. Medina Ibañez
	course "Structural Design VI" (063-0606-00L), "Design III" (052-0541/43/45) or "Das Digitale in der Architektur" (063-0610-00L). This core course (ending with «00L») can only be passed once! Please check before signing up.  ITA Pool - information event on the courses offered at the institute ITA: Wednesday 8th September 2021, 10-11 h, ONLINE. ZoomLink: https://ethz.zoom.us/j/66588100789  The Digital in Architecture II No course on 28.10. (seminar week) 16./23 critiques).  The Digital in Architecture II (Exercise) No course on 28.10. (seminar week) 16./23 critiques).	.12. (bei						

252-0839-00 G	Einsatz von Informatikmitteln Vorlesung: Fr 14-16 Uhr Individuelle Präsentation Projektaufgaben: res	stliche	Zeiten alle 2	2 hrs	Mon	18-19	HG E19 HG E26.3 HG E27	L. E. Fässler, M. Dahinden
	Wochen nach Voranmeldung				Thu	18-19	HG E19 HG E26.1 HG E26.3 HG E27	
					Fri	14-16 16-18	HG E27 HG F7 HG E19 HG E26.1 HG E26.3 HG E27	
101-0007-00L	,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,	N	4 credits	38				
101-0007-00 S	Projects Project Management for Construction Projects Online seminar: This seminar will primarily tak (Zoom). Reserved rooms will remain blocked students to follow the seminar from there. The only exception will be the SkyRail exercis groups: 10.12. or 17.12. from 12-17) which wi face.	ke plad on car ses in l	mpus for December (2	3 hrs	Fri 10.12. 17.12.	13-16 11-17 11-17	HCI J7 HIT E51 HIT E51	J. J. Hoffman
851-0589-00L	Technology and Innovation for V Development	N	3 credits	2V				
851-0589-00 V	Technology and Innovation for Development			2 hrs	Tue	12-14	LEE D101	P. Aerni
701-0901-00L	ETH Week 2021: Health for Tomorrow  All ETH Bachelor's, Master's and exchange students can take part in the ETH week. No prior knowledge is required	N	1 credit	3S				
701-0901-00 S	ETH Week 2021: Health for Tomorrow The ETH Week 2021 takes place from Sept. is open to Bachelor and Master students from Departments. All students must apply through application process at www.ethz.ch/ethweek. subject to successful selection through this control of the second selection.	all E1 a con Partic	TH 'n Grand of the state of the	45s hrs				C. Bratrich, S. Brusoni, A. Burden, A. Cabello Llamas, R. Knutti, I. Mansuy, F. Rittiner, A. Vaterlaus, C. Wolfrum
376-1177-00L		N	3 credits	2V	_			
3/6-11//-00 V	Human Factors I			2 hrs	Tue	14-16	HG G3	M. Menozzi Jäckli, R. Huang, M. Siegrist
363-1065-00L	3	N	5 credits	5G				
363-1065-00 G	Solutions to Real World Challenges Design Thinking: Human-Centred Solutions to Challenges Does not take place this semester. From FS22 in the spring semester.	Real	World	5 hrs				S. Brusoni
063-0803-01L	History and Theory in Architecture IX (Avermaete)  This core course (ends with «01L») can only be passed once! Please check this before signing up.	N	1 credit	1V				
063-0803-01 V	History and Theory in Architecture IX (Averma No course on 29.10. (seminar week) and 17./. critics).		(before final	1 hrs	Fri	09-10	HIL E1	T. Avermaete, H. Teerds
103-0569-00L	European Aspects of Spatial V Development	V	3 credits	2G				
103-0569-00 G	European Aspects of Spatial Development Online lecture: This lecture will primarily take Reserved rooms will remain available for stud seminar from there.			2 hrs	Tue	16-18	HIL D53	A. Peric Momcilovic
851-0252-08L	Evidence-Based Design: Methods and Tools For Evaluating Architectural Design Number of participants limited to 40	V	3 credits	2\$				
	Particularly suitable for students of D-ARCH							
851-0252-08 S	Evidence-Based Design: Methods and Tools Architectural Design	For Ev	valuating	2 hrs	Fri	10-12	HIL E10.1	M. Gath Morad, C. Hölscher, L. Narvaez Zertuche, C. Veddeler
<b>252-0834-00L</b> 252-0834-00 V	,			<b>2V+1U</b> 2 hrs	Fri	14-16	HG E5	G. Fourny
252-0834-00 U	Information Systems for Engineers Groups are selected in myStudies.			1 hrs	Fri	16-17	CAB G52 CAB G56 CAB G57 CAB G59 ON LINE ON LINE ON LINE	G. Fourny
052-0707-00L	Urban Design III	N	2 credits	2V				

I	Urban Design III No course on 28.10. (seminar week) 16./23 critiques).	3.12. (be	fore final	2 hrs	Thu	08-10	ONA E7	H. Klumpner, M. Fessel
1-0911-21 A	Seminar Week Autumn Semester 2021 Seminarwoche Herbstsemester 2021 Seminarwoche vom 2529.20.2021. Die Programme werden zu Beginn des Ser	<b>W</b> mesters (	2 credits publiziert.	<b>3A</b> 40s hrs				Lecturers
•	Energy- and Climate Systems III This core course (ending with «OOL») can only be passed once! Please check before signing up.	W	2 credits	2V				
(	ITA Pool - information event on the courses offered at the institute ITA: Wednesday 8th September 2021, 10-11 h, ONLINE. ZoomLink: https://ethz.zoom.us/j/66588100789							
ı	Energy- and Climate Systems III No course on 29.10. (seminar week) and 1 critiques).	7./24.12.	.(before final	2 hrs	Fri	08-10	HIL E7	A. Schlüter, C. Waibel
	Engineering Design Optimization Number of participants limited to 60.	W	4 credits	4G				
1-3209-00 G E	Engineering Design Optimization Online event: Will primarily take place onlin remain blocked on campus for students to t there.			4 hrs	Wed	08-12	ETZ E8	K. Shea, T. Stankovic
f	Scientific Machine and Deep Learning for Design and Construction in Civil Engineering	W	3 credits	4G				
(	Scientific Machine and Deep Learning for D Construction in Civil Engineering 14-16 theory 16-18 group work	esign aı	nd	4 hrs	Mon	14-18	HPK D3	M. A. Kraus, D. Griego
	Climate Responsive Architecture with Hive	W	1 credit	2G				
2-0639-00 G	Climate Responsive Architecture with Hive			30s hrs				A. Schlüter
	Science in Society Wissenschaft in der Gesellschaft	W	3 credits	<b>2G</b> 2 hrs	Thu	12-14	IFW A32.1	L. Wingert
	Implementation of Environmental and Other Sustainability Goals Master students in Environmental Engineering choosing module Ecological Systems Design are not allowed to enrol 102-0327-01 Advanced Environmental Assessments (2KP) as already included in 102-0307-01 Advanced Environmental, Social and Economic Assessments (5KP).	W	2 credits	2G				
ı	Implementation of Environmental and Othe Remark: No course on 26.10.2021. The co 02.11.2021 (room will be announced later of	urse will		21s hrs	Tue/2w	09-12	HIL E9	A. E. Braunschweig
Project Co	ourses							
mber	Title	Туре	ECTS	Hours				Lecturers
6-0425-00 V I	Integrated Design MIBS Integrated Design MIBS	W	6 credits	<b>3V+3U</b> 3 hrs	Wed	10-13	HIB E31	A. Schlüter
6-0425-00 U I	No course on 27.10. (seminar week). Integrated Design MIBS ■ No course on 27.10. (seminar week).			3 hrs	Wed	13-16	HIB E31	A. Schlüter
Semester	Project							
mber	Title	Type	ECTS	Hours				Lecturers
č	Semester Project MIBS The semester project can commence only after the first year of coursework is completed.	0	6 credits	13A				
•	Semester Project MIBS  Tutors for your semester project (select out https://master-buildingsystems.ethz.ch/prog		ors.html	180s hrs	by appt.			Supervisors
GESS Sci	ence in Perspective							
mber <sup>1</sup>	Title	Туре	ECTS	Hours				Lecturers
	see GESS Science in Perspective: Language Courses ETH/UZH							
	see GESS Science in Perspective: Type A: Enhancement of Reflection Capability							
\$ 1 \$	see GESS Science in Perspective: Language Courses ETH/UZH see GESS Science in Perspective: Type A:		LOIS	ilouis				

	Perspective (Type B) for D-ARCH.							
<b>052-0801-00L</b> 052-0801-00 G	Global History of Urban Design I Global History of Urban Design I No course on 28.10. (seminar week) 16./23. critiques).	<b>W</b> 12. (bei	2 credits fore final	2G 2 hrs	Thu	10-12	HIL E4	T. Avermaete
851-0609-06L	Governing the Energy Transition	w	2 credits	2V				
851-0609-06 V	Primarily suited for Master and PhD level. Governing the Energy Transition			2 hrs	Thu	16-18	NO C60	T. Schmidt, N. Schmid, S. Sewerin
<b>351-0555-00L</b> 351-0555-00 G	Open- and User Innovation Open- and User Innovation Block course The Kick-off event will take place ONLINE, 2 - 16.00.	<b>W</b> 22.09.20	3 credits 021 from 14.00	2G 23s hrs	22.09. 25.10. 26.10. 27.10.	14-16 09-17 09-17 09-17	ON LINE ML H37.1 ML H37.1 ML H37.1	S. Häfliger, S. Spaeth
860-0023-00L	International Environmental Politics Particularly suitable for students of D-ITET, D-USYS	W	3 credits	2V				
860-0023-00 V	International Environmental Politics			2 hrs	Mon	16-18	HG F3	T. Bernauer
851-0101-74L	Sustainable Development - Bridging Art and Science	W	3 credits	2G				
851-0101-74 G	Sustainable Development - Bridging Art and Unregelmässige Lehrveranstaltung	Scienc	е	28s hrs	Wed	14-16	RZ F21	L. Hensgen, S. Patel
851-0252-01L	Human-Computer Interaction: Cognition and Usability Number of participants limited to 35.  Particularly suitable for students of D-	W	3 credits	28				
851-0252-01 S	ARCH, D-INFK, D-ITET Human-Computer Interaction: Cognition and The lecturers will communicate the exact les courses.		,	2 hrs	Mon	14-16	ON LINE	H. Zhao, S. Credé, C. Hölscher
363-0311-00L	Psychological Aspects of Risk Management and Technology Number of participants limited to 65.	W	3 credits	2V				
363-0311-00 V	Psychological Aspects of Risk Management	and Te	chnology	2 hrs	Wed	16-18	LFW B1	<b>G. Grote</b> , N. Bienefeld-Seall, J. Schmutz, R. Schneider, M. Zumbühl
851-0742-00L	Contract Design I This course is taught by Professor Alexander Stremitzer (https://laweconbusiness.ethz.ch/group/prof essor/stremitzer.html). Note that this is NOT a legal drafting class that focuses on contractual language. Instead, in Contact Design I, you will learn what the content of a contract should be so that parties can reach their goals.	<b>w</b>	3 credits	2V				
	You can find all course materials and the most recent announcements on Moodle. Please log in to Moodle using your ETH or UZH credentials. Then search for "Contract Design I (851-0742-00L; Fall 2021)" and enroll. The password is "ContractDesign01".							
851-0742-00 V	Number of participants limited to 160. Max 80 ETHZ and 80 UZH Students Contract Design I The course is going to take place twice a we	eek (Mo	nday and	28s hrs	Mon/1 Thu/1	16-18 12-14	ETF E1 ETF E1	A. Stremitzer
	Thursday) during the first half of the Semest Online lecture: This lecture will primarily take Reserved rooms will remain blocked on can follow the course from there.	e place						
851-0252-15L	Network Analysis Particularly suitable for students of D-INFK, D-MATH	W	3 credits	2V				
851-0252-15 V	Network Analysis			2 hrs	Wed	18-20	ML F36	U. Brandes
851-0101-86L	Complex Social Systems: Modeling Agents, Learning, and Games Number of participants limited to 100. Prerequisites: Basic programming skills,	W	3 credits	2\$				
851-0101-86 S	elementary probability and statistics.  Complex Social Systems: Modeling Agents, Online seminar: This seminar will primarily to Reserved rooms will remain blocked on can follow the seminar from there.	ake plad	ce online.	s 2 hrs	Mon	16-18	HG D7.2	N. Antulov-Fantulin, T. Asikis, D. Helbing

851-0467-00L From Traffic Modeling to Smart Cities W 3 credits 2S and Digital Democracies Number of participants limited to 50.

851-0467-00 S From Traffic Modeling to Smart Cities and Digital Democracies Online seminar: This seminar will primarily take place online. Reserved rooms will remain blocked on campus for students to follow the seminar from there.

#### ▶ Master's Thesis

Number	Title	Туре	ECTS	Hours		Lecturers
066-0434-00L	Master's Thesis Only students who fulfill the following criteria are allowed to begin with their master thesis: a. successful completion of the bachelor programme; b. fulfilling of any additional requirements necessary to gain admission to the master programme.	0	30 credits	40D		
	Master thesis are supervised and reviewed by one or several professors and possibly by other persons at the same time. At least one professor has to be a member of a department involved in the study programme (article 2). This regulation is also valid for master thesis taking place outside ETH Zurich.					
066-0434-00 D	Master's Thesis ■			40 hrs	by appt.	Professors

# ► Course Units for Additional Admission Requirements

The courses below are only available for MSc students with additional admission requirements.

Number	Title	Type	ECTS	Hours	Lecturers
101-0414-AAL	Transport Planning (Transportation I) Enrolment ONLY for MSc students with a decree declaring this course unit as an additional admission requirement.	E-	3 credits	6R	
	Any other students (e.g. incoming exchange students, doctoral students) CANNOT enrol for this course unit.				
101-0414-AA R	Transport Planning (Transportation I) Self-study course. No presence required.			90s hrs	K. W. Axhausen

Integrated Building Systems Master - Key for Type											
0	Compulsory	E-	Recommended, not eligible for credits								
W+	Eligible for credits and recommended	Z	Courses outside the curriculum								
W	Eligible for credits	Dr	Suitable for doctorate								

V lecture P practical/laboratory course G lecture with exercise A independent project U exercise D diploma thesis S seminar R revision course / private study K colloquium	Key for	Key for Hours											
U exercise D diploma thesis S seminar R revision course / private study	V	lecture	P	practical/laboratory course									
S seminar R revision course / private study	G	lecture with exercise	A	independent project									
	U	exercise	D	diploma thesis									
K colloquium	S	seminar	R	revision course / private study									
	K	colloquium											

ECTS European Credit Transfer and Accumulation System

Special students and auditors need special permission from the lecturers.

# **Interdisciplinary Sciences Bachelor**

- ► Physical-Chemical Direction
- ▶▶ 1. Semester (Physical-Chemical Direction)
- ▶▶▶ Compulsory Subjects First Year Examinations

Number	Title	Туре	ECTS	Hours				Lecturers
401-1261-07L	Analysis I: One Variable	0	10 credits	6V+3U				
401-1261-07 V	Analysis I: eine Variable Mi im HG F1 mit Videoübertragung ins HG	F3.		6 hrs	Mon	08-10	ETA F5 ETF E1	M. Einsiedler
	Mo und Do im ETA F 5 mit Videoübertragu	ıng im E7	FE1		Wed	08-10	HG F1 HG F3	
					Thu	08-10	ETA F5 ETF E1	
401-1261-07 U	Analysis I: eine Variable Groups are selected in myStudies. Übungen Fr 8-10 (Studiengänge Mathema 12-14. Dritte Übungsstunde Mi 12-13 oder Mi 13- Gruppeneinteilung. Zusätzlich wird das StudyCenter angebote http://studycenter.ethz.ch/	14 gemäs		3 hrs −r	Wed	12-13	HG E33.1 HG E33.3 HG E33.5 HG F26.5 ML F34 ML F40 ML H41.1 ML J34.1 ML J34.3 HG E33.1 HG E33.3 HG E33.5 HG F26.5 ML F34 ML F38 ML F40	M. Einsiedler
					Fri	08-10	ML H41.1 ML J34.1 ML J34.3 CAB G52 CAB G56 CHN D44 CHN D48 CLA E4 ETZ H91 HG G26.3 IFW C31 IFW C31 IFW C33 LEE C104 LEE C114 LEE D101 LEE D105 LFW B3 ML J34.1 ML J34.3 ML J37.1 HCI H8.1	
401-1151-00L	Linear Algebra I	0	7 credits	4V+2U				
401-1151-00 V	Lineare Algebra I Vorlesung im HG F7 mit Videoübertragung	j ins HG i	F5.	4 hrs	Mon	10-12	HG F5 HG F7	R. Pink
					Wed	14-16	HG F5 HG F7	
	Lineare Algebra I Groups are selected in myStudies. Zusätzlich wird das StudyCenter angebote http://studycenter.ethz.ch/			2 hrs	Mon	14-16	CAB G56 CAB G59 CHN D42 CHN D48 CHN G22 HG D5.2 HG E33.1 HG E33.5 HG G26.3 IFW C31 IFW C31 IFW C31 LEE C104 LEE D101 LFW E11 ML F39 ML H41.1 ML J34.3 ML J37.1 RZ F21	R. Pink
402-1701-00L	Physics I	0	7 credits	4V+2U				
402-1701-00 V	Findet im HPH G1 statt mit Videoübertragu	ung Di 10	-12 ins HCl	4 hrs	Tue	10-12	HCI G7 HPH G1	K. Ensslin
	G7 und Do 14-16 ins HCl J7				Thu	14-16	HCI J7 HPH G1	

402-1701-00 U	Physik I Zusätzlich wird das StudyCenter angeboten http://studycenter.ethz.ch/	:		2 hrs	Thu	12-14	HCI D4 HCI D6 HCI E2 HCI E8 HCI F2 HCI J8 HCP E47.3 HCP E47.4 HIL B21 HIL D10.2 HIL D60.1 HIL E10.1 HIL E5 HIL F10.3 HIT F31.2 HIT F32 HIT H32 HIT J53 HIT K51 HIT K52 HPK D24.2 HPK D3 HPL D34 HPT C103	K. Ensslin
529-0011-01L	General Chemistry (Physical Chemistry)	0	3 credits	2V+1U				
	Allgemeine Chemie I (PC) Allgemeine Chemie I (PC) Groups are selected in myStudies.			2 hrs 1 hrs	Wed Thu	10-12 12-13 13-14 18-19	HG G5 HCI F8 HCI J6 HIT F31.1 HIT J52 HCI F8 HCI D8	H. J. Wörner H. J. Wörner
					Fri 20.09.	10-11 12-13 13-14	HCI D6 HCI D8 HCI E2 HCI E8 HCI F2 HIL B21 HIL D10.2 HIT K51 HPK D24.2 HCI E2 HCI E8 HCI F2 HCP E47.2	
▶▶▶ Additi	ional First Year Compulsory Sub	ojects	;					
Number	Title	Туре	ECTS	Hours				Lecturers
529-0011-04L	Practical Course General Chemistry Latest online enrolment is 20.9.2021 Information about the practical course will	0	8 credits	12P				
529-0011-04 P	be given on the first day.  Allgemeine Chemie (Praktikum) ■ Ferienpraktikum n. V. für Interdisziplinäre N. kann alternativ nach dem 1. Semester oder Semesters besucht werden. Für PhysChem. Richtung prinzipiell auch v. Semesters. Ferienpraktikum n. V. Woche 1-4 8-18 Uhr	währer	d des 1.	12 hrs	Mon Wed Fri 24.09. 27.09. 13.10.	13-18 13-18 13-18 13-16 13-16 13-15	HCI HCI HCI G3 HPH G1 HIL C10.2	H. V. Schönberg, E. C. Meister
▶▶▶ Electi	ves							
Number	Title	Туре	ECTS	Hours				Lecturers
529-0011-02L	General Chemistry (Inorganic Chemistry) I	W+	3 credits	2V+1U				
	Allgemeine Chemie I (AC) Allgemeine Chemie I (AC) Groups are selected in myStudies. oder nach Vereinbarung			2 hrs 1 hrs	Tue Mon	08-10 08-09 10-11	HCI G3 HCI D2 HCI H2.1 HCI H8.1 HCI J8 HIT F31.2 HIT H42 HCI D4 HCI F2 HIL C10.2 HIT F31.2 HIT H42 HCI H8.1	A. Togni A. Togni
529-0011-03L	General Chemistry (Organic Chemistry) I	W+	3 credits	2V+1U				
529-0011-03 V				2 hrs	Fri	08-10	HCI G7	P. Chen

# ▶▶ 3. Semester (Physical-Chemical Direction)

## **▶▶▶** Examination Block

Number	Title Typ	е	ECTS	Hours				Lecturers
529-0422-00L	Physical Chemistry II: Chemical O Reaction Kinetics		4 credits	3V+1U				
529-0422-00 V	Physikalische Chemie II: Chemische Reaktionski	ineti	k	3 hrs	Tue Fri	09-10 10-12	HCI J3 HCI G3	F. Merkt, U. Hollenstein
529-0422-00 U	Physikalische Chemie II: Chemische Reaktionski Groups are selected in myStudies.	ineti	k	1 hrs	Mon	08-09	HCI D4 HCI D6 HCI E2 HCP E47.2	F. Merkt, U. Hollenstein
					Tue	10-11	HCI D4 HCI D6 HCI E8 HCI F8	
						11-12	HCI D4 HCI D6 HCI E8	
402-2883-00L	Physics III O		7 credits	4V+2U				
402-2883-00 V	Physik III (Physics III)			4 hrs	Mon Thu	09-11 12-14	HPH G2 HPH G2	U. Keller
402-2883-00 U	Physik III (Physics III) Possible options to be discussed when lecture st Language English, German and even Italian or F			2 hrs	Thu	10-12	HCI D4 HCI F2 HCP E47.4 HIL D60.1 HIL E5 HIL F10.3 HIT F31.1 HIT F32 HIT H42 HIT J51 HIT J53 HIT J53 HIT K51 HPL D34	U. Keller

HIT J53

Tue

13-14

## **▶▶▶** Electives

The Bachelor's programme in Interdisciplinary Sciences allows students to choose from any subject taught at a Bachelor level at ETH Zurich.

In consultation with the Director of Studies of Interdisciplinary Sciences, every student must establish his/her own individual study programme at the beginning of the 2nd year. See the Programme Regulations 2018 for further details.

Number	Title	Type	ECTS	Hours				Lecturers
252-0847-00L	Computer Science	W	5 credits	2V+2U				
252-0847-00 V	Informatik Vorlesung im HG F7 mit Videoübertragung i	ins HG i	F5.	2 hrs	Tue	14-16	HG F5 HG F7	R. Sasse, F. O. Friedrich Wicker
252-0847-00 U	Informatik Zusätzlich wird das StudyCenter angeboten http://studycenter.ethz.ch/	:		2 hrs	Tue	16-18	CAB G59 CHN D48 CHN E42 HG E21 HG E33.1 HG E33.5 HG F26.5 LFW C4	R. Sasse, F. O. Friedrich Wicker
					Wed	10-12 16-18	CHN G46 HG D3.1 HG D3.3 HG D5.1 HG D5.3 HG E21 HG E33.5 HG G26.1 HG G26.3 LFV E41 LFW E13 ML H41.1 ML H34.3	
401-2303-00L	Complex Analysis	W	6 credits	3V+2U				
401-2303-00 V	Funktionentheorie			3 hrs	Tue Fri	10-12 11-12	NO C60 NO C60	T. H. Willwacher

401-2303-00 U	Funktionentheorie Groups are selected in myStudies.			2 hrs	Tue	14-16	ETZ E6 HG E33.1 HG G26.3 IFW A32.1 LEE C104 LEE D101 LEE D105 LFW C11 ML F38 ML J34.3 NO C44 NO C6	T. H. Willwacher
401-2333-00L	Methods of Mathematical Physics I	w	6 credits	3V+2U	Wod	09.10	NO CGO	C. Folder
	Methoden der mathematischen Physik I Methoden der mathematischen Physik I Groups are selected in myStudies.			3 hrs 2 hrs	Wed Fri Tue	08-10 10-11 16-18	NO C60 NO C60 NO C60 CAB G52 CHN G46 HG G26.3 IFW A32.1 LEE D101 LEE D105 LFW C11 ML F38 ML J34.1 ML J34.3 NO C44	G. Felder G. Felder
							NO C6	
	Quantum Mechanics I Quantenmechanik I Quantenmechanik I	W	10 credits	<b>3V+2U</b> 3 hrs 2 hrs	Tue Thu Thu	10-12 12-13 10-12	HPV G4 HPV G4 HCI H8.1	M. Gaberdiel M. Gaberdiel
	Do 10-12 oder Do 16-18					16-18	HIT F31.2 HIT K52 HPK D24.2 HIL B21 HIL E10.1 HIT K51 HPK D24.2	
<b>402-0255-00L</b> 402-0255-00 V	Introduction to Solid State Physics Einführung in die Festkörperphysik	W	10 credits	<b>3V+2U</b> 3 hrs	Thu	14-16	HPH G3	C. Degen
	Einführung in die Festkörperphysik Die Übungen beginnen in der 2. Semesterw Mi 14-16 oder Do 8-10.	voche.		2 hrs	Fri Wed	13-14 14-16	HPH G3 HCI E2 HIT F31.2 HIT F32 HIT H51	C. Degen
					Thu	08-10	HIT F31.2 HIT F32 HIT J53	
<b>402-0263-00L</b> 402-0263-00 V	Astrophysics I	W	10 credits	<b>3V+2U</b> 3 hrs	Tue	14-16	HPV G4	S. Lilly
402-0263-00 U	. ,			2 hrs	Wed Thu	13-14 08-10	HPV G5 HIT J51 HIT J52 HPL D34	S. Lilly
					Fri	14-16	HCP E47.1 HIT F32 HIT K52	
<b>402-0595-00L</b> 402-0595-00 V	Semiconductor Nanostructures Semiconductor Nanostructures	W	6 credits	<b>2V+1U</b> 2 hrs	Wed	12-14	HCI J4	T. M. Ihn
	Semiconductor Nanostructures or by appointment			1 hrs	Wed	14-15	HIT J51 HIT K52	T. M. Ihn
402-2203-01L	Classical Mechanics	w	7 credits	4V+2U				
402-2203-01 V	Allgemeine Mechanik Die erste Vorlesung (23.09.21) findet im HC HPH G 3 bzw. HIL E 3.	CI G 7 sta	att, danach im	4 hrs	Mon Thu 23.09.	12-14 14-16 14-16	HPH G3 HIL E3 HCI G7	R. Renner
402-2203-01 U	Allgemeine Mechanik Die Übungen beginnen in der 2. Semesterw	voche.		2 hrs	Tue	08-10	CHN D42 CHN D48	R. Renner
					Wed Fri	10-12 14-16	CHN E46 HG E33.1 LFW C1 ML F40 ML J34.1 ML J34.3 ML J37.1 HIL C10.2	
							HPL D32 HPL D34	
529-0051-00L	Analytical Chemistry I	w	3 credits	3G			111 L D34	
	Analytische Chemie I			3 hrs	Wed Thu	08-10 08-09	HCI G3 HPH G2	D. Günther, MO. Ebert, G. Schwarz, R. Zenobi
529-0121-00L	Inorganic Chemistry I	W	3 credits	2V+1U				

529-0121-00 V	Anorganische Chemie I			2 hrs	Mon	08-10	HCI G3	H. Grützmacher, P. Steinegger
529-0121-00 U	Anorganische Chemie I			1 hrs	Tue	12-13	HCI D2 HCI D8 HCI E8 HCI F2 HCI F8 HCI J8	H. Grützmacher, P. Steinegger
529-0221-00L	Organic Chemistry I	W	3 credits	2V+1U				
529-0221-00 V	Organische Chemie I			2 hrs	Wed	12-14	HCI G3	H. Wennemers
529-0221-00 U	Organische Chemie I Groups are selected in myStudies.			1 hrs	Mon	12-13	HCI D6 HCI E8 HCI F8 HCI H2.1 HCI J8	H. Wennemers
					Tue	08-09	HCI D8 HCI H2.1 HCI J3 HCI J8	
701-0023-00L	Atmosphere	W	3 credits	2V				
701-0023-00 V	Atmosphäre			2 hrs	Tue	10-12	HG E3	E. M. Fischer, T. Peter
701-0461-00L	Numerical Methods in Environmental Sciences	W	3 credits	2G				
701-0461-00 G	Numerische Methoden in der Umweltphysil	K		2 hrs	Thu	08-10	CHN E46	C. Schär
701-0473-00L	Weather Systems	W	3 credits	2G				
701-0473-00 G	Wettersysteme			2 hrs	Wed	14-16	CHN E46	<b>M. A. Sprenger</b> , F. Scholder-Aemisegger
701-0475-00L	Atmospheric Physics	W	3 credits	2G				
701-0475-00 G	Atmosphärenphysik Im Anschluss an die LV findet ein freiwillig Tutorial im gleichen Raum (CHN F46) statt		stündiges	2 hrs	Wed	10-12	CHN F46	U. Lohmann
701-0501-00L	Pedosphere	W	3 credits	2V				
701-0501-00 V	Pedosphäre			2 hrs	Thu	10-12	HG G3	R. Kretzschmar
752-4001-00L	Microbiology	w	2 credits	2V				
752-4001-00 V	Mikrobiologie			2 hrs	Mon	08-10	ML D28	M. Ackermann, M. Schuppler, J. Vorholt-Zambelli

## ▶▶▶ Laboratory Courses, Semester Papers, Proseminars, Field Trips

Further laboratory courses must be applied for at the respective Director of Studies.

Number	Title	Type	ECTS	Hours				Lecturers
529-0011-04L	Practical Course General Chemistry Latest online enrolment is 20.9.2021	0	8 credits	12P				
	Information about the practical course will be given on the first day.							
529-0011-04 P	Allgemeine Chemie (Praktikum) ■ Ferienpraktikum n. V. für Interdisziplinäre I kann alternativ nach dem 1. Semester ode Semesters besucht werden. Für PhysChem. Richtung prinzipiell auch Semesters. Ferienpraktikum n. V. Woche 1-4 8-18 Uhr	r währen während	nd des 1.	12 hrs	Mon Wed Fri 24.09. 27.09. 13.10.	13-18 13-18 13-18 13-16 13-16	HCI HCI HCI HCI G3 HPH G1 HIL C10.2	H. V. Schönberg, E. C. Meister
529-0129-00L	Inorganic and Organic Chemistry II	W	11 credits	16P				

Latest online enrolment is one week before the beginning of the semester.

529-0129-00 P I	Inorganic and Organic Chemistry II	16 hrs	Mon	14-18	HCI H174 HCI H190.2 HCI H192.2 HCI H194.2 HCI H196.2 HCI H296.2	V. Mougel
			Tue	14-18	HCI H174 HCI H190.2 HCI H192.2 HCI H194.2 HCI H196.2 HCI H296.2	
			Thu	14-18	HCI H174 HCI H190.2 HCI H192.2 HCI H194.2 HCI H196.2 HCI H296.2	
			Fri	14-18	HCI H174 HCI H190.2 HCI H192.2 HCI H194.2 HCI H196.2 HCI H296.2	
			23.09. 24.09.	17-18 14-18	HCI J6 HCI G7	

# ▶▶ 5. Semester (Physical-Chemical Direction)

# ▶▶▶ Laboratory Courses, Semester Papers, Proseminars, Field Trips

Further laboratory courses must be applied for at the respective Director of Studies.

Number	Title	Туре	ECTS	Hours				Lecturers
529-0450-00L	Semester Project	w	18 credits	18A				
529-0450-00 A	Semesterarbeit			18 hrs	by ap	pt.		Supervisors
402-0000-09L	Physics Lab 3	W	7 credits	13P				
402-0000-09 P	Physikpraktikum 3 Montag obligatorisch. Das Praktikum ist auch Di, Mi und Fr geöffn	et.		180s hrs	Mon	09-16	HPP	M. Donegà, S. Gvasaliya

## ▶▶▶ Bachelor's Thesis

Number	Title	Туре	ECTS	Hours		Lecturers
529-0400-00L	Bachelor's Thesis	0	15 credits	15D		
529-0400-00 D	Bachelor-Arbeit			15 hrs	by appt.	Supervisors

# ► Biochemical-Physical Direction

# ▶▶ 1. Semester (Biochemical-Physical Direction)

# ▶▶▶ Compulsory Subjects First Year Examinations

Number	Title	Type	ECTS	Hours				Lecturers
402-0043-00L	Physics I	0	4 credits	3V+1U				
402-0043-00 V	Physics I (Physik I)			3 hrs	Tue Thu	16-17 16-18	HPH G2 HPH G2	J. Home
402-0043-00 U	Physik I Di 17-18 für Studiengang Rechnergestützte Mi 9-10 (oder Di 17-18 als Ausweichtermin Chemie bzw. Chemieingenieurwissenschai Interdisziplinäre Naturwissenschaften. Mi 12-13 für Studiengang Raumbezogene Ingenieurwissenschaften. Do 10-11 für Studiengang Biochemie.	) für Stu	diengänge	1 hrs	Tue	17-18 09-10	HCI D2 HIT F31.1 HIT H51 HIT J51 CAB G52 HG E21 HG E22 HG E33.5 HG G26.3 ML H41.1 ML J34.1 ML J34.3 HG D3.2	J. Home
FF4 042F 00I	Fundamentals of Biology Is From		Canadita	F.O.	Thu	10-11	HCI D6	
551-0125-00L	Fundamentals of Biology I: From Molecules to the Biochemistry of Cells	0	6 credits	5G				
551-0125-00 G	Grundlagen der Biologie I: von Molekülen z Zellen Vorlesung: Montag 12-14 Uhr, Donnerstag Übungen: Freitag 12-13 Uhr oder 13-14 Uhr	10-12 U		5 hrs	Mon Thu Fri	12-14 10-12 12-13 13-14	HCI G7 HCI G7 HCI G7 HCI G7	<b>J. Vorholt-Zambelli</b> , N. Ban R. Glockshuber, K. Locher, J. Piel
401-0271-00L	Mathematical Foundations I: Analysis A	0	5 credits	3V+2U				
401-0271-00 V	Grundlagen der Mathematik I (Analysis A)			3 hrs	Tue Wed	10-12 08-09	HIL E1 HG E5	L. Keller

401-0271-00 U   Grundlagen der Mathematik I (Analysis A)   Groups are selected in myStudies.   2 hrs   Mon   08-10   HIL E7   HIT JS1   HIT KS2   10-12   HIT KS2   10-12   HIT KS2   HI	A. Togni A. Togni A. Togni P. Chen P. Chen H. J. Wörner H. J. Wörner
10-12   HCI PS   HIT JS1   HIT K51   HIT K51   HIT K51   HIT K51   HIT K51   HIT K52	A. Togni  P. Chen P. Chen H. J. Wörner
S29-0011-02	A. Togni  P. Chen P. Chen H. J. Wörner
529-0011-02 V         Allgemeine Chemie I (AC)         2 hrs         Tue         08-10         HCI G3           529-0011-02 U         Allgemeine Chemie I (AC)         1 hrs         Mon         08-09         HCI D2           Groups are selected in myStudies. oder nach Vereinbarung         10-11         HCI H2.1         HCI H2.1           Fil         11-12         HCI H2.1         HCI H2.1           HIT F31.2         HIT H42         HCI H2.1           Fil         11-12         HCI H2.1           HIT F31.2         HIT H42         HCI H2.1           F1         11-12         HCI H2.1           HIT F31.2         HIT H3.2         HCI H2.1           F1         11-12         HCI H2.1           F1         11-12         HCI H2.1           HIT F31.2         HCI H2.1         HCI H2.1           F1         0.01.1         HCI P2           HIT F31.2         HCI P3         HCI P4           HIT F31.2         HCI P3         HCI P3           HIT F31.2         HCI P3         HCI P3           F1         11-12         HCI P3           HIT F31.2         HCI P3           HIT F31.2         HCI P3           HIT F31.2         HCI P3 <td>A. Togni  P. Chen P. Chen H. J. Wörner</td>	A. Togni  P. Chen P. Chen H. J. Wörner
HCI F2 HIL C10.2 HIT F31.2 HIT H42	P. Chen  H. J. Wörner
S29-0011-03L   General Chemistry (Organic Chemistry)   O   3 credits   2V+1U	P. Chen  H. J. Wörner
529-0011-03 V       Allgemeine Chemie I (OC)       2 hrs       Fri       08-10       HCI G7         529-0011-03 U       Allgemeine Chemie I (OC)       1 hrs       Mon       09-10       HCI D2       HCI D3       HCI D3       HCI D3       HIT F31.2       H	P. Chen  H. J. Wörner
HIT H42	
Tue   13-14   HIT J53	
S29-0011-01 V   Allgemeine Chemie I (PC)   2 hrs   Wed   10-12   HG G5	
529-0011-01 U Allgemeine Chemie I (PC)  Groups are selected in myStudies.  1 hrs  Thu  12-13  HCI F8  HCI J6  HIT F31.1  HIT J52  13-14  HCI D8  18-19  HCI D8  HCI D8  HCI D8  HCI D8  HCI E2  HCI E2  HCI E8  HCI F2  HIL B21  HIL D10.2  HIT K51  HPK D24.2  12-13  HCI E8	
Fri 10-11 HCI D6 HCI D8 HCI E2 HCI E8 HCI F2 HIL B21 HIL D10.2 HIT K51 HPK D24.2	
12-13 HCI E2 HCI E8	
20.09. 13-14 HCP E47.2	
▶▶▶ Additional First Year Compulsory Subjects	
Number Title Type ECTS Hours	Lecturers
529-0011-04L Practical Course General Chemistry O 8 credits 12P  Latest online enrolment is 20.9.2021	
Information about the practical course will be given on the first day.  529-0011-04 P Allgemeine Chemie (Praktikum) ■ 12 hrs Mon 13-18 HCI Ferienpraktikum n. V. für Interdisziplinäre Naturwissenschaften kann alternativ nach dem 1. Semester oder während des 1. Semesters besucht werden. Für PhysChem. Richtung prinzipiell auch während des 3. Semesters. Ferienpraktikum n. V. Woche 1-4 8-18 Uhr	H. V. Schönberg, E. C. Meister
►► 3. Semester (Biochemical-Physical Direction)  ►► Examination Block	
Number Title Type ECTS Hours	Lecturers
401-0373-00L Mathematics III: Partial Differential O 4 credits 2V+1U Equations	
401-0373-00 V Mathematics III: Partial Differential Equations 2 hrs Thu 10-12 HCI J7 401-0373-00 U Mathematics III: Partial Differential Equations 1 hrs Thu 09-10 HCI J7 Groups are selected in myStudies. Thu HIT H51 12-13 HCP E47.2	

529-0001-00L	Introduction to Computer Science W 4 cred	dits 2	2V+2U				
529-0001-00 V	-		2 hrs	Thu	08-10	HIL E3	P. H. Hünenberger
529-0001-00 U	Informatik I	2	2 hrs	Tue	12-14	HCI D267.4 HIT F21	P. H. Hünenberger
					14-16	HCI D267.4	
				Thu	10-12	HIT F21 HCI D267.4	
					14-16	HIT F21 HCI D267.4 HIT F21	
				Fri	10-12	HCI D267.4 HIT F21	
252-0027-00L	Introduction to Programming W 7 cred	dits 4	4V+2U				
252-0027-00 V	Einführung in die Programmierung Vorlesung im ML D28 mit Videoübertragung ins ML E12.	4	4 hrs	Tue	10-12	ML D28 ML E12	T. Gross
				Fri	08-10	ML D28 ML E12	
252-0027-00 U		2	2 hrs	Wed	08-10	CAB G56	T. Gross
	Groups are selected in myStudies. Donnerstag 8-10 Übungsgruppe nur für Studierende					CAB G59 CHN D42	
	Interdisziplinäre Naturwissenschaften.					CHN D44	
	Die genauen Unterrichtszeiten von ONLINE - Veranstaltung	gen				CHN D46 CHN G46	
	werden von den Dozierenden kommuniziert.					CLA E4	
						ETZ F91 ETZ G91	
						ETZ H91 ETZ J91	
						ETZ K91	
						HG D3.1 HG D3.3	
						HG D5.3	
						HG D5.3 HG F26.5	
						HG G26.5	
						LFW B3 LFW C11	
						ML J37.1	
						ON LINE ON LINE	
						ON LINE	
				Thu	08-10	ON LINE HPL D32	
529-0422-00L	Physical Chemistry II: Chemical O 4 cred Reaction Kinetics	dits 3	3V+1U				
529-0422-00 V	Physikalische Chemie II: Chemische Reaktionskinetik	3	3 hrs	Tue Fri	09-10 10-12	HCI J3 HCI G3	F. Merkt, U. Hollenstein
529-0422-00 U	Physikalische Chemie II: Chemische Reaktionskinetik	1	1 hrs	Mon	08-09	HCI D4	F. Merkt, U. Hollenstein
	Groups are selected in myStudies.					HCLE2	
						HCI E2 HCP E47.2	
				Tue	10-11	HCI D4 HCI D6	
						HCI E8	
					11-12	HCI F8 HCI D4	
					11-12	HCI D6 HCI E8	
529-0221-00L	Organic Chemistry I O 3 cred	dits 2	2V+1U				
	Organische Chemie I		2 hrs	Wed	12-14	HCI G3	H. Wennemers
529-0221-00 U	Organische Chemie I Groups are selected in myStudies.	1	1 hrs	Mon	12-13	HCI D6 HCI E8	H. Wennemers
	Groups are serected in mystudies.					HCI F8	
						HCI H2.1 HCI J8	
				Tue	08-09	HCI D8	
						HCI H2.1 HCI J3	
						HCI J8	

# ▶▶ 5. Semester (Biochemical-Physical Direction)

# ▶▶▶ Laboratory Courses, Semester Papers, Proseminars, Field Trips

Further laboratory courses must be applied for at the respective Director of Studies.

Number	Title	Type	ECTS	Hours		Lecturers	
529-0450-00L	Semester Project	W	18 credits	18A			
529-0450-00 A	Semesterarbeit			18 hrs	by appt.	Supervisors	
▶▶▶ Bache	elor's Thesis						
P Daone							
Number	Title	Туре	ECTS	Hours		Lecturers	
Number		Туре	ECTS 15 credits	Hours 15D		Lecturers	

# ► Second and Third Year Additional Subjects

The Bachelor's programme in Interdisciplinary Sciences allows students to choose from any subject taught at a Bachelor level at ETH Zurich.

In consultation with the Director of Studies of Interdisciplinary Sciences, every student must establish his/her own individual study programme at the beginning of the 2nd year. See the Programme Regulations 2010/2018 for further details.

#### **▶▶** Other Electives ETH

Further combinations of compulsory elective subjects arising upon specific written request by the students and permission by the Director of studies.

Selection of courses from entire course catalogue of ETH, according to individual study plan

## ► GESS Science in Perspective

## **▶▶** Science in Perspective

see GESS Science in Perspective: Type A: Enhancement of Reflection Capability

Recommended GESS Science in Perspective (Type B) for D-CHAB.

## **▶▶** Language Courses

see GESS Science in Perspective: Language Courses ETH/UZH

interdisciplinary	Sciences	Bachelor	- ney	tor	ıype

•			
Z	Courses outside the curriculum	W+	Eligible for credits and recommended
Dr	Suitable for doctorate	W	Eligible for credits
0	Compulsory	E-	Recommended, not eligible for credits

#### **Key for Hours**

V	lecture	P	practical/laboratory course	
G	lecture with exercise	A	independent project	
U	exercise	D	diploma thesis	
S	seminar	R	revision course / private study	
K	colloquium			

ECTS European Credit Transfer and Accumulation System

Special students and auditors need special permission from the lecturers.

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## **Interdisciplinary Sciences Master**

The Master's programme in Interdisciplinary Sciences allows students to choose from any subject taught at the Master's level at ETH Zurich.

In consultation with the Director of Studies of Interdisciplinary Sciences, every student must establish his/her own individual study programme at the beginning of the Master's programme. See the Programme Regulations 2007/2020 for further details.

#### ► Majors

The following list provides various Majors that can be chosen from: https://ethz.ch/content/dam/ethz/special-interest/chab/chab-dept/studies/documents/IN/WL\_IN\_SR19192101\_EN.pdf

In addition it is possible to create an individual Major in accordance with the Programme Regulations (Art. 19 paragraph 3).

Selection of courses from entire course catalogue of ETH, according to individual study plan

#### ▶ General Courses

Selection of courses from entire course catalogue of ETH, according to individual study plan

## ▶ Proseminars, Laboratory Courses, Research Projects and Sem. Papers

	•		-		•	
Number	Title	Туре	ECTS	Hours		Lecturers
529-0020-00L	Research Project	W	20 credits	20A		
529-0020-00 A	Research Project			20 hrs	by appt.	Supervisors
	Selection of courses from entire course catalogue of ETH, according to individual study plan					

## ► GESS Science in Perspective

see GESS Science in Perspective: Language Courses ETH/UZH

see GESS Science in Perspective: Type A: Enhancement of Reflection Capability

Recommended GESS Science in Perspective (Type B) for D-CHAB.

#### ► Master's Thesis

529-1000-30 D Master's Thesis

Eligible for credits

W

Number	Title	Туре	ECTS	Hours	Lecturers
529-1000-00L	Master's Thesis Only students who fulfill the following criteria are allowed to begin with their Master's thesis: a. successful completion of the Bachelor's programme; b. fulfilling of any additional requirements necessary to gain admission to the Master's programme.	0	20 credits	43D	
	Duration of the Master's Thesis: 4 months.				
529-1000-00 D	Master's Thesis			600s hrs by appt.	Supervisors
529-1000-30L	Master's Thesis Only students who fulfill the following criteria are allowed to begin with their Master's thesis: a. successful completion of the Bachelor's programme; b. fulfilling of any additional requirements necessary to gain admission to the Master's programme.  Duration of the Master's Thesis 6 months,	W	30 credits	64D	
	Duration of the Master's Thesis 6 months, possible only with permission of the Director of Studies.				

# Interdisciplinary Sciences Master - Key for Type W+ Eligible for credits and recommended E- Recommended, not eligible for credits O Compulsory Z Courses outside the curriculum

Dr

900s hrs by appt.

Suitable for doctorate

Supervisors

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Key for	Hours		
V	lecture	P	practical/laboratory course
G	lecture with exercise	A	independent project
U	exercise	D	diploma thesis
S	seminar	R	revision course / private study
K	colloquium		

**ECTS** 

European Credit Transfer and Accumulation System
Special students and auditors need special permission from the lecturers.

# **Landscape Architecture Master**

## **▶** Basic Courses

All basic courses (in terms of content and methodology linked to "Foundation Studio I") must be completed.

## **▶▶** Compulsory Basic Courses

Number	Title	Type	ECTS	Hours				Lecturers
061-0101-00L	Climate / Water / Soil Only for Landscape Architecture MSc.	0	2 credits	3 <b>G</b>				
061-0101-01 G			HIL G64!	20s hrs	20.09. 21.09 24.09.		HIQ C11 HIQ C11	H. Joos, N. Bluvshtein, R. Knutti, G. Mussetti, T. Peter S. Schemm, J. Schwaab, C. Steger, H. Wernli
061-0101-02 G	Water ■  Module of 27.091.10.2021.  NOTE: All the MScLA courses take place to Course languages are English and Germa		HIL G64!	20s hrs	27.09. 28.09 01.10.	14-18 08-12	HIQ C11 HIQ C11	R. Weingartner
061-0101-03 G	Soil ■  Module of 4.108.10.2021.  NOTE: All the MScLA courses take place to Course languages are English and Germa		HIL G64!	20s hrs	04.10. 05.10 08.10.		HIQ C11 HIQ C11	R. Kretzschmar, A. Carminati S. Dötterl, A. Frossard, T. Galí Izard
061-0103-00L	Ecology and Plant Sciences Only for Landscape Architecture MSc.	0	2 credits	3G				
061-0103-00 G	Ecology and Plant Sciences ■  Modul vom 11.1022.10.21.  NOTE: All the MScLA courses take place to Course languages are English and Germa		HIL G64!	40s hrs	11.10. 11.10 22.10. 18.10.	08-12	HIQ C11 HIQ C11 HIQ C11	T. Galí-Izard, N. Guettler, A. Guggisberg, J. Hille Ris Lambers, M. Lévesque, A. Rudow
061-0105-00L	Designing with Plants I Only for Landscape Architecture MSc.	0	2 credits	2G				
061-0105-00 G	Entwerfen mit Pflanzen I ■  Modul vom 1.1112.11.2021.  BITTE BEACHTEN: Alle Lehrveranstaltung Raum HIL G64 statt!  Der detaillierte Wochenplan wird auf der W Studiengangs publiziert (resp. ist im Reade	Vebsite a	les	28s hrs	01.11 12.11. 05.11.	09-12 09-19	HIQ C11 HIQ C11	S. Hassold
061-0107-00L	Materials and Construction I Only for Landscape Architecture MSc.	0	2 credits	2G				
061-0107-00 G	Materialien und Konstruktion I ■ Modul vom 1526.11.2021. BITTE BEACHTEN: Alle Lehrveranstaltung Raum HIL G64 statt! Der detaillierte Wochenplan wird auf der W Studiengangs publiziert (resp. ist im Reade	Vebsite a	les	24s hrs		08-12 08-12	HIQ C11 HIQ C11 HIQ C11 HIQ C11 HIQ C11 HIQ C11	R. Voss, G. Vogt
061-0109-00L	History and Theory in Landscape Architecture I Only for Landscape Architecture MSc.	0	2 credits	2V				
061-0109-00 V	Geschichte und Theorie der Landschaftsal Keine Lehrveranstaltung am 25.10.2021 (\$ 20.12.21 (Schlussabgabe). Kursdaten: s. Raumbelegungen! BITTE Bl Lehrveranstaltungen MScLA finden in Rau (Findet im Wechsel mit "Ethik in der Lands Blockveranstaltung statt).	Seminarv EACHTE ım HIL G	woche) und an N: Alle 164 statt!	24s hrs n	Mon	08-12	HIQ C11	A. Bucher
061-0111-00L	Ethics in Landscape Architecture Only for Landscape Architecture MSc.	0	2 credits	2G				
061-0111-00 G	Ethik in der Landschaftsarchitektur ■ Keine Lehrveranstaltung am 25.10.2021 (\$20.12. (Schlussabgabe). Kursdaten: s. Raumbelegungen! BITTE BL Lehrveranstaltungen MScLA finden in Rau (Findet im Wechsel mit "Geschichte & The Landschaftsarchitektur" als Blockveranstal	EACHTE ım HIL G eorie in d	N: Alle 64 statt! er	24s hrs	Mon	08-12	HIQ C11	A. Kirchengast
	<b>Digital Design Methods I</b> Only for Landscape Architecture MSc.	0	2 credits	2G				
061-0113-00 G	Digital Design Methods I ■  No course on 25.10.2021 (seminar week)			22s hrs	Mon	12-14	HIL H40.8	<b>B. Kowalewski</b> , D. Häusler, Z. Ma

## **▶** Core Courses

The core courses build on the basic courses and convey basic, broad knowledge in the core areas of landscape architecture in relation to design lessons. Some of the core courses are compulsory and some are freely selectable. Further details, in particular about taking these subjects, for performance assessments and for compensating for failed subjects, are regulated in Art. 27 and Art. 31 Paragraph 4.

# **▶▶** Compulsory Core Courses

Courses are offered in Spring Semester.

## **▶▶** Elective Core Courses

Number	Title	Туре	ECTS	Hours	Lecturers
052-0569-21L	Lecture Series Design and Architecture: Architecture of	W	2 credits	1V	

052-0569-21 V Ringvorlesung Entwurf und Architektur: Architektur von . Die Ringvorlesungen finden an Dienstagen von 18-20 Uhr in HIL

1 hrs

18-20 HII F4

Tue

E. Christ, A. Caruso, C. Kerez, E. Mosayebi

28.09.21: Prof. Patrick Heiz

E4 statt (s. Raumreservationen!):

05.10.21: PD Dr. Erik Wegerhoff (HIL Tiefgarage, bitte

Wegweisern folgen!)

Keine Live-Übertragung. Aufzeichnung auf IEA

Webseite.

12.10.21: Prof. Mike Guyer 02.11.21: Prof. Freek Persyn 16.11.21: GD Roger Boltshauser 30.11.21: GD Angela Deuber 07.12.21. Prof. Alexandre Theriot

#### **▶▶** Compensatory Course for Core Courses

In the first semester of the curriculum no compensation courses for compulsory courses offered.

#### ► Advanced Courses

In the first semester of the curriculum there are no main courses offered.

#### ▶ Design Studios

The design studios deal with problem and practice-related tasks on a local, regional, supra-regional, national and international level. Teaching of digital analysis, design and planning methods.

#### ▶▶ Foundation Studio I and II

- Fundamental Studio I: basic knowledge;
- Fundamental Studio II: Design tasks in the context of the contemporary landscape;

Number	Title	Type	ECTS	Hours			Lecturers
061-0141-21L	Foundation Studio I Only for Landscape Architecture MSc. Classes and critiques are held in English and German.	0	14 credits	26U			
061-0141-21 U	Foundation Studio I  The weekly schedule is published on the coincluded in the reader).  NOTE: All the MScLA courses take place in Classes (and critiques) are held in English	n room F	IIL G64!	26 hrs	21.09 13-18 26.11. 14-18 19.11. 08-12 22.11. 14-18 25.11. 08-12 26.11. 08-12 29.11. 14-18 30.11 08-12 23.12. 13-18 06.12. 14-18	HIQ C11	G. Vogt

#### ▶▶ Advanced Studio

Complex design tasks involving social, topographical, hydrological and ecological issues.

The advanced studio will be offered as of Spring Semester 2022.

## ► Seminar Week and Internship Report

In MScLA at least one week of seminar must be completed.

Furthermore, part of the course is a six-month internship in the field of landscape architecture, the achievements (work phases, learning success) must be documented in an internship report.

Number	Title	Type	ECTS	Hours	Lecturers
061-0151-21L	Seminar Week Autumn Semester 2021 Only for Landscape Architecture MSc.	W	2 credits	3\$	
061-0151-21 S	Seminarwoche Herbstsemester 2021 ■			40s hrs	S. Hassold, G. Vogt
061-0153-00L	Internship Report Only for Landscape Architecture MSc.	0	2 credits	4P	
061-0153-00 P	Praktikumsbericht ■ Lehrsprachen sind Deutsch und Englisch.			60s hrs	T. Galí-Izard, G. Vogt

#### ► Science in Perspective

Courses of the "Science in Perspective" programme have to be completed (details see study guidelines Art. 27).

see GESS Science in Perspective: Language Courses ETH/UZH see GESS Science in Perspective: Type A: Enhancement of Reflection Capability Recommended GESS Science in

Perspective (Type B) for D-ARCH.

## ▶ Master's Thesis

The master's thesis is the successful completion of the course. It confirms the ability to work independently in the field of landscape architecture and is

Number	Title	Type	ECTS	Hours	Lecturers
061-0900-00L	Master's Thesis The Master's Thesis is offered in HS22 for the first time.	0	30 credits	64D	
	Only students who fulfill the following criteria are allowed to begin with their master thesis: a. successful completion of the bachelor programme; b. fulfilling of any additional requirements necessary to gain admission to the master programme.				
061-0900-00 D	Master-Arbeit ■  Does not take place this semester.  Sprachen: Deutsch oder Englisch.			900s hrs	Professors
Landscape A	rchitecture Master - Key for Type				
_	Eligible for credits and recommended			E-	Recommended, not eligible for credits
W+	Eligible for credits and recommended Compulsory			E- Z	Recommended, not eligible for credits  Courses outside the curriculum
W+ O	<u> </u>				
W+ O W	Compulsory Eligible for credits			Z	Courses outside the curriculum
W+ O W <b>Key for Hours</b>	Compulsory Eligible for credits			Z	Courses outside the curriculum Suitable for doctorate
W+ O W <b>Key for Hours</b>	Compulsory Eligible for credits			Z Dr	Courses outside the curriculum
W+ O W <b>Key for Hours</b> V G	Compulsory Eligible for credits  s lecture			Z Dr	Courses outside the curriculum Suitable for doctorate  practical/laboratory course
W+ O W <b>Key for Hours</b> V G U	Compulsory Eligible for credits  s lecture lecture with exercise			Z Dr	Courses outside the curriculum Suitable for doctorate  practical/laboratory course independent project

ECTS European Credit Transfer and Accumulation System

<sup>■</sup> Special students and auditors need special permission from the lecturers.

# **Food Science TC**

Detailed information on the programme at: www.didaktischeausbildung.ethz.ch

# ► Educational Science

Number	Title	Type	ECTS	Hours				Lecturers
851-0240-00L	Human Learning (EW1) This lecture is only apt for students who intend to enrol in the programs "Teaching Diploma" or "Teaching Certificate". It is about learning in childhood and adolescence.	0	2 credits	2V				
851-0240-00 V	Menschliches Lernen (EW1)			2 hrs	Tue	18-20	HG F1	E. Stern
851-0242-06L	Cognitively Activating Instructions in MINT Subjects Enrolment only possible with matriculation in Teaching Diploma or Teaching Certificate (excluding Teaching Diploma Sport).  This course unit can only be enrolled after successful participation in, or during	W	2 credits	28				
	enrollment in the course "Human Learning (EW 1)".							
851-0242-06 S	Kognitiv aktivierender Unterricht in den MIN Unregelmässige Lehrveranstaltung; für eine Semesterplanung wird um frühe Anmeldung Erscheinen zum ersten Lehrveranstaltungs	e reibun g und pe	gslose ersönliches	2 hrs	Wed	18-20	ML H41.1	R. Schumacher
851-0242-07L	Human Intelligence Enrolment only possible with matriculation in Teaching Diploma or Teaching Certificate (excluding Teaching Diploma Sport). Number of participants limited to 30. This course unit can only be enrolled after successful participation in, or during enrollment in the course "Human Learning (EW 1)".	W	1 credit	1\$				
851-0242-07 S	Menschliche Intelligenz Unregelmässige Lehrveranstaltung. An zwei Terminen findet die Lehrveranstalt TeilnehmerInnen statt und an den übrigen einem Teil der Studierenden (Kleingruppen gemeinsam vereinbart.	Termine	n nur mit	14s hrs	Wed	16-18	ML F40	E. Stern
851-0242-08L	Research Methods in Educational Science Number of participants limited to 30 This course unit can only be enrolled after successful participation in, or during enrollment in the course "Human Learning (EW 1)".	W	1 credit	2S				
851-0242-08 S	Forschungsmethoden der empirischen Bild Unregelmässige Lehrveranstaltung.  Zwei obligatorische Präsenztermine: 29.09. An den übrigen Terminen nur mit einem Te	und 17.	.11.	21s hrs	Wed	12-15	LFW C1	P. Edelsbrunner, T. Braas, C. M. Thurn
	(jeweils mit 1-2 Kleingruppen).		aa.c. cac					
851-0240-22L	Teaching (EW4 DZ) Number of participants limited to 20. The successful participation in EW1	W	2 credits	3S				
	("Human Learning") and EW2 ("Designing Learning Environments for School") is recommended, but not a mandatory prerequisite.							
851-0240-22 S	Bewältigung psychosozialer Anforderungen DZ) ■	im Leh	rberuf (EW4	3 hrs	Tue	09-12	HG E33.1 HG F26.5 HG G26.1	<b>U. Markwalder</b> , S. Maurer, S. Peteranderl
851-0242-11L	Gender Issues In Education and STEM Number of participants limited to 30.	W	2 credits	28				
	Enrolment only possible with matriculation in Teaching Diploma or Teaching Certificate (excluding Teaching Diploma Sport).							
	Prerequisite: students should be taking the course 851-0240-00L Human Learning (EW1) in parallel, or to have successfully completed it.							
851-0242-11 S	Gender Issues In Education and STEM ■			2 hrs	Thu	10-12	LEE C114	M. Berkowitz Biran, T. Braas, C. M. Thurn

# ► Subject Didactics and Professional Training

Important: You can only enrole in the courses of this category if you have not more than 12 CP left for possible additional requirements.

Number	Title	Туре	ECTS	Hours	Lecturers
752-9020-00L	Teaching Internship Including Examination Lessons Food Science The teaching internship can just be visited it all other courses of TC are completed. Repetition of the teaching internship is excluded even if the examination lessons are to be repeated.	W f	6 credits	13P	
752-9020-00 P	Unterrichtspraktikum mit Prüfungslektionen Lebensmittelwissenschaften DZ ■			180s hrs by appt.	G. Kaufmann

# ► Further Subject Didactics

For students enrolled from HS 2019: The courses offered here are credited under the category «Subject Didactics and Professional Training».

				0,	•	· ·
Number	Title	Туре	ECTS	Hours		Lecturers
752-9005-00L	Mentored Work Specialised Courses in the Respective Subject with an Educational Focus Food Sc.	0	2 credits	4A		
752-9005-00 A	Mentorierte Arbeit fachwissenschaft. Vertie Lebensmittelwissenschaften ■	fung mit	pädag. Foku	s 60s hrs by appt.		<b>G. Kaufmann</b> , K. Koch, U. Lerch

Food Scien	Food Science TC - Key for Type						
0	Compulsory	E-	Recommended, not eligible for credits				
W+	Eligible for credits and recommended	Z	Courses outside the curriculum				
W	Eligible for credits	Dr	Suitable for doctorate				

Key for	Hours			
V	lecture	P	practical/laboratory course	
G	lecture with exercise	A	independent project	
U	exercise	D	diploma thesis	
S	seminar	R	revision course / private study	
K	colloquium			
		ı		

ECTS European Credit Transfer and Accumulation System

Special students and auditors need special permission from the lecturers.

# **Food Science Master**

# ► Major in Food Processing

401-0625-01L Applied Analysis of Variance and Experimental Design

401-0625-01 V Applied Analysis of Variance and Experimental Design

# **▶▶** Disciplinary Subjects

750 0400 000	Title	Туре	ECTS	Hours				Lecturers
752-3103-00L	Food Rheology I	W+	3 credits	2V				
752-3103-00 V	Food Rheology I			2 hrs	Tue	08-10	LFO C13	P. A. Fischer
<b>752-2003-00L</b> <b>752-2003-00</b> V	Selected Topics in Food Technology Selected Topics in Food Technology Irregular course. Exact dates and time are li 'Lehrveranstaltungen/ courses. The dates a: "Physiology Guided Food Structure and Pro 3105-00L).	re adjus		2V 2 hrs	Thu	10-12 14-16	HG E33.3 LFV E41	R. Stadler, R. Behringer
	An excursion is planned.							
752-2314-00L	Physics of Food Colloids	W+	3 credits	2V				
752-2314-00 V	Physics of Food Colloids			2 hrs	Tue	10-12	ML F36	P. A. Fischer, R. Mezzenga
<b>752-3021-00L</b> <b>752-</b> 3021-00 G	Food Process Design and Optimization Food Process Design and Optimization	W+	4 credits	<b>2G</b> 2 hrs	Wed	08-10	LFW E13	E. J. Windhab
752-3023-00L	Process Measurements and Automation	W+	3 credits	2G				
	Process Measurements and Automation		0.000.00	2 hrs	Thu	08-10	CLA E4	E. J. Windhab
752-3201-00L	Emerging Thermal and Non Thermal Food Processing	W	3 credits	2V				
752-3201-00 V	Emerging Thermal and Non Thermal Food F	Processi	ing	2 hrs	Wed	10-12	LFW C4	A. Mathys
▶► Method	ology Subjects							
Number	Title	Туре	ECTS	Hours				Lecturers
101-0625-01L	Applied Analysis of Variance and	W+	5 credits	2V+1U				Ecotul 613
	Experimental Design					4440		
	Applied Analysis of Variance and Experimer Applied Analysis of Variance and Experimer		•	2 hrs 1 hrs	Mon Mon/2w	14-16 16-18	HG G5 HG E1.1	L. Meier L. Meier
101-0649-00L		W+	5 credits	2V+1U	IVIOII/ZW	10-10	110 L1.1	L. Welei
	Applied Statistical Regression Applied Statistical Regression	VVT	3 Credits	2 hrs	Mon	08-10	HG E1.2	M. Dettling
					Mon/2w		HG E1.2	M. Dettling
►► Optiona	al Subjects							
Number	Title	Туре	ECTS	Hours				Lecturers
aumber				2V				
Number 752-3105-00L	Physiology Guided Food Structure and Process Design	W	3 credits	2V				
	Physiology Guided Food Structure and	cess Des isted at re adjus	sign ted with the	2 hrs	Thu	10-12 14-16	HG E33.3 LFV E41	E. J. Windhab, M. Devezeaux de Lavergne, S. Michlig Gonzalez, T. Wooster
752-3105-00L 752-3105-00 ∨ ► Major in I	Physiology Guided Food Structure and Process Design Physiology Guided Food Structure and Proc Irregular course. Exact dates and time are li 'Lehrveranstaltungen' courses. The dates a course "Selected Topics in Food Technolog	cess Des isted at re adjus	sign ted with the		Thu			<ul><li>M. Devezeaux de Lavergne,</li><li>S. Michlig Gonzalez,</li></ul>
752-3105-00L 752-3105-00 ∨ ► Major in I ►► Discipli	Physiology Guided Food Structure and Process Design Physiology Guided Food Structure and Proc Irregular course. Exact dates and time are li 'Lehrveranstaltungen/ courses. The dates a course "Selected Topics in Food Technology Food Quality and Safety nary Subjects	cess Des isted at re adjus y" (752-	sign ted with the 2003-00L).	2 hrs	Thu			M. Devezeaux de Lavergne, S. Michlig Gonzalez, T. Wooster
752-3105-00L 752-3105-00 V ➤ Major in I ➤► Discipli	Physiology Guided Food Structure and Process Design Physiology Guided Food Structure and Proc Irregular course. Exact dates and time are li 'Lehrveranstaltungen' courses. The dates a course "Selected Topics in Food Technolog Food Quality and Safety nary Subjects Title	cess Desisted at re adjus y" (752-	sign ted with the 2003-00L).	2 hrs	Thu			<ul><li>M. Devezeaux de Lavergne,</li><li>S. Michlig Gonzalez,</li></ul>
752-3105-00L  752-3105-00 ∨  ► Major in I  ►► Discipli  Number  752-0801-00L	Physiology Guided Food Structure and Process Design Physiology Guided Food Structure and Proc Irregular course. Exact dates and time are li 'Lehrveranstaltungen/ courses. The dates a course "Selected Topics in Food Technology Food Quality and Safety nary Subjects	cess Des isted at re adjus y" (752-	sign ted with the 2003-00L).	2 hrs				M. Devezeaux de Lavergne, S. Michlig Gonzalez, T. Wooster
752-3105-00L 752-3105-00 ∨  Major in I  Discipli Number 752-0801-00L 752-0801-00 ∨	Physiology Guided Food Structure and Process Design Physiology Guided Food Structure and Proc Irregular course. Exact dates and time are liften Iregular course. Exact dates and time are liften Iregular course in Food Technolog Food Quality and Safety nary Subjects Title Food Law and Legislation Lebensmittelrecht	cess Desisted at re adjus y" (752-	sign ted with the 2003-00L).	2 hrs Hours 1V		14-16	LFV E41	M. Devezeaux de Lavergne, S. Michlig Gonzalez, T. Wooster  Lecturers  C. Spinner,
752-3105-00L 752-3105-00 ∨  Major in I  Discipli Number 752-0801-00L 752-0801-00 ∨  752-1021-00L	Physiology Guided Food Structure and Process Design Physiology Guided Food Structure and Proc Irregular course. Exact dates and time are liften Irregular course. Exact dates and time are liften Irregular course. The dates accourse "Selected Topics in Food Technology Food Quality and Safety nary Subjects Title Food Law and Legislation Lebensmittelrecht	cess Desisted at re adjusty" (752-	ted with the 2003-00L).  ECTS 1 credit	2 hrs  Hours  1V 1 hrs		14-16	LFV E41	M. Devezeaux de Lavergne, S. Michlig Gonzalez, T. Wooster  Lecturers  C. Spinner,
752-3105-00L 752-3105-00 V  ► Major in I  ► Discipli Number 752-0801-00L 752-1021-00L 752-1021-00 G 752-4009-00L	Physiology Guided Food Structure and Process Design Physiology Guided Food Structure and Proc Irregular course. Exact dates and time are liftening to the Irregular course. Exact dates and time are liftening to the Irregular course. The dates accourse "Selected Topics in Food Technology Food Quality and Safety nary Subjects Title Food Law and Legislation Lebensmittelrecht  Food Enzymology Food Enzymology Molecular Biology of Foodborne Pathogens	cess Desisted at re adjusty" (752-	ted with the 2003-00L).  ECTS 1 credit	2 hrs  Hours  1V 1 hrs	Fri/2w	10-12	LFW C4	M. Devezeaux de Lavergne, S. Michlig Gonzalez, T. Wooster  Lecturers  C. Spinner, E. Zbinden Kaessner  L. Nyström, M. Erzinger
752-3105-00L 752-3105-00 V  ► Major in I  ► Discipli Number 752-0801-00L 752-1021-00L 752-1021-00 G 752-4009-00L	Physiology Guided Food Structure and Process Design Physiology Guided Food Structure and Proc Irregular course. Exact dates and time are liftening to the Irregular course. Exact dates and time are liftening to the Irregular course. The dates at course "Selected Topics in Food Technology Food Quality and Safety nary Subjects Title Food Law and Legislation Lebensmittelrecht  Food Enzymology Food Enzymology Molecular Biology of Foodborne Pathogens	tess Desisted at re adjus y" (752-	ECTS 1 credit 3 credits	2 hrs  Hours  1V 1 hrs  2G 2 hrs	Fri/2w	10-12	LFW C4	M. Devezeaux de Lavergne, S. Michlig Gonzalez, T. Wooster  Lecturers  C. Spinner, E. Zbinden Kaessner  L. Nyström, M. Erzinger  M. Loessner, M. Schmelche
752-3105-00L 752-3105-00 ∨  Major in I  Disciplii Number 752-0801-00 ∨ 752-1021-00 C 752-1021-00 G 752-4009-00 ∨	Physiology Guided Food Structure and Process Design Physiology Guided Food Structure and Proc Irregular course. Exact dates and time are liftening to the Irregular course. Exact dates and time are liftening to the Irregular course. The dates accourse "Selected Topics in Food Technology Food Quality and Safety nary Subjects Title Food Law and Legislation Lebensmittelrecht  Food Enzymology Food Enzymology Molecular Biology of Foodborne Pathogens	tess Desisted at re adjus y" (752-	ECTS 1 credit 3 credits	2 hrs  Hours  1V 1 hrs  2G 2 hrs	Fri/2w	10-12 14-16	LFW C4	M. Devezeaux de Lavergne, S. Michlig Gonzalez, T. Wooster  Lecturers  C. Spinner, E. Zbinden Kaessner  L. Nyström, M. Erzinger  M. Loessner, M. Schmelche
752-3105-00L 752-3105-00 ∨  Major in I  Disciplii Number 752-0801-00 ∨ 752-1021-00 C 752-1021-00 G 752-4009-00 ∨ 752-5103-00L	Physiology Guided Food Structure and Process Design Physiology Guided Food Structure and Proc Irregular course. Exact dates and time are liftening and Exact dates and Exac	tess Desisted at re adjus y" (752- Type W+ W+ W+ Reserved	ECTS 1 credit 3 credits 3 credits ved rooms will	2 hrs  Hours  1V 1 hrs  2G 2 hrs  2V 2 hrs  2G 2 hrs	Fri/2w	10-12 14-16	LFW C4	M. Devezeaux de Lavergne, S. Michlig Gonzalez, T. Wooster  Lecturers  C. Spinner, E. Zbinden Kaessner
752-3105-00L 752-3105-00 ∨  Major in I  ► Discipli Number 752-0801-00L 752-1021-00L 752-1021-00 G 752-4009-00 ∨ 752-5103-00 G	Physiology Guided Food Structure and Process Design Physiology Guided Food Structure and Process Design Physiology Guided Food Structure and Process Design Physiology Guided Food Structure and Process The dates and time are like Interverse In	tess Desisted at re adjus y" (752- Type W+ W+ W+ Reserved	ECTS 1 credit 3 credits 3 credits ved rooms will	2 hrs  Hours  1V 1 hrs  2G 2 hrs  2V 2 hrs  2G 2 hrs	Fri/2w Tue Thu	10-12 10-12 10-12	LFW C4  LFV E41  HG E1.2	M. Devezeaux de Lavergne, S. Michlig Gonzalez, T. Wooster  Lecturers  C. Spinner, E. Zbinden Kaessner  L. Nyström, M. Erzinger  M. Loessner, M. Schmelche, M. Schuppler, E. Wetter Slav  C. Lacroix, A. Geirnaert,
752-3105-00L 752-3105-00 ∨  Major in I  ► Discipli Number 752-0801-00 ∨ 752-1021-00 G 752-4009-00 ∨ 752-5103-00 C 752-1301-00 G	Physiology Guided Food Structure and Process Design Physiology Guided Food Structure and Process Design Physiology Guided Food Structure and Process Design Physiology Guided Food Structure and Process The dates and time are like "Lehrveranstaltungen/ courses. The dates and course "Selected Topics in Food Technology Food Quality and Safety nary Subjects Title Food Law and Legislation Lebensmittelrecht  Food Enzymology Food Enzymology Molecular Biology of Foodborne Pathogens Molecular Biology of Foodborne Pathogens  Functional Microorganisms in Foods	tess Desisted at re adjus y" (752- Type W+ W+ W+ A- Reservable with the servation of the se	ECTS 1 credit 3 credits 3 credits veed rooms will a course from	2 hrs  Hours  1V 1 hrs  2G 2 hrs  2V 2 hrs  2G 2 hrs	Fri/2w Tue Thu Wed	10-12 10-12 14-16 10-12	LFW C4  LFW C4  LFV E41  HG E1.2  HG D7.1	M. Devezeaux de Lavergne, S. Michlig Gonzalez, T. Wooster  Lecturers  C. Spinner, E. Zbinden Kaessner  L. Nyström, M. Erzinger  M. Loessner, M. Schmelche, M. Schuppler, E. Wetter Sla

5 credits

2V+1U

2 hrs

Mon 14-16 HG G5

L. Meier

401-0625-01 U	Applied Analysis of Variance and Experimen	tal Desi	an	1 hrs	Mon/2w	16-18	HG E1.1	L. Meier
401-0649-00L	··· · · · · · · · · · · · · · · · · ·	W+	5 credits	2V+1U		10 10		
	Applied Statistical Regression Applied Statistical Regression	***	J CIEUIIS	2 <b>v+10</b> 2 hrs	Mon	08-10	HG E1.2	M. Dettling
	Applied Statistical Regression			1 hrs	Mon/2w		HG E1.2	M. Dettling
	Mon 10-12 might not work for all different procourse is offered. On sufficient demand, other Mon 15-17 or Fri 10-12) for the exercise sessions.	er slots	(tentatively					·
<b>752-5500-00L</b> 752-5500-00 G	Applied Bioinformatics: Microbiomes Applied Bioinformatics: Microbiomes ■	W+	4 credits	<b>2G</b> 2 hrs	Tue	10-12	LFW C1	N. Bokulich
▶▶ Optiona	al Subjects							
Number		Туре	ECTS	Hours				Lecturers
752-5111-00L		W+	3 credits	2V				Lecturers
752-5111-00L 752-5111-00 V	•	VV+	3 Credits	2 hrs	Thu	16-18	LFV E41	F. Constancias, G. Broggini,
702 0111 00 1	Online lecture: This lecture will primarily take Reserved rooms will remain blocked on cam follow the course from there.			21110	1110	10 10	L. V L	A. Greppi, F. Orelli
752-1302-00L	Advanced Topics in Toxicology Only for students who have previously taken "Special Topics in Food Toxicology" (752-1301-00L).	W	2 credits	2G				
752-1302-00 G	Advanced Topics in Toxicology Permission from lecturers required for all stu	dents		2 hrs	Fri	08-10	CHN E42	S. J. Sturla
376-1353-00L	•	W	2 credits	1V			0	
376-1353-00 V	Nanostructured Materials Safety			1 hrs	Fri/1	12-14	CHN F46	P. Wick
-	Nutrition and Health nary Subjects							
Number		Туре	ECTS	Hours				Lecturers
752-2307-00L		W+	3 credits	2V				
	Composition and Processing  Nutritional Aspects of Food Composition and			2 hrs	Wed	08-10	LFW C5	B. E. Baumer, J. M. Sych
752-6101-00L	<u> </u>	W+	3 credits	2V				
752-6101-00 V	Dietary Etiologies of Chronic Disease			2 hrs	Thu	08-10	CAB G11	M. B. Zimmermann
	Epidemiology and Prevention Epidemiology and Prevention	W+	3 credits	<b>2V</b> 2 hrs	Wed	12-14	CHN C14	M. Puhan, R. Heusser
►► Method	ology Subjects							
Number	Title	Туре	ECTS	Hours				Lecturers
401-0625-01L	Applied Analysis of Variance and Experimental Design	W+	5 credits	2V+1U				
401-0625-01 V	Applied Analysis of Variance and Experimen	tal Desi	gn	2 hrs	Mon	14-16	HG G5	L. Meier
401-0625-01 U	Applied Analysis of Variance and Experimen	tal Desi	gn	1 hrs	Mon/2w	16-18	HG E1.1	L. Meier
401-0649-00L	Applied Statistical Regression	W+	5 credits	2V+1U				
401-0649-00 V	Applied Statistical Regression			2 hrs	Mon	08-10	HG E1.2	M. Dettling
401-0649-00 U	Applied Statistical Regression Mon 10-12 might not work for all different pro- course is offered. On sufficient demand, other Mon 15-17 or Fri 10-12) for the exercise session	er slots	(tentatively	1 hrs	Mon/2w	10-12	HG E1.2	M. Dettling
<b>752-5500-00L</b> 752-5500-00 G	Applied Bioinformatics: Microbiomes Applied Bioinformatics: Microbiomes ■	W+	4 credits	<b>2G</b> 2 hrs	Tue	10-12	LFW C1	N. Bokulich
▶▶ Optiona	al Subjects							
Number		Туре	ECTS	Hours				Lecturers
752-5103-00L		W	3 credits	2G				Locturers
	Functional Microorganisms in Foods  Functional Microorganisms in Foods  Online event: Will primarily take place online remain blocked on campus for students to for there.	. Reser	ved rooms will	2 hrs	Wed	14-16	HG D7.1	C. Lacroix, A. Geirnaert, A. Greppi
752-6301-00L	Selected Topics in Physiology Related to Nutrition	W	3 credits	2V				
752-6301-00 V	Selected Topics in Physiology Related to Nu	trition		2 hrs	Thu	10-12	CAB G51	F. von Meyenn
<b>752-6403-00L</b>	Nutrition and Performance Nutrition and Performance	W+	2 credits	<b>2V</b> 2 hrs	Thu	14-16	ML E12	S. Mettler, M. B. Zimmermann
		w	3 credits	2 nrs	iilu	14-10	IVIL E IZ	o. wetter, w. b. zimmermann
<b>752-5111-00L</b> 752-5111-00 V	Gene Technology in Foods Online lecture: This lecture will primarily take Reserved rooms will remain blocked on cam	e place o	online.	2 hrs	Thu	16-18	LFV E41	<b>F. Constancias</b> , G. Broggini, A. Greppi, F. Orelli
752-1301-00L	follow the course from there.  Special Topics in Toxicology	w	2 credits	2G				
752-1301-00 G	Special Topics in Toxicology			2 hrs	Fri	08-10	CHN E42	K. Hecht

766-6205-00L Nutrient Analysis in Foods W 3 credits 3U

Number of participants limited to 15. Permission from lecturers required for all

students.

766-6205-00 U Nutrient Analysis in Foods ■

45s hrs 31.01.- 08-17 LFV E41 09.02.

J. Rigutto

Permission from lecturers required for all students

Block course from 31.01.2022 to 09.02.2022. The course starts at 9:00 am on 31.01.2021 in the Laboratory of Human Nutrition LFV D-floor laboratories,
This course also includes a half-day cooking preparation in mid-

This course also includes a half-day cooking preparation in mid-December 2021, lectures via Moodle, oral presentations that take place on 18.02.2022 in the afternoon and a written report to be submitted by 25.02.2022. The detailed program will be announced separately.

## ► Major in Human Health, Nutrition and Environment

#### **▶▶** Module

## ▶▶▶ Module Public Health

The module Public Health is compulsory for all students in the major Human Health, Nutrition and Environment.

Number	Title	Type	ECTS	Hours				Lecturers
401-0629-00L	Applied Biostatistics	W+	4 credits	3G				
401-0629-00 G	Applied Biostatistics Online lecture: This lecture will take place o will remain reserved on campus for students from there.	nline. R s to follo	eserved room ow the course	3 hrs s	Tue	13-16	CAB G51	M. Tanadini
<b>752-6105-00L</b> 752-6105-00 V	Epidemiology and Prevention Epidemiology and Prevention	W	3 credits	<b>2V</b> 2 hrs	Wed	12-14	CHN C14	M. Puhan, R. Heusser
752-6151-00L	Public Health Concepts	W+	3 credits	2V				<u> </u>
	Public Health Concepts	***	3 credits	2 hrs	Mon 27.09.	14-16 14-16	HG D1.1 CHN G42	R. Heusser
▶▶▶ Modul	le Infectious Diseases							
Number	Title	Туре	ECTS	Hours				Lecturers
701-1703-00L	Evolutionary Medicine for Infectious Diseases Number of participants limited to 35.  Waiting list will be deleted October 3rd, 2021.	W	3 credits	2G				
701-1703-00 G	Evolutionary Medicine for Infectious Disease	es		2 hrs	Fri	10-12	HG E41	A. Hall
701-1471-00L	Ecological Parasitology Number of participants limited to 20. A minimum of 6 students is required that the course will take place.	W	3 credits	1V+1P				
	Waiting list will be deleted on October 1st, 2021.							
701-1471-00 V	Ecological Parasitology ■  The lecture takes place irregularly.			14s hrs	Tue	08-10	CHN G46	J. Jokela, C. Vorburger
701-1471-00 P	Ecological Parasitology ■  Daten der Veranstaltung: 05.10.; 19.10.; 09  Zeit: 8:15 - 12:00  Ort der Veranstaltung: EAWAG Dübendorf	.11		12s hrs	05.10. 19.10. 09.11.	08-12 08-12 08-12	EAW -EAWAG EAW -EAWAG EAW -EAWAG	
551-0223-00L	Immunology III	W	4 credits	2V				
551-0223-00 V	Immunology III			2 hrs	Mon	10-12	HCI H8.1	M. Kopf, S. B. Freigang, J. Kisielow, S. R. Leibundgut, A. Oxenius, C. Schneider, R. Spörri, L. Tortola, E. Wetter Slack
752-4009-00L	Molecular Biology of Foodborne Pathogens	W	3 credits	2V				
752-4009-00 V	Molecular Biology of Foodborne Pathogens			2 hrs	Thu	10-12	HG E1.2	M. Loessner, M. Schmelcher, M. Schuppler, E. Wetter Slack
701-0263-01L	Seminar in Evolutionary Ecology of Infectious Diseases	W	3 credits	2G				
701-0263-01 G	Seminar in Evolutionary Ecology of Infection	ıs Disea	ises	2 hrs	Tue	16-18	CHN F42	R. R. Regös, S. Bonhoeffer
►►► Modul	le Nutrition and Health							
Number	Title	Туре	ECTS	Hours				Lecturers
752-6101-00L	Dietary Etiologies of Chronic Disease	W	3 credits	2V				
752-6101-00 V	Dietary Etiologies of Chronic Disease			2 hrs	Thu	08-10	CAB G11	M. B. Zimmermann
752-2122-00L	Food and Consumer Behaviour	w	2 credits	2V				
752-2122-00 V		e place	online.	2 hrs	Mon	10-12	LFW B1	M. Siegrist, C. Hartmann

	Functional Microorganisms in Foods Functional Microorganisms in Foods  Online event: Will primarily take place online remain blocked on campus for students to there.			<b>2G</b> 2 hrs	Wed	14-16	HG D7.1	C. Lacroix, A. Geirnaert, A. Greppi
►►► Modu	le Environment and Health							
Number	Title	Туре	ECTS	Hours				Lecturers
<b>701-1341-00L</b> 701-1341-00 G	Water Resources and Drinking Water Water Resources and Drinking Water Online event: Will primarily take place onlin remain blocked on campus for students to there.			<b>2G</b> 2 hrs	Fri	08-10	CAB G11	<b>S. Hug</b> , M. Berg, F. Hammes, U. von Gunten
<b>376-1353-00L</b> 376-1353-00 V	Nanostructured Materials Safety Nanostructured Materials Safety	W	2 credits	<b>1V</b> 1 hrs	Fri/1	12-14	CHN F46	P. Wick
▶► Term P	aper							
Number	Title	Туре	ECTS	Hours				Lecturers
701-1701-00L	Human Health, Nutrition and Environment: Term Paper Only for students of the Major Human Health, Nutrition and Environment.	0	6 credits	13A				
701-1701-00 A	Human Health, Nutrition and Environment: Permission from lecturers required for all s The introduction of the term paper course s Sept 2021 from 16:15 to 18:00 h. An additional compulsory input lecture take 2021 from 16:15 to 18:00 h. Dates for oral presentation are 17th and 18	tudents takes pla es place	ce on 30th on 25th Nov	180s hrs				<b>J. Nuessli Guth</b> , T. Julian, K. McNeill, M. B. Zimmermann
	More details and locations are announced	separate	ely.					
The co ► Minors	lology Subjects ourses are offered in the spring semester iotechnology							
Number	Title	Туре	ECTS	Hours				Lecturers
752-5105-00L	Biotechnology of Alcoholic Beverage Production Number of participants limited to 30.	W+	2 credits	2V				
752-5105-00 V	Biotechnology of Alcoholic Beverage Produ	uction		2 hrs	Fri	12-14	LFV E41	R. Mira de Orduna Heidinger, A. Bühlmann, S. Schönenberg
	Gene Technology in Foods Gene Technology in Foods Online lecture: This lecture will primarily ta Reserved rooms will remain blocked on ca follow the course from there.			2V 2 hrs	Thu	16-18	LFV E41	<b>F. Constancias</b> , G. Broggini, A. Greppi, F. Orelli
<b>752-5103-00L</b> 752-5103-00 G	Functional Microorganisms in Foods Functional Microorganisms in Foods ■ Online event: Will primarily take place online remain blocked on campus for students to there.			<b>2G</b> 2 hrs	Wed	14-16	HG D7.1	C. Lacroix, A. Geirnaert, A. Greppi
▶▶ Food C	hemistry							
Number	Title	Туре	ECTS	Hours				Lecturers
752-1021-00L	Food Enzymology	W+	3 credits	2 <b>G</b>	_	44.5	15/5/	
	Food Enzymology  Modern Mass Spectrometry, Hyphonete	4 /W	6 orodita	2 hrs	Tue	14-16	LFV E41	L. Nyström, M. Erzinger
529-0041-00L	Modern Mass Spectrometry, Hyphenate Methods, and Chemometrics		6 credits	3G				
529-0041-00 G	Moderne Massenspektroskopie, gekoppelt Chemometrie	e Analys	enmethoden,	3 hrs	Mon Wed	10-12 12-13	HCI H2.1 HCI H2.1	<ul><li>R. Zenobi, B. Hattendorf,</li><li>P. Sinués Martinez-Lozano</li></ul>
▶▶ Food M	licrobiology							
Number	Title	Туре	ECTS	Hours				Lecturers
752-4009-00L	Molecular Biology of Foodborne	W+	3 credits	2V				
752-4009-00 V	Pathogens  Molecular Biology of Foodborne Pathogens	S		2 hrs	Thu	10-12	HG E1.2	M. Loessner, M. Schmelcher, M. Schuppler, E. Wetter Slack
<b>752-5103-00L</b> 752-5103-00 G	Functional Microorganisms in Foods Functional Microorganisms in Foods ■ Online event: Will primarily take place online remain blocked on campus for students to there.	<b>W</b> ne. Rese follow th	3 credits  rved rooms will e course from	<b>2G</b> 2 hrs	Wed	14-16	HG D7.1	C. Lacroix, A. Geirnaert, A. Greppi

# **▶▶** Food Process Design

Number	Title	Туре	ECTS	Hours				Lecturers
752-3021-00L	Food Process Design and Optimization	W+	4 credits	2G				
	Food Process Design and Optimization			2 hrs	Wed	08-10	LFW E13	E. J. Windhab
	Process Measurements and Automation Process Measurements and Automation	W	3 credits	<b>2G</b> 2 hrs	Thu	08-10	CLA E4	E. J. Windhab
►► Food Se	ensory Science and Consumer	Behav	/iour					
Number	Title	Туре	ECTS	Hours				Lecturers
52-2122-00L	Food and Consumer Behaviour	W	2 credits	2V				
752-2122-00 V	Food and Consumer Behaviour Online lecture: This lecture will primarily tak Reserved rooms will remain blocked on can follow the course from there.			2 hrs	Mon	10-12	LFW B1	M. Siegrist, C. Hartmann
►► Public I	Nutrition and Health							
Number	Title	Туре	ECTS	Hours				Lecturers
<b>752-6101-00L</b> <b>7</b> 52-6101-00 V	Dietary Etiologies of Chronic Disease Dietary Etiologies of Chronic Disease	W+	3 credits	2V 2 hrs	Thu	08-10	CAB G11	M. B. Zimmermann
752-6105-00L	Epidemiology and Prevention Epidemiology and Prevention	W+	3 credits	2V 2 hrs	Wed	12-14	CHN C14	M. Puhan, R. Heusser
				21113	· · · · · ·	12 17	01111 014	m. i didii, it. i lodosci
	and Quality in Agri-Food Chain	т	FOTO	Here				Lastina
Number	Title Food and Consumer Behaviour	Type	ECTS	Hours				Lecturers
<b>752-2122-00L</b> 752-2122-00 V	Food and Consumer Behaviour Food and Consumer Behaviour Online lecture: This lecture will primarily tak Reserved rooms will remain blocked on can follow the course from there.			<b>2V</b> 2 hrs	Mon	10-12	LFW B1	M. Siegrist, C. Hartmann
752-2307-00L	Nutritional Aspects of Food Composition and Processing	W+	3 credits	2V				
′52-2307-00 V	Nutritional Aspects of Food Composition and	d Proces	ssing	2 hrs	Wed	08-10	LFW C5	B. E. Baumer, J. M. Sych
'51-6001-00L	Forum: Livestock in the World Food System Number of participants limited to 20.	W	2 credits	18				
751-6001-00 S	Forum: Livestock in the World Food System Durchführung gemäss speziellem Programm			1 hrs	Wed	08-10	LFW C1	S. Meese
<b>752-5111-00L</b> 752-5111-00 V	Gene Technology in Foods Gene Technology in Foods Online lecture: This lecture will primarily tak Reserved rooms will remain blocked on can follow the course from there.			<b>2V</b> 2 hrs	Thu	16-18	LFV E41	F. Constancias, G. Broggin A. Greppi, F. Orelli
<b>751-7310-00L</b> 751-7310-00 V	Bioactive Food and Feed Components Bioactive Food and Feed Components Online lecture: This lecture will take place o will remain reserved on campus for students from there.			2V 2 hrs	Tue	08-10	LFW C11	K. Giller
►► Food Pl	hysics							
lumber	Title	Туре	ECTS	Hours				Lecturers
<b>52-3103-00L</b> 52-3103-00 V	Food Rheology I Food Rheology I	W+	3 credits	<b>2V</b> 2 hrs	Tue	08-10	LFO C13	P. A. Fischer
752-2314-00L	Physics of Food Colloids	W+	3 credits	2V	·			
	Physics of Food Colloids			2 hrs	Tue	10-12	ML F36	P. A. Fischer, R. Mezzenga
►► Food To	oxicology							
Number	Title	Туре	ECTS	Hours				Lecturers
752-1301-00L	Special Topics in Toxicology	W	2 credits	2G				
752-1301-00 G	Special Topics in Toxicology			2 hrs	Fri	08-10	CHN E42	K. Hecht
'52-1302-00L	Advanced Topics in Toxicology Only for students who have previously taken "Special Topics in Food Toxicology" (752-1301-00L).	W	2 credits	2G				
752-1302-00 G	Advanced Topics in Toxicology Permission from lecturers required for all str	udents		2 hrs	Fri	08-10	CHN E42	S. J. Sturla
752-4009-00L	Molecular Biology of Foodborne Pathogens	W	3 credits	2V				
752-4009-00 V	Molecular Biology of Foodborne Pathogens			2 hrs	Thu	10-12	HG E1.2	M. Loessner, M. Schmelche M. Schuppler, E. Wetter Slad
<b>752-6105-00L</b> <b>7</b> 52-6105-00 V	Epidemiology and Prevention Epidemiology and Prevention	w	3 credits	<b>2V</b> 2 hrs	Wed	12-14	CHN C14	M. Puhan, R. Heusser

## First   12-14 CHN    First   24 CHN    First   12-14 CHN    First	Lecturers
Number Title Type ECTS Hours  752-0005-00L Colloquium in Food and Nutrition Science  752-0005-00 K Colloquium in Food and Nutrition Science  752-0005-00 K Colloquium in Food and Nutrition Science  752-0005-00 K Colloquium in Food and Nutrition Science  752-005-00 C Master's Thesis  752-005-00 L Master's Thesis  752-005-00 L Nutrition Science  752-005-00 L Nutrition Sci	Lecturers
752-0005-00L Colloquium in Food and Nutrition Science 752-0005-00 K Colloquium in Food and Nutrition Science 752-0005-00 K Colloquium in Food and Nutrition Science  Master's Thesis  Number 752-0230-00L 752-0230-0	Lecturers
Science 752-0005-00 K Colloquium in Food and Nutrition Science  Master's Thesis  Number Title Type ECTS Hours  752-0230-00L Master's Thesis Only students who fulfill the following criteria are allowed to begin with their master thesis:  a. successful completion of the bachelor programme; b. fulfilling of any additional requirements necessary to gain admission to the master programme; c. has acquired at least 30 CPs in the master programme. The topic of the thesis and—if they are not Professors of DHEST - the examiner and the co-examiner have to be approved by the DHEST Department Conference.  752-0230-00 D Master-Arbeit   P Course Units for Additional Admission Requirements The courses below are only available for MSc students with additional admission requirements.  Number Title Type ECTS Hours  Food Chemistry I Enrolment ONLY for MSc students with a decree declaring this course unit as an additional admission requirement.  Any other students (e.g. incoming exchange students (octoral students) CANNOT enrol for this course unit.  Any other students (e.g. incoming exchange students) (octoral students) cannot for this course unit as an additional admission requirement.  Any other students (e.g. incoming exchange students (octoral students) CANNOT enrol for this course unit as an additional admission requirement.  Any other students (e.g. incoming exchange students, doctoral students) CANNOT enrol for this course unit as an additional admission requirement.  Any other students (e.g. incoming exchange students, octoral students) CANNOT enrol for this course unit as an additional admission requirement.  Any other students (e.g. incoming exchange students, octoral students) CANNOT enrol for this course unit as an additional admission requirement.  Any other students (e.g. incoming exchange students, octoral students) CANNOT enrol for this course unit as an additional admission requirement.  Any other students (e.g. incoming exchange students, octoral students) CANNOT enrol for this course unit as an additional admiss	
Number Title Type ECTS Hours  752-0230-00L Master's Thesis Only students who fulfill the following criteria are allowed to begin with their master thesis: a. successful completion of the bachelor programme; b. fulfilling of any additional requirements necessary to gain admission to the master programme; c. has acquired at least 30 CPs in the master programme; c. has acquired at least 30 CPs in the master programme.  The topic of the thesis and - if they are not Professors of D-HEST - the examiner and the co-examiner have to be approved by the D-HEST Department Conference.  752-0230-00 D Master-Arbeit ■ 900s hrs by appt.  ▶ Course Units for Additional Admission Requirements The courses below are only available for MSc students with additional admission requirements.  Number Title Type ECTS Hours  752-1000-AAL Food Chemistry   E- 3 credits 6R  E- 3 credits 6R  752-1000-AAR Food Chemistry   90s hrs  Food Analysis I Enrolment ONLY for MSc students with a decree declaring this course unit as an additional admission requirement.  Any other students (e.g. incoming exchange students (e.g. incoming exchange students) (CANNOT errol for this course unit as an additional admission requirement.  Any other students (e.g. incoming exchange students) (CANNOT errol for this course unit as an additional admission requirement.  Any other students (e.g. incoming exchange students) (CANNOT errol for this course unit as an additional admission requirement.  Any other students (e.g. incoming exchange students) (CANNOT errol for this course unit as an additional admission requirement.  Any other students (e.g. incoming exchange students) (cANNOT errol for this course unit as an additional admission requirement.  Any other students (e.g. incoming exchange students) (cANNOT errol for this course unit as an additional admission requirement.  Any other students (e.g. incoming exchange students) (cANNOT errol for this course unit as an additional admission requirement.  Any other students (e.g. incoming exchange students) (cANNOT errol fo	
Number Title Type ECTS Hours  752-0230-00L Master's Thesis Only students who fulfill the following criteria are allowed to begin with their master thesis:  a. successful completion of the bachelor programme; b. fulfilling of any additional requirements necessary to gain admission to the master programme; c. has acquired at least 30 CPs in the master programme. The topic of the thesis and - if they are not Professors of D-HEST - the examiner and the co-examiner have to be approved by the D-HEST Department Conference.  752-0230-00 D Master-Arbeit   Course Units for Additional Admission Requirements The courses below are only available for MSc students with additional admission requirements.  Number Title Type ECTS Hours  Food Chemistry Enrolment ONLY for MSc students with a decree declaring this course unit as an additional admission requirement.  Any other students (e.g. incoming exchange students (e.g. incoming exchange students) (CANNOT enrol for this course unit as an additional admission requirement.  Any other students (e.g. incoming exchange students (e.g. incoming exchange students) (CANNOT enrol for this course unit as an additional admission requirement.  Any other students (e.g. incoming exchange students) (CANNOT enrol for this course unit as an additional admission requirement.  Any other students (e.g. incoming exchange students) (CANNOT enrol for this course unit as an additional admission requirement.  Any other students (e.g. incoming exchange students) (CANNOT enrol for this course unit as an additional admission requirement.  Any other students (e.g. incoming exchange students) (cANNOT enrol for this course unit as an additional admission requirement.  Any other students (e.g. incoming exchange students) (cANNOT enrol for this course unit as an additional admission requirement.  Any other students (e.g. incoming exchange students) (cANNOT enrol for this course unit as an additional admission requirement.	3 S. J. Sturla
T52-0230-00L Master's Thesis Only students who fulfill the following criteria are allowed to begin with their master thesis: a. successful completion of the bachelor programme; b. fulfilling of any additional requirements necessary to gain admission to the master programme; c. has acquired at least 30 CPs in the master programme; c. has acquired at least 30 CPs in the master programme; c. has acquired at least 30 CPs in the master programme.  The topic of the thesis and - if they are not Professors of D-HEST - the examiner and the co-examiner have to be approved by the D-HEST Department Conference.  Focurses Units for Additional Admission Requirements  The courses below are only available for MSc students with additional admission requirements.  Number Title Type ECTS Hours  Forgenized Chemistry I Errolment ONLY for MSc students with a decree declaring this course unit as an additional admission requirement.  Any other students (e.g. incoming exchange students, doctoral students) CANNOT errol for this course unit.  Any other students (e.g., incoming exchange students, course unit.  Any other students (e.g., incoming exchange students, course unit.  Any other students (e.g., incoming exchange students, course unit.  Any other students (e.g., incoming exchange students, course unit.  Any other students (e.g., incoming exchange students, course unit.  Any other students (e.g., incoming exchange students, course unit.  Any other students (e.g., incoming exchange students, doctoral students) exclaments.  Food Process Engineering I Enrolment ONLY for MSc students with a decree declaring this course unit.  Any other students (e.g., incoming exchange students, doctoral students) exclaments with a decree declaring this course unit.  Any other students (e.g., incoming exchange students, doctoral students) exclaments.  E- 4 credits  PR	
Only students who fulfill the following criteria are allowed to begin with their master thesis: a. successful completion of the bachelor programme; b. fulfilling of any additional requirements necessary to gain admission to the master programme; c. has acquired at least 30 CPs in the master programme.  The topic of the thesis and - if they are not Professors of D-HEST - the examiner and the co-examiner have to be approved by the D-HEST Department Conference.  752-0230-00 D Master-Arbeit ■ 900s hrs by appt.  Course Units for Additional Admission Requirements  The courses below are only available for MSc students with additional admission requirements.  The courses below are only available for MSc students with additional admission requirement.  Any other students (e.g. incoming exchange students, doctoral students)  CANNOT error for for this course unit.  Any other students (e.g., incoming exchange students, doctoral students)  CANNOT error for this course unit as an additional admission requirement.  Any other students (e.g., incoming exchange students, octoral students)  CANNOT error for this course unit.  Any other students (e.g., incoming exchange students, octoral students)  CANNOT error for this course unit.  Food Analysis I  Errolment ONLY for MSc students with a decree declaring this course unit.  Any other students (e.g., incoming exchange students, octoral students)  CANNOT error for this course unit.  Food Analysis I  Errolment ONLY for MSc students with a decree declaring this course unit.  Any other students (e.g., incoming exchange students, octoral students)  CANNOT error for this course unit.  Any other students (e.g., incoming exchange students, octoral students)  CANNOT error for this course unit.  Any other students (e.g., incoming exchange students, octoral students)  CANNOT error for this course unit.  Any other students (e.g., incoming exchange students, octoral students)	Lecturers
Number Title Type ECTS Hours  752-1000-AAL Food Chemistry I Enrolment ONLY for MSc students with a decree declaring this course unit as an additional admission requirement.  Any other students (e.g. incoming exchange students, doctoral students) CANNOT enrol for this course unit.  752-1000-AAR Food Chemistry I Self-study course. No presence required.  752-1101-AAL Food Analysis I Enrolment ONLY for MSc students with a decree declaring this course unit.  Any other students (e.g. incoming exchange students, doctoral students) CANNOT enrol for this course unit.  752-1101-AAR Food Analysis I Self-study course. No presence required.  752-3000-AAL Food Process Engineering I Enrolment ONLY for MSc students with a decree declaring this course unit as an additional admission requirement.  Any other students (e.g. incoming exchange students) (e.g. incoming exchange students, doctoral students)  Any other students (e.g. incoming exchange students, doctoral students)	Supervisors
Food Chemistry I Enrolment ONLY for MSc students with a decree declaring this course unit as an additional admission requirement.  Any other students (e.g. incoming exchange students, doctoral students) CANNOT enrol for this course unit.  Food Analysis I Enrolment ONLY for MSc students with a decree declaring this course unit.  Any other students, doctoral students with a decree declaring this course unit.  Any other students (e.g. incoming exchange students, doctoral students) CANNOT enrol for this course unit.  Food Analysis I Enrolment ONLY for MSc students with a decree declaring this course unit.  Food Analysis I Self-study course. No presence required.  Food Analysis I Self-study course. No presence required.  Food Process Engineering I Enrolment ONLY for MSc students with a decree declaring this course unit as an additional admission requirement.  Any other students (e.g. incoming exchange students, doctoral students)  E- 3 credits  6R  90s hrs  E- 4 credits  9R	Lecturers
Enrolment ONL Y for MSc students with a decree declaring this course unit as an additional admission requirement.  Any other students (e.g. incoming exchange students, doctoral students) CANNOT enrol for this course unit.  752-1000-AA R Food Chemistry I 90s hrs  Self-study course. No presence required.  752-1101-AAL Food Analysis I Enrolment ONL Y for MSc students with a decree declaring this course unit as an additional admission requirement.  Any other students (e.g. incoming exchange students, doctoral students) CANNOT enrol for this course unit.  752-3000-AAL Food Process Engineering I Enrolment ONL Y for MSc students with a decree declaring this course unit as an additional admission requirement.  Any other students (e.g. incoming exchange students) fourse unit as an additional admission requirement.  Any other students (e.g. incoming exchange students, doctoral students)	Lecturers
Enrolment ONLY for MSc students with a decree declaring this course unit as an additional admission requirement.  Any other students (e.g. incoming exchange students, doctoral students) CANNOT enrol for this course unit.  752-1101-AA R Food Analysis I Self-study course. No presence required.  752-3000-AAL Food Process Engineering I Enrolment ONLY for MSc students with a decree declaring this course unit as an additional admission requirement.  Any other students (e.g. incoming exchange students, doctoral students)	L. Nyström
Self-study course. No presence required.  752-3000-AAL Food Process Engineering I Enrolment ONLY for MSc students with a decree declaring this course unit as an additional admission requirement.  Any other students (e.g. incoming exchange students, doctoral students)	
Enrolment ONLY for MSc students with a decree declaring this course unit as an additional admission requirement.  Any other students (e.g. incoming exchange students, doctoral students)	L. Nyström
exchange students, doctoral students)	
752-3000-AA R Food Process Engineering I 120s hrs Self-study course. No presence required.	
752-6001-AAL Introduction to Nutritional Science E- 3 credits 6R Enrolment ONLY for MSc students with a decree declaring this course unit as an additional admission requirement.	P. A. Fischer
Any other students (e.g. incoming exchange students, doctoral students) CANNOT enrol for this course unit.	P. A. Fischer

3 credits

E-

90s hrs

6R

**M. B. Zimmermann**, C. Wolfrum

752-6001-AA R Introduction to Nutritional Science Self-study course. No presence required.

551-0001-AAL General Biology I

Enrolment ONLY for MSc students with a decree declaring this course unit as an additional admission requirement.

Any other students (e.g. incoming exchange students, doctoral students) CANNOT enrol for this course unit.

551-0001-AA R	General Biology I Self-study course. No presence required. Please contact Prof. Uwe Sauer for further	informat	ion.	90s hrs	<b>U. Sauer</b> , O. Y. Martin, A. Widmer
106-0063-AAL	Physics II Enrolment ONLY for MSc students with a decree declaring this course unit as an additional admission requirement.	E-	5 credits	11R	
406-0063-AA R	Any other students (e.g. incoming exchange students, doctoral students) CANNOT enrol for this course unit.			150s hrs	A. Vaterlaus
400-0003-AA N	Self-study course. No presence required.			1505 1115	A. valeriaus
406-0603-AAL	Stochastics (Probability and Statistics) Enrolment ONLY for MSc students with a decree declaring this course unit as an additional admission requirement.	E-	4 credits	9R	
	Any other students (e.g. incoming exchange students, doctoral students) CANNOT enrol for this course unit.				
406-0603-AA R	Stochastics (Probability and Statistics) Self-study course. No presence required.			120s hrs	M. Kalisch
752-4001-AAL	Microbiology Enrolment ONLY for MSc students with a decree declaring this course unit as an additional admission requirement.	E-	2 credits	4R	
	Any other students (e.g. incoming exchange students, doctoral students) CANNOT enrol for this course unit.				
752-4001-AA R	Microbiology Self-study course. No presence required.			60s hrs	M. Ackermann
701-0071-AAL	Mathematics III: Systems Analysis Enrolment ONLY for MSc students with a decree declaring this course unit as an additional admission requirement.	E-	4 credits	9R	
701-0071-AA R	Any other students (e.g. incoming exchange students, doctoral students) CANNOT enrol for this course unit.  Mathematics III: Systems Analysis			120s hrs	R. Knutti, H. Wernli
	Self-study course. No presence required. Please contact Prof. Reto Knuntti for further	er informa	ation.		
752-4005-AAL	Food Microbiology I Enrolment ONLY for MSc students with a decree declaring this course unit as an additional admission requirement.	E-	3 credits	6R	
	Any other students (e.g. incoming exchange students, doctoral students) CANNOT enrol for this course unit.				
752-4005-AA R	Food Microbiology I Self-study course. No presence required.			90s hrs	M. Loessner
551-0003-AAL	General Biology I+II Enrolment ONLY for MSc students with a decree declaring this course unit as an additional admission requirement.	E-	7 credits	13R	
	Any other students (e.g. incoming exchange students, doctoral students) CANNOT enrol for this course unit.				
551-0003-AA R	General Biology I+II Self-study course. No presence required. Please contact Prof. Uwe Sauer for further	informat	ion.	180s hrs	<b>U. Sauer</b> , K. Bomblies, O. Y. Martin, A. Widmer
752-0100-AAL	Biochemistry Enrolment ONLY for MSc students with a decree declaring this course unit as an additional admission requirement.	E-	2 credits	4R	
	Any other students (e.g. incoming exchange students, doctoral students) CANNOT enrol for this course unit.				
752-0100-AA R	Biochemistry Self-study course. No presence required.			60s hrs	C. Frei
752-6306-AAL	Physiology and Anatomy II Enrolment ONLY for MSc students with a decree declaring this course unit as an additional admission requirement.	E-	3 credits	6R	
	Any other students (e.g. incoming exchange students, doctoral students)				

## CANNOT enrol for this course unit.

752-6306-AA R Physiology and Anatomy II Self-study course. No presence required.

90s hrs

D. Burdakov, M. Ristow

0	Compulsory	E-	Recommended, not eligible for credits
W+	Eligible for credits and recommended	Z	Courses outside the curriculum
W	Eligible for credits	Dr	Suitable for doctorate

Key for	Hours			
V	lecture	P	practical/laboratory course	
G	lecture with exercise	A	independent project	
U	exercise	D	diploma thesis	
S	seminar	R	revision course / private study	
K	colloquium			

ECTS European Credit Transfer and Accumulation System

Special students and auditors need special permission from the lecturers.

# **Food Science Bachelor**

## ▶ 1. Semester

## **▶▶** First Year Examinations

Number	Title	Туре	ECTS	Hours				Lecturers
529-2001-02L	Chemistry I	0	4 credits	2V+2U				
529-2001-02 V			<b>5</b> 0	2 hrs	Tue	08-10	HG F1	J. Cvengros
500 0004 00 11	Vorlesung im HG F1 mit Videoübertrag	gung ins HG	F3.	0	\A/I	44.40	HG F3	
529-2001-02 U	Übungen:	ah afta a		2 hrs	Wed Thu	14-16 10-12	CHN C14 ETZ E8 ETZ H91	J. Cvengros, J. E. E. Buschmann, P. Funck, E. C. Meister, R. Verel
	Mi 14-16 für Umweltingenieurwissensc Do 10-12 für Agrar-, Lebensmittel-, Erc Fr 8-10 für Umweltnaturwissenschafte	dwissenscha	ften				HG G26.3 IFW A34 IFW B42	
					Fri	08-10	ETZ J91 IFW A36	
401-0251-00L	Mathematics I	0	6 credits	4V+2U				
401-0251-00 V	Mathematik I: Analysis I und Lineare A	lgebra		4 hrs	Mon Wed Thu	09-10 12-14 09-10	HG E7 HG E7 HG E7	F. Da Lio
401-0251-00 U	Mathematik I: Analysis I und Lineare A Groups are selected in myStudies.  Die Übungen beginnen in der zweiten	· ·	ah a	2 hrs	Mon	14-16	CHN D44 CHN F42 ETZ E9	F. Da Lio
	Mo 14-16 für Studiengänge Erd- und k Umweltnaturwissenschaften. Di 14-16 für Studiengänge Agrarwisse. Lebensmittelwissenschaften.	Klimawissens	chaften bzw.				ETZ G91 ETZ H91 ETZ K91 HG F26.5	
	Zusätzlich wird das Mathe-Lab (Präsei 16-18 in CAB G 51 und Di 12-14 in HG		ngeboten: Mo		Tue	14-16	LFW C4 CAB G56 CLA E4 LFO C13 LFW C5 RZ F21	
551-0001-00L	General Biology I	0	3 credits	3V				
551-0001-00 V	Biologie I: Allgemeine Biologie I			3 hrs	Wed Fri	09-10 10-12	ML D28 ETF C1	<b>U. Sauer</b> , O. Y. Martin, A. Widmer
701-0243-01L	Biology III: Essentials of Ecology	0	3 credits	2V				
701-0243-01 V	Biologie III: Ökologie Vorlesung im HG F 1 mit Videoübertra	gung ins HG	F 3.	2 hrs	Mon	10-12	HG F1 HG F3	C. Buser Moser
701-0027-00L	Environmental Systems I	0	2 credits	2V				
701-0027-00 V	Umweltsysteme I			2 hrs	Tue	10-12	HG F7	C. Schär, N. Dubois, G. Velice
751-0013-00L	World Food System	0	4 credits	4V				
751-0013-00 V	Welternährungssystem (World Food S	ystem)		4 hrs	Mon Fri	14-16 08-10	CAB G61 CAB G61	A. K. Gilgen, J. Baumgartner, A. Bearth, R. Finger, M. Loessner, R. Mezzenga, B. Studer
351-1158-00L	Principles of Economics	0	3 credits	2G				
351-1158-00 G	Ökonomie In classroom, online via livestreaming (Einführungsvorlesung 22.9. sowie Ga In classroom, online via livestreaming groups); 6 Präsenzveranstaltungen. Online via livestreaming or zoom and i zoom, this will be recorded).	stvorlesung or zoom, not	10.11.). recorded (4	2 hrs	Wed	10-12	HG E41 LEE C104 LEE C114 LEE D101 LEE D105 ML D28 ML E12	<b>U. Renold</b> , T. Bolli, P. McDonald, M. E. Oswald- Egg, F. Pusterla
►► Additio	nal First Year Courses							
Number	Title	Type	ECTS	Hours				Lecturers
252-0839-00L	Informatics	0	2 credits	2G				
252-0839-00 G	Einsatz von Informatikmitteln Vorlesung: Fr 14-16 Uhr Individuelle Präsentation Projektaufgal	ben: restliche	e Zeiten alle 2	2 hrs	Mon	18-19	HG E19 HG E26.3 HG E27	L. E. Fässler, M. Dahinden
	Wochen nach Voranmeldung				Thu	18-19	HG E19 HG E26.1 HG E26.3	
					Fri	14-16 16-18	HG E27 HG F7 HG E19 HG E26.1 HG E26.3	
							HG E27	
751-0801-00L	Biology		1 credit	1V+2G		_		
751-0801-00 V	Grundlagen der Mikroskopie und Pflan Die genauen Unterrichtszeiten von ON werden von den Dozierenden kommur	ILINE - Verai	nstaltungen	1 hrs	Fri	13-14	ON LINE	E. B. Truernit

751-0801-00 G	Grundlagen der Mikroskopie und Pflanzen Groups are selected in myStudies.	biologie	)	2 hrs	Mon/2w	/ 12-14	LFW E11 LFW E11	E. B. Truernit
	Beginn der Lehveranstaltung in der zweite	n Seme	esterwoche			16-18	LFW E11	
					T (O	40.44	LFW E11	
					Tue/2w	12-14	LFW E11	
					\\/1/O	. 4 4 40	LFW E11	
					Wed/2v	V 14-16	LFW E11	
						40.40	LFW E11	
						16-18	LFW E11	
							LFW E11	
					Thu/2w	12-14	LFW E11	
							LFW E11	
						14-16	LFW E11	
							LFW E11	
						16-18	LFW E11	
							LFW E11	
529-0030-00L	Laboratory Course: Elementary Chemical Techniques	0	3 credits	6P				
529-0030-00 P	Praktikum Chemie			6 hrs	17.01.		CHN E46	N. Kobert, A. de Mello,
	Vorwiegend BSc UWIS: Kurs 1 Vorwiegend BSc ERD, AGR, LM: Kurs 2				17.01 04.02.	08-10	CHN D42	M. H. Schroth
							CHN D44	
							CHN D46	
							CHN G22	
						13-15	CHN D42	
							CHN D44	
							CHN D46	
							CHN G22	
					19.01.	09-14	CHN E46	
					21.01.	13-17	CHN E46	
					24.01.	08-10	CHN E46	
					26.01.	09-14	CHN E46	
					28.01.	13-17	CHN E46	
					31.01.	08-10	CHN E46	
					02.02.	09-14	CHN E46	
					04.02.	13-17	CHN E46	

# ▶ 3. Semester

# **▶▶** Basic Courses II

# ▶▶▶ Examination Block 1

Number	Title	Type	ECTS	Hours				Lecturers
402-0063-00L	Physics II	0	5 credits	3V+1U				
402-0063-00 V	Physik II			3 hrs	Mon Wed	13-14 13-15	ML D28 HPH G2	A. Vaterlaus
402-0063-00 U	Physik II Fr 8-9 Uhr im Zentrum für UMNW Studier	ende		1 hrs	Wed	15-16	HCI D4 HCI D6 HCI E8 HCI F2 HCI F8 HCI J8 HIL C10.2 HIL E5 HIT H42 HIT J51 HPK D24.2	A. Vaterlaus
704 0074 001	Mathamatica III. Sustama Analysis		4	21/.411	Fri	08-09	HG E21	
701-0071-00L	Mathematics III: Systems Analysis	0	4 credits	2V+1U	<b>-</b> ·	40.40	M. Doo	<b>P K W</b> 0.01
701-0071-00 V	Mathematik III: Systemanalyse			2 hrs	Fri	10-12	ML D28	R. Knutti, S. Schemm, H. Wernli
701-0071-00 U	Mathematik III: Systemanalyse			1 hrs	Mon	11-12	CAB G57 CHN F46 HG E33.3 HG F26.5 HG G26.3 LEE D101 LEE D105 LEE E101 ML E12 ML F34 NO E11 NO E39	<b>L. Brunner</b> , S. Schemm, P. Zschenderlein
752-4001-00L	Microbiology	0	2 credits	2V				
752-4001-00 V	Mikrobiologie			2 hrs	Mon	08-10	ML D28	M. Ackermann, M. Schuppler, J. Vorholt-Zambelli
752-0100-00L	Biochemistry	0	2 credits	2V				
752-0100-00 V	Biochemie			2 hrs	Mon	14-16	HG E1.1	C. Frei
752-6305-00L	Physiology and Anatomy I	0	2 credits	2V				
752-6305-00 V	Physiology and Anatomy I			2 hrs	Fri	08-10	LFO C13	<b>D. Burdakov</b> , D. Peleg-Raibstein
701-0225-00L	Organic Chemistry	0	2 credits	2V+1U				
	•							

701-0225-00 V	Organic Chemistry Vorlesung/lecture Mi/We 8-10 starts in the tisemester:	first wee	k of the	2 hrs	Wed	08-10	CHN C14	K. McNeill
′01-0225-00 U	Organic Chemistry  Exercises start in the second week of the so Students choose one of three exercises.	emester	:	1 hrs	Mon Wed Fri	16-17 12-13 13-14	CHN G22 CHN G22 CHN D42	K. McNeill
►► Evami	ination Block 2							
		<b>T</b>	FOTO					Lastonana
lumber	Title	Туре	ECTS	Hours				Lecturers
01-0624-00L	Mathematics IV: Statistics	0	4 credits	2V+1U	Th	00.40	MI DOG	I. Formand
	Mathematik IV: Statistik Mathematik IV: Statistik			2 hrs 1 hrs	Thu Thu	08-10 10-11	ML D28 ML F34	J. Ernest J. Ernest
101-0024-00 0	Groups are selected in myStudies.			11113	mu	10-11	ML J34.1	o. Linest
	Do 10-11 für Studiengang Lebensmittelwiss		ften.			13-14	HG E33.1	
	Do 13-14 für Studiengang Agrarwissensch Do 16-17 für Studiengang Erd- und Klimaw		haften.			16-17 18-19	NO C44 ON LINE	
	Fr 9-10 für Studiengang Umweltnaturwisse	enschafte	en.		Fri	09-10	CAB G59	
	Do 18-19 als Online-Übung ausschliesslich welche nicht an den regulären Übungen in						LFW E13	
	können.	riasciiz	lemieminen				ML F40	
752-0180-00L	Principles in Food Science	0	3 credits	2V				
	Grundlagen in Lebensmittelwissenschaften			2 hrs	Wed	10-12	CHN C14	S. J. Sturla, P. A. Fischer,
								E. Wetter Slack
-▶► Additi	onal Courses							
lumber	Title	Туре	ECTS	Hours				Lecturers
02-0000-02L	Laboratory Course in Physics for	0	2 credits	4P				
	Students in Food Sciences Enrollment is only possible under https://www.lehrbetrieb.ethz.ch/laborpraktik							
	a. No registration required via myStudies. For further information visit: https://ap.phys.ethz.ch							
	Only students from 3rd Semester BSc Food Science on are admitted to this Laboratory Course.	d						
102-0000-02 P	Praktikum Physik für Studierende in Lebens Das Praktikum wird remote angeboten	smittelwi	ssenschaften	4 hrs	Tue	08-12	HPP	A. Biland, A. Müller
	Am 21.09.2021 findet online eine Q&A Ses. Informationen unter https://ap.phys.ethz.ch	sion stat	tt. Weiter					
752-4003-00L	Practical Course in Microbiology	0	2 credits	3P	ть	40.40	1101 5200	M Künnler
752-4003-00 P	Praktikum Mikrobiologie Beginnt am 21. Oktober 2021 (7 Kurstage). Das Praktkum findet von 11:45 Uhr bis ma.		Uhr statt.	3 hrs	Thu	12-18	HCI E396	M. Künzler
	Weitere Details zum Ablauf werden separat							
	of Food Science							
lumber	Title	Туре	ECTS	Hours				Lecturers
<b>752-1000-00L</b> 752-1000-00 V	Food Chemistry I Lebensmittelchemie I	W+	3 credits	<b>2V</b> 2 hrs	Fri	14-16	LFO C13	<b>L. Nyström</b> , S. Boulos, M. Erzinger
► 5. Semes	ter							
► Basics	of Food Science							
lumber	Title	Туре	ECTS	Hours				Lecturers
752-5001-00L	Food Biotechnology	w	4 credits	3V				
752-5001-00 V	-			3 hrs	Mon Thu	10-12 09-10	LFV E41 LFV E41	C. Lacroix, F. Constancias, B. Pugin
52-6001-00L	Introduction to Nutritional Science	W	3 credits	2V				
52-6001-00 V	Introduction to Nutritional Science Course is taught in English (M. Zimmerman Wolfrum)	n) and (	German (Ch.	2 hrs	Fri	08-10	HG F7	M. B. Zimmermann, C. Wolfrum
52-4005-00L	Food Microbiology I	W	3 credits	2V	_			
	Lebensmittel-Mikrobiologie I			2 hrs	Tue	10-12	HG E1.1	M. Loessner
► Food S	cience General Courses							
lumber	Title	Туре	ECTS	Hours				Lecturers
51-0317-00L	Immunology I	W	3 credits	2V	_			
51-0317-00 V 52-2120-00L	Immunology I  Consumer Behaviour I	W	2 credits	2 hrs	Tue	08-10	HG G3	M. Kopf, A. Oxenius
. J 120 VVL	Condition Donation 1	••	_ 0.00110					

752-2120-00 V	Consumer Behaviour I			2 hrs	Fri	14-16	HG G3	M. Siegrist, A. Bearth,
	Online-Veranstaltung: Diese Lehrveranstal grundsätzlich online statt. Die reservierten Studierenden auf dem Campus bestehen, Lehrveranstaltung dort zu hören.	Räume i						A. Berthold
<b>752-1003-00L</b> 752-1003-00 V	Food Chemistry II Lebensmittelchemie II	W+	3 credits	<b>2V</b> 2 hrs	Thu	10-12	CAB G11	L. Nyström, S. Boulos, M. Erzinger
<b>752-1103-00L</b> 752-1103-00 V	Food Analysis II Lebensmittelanalytik II	W+	3 credits	<b>2V</b> 2 hrs	Mon	08-10	LFO C13	T. Gude
752-3001-00L	Food Process Engineering II	W+	3 credits	3G				
752-3001-00 G	Lebensmittel-Verfahrenstechnik II			3 hrs	Mon	13-16	CHN E46	E. J. Windhab
<b>752-2000-00L</b> 752-2000-00 G	Food Materials Science Food Materials Science	W+	4 credits	<b>3G</b> 3 hrs	Tue Fri	13-14 10-12	ML F36 LFO C13	R. Mezzenga, G. Nyström
<b>752-6307-00L</b> 752-6307-00 V	Physiology and Anatomy III Physiology and Anatomy III	W	3 credits	<b>2V</b> 2 hrs	Fri	16-18	LFW C5	<b>D. Burdakov</b> , D. Peleg-Raibstein
752-0300-00L	Scientific Practices in Food Science Only for Food Science BSc.	W+	3 credits	2V				
	Wissenschaftliches Arbeiten in den Lebens Permission from lecturers required for all s		ssenschaften i	■ 2 hrs	Wed	08-10	LFW B1	L. Nyström, P. A. Fischer
	cience Laboratory Practice							
Number	Title	Type	ECTS	Hours				Lecturers
752-4007-00L	Experimental Food Microbiology Number of participants limited to 48.  Registration only after having attended the	W	3 credits	4P				
752-4007-00 P	course Lebensmittel-Mikrobiologie I (752-4005-00L).  Experimentelle Lebensmittel-Mikrobiologie		60s hrs				M. Schuppler	
	Das Praktikum wird zweimal als Blockkurs  Die Platzzuteilung erfolgt gemäss separate							
	werden rechtzeitig bekannt gegeben.	Allinei	uurig. Details					
752-2002-00L	Food Technology Laboratory Course Number of participants limited to 55	W	2 credits	4P				
752-2002-00 P	Prerequisite: Attendance of the course 752 2001-00L "Food Technology".  Lebensmittel-Technologiepraktikum ■	·-		4 hrs	Wed	10-18	LFO B14	H. Adelmann
	Permission from lecturers required for all s Das detaillierte Programm mit den genaue allen Räumen wird separat bekannt gegeb Es sind mehr Slots eingetragen, um genüg einzelnen Versuche zu haben. Effektive Pr davon ab.	n Präser en. end Plat	z für die		Thu	14-18	LFO B14	
	Die Einführung ins LT-Praktikum findet am Details zum Ort werden separat bekannt g Der praktische Teil beginnt in der zweiten	egeben.						
► Electives	5							
A list v	with possible electives will be published sepa	rately.						
Number	Title  Food Science General Courses can be accounted as electives as well.	Type	ECTS	Hours				Lecturers
327-1221-00L	Biological and Bio-Inspired Materials Students that already enroled in this cours during their Bachelor's degree studies are not allowed to enrol again in their Master's		4 credits	3G				
327-1221-00 G	Biological and Bio-Inspired Materials			3 hrs	Thu	16-19	HCP E47.4	A. R. Studart, I. Burgert, R. Nicolosi Libanori, G. Panzarasa
	Fragrance Chemistry	W	1 credit	<b>1V</b> 1 hrs				
<b>529-1100-00L</b> 529-1100-00 V	Fragrance Chemistry Does not take place this semester.			11113				
529-1100-00 V 535-0230-00L	Fragrance Chemistry	W	2 credits	<b>2V</b> 2 hrs	Mon 27.09. 04.10.	10-12 10-12 10-12	HCI J3 HIL E8 HIL E8	J. Hall

Prerequisites: Basic knowledge of economics

851-0626-01 V	International Aid and Development			2 hrs	Tue	12-14	IFW A32.1	K. Harttgen, I. Günther			
363-1027-00L	Introduction to Health Economics and Policy	W	2 credits	1V							
363-1027-00 V	Introduction to Health Economics and Policy Does not take place this semester. Block course	′		16s hrs				C. Waibel			
363-0387-00L	Corporate Sustainability	W	3 credits	2G							
363-0387-00 G	Corporate Sustainability The course combines online learning eleme	nto and	Llivo popoiono	2 hrs	Wed/2	16-18	HG E21 HG E22	V. Hoffmann, C. Bening-Bach N. U. Blum, J. Meuer			
	some of which are recorded. Several course attendance. Details are provided on the modern course attendance.	e sessio	ns require live	; ;	Wed Wed/2	16-18 16-18	HG F3 ML E12	N. O. Bluffi, J. Medel			
701-0985-00L	Social Intercourse with Current Environmental Risks	W	1 credit	1V							
701-0985-00 V	Gesellschaftlicher Umgang mit aktuellen Un Does not take place this semester.	nweltrisi	ken	1 hrs				B. Nowack			
860-0023-00L	International Environmental Politics Particularly suitable for students of D-ITET, D-USYS	W	3 credits	2V							
860-0023-00 V	International Environmental Politics			2 hrs	Mon	16-18	HG F3	T. Bernauer			
851-0735-10L	Business Law Number of participants limited to 100	W	2 credits	2V							
	Particularly suitable for students of D-ITET, D-MAVT										
	Wirtschaftsrecht			2 hrs	Thu	14-16	HG D1.2	P. Peyrot			
101-0515-00L	Project Management Projektmanagement	W	2 credits	<b>2G</b> 2 hrs	Fri	14-16	HIL E1	C. G. C. Marxt			
	, ,	\A/	0		ГП	14-10	TIL E I	C. G. C. Warxt			
<b>151-0757-00L</b> 151-0757-00 G	Environmental Management Umwelt-Management	W	2 credits	<b>2G</b> 2 hrs	Wed	18-20	ML D28	R. Züst			
101 0701 00 0	Online-Veranstaltung: Diese Lehrveranstalt grundsätzlich online statt. Die reservierten F Studierenden auf dem Campus bestehen, u Lehrveranstaltung dort zu hören.	Räume k			,,,,,	10 20	WE DEC				
851-0180-00L	Research Ethics Number of participants limited to 40	W	2 credits	2G							
	Particularly suitable for students of D-BIOL, D-CHAB, D-HEST										
851-0180-00 G	Research Ethics  One additional hour of home work per week	will be	required	2 hrs	Wed	18-20	LFW C1	G. Achermann, P. Emch			
363-0453-00L	Strategic Supply Chain Management	W	3 credits	2G							
363-0453-00 G	Strategic Supply Chain Management The lecture takes place online via livestrean recorded. The reserved room is meant for the want to follow the course from Zentrum can	nose stu		2 hrs	Wed	08-10	HG E1.1	S. Wagner			
535-0667-00L	Communication and Social Competences	W	1 credit	1V							
535-0667-00 V	Kommunikation und soziale Kompetenz Findet im Rahmen der Einführungsvorlesun Pharmazeutischen Wissenschaften statt.	g in die		8s hrs				J. Stadelwieser			
701-0703-00L	Environmental Ethics	W	2 credits	2V							
701-0703-00 V	Ethik und Umwelt			2 hrs	Fri	12-14	HG F7	A. Deplazes Zemp			
376-1581-00L	Cancer: Fundamentals, Origin and Therapy	W	2 credits	2G							
376-1581-00 G	Krebs: Grundlagen, Ursachen und Therapie			2 hrs	Tue	10-12	HG D7.2	H. Nägeli			
► Bachelo	r's Thesis										
Number	Title	Туре	ECTS	Hours				Lecturers			
<b>752-0220-20L</b> 752-0220-20 D	Bachelor's Thesis Bachelor-Arbeit ■ Themen können auf http://www.hest.ethz.ch/studium/lebensmitte r-Im/bachelor-arbeit.html eingesehen werde		15 credits	<b>32D</b> 450s hrs	by app	rt.		Lecturers			
Food Science	Bachelor - Key for Type										
0	Compulsory		F-	P	ecommen	E- Recommended, not eligible for credits Z Courses outside the curriculum					
O W+	Compulsory Eligible for credits and recommended			E- Z			-				

Key for	Hours		
V	lecture	P	practical/laboratory course
G	lecture with exercise	A	independent project
U	exercise	D	diploma thesis
S	seminar	R	revision course / private study
K	colloquium		

**ECTS** 

European Credit Transfer and Accumulation System
Special students and auditors need special permission from the lecturers.

# Management, Technology and Economics (General Courses)

## ► General Courses

Number	Title	Type	ECTS	Hours				Lecturers
351-0778-00L	Discovering Management Entry level course in management for BSc, MSc and PHD students at all levels not belonging to D-MTEC. This course can be complemented with Discovering Management (Excercises) 351-0778-01.	Z	3 credits	3G				
351-0778-00 G	Discovering Management Diese Lehrveranstaltung wird ab dem HS 20 angeboten. The lecture takes place in classroom, online zoom and recorded.	•		3 hrs	Fri	08-11	HG E1.1	B. Clarysse, S. Brusoni, E. Fleisch, G. Grote, V. Hoffmann, T. Netland, Y. R. Shrestha, P. Tinguely L. P. T. Vandeweghe
351-0778-01L	Discovering Management (Exercises) Complementary exercises for the module Discovering Managment.	Z	1 credit	1U				
	Prerequisite: Participation and successful completion of the module Discovering Management (351-0778-00L) is mandatory.							
351-0778-01 U	Discovering Management (Exercises)			1 hrs	Fri	11-12	HG E1.1	<b>B. Clarysse</b> , L. P. T. Vandeweghe
351-0555-00L	Open- and User Innovation	Z	3 credits	2G				
351-0555-00 G	Open- and User Innovation Block course The Kick-off event will take place ONLINE, 2 - 16.00.	22.09.20	021 from 14.0	23s hrs	22.09. 25.10. 26.10. 27.10.		ON LINE ML H37.1 ML H37.1 ML H37.1	S. Häfliger, S. Spaeth
363-0511-00L	Managerial Economics Not for MSc students belonging to D- MTEC!	Z	4 credits	3V				
363-0511-00 V	Managerial Economics			3 hrs	Tue Wed	18-19 08-10	HG F5 HG G3	<b>V. Lohmann</b> , P. Egger, M. Köthenbürger
Management,	Technology and Economics (General C	ourses	s) - Key for <sup>-</sup>	Гуре				
0	Compulsory			Z	Co	ourses ou	tside the curric	ulum
_	Eligible for credits and recommended			_ Dr	_		doctorate	
	Eligible for credits			E-			ded, not eligible	e for credits
Key for Hours	s							
V	lecture			Р	pr	actical/lab	oratory course	
	lecture with exercise			Α	•	dependen	•	
U	exercise			D		ploma the		
S	seminar			R	re	vision cou	rse / private st	udy

ECTS European Credit Transfer and Accumulation System

■ Special students and auditors need special permission from the lecturers.

# **Management, Technology and Economics Master**

Welcome and Introduction to MSc ETH MTEC Monday, 20.09.2021, 14.00 - 15.15 h, HG E 1.1 (tbc)

## **▶** Core Courses

## ▶▶ General Management and Human Resource Management

Number	Title	Туре	ECTS	Hours				Lecturers
363-0341-00L	Introduction to Management	W+	3 credits	2G				
363-0341-00 G	Introduction to Management The lecture takes place in classroom, online zoom and recorded.	e via live	estreaming or	2 hrs	Thu	16-18	HG F7	<b>Z. Zagorac-Uremovic</b> , J. O'Neil
▶▶ Strateg	y, Markets and Technology							
Number	Title	Туре	ECTS	Hours				Lecturers
363-0387-00L	Corporate Sustainability	W+	3 credits	2G				
363-0387-00 G	Corporate Sustainability The course combines online learning eleme	ante and	live sessions	2 hrs	Wed/2	16-18	HG E21 HG E22	V. Hoffmann, C. Bening-Bach N. U. Blum, J. Meuer
	some of which are recorded. Several cours				Wed	16-18	HG F3	N. O. Blam, J. Medel
	attendance. Details are provided on the mo	odle cou	ırse page.		Wed/2	16-18	ML E12	
363-0403-00L	Introduction to Marketing	W+	3 credits	2G	_			
363-0403-00 G	Introduction to Marketing The lecture takes place in classroom, online zoom and recorded.	e via live	estreaming or	2 hrs	Tue	14-16	HG E5	<b>S. Brüggemann</b> , F. von Wangenheim
363-0392-00L	Strategic Management	W+	3 credits	2G				
363-0392-00 G	Number of participants limited to 80. Strategic Management			2 hrs	Mon	16-19	ML F39	Y. R. Shrestha
000 0002 00 0	Permission from lecturers required for all st	udents		2 0		.0 .0	ML H44	
	Irregular lecture Presentation slots for case studies will be c	ommuni	cated in class.					
	The lecture takes place in classroom, online							
	zoom and recorded. An exception of course and presentations which will only be livestre							
	recorded.							
363-0389-00L	Technology and Innovation Managemen	t W+	3 credits	2G				
363-0389-00 G	Technology and Innovation Management The lecture takes place in classroom, online	e via zoo	om and	2 hrs	Mon 27.09.	14-16 14-16	NO C60 HG D1.2	S. Brusoni, A. Zeijen
	recorded.				2			
▶▶ Informa	tion Management and Operatio	ns Ma	anagemen	t				
Number	Title	Туре	ECTS	Hours				Lecturers
363-0421-00L	Mastering Digital Business Models	W+	3 credits	2G				
363-0421-00 G	Number of participants limited to 110  Mastering Digital Business Models			2 hrs	Tue	08-10	ML H44	E. Fleisch
303-0421-00 0	The lecture takes place in classroom, online recorded.	e via zoo	om and	21113	ruc	00-10	IVILITY	E. Helson
363-0445-00L	Production and Operations Management	t W+	3 credits	2G				
363-0445-00 G	Production and Operations Management This course can be followed fully online and opportunities for students who want to enga- staff in the classroom.			2 hrs	Thu	14-16	CAB G11	T. Netland
363-0453-00L	Strategic Supply Chain Management	W+	3 credits	2G				
363-0453-00 G	Strategic Supply Chain Management		,	2 hrs	Wed	08-10	HG E1.1	S. Wagner
	The lecture takes place online via livestrear recorded. The reserved room is meant for t							
	want to follow the course from Zentrum can	npus.						
▶▶ Quantit	ative and Qualitative Methods f	or So	lving Com	pex Pro	blems	3		
Number	Title	Туре	ECTS	Hours				Lecturers
363-0305-00L	Empirical Methods in Management	W+	3 credits	2G				
363-0305-00 G	Empirical Methods in Management The lecture takes place in classroom, online zoom and recorded.	e via live	estreaming or	2 hrs	Wed	14-16	HG E1.1	S. Tillmanns
363-1004-00L	Operations Research	W+	3 credits	2G				
363-1004-00 G	Operations Research The lecture takes place in classroom, online zoom and recorded.	e via live	estreaming or	2 hrs	Mon	08-10	ML F39	S. Bütikofer van Oordt
363-0541-00L	Systems Dynamics and Complexity	W+	3 credits	3G				
363-0541-00 G	Systems Dynamics and Complexity			3 hrs	Tue	12-13	HG D1.2	F. Schweitzer
	Lecture: Thursday, 08-10 h Exercises: Tuesday, 12-13 h The lecture takes place in classroom, online	e via live	estreaming or		Thu	08-10	HG D1.2	
	zoom and recorded.							
►► Micro a	nd Macroeconomics	Туре	ECTS	Hours				Lecturers

363-0565-00L								
363-0565-00 V	Di 16-18 im ETA F 5 mit Videoübertragung The lecture takes place in classroom, online			<b>2V</b> 2 hrs	Tue	16-18	ETA F5 ETF E1	JE. Sturm
363-0503-00L	zoom and recorded.  Principles of Microeconomics GESS (Science in Perspective): This	W+	3 credits	2G				
363 0503 00 C	lecture is for MSc students only. BSc students register for 363-1109-00L Einführung in die Mikroökonomie. Principles of Microeconomics			2 hrs	Thu	18-20	HG F7	M Eilinnini
303-0303-00 G	The lecture takes place in classroom, online zoom and recorded.	via live	streaming or	21115	THU	16-20	но гл	M. Filippini
363-0537-00L	Resource and Environmental Economics	W+	3 credits	2G				
363-0537-00 G	Resource and Environmental Economics The lecture takes place in classroom, online recorded.	via live	streaming and	2 hrs	Wed	10-12	HG G3	L. Bretschger
▶▶ Financi	al Management							
Number	Title	Туре	ECTS	Hours				Lecturers
363-0711-00L	Accounting for Managers	W+	3 credits	2V				
363-0711-00 V	Accounting for Managers The lecture takes place in classroom, online recorded.	via live	estreaming and	2 hrs	Thu	10-12	HG F3	JP. Chardonnens
363-0561-00L	Financial Market Risks	W+	3 credits	2G				
363-0561-00 G	Financial Market Risks The lecture takes place in classroom, online zoom and recorded.	via live	streaming or	2 hrs	Mon	10-12	ML H44	D. Sornette
► Elective	Courses logy and Innovation							
Number	Title	Typo	ECTS	Hours				Lecturers
363-0861-00L	Alliance Advantage - Exploring the	Type W	3 credits	2G				Lecturers
363-0661-00L	Value Creation Potential of Collaborations	vv	3 credits	26				
363-0861-00 G	Alliance Advantage - Exploring the Value Co Collaborations Introduction: 23.09.2021 Block Course: 27.10.2021 & 28.10.2021 Final Presentation: 16.12.2021	eation F	Potential of	28s hrs	23.09. 27.10. 28.10. 16.12.	16-19 08-20 08-20 16-19	LFW B3 LFW B2 LFW B2 n /a	C. G. C. Marxt
363-1051-00L	Cases in Technology Marketing Number of participants limited to 20.	w	3 credits	1G				
	Students have to apply for this course by sending a CV and an one-page motivation letter until 10.09.2021 to Theresa Schachner: tschachner@ethz.ch. Additionally please enroll via myStudies. Places will be assigned on the basis of your motivation letter.							
363-1051-00 G	sending a CV and an one-page motivation letter until 10.09.2021 to Theresa Schachner: tschachner@ethz.ch. Additionally please enroll via myStudies. Places will be assigned on the basis of your motivation letter.  Cases in Technology Marketing			16s hrs	20.09.	17-20	WEV F109	F. von Wangenheim, S. Schä
363-1051-00 G	sending a CV and an one-page motivation letter until 10.09.2021 to Theresa Schachner: tschachner@ethz.ch. Additionally please enroll via myStudies. Places will be assigned on the basis of your motivation letter.	udents		16s hrs	20.09. 18.10. 08.11. 29.11. 06.12.	17-20 17-20 17-20	WEV F109 WEV F109 WEV F109 WEV F109 Ex tern	F. von Wangenheim, S. Schä
363-1051-00 G 363-0393-00L	sending a CV and an one-page motivation letter until 10.09.2021 to Theresa Schachner: tschachner@ethz.ch. Additionally please enroll via myStudies. Places will be assigned on the basis of your motivation letter. Cases in Technology Marketing Permission from lecturers required for all sta Block course	udents	3 credits	16s hrs	18.10. 08.11. 29.11.	17-20 17-20 17-20	WEV F109 WEV F109 WEV F109	F. von Wangenheim, S. Schä
	sending a CV and an one-page motivation letter until 10.09.2021 to Theresa Schachner: tschachner@ethz.ch. Additionally please enroll via myStudies. Places will be assigned on the basis of your motivation letter. Cases in Technology Marketing Permission from lecturers required for all str Block course 06.12.2021, whole day at Bühler Group in L  Corporate Strategy Due to didactic considerations, the number of participants for this course is limited to	udents Izwil W	3 credits		18.10. 08.11. 29.11.	17-20 17-20 17-20	WEV F109 WEV F109 WEV F109	F. von Wangenheim, S. Schä
	sending a CV and an one-page motivation letter until 10.09.2021 to Theresa Schachner: tschachner@ethz.ch. Additionally please enroll via myStudies. Places will be assigned on the basis of your motivation letter. Cases in Technology Marketing Permission from lecturers required for all stablock course 06.12.2021, whole day at Bühler Group in L.  Corporate Strategy Due to didactic considerations, the number of participants for this course is limited to 45.  Please register through myStudies to enroll for the course. Slots are assigned on a first-come first-serve basis (in the order of the registration date on myStudies). We will confirm your registration by e-mail. If you have any inquiries about the course, please contact the course assistant.	udents Izwil W	zoom and		18.10. 08.11. 29.11.	17-20 17-20 17-20	WEV F109 WEV F109 WEV F109	F. von Wangenheim, S. Schä  S. Ben-Menahem
363-0393-00L	sending a CV and an one-page motivation letter until 10.09.2021 to Theresa Schachner: tschachner@ethz.ch. Additionally please enroll via myStudies. Places will be assigned on the basis of your motivation letter. Cases in Technology Marketing Permission from lecturers required for all str. Block course 06.12.2021, whole day at Bühler Group in U.  Corporate Strategy Due to didactic considerations, the number of participants for this course is limited to 45.  Please register through myStudies to enroll for the course. Slots are assigned on a first-come first-serve basis (in the order of the registration date on myStudies). We will confirm your registration by e-mail. If you have any inquiries about the course, please contact the course assistant. Corporate Strategy The lecture takes place online via livestream recorded. Reserved rooms will remain block students to follow the course from there.  Design Thinking: Human-Centred	udents Izwil W	zoom and	2V	18.10. 08.11. 29.11. 06.12.	17-20 17-20 17-20 08-16	WEV F109 WEV F109 WEV F109 Ex tern	
363-0393-00L 363-0393-00 V	sending a CV and an one-page motivation letter until 10.09.2021 to Theresa Schachner: tschachner@ethz.ch. Additionally please enroll via myStudies. Places will be assigned on the basis of your motivation letter. Cases in Technology Marketing Permission from lecturers required for all str. Block course 06.12.2021, whole day at Bühler Group in U.  Corporate Strategy Due to didactic considerations, the number of participants for this course is limited to 45.  Please register through myStudies to enroll for the course. Slots are assigned on a first-come first-serve basis (in the order of the registration date on myStudies). We will confirm your registration by e-mail. If you have any inquiries about the course, please contact the course assistant. Corporate Strategy The lecture takes place online via livestream recorded. Reserved rooms will remain block students to follow the course from there.	udents Izwil  W	zoom and ampus for 5 credits	2V 2 hrs	18.10. 08.11. 29.11. 06.12.	17-20 17-20 17-20 08-16	WEV F109 WEV F109 WEV F109 Ex tern	

Students apply for this course via the official website no later than August 23 (https://www.mtec.ethz.ch/studies/specialprogrammes/els.html). Once your application is confirmed, registration in myStudies is possible. 363-1028-00 S Entrepreneurial Leadership ■ **WFV H326** Z. Erden Özkol, S. Brusoni, 45s hrs Wed 10-13 Permission from lecturers required for all students T. Netland, P. Tinguely Irregular lecture Additional classes: tba 363-0404-00L **Industry and Competitive Analysis** 3 credits 3G Due to didactic reasons originating from the group-work based approach, the number of participants is limited to 30. First come first served by order of enrollment in myStudies. Experience in statistical analysis with tools such as SPSS or equivalents is an 363-0404-00 G Industry and Competitive Analysis 3 hrs Wed 14-16 **LEE D101** V. He, Y. R. Shrestha Permission from lecturers required for all students 16-17 **LEE D101** The lecture takes place online via zoom and recorded. Reserved rooms will remain blocked on campus for students to follow the course from there. 363-0887-00L **Management Research** 18 1 credit Participation in both sessions and completion of all assignments is required to receive the credit. This course requires preparation time and completion of an assignment before the first course day. Please check the Moodle course page for more information. 363-0887-00 S Management Research ■ 14s hrs 24.09. 08-16 HG E33.1 N. Geilinger 08.10 08-16 HG F33.1 Block course Online lecture: This lecture will primarily take place online. Reserved rooms will remain on campus for students to follow the course from there. ▶▶ Supply Chain and Information Systems Number Type **ECTS** Hours Lecturers 363-0425-00L Transformation: Corporate Development W 3 credits 2G and IT T. Gutzwiller 363-0425-00 G Transformation: Corporate Development and IT 30s hrs 27.09 12-18 ONLINE ON LINE Irregular lecture 18.10. 12-18 The lecture starts at 12.30 - 18.00. ONLINE 01.11. 12-18 15.11. 12-18 ON LINE The lecture takes place online via Zoom (recorded). 29.11. 12-18 ON LINE 363-1135-00L Digital Health Project 3 credits **2V** Number of participants limited to 30. Digital Health Project 363-1135-00 V 2 hrs Thu 08-10 NO D11 T. Kowatsch Online lecture: This lecture will primarily take place online. Reserved rooms will remain blocked on campus for students to follow the course from there. Some sessions will be held from Singapore. 363-0445-02L **Production and Operations Management W** 1 credit **1A** - Supplement Credit A parallel enrolment to the lecture 363-0445-00L Production and Operations Management is mandatory. 363-0445-02 A Production and Operations Management - Supplement Credit T. Netland 7s hrs Does not take place this semester. Irregular lecture ▶▶ Systems Design and Risks Number **ECTS** Hours Lecturers Type 363-1162-00L Resilience in the New Age of Risk 3 credits **2V** Resilience in the New Age of Risk H. Schernberg, C. Hölscher, 363-1162-00 V 2 hrs Mon 10-12 HG D3.2 In classroom, online via livestreaming or zoom and recorded. J. Jörin, G. Sansavini **▶▶** Economic Dynamics Number Hours Lecturers Type **ECTS** 363-1137-00L Applied Econometrics in Environmental W 3 credits and Energy Economics It is highly recommended to take 363-0570-00L Principles of Econometrics first.

Number of participants limited to 40.

363-1137-00 \/	Applied Econometrics in Environmental and	Fnerm	Franchics	2 hrs	Mon	08-10	HG E21	D. Cerruti, N. Kumar,
000-110 <i>1-</i> 00 V	Applied Econometrics in Environmental and	Lilelgy	LCOHOHIICS	Z 1113	11.10.		HG E19	S. Srinivasan
363-1136-00L	Dynamic Macroeconomics, Innovation and Growth Students who have successfully completed the course "Dynamic Macroeconomics" (364-0559-00L) or "Economics of Innovation and Growth" (363-0562-01L) can not register for this course.	W	3 credits	2V				
363-1136-00 V	Dynamic Macroeconomics, Innovation and Please note: This lecture was merged from 364-0559-00 Macroeconomics and 363-0562-01L Econo Growth. Contact person: Julia Dür, jduer@ethz.ch	L Dynar		2 hrs	Tue	10-12	ZUE G1	H. Gersbach
363-1160-00L	Economics by its Nobel Prizes	w	3 credits	2V				
	-			2 hrs	Wed	14-16	CAB G59	A. Fabre
363-1037-00L	Fiscal Competition and Multinational Firms	W	3 credits	2V				
363-1037-00 V	Fiscal Competition and Multinational Firms			2 hrs	Thu	10-12	HG E21	<b>M. Köthenbürger</b> , M. Stimmelmayr
363-1027-00L	Introduction to Health Economics and	w	2 credits	1V				
363-1027-00 V	Policy Introduction to Health Economics and Policy Does not take place this semester. Block course	/		16s hrs				C. Waibel
363-1161-00L	Time Series Econometrics and	w	3 credits	2V				
363-1161-00 V	Macroeconomic Forecasting Time Series Econometrics and Macroeconometrics	mic For	ecasting	2 hrs	Mon	10-12	HG D5.3	S. Sarferaz
363-1124-00L	The Economics of Societal Decisions under Risk	W	3 credits	2V				
363-1124-00 V	The Economics of Societal Decisions under Does not take place this semester.	Risk		2 hrs				to be announced
<b>363-0585-00L</b> 363-0585-00 V	Intermediate Econometrics Intermediate Econometrics	W	3 credits	2V 2 hrs	Tue	14-16	LEE C114	G. Masllorens Fuentes
<b>363-1159-00L</b> 363-1159-00 V	Labor Economics Labor Economics The lecture takes place in classroom, online	<b>W</b> e via live	3 credits estreaming or	<b>2V</b> 2 hrs	Wed	10-12	CAB G59	M. Siegenthaler, D. Kopp
363-1021-00L	zoom, not recorded.  Monetary Policy  Monetary Policy	W	3 credits	<b>2V</b> 2 hrs	Mon	14-16	LEE E101	JE. Sturm, A. Rathke
	The Economics of Aging, Pensions and	w	3 credits	2V				or an oranin, rin rianino
	Savings The Economics of Aging, Pensions and Sav			2 hrs	Thu	16-18	HG E21	C. Daminato
363-1047-00L	Urban Systems and Transportation	W	3 credits	2G	Tilu	10-10	TIO LZ1	o. Danimato
	Urban Systems and Transportation The lecture takes place in classroom, online zoom and recorded.			2 hrs	Thu	10-12	LFW B1	G. Loumeau
363-1107-00L	Youth Labor Market Outcomes, Institutions and Governance of Education and Training Systems	W	3 credits	2G				
363-1107-00 G	Youth Labor Market Outcomes, Institutions Education and Training Systems Block course The lecture takes place in classroom only (I place if we have more than 4 participants).			30s hrs	08.11. 09.11. 10.11. 11.11. 12.11.	09-16 09-16 09-16	LEE F118 LEE F118 LEE F118 LEE F118 LEE F118	<b>U. Renold</b> , T. Bolli, P. McDonald
851-0735-09L	Workshop & Lecture Series on the Law	W	2 credits	2S				
851-0735-09 S	& Economics of Innovation Workshop & Lecture Series on the Law & E Innovation **together with University of Zurich**	conomi	cs of	28s hrs	Tue Wed 22.09.	16-18 16-18 16-18	UNI ZH. IFW A32.1 ML E12	S. Bechtold, H. Gersbach
	Unregelmässige Veranstaltung. Findet alter und an der ETH statt.	nierend	e an der UZH					
►► Human	and Entrepreneurial Behaviour							
Number	Title	Туре	ECTS	Hours				Lecturers
363-1044-00L	Applied Negotiation Seminar Number of participants limited to 30.  Prerequisites: Successful completion of lectures "363-1039-00L Introduction to Negotiation".	W	3 credits	2S				

363-1044-00 S	Applied Negotiation Seminar ■ Permission from lecturers required for all stu- Block course	udents		22s hrs	01.10.	09-17	HG E33.1 HG E33.3 HG E33.5	A. Knobel
					02.10.	09-17	HG E33.1 HG E33.3 HG E33.5	
					15.10.	09-17	HG E33.1 HG E33.3 HG E33.5	
					16.10.	09-17	HG E33.1 HG E33.3 HG E33.5	
363-1082-00L	Enabling Entrepreneurship: From Science to Startup Students should provide a brief overview (unto 1 page) of their business ideas that they would like to commercialise through the course. If they do not have an idea, they are required to provide a motivation letter stating why they would like to do this elective. If you are unsure about the readiness of your idea or technology to be converted into a startup, please drop me a line to schedule a call or meeting to discuss.	W	3 credits	2V				
	The total number of students will be limited to 40. It is preferable that the students already form teams of at least two persons, where both the team-members would like to do the course. The names of the team-members should be provided together with the business idea or the motivation letter submitted by the students.	,						
363-1082-00 V	The students should submit the necessary information until September 13 and apply to anilsethi @ethz.ch Enabling Entrepreneurship: From Science to		n	2 hrs	Mon	16-18	HG E33.1	A. Sethi
					IVIOIT	10-10	110 233.1	A. Jettii
<b>376-1177-00L</b> 376-1177-00 V	Human Factors I Human Factors I	W	3 credits	<b>2V</b> 2 hrs	Tue	14-16	HG G3	M. Menozzi Jäckli, R. Huang M. Siegrist
	Power and Leadership Power and Leadership Does not take place this semester. From FS22 in the spring semester.	W	3 credits	<b>2S</b> 2 hrs				P. Schmid
363-0311-00L	Psychological Aspects of Risk Management and Technology Number of participants limited to 65.	W	3 credits	2V				
363-0311-00 V	Psychological Aspects of Risk Management	and Te	echnology	2 hrs	Wed	16-18	LFW B1	<ul><li>G. Grote, N. Bienefeld-Seall,</li><li>J. Schmutz, R. Schneider,</li><li>M. Zumbühl</li></ul>
363-1050-00L	Simulation of Negotiations Limited number of participants.	W	3 credits	3V				
	Students who wish to register for this course have to apply no later than 18 September. Please send your application to Andreas Knobel: aknobel@ethz.ch, additionally register in mystudies (technical note for the registration: All registered students will initially be placed on a waiting list).							
363-1050-00 V	Simulation of Negotiations ■  Permission from lecturers required for all stulinegular lecture  Additional dates: 2./3.12.2021, University of		a	36s hrs	Tue 05.10. 02.12. 03.12.		HG D22 HG D22 Ex tern Ex tern	M. Ambühl, A. Knobel
<b>363-1050-01L</b> 363-1050-01 U	Simulation of Negotiations (Exercises) Simulation of Negotiations (Exercises) ■ Permission from lecturers required for all stu	<b>W</b> udents	1 credit	1U 8s hrs	12.10. 09.11.	13-17 08-12	LFW B2 LFW B2	M. Ambühl, A. Knobel
<b>363-0790-00L</b> 363-0790-00 V	Technology Entrepreneurship	<b>W</b> ming or)		2V 2 hrs	Tue	18-20	HG E5	F. Hacklin
	students to follow the course from there.							

Title	Туре	ECTS	Hours				Lecturers
Empirical Innovation Economics	W	3 credits	1G				
•			14s hrs	09.09.			M. Wörter
Block course				10.09.			
					14-16	RZ F21	
				09.12.	10-13	LFW B2	
The Economics of Climate Change	w	3 credits	2G		14 17	LI W DZ	
The Economics of Climate Change			2 hrs	Tue	10-12	ML F38	A. Goussebaïle
and Investment							
	Type	ECTS	Hours				Lecturers
Asset Liability Management and	W	3 credits	2V				
Treasury Risks Number of participants limited to 40.							
Asset Liability Management and Treasury R	lisks		28s hrs	24.09.	09-17	HG F26.1	P. Mangold, M. Eichhorn
Block course				22 10	00-17		
				22.10.	09-17		
				12.11.	09-17	HG E33.3	
				40.45	00.4=	HG E33.5	
				10.12.	09-17	HG E33.3 HG E33.5	
Corporate Finance	W	3 credits	2G				
Corporate Finance			28s hrs	Sat/2	09-13	HG F3	A. Kind
Irregular course (s. room reservations)				20.11.	09-13	ON LINE	
The lecture will be recorded.				27.11.	09-13	ON LINE	
nal Courses							
Title	Туре	ECTS	Hours				Lecturers
Semester Project Small	w	3 credits	6A				
Semester Project Small ■			90s hrs	by appt	i.		Professors
Semester Project Large	w	6 credits	13A				
Semester Project Large ■			180s hrs	by appt			Professors
comodici i roject zarge z							
Strategic Career Development Strategic Career Development	Z	0 credits	<b>1V</b> 18s hrs	Wed	18-20	HG E33.3	P. Cettier
Strategic Career Development Strategic Career Development Irregular lecture	Z	0 credits		Wed	18-20	HG E33.3	P. Cettier
Strategic Career Development Strategic Career Development	e area(s,	) of engineeri	18s hrs				
Strategic Career Development Strategic Career Development Irregular lecture entary Courses Idents have to deepen their knowledge in the	e area(s,	) of engineeri	18s hrs				
Strategic Career Development Strategic Career Development Irregular lecture entary Courses Idents have to deepen their knowledge in the s and electives of D-MTEC can not be used a	e area(s,	) of engineeri	18s hrs				
Strategic Career Development Strategic Career Development Irregular lecture  entary Courses Indents have to deepen their knowledge in the is and electives of D-MTEC can not be used a course Catalogue of ETH Zurich	e area(s,	) of engineeri	18s hrs				
Strategic Career Development Strategic Career Development Irregular lecture  entary Courses Idents have to deepen their knowledge in the sand electives of D-MTEC can not be used a Course Catalogue of ETH Zurich  I Internship	e area(s, as suppi	) of engineeri ementary cou	18s hrs ng/natural s urses.				esponsible professor (tutor). C
Strategic Career Development Strategic Career Development Irregular lecture  entary Courses Idents have to deepen their knowledge in the sand electives of D-MTEC can not be used a Course Catalogue of ETH Zurich I Internship Title	area(s, as suppl	of engineeridementary cod	18s hrs ng/natural s urses.				esponsible professor (tutor). C
Strategic Career Development Strategic Career Development Irregular lecture  entary Courses Indents have to deepen their knowledge in the sand electives of D-MTEC can not be used a Course Catalogue of ETH Zurich Internship Title Practical Training	area(s, as suppl	of engineeridementary cod	18s hrs ng/natural s urses.				esponsible professor (tutor). Co
Strategic Career Development Strategic Career Development Irregular lecture  entary Courses Indents have to deepen their knowledge in the sand electives of D-MTEC can not be used a Course Catalogue of ETH Zurich  I Internship Title Practical Training Practical Training (10 weeks)  According to MTEC guidelines  Thesis	Type	ementary cou	18s hrs ng/natural s urses.				esponsible professor (tutor). Co
Strategic Career Development Strategic Career Development Irregular lecture  entary Courses Idents have to deepen their knowledge in the sand electives of D-MTEC can not be used a Course Catalogue of ETH Zurich  Internship  Title  Practical Training Practical Training (10 weeks)  According to MTEC guidelines  Thesis  Title	Type O	ECTS  6 credits	18s hrs  ng/natural s  urses.  Hours				esponsible professor (tutor). Co
Strategic Career Development Strategic Career Development Irregular lecture  entary Courses Idents have to deepen their knowledge in the sand electives of D-MTEC can not be used at Course Catalogue of ETH Zurich  I Internship  Title  Practical Training Practical Training (10 weeks)  According to MTEC guidelines  Thesis  Title  Master's Thesis	Type	ementary cou	18s hrs  ng/natural s  urses.  Hours				esponsible professor (tutor). Continue professor (tutor).
Strategic Career Development Strategic Career Development Irregular lecture  entary Courses Indents have to deepen their knowledge in the sand electives of D-MTEC can not be used at Course Catalogue of ETH Zurich  I Internship  Title  Practical Training Practical Training (10 weeks)  According to MTEC guidelines  Thesis  Title  Master's Thesis Only students who fulfill the following	Type O	ECTS  6 credits	18s hrs  ng/natural s  urses.  Hours				esponsible professor (tutor). C  Lecturers  external organisers
Strategic Career Development Strategic Career Development Irregular lecture  entary Courses Idents have to deepen their knowledge in the sand electives of D-MTEC can not be used at Course Catalogue of ETH Zurich  I Internship  Title  Practical Training Practical Training (10 weeks)  According to MTEC guidelines  Thesis  Title  Master's Thesis	Type O	ECTS  6 credits	18s hrs  ng/natural s  urses.  Hours				esponsible professor (tutor). C  Lecturers  external organisers
Strategic Career Development Strategic Career Development Irregular lecture  entary Courses Idents have to deepen their knowledge in the sand electives of D-MTEC can not be used a Course Catalogue of ETH Zurich  I Internship  Title  Practical Training Practical Training (10 weeks)  According to MTEC guidelines  Thesis  Title  Master's Thesis Only students who fulfill the following criteria are allowed to begin with their master thesis: a. successful completion of the bachelor	Type O	ECTS  6 credits	18s hrs  ng/natural s  urses.  Hours				esponsible professor (tutor). C  Lecturers  external organisers
Strategic Career Development Strategic Career Development Irregular lecture  entary Courses Idents have to deepen their knowledge in the sand electives of D-MTEC can not be used at Course Catalogue of ETH Zurich  Internship  Title  Practical Training Practical Training (10 weeks)  According to MTEC guidelines  Title  Master's Thesis Only students who fulfill the following criteria are allowed to begin with their master thesis: a. successful completion of the bachelor programme;	Type O	ECTS  6 credits	18s hrs  ng/natural s  urses.  Hours				esponsible professor (tutor). C  Lecturers  external organisers
Strategic Career Development Strategic Career Development Irregular lecture  entary Courses Idents have to deepen their knowledge in the sand electives of D-MTEC can not be used at Course Catalogue of ETH Zurich  I Internship  Title  Practical Training Practical Training (10 weeks)  According to MTEC guidelines  Thesis  Title  Master's Thesis Only students who fulfill the following criteria are allowed to begin with their master thesis: a. successful completion of the bachelor programme; b. fulfilling of any additional requirements	Type O	ECTS  6 credits	18s hrs  ng/natural s  urses.  Hours				esponsible professor (tutor). C  Lecturers  external organisers
Strategic Career Development Strategic Career Development Irregular lecture  entary Courses Idents have to deepen their knowledge in the sand electives of D-MTEC can not be used a Course Catalogue of ETH Zurich  I Internship  Title  Practical Training Practical Training (10 weeks)  According to MTEC guidelines  Thesis  Title  Master's Thesis Only students who fulfill the following criteria are allowed to begin with their master thesis: a. successful completion of the bachelor programme; b. fulfilling of any additional requirements necessary to gain admission to the master programme;	Type O	ECTS  6 credits	18s hrs  ng/natural s  urses.  Hours				esponsible professor (tutor). C  Lecturers  external organisers
Strategic Career Development Strategic Career Development Irregular lecture  entary Courses Idents have to deepen their knowledge in the sand electives of D-MTEC can not be used a Course Catalogue of ETH Zurich  I Internship  Title  Practical Training Practical Training (10 weeks)  According to MTEC guidelines  Thesis  Title  Master's Thesis Only students who fulfill the following criteria are allowed to begin with their master thesis: a. successful completion of the bachelor programme; b. fulfilling of any additional requirements necessary to gain admission to the master programme; c. internship fulfilled;	Type O	ECTS  6 credits	18s hrs  ng/natural s  urses.  Hours				esponsible professor (tutor). C  Lecturers  external organisers
Strategic Career Development Strategic Career Development Irregular lecture  entary Courses Idents have to deepen their knowledge in the sand electives of D-MTEC can not be used a Course Catalogue of ETH Zurich  I Internship  Title  Practical Training Practical Training (10 weeks)  According to MTEC guidelines  Thesis  Title  Master's Thesis Only students who fulfill the following criteria are allowed to begin with their master thesis: a. successful completion of the bachelor programme; b. fulfilling of any additional requirements necessary to gain admission to the master programme; c. internship fulfilled; d. academic writing course has been	Type O	ECTS  6 credits	18s hrs  ng/natural s  urses.  Hours				esponsible professor (tutor). C  Lecturers  external organisers
Strategic Career Development Strategic Career Development Irregular lecture  entary Courses Idents have to deepen their knowledge in the sand electives of D-MTEC can not be used a Course Catalogue of ETH Zurich  I Internship  Title  Practical Training Practical Training (10 weeks)  According to MTEC guidelines  Thesis  Title  Master's Thesis Only students who fulfill the following criteria are allowed to begin with their master thesis: a. successful completion of the bachelor programme; b. fulfilling of any additional requirements necessary to gain admission to the master programme; c. internship fulfilled; d. academic writing course has been completed.	Type O	ECTS  6 credits	18s hrs  ng/natural s  urses.  Hours  57D	ciences i	n consult		Lecturers  external organisers  Lecturers
Strategic Career Development Strategic Career Development Irregular lecture  entary Courses Idents have to deepen their knowledge in the sand electives of D-MTEC can not be used a Course Catalogue of ETH Zurich  I Internship  Title  Practical Training Practical Training (10 weeks)  According to MTEC guidelines  Thesis  Title  Master's Thesis Only students who fulfill the following criteria are allowed to begin with their master thesis: a. successful completion of the bachelor programme; b. fulfilling of any additional requirements necessary to gain admission to the master programme; c. internship fulfilled; d. academic writing course has been completed. Master's Thesis	Type O	ECTS 6 credits  ECTS 30 credits	18s hrs  ng/natural s urses.  Hours  57D	ciences i	n consult		esponsible professor (tutor). C  Lecturers  external organisers
Strategic Career Development Strategic Career Development Irregular lecture  entary Courses Idents have to deepen their knowledge in the sand electives of D-MTEC can not be used a Course Catalogue of ETH Zurich  I Internship  Title  Practical Training Practical Training (10 weeks)  According to MTEC guidelines  Title  Master's Thesis Only students who fulfill the following criteria are allowed to begin with their master thesis: a. successful completion of the bachelor programme; b. fulfilling of any additional requirements necessary to gain admission to the master programme; c. internship fulfilled; d. academic writing course has been completed. Master's Thesis  Academic Writing Course	Type O	ECTS  6 credits	18s hrs  ng/natural s  urses.  Hours  57D	ciences i	n consult		Lecturers  external organisers  Lecturers
Strategic Career Development Strategic Career Development Irregular lecture  entary Courses Idents have to deepen their knowledge in the sand electives of D-MTEC can not be used a Course Catalogue of ETH Zurich  I Internship  Title  Practical Training Practical Training (10 weeks)  According to MTEC guidelines  Thesis  Title  Master's Thesis Only students who fulfill the following criteria are allowed to begin with their master thesis: a. successful completion of the bachelor programme; b. fulfilling of any additional requirements necessary to gain admission to the master programme; c. internship fulfilled; d. academic writing course has been completed. Master's Thesis	Type O	ECTS 6 credits  ECTS 30 credits	18s hrs  ng/natural s urses.  Hours  57D	ciences i	n consult		Lecturers  external organisers  Lecturers
Strategic Career Development Strategic Career Development Irregular lecture  entary Courses Idents have to deepen their knowledge in the sand electives of D-MTEC can not be used a Course Catalogue of ETH Zurich  I Internship  Title  Practical Training Practical Training (10 weeks)  According to MTEC guidelines  Thesis  Title  Master's Thesis Only students who fulfill the following criteria are allowed to begin with their master thesis: a. successful completion of the bachelor programme; b. fulfilling of any additional requirements necessary to gain admission to the master programme; c. internship fulfilled; d. academic writing course has been completed. Master's Thesis  Academic Writing Course Compulsory for all MTEC MSc students.	Type O  O	ECTS 6 credits  ECTS 30 credits	18s hrs  ng/natural s urses.  Hours  57D	ciences i	n consult		Lecturers  external organisers  Lecturers
	Empirical Innovation Economics Block course  The Economics of Climate Change The Economics of Climate Change and Investment  Title  Asset Liability Management and Treasury Risks Number of participants limited to 40. Asset Liability Management and Treasury Risks Block course  Corporate Finance Corporate Finance Irregular course (s. room reservations)  The lecture will be recorded.  The lecture will be recorded.  Title  Semester Project Small Semester Project Small  Semester Project Large	Empirical Innovation Economics  Block course  The Economics of Climate Change The Economics of Climate Change and Investment  Title Type  Asset Liability Management and Treasury Risks Number of participants limited to 40. Asset Liability Management and Treasury Risks Block course  Corporate Finance Corporate Finance Irregular course (s. room reservations)  The lecture will be recorded.  Title Type  Semester Project Small Semester Project Large  W	Empirical Innovation Economics  Block course  The Economics of Climate Change The Economics of Climate Change  and Investment  Title Type ECTS  Asset Liability Management and Treasury Risks Number of participants limited to 40. Asset Liability Management and Treasury Risks Block course  Corporate Finance Corporate Finance Irregular course (s. room reservations)  The lecture will be recorded.  Type ECTS  Semester Project Small Semester Project Small Semester Project Large  W 6 credits	Empirical Innovation Economics  Block course  The Economics of Climate Change Type Type ECTS Type ECTS Hours Treasury Risks Number of participants limited to 40.  Asset Liability Management and Treasury Risks Block course  Corporate Finance Corporate Finance Irregular course (s. room reservations) The lecture will be recorded.  The Incompanies Title Type Type Type Type Type Type Type Typ	Empirical Innovation Economics  Block course  14s hrs 10.09. 10.0	Empirical Innovation Economics  Block course  14s hrs   09.09.   10-13   14-17   10.09.   10-13   14-16   10-12   10-13   14-17   10.09.   10-13   14-16   10-12   10-13   14-17   10.09.   10-13   14-17   10.09.   10-13   14-17   10.09.   10-13   14-17   10-13   14-17   10-13   14-17   10-13   14-17   10-13   14-17   10-13   14-17   10-13   14-17   10-12   10-13   10-12   10-13   10-12   10-13   10-12   10-13	Empirical Innovation Economics  Block course  14s hrs   09.09   10-13   RZ F21   14-16   RZ F21   10.09   10-13   RZ F21   14-16   RZ F21   14-17   LFW B2   RZ F21   14-17   LFW B2   RZ F21

R. Mihalka ON LINE 08-12 20s hrs Fri

363-1063-00 G Academic Writing Course

\*\*Course is offered in collaboration with Language Center of UZH
and ETH Zurich\*\*

The initial lecture, including the placement test, is mandatory. It takes place on 24 September 2021.

Irregular lecture. The time of the lessons is 8.30-11.45.

Manage	Management, Technology and Economics Master - Key for Type									
0	Compulsory	E-	Recommended, not eligible for credits							
W+	Eligible for credits and recommended	Z	Courses outside the curriculum							
W	Eligible for credits	Dr	Suitable for doctorate							

V lecture P practical/laboratory course G lecture with exercise A independent project U exercise D diploma thesis S seminar R revision course / private study K colloquium	Key for	r Hours			
U exercise D diploma thesis S seminar R revision course / private study	V	lecture	P	practical/laboratory course	
S seminar R revision course / private study	G	lecture with exercise	A	independent project	
, ,	U	exercise	D	diploma thesis	
K colloquium	S	seminar	R	revision course / private study	
	K	colloquium			

**ECTS** European Credit Transfer and Accumulation System

# **MAS in Applied Technology**

# ► Major in Applied Information Technology

Number	Title	Type	ECTS	Hours				Lecturers
265-0100-00L	Foundations of Programming Only for CAS in Applied Information Technology and MAS in Applied Technology.	0	3 credits	2A				
265-0100-00 A	Foundations of Programming			32s hrs				L. E. Fässler
265-0101-00L	Data Science Only for CAS in Applied Information Technology and MAS in Applied Technology.	0	3 credits	3V				
265-0101-00 V	Data Science Block course			36s hrs	01.10. 02.10. 15.10. 16.10.	08-18 08-12 08-18 08-12	HG D7.2 HG D7.2 HG D7.2 HG D7.2	B. Gärtner
265-0102-00L	Humans & Machines Only for CAS in Applied Information Technology and MAS in Applied Technology.	0	3 credits	2V				
265-0102-00 V	Humans & Machines Block course			30s hrs	29.10. 30.10. 12.11.	08-18 08-12 08-18	HG E33.3 HG E1.1 HG D7.2	E. Konukoglu
265-0103-00L	Applied Information Technology Only for CAS in Applied Information Technology and MAS in Applied Technology.	0	3 credits	3V				
265-0103-00 V	Applied Information Technology Block course			42s hrs	17.09. 18.09. 26.11. 27.11.	08-18 08-12 08-18 08-12	HG D1.1 HG D1.1 LEE E101 LEE E101	M. Brandis

## ► Major in Applied Manufacturing Technology

Offered only in the Spring Semester.

#### ► Major in Applied Technology in Energy

Offered only in the Spring Semester.

Number	Title	Type	ECTS	Hours				Lecturers
247-0200-00L	Organization of R&D in Tech Companies Only for CAS in Applied Technology: R&D and Innovation and MAS in Applied Technology.	0	4 credits	2G				
247-0200-00 G	Organization of R&D in Tech Companies Block course on Fridays 9:00 - 18:00, Satur	days 9:0	00 - 13:00	24s hrs	17.09. 18.09. 15.10. 16.10. 26.11. 27.11.		HG E22 HG E22 HG E23 HG E23 HG E33.1 ETZ E81	U. Grossner
247-0201-00L	Innovation Opportunity Analysis Only for CAS in Applied Technology: R&D and Innovation and MAS in Applied Technology.	0	4 credits	3 <b>G</b>				
247-0201-00 G	Innovation Opportunity Analysis  Block course on Fridays 9:00 - 18:00, Satur	rdays 9:0	00 - 13:00	36s hrs	01.10. 02.10. 29.10. 30.10. 12.11. 13.11. 10.12.	09-13	HG E23 HG E23 HG E33.1 HG E33.1 HG F26.3 HG F26.3 HG D1.1	J. Jaminet
247-0202-00L	Innovation and Technology Tools Only for CAS in Applied Technology: R&D and Innovation and MAS in Applied Technology.	0	2 credits	4G				
247-0202-00 G	Innovation and Technology Tools Online Module			50s hrs				U. Grossner, J. Jaminet
247-0203-00L	Experiment Selection & Design Only for CAS in Applied Technology: R&D and Innovation and MAS in Applied Technology.	0	0 credits					
247-0203-00 U	Experiment Selection & Design By appointment			4s hrs				U. Grossner
► Experime	ental Project							
Number	Title	Туре	ECTS	Hours				Lecturers
247-0550-00L	Project Only for MAS in Applied Technology.	0	10 credits	18A				
247-0550-00 A	Project			250s hrs				U. Grossner

► Master's	1116313				
Number	Title	Type	ECTS	Hours	Lecturers
247-0500-00L	Master's Thesis Only for MAS in Applied Technology.	0	10 credits	21D	
247-0500-00 D	Master's Thesis			300s hrs	Professors
MAS in Appli	ed Technology - Key for Type				
0	Compulsory			E-	Recommended, not eligible for credits
W+	Eligible for credits and recommended			Z	Courses outside the curriculum
W	Eligible for credits			Dr	Suitable for doctorate
Key for Hours	3				
V	lecture			Р	practical/laboratory course
G	lecture with exercise			Α	independent project
U	exercise			D	diploma thesis
S	seminar			R	revision course / private study
K	colloquium				

ECTS

European Credit Transfer and Accumulation System
Special students and auditors need special permission from the lecturers.

# MAS in Architecture and Digital Fabrication

The MAS Digital Fabrication is a 1 year full-time programme and is structured as a series of teaching modules with an independent master thesis. Lessons within the modules are given in the form of lectures, practical workshops, and projects as the main modus for developing skills. Learning will be supported through one on one mentoring in studio, group critiques, symposia, and excursions.

#### ► Module

Number	Title	Type	ECTS	Hours				Lecturers
069-0001-00L	Digital Foundations Only for MAS in Architecture and Digital Fabrication.	0	20 credits	2G				
069-0001-00 G	Digital Foundations No course on 28.10. (seminar week)			24s hrs	Thu	08-10	HIB D11	<b>B. Dillenburger</b> , P. Aejmelaeus-Lindström
MAS in Archit	tecture and Digital Fabrication - Key fo	r Type						
0	Compulsory			E-	R	ecommen	ded, not eligible	e for credits
W+	Eligible for credits and recommended			Z	C	ourses out	side the curric	ulum
W	Eligible for credits			Dr	S	uitable for	doctorate	
Key for Hours	3							
V	lecture			Р	р	ractical/lab	oratory course	
G	lecture with exercise			Α	ir	dependen	t project	
U	exercise			D	d	iploma the	sis	
S	seminar			R	re	evision cou	rse / private st	udy
K	colloquium							

ECTS European Credit Transfer and Accumulation System

# MAS in Architecture, Real Estate, Construction

#### **▶** Core Courses

Number	Title	Type	ECTS	Hours		Lecturers
072-0001-00L	Construction Industry and Real Estate Market Only for MAS in Architecture, Real Estate, Construction.	0	3 credits	7G		
072-0001-00 G	Bauwirtschaft und Immobilienmarkt Does not take place this semester. Lehrbereich: Inhalte 1			100s hrs		
072-0003-00L	Methodology Only for MAS in Architecture, Real Estate, Construction.	0	1 credit	2G		
072-0003-00 G	Methodenkompetenz Lehrbereich: Inhalte 3			30s hrs Fri 16-	17 HIB E33	A. Paulus

## ► Major in Digitalisation

#### **▶▶** Core Courses

Number	Title	Type	<b>ECTS</b>	Hours		Lecturers
072-0101-00L	Module 1: Foundations of Digitalisation Only for CAS ARC in Digital and MAS in Architecture, Real Estate, Construction.	W	1 credit	2G		
072-0101-00 G	Modul 1: Grundlagen der Digitalisierung Kursraum HIB E33.			25s hrs	by appt.	A. Paulus
072-0102-00L	Module 2: Behaviour for Collaboration Foundation Only for CAS ARC in Digital and MAS in Architecture, Real Estate, Construction.	W	1 credit	2G		
072-0102-00 G	Modul 2: Zusammenarbeit Kursraum: HIB E33.			25s hrs	by appt.	A. Paulus
072-0103-00L	Module 3: Foundation of Automation Only for CAS ARC in Digital and MAS in Architecture, Real Estate, Construction.	W	1 credit	2G		
072-0103-00 G	Modul 3: Automation, IoT & Al Kursraum HIB E33.			25s hrs	by appt.	A. Paulus
072-0104-00L	Module 4: Foundation of Value Creation Only for CAS ARC in Digital and MAS in Architecture, Real Estate, Construction.	W	1 credit	2G		
072-0104-00 G	Modul 4: Wertschöpfung Kursraum: HIB E33.			25s hrs	by appt.	A. Paulus
072-0105-00L	Module 5: New Business Modelle Only for CAS ARC in Digital and MAS in Architecture, Real Estate, Construction.	W	1 credit	2G		
072-0105-00 G	Modul 5: Geschäftsmodelle Kursraum: HIB E33.			25s hrs	by appt.	A. Paulus

#### **▶▶** Term Paper

The Term Paper is offered in spring semesters only.

#### ► Major inProject

#### **▶▶** Core Courses

Number	Title	Type	ECTS	Hours		Lecturers
072-0201-00L	Module 1: Understanding of Roles Only for CAS ARC in Project and MAS in Architecture, Real Estate, Construction.	W	1 credit	2G		
072-0201-00 G	Modul 1: Rollenverständnis Kursraum: HIB E 33.			25s hrs	by appt.	A. Paulus
072-0202-00L	Module 2: Collaboration Only for CAS ARC in Project and MAS in Architecture, Real Estate, Construction.	W	1 credit	2G		
072-0202-00 G	Modul 2: Zusammenarbeit Kursraum: HIB E 33.			25s hrs	by appt.	A. Paulus
072-0203-00L	Module 3: Services and tasks Only for CAS ARC in Project and MAS in Architecture, Real Estate, Construction.	W	1 credit	2G		
072-0203-00 G	Modul 3: Leistungen Kursraum: HIB E 33.			25s hrs	by appt.	A. Paulus
072-0204-00L	Module 4: Guiding/Steering/Leading Only for CAS ARC in Project and MAS in Architecture, Real Estate, Construction.	W	1 credit	2G		
072-0204-00 G	Modul 4: Leiten/Lenken/Führen Kursraum: HIB E 33.			25s hrs	by appt.	A. Paulus
072-0205-00L	Module 5: Project Only for CAS ARC in Project and MAS in Architecture, Real Estate, Construction.	W	1 credit	2G		

#### **▶▶** Term Paper

The Term Paper is offered in spring semesters only.

#### ▶ Major in Real Estate Strategies urban-peri-urban

#### **▶▶** Core Courses

Number	Title	Type	ECTS	Hours	Lecturers
072-0301-00L	Module 1: Perception of Demand Only for CAS ARC in Real Estate Strategies urban-peri-urban and MAS in Architecture, Real Estate, Construction.	W	1 credit	2G	
072-0301-00 G	Modul 1: Aufgabenverständnis Does not take place this semester. Kursraum: HIB E33			25s hrs	
072-0302-00L	Module 2: State of the Art Only for CAS ARC in Real Estate Strategies urban-peri-urban and MAS in Architecture, Real Estate, Construction.	W	1 credit	2G	
072-0302-00 G	Modul 2: Stand der Dinge Does not take place this semester. Kursraum: HIB E33			25s hrs	
072-0303-00L	Module 3: Economic Interest Only for CAS ARC in Real Estate Strategies urban-peri-urban and MAS in Architecture, Real Estate, Construction.	W	1 credit	2G	
072-0303-00 G	Modul 3: Ökonomie Does not take place this semester. Kursraum: HIB E33.			25s hrs	
072-0304-00L	Module 4: Course of Action Only for CAS ARC in Real Estate Strategies urban-peri-urban and MAS in Architecture, Real Estate, Construction.	W	1 credit	2G	
072-0304-00 G	Modul 4: Handlungsoptionen Does not take place this semester. Kursraum: HIB E33			25s hrs	
072-0305-00L	Module 5: Life Cycle and Resources Only for CAS ARC in Real Estate Strategies urban-peri-urban and MAS in Architecture, Real Estate, Construction.	W	1 credit	2G	
072-0305-00 G	Modul 5: Lebenszyklus und Ressourcen Does not take place this semester. Kursraum: HIB E33.			25s hrs	

#### **▶▶** Term Paper

The Term Paper is offered in spring semesters only.

#### ► Major in Company Management

#### **▶▶** Core Courses

Number	Title	Type	<b>ECTS</b>	Hours		Lecturers
072-0401-00L	Module 1: Market Only for CAS ARC in Unternehmensführung and MAS in Architecture, Real Estate, Construction.	W	1 credit	2G		
072-0401-00 G	Modul 1: Markt Kursraum: HIB E 33.			25s hrs	by appt.	A. Paulus
072-0402-00L	Module 2: Acquisition Only for CAS ARC in Unternehmensführung and MAS in Architecture, Real Estate, Construction.	W	1 credit	2G		
072-0402-00 G	Modul 2: Akquisition Kursraum: HIB E 33.			25s hrs	by appt.	A. Paulus
072-0403-00L	Module 3: Marketing Only for CAS ARC in Unternehmensführung and MAS in Architecture, Real Estate, Construction.	W	1 credit	2G		
072-0403-00 G	Modul 3: Marketing Kursraum: HIB E 33.			25s hrs	by appt.	A. Paulus
072-0404-00L	Module 4: Financial Management Only for CAS ARC in Unternehmensführung and MAS in Architecture, Real Estate, Construction.	W	1 credit	2G		
072-0404-00 G	Modul 4: Finanzielle Führung Kursraum: HIB E 33.			25s hrs	by appt.	A. Paulus
072-0405-00L	Module 5: Digitalisation Only for CAS ARC in Unternehmensführung and MAS in	W	1 credit	2G		

072-0405-00 G Modul 5: Digitalisierung Kursraum: HIB E 33.

Modul 5: Digitalisierung 25s hrs by appt. A. Paulus

#### **▶▶** Term Paper

The Term Paper is offered in spring semesters only.

MAS in Architecture, Real Estate, Construction - Key for Type								
0	Compulsory	E-	Recommended, not eligible for credits					
W+	Eligible for credits and recommended	Z	Courses outside the curriculum					
W	Eligible for credits	Dr	Suitable for doctorate					

Key for	Hours			
V	lecture	P	practical/laboratory course	
G	lecture with exercise	A	independent project	
U	exercise	D	diploma thesis	
S	seminar	R	revision course / private study	
K	colloquium			

ECTS European Credit Transfer and Accumulation System

# **MAS** in Development and Cooperation

The lectures and advanced training courses of NADEL are accessible only for students of the MAS in Development and Cooperation and for qualified employees with at least two years experience in development cooperation and a Master's level or equivalent level of education as recognized by ETH. PhD students doing empirical research in development cooperation may be admitted "sur Dossier".

#### ► Advanced Training Courses

Number	Title	Туре	ECTS	Hours	Lecturers
365-0065-00L	VET between Poverty Alleviation and Economic Development Only for MAS/CAS in Development and Cooperation students, as well as specialists with at least 24 months of practical experience in international cooperation.	W	2 credits	3G	
	ETH doctoral students working on topics related to poverty reduction in low- and middle income countries may also be admitted.				
865-0065-00 G	Registration only through the NADEL administration office. VET between Poverty Alleviation and Econo	omic Dev	velonment	40s hrs	<b>K. Harttgen</b> , F. Kehl,
	Block course from 13.09. – 17.09.2021 Location: CLD A1		Velopment	403 III 3	M. Maurer
365-0000-06L	Impact Evaluations in Practice Only for MAS/CAS in Development and Cooperation students, as well as specialists with at least 24 months of practical experience in international cooperation.	W	2 credits	3G	
	ETH doctoral students working on topics related to poverty reduction in low- and middle income countries may also be admitted.				
	Registration only through the NADEL administration office.				
65-0000-06 G	Impact Evaluations in Practice Block course from 04.10. – 08.10.2021 Location: CLD A1			40s hrs	<b>I. Günther</b> , A. Rom, K. Schneider
365-0042-00L	Financial Management of Projects Only for MAS/CAS in Development and Cooperation students, as well as specialists with at least 24 months of practical experience in international cooperation.	W	2 credits	2G	
	ETH doctoral students working on topics related to poverty reduction in low- and middle income countries may also be admitted.				
	Registration only through the NADEL administration office.				
365-0042-00 G	Finanzmanagement von Projekten Block course from 26.10. – 29.10.2021 Location: CLD A1			32s hrs	I. Günther, M. Störmer
365-0064-00L	Decolonizing Aid Only for MAS/CAS in Development and Cooperation students, as well as specialists with at least 24 months of practical experience in international cooperation. Doctoral students dealing with empirical research in the area of development and cooperation (EZA) may be admitted "sur Dossier".	W	2 credits	3G	
	Registration only through the NADEL administration office.				
365-0064-00 G	Decolonizing Aid Block course from 01.11 05.11.2021 Location: CLD A1			40s hrs	K. Schneider, L. Hensgen
365-0070-00L	The Private Sector and Development Organizations: Building Successful Alliances Only for MAS/CAS in Development and Cooperation students, as well as specialists with at least 24 months of practical experience in international cooperation. Doctoral students dealing with empirical research in the area of development and cooperation (EZA) may be admitted "sur Dossier".	W	1 credit	2G	
	2000101 .				

adm			

F. Brugger 865-0070-00 G The Private Sector and Development Organizations: Building 24s hrs Successful Alliances Block course from 15.11. – 17.11.2021

Location: CLD A1

865-0021-00L Fraud and Corruption: Prevent, Detect, W 1 credit 2G Investigate, Sanction
Only for MAS/CAS in Development and

Cooperation students, as well as specialists with at least 24 months of practical experience in international cooperation.

ETH doctoral students working on topics related to poverty reduction in low- and middle income countries may also be admitted.

Registration only through the NADEL administration office.

865-0021-00 G Fraud and Corruption: Prevent, Detect, Investigate, Sanction Block course from 06.12. – 08.12.2021

24s hrs

L. Hensgen, M. Schmid-Huberty

Location: CLD A1

865-0006-00L Leveraging Private Impact Investors in W 1 credit 1G

Development Cooperation
Only for MAS/CAS in Development and Cooperation students, as well as specialists with at least 24 months of practical experience in international cooperation. Doctoral students dealing with empirical research in the area of development and cooperation (EZA) may be admitted "sur

Dossier".

Registration only through the NADEL

administration office.

865-0006-00 G Leveraging Private Impact Investors in Development Cooperation 16s hrs

Block course Location: CLD A1 C. Humphrey

#### ► Study Semester

#### **▶▶** Compulsory Courses

Number	Title	Type	ECTS	Hours	Lecturers
865-0001-00L	Cultural and Social Aspects of Development Only for MAS in Development and Cooperation.	0	3 credits	3G	
865-0001-00 G	Kulturelle und soziale Aspekte der Entwick Does not take place this semester. Termine n.V. Ort: CLD	klung		40s hrs	
865-0003-00L	Development Economics Only for MAS in Development and Cooperation.	0	3 credits	3G	
865-0003-00 G	Entwicklungsökonomie Does not take place this semester. Termine n.V. Ort: CLD			40s hrs	I. Günther
865-0007-00L	History and Forms of International Development Cooperation Only for MAS in Development and Cooperation.	0	3 credits	3G	
865-0007-00 G	Geschichte und Formen der IZA Does not take place this semester. Termine n.V. Ort: CLD			40s hrs	
865-0010-00L	Politics and Governance Only for MAS in Development and Cooperation.	0	2 credits	2G	
865-0010-00 G	Politik und Gouvernanz Does not take place this semester. Termine n.V. Ort: CLD			24s hrs	
865-0010-01L	Environment and Natural Resources Only for MAS in Development and Cooperation.	0	3 credits	3G	
865-0010-01 G	Environment and Natural Resources Does not take place this semester. Termine n.V. Ort: CLD			40s hrs	

#### **▶▶** Electives

Number	Title	Type	ECTS	Hours	Lecturers
365-0010-02L	Food Security and Agriculture Only for MAS in Development and Cooperation.	W	2 credits	2G	
865-0010-02 G	Food Security and Agriculture Does not take place this semester. Termine n.V. Ort: CLD			24s hrs	
365-0011-01L		w	2 credits	2G	
000 0011 012	Development Only for MAS in Development and Cooperation.	.,	2 ordans	20	
865-0011-01 G	Siedlungshygiene und Wasserversorgung Does not take place this semester. Termine n.V. Ort: CLD			24s hrs	I. Günther
865-0068-00L	Justice and Normative Aspects of Development Only for MAS in Development and Cooperation.	W	2 credits	2G	
865-0068-00 G	Gerechtigkeit und normative Aspekte der E Does not take place this semester. Termine n.V. Ort: CLD	ntwicklu	ng	24s hrs	
865-0069-00L	Health and Development - Health Related Aspects of International Development Aid Only for MAS in Development and Cooperation.	W	2 credits	2G	
365-0069-00 G	Gesundheit und Entwicklung - Gesundheits internationalen Zusammenarbeit Does not take place this semester. Termine n.V. Ort: CLD	aspekte	in der	24s hrs	
865-0008-00L	Policy Evaluation and Applied Statistics Only for MAS in Development and Cooperation and Science, Technology, and Policy MSc.		3 credits	3G	
865-0008-00 G	Policy Evaluation and Applied Statistics Does not take place this semester. Termine n.V. Ort: CLD			40s hrs	I. Günther
► Semeste	r Thesis				
Number	Title	Туре	ECTS	Hours	Lecturers
865-0700-00L	Semester Thesis Only for MAS in Development and Cooperation.	0	4 credits	9A	
865-0700-00 A	Semesterarbeit Does not take place this semester.			120s hrs	Lecturers
MAC in David	lanmont and Cooperation - Var. for Trans				
	Computer and Cooperation - Key for Type	2	ı	_	Decommended not all all all for our Pr
O W+	Compulsory Eligible for credits and recommended			E- Z	Recommended, not eligible for credits  Courses outside the curriculum
/v+ //	Eligible for credits and recommended			∠ Dr	Suitable for doctorate
/ V	Lingible for Greats			וט	Guitable for doctorate
Key for Hours	S				
-			I	Р	practical/laboratory course
	lecture			P A	practical/laboratory course independent project
V G	lecture lecture with exercise			Α	independent project
V G U	lecture			A D	independent project diploma thesis
V G U S	lecture lecture with exercise exercise			Α	independent project

# **MAS in Nutrition and Health**

# ► Disciplinary Subjects Number Title

Number	Title	Туре	ECTS	Hours				Lecturers
<b>752-6105-00L</b> 752-6105-00 V	<b>Epidemiology and Prevention</b> Epidemiology and Prevention	W+	3 credits	<b>2V</b> 2 hrs	Wed	12-14	CHN C14	M. Puhan, R. Heusser
752-2307-00L	Nutritional Aspects of Food Composition and Processing	W+	3 credits	2V				
752-2307-00 V	Nutritional Aspects of Food Composition and	d Proces	ssing	2 hrs	Wed	08-10	LFW C5	B. E. Baumer, J. M. Sych
752-6301-00L	Selected Topics in Physiology Related to Nutrition	W+	3 credits	2V				
752-6301-00 V	Selected Topics in Physiology Related to No	utrition		2 hrs	Thu	10-12	CAB G51	F. von Meyenn
766-6205-00L	Nutrient Analysis in Foods Number of participants limited to 15. Permission from lecturers required for all students.	W+	3 credits	3U				
766-6205-00 U	Nutrient Analysis in Foods Permission from lecturers required for all stablock course from 31.01.2022 to 09.02.2022 9:00 am on 31.01.2021 in the Laboratory of D-floor laboratories, This course also includes a half-day cooking December 2021, lectures via Moodle, oral place on 18.02.2022 in the afternoon and a submitted by 25.02.2022. The detailed programounced separately.	2. The c Human g prepar resenta written i	Nutrition LFV ration in mid- tions that take report to be	45s hrs	31.01 09.02.	08-17	LFV E41	J. Rigutto
<b>752-6101-00L</b> 752-6101-00 V	<b>Dietary Etiologies of Chronic Disease</b> Dietary Etiologies of Chronic Disease	W	3 credits	<b>2V</b> 2 hrs	Thu	08-10	CAB G11	M. B. Zimmermann
<b>752-6403-00L</b> 752-6403-00 V	Nutrition and Performance Nutrition and Performance	W+	2 credits	<b>2V</b> 2 hrs	Thu	14-16	ML E12	S. Mettler, M. B. Zimmermanı
766-6304-00L	Introduction to the Nutrition Research Process	W+	3 credits	2G				
766-6304-00 G	Introduction to the Nutrition Research Proce Until autumn 2020 semester: Theory and Pr Science.		f Nutritional	2 hrs	Wed	10-12	LFO C13	J. Rigutto
► Electives								
Number	Title	Туре	ECTS	Hours				Lecturers
<b>752-2122-00L</b> 752-2122-00 V	Food and Consumer Behaviour Food and Consumer Behaviour Online lecture: This lecture will primarily tak Reserved rooms will remain blocked on can follow the course from there.			<b>2V</b> 2 hrs	Mon	10-12	LFW B1	M. Siegrist, C. Hartmann
<b>752-0801-00L</b> 752-0801-00 V	Food Law and Legislation Lebensmittelrecht	W	1 credit	1V 1 hrs	Fri/2w	10-12	LFW C4	C. Spinner, E. Zbinden Kaessner
	Functional Microorganisms in Foods Functional Microorganisms in Foods Online event: Will primarily take place online remain blocked on campus for students to fo			<b>2G</b> 2 hrs	Wed	14-16	HG D7.1	C. Lacroix, A. Geirnaert, A. Greppi
<b>752-5111-00L</b> 752-5111-00 V	Gene Technology in Foods Gene Technology in Foods Online lecture: This lecture will primarily tak Reserved rooms will remain blocked on can follow the course from there.			<b>2V</b> 2 hrs	Thu	16-18	LFV E41	F. Constancias, G. Broggini, A. Greppi, F. Orelli
551-0317-00L 551-0317-00 V	Immunology I	W	3 credits	<b>2V</b> 2 hrs	Tue	08-10	HG G3	M. Kopf, A. Oxenius
	Immunology I							
752-6151-00L	Public Health Concepts Public Health Concepts	W+	3 credits	<b>2V</b> 2 hrs	Mon 27.09.	14-16 14-16	HG D1.1 CHN G42	R. Heusser
<b>752-6151-00L</b> 752-6151-00 V	Public Health Concepts	W+	3 credits					R. Heusser
752-6151-00L 752-6151-00 V 376-0300-00L	Public Health Concepts Public Health Concepts  Translational Science for Health and	W		2 hrs				R. Heusser  J. Goldhahn, C. Wolfrum
752-6151-00L 752-6151-00 V 376-0300-00L 376-0300-00 G 376-0225-00L	Public Health Concepts Public Health Concepts  Translational Science for Health and Medicine	W		2 hrs	27.09.	14-16	CHN G42	J. Goldhahn, C. Wolfrum
752-6151-00L 752-6151-00 V 376-0300-00L 376-0300-00 G 376-0225-00L 376-0225-00 V	Public Health Concepts Public Health Concepts  Translational Science for Health and Medicine Translational Science for Health and Medici Physical Activities and Health Physical Activities and Health	<b>W</b> ne ■	3 credits	2 hrs 2G 2 hrs 2V	27.09. Fri	10-12	CHN G42 IFW A36	J. Goldhahn, C. Wolfrum  R. Knols, E. de Bruin, further
752-6151-00L 752-6151-00 V 376-0300-00L 376-0300-00 G 376-0225-00L 376-0225-00 V Master's	Public Health Concepts Public Health Concepts  Translational Science for Health and Medicine Translational Science for Health and Medici Physical Activities and Health Physical Activities and Health	<b>W</b> ne ■	3 credits	2 hrs 2G 2 hrs 2V	27.09. Fri	10-12	CHN G42 IFW A36	J. Goldhahn, C. Wolfrum  R. Knols, E. de Bruin, further
752-6151-00L 752-6151-00 V 376-0300-00L 376-0300-00 G 376-0225-00 V ► Master's Number 766-6500-00L	Public Health Concepts Public Health Concepts  Translational Science for Health and Medicine Translational Science for Health and Medicine Physical Activities and Health Physical Activities and Health Thesis Title MAS Master's Thesis Only for MAS in Nutrition and Health.	W ne ■ W	3 credits	2 hrs 2G 2 hrs 2V 2 hrs Hours 43D	Fri	10-12 14-16	CHN G42 IFW A36	J. Goldhahn, C. Wolfrum  R. Knols, E. de Bruin, further speakers  Lecturers
<b>752-6151-00L</b> 752-6151-00 V <b>376-0300-00L</b> 376-0300-00 G <b>376-0225-00L</b>	Public Health Concepts Public Health Concepts  Translational Science for Health and Medicine Translational Science for Health and Medicine Physical Activities and Health Physical Activities and Health Thesis Title MAS Master's Thesis Only for MAS in Nutrition and Health.	W ne ■ W	3 credits 3 credits ECTS	2 hrs 2G 2 hrs 2V 2 hrs Hours	Fri	10-12 14-16	CHN G42 IFW A36	J. Goldhahn, C. Wolfrum  R. Knols, E. de Bruin, further speakers

MAS in	Nutrition and Health - Key for Type		
0	Compulsory	E-	Recommended, not eligible for credits
W+	Eligible for credits and recommended	Z	Courses outside the curriculum
W	Eligible for credits	Dr	Suitable for doctorate
V	lecture	P	practical/laboratory course
Key for	Hours		
G	lecture with exercise	A	independent project
U	exercise	D	diploma thesis
S	seminar	R	revision course / private study
K	colloquium		

ECTS

European Credit Transfer and Accumulation System
Special students and auditors need special permission from the lecturers.

# MAS in Fire Safety Engineering

Four-semester, part-time MAS programme, starting in autumn semester (even years).

Next start: Autumn Semester 2022

#### ► Module

Number	Title	Type	ECTS	Hours	Lecturers
121-0100-00L	Module 1: Fire Science Only for MAS ETH in Fire Safety Engineering.	0	10 credits	9G	
121-0100-00 G	Modul 1: Physikalische und chemische G Lastfall Brand Does not take place this semester. Blockkurs	Grundlagen	für den	120s hrs	A. Frangi
121-0110-00L	Module 2: Fire Safety Design Only for MAS ETH in Fire Safety Engineering.	0	10 credits	9G	
21-0110-00 G	Modul 2: Grundlagen Nachweisführung in Does not take place this semester. Blockkurs	m Brandsc	hutz	120s hrs	A. Frangi
121-0140-00L	Module 5: Technical Fire Safety Only for MAS ETH in Fire Safety Engineering.	0	6 credits	5G	
21-0140-00 G	Modul 5: Technischer Brandschutz Blockkurs: 13.09.2021 - 24.09.2021			75s hrs	13.09 08-18 HCP E47.2 <b>A. Frangi</b> 17.09. 20.09 08-18 HIT F13 24.09.
MAS in Fire S	afety Engineering - Key for Type				
)	Compulsory			E-	Recommended, not eligible for credits
V+	Eligible for credits and recommended			Z	Courses outside the curriculum
N	Eligible for credits			Dr	Suitable for doctorate
Key for Hours	<b>S</b>				
/	lecture			Р	practical/laboratory course
3	lecture with exercise			Α	independent project
J	exercise			D	diploma thesis
S	seminar			R	revision course / private study
K	colloquium				
ECTS	European Credit Transfer and Accumulation	on System			
	Consist students and suditors need as asi	•		-4	

# MAS in Building Process Leadership

The MAS in "Gesamtprojektleitung Bau" is of a duration of 2 years, starting in autumn semester (n-service).

Start of the next course: Autumn Semester 2021

#### ► Module

Number	Title	Type	ECTS	Hours				Lecturers
067-0101-00L	Involved Parties Only for MAS in Building Process Leadership.	0	10 credits	21G				
067-0101-00 G	Beteiligte Lehrbereich: Inhalte 1			300s hrs	Fri Sat	08-18 08-12	HIT F31.1 HIL D60.1	A. Paulus
067-0103-00L	Interests Only for MAS in Building Process Leadership.	0	10 credits	11G				
067-0103-00 G	Interessen  Does not take place this semester.			150s hrs				
	Lehrbereich: Inhalte 3							
MAS in Buildi	Lehrbereich: İnhalte 3	<b>a</b>						
	Lehrbereich: Inhalte 3 ng Process Leadership - Key for Type	•		F-		Recommen	ded not eligibl	e for credits
0	Lehrbereich: İnhalte 3  ng Process Leadership - Key for Type Compulsory	Đ		E- Z			ded, not eligibl	
O W+	Lehrbereich: Inhalte 3 ng Process Leadership - Key for Type	Ð		E- Z Dr			tside the curric	
O W+	ng Process Leadership - Key for Type Compulsory Eligible for credits and recommended Eligible for credits	Đ		Z		Courses ou	tside the curric	
O W+ W <b>Key for Hour</b> s	ng Process Leadership - Key for Type Compulsory Eligible for credits and recommended Eligible for credits	•		Z		Courses ou Suitable for	tside the curric	ulum
O W+ W <b>Key for Hours</b>	ng Process Leadership - Key for Type Compulsory Eligible for credits and recommended Eligible for credits	•		Z Dr		Courses ou Suitable for	tside the curric doctorate	ulum
O W+ W <b>Key for Hours</b> V G	ng Process Leadership - Key for Type Compulsory Eligible for credits and recommended Eligible for credits	•		Z Dr		Courses ou Suitable for practical/lab	doctorate  ooratory course t project	ulum
O W+ W <b>Key for Hours</b> V G U	ng Process Leadership - Key for Type Compulsory Eligible for credits and recommended Eligible for credits  lecture lecture with exercise	•		Z Dr		Courses ou Suitable for practical/lab independen diploma the	doctorate  ooratory course t project	ulum

ECTS European Credit Transfer and Accumulation System

# MAS in History and Theory of Architecture (GTA)

The MAS-programm in "History and Theory of Architecture" is a two-year half-time course and contains 60 CP. The course starts in the autumn semester.

Attendance of classes supplemented by independent research; practical training periods and excursions; lectures/seminars on one to two days per week, in total 600 ca. contact hours, in addition private study ca. 600 hours (for each in-class day one day of work preparation), two individually tutored seminar papers on chosen subjects (200 hours) and credited Master's thesis (600 hours).

#### ▶ 1. Semester

#### ▶▶ Lectures. Seminars

Number	Title	Type	ECTS	Hours				Lecturers
056-0001-01L	Architecture and the City I Only for MAS in History and Theory of Architecture.	0	4 credits	48				
056-0001-01 S	Architektur und Stadt I Keine Lehrveranstaltung am 29.10. (Semir 17./24.12. (Individuelles Arbeiten).	arwoche	), am	4 hrs	Fri	14-18	HIT H42	S. Schindler Kilian, A. J. Bideau
▶▶ Worksh	юр							
Number	Title	Туре	ECTS	Hours				Lecturers
056-0005-01L	Methods of Academic Writing I Only for MAS in History and Theory of Architecture.	0	1 credit	3U				
056-0005-01 U	Methoden des wissenschaftlichen Schreibe Keine Lehrveranstaltung am 29.10. (Semin		r).	3 hrs	Fri	10-13	HIL D60.1	S. Schindler Kilian, M A. Lerjen
▶▶ Essays								
Number	Title	Туре	ECTS	Hours				Lecturers
056-0201-01L	Scientific Home Work (1) Only for MAS in History and Theory of Architecture.	0	4 credits					
056-0201-01 A	Wissenschaftliche Hausarbeit (1)			5s hrs				S. Schindler Kilian, M. Delbeke
▶ 3. Semes	ter							
▶▶ Lecture	s, Seminars							
Number	Title	Туре	ECTS	Hours				Lecturers
056-0003-01L	Architecture and the City III Only for MAS in History and Theory of Architecture.	0	4 credits	4S				
056-0003-01 S	Architektur und Stadt III Keine Lehrveranstaltung am 29.10. (Semir 17./24.12. (Individuelles Arbeiten).	arwoche	), am	4 hrs	Fri	14-18	HIT H42	S. Schindler Kilian, A. J. Bideau
056-0009-01L	Architecture and the City V Enrollment only on agreement with the lecturer.	W	4 credits	9S				
056-0009-01 S	Architektur und Stadt V Permission from lecturers required for all s	tudents		120s hrs	by ap	pt.		S. Schindler Kilian
▶▶ Worksh	юр							
Number	Title	Туре	ECTS	Hours				Lecturers
056-0007-01L	Research Methods in the History and Theory of Architecture I Nur für MAS Studierende in Geschichte und Theorie der Architektur.	0	1 credit	3U				
056-0007-01 U	Research Methods in the History and Theo No course on 28.10. (seminar week).	ry of Arc	hitecture I	3 hrs	Thu	14-16	HCI F2	C. Rachele
▶▶ Master'	s Thesis							
Number	Title	Туре	ECTS	Hours				Lecturers
056-0210-01L	MAS Thesis Preparation Only for MAS in History and Theory of Architecture.	0	5 credits	9A				
056-0210-01 A	MAS-Arbeit Vorbereitung			130s hrs				S. Schindler Kilian, M. Delbeke
MAS in Histor	y and Theory of Architecture (GTA) - F	ey for T	уре					
0	Compulsory			E-		Recommen	ded, not eligible	e for credits
				Z			tside the curric	

Key for	Hours		
V	lecture	P	practical/laboratory course
G	lecture with exercise	A	independent project
U	exercise	D	diploma thesis
S	seminar	R	revision course / private study
K	colloquium		

**ECTS** 

European Credit Transfer and Accumulation System
Special students and auditors need special permission from the lecturers.

#### **MAS** in Housing

1 year full time course in English, starting every autumn semester. Further information on www.wohnforum.arch.ethz.ch

Lectures, workshops, individual and group tutorials and excursions organized in the framework of the four modules: Cultural, socio-economic, demographic and political aspects of housing and human settlements (M1); Adequate housing and neighbourhood development strategies (M2); Housing for migrants, refugees, and people displaced by disasters (M3); Housing research and evaluation methods (M4).

Introduction to the MAS Housing: Room HIT H 13 (Date and Time will follow in due time). Presentation of MAS Thesis Proposals: Room HIT H 13 (Date and time will follow in due time).

#### **▶** Core Courses

Number	Title	Туре	ECTS	Hours				Lecturers
057-0103-10L	Module 1: Global Housing Issues, Challenges and Strategies Only for MAS in Housing	0	4 credits	2G				
057-0103-10 G	Module 1: Global Housing Issues, Challenge No course on 28.10. (seminar week).	es and S	Strategies	2 hrs	Thu 23.09. 30.09.	10-12 17-19 17-19	HIT H22.1 HIL C10.2 HIL C10.2	J. E. Duyne Barenstein
057-0104-10L	Module 2: Innovative Housing: Case Studies and Exercises Only for MAS in Housing	0	4 credits	2G				
057-0104-10 G	Module 2: Innovative Housing: Case Studies No course on 28.10. (seminar week).	and E	xercises	2 hrs	Thu	14-16	HIT H22.1	J. E. Duyne Barenstein
057-0101-10L	Module 3: Housing Research Methods Only for MAS in Housing.	0	10 credits	2G				
057-0101-10 G	Module 3: Housing Research Methods Keine Lehrveranstaltung am 25.10. (Semina	rwoche	e).	2 hrs	Mon	14-16	HIT H22.1	J. E. Duyne Barenstein
057-0102-10L	Module 4: Writing and Communication Skills for Built Environment Professionals Only for MAS in Housing	0	10 credits	2K				
057-0102-10 K	-	H 22.1.		2 hrs	Mon	10-12	HIT H22.1	J. E. Duyne Barenstein

#### **▶** Elective Courses

At least 3 elective courses for a total of 6 ECTS have to be followed by the MAS students. These can be selected from the courses offered by the Department of Architecture or from other ETH departments.

0	Compulsory	E-	Recommended, not eligible for credits
W+	Eligible for credits and recommended	Z	Courses outside the curriculum
W	Eligible for credits	Dr	Suitable for doctorate
Key for	Hours		
itey ioi			
V	lecture	P	practical/laboratory course
G	lecture with exercise	A	independent project
U	exercise	D	diploma thesis
S	seminar	R	revision course / private study
K	colloquium		

ECTS European Credit Transfer and Accumulation System

# MAS in Management, Technology, and Economics

MAS MTEC Introductory Event for 1st Semester Students. Monday, 20.09.2021, 16.00 - 17.15 h, HG E 1.2 (tbc)

#### ▶ 1. Semester

#### **▶▶** Core Courses

363-0387-00L Corporate Sustainability

Number	Title	Туре	ECTS	Hours				Lecturers
3 <b>63-0341-00L</b> 363-0341-00 G	Introduction to Management Introduction to Management	W+	3 credits	<b>2G</b> 2 hrs	Thu	16-18	HG F7	
	The lecture takes place in classroom, online zoom and recorded.	via live	streaming or	•				J. O'Neil
363-0301-00L	Work Design and Organizational Change	W+	3 credits	2G				
363-0301-00 G	Work Design and Organizational Change The lecture takes place in classroom, online recorded.	via live	streaming and	2 hrs	Tue	10-12	LFW C5	G. Grote
▶▶▶ Strate	gy, Markets and Technology							
Number	Title	Type	ECTS	Hours				Lecturers
363-0403-00L	Introduction to Marketing	W+	3 credits	2G				
363-0403-00 G	Introduction to Marketing The lecture takes place in classroom, online zoom and recorded.	via live	streaming or	2 hrs	Tue	14-16	HG E5	<b>S. Brüggemann</b> , F. von Wangenheim
▶▶▶ Inforn	nation and Operations Managem	ent						
Number	Title	Туре	ECTS	Hours				Lecturers
363-0421-00L	Mastering Digital Business Models Number of participants limited to 110	W+	3 credits	2G				
363-0421-00 G	Mastering Digital Business Models The lecture takes place in classroom, online recorded.	via zoo	m and	2 hrs	Tue	08-10	ML H44	E. Fleisch
363-0445-00L	Production and Operations Management	W+	3 credits	2G				
	Production and Operations Management			2 hrs	Thu	14-16	CAB G11	T. Netland
	This course can be followed fully online and opportunities for students who want to engage staff in the classroom.							
	itative and Qualitative Methods				Probler	ns		
Number	Title	Туре	ECTS	Hours				Lecturers
363-0541-00L	Systems Dynamics and Complexity	W+	3 credits	3G	т	40.40	UO D4 0	F. O. b
363-0541-00 G	Systems Dynamics and Complexity Lecture: Thursday, 08-10 h Exercises: Tuesday, 12-13 h The lecture takes place in classroom, online zoom and recorded.	via live	streaming or	3 hrs	Tue Thu	12-13 08-10	HG D1.2 HG D1.2	r. Schweitzer
▶▶► Micro	and Macroeconomics							
Number	Title	Туре	ECTS	Hours				Lecturers
363-0565-00L	Principles of Macroeconomics	W+	3 credits	2V				
363-0565-00 V	Principles of Macroeconomics			2 hrs	Tue	16-18	ETA F5	JE. Sturm
	Di 16-18 im ETA F 5 mit Videoübertragung in The lecture takes place in classroom, online zoom and recorded.						ETF E1	G. Grote  Lecturers S. Brüggemann, F. von Wangenheim  Lecturers E. Fleisch  T. Netland  Lecturers F. Schweitzer
363-0503-00L	Principles of Microeconomics	W+	3 credits	2G				
	GESS (Science in Perspective): This lecture is for MSc students only. BSc students register for 363-1109-00L							
363-0503-00 G	Einführung in die Mikroökonomie. Principles of Microeconomics The lecture takes place in classroom, online	via live	streaming or	2 hrs	Thu	18-20	HG F7	M. Filippini
	zoom and recorded.							
	cial Management							
Number	Title	Type	ECTS	Hours				Lecturers
<b>363-0711-00L</b> 363-0711-00 V	Accounting for Managers Accounting for Managers The lecture takes place in classroom, online recorded.	W+ via live	3 credits streaming and	2V 2 hrs	Thu	10-12	HG F3	JP. Chardonnens
► 3. Semes	eter							
►► Core Ce		Type						

3 credits

W+

363-0387-00 G	Corporate Sustainability The course combines online learning eleme some of which are recorded. Several course			2 hrs	Wed/2 Wed	16-18 16-18	HG E21 HG E22 HG F3	<b>V. Hoffmann</b> , C. Bening-Bac N. U. Blum, J. Meuer
	attendance. Details are provided on the mod				Wed/2		ML E12	
363-0392-00L	Strategic Management Number of participants limited to 80.	W+	3 credits	2G				
363-0392-00 G	Strategic Management Permission from lecturers required for all str Irregular lecture Presentation slots for case studies will be of The lecture takes place in classroom, online zoom and recorded. An exception of course and presentations which will only be livestre recorded.	ommunie via live is the g	streaming or juest lecturers	2 hrs	Mon	16-19	ML F39 ML H44	Y. R. Shrestha
▶▶▶ Inform	ation and Operations Managen	nent						
Number	Title	Туре	ECTS	Hours				Lecturers
	Strategic Supply Chain Management Strategic Supply Chain Management The lecture takes place online via livestrean recorded. The reserved room is meant for th want to follow the course from Zentrum came	nose stu		<b>2G</b> 2 hrs	Wed	08-10	HG E1.1	S. Wagner
363-0425-00L	Transformation: Corporate Development	W+	3 credits	2G				
363-0425-00 G	and IT Transformation: Corporate Development an Irregular lecture The lecture starts at 12.30 - 18.00. The lecture takes place online via Zoom (re-			30s hrs	27.09. 18.10. 01.11. 15.11. 29.11.	12-18	ON LINE ON LINE ON LINE ON LINE ON LINE	T. Gutzwiller
►►► Quant	itative and Qualitative Methods			nnley F				
Number	Title		ECTS	Hours	100101			Lecturers
	Empirical Methods in Management	W+	3 credits	2G				Lecturers
	Empirical Methods in Management The lecture takes place in classroom, online zoom and recorded.			2 hrs	Wed	14-16	HG E1.1	S. Tillmanns
	Operations Research Operations Research The lecture takes place in classroom, online zoom and recorded.	<b>W+</b> via live	3 credits	<b>2G</b> 2 hrs	Mon	08-10	ML F39	S. Bütikofer van Oordt
▶▶▶ Micro	and Macroeconomics							
Number	Title	Туре	ECTS	Hours				Lecturers
	Resource and Environmental Economics Resource and Environmental Economics The lecture takes place in classroom, online recorded.	W+	3 credits	2G 2 hrs	Wed	10-12	HG G3	L. Bretschger
NNN Einana								
	cial Management	T	FOTO	Harria				Lastinana
Number 363-0723-00L	Title  Corporate Finance	Type W+	ECTS 3 credits	Hours 2G				Lecturers
	Corporate Finance Irregular course (s. room reservations) The lecture will be recorded.	VV <del>T</del>	3 Credits	28s hrs	Sat/2 20.11. 27.11.		HG F3 ON LINE ON LINE	A. Kind
	Financial Market Risks	W+	3 credits	2G				
363-0561-00 G	Financial Market Risks The lecture takes place in classroom, online zoom and recorded.	via live	streaming or	2 hrs	Mon	10-12	ML H44	D. Sornette
► Skill-Base	ed Training, 1. and 3. Semester							
Number	Title	Туре	ECTS	Hours				Lecturers
365-1099-00L	Design Thinking: A Human-Centred Approach to Problem Solving Exclusively for MAS MTEC students (3rd semester). Minimum number of participants: 15 students.	W	1 credit	1S				
365-1099-00 S	Design Thinking: A Human-Centred Approa Two-day course	ch to Pr	oblem Solving	16s hrs	05.11. 06.11.		WEV F109 WEV F109	L. Armbruster
365-1019-00L	Human Resource Management: Skills in Practice Exclusively for MAS MTEC students (3rd semester). Prior participation in the lecture "Human Resource Management: Leading Teams" (363-0302-00) in spring semester is	W	2 credits	2\$				

	recommended.							
365-1019-00 S	Human Resource Management: Skills in Pra Crash course of 3 days. Friday and Saturday: 08:15-17:00. The lecture takes place ONLINE via Zoom (		rded).	24s hrs	29.10. 03.12. 04.12.	08-17 08-17 08-17	ON LINE ON LINE ON LINE	M. Gubler, M. Kolbe
365-1092-00L	Personal Leadership Skills Exclusively for MAS MTEC students (3rd semester). Please register by 02.08.2021 at the latest via myStudies. The groups can be choosed via myStudies.	W	2 credits	3S				
365-1092-00 S	Personal Leadership Skills Groups are selected in myStudies. 6 day course (2 x 3 days):  Group 1: 12.08./13.08./14.08.2021 and 26.0 09:15 – 17:00 h  Group 2 ONLINE (not recorded): 19.08./20.0 09.09./10.09./11.09.2021; 08:30 – 17:30 h			42s hrs	12.08. 13.08. 14.08. 19.08. 20.08. 21.08. 26.08. 27.08. 28.08. 09.09. 10.09. 11.09.	09-17 09-17 09-17 08-18 08-18 08-18 09-17 09-17 09-17 08-18 08-18	HG F5 HG F5 ON LINE ON LINE ON LINE HG F5 HG F5 ON LINE ON LINE ON LINE	P. Romann
65-0347-00L	Negotiation and Advocacy Skills Exclusively for MAS MTEC students (3rd semester). Completion of "Introduction to Negotiation" (363-1039-00) in an earlier semester is mandatory.	W	1 credit	18				
365-0347-00 S	Negotiation and Advocacy Skills Two-day course. Friday 08:15-17:00. The lecture takes place ONLINE via Zoom (	not reco	rded).	16s hrs	01.10. 15.10.	08-17 08-17	ON LINE ON LINE	M. Gutmann
365-1149-00L	Introduction to Personal Branding and Storytelling Exclusively for MAS MTEC students (1st and 3rd semester), Priority will be given to the 3rd semester students. Students, who have already successfully completed the course "Presentation Skills" (365-0351-00) can't register again.	W	1 credit	18				
865-1149-00 S	Introduction to Personal Branding and Story Two-day course. Friday and Saturday: 08:15-17:00. The lecture takes place ONLINE via Zoom (An optional 1 hour debriefing session will take	not reco	,	16s hrs	24.09. 25.09.	08-17 08-17	ON LINE ON LINE	B. Rübel, P. Geissbühler
Flectives	weeks after the seminar. Further details will a, 1. and 3. Semester	follow.						
lumber	Title	Туре	ECTS	Hours				Lecturers
65-1145-00L	Applied Finance and Investment for Managers Exclusively for MAS MTEC students (3rd semester).	W	1 credit	15				
365-1145-00 S	•		ot recorded).	16s hrs	02.10. 08.10. 09.10.	08-17 08-12 08-12	WEV F109 WEV F109 WEV F109	S. Zaker
365-1143-00L	Digital Transformation: Integrating Cloud and Business Exclusively for MAS MTEC students (3rd semester).	W	1 credit	1\$				
365-1143-00 S	Digital Transformation: Integrating Cloud and Two-day course	d Busine	988	16s hrs	20.11. 11.12.	08-17 08-17	LEE D101 LEE D105 HG G26.3 HG G26.5	R. Halbheer
			4	1S				
365-1083-00L	Leading the Technology-Driven Enterprise Exclusively for MAS MTEC students (1st and 3rd semester), Priority will be given to the 3rd semester students. An enrolment for the lecture "Introduction to Management" (363-0341-00) is mandatory. Leading the Technology-Driven Enterprise	W	1 credit		05 11	00-17	I FE E101	J O'Neil D Pättaar
	Enterprise Exclusively for MAS MTEC students (1st and 3rd semester), Priority will be given to the 3rd semester students. An enrolment for the lecture "Introduction to		1 credit	16s hrs	05.11. 06.11.		LEE E101 LEE E101	<b>J. O'Nei</b> l, D. Röttger

	"Strategic Management" (363-0392-00) is mandatory.						
365-1059-00 S	Practicing Strategy Two-day course		16s hrs	22.10. 19.11.		WEV F109 WEV F109	S. Herting
365-1142-00L	Understanding Human Behavior - W Research and Business Insights Exclusively for MAS MTEC students (3rd semester).	1 credit	1V				
365-1142-00 V	Understanding Human Behavior - Research and Bus Insights 22.09.2021 / 29.09.2021 / 06.10.2021 on-site at ETH Zoom (not recorded) and 12.11.2021 at location of be partner or Online via Zoom (not recorded). Wednesday: 18:15-21:00; Friday 14:00-18:00.	l or Online via	13s hrs	22.09. 29.09. 06.10. 12.11.		ON LINE ON LINE WEV F109 Ex tern	S. Andraszewicz, B. J. Bergmann
365-1067-00L	(Un)ethical Decision Making: Alternative W and Critical Thinking in Management	2 credits	2\$				
365-1067-00 S	(Un)ethical Decision Making: Alternative and Critical Management Three-day course: 16.09.2021 / 17.09.2021 / 18.09.2 Thursday and Friday: 09:15-18:00; Saturday: 08:15-18:00; Saturday:	?021. 17:00.	24s hrs	16.09. 17.09. 18.09.	09-18 09-18 08-17	HG D3.2 HG D3.2 HG D3.2	T. Ramus
363-1044-00L	Applied Negotiation Seminar W Number of participants limited to 30.  Prerequisites: Successful completion of	3 credits	2\$				
	lectures "363-1039-00L Introduction to Negotiation".						
363-1044-00 S	Applied Negotiation Seminar ■ Permission from lecturers required for all students Block course		22s hrs	01.10.	09-17 09-17	HG E33.1 HG E33.3 HG E33.5 HG E33.1 HG E33.3	A. Knobel
				15.10.	09-17	HG E33.5 HG E33.1 HG E33.3	
				16.10.	09-17	HG E33.5 HG E33.1 HG E33.3 HG E33.5	
363-0861-00L	Alliance Advantage - Exploring the W Value Creation Potential of Collaborations	3 credits	2G				
363-0861-00 G	Alliance Advantage - Exploring the Value Creation Po Collaborations Introduction: 23.09.2021 Block Course: 27.10.2021 & 28.10.2021 Final Presentation: 16.12.2021	otential of	28s hrs	23.09. 27.10. 28.10. 16.12.	16-19 08-20 08-20 16-19	LFW B3 LFW B2 LFW B2 n /a	C. G. C. Marxt
363-1051-00L	Cases in Technology Marketing W Number of participants limited to 20.	3 credits	1G				
	Students have to apply for this course by sending a CV and an one-page motivation letter until 10.09.2021 to Theresa Schachner: tschachner@ethz.ch. Additionally please enroll via myStudies. Places will be assigned on the basis of your motivation letter.						
363-1051-00 G	Cases in Technology Marketing Permission from lecturers required for all students Block course 06.12.2021, whole day at Bühler Group in Uzwil		16s hrs	20.09. 18.10. 08.11. 29.11. 06.12.	17-20 17-20	WEV F109 WEV F109 WEV F109 WEV F109 Ex tern	F. von Wangenheim, S. Schär
363-0393-00L	Corporate Strategy W  Due to didactic considerations, the number of participants for this course is limited to 45.	3 credits	2V				
262 0202 20 11	Please register through myStudies to enroll for the course. Slots are assigned on a first-come first-serve basis (in the order of the registration date on myStudies). We will confirm your registration by e-mail. If you have any inquiries about the course, please contact the course assistant.		2 hrs	Men	10.42	MI 520	S. Dan Marshara
363-0393-00 V	Corporate Strategy The lecture takes place online via livestreaming or zo recorded. Reserved rooms will remain blocked on ca students to follow the course from there.		2 hrs	Mon	10-12	ML F39	S. Ben-Menahem
363-1135-00L	Digital Health Project W Number of participants limited to 30.	3 credits	2V				

363-1135-00 V	Digital Health Project Online lecture: This lecture will primarily take Reserved rooms will remain blocked on can follow the course from there. Some sessions will be held from Singapore.			2 hrs	Thu	08-10	NO D11	T. Kowatsch
363-1082-00L	Enabling Entrepreneurship: From Science to Startup Students should provide a brief overview (unto 1 page) of their business ideas that they would like to commercialise through the course. If they do not have an idea, they are required to provide a motivation letter stating why they would like to do this elective. If you are unsure about the readiness of your idea or technology to be converted into a startup, please drop me a line to schedule a call or meeting to discuss.	W	3 credits	2V				
	The total number of students will be limited to 40. It is preferable that the students already form teams of at least two persons, where both the team-members would like to do the course. The names of the team-members should be provided together with the business idea or the motivation letter submitted by the students.							
	The students should submit the necessary information until September 13 and apply to anilsethi@ethz.ch							
363-1082-00 V	Enabling Entrepreneurship: From Science to	Startup	)	2 hrs	Mon	16-18	HG E33.1	A. Sethi
363-1028-00L	Entrepreneurial Leadership Limited number of participants.  Students apply for this course via the official website no later than August 23 (https://www.mtec.ethz.ch/studies/special-pagerammage/ala.html)	w	4 credits	3S				
363-1028-00 S	programmes/els.html).  Once your application is confirmed, registration in myStudies is possible.  Entrepreneurial Leadership ■			45s hrs	Wed	10-13	WEV H326	Z. Erden Özkol, S. Brusoni,
	Permission from lecturers required for all stu Irregular lecture Additional classes: tba	ıdents						T. Netland, P. Tinguely
363-0887-00L	Management Research Participation in both sessions and completion of all assignments is required to receive the credit. This course requires preparation time and completion of an assignment before the first course day. Please check the Moodle course page for more information. Management Research ■	W	1 credit	1 <b>S</b>	24.09.	08-16	HG E33.1	N. Goilinger
363-0667-00 3	Block course  Online lecture: This lecture will primarily take	e place o	online.	145 1115		08-16	HG E33.1	N. Geilinger
	Reserved rooms will remain on campus for scourse from there.	students	to follow the					
<b>363-1080-00L</b> 363-1080-00 S	Power and Leadership Power and Leadership Does not take place this semester. From FS22 in the spring semester.	W	3 credits	<b>2S</b> 2 hrs				P. Schmid
363-0445-02L	Production and Operations Management – Supplement Credit A parallel enrolment to the lecture 363- 0445-00L Production and Operations Management is mandatory.	w	1 credit	1A				
363-0445-02 A	Production and Operations Management – S Does not take place this semester. Irregular lecture	Supplem	ent Credit	7s hrs				T. Netland
363-0311-00L	Psychological Aspects of Risk Management and Technology Number of participants limited to 65.	w	3 credits	2V				
363-0311-00 V	Psychological Aspects of Risk Management	and Ted	chnology	2 hrs	Wed	16-18	LFW B1	<b>G. Grote</b> , N. Bienefeld-Seall, J. Schmutz, R. Schneider, M. Zumbühl
363-0790-00L	Technology Entrepreneurship	W	2 credits	2V				

Tue F. Hacklin 363-0790-00 V Technology Entrepreneurship 2 hrs 18-20 HG E5 The lecture takes place online via (livestreaming or) zoom and recorded. Reserved rooms will remain blocked on campus for students to follow the course from there. see elective courses MTEC MSc ► Master's Thesis Number ECTS Title Type Hours Lecturers 365-0899-00L Master's Thesis in a Company 12 credits 24D Exclusively for MAS MTEC students. 365-0899-00 D Master's Thesis in a Company 330s hrs by appt. **Professors** 

MAS in	Management, Technology, and Economics - Key fo	or Type		
0	Compulsory	E-	Recommended, not eligible for credits	
W+	Eligible for credits and recommended	Z	Courses outside the curriculum	
W	Eligible for credits	Dr	Suitable for doctorate	

Key for	Hours			
V	lecture	P	practical/laboratory course	
G	lecture with exercise	A	independent project	
U	exercise	D	diploma thesis	
S	seminar	R	revision course / private study	
K	colloquium			

ECTS European Credit Transfer and Accumulation System

Special students and auditors need special permission from the lecturers.

# **MAS in Medical Physics**

# ► Compulsory Courses (for both Specialisations)

Number	Title	Type	ECTS	Hours				Lecturers
465-0957-00L	Anatomy and Physiology for Medical Physicists I	0	2 credits	2V				
465-0957-00 V	Anatomy and Physiology for Medical Physiology not take place this semester.	cists I		2 hrs				
465-0953-00L	Biostatistics	0	4 credits	2V+1U				
465-0953-00 V	Biostatistics Does not take place this semester.			2 hrs				
465-0953-00 U	Biostatistics Does not take place this semester.			1 hrs				
227-0385-10L	Biomedical Imaging	0	6 credits	5G				
227-0385-10 G	Biomedical Imaging **together with University of Zurich**			5 hrs	Mon Tue	14-16 13-16	HG E19 HG E7	S. Kozerke, K. P. Prüssmann
465-0966-00L	Physics in Radiodiagnostic and Nuclear Medicine	0	2 credits	3G				
465-0966-00 G	Physics in Radiodiagnostic and Nuclear Me Does not take place this semester. **Course at University of Lausanne** Block course	edicine		40s hrs				

## ► Specialisation in Radiation Therapy

#### **▶▶** Core Courses

Number	Title	Туре	ECTS	Hours				Lecturers
402-0341-00L	Medical Physics I	0	6 credits	2V+1U				
402-0341-00 V	Medical Physics I			2 hrs	Thu	16-18	HPT C103	P. Manser
402-0341-00 U	Medical Physics I			1 hrs	Thu	18-19	HPT C103	P. Manser
227-0943-00L	Radiobiology	0	2 credits	2V				
227-0943-00 V	Radiobiology The lecture does not take place on October	· 14.		2 hrs	Thu	14-16	HCI D8	M. Pruschy

#### ▶▶ Practical Work

FFFTactic	ai WOIK						
Number	Title	Туре	ECTS	Hours		Lecturers	
465-0956-00L	<b>Dosimetry</b> Only for MAS in Medical Physics	0	4 credits	6G			
465-0956-00 G	Dosimetrie Does not take place this semester. Blockkurs am Inselspital Bern.			80s hrs	by appt.		
	Die Lehrveranstaltung wird ausnahmswangeboten.	eise im FS	2022				

## ► Specialisation in General Medical Physics

# ▶▶ Major in Radiation Therapy

#### **▶▶▶** Core Courses

Number	Title	Туре	ECTS	Hours				Lecturers
402-0341-00L	Medical Physics I	w	6 credits	2V+1U				
402-0341-00 V	Medical Physics I			2 hrs	Thu	16-18	HPT C103	P. Manser
402-0341-00 U	Medical Physics I			1 hrs	Thu	18-19	HPT C103	P. Manser
227-0943-00L	Radiobiology	W	2 credits	2V				
227-0943-00 V	Radiobiology The lecture does not take place on October	14.		2 hrs	Thu	14-16	HCI D8	M. Pruschy
▶▶▶ Practi	cal Work							
Number	Title	Type	ECTS	Hours				Lecturers

Number	Title	Type	ECTS	Hours	Lecturers
465-0956-00L	Dosimetry Only for MAS in Medical Physics	W	4 credits	6G	
465-0956-00 G	Dosimetrie Does not take place this semester. Blockkurs am Inselspital Bern. Die Lehrveranstaltung wird ausnahmswangeboten.	veise im FS	2022	80s hrs by appt	
465-0800-00L	Practical Work	w	4 credits		
100 0000 002	Only for MAS in Medical Physics				

#### ▶▶▶ Electives

PPP LICCU	VC3				
Number	Title	Туре	ECTS	Hours	Lecturers
227-0965-00L	Micro and Nano-Tomography of Biological Tissues	W	4 credits	3G	

227-0965-00 G								
	Micro and Nano-Tomography of Biological	Tissues		3 hrs	Mon	09-12	ETZ E9	<b>M. Stampanoni</b> , F. Marone Welford
227-0941-00L	Physics and Mathematics of Radiotherapy Planning (University of Zurich) No enrolment to this course at ETH Zurich. Book the corresponding module directly at UZH as an incoming student. UZH Module Code: PHY471 https://www.uzh.ch/cmsssl/en/studies/appli cation/chmobilityin.html	W	6 credits	3G				
227-0941-00 G	Mind the enrolment deadlines at UZH: https://www.uzh.ch/cmsssl/en/studies/appli cation/deadlines.html Physics and Mathematics of Radiotherapy I	Planning	(University of	3 hrs	Wed	10-13	UNI ZH.	University lecturers
	Zurich) **Course at University of Zurich**							
402-0674-00L	Physics in Medical Research: From Atoms to Cells	W	6 credits	2V+1U				
	Physics in Medical Research: From Atoms Physics in Medical Research: From Atoms			2 hrs 1 hrs	Fri Fri	14-16 16-17	HCI H8.1 HCI H8.1	B. K. R. Müller B. K. R. Müller
►► Major in	Biomechanics							
▶▶▶ Core C	Courses							
Number	Title	Туре	ECTS	Hours				Lecturers
	Biomedical Engineering Biomedical Engineering **together with University of Zurich**	W	4 credits	<b>3G</b> 3 hrs	Wed	08-10 10-11	ETF E1 ETF E1	J. Vörös, S. J. Ferguson, S. Kozerke, M. P. Wolf, M. Zenobi-Wong
227-0965-00L	Micro and Nano-Tomography of Biological Tissues	W	4 credits	3G				
227-0965-00 G	Micro and Nano-Tomography of Biological	Tissues		3 hrs	Mon	09-12	ETZ E9	<b>M. Stampanoni</b> , F. Marone Welford
	Clinical and Movement Biomechanics Number of participants limited to 50.	W	4 credits	3G				
	Clinical and Movement Biomechanics			3 hrs	Wed	14-17	HIL E9	N. Singh, R. List, P. Schütz
376-1985-00 V	Trauma Biomechanics Trauma Biomechanics Trauma Biomechanics	W	4 credits	2V+1U 2 hrs 1 hrs	Thu Thu/2w	10-12 14-16	HG D7.1 HG E33.3	KU. Schmitt, M. H. Muse KU. Schmitt, M. H. Muse
▶▶▶ Practio	cal Work							
Number	Title	Туре	ECTS	Hours				Lecturers
<b>465-0800-00L</b> 465-0800-00 P	Practical Work Only for MAS in Medical Physics Practical Work	0	4 credits					external organisers
▶▶▶ Electiv	/AS							<u> </u>
Number	Title	Typo	ECTS	Hours				Lecturers
	Continuum Mechanics I	Type W	4 credits	2V+1U				Ecoturers
151-0524-00 V	Continuum Mechanics I Continuum Mechanics I Exercises start in the second week of the se			2 hrs 1 hrs	Fri Wed	08-10 12-13	HG D5.2 HG E1.1	E. Mazza, A. E. Ehret E. Mazza, A. E. Ehret
<b>151-0604-00L</b> 151-0604-00 G	Microrobotics Microrobotics The class starts in the second week.	W	4 credits	<b>3G</b> 3 hrs	Mon Thu	16-18 11-12	NO C60 NO C60	B. Nelson, N. Shamsudhin
	Biomechanics of Sports Injuries and Rehabilitation	W	3 credits	2V				
376-2017-00L	Renabilitation			2 hrs	Mon	16-18	HG D5.2	KU. Schmitt, J. Goldhahr
	Biomechanik von Sportverletzungen und Re	ehabilitat	ion					
376-2017-00 V		ehabilitat	lon					
376-2017-00 V ▶▶ Major in	Biomechanik von Sportverletzungen und Ren Bioimaging	ehabilitat	ion					
376-2017-00 ∨ ▶▶ Major in ▶▶▶ Core C	Biomechanik von Sportverletzungen und Ren Bioimaging	ehabilitat  Type	ECTS	Hours				Lecturers
376-2017-00 V  ►► Major in  ►►► Core C  Number  227-0386-00L	Biomechanik von Sportverletzungen und Ron Bioimaging Courses				Wed	08-10 10-11	ETF E1 ETF E1	Lecturers  J. Vörös, S. J. Ferguson, S. Kozerke, M. P. Wolf, M. Zenobi-Wong
376-2017-00 V  ►► Major in  ►► Core C  Number  227-0386-00L  227-0386-00 G	Biomechanik von Sportverletzungen und Ro Bioimaging Courses Title Biomedical Engineering Biomedical Engineering	Туре	ECTS	Hours 3G	Wed			J. Vörös, S. J. Ferguson, S. Kozerke, M. P. Wolf,

Number	Title	Туре	ECTS	Hours				Lecturers
65-0800-00L	Practical Work Only for MAS in Medical Physics	0	4 credits					
65-0800-00 P	Practical Work							external organisers
►►► Electiv	ves							
Number	Title	Туре	ECTS	Hours				Lecturers
151-0605-00L	Nanosystems	W	4 credits	4G				
151-0605-00 G	Nanosystems Lecture: Thursday 10-13. Online lecture: The take place online. Reserved rooms will remain campus for students to follow the course from Exercises: will take place in the laboratories.	ain bloci m there	ked on	4 hrs	Thu	10-13	ML F40	A. Stemmer
227-0965-00L	Micro and Nano-Tomography of Biological Tissues	W	4 credits	3G				
227-0965-00 G	Micro and Nano-Tomography of Biological	Tissues		3 hrs	Mon	09-12	ETZ E9	<b>M. Stampanoni</b> , F. Marone Welford
227-0967-00L	Computational Neuroimaging Clinic Prerequisite: Successful completion of course "Methods & Models for fMRI Data Analysis", "Translational Neuromodeling" of "Computational Psychiatry"	<b>w</b>	3 credits	2V				
227-0967-00 V	Computational Neuroimaging Clinic Place: WIL-F-105 at TNU (Wilfriedstrasse 6	, 8032 Z	Zürich)	2 hrs	Wed	10-12	Ex tern	K. Stephan
227-0969-00L	Methods & Models for fMRI Data Analysis	W	6 credits	4V				
227-0969-00 V	Methods & Models for fMRI Data Analysis			4 hrs	Tue	08-12	ETZ E6	K. Stephan
102-0674-00L	Physics in Medical Research: From Atoms to Cells	W	6 credits	2V+1U				
	Physics in Medical Research: From Atoms			2 hrs	Fri	14-16	HCI H8.1	B. K. R. Müller
	Physics in Medical Research: From Atoms			1 hrs	Fri	16-17	HCI H8.1	B. K. R. Müller
	Physical Modelling and Simulation	W	6 credits	4G	ть	00.40	ET7 E6	I Cmaiia
	Physical Modelling and Simulation			4 hrs	Thu	08-12	ETZ E6	J. Smajic
-	n Bioengineering							
▶▶▶ Core (	Courses							
Number	Title	Type	ECTS	Hours				Lecturers
227-0965-00L	Micro and Nano-Tomography of Biological Tissues	W	4 credits	3G				
227-0965-00 G	Micro and Nano-Tomography of Biological	Tissues		3 hrs	Mon	09-12	ETZ E9	<b>M. Stampanoni</b> , F. Marone Welford
	Frontiers in Nanotechnology	W	4 credits	4V				
	Frontiers in Nanotechnology			4 hrs	Mon Fri	10-12 14-16	HCP E47.3 HCP E47.3	V. Vogel, further lecturers
<b>376-1714-00L</b> 376-1714-00 V	Biocompatible Materials Biocompatible Materials Vorlesung 9-11h Uebungen/Gruppenarbeiten 11-12h	W	4 credits	3V 3 hrs	Fri	09-12	HG G3	K. Maniura, M. Rottmar, M. Zenobi-Wong
636-0108-00L	Biological Engineering and Biotechnology	W	4 credits	3V				
636-0108-00 V	Biological Engineering and Biotechnology Takes place at the D-BSSE in Basel and is conference to Zürich (HG D16.2). Attention: Lecture starts on Wednesday, Se		•	3 hrs	Wed	13-16	BSA E46 HG D16.2	M. Fussenegger
►►► Practi	cal Work							
Number	Title	Туре	ECTS	Hours				Lecturers
465-0800-00L	Practical Work	0	4 credits					
	Only for MAS in Medical Physics							
465-0800-00 P	Practical Work							external organisers

376-1622-00L Practical Methods in Tissue Engineering (offered in the Autumn Semester) and 376-1624-00L Practical Methods in Biofabrication (offered in the Spring Semester) are mutually exclusive to be eligible for credits.

Number	Title	Type	ECTS	Hours				Lecturers
151-0604-00L	Microrobotics	W	4 credits	3G				
151-0604-00 G	Microrobotics The class starts in the second week.			3 hrs	Mon Thu	16-18 11-12	NO C60 NO C60	B. Nelson, N. Shamsudhin
227-0386-00L	Biomedical Engineering	w	4 credits	3G				
227-0386-00 G	Biomedical Engineering **together with University of Zurich**			3 hrs	Wed	08-10 10-11	ETF E1 ETF E1	<b>J. Vörös</b> , S. J. Ferguson, S. Kozerke, M. P. Wolf, M. Zenobi-Wong
327-1101-00L	Biomineralization	w	2 credits	2V				

327-1101-00 V	Biomineralization			2 hrs	Tue	10-12	ML H34.3	KH. Ernst
376-1622-00L	Practical Methods in Tissue Engineering Number of participants limited to 12.	w	5 credits	4P				
376-1622-00 P	Practical Methods in Tissue Engineering ■			4 hrs	Mon	13-17	HPL D21.2	M. Zenobi-Wong, S. J. Ferguson, S. Grad, S. Schürle-Finke
02-0674-00L	Physics in Medical Research: From Atoms to Cells	W	6 credits	2V+1U				
102-0674-00 V	Physics in Medical Research: From Atoms t	o Cells		2 hrs	Fri	14-16	HCI H8.1	B. K. R. Müller
102-0674-00 U	Physics in Medical Research: From Atoms to	o Cells		1 hrs	Fri	16-17	HCI H8.1	B. K. R. Müller
535-0423-00L 535-0423-00 V	<b>Drug Delivery and Drug Targeting</b> Drug Delivery and Drug Targeting	W	2 credits	<b>1.5V</b> 1.5 hrs	Tue/1	13-16	HIL E9	JC. Leroux. A. Steinauer
227-0393-10L	Bioelectronics and Biosensors	w	6 credits	2V+2U				
227-0393-10 V	Bioelectronics and Biosensors			2 hrs	Fri	09-11	HG E1.2	J. Vörös, M. F. Yanik
227-0393-10 U	Bioelectronics and Biosensors			2 hrs	Fri	08-09 11-12	HG E1.2 HG E1.2	M. F. Yanik, J. Vörös
-	Bioelectronics							
►►► Core (								
Number	Title	Туре	ECTS	Hours				Lecturers
151-0604-00L	Microrobotics	W	4 credits	3 <b>G</b>		40.40	NO 000	<b>D. N. J.</b> N. O
151-0604-00 G	Microrobotics The class starts in the second week.			3 hrs	Mon Thu	16-18 11-12	NO C60 NO C60	B. Nelson, N. Shamsudhin
227-0386-00L	Biomedical Engineering	W	4 credits	3G				
227-0386-00 G	Biomedical Engineering **together with University of Zurich**			3 hrs	Wed	08-10 10-11	ETF E1 ETF E1	J. Vörös, S. J. Ferguson, S. Kozerke, M. P. Wolf, M. Zenobi-Wong
227-1037-00L	Introduction to Neuroinformatics	W	6 credits	2V+1U+	1A			
227-1037-00 V	Introduction to Neuroinformatics			2 hrs	Thu	08-10	NO C60	V. Mante, M. Cook, B. Grewe G. Indiveri, D. Kiper, W. von der Behrens
227-1037-00 U	Introduction to Neuroinformatics			1 hrs	Thu	10-11	NO C60	V. Wante, M. Cook, B. Grewe G. Indiveri, D. Kiper, W. von der Behrens
227-1037-00 A	Introduction to Neuroinformatics Self-study, no fixed presence required.			1 hrs				V. Mante
376-1714-00L	Biocompatible Materials	W	4 credits	3V				
376-1714-00 V	Biocompatible Materials Vorlesung 9-11h Uebungen/Gruppenarbeiten 11-12h			3 hrs	Fri	09-12	HG G3	<b>K. Maniura</b> , M. Rottmar, M. Zenobi-Wong
227-0393-10L	Bioelectronics and Biosensors	w	6 credits	2V+2U				
227-0393-10 V	Bioelectronics and Biosensors			2 hrs	Fri	09-11	HG E1.2	J. Vörös, M. F. Yanik
227-0393-10 U	Bioelectronics and Biosensors			2 hrs	Fri	08-09 11-12	HG E1.2 HG E1.2	M. F. Yanik, J. Vörös
►►► Praction	cal Work							
Number	Title	Туре	ECTS	Hours				Lecturers
465-0800-00L	Practical Work Only for MAS in Medical Physics	0	4 credits					
465-0800-00 P								external organisers
►►► Electiv		_						
Number	Title	Туре	ECTS	Hours				Lecturers
227-1033-00L	Neuromorphic Engineering I Registration in this class requires the permission of the instructors. Class size will be limited to available lab spots. Preference is given to students that require this class as part of their major.	W	6 credits	2V+3U				
	Information for UZH students: Enrolment to this course unit only possible at ETH. No enrolment to module INI404 at UZH. Please mind the ETH enrolment deadlines for UZH students:							
	https://www.ethz.ch/en/studies/non- degree- courses/special- students/special- students-university-of-zurich.html							
227-1033-00 V	Neuromorphic Engineering I Permission from lecturers required for all stu **together with University of Zurich** The lecturers will communicate the exact les courses.		es of ONLINE	2 hrs	Mon	14-16	ON LINE	T. Delbrück, G. Indiveri, SC. Liu

227-1033-00 U	Neuromorphic Engineering I			3 hrs	by app	ıt.		T. Delbrück, G. Indiveri, S
	Permission from lecturers required for all stu- *together with University of Zurich**	udents						C. Liu
	Dates by arrangement.							
<b>227-2037-00L</b> 227-2037-00 G	Physical Modelling and Simulation Physical Modelling and Simulation	W	6 credits	<b>4G</b> 4 hrs	Thu	08-12	ETZ E6	J. Smajic
	Frontiers in Nanotechnology Frontiers in Nanotechnology	W	4 credits	<b>4V</b> 4 hrs	Mon Fri	10-12 14-16	HCP E47.3 HCP E47.3	V. Vogel, further lecturers
102-0674-00L	Physics in Medical Research: From Atoms to Cells	w	6 credits	2V+1U	ГП	14-10	HOF E47.3	
02-0674-00 V	Physics in Medical Research: From Atoms t	o Cells		2 hrs	Fri	14-16	HCI H8.1	B. K. R. Müller
	Physics in Medical Research: From Atoms t			1 hrs	Fri	16-17	HCI H8.1	B. K. R. Müller
29-0837-01L	Biomicrofluidic Engineering Number of participants limited to 25.	W	6 credits	3G				
529-0837-01 G	Biomicrofluidic Engineering			3 hrs	Mon Tue	16-18 12-13	HCI H8.1 HCI J7	A. de Mello
36-0108-00L	Biological Engineering and Biotechnology	W	4 credits	3V				
336-0108-00 V	Biological Engineering and Biotechnology Takes place at the D-BSSE in Basel and is conference to Zürich (HG D16.2). Attention: Lecture starts on Wednesday, Se		•	3 hrs	Wed	13-16	BSA E46 HG D16.2	M. Fussenegger
- ▶▶ Major ir	n Neuroinformatics	<u>,                                      </u>						
►►► Core (	Courses							
lumber	Title	Type	ECTS	Hours				Lecturers
27-1037-00L	Introduction to Neuroinformatics	W	6 credits	2V+1U+	1A			
27-1037-00 V	Introduction to Neuroinformatics			2 hrs	Thu	08-10	NO C60	V. Mante, M. Cook, B. Grew G. Indiveri, D. Kiper, W. von der Behrens
27-1037-00 U	Introduction to Neuroinformatics			1 hrs	Thu	10-11	NO C60	V. Mante, M. Cook, B. Grew G. Indiveri, D. Kiper, W. von der Behrens
227-1037-00 A	Introduction to Neuroinformatics Self-study, no fixed presence required.			1 hrs				V. Mante
27-0393-10L	Bioelectronics and Biosensors	W	6 credits	2V+2U				
27-0393-10 V	Bioelectronics and Biosensors			2 hrs	Fri	09-11	HG E1.2	J. Vörös, M. F. Yanik
27-0393-10 U	Bioelectronics and Biosensors			2 hrs	Fri	08-09 11-12	HG E1.2 HG E1.2	M. F. Yanik, J. Vörös
27-0421-00L	Deep Learning in Artificial and Biological Neuronal Networks	W	4 credits	3G				
	Deep Learning in Artificial and Biological Ne	uronal I	Vetworks	3 hrs	Wed	09-12	ML F34	B. Grewe
▶► Practi	cal Work							
lumber	Title	Type	ECTS	Hours				Lecturers
65-0800-00L	Practical Work Only for MAS in Medical Physics	0	4 credits					
	Practical Work							external organisers
·▶▶ Electi								
lumber	Title	Type	ECTS	Hours				Lecturers
227-1033-00L	Neuromorphic Engineering I Registration in this class requires the permission of the instructors. Class size will be limited to available lab spots. Preference is given to students that require this class as part of their major.	W	6 credits	2V+3U				
	Information for UZH students: Enrolment to this course unit only possible at ETH. No enrolment to module INI404 at UZH.  Please mind the ETH enrolment deadlines for UZH students: https://www.ethz.ch/en/studies/non-degree-courses/special-students/special-students-university-of-zurich.html							
27-1033-00 \/	Neuromorphic Engineering I			2 hrs	Mon	14-16	ON LINE	T. Delbrück, G. Indiveri, S

2 hrs

Mon 14-16 ON LINE

**T. Delbrück**, G. Indiveri, S.-C. Liu

227-1033-00 V Neuromorphic Engineering I

Permission from lecturers required for all students

\*\*together with University of Zurich\*\*

courses.

The lecturers will communicate the exact lesson times of ONLINE

227-1033-00 U	Neuromorphic Engineering I Permission from lecturers required for all states **together with University of Zurich**	udents		3 hrs	by app	t.		<b>T. Delbrück</b> , G. Indiveri, SC. Liu
	Dates by arrangement.							
376-1791-00L	Introductory Course in Neuroscience I (University of Zurich) No enrolment to this course at ETH Zurich. Book the corresponding module directly at UZH as an incoming student. UZH Module Code: SPV0Y005	W	2 credits	2V				
	Mind the enrolment deadlines at UZH: https://www.uzh.ch/cmsssl/en/studies/appli cation/deadlines.html							
376-1791-00 V	Introductory Course in Neuroscience I (University of Zurich**	ersity o	f Zurich)	2 hrs	Mon	16-18	UNI ZH.	University lecturers
	Kurs des Zentrums für Neurowissenschafte	n Züricl	h (ZNZ)					
	Beginn 20.09.2021							
227-2037-00L	Beginn 20.09.2021  Physical Modelling and Simulation	w	6 credits	4G				
		W	6 credits	<b>4G</b> 4 hrs	Thu	08-12	ETZ E6	J. Smajic
	Physical Modelling and Simulation	w	6 credits	_	Thu	08-12	ETZ E6	J. Smajic
227-2037-00 G	Physical Modelling and Simulation Physical Modelling and Simulation  Systems Neuroscience (University of Zurich) No enrolment to this course at ETH Zurich. Book the corresponding module directly at UZH as an incoming student. UZH Module Code: INI415  Mind the enrolment deadlines at UZH: https://www.uzh.ch/cmsssl/en/studies/application/deadlines.html Systems Neuroscience (University of Zurich	w		4 hrs	Thu	08-12	ETZ E6	J. Smajic  D. Kiper
227-2037-00 G 227-1051-00L	Physical Modelling and Simulation Physical Modelling and Simulation  Systems Neuroscience (University of Zurich) No enrolment to this course at ETH Zurich. Book the corresponding module directly at UZH as an incoming student. UZH Module Code: INI415  Mind the enrolment deadlines at UZH: https://www.uzh.ch/cmsssl/en/studies/application/deadlines.html  Systems Neuroscience (University of Zurich**	w		4 hrs 2V+1U	Thu by app		ETZ E6	•

#### ▶▶ Major in Biocompatible Materials

Micro and Nano-Tomography of Biological Tissues

#### **▶▶▶** Core Courses

Number

227-0965-00L

376-1622-00L Practical Methods in Tissue Engineering (offered in the Autumn Semester) and 376-1624-00L Practical Methods in Biofabrication (offered in the Spring Semester) are mutually exclusive to be eligible for credits.

3G

Hours

Lecturers

Type ECTS

4 credits

W

Micro and Nano-Tomography of Biological T	issues		3 hrs	Mon	09-12	ETZ E9	<b>M. Stampanoni</b> , F. Marone Welford
Practical Methods in Tissue Engineering Number of participants limited to 12.	W	5 credits	4P				
Practical Methods in Tissue Engineering ■			4 hrs	Mon	13-17	HPL D21.2	<ul><li>M. Zenobi-Wong,</li><li>S. J. Ferguson, S. Grad,</li><li>S. Schürle-Finke</li></ul>
Biocompatible Materials	W	4 credits	3V				
Biocompatible Materials Vorlesung 9-11h Uebungen/Gruppenarbeiten 11-12h			3 hrs	Fri	09-12	HG G3	K. Maniura, M. Rottmar, M. Zenobi-Wong
cal Work							
Title	Туре	ECTS	Hours				Lecturers
Practical Work Only for MAS in Medical Physics	0	4 credits					
Practical Work							external organisers
ves							
Title	Туре	ECTS	Hours				Lecturers
Biomineralization	W	2 credits	2V				
Biomineralization			2 hrs	Tue	10-12	ML H34.3	KH. Ernst
Frontiers in Nanotechnology	W	4 credits	4V				
Frontiers in Nanotechnology			4 hrs	Mon Fri	10-12 14-16	HCP E47.3 HCP E47.3	V. Vogel, further lecturers
Physics in Medical Research: From Atoms to Cells	W	6 credits	2V+1U				
Physics in Medical Research: From Atoms to	o Cells		2 hrs	Fri	14-16	HCI H8.1	B. K. R. Müller
,							
Physics in Medical Research: From Atoms to	o Cells		1 hrs	Fri	16-17	HCI H8.1	B. K. R. Müller
	Practical Methods in Tissue Engineering Number of participants limited to 12.  Practical Methods in Tissue Engineering ■  Biocompatible Materials Biocompatible Materials Vorlesung 9-11h Uebungen/Gruppenarbeiten 11-12h  Cal Work  Title  Practical Work Only for MAS in Medical Physics Practical Work  Ves  Title  Biomineralization Biomineralization Frontiers in Nanotechnology  Physics in Medical Research: From Atoms to Cells	Biocompatible Materials Biocompatible Materials Biocompatible Materials Vorlesung 9-11h Uebungen/Gruppenarbeiten 11-12h  Cal Work  Title Type Practical Work Only for MAS in Medical Physics Practical Work  Ves  Title Type  Biomineralization Biomineralization Frontiers in Nanotechnology Physics in Medical Research: From  W	Practical Methods in Tissue Engineering W Number of participants limited to 12.  Practical Methods in Tissue Engineering ■  Biocompatible Materials Biocompatible Materials Vorlesung 9-11h Uebungen/Gruppenarbeiten 11-12h  Cal Work  Title Type ECTS  Practical Work Only for MAS in Medical Physics Practical Work  Ves  Title Type ECTS  Biomineralization Biomineralization Frontiers in Nanotechnology  Physics in Medical Research: From Atoms to Cells  Sicredits  V 4 credits  V 4 credits	Practical Methods in Tissue Engineering W Number of participants limited to 12.  Practical Methods in Tissue Engineering ■ 4 hrs  Biocompatible Materials Biocompatible Materials Vorlesung 9-11h Uebungen/Gruppenarbeiten 11-12h  Cal Work  Title Type ECTS Hours  Practical Work Only for MAS in Medical Physics Practical Work  Ves  Title Type ECTS Hours  Frontiers in Nanotechnology Frontiers in Nanotechnology Physics in Medical Research: From Atoms to Cells  V 4 credits  4 hrs  4 hrs	Practical Methods in Tissue Engineering W Number of participants limited to 12.  Practical Methods in Tissue Engineering W Practical Methods in Tissue Engineering W Practical Methods in Tissue Engineering W Practical Methods in Tissue Engineering W Practical Materials  Biocompatible Materials  W A credits  3 hrs  Fri  W Cal Work  Title Type ECTS Hours  Practical Work Only for MAS in Medical Physics Practical Work  Ves  Title Type ECTS Hours  Fitle Type ECTS Hours  Frontiers in Nanotechnology Frontiers in Nanotechnology Frontiers in Nanotechnology Frontiers in Medical Research: From Atoms to Cells  A tredits  4 hrs Mon Fri	Practical Methods in Tissue Engineering W Number of participants limited to 12. Practical Methods in Tissue Engineering ■	Practical Methods in Tissue Engineering W Number of participants limited to 12. Practical Methods in Tissue Engineering ■

	Bioelectronics and Biosensors Bioelectronics and Biosensors			2 hrs 2 hrs	Fri Fri	09-11 08-09 11-12	HG E1.2 HG E1.2 HG E1.2	J. Vörös, M. F. Yanik M. F. Yanik, J. Vörös
<b>376-1353-00L</b> 376-1353-00 V	Nanostructured Materials Safety Nanostructured Materials Safety	W	2 credits	1V 1 hrs	Fri/1	12-14	CHN F46	P. Wick
►► Major ir	n Molecular Biology and Biophy Courses	sics						
Number	Title	Туре	ECTS	Hours				Lecturers
227-0945-00L	Cell and Molecular Biology for	W	3 credits	2G				Locturors
	Engineers I This course is part I of a two-semester course.							
227-0945-00 G	Cell and Molecular Biology for Engineers I			2 hrs	Thu	10-12	LFW C5	C. Frei
551-1601-00L	Biophysics of Biological Macromolecules The course will only take place with a minimum of 6 participants	W	6 credits	2V+1U				
551-1601-00 V	Biophysics of Biological Macromolecules Does not take place this semester.			2 hrs				F. Allain, S. Jonas
551-1601-00 U	Biophysics of Biological Macromolecules Does not take place this semester.			1 hrs				F. Allain, S. Jonas
636-0017-00L	Computational Biology	W	6 credits	3G+2A				
636-0017-00 G	Computational Biology The lecture will be held each Monday (16-1)	R h) eithi	er in Zurich or	3 hrs	Mon	16-18	BSA E46 HG D16.2	T. Vaughan
	Basel and will be transmitted via videoconfe	erence to				18-19	HG D16.2	
	location. Tutorials will happen in both location. Tutorials in Zürich: Monday 18-19h (HG D 1				Thu	12-13	BSA E46	
	Tutorials in Basel: Thursday 12-13h (BSA E	46)						
	Lecture on Monday and the Tutorial on Thus available for participation via Zoom.	rsday wi	ll also be					
	ATTENTION: Lecture starts on Monday, 27.	.09, Firs	t Tutorial in					
000 0047 00 4	Basel on Thursday 30.09			0.1				
636-0017-00 A	Computational Biology Project Work (compulsory continuous perform no fixed presence required.	rmance a	assessments),	2 hrs				T. Vaughan
▶▶▶ Practi	cal Work							
Number	Title	Туре	ECTS	Hours				Lecturers
465-0800-00L	Practical Work	0	4 credits					
465-0800-00 P	Only for MAS in Medical Physics Practical Work							external organisers
▶▶▶ Electiv	ves							
Number	Title	Type	ECTS	Hours				Lecturers
327-1101-00L	Biomineralization	W	2 credits	2V				
327-1101-00 V	Biomineralization			2 hrs	Tue	10-12	ML H34.3	KH. Ernst
	Frontiers in Nanotechnology Frontiers in Nanotechnology	W	4 credits	<b>4V</b> 4 hrs	Mon	10-12	HCP E47.3	V. Vogel, further lecturers
					Fri	14-16	HCP E47.3	
402-0674-00L	Physics in Medical Research: From Atoms to Cells	W	6 credits	2V+1U				
402-0674-00 V	Physics in Medical Research: From Atoms t	o Cells		2 hrs	Fri	14-16	HCI H8.1	B. K. R. Müller
402-0674-00 U	Physics in Medical Research: From Atoms t	o Cells		1 hrs	Fri	16-17	HCI H8.1	B. K. R. Müller
<b>535-0423-00L</b> 535-0423-00 V	<b>Drug Delivery and Drug Targeting</b> Drug Delivery and Drug Targeting	W	2 credits	<b>1.5V</b> 1.5 hrs	Tue/1	13-16	HIL E9	JC. Leroux, A. Steinauer
551-1615-00L	NMR Methods for Studies of Biological	W	1 credit	2\$				
	Macromolecules Prerequisites: Basic knowledge in biological NMR spectroscopy.	I						
551-1615-00 S	NMR Methods for Studies of Biological Mac	romolec	ules	2 hrs	Wed	14-16	HPK D3	A. D. Gossert
551-1619-00L	Structural Biology	W	1 credit	1K				
551-1619-00 K	Strukturbiologie Does not take place this semester. Raum: HPK D3, ETH-Hönggerberg			1 hrs	by appt	-		R. Glockshuber, F. Allain, N. Ban, K. Locher, M. Pilhofer, E. Weber-Ban, K. Wüthrich
551-0307-00L	Molecular and Structural Biology I: Protein Structure and Function D-BIOL students are obliged to take part I and part II (next semester) as a two- semester course	W	3 credits	2V				
551-0307-00 V	Molecular and Structural Biology I: Protein S	Structure	and Function	2 hrs	Mon	14-16	HCI J7	R. Glockshuber, K. Locher, E. Weber-Ban
636-0108-00L	Biological Engineering and Biotechnology	W	4 credits	3V				

13-16 636-0108-00 V Biological Engineering and Biotechnology 3 hrs Wed BSA E46 M. Fussenegger Takes place at the D-BSSE in Basel and is transmitted per video conference to Zürich (HG D16.2). HG D16.2 Attention: Lecture starts on Wednesday, September 29 2021 227-2037-00L Physical Modelling and Simulation 6 credits 4G 227-2037-00 G Physical Modelling and Simulation Thu 08-12 ETZ E6 4 hrs J. Smajic MAS in Medical Physics - Key for Type 0 Compulsory E-Recommended, not eligible for credits W+ Eligible for credits and recommended Ζ Courses outside the curriculum W Eligible for credits Dr Suitable for doctorate **Key for Hours** ٧ lecture Ρ practical/laboratory course G lecture with exercise Α independent project D U diploma thesis exercise s R revision course / private study seminar Κ colloquium

ECTS European Credit Transfer and Accumulation System

## **MAS in Future Transport Systems**

Four-semester, part-time MAS programme.

Start of the next course: Spring Semester 2023.

More Information at: http://www.mas-mobilitaet.mavt.ethz.ch/

#### ► Major in Systemic Aspects of Future Transport

The Major in "Systemic Aspects of Future Transport" takes place only in Spring Semester

Start of the next course: Spring Semester 2023 Course duration: Six months part time Periodicity: Every two years

#### ► Major in Technology Potential

The Major in "Major in Technology Potential" takes place only in Autumn Semester

Start of the next course: Autumn Semester 2021 Course duration: Six months part time Periodicity: Every two years

Number	Title	Type	ECTS	Hours				Lecturers
166-0200-00L	Technology Potential: Powertrain, Systems and Energy Carriers Only for MAS in Future Transport Systems and CAS in Future Transport Systems: Technology Potential.	0	3.5 credits	3G				
166-0200-00 G	Technologie-Potenziale: Antriebs-/Fahrzeug Energieträger Blockkurs Einführungsvormittag 24.08.21 Die genauen Unterrichtszeiten werden von akommuniziert.			45s hrs	24.08. 26.08. 27.08. 15.09. 16.09.	08-17 08-17 08-17 08-17 08-17	LEO C12 LEO C12 LEO C12 LEO C12 LEO C12	C. Onder
166-0201-00L	Potential of Spatial Information- and Communication Technologies Only for MAS in Future Transport Systems and CAS in Future Transport Systems: Technology Potential.	0	3 credits	3G				
166-0201-00 G	Potenziale räumlicher Informations- und Kommunikationstechnologien ■			40s hrs	02.11 05.11.	08-12 13-16	LEO C12 LEO C12	P. Kiefer
	Blockkurs (Ort: LEO C12 oder Hönggerberg	1)			08.12.		LEO C12 LEO C12	
166-0202-00L	Integrated Assessment of Technologies and Transport Systems Only for MAS in Future Transport Systems and CAS in Future Transport Systems: Technology Potential.	0	2 credits	1 <b>G</b>				
166-0202-00 G	Integrated Assessment of Technologies and Blockkurs	l Transp	oort Systems	20s hrs	08.12. 09.12 10.12.		LEO C12 LEO C12	C. L. Mutel
						13-17	LEO C12	
166-0203-00L	Energy Carrier for the Mobility of the Future Only for MAS in Future Transport Systems and CAS in Future Transport Systems: Technology Potential.	0	3.5 credits	3G				
166-0203-00 G	Energieträger für eine Mobilität der Zukunft Findet im LEO C 12 (08-12 und 13-17) statt, 25.08.2021, EMPA Dübendorf 08.10.2021, PSI, Villigen		hme:	40s hrs	25.08. 17.09. 06.10. 07.10. 08.10.	08-17 08-17 08-17 08-17 08-17	Ex tern LEO C12 LEO C12 LEO C12 Ex tern	C. Bach
166-0290-00L	CAS Thesis on Technology Potentials Only for MAS in Future Transport Systems and CAS in Future Transport Systems: Technology Potential.	0	3 credits	5D				
166-0290-00 D	CAS-Arbeit Technologie-Potenziale ■ Daten der Veranstaltung (Ort: tbd): 24.08.21 Kick-off CAS Arbeit 27.01.22 Präsentation CAS Arbeit			75s hrs				M. A. Streicher-Porte

### ► Major in New Business Models

The Major in "New Business Models" takes place only in Spring Semester

Start of the next course: Spring Semester 2022 Course duration: Six months part time Periodicity: Every two years

#### ► Major in Transport Engineering

Number	Title	Туре	ECTS	Hours	Lecturers
149-0001-00L	Transport Planning - Theory and Models Only for CAS/DAS in Transport Engineering and MAS in Future Transport Systems		4 credits	3G	

for CAS/DAS in Transport Engineering that in Future Transport Systems shrssteuerung kurs sung: 09:00 - 13:00 Uhr gen: 14:00 - 17:00 Uhr	Type O	4 credits  ECTS 15 credits	3G 35s hrs Hours 27D 375s hrs	20.10. 16.12 17.12. 21.10 22.10. 13.12 15.12.	09-17	HIT F11.1 HIT F11.1 HIT F11.1	M. Fellendorf  Lecturers
sung: 09:00 - 13:00 Uhr gen: 14:00 - 17:00 Uhr c Engineering for CAS/DAS in Transport Engineering MAS in Future Transport Systems shrssteuerung kurs sung: 09:00 - 13:00 Uhr gen: 14:00 - 17:00 Uhr sis er's Thesis for MAS in Future Transport Systems. er-Arbeit	Type	ECTS	35s hrs  Hours 27D	21.10 22.10. 13.12	09-17	HIT F11.1	
c Engineering for CAS/DAS in Transport Engineering MAS in Future Transport Systems christeuerung kurs sung: 09:00 - 13:00 Uhr gen: 14:00 - 17:00 Uhr sils er's Thesis for MAS in Future Transport Systems. er-Arbeit	Type	ECTS	35s hrs  Hours 27D	22.10. 13.12			
for CAS/DAS in Transport Engineering MAS in Future Transport Systems shrssteuerung kurs sung: 09:00 - 13:00 Uhr gen: 14:00 - 17:00 Uhr sis er's Thesis for MAS in Future Transport Systems. er-Arbeit	Type	ECTS	35s hrs  Hours 27D	22.10. 13.12			
kurs sung: 09:00 - 13:00 Uhr gen: 14:00 - 17:00 Uhr sis er's Thesis for MAS in Future Transport Systems. er-Arbeit			Hours 27D	22.10. 13.12			
gen: 14:00 - 17:00 Uhr  sits  er's Thesis for MAS in Future Transport Systems. er-Arbeit			27D		09-17	HIT F11.1	Lecturers
er's Thesis for MAS in Future Transport Systems. er-Arbeit			27D				Lecturers
er's Thesis for MAS in Future Transport Systems. er-Arbeit			27D				Lecturers
for MAS in Future Transport Systems. er-Arbeit	0	15 credits					
			375s hrs				
anaut Systems - Vay for Type							M. A. Streicher-Porte
		1	E-	D-		المائمة الممارية	a far ara dita
llsory e for credits and recommended			Ε- Ζ			ded, not eligible tside the curric	
							uium
; for credits				- Su	illable ioi	uociorale	
			Р	pra	actical/lab	oratory course	
with exercise			Α	inc	lependen	t project	
se			D	dip	oloma the	sis	
ar			R	rev	ision cou	ırse / private stı	udy
iium							
9	for credits with exercise	for credits  with exercise e	with exercise	for credits Dr  P with exercise A D R	for credits  Dr Su  P pra with exercise A inc e D dip r R rev	for credits  Dr Suitable for  P practical/lab with exercise A independen b D diploma the r R revision cou	for credits  Dr Suitable for doctorate  P practical/laboratory course independent project D diploma thesis R revision course / private str

# **MAS in Spatial Planning**

Four-semester, part-time MAS programme.

Start of the next course: Autumne Semester 2021

## ► Lectures and Seminars

Number	Title	Type	ECTS	Hours	Lecturers
115-0500-00L	Preliminary Course: Introduction to Swiss Spatial Planning Only for MAS, DAS and CAS in Spatial Planning	0	3 credits	3G	
115-0500-00 G	Vorkurs: Einführung in die Raumplanung Datum: 23.08 27.08.2021 Gemäss separatem Programm Raum HIL H 35.1			40s hrs	<b>D. Jerjen</b> , A. Schneider
115-0500-01L	Introduction to the Programme and Study Project 1 Only for MAS in Spatial Planning.	W	2 credits	1 <b>G</b>	
115-0500-01 G	Einführung in das Programm und Studienpro Datum: 06.09 10.09.2019 Gemäss separatem Programm Raum HIL H 35.1 HIL	ojekt 1		20s hrs	<b>M. Nollert</b> , J. Van Wezemael
115-0501-00L	Lecture Week 01: Spatial Planning: Tasks and Methods Only for MAS, DAS and CAS in Spatial Planning.	W	2 credits	1G	
15-0501-00 G	Präsenzwoche 01: Raumplanung: Aufgaber Datum: 11. – 15.10.2021 Gemäss separatem Programm Raum HIL H 35.1	und M	ethoden	20s hrs	M. Nollert
115-0502-00L	Lecture Week 02: Urban Planning and Urban Design I Only for MAS, DAS and CAS in Spatial Planning.	W	2 credits	1G	
115-0502-00 G	Präsenzwoche 02: Stadtplanung und Städte Datum: 08. – 12.11.2021 Gemäss separatem Programm Raum HIL H 35.1	bau I		20s hrs	S. Kretz, C. Salewski
115-0503-00L	Lecture Week 03: Landscape Architecture Only for MAS, DAS and CAS in Spatial Planning.	W	2 credits	1G	
115-0503-00 G	Präsenzwoche 03: Landschaftsarchitektur Datum: 06. – 10.12.2021 Gemäss separatem Programm Raum HIL H 35.1			20s hrs	G. Vogt
115-0504-00L	Lecture Week 04: Landscape and Environmental Planning Only for MAS, DAS and CAS in Spatial Planning.	W	2 credits	1G	
15-0504-00 G	Präsenzwoche 04: Landschafts- und Umwe Datum: 10. – 14.01.2022 Gemäss separatem Programm Raum HIL H 35.1	ltplanur	ng	20s hrs	<b>A. Grêt-Regamey,</b> U. Wissen Hayek

# ► Projects and Individual Work

Number	Title	Type	ECTS	Hours	Lecturers
115-0701-00L	Study Project 1 (Part 1) Only for MAS in Spatial Planning.	0	0 credits	10U	
	Project 1 takes 2 semesters, continuation in the following spring semester, taking part 2 is oblligatory.				
115-0701-00 U	Studienprojekt 1 (Teil 1) Gemäss separatem Programm Räume HIL H 35.1 und HIL H 40.9			142s hrs	M. Nollert, F. Argast, O. Hagen, A. Näf-Clasen, M. Sandtner

MAS in	Spatial Planning - Key for Type			
W+	Eligible for credits and recommended	Z	Courses outside the curriculum	
W	Eligible for credits	Dr	Suitable for doctorate	
E-	Recommended, not eligible for credits	0	Compulsory	

Key for	Hours		
V	lecture	P	practical/laboratory course
G	lecture with exercise	A	independent project
U	exercise	D	diploma thesis
S	seminar	R	revision course / private study
K	colloquium		

**ECTS** 

European Credit Transfer and Accumulation System
Special students and auditors need special permission from the lecturers.

#### **MAS in Sustainable Water Resources**

The Master of Advanced Studies in Sustainable Water Resources is a 12 month full time postgraduate diploma programme. The focus of the programme is on issues of sustainability and water resources in Latin America, with special attention given to the impacts of development and climate change on water resources. The programme combines multidisciplinary coursework with high level research. Sample research topics include: water quality, water quantity, water for agriculture, water for the environment, adaptation to climate change, and integrated water resource management. Language: English. Credit hours: 66 ECTS.

For further information please visit: http://www.mas-swr.ethz.ch/

#### **▶** Core Courses

Foundation courses: 12 credits have to be achieved.

Book the corresponding module directly at

Mind the enrolment deadlines at UZH: https://www.uzh.ch/cmsssl/en/studies/appli cation/deadlines.html

UZH as an incoming student. UZH Module Code: GEO815

Number	Title	Туре	ECTS	Hours				Lecturers
118-0101-00L	Water Resources Seminars Number of participants limited to 16.	0	3 credits	3S				
118-0101-00 S	Water Resources Seminars Permission from lecturers required for all st Attendance is compulsory.	udents		3 hrs	Tue	09-12	HIL D60.1	D. Molnar, P. Burlando
118-0114-00L	Nature-Based Solutions and Blue Green Infrastructure	0	3 credits	2G				
118-0114-00 G	Nature-Based Solutions and Blue Green Inf	rastruct	ure	2 hrs	Thu	16-18	HIL E5	D. Molnar, P. M. Bach
▶ Foundati	on Courses							
Number	Title	Туре	ECTS	Hours				Lecturers
102-0287-00L	River Basin Erosion	w	3 credits	2G				
102-0287-00 G	River Basin Erosion Remark: Title until HS20: Fluvial Systems.			2 hrs	Thu	14-16	HIL E6	P. Molnar
101-0267-01L	Numerical Hydraulics	W	3 credits	2G				
101-0267-01 G	Numerical Hydraulics			2 hrs	Mon	14-16	HIL E6	M. Holzner
102-0227-00L	Systems Analysis and Mathematical Modeling in Urban Water Management Number of participants limited to 50.	W	6 credits	4G				
102-0227-00 G	Systems Analysis and Mathematical Modeli Management	ng in Ur	ban Water	4 hrs	Fri	08-10 10-12	HIL E9 HIL E15.2	E. Morgenroth, M. Maurer
102-0217-00L	Process Engineering la	W	3 credits	2G				
102-0217-00 G	Process Engineering la More information can be found at http://www.sww.ifu.ethz.ch/education/lecturengineering-ia.html Voluntary questions and support for excercion: HCl D4 or Tuesdays 13-14, room HCl	ises on l		2 hrs	Wed	08-10	HIL E9	E. Morgenroth
102-0617-00L	Basics and Principles of Radar Remote Sensing for Environmental Applications	W	3 credits	2G				
102-0617-00 G	Basics and Principles of Radar Remote Ser Environmental Applications	nsing for	•	2 hrs	Wed	10-12	HIL E9	I. Hajnsek
<b>102-0215-00L</b> 102-0215-00 G	Urban Water Management II Siedlungswasserwirtschaft II	W	4 credits	<b>2G</b> 2 hrs	Tue	10-12	HIL E8	M. Maurer, P. Staufer
701-1253-00L	Analysis of Climate and Weather Data	w	3 credits	2G				
	Analysis of Climate and Weather Data Does not take place this semester.			2 hrs				C. Frei
651-4031-00L	Geographic Information Systems Number of participants limited to 60.	W	3 credits	4G				
651-4031-00 G	Geographic Information Systems			4 hrs	Wed/2	08-12	HG E26.1 HG E26.3	<b>A. Baltensweiler</b> , M. Hägeli- Golay
102-0468-10L	Watershed Modelling	W	6 credits	4G				
102-0468-10 G	Watershed Modelling Remark: New course replacing 102-0237-0 HS19) and 102-0468-00 Watershed Modeli			4 hrs	Mon Wed	16-18 12-14	HIL E8 HIL E8	P. Molnar
► Elective	Courses							
Electiv	es: 6 credits has to be achieved.							
Number	Title	Туре	ECTS	Hours				Lecturers
401-6215-00L	Using R for Data Analysis and Graphics (Part I)	W	1.5 credits	1G				
401-6215-00 G	Using R for Data Analysis and Graphics (Pa	art I)		14s hrs	Tue/1	14-16	CAB G11	M. Mächler
651-4077-00L	Quantification and Modeling of the Cryosphere: Dynamic Processes (University of Zurich) No enrolment to this course at ETH Zurich.	W	3 credits	1V				

651-4077-00 V	Quantification and Modeling of the Cryosphe Processes (University of Zurich) **Course at University of Zurich**	re: Dyna	amic	1 hrs				University lecturers
	Water Resources and Drinking Water Water Resources and Drinking Water Online event: Will primarily take place online. remain blocked on campus for students to forthere.			<b>2G</b> 2 hrs	Fri	08-10	CAB G11	S. Hug, M. Berg, F. Hammes, U. von Gunten
<b>651-4101-00L</b> 651-4101-00 G	Physics of Glaciers Physics of Glaciers	W	3 credits	<b>3G</b> 3 hrs	Mon	12-15	ML E12	<b>M. Lüthi</b> , F. T. Walter, M. Werder
	Foundations of Ecosystem Management Foundations of Ecosystem Management	W	5 credits	3G 3 hrs	Thu	10-13	CHN G46 HG E41	J. Ghazoul, C. Garcia, J. Garcia Ulloa, A. Giger Dray
701-0535-00L		w	3 credits	2V+1U	23.09.	10-13	HG E33.1	
701-0535-00 V	Zone Hydrology Environmental Soil Physics/Vadose Zone Hy	drology		2 hrs	Wed	16-18	CHN E46	<b>A. Carminati</b> , P. U. Lehmann Grunder
701-0535-00 U	Environmental Soil Physics/Vadose Zone Hy	drology		1 hrs	Wed	18-19	CHN E46	A. Carminati, P. U. Lehmann Grunder
<b>401-0649-00L</b> 401-0649-00 V 401-0649-00 U	Applied Statistical Regression Applied Statistical Regression Mon 10-12 might not work for all different procourse is offered. On sufficient demand, other	er slots (	tentatively	<b>2V+1U</b> 2 hrs 1 hrs	Mon Mon/2w	08-10 10-12	HG E1.2 HG E1.2	M. Dettling M. Dettling
701-1551-00L	Mon 15-17 or Fri 10-12) for the exercise sess  Sustainability Assessment	sions ca <b>W</b>	n be offered.  3 credits	2G				
	Number of participants limited to 35.  Waiting list will be deleted October 1st, 2021.  No enrollment possible after October 1st, 2021.							
701-1551-00 G	2021. Sustainability Assessment			2 hrs	Fri	10-12	CHN G42	P. Krütli, D. Nef
<b>701-1644-00L</b> 701-1644-00 G	Mountain Forest Hydrology  Mountain Forest Hydrology In addition two field trips with data collection	W	5 credits	<b>3G</b> 3 hrs	Wed	09-12	ETZ E7	J. W. Kirchner
701-1251-00L	Land-Climate Dynamics Number of participants limited to 36. Priority is given to the target groups: - Master Environmental Science, - Master Atmospheric and Climate Science and - PhD D-USYS until September 20th,2021. Waiting list will be deleted September 27th, 2021.	w	3 credits	2G				
701-1251-00 G	Land-Climate Dynamics			2 hrs	Tue 05.10.	14-16 14-16	CHN E42 HG E19	<b>S. I. Seneviratne</b> , R. Padrón Flasher
401-6217-00L	Using R for Data Analysis and Graphics (Part II)	W	1.5 credits	1G				
	Using R for Data Analysis and Graphics (Par	t II)		14s hrs	Tue/2	14-16	CAB G11	M. Mächler
► Master's								
Number			ECTS	Hours				Lecturers
118-0121-00L	Master's Thesis Only for MAS in Sustainable Water Resources.	0	24 credits	51D				
118-0121-00 D	Master's Thesis			720s hrs	by appt.			Lecturers
MAS in Susta	inable Water Resources - Key for Type							
MAS in Susta			I	E-	Re	commen	ded, not eligible	e for credits
	inable Water Resources - Key for Type Compulsory Eligible for credits and recommended			E- Z			ded, not eligible	

Key for	Hours		
V	lecture	P	practical/laboratory course
G	lecture with exercise	A	independent project
U	exercise	D	diploma thesis
S	seminar	R	revision course / private study
K	colloquium		

**ECTS** 

European Credit Transfer and Accumulation System
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# MAS in Urban and Territorial Design

## ► Design Studio and Postproduction

Number	Title	Type	ECTS	Hours	Lecturers
078-0100-00L	Core Design and Research Studio I (EPFL) Only for MAS in Urban and Territorial Design	0	16 credits	17G	
078-0100-00 G	Core Design and Research Studio I (EPFL) **Course at EPFL**			240s hrs	external organisers
078-0101-00L	Postproduction I (EPFL) Only for MAS in Urban and Territorial Design	0	2 credits	2G	
078-0101-00 G	Postproduction I (EPFL) **Course at EPFL**			30s hrs	external organisers
► Interdisc	iplinary Courses				
Number	Title	Type	ECTS	Hours	Lecturers
078-0200-00L	City, Habitat and Mobility (EPFL) Only for MAS in Urban and Territorial Design	0	3 credits	3G	
078-0200-00 G	City, Habitat and Mobility (EPFL) **Course at EPFL**			45s hrs	external organisers
078-0201-00L	Building Design in the Circular Economy (EPFL) Only for MAS in Urban and Territorial Design	0	3 credits	3G	
078-0201-00 G	Building Design in the Circular Economy (El **Course at EPFL**	PFL)		45s hrs	external organisers
078-0202-00L	Urban Hydrology (EPFL) Only for MAS in Urban and Territorial Design	0	2 credits	2G	
078-0202-00 G	Urban Hydrology (EPFL) **Course at EPFL**			30s hrs	external organisers
► Urban Th	neory Sessions				
Number	Title	Туре	ECTS	Hours	Lecturers
078-0300-00L	Histories of Environment (EPFL) Only for MAS in Urban and Territorial Design	0	2 credits	2G	
078-0300-00 G	Histories of Environment (EPFL) **Course at EPFL**			30s hrs	external organisers
078-0301-00L	Systemic Thinking in the Age of Transition (EPFL) Only for MAS in Urban and Territorial Design	0	2 credits	2G	
078-0301-00 G	Systemic Thinking in the Age of Transition ( **Course at EPFL**	EPFL)		30s hrs	external organisers
► Electives	3				
	and Territorial Design - Key for Type				
MAS in Urban				E-	Recommended, not eligible for credits
	Compulsory		l l		
O W+	Eligible for credits and recommended			Z	Courses outside the curriculum
O W+				Z Dr	Courses outside the curriculum Suitable for doctorate
O W+ W	Eligible for credits and recommended Eligible for credits				
O W+ W	Eligible for credits and recommended Eligible for credits				
O W+ W <b>Key for Hours</b>	Eligible for credits and recommended Eligible for credits			Dr	Suitable for doctorate
O W+ W <b>Key for Hours</b> V G	Eligible for credits and recommended Eligible for credits  s lecture			Dr P	Suitable for doctorate  practical/laboratory course
O W+ W <b>Key for Hours</b> V G U	Eligible for credits and recommended Eligible for credits			Dr P A	Suitable for doctorate  practical/laboratory course independent project

ECTS European Credit Transfer and Accumulation System

Special students and auditors need special permission from the lecturers.

# **MAS Mediation in Peace Processes**

#### ► Modules

Number	Title	Type	ECTS	Hours				Lecturers
868-0001-00L	Module 1: Mediation in Context Only for MAS Mediation in Peace Processes.	0	10 credits	9G				
868-0001-00 G	Module 1: Mediation in Context Block course			120s hrs	08.11 26.11.	09-18	HG E23 HG F26.1	LE. Cederman, to be announced
868-0004-00L	Module 4: Mediation Process Design Only for MAS Mediation in Peace Processes.	0	10 credits	9G			HG F20.1	
868-0004-00 G	Module 4: Mediation Process Design Does not take place this semester. Block course			120s hrs				A. Wenger
868-0006-00L	Module 6: Mediation Processes Only for MAS Mediation in Peace Processes.	0	6 credits	9G				
	Module 6: Mediation Processes			120s hrs		09-17	HG F26.1	to be announced
868-0006-00 G	Block course				15.10.			
868-0006-00 G	Block course  This course will be offered in the Autumn exception.	Semester	<sup>-</sup> 2021 as an		15.10.		HG F26.3	
	This course will be offered in the Autumn	Semester	<sup>-</sup> 2021 as an		15.10.		HG F26.3	
MAS Mediatio	This course will be offered in the Autumn exception.	Semester	2021 as an	E-		ecommend	HG F26.3	for credits
MAS Mediatio	This course will be offered in the Autumn exception.  n in Peace Processes - Key for Type	Semester	2021 as an	E- Z	Re			
MAS Mediatio	This course will be offered in the Autumn exception.  n in Peace Processes - Key for Type Compulsory	Semester	2021 as an		Re Co		ded, not eligible side the curricu	
MAS Mediatio	This course will be offered in the Autumn exception.  n in Peace Processes - Key for Type Compulsory Eligible for credits and recommended Eligible for credits	Semester	2021 as an	Z	Re Co	urses out	ded, not eligible side the curricu	
MAS Mediatio O W+ W Key for Hours	This course will be offered in the Autumn exception.  n in Peace Processes - Key for Type Compulsory Eligible for credits and recommended Eligible for credits	Semester	2021 as an	Z	Re Cc Su	ourses out iitable for	ded, not eligible side the curricu	
MAS Mediatio O W+ W Key for Hours	This course will be offered in the Autumn exception.  n in Peace Processes - Key for Type Compulsory Eligible for credits and recommended Eligible for credits	Semester	2021 as an	Z Dr	Re Cc Su	ourses out iitable for	ded, not eligible side the curricu doctorate oratory course	
MAS Mediatio O W+ W  Key for Hours V G	This course will be offered in the Autumn exception.  n in Peace Processes - Key for Type Compulsory Eligible for credits and recommended Eligible for credits	Semester	2021 as an	Z Dr	Re Cc Su pra inc	ourses out itable for actical/lab	ded, not eligible side the curricu doctorate oratory course	
MAS Mediatio  O W+ W  Key for Hours  V G U	This course will be offered in the Autumn exception.  n in Peace Processes - Key for Type Compulsory Eligible for credits and recommended Eligible for credits	Semester	2021 as an	Z Dr	Pra inc dip	ourses out iitable for actical/lab dependent oloma thes	ded, not eligible side the curricu doctorate oratory course	ılum

# **Mechanical Engineering Bachelor**

# ▶ 1. Semester

# ▶▶ First Year Examinations: Compulsory Courses

Number	Title	Туре	ECTS	Hours				Lecturers
01-0261-G0L	•	0	8 credits	5V+3U				
01-0261-00 V	Analysis I Vorlesung			5 hrs	Mon/2w	08-10	HG F1 HG F3	A. Steiger
	Mo 8-10 (alternierend mit Schnellübungen), Videoübertragung ins HG F3.	, im HG I	F1 mit		Wed	08-10	ETA F5 HG E3	
	Mi 8-10 im ETA F 5 mit Videoübertragung i Fr 8-10 im ETA F 5 mit Videoübertragung i	ins HG E ins ETF I	3 E 1		Fri	08-10	ETA F5 ETF E1	
01-0261-00 U	Analysis I Groups are selected in myStudies. Die Übungen beginnen in der zweiten Sem Schnellübungen Mo 8-10 (alternierend mit d	esterwoo der Vorle	che.	3 hrs	Mon/2w	08-10	CAB G51 CHN E46 CHN F46 HG D3.2	A. Steiger
	Fr 10-12 oder Fr 12-14 gemäss Gruppeneir Zusätzlich wird das Study Center angebote Uhr ab der 3. Semesterwoche im HG E 1.2, des betreuten Lernens angeboten wird. Im Studierende Vorlesungsstoff vor- oder nach lösen.	en: Mittwo , wo die : Study Ce	Möglichkeit enter können	1			HG D5.2 HG D7.1 IFW A32.1 LFW B1 LFW C5 NO C6	
	iosen.				Fri	10-12	RZ F21 CHN D46 CHN F42 ETZ F91 ETZ H91 HG G26.1 IFW A32.1 IFW C33	
						12-14	LEE C104 LEE D101 LFW E13 NO C6 CHN D46 CHN F42 ETZ F91	
							ETZ H91 HG G26.1 IFW A32.1 IFW C33 LEE C104 LEE D101 LFW E13 NO C6	
1-0171-00L	Linear Algebra I	0	3 credits	2V+1U				
	Lineare Algebra I Groups are selected in myStudies. Di 10-12 im ETA F 5 mit Videoübertragung			2 hrs	Tue	10-12	ETA F5 ETF E1	N. Hungerbühler
01-0171-00 U	Lineare Algebra I Groups are selected in myStudies. Ab der ERSTEN Semesterwoche: Fr 10-11 bzw. Fr 12-13 oder Fr 13-14 gemä (entsprechend der Gruppeneinteilung für di I: Fr 12-14 bzw. Fr 10-12). In der ersten Semesterwoche findet am 24. regulären Übungsstunden für alle Studierer in MATLAB statt (für die Übungsgruppen G finden die Übungen vom 24.09. im Raum C 01.10. im Raum CAB G 52).	äss Grup ie Übung .09.2021 nden eine i-01B und	peneinteilung en in Analysis in den e Einführung d G-02B	1 hrs	Fri	10-11	CAB G52 CHN D48 HG G26.3 IFW A34 IFW C31 LEE D105 ML F34 ML J34.1 ML J34.3 ML J37.1 NO C44	N. Hungerbühler
	Zusätzlich wird das Study Center angebote Uhr ab der 3. Semesterwoche im HG E 1.2, des betreuten Lernens angeboten wird. Im Studierende Vorlesungsstoff vor- oder nach	, wo die . Study Ce	Möglichkeit enter können	1		12-13	CAB G52 CHN D48 CHN E42 ML F34 ML H41.1	
	lösen.					13-14	CAB G52 CAB G56 CHN D48 CHN E42 ML F34	
					24.09.	12-13 13-14	ML H41.1 CAB G59 CAB G59	
51-0501-00L	Mechanics 1: Kinematics and Statics	0	5 credits	3V+2U	Mon	10.10		E Marro
) 1-030 1-00 V	Mechanik 1: Kinematik und Statik Vorlesung: Mo ETA F 5 mit Videoübertragung ins ETF Di ETA F 5 mit Videoübertragung ins ETF			3 hrs	Mon Tue	10-12 14-15	ETA F5 ETF E1 HG E5 ETA F5	E. Mazza
							ETF E1	

151-0501-00 U	Mechanik 1: Kinematik und Statik Groups are selected in myStudies. Die Übungen finden ab der 2. Semesterwoche statt.	2 hrs	Wed	14-16	CHN E42 HG D5.1 HG G26.5	E. Mazza
	Mi 14-16 für Bauingenieurwissenschaften Do 08-10 für Maschineningenieurwissenschaften		Thu	08-10	LFW E13 NO E11 NO E39 CAB G51	
	Zusätzlich wird das Study Center angeboten: Donnerstag 18-20 ab der 3. Semesterwoche im HG E 1.2, wo die Möglichkeit des betreuten Lernens angeboten wird. Im Study Center können Studierende Vorlesungsstoff vor- oder nachbereiten und Übungen lösen.		Thu	08-10	CHN D44 CHN D48 ETZ E7 ETZ E9 ETZ F91 ETZ G91 ETZ H91 ETZ J91 ETZ K91 LFO C13 LFW B1 LFW B3 LFW C11 LFW C4 LFW C5	
	Engineering Materials and Production I O 4 credits  Werkstoffe und Fertigung I	<b>4G</b> 4 hrs	Mon	11 15	UC EE	K Waganar
151-0711-00 G	Groups are selected in myStudies.  Vorlesung: Mo 14-15 im HG E 7 mit Videoübertragung ins HG E 5, Mi 10-12 im ETA F 5.  Die erste Vorlesung findet am Mittwoch, den 22.09.2021, statt.	41115	Mon/2w	14-15 16-18	HG E5 HG E7 HG E33.5 HG E33.5 HG G26.5 HG G26.5	K. Wegener
	Die Übungen beginnen in der zweiten Semesterwoche: Mo 16-18 und Mi 14-16 (in Gruppen, 14-täglich, nach Vereinbarung) / Di 12-13 findet eine italienisch Sprechstunde statt (Ort: HG E 33.1).				ML F34 ML F34 ML F40 ML F40	
	Zusätzlich wird das Study Center angeboten: Donnerstag 18-20 ab der 3. Semesterwoche im HG E 1.2, wo die Möglichkeit des betreuten Lernens angeboten wird. Im Study Center können Studierende Vorlesungsstoff vor- oder nachbereiten und Übungen lösen.		Wed Wed/2w	10-12 14-16	ML H41.1 ML H41.1 ETA F5 HG E22 HG E33.3 HG E33.3 HG E33.5 LFV E41 LFV E41 LFW B1 ML F34	
					ML F34 ML F38 ML F38 ML F38 ML H41.1 ML H41.1 NO C6 NO C6	
	Machine Elements O 2 credits  Maschinenelemente	<b>1V+1U</b> 1 hrs	Tue	08-09	ETA F5	M. Meboldt, Q. Lohmeyer
	Di 08–09 Uhr im ETA F 5 mit Videoübertragung im ETF E 1				ETF E1	•
151-0301-00 0	Maschinenelemente Di 09–10 Uhr im ETA F 5 mit Videoübertragung im ETF E 1	1 hrs	Tue	09-10	ETA F5 ETF E1	M. Meboldt, Q. Lohmeyer
<b>529-0010-00L</b> 529-0010-00 V	Chemistry O 3 credits Chemie Do 10-12 im ETA F 5 mit Videoübertragung im ETF E 1	<b>2V+1U</b> 2 hrs	Thu	10-12	ETA F5 ETF E1	A. de Mello, C. Mondelli, D. J. Norris, S. Stavrakis
529-0010-00 U	Die Vorlesung findet auf Deutsch und auf Englisch statt, Chemie Groups are selected in myStudies. Bitte melden Sie sich für die Übungsgruppen auf mystudies an. Eine englischsprachige Gruppe wird für die Studierenden des Masterstudiengangs in Integrated Building Systems angeboten (HIL E 5). Übungslektionen beginnen nach der zweiten Vorlesung.  Please subscribe to the exercise groups in mystudies. An English-	1 hrs	Fri	10-12 14-15	HIL E5 CAB G59 CHN E46 CHN F42 CLA E4 IFW C33 LEE C114 LEE D101 LFV E41	F. Jenny
	speaking group is offered to the students of the Master course in Integrated Building Systems (HIL E 5). Problem classes start after Lecture 2.				LFW B3 LFW C1 LFW C5 ML H41.1	
	Zusätzlich wird das Study Center angeboten: Mittwochs 18-20 Uhr ab der 3. Semesterwoche im HG E1.2, wo die Möglichkeit des betreuten Lernens angeboten wird. Im Study Center können Studierende Vorlesungsstoff vor- oder nachbereiten und Übungen lösen.				ML J34.1	

# **▶▶** Additional First Year Courses

Title	Type	ECTS	Hours				Lecturers
Technical Drawing and CAD Only for Mechanical Engineering BSc.		4 credits	4G				
Technical Drawing and CAD Groups are selected in myStudies.			4 hrs	Mon	15-16	HG E5 HG E7	K. Shea
					16-19	HG G1 HG K30.1	
Semesterwoche.				Tue	16-19	HG E26.1 HG E26.3	
· ·	Die				HG G1		
reservierten Räume bleiben für die Studiere Campus bestehen, um die Lehrveranstaltur	ıf dem u hören. Im		Wed	14-17	HG E26.1 HG G1		
Übungen: in Gruppen. Weitere Informatione			Thu	14-17	HG E26.1 HG E26.3		
Gruppeneinschreibung wird ab der 2. Seme		he möglich		00.00	11.10	HG G1 HG K30.1	
_	n: Doute	oh		30.09.	14-16	HG E26.3	
	Technical Drawing and CAD Only for Mechanical Engineering BSc. Technical Drawing and CAD Groups are selected in myStudies. Der Kurs wird zum letzten Mal im HS21 and Lehrveranstaltung (Vorlesung und Übunger Semesterwoche.  Vorlesung Mo 15-16h: Online-Veranstaltung Lehrveranstaltung findet grundsätzlich onlir reservierten Räume bleiben für die Studiere Campus bestehen, um die Lehrveranstaltun Raum HG E5 wird ein Assistierender Mo 15 Übungen: in Gruppen. Weitere Informatione der Übungen erfolgen durch die Dozierende Gruppeneinschreibung wird ab der 2. Semes sein.	Technical Drawing and CAD Only for Mechanical Engineering BSc. Technical Drawing and CAD Groups are selected in myStudies. Der Kurs wird zum letzten Mal im HS21 angeboten. Lehrveranstaltung (Vorlesung und Übungen) beginn Semesterwoche.  Vorlesung Mo 15-16h: Online-Veranstaltung: Diese Lehrveranstaltung findet grundsätzlich online statt. Ir reservierten Räume bleiben für die Studierenden au Campus bestehen, um die Lehrveranstaltung dort z Raum HG E5 wird ein Assistierender Mo 15-16h vo. Übungen: in Gruppen. Weitere Informationen über der Übungen erfolgen durch die Dozierenden. Die Gruppeneinschreibung wird ab der 2. Semesterwoossein.	Technical Drawing and CAD O 4 credits Only for Mechanical Engineering BSc. Technical Drawing and CAD Groups are selected in myStudies. Der Kurs wird zum letzten Mal im HS21 angeboten. Die Lehrveranstaltung (Vorlesung und Übungen) beginnt in der 2. Semesterwoche.  Vorlesung Mo 15-16h: Online-Veranstaltung: Diese Lehrveranstaltung findet grundsätzlich online statt. Die reservierten Räume bleiben für die Studierenden auf dem Campus bestehen, um die Lehrveranstaltung dort zu hören. Im Raum HG E5 wird ein Assistierender Mo 15-16h vor Ort sein.  Übungen: in Gruppen. Weitere Informationen über die Aufteilung der Übungen erfolgen durch die Dozierenden. Die Gruppeneinschreibung wird ab der 2. Semesterwoche möglich	Technical Drawing and CAD O 4 credits 4G Only for Mechanical Engineering BSc.  Technical Drawing and CAD 4 hrs Groups are selected in myStudies. Der Kurs wird zum letzten Mal im HS21 angeboten. Die Lehrveranstaltung (Vorlesung und Übungen) beginnt in der 2. Semesterwoche.  Vorlesung Mo 15-16h: Online-Veranstaltung: Diese Lehrveranstaltung findet grundsätzlich online statt. Die reservierten Räume bleiben für die Studierenden auf dem Campus bestehen, um die Lehrveranstaltung dort zu hören. Im Raum HG E5 wird ein Assistierender Mo 15-16h vor Ort sein.  Übungen: in Gruppen. Weitere Informationen über die Aufteilung der Übungen erfolgen durch die Dozierenden. Die Gruppeneinschreibung wird ab der 2. Semesterwoche möglich sein.	Technical Drawing and CAD O 4 credits 4G Only for Mechanical Engineering BSc.  Technical Drawing and CAD 4 hrs Mon Groups are selected in myStudies. Der Kurs wird zum letzten Mal im HS21 angeboten. Die Lehrveranstaltung (Vorlesung und Übungen) beginnt in der 2. Semesterwoche.  Tue  Vorlesung Mo 15-16h: Online-Veranstaltung: Diese Lehrveranstaltung findet grundsätzlich online statt. Die reservierten Räume bleiben für die Studierenden auf dem Campus bestehen, um die Lehrveranstaltung dort zu hören. Im Raum HG E5 wird ein Assistierender Mo 15-16h vor Ort sein.  Übungen: in Gruppen. Weitere Informationen über die Aufteilung der Übungen erfolgen durch die Dozierenden. Die Gruppeneinschreibung wird ab der 2. Semesterwoche möglich sein.  30.09.	Technical Drawing and CAD O 4 credits 4G Only for Mechanical Engineering BSc. Technical Drawing and CAD 4 hrs Mon 15-16 Groups are selected in myStudies. Der Kurs wird zum letzten Mal im HS21 angeboten. Die Lehrveranstaltung (Vorlesung und Übungen) beginnt in der 2. Semesterwoche. Tue 16-19 Vorlesung Mo 15-16h: Online-Veranstaltung: Diese Lehrveranstaltung findet grundsätzlich online statt. Die reservierten Räume bleiben für die Studierenden auf dem Campus bestehen, um die Lehrveranstaltung dort zu hören. Im Raum HG E5 wird ein Assistierender Mo 15-16h vor Ort sein. Übungen: in Gruppen. Weitere Informationen über die Aufteilung der Übungen erfolgen durch die Dozierenden. Die Gruppeneinschreibung wird ab der 2. Semesterwoche möglich sein. 30.09. 14-16	Technical Drawing and CAD O 4 credits 4G  Only for Mechanical Engineering BSc.  Technical Drawing and CAD 4 hrs Mon 15-16 HG E5  Groups are selected in myStudies.  Der Kurs wird zum letzten Mal im HS21 angeboten. Die  Lehrveranstaltung (Vorlesung und Übungen) beginnt in der 2.  Semesterwoche.  Tue 16-19 HG E3  HG K30.1  Semesterwoche.  Tue 16-19 HG E26.1  HG E26.3  HG G1  HG K30.1  Thu 14-17 HG E26.1  Campus bestehen, um die Lehrveranstaltung dort zu hören. Im  Raum HG E5 wird ein Assistierender Mo 15-16h vor Ort sein.  Übungen: in Gruppen. Weitere Informationen über die Aufteilung der Übungen erfolgen durch die Dozierenden. Die  Gruppeneinschreibung wird ab der 2. Semesterwoche möglich  sein.  30.09. 14-16 HG E5

# ►► First Year Optional Colloquia

Number	Title	Type	ECTS	Hours				Lecturers
151-0501-02L	Mechanics 1: Kinematics and Statics (Colloquium)	Z	0 credits	1K				
151-0501-02 K	501-02 K Mechanik 1: Kinematik und Statik (Kolloquium)  Di 15-16 im ETA F 5 mit Videoübertragung ins ETF E 1 und HG  3				Tue	15-16	ETA F5 ETF E1 HG E3	R. Hopf
	In der ersten Semesterwoche fällt das Kol durch eine Doppelstunde Vorlesung Di 14							

## ▶ 3. Semester

## **▶▶** Compulsory Courses

## ▶▶▶ Examination Block 1

Number	Title	Type	ECTS	Hours				Lecturers
401-0363-10L	Analysis III	0	3 credits	2V+1U				
401-0363-10 V				2 hrs	Thu	14-16	HG F5	A. lozzi
	Lectures in HG F7 with video transmission Starts in the second week of the semester.		5.	210			HG F7	, <del></del>
401-0363-10 U	Analysis III			1 hrs	Thu/1	16-17	CAB G56	A. lozzi
	Groups are selected in myStudies.				Thu/2	16-17	CAB G56	
	Many of the exercise classes are offered in	German	-		Thu/1	16-17	CAB G59	
	•				Thu/2	16-17	CAB G59	
	Zusätzlich wird das Study Center angebote	n: Monta	gs 18-20 Uh	r			CLA E4	
	ab der 3. Semesterwoche im HG E 1.1, wo				Thu/1	16-17	CLA E4	
	betreuten Lernens angeboten wird. Im Stud	dy Center	können		Thu/2	16-17	HG G26.3	
	Studierende Vorlesungsstoff vor- oder nach	hbereiten	und Übunge	en	Thu/1	16-17	HG G26.3	
	lösen.		ū				HG G26.5	
					Thu/2	16-17	HG G26.5	
					Thu/1	16-17	LFW B3	
					Thu/2	16-17	LFW B3	
							LFW E13	
					Thu/1	16-17	LFW E13	
					Thu/2	16-17	ML F40	
					Thu/1	16-17	ML F40	
					Thu/2	16-17	ML J34.1	
					Thu/1	16-17	ML J34.1	
						17-18	CAB G56	
					Thu/2	17-18	CAB G56	
							CAB G59	
					Thu/1	17-18	CAB G59	
					Thu/2	17-18	CLA E4	
					Thu/1	17-18	CLA E4	
							HG G26.3	
					Thu/2	17-18	HG G26.3	
							HG G26.5	
					Thu/1	17-18	HG G26.5	
							LFW B3	
					Thu/2	17-18	LFW B3	
						-	LFW E13	
					Thu/1	17-18	LFW E13	
							ML F40	
					Thu/2	17-18	ML F40	
					Thu/1	17-18	ML J34.1	
					Thu/2	17-18	ML J34.1	
		0						

151-0503-00 V Dynamics							
I he lectures will start	t in the 2nd week of the Semester	r.	4 hrs	Mon	14-16	HG F5 HG F7	D. Kochmann
The Monday lectures to HG F 5.	are held in HG F 7 with video tra	ansmission		Wed	14-16	HCI G7 ML D28	
The Wednesday lectu	ures are held in ML D 28 with vide	eo				IVIL DZO	
transmission to HCI C 151-0503-00 U Dynamics	G 7 (ETH Hönggerberg)		2 hrs	Thu	08-10	CAB G59	D. Kochmann
Groups are selected		tori				CHN E42 CHN F46	
- Thursday 8-10 for N	art in the 2nd week of the Semest Mechanical Engineering BSc	ier.				CHN G42	
- Friday 14-16 for Civ	il Engineering BSc					CHN G46 HG E21	
	Study Center angeboten: Montags oche im HG E 1.1, wo die Möglicl					HG E22 HG E33.1	
betreuten Lernens ar	ngeboten wird. Im Study Center k	rönnen				HG E33.3	
lösen.	ngsstoff vor- oder nachbereiten ui	na obungen				HG E33.5 HG G26.3	
						HG G26.5 LFW E13	
						ML H41.1	
						ML J34.1 ML J34.3	
						ON LINE ON LINE	
				Fri	14-16	HIT F31.2 HIT H51	
						HIT J52	
						HIT J53 HIT K51	
						ON LINE	
151-0303-00L Dimensioning I 151-0303-00 G Dimensionieren I	0 3	credits	<b>3G</b> 3 hrs	Tue	08-10	ML D28	E. Mazza, D. Mohr
Groups are selected	in myStudies. 8-10 im ML D28 mit Videoübertra	aauna ine	-		10-11	ML E12 CHN D42	, -
ML E12.					10-11	CHN D44	
Ç Ç	11 oder 11-12 gemäss Gruppene	· ·				CHN D46 CHN D48	
	Study Center angeboten: Mittwoch ne im HG E 1.1, wo die Möglichke					HG D3.1 HG D3.3	
betreuten Lernens an	ngeboten wird. Im Study Center k ngsstoff vor- oder nachbereiten ui	rönnen			44.40	HG D5.1	
lösen.	igsston vor- oder nachbereiten di	na obungen			11-12	CHN D42 CHN D44	
						CHN D46 CHN D48	
						HG D3.1 HG D3.3	
						HG D5.1	
151-0051-00L Thermodynamics I	0 4	credits	2V+2U			LFW C4	
151-0051-00 V Thermodynamik I			2 hrs	Thu	10-12	ML D28	A. Bardow, C. Müller
Vorlesung im ML D 2 151-0051-00 U Thermodynamik I	8 mit Videoübertragung ins ML E	12.	2 hrs	Fri	08-10	ML E12 CHN C14	A. Bardow, C. Müller
Groups are selected			21110		00 10	CHN E46	7ti Bardon, or manor
o o	en ab der dritten Vorlesungswoch					CHN G42 ETZ E6	
	Study Center angeboten: Mittwoch ne im HG E 1.1, wo die Möglichke					ETZ E8 LFW B1	
betreuten Lernens ar	ngeboten wird. Im Study Center k ngsstoff vor- oder nachbereiten ui	rönnen				ML F38 ML F39	
lösen.	.g.z.to To. Guor naonboronori ur	Sangon				ML H41.1	
151-0591-00L Control Systems I	0 4	credits	2V+2U		10.40	<b>ПО Г</b> Г	I. Currelle
151-0591-00 V Regelungstechnik I	7 mit Videoübertragung ins HG E	5.	2 hrs	Fri	10-12	HG E5 HG E7	L. Guzzella
0 0			2 hrs	Fri	14-16	CHN D44 CHN D46	L. Guzzella
Vorlesung im HG E 7 151-0591-00 U Regelungstechnik I	in myStudies					CHN F46	
Vorlesung im HG E 7 151-0591-00 U Regelungstechnik I Groups are selected	in myStudies. in der 2. Woche des Semesters.						
Vorlesung im HG E 7 151-0591-00 U Regelungstechnik I Groups are selected Die Übungen starten  Zusätzlich wird das S	in der 2. Woche des Semesters. Study Center angeboten: ab der 3.	3.				CHN G42 ETZ E9	
Vorlesung im HG E 7 151-0591-00 U Regelungstechnik I Groups are selected Die Übungen starten  Zusätzlich wird das S Semesterwoche, Mor	in der 2. Woche des Semesters.	3. d Mittwochs,				CHN G42 ETZ E9 ETZ J91	
Vorlesung im HG E 7 151-0591-00 U Regelungstechnik I Groups are selected Die Übungen starten  Zusätzlich wird das S Semesterwoche, Mor 18-20 Uhr im HG E 1 angeboten wird. Im S	in der 2. Woche des Semesters. Study Center angeboten: ab der 3. ntags, 18-20 Uhr im HG E 1.1 und .1, wo die Möglichkeit des betreu Study Center können Studierende	3. d Mittwochs, uten Lernens				CHN G42 ETZ E9 ETZ J91 ETZ K91 HG D3.2	
Vorlesung im HG E 7 151-0591-00 U Regelungstechnik I Groups are selected Die Übungen starten  Zusätzlich wird das S Semesterwoche, Mor 18-20 Uhr im HG E 1 angeboten wird. Im S	in der 2. Woche des Semesters. Study Center angeboten: ab der 3. ntags, 18-20 Uhr im HG E 1.1 und .1, wo die Möglichkeit des betreu	3. d Mittwochs, uten Lernens				CHN G42 ETZ E9 ETZ J91 ETZ K91 HG D3.2 HG D5.1 HG E21	
Vorlesung im HG E 7 151-0591-00 U Regelungstechnik I Groups are selected Die Übungen starten  Zusätzlich wird das S Semesterwoche, Mor 18-20 Uhr im HG E 1 angeboten wird. Im S	in der 2. Woche des Semesters. Study Center angeboten: ab der 3. ntags, 18-20 Uhr im HG E 1.1 und .1, wo die Möglichkeit des betreu Study Center können Studierende	3. d Mittwochs, uten Lernens				CHN G42 ETZ E9 ETZ J91 ETZ K91 HG D3.2 HG D5.1	
Vorlesung im HG E 7 151-0591-00 U Regelungstechnik I Groups are selected Die Übungen starten  Zusätzlich wird das S Semesterwoche, Mor 18-20 Uhr im HG E 1 angeboten wird. Im S	in der 2. Woche des Semesters. Study Center angeboten: ab der 3. ntags, 18-20 Uhr im HG E 1.1 und .1, wo die Möglichkeit des betreu Study Center können Studierende	3. d Mittwochs, uten Lernens				CHN G42 ETZ E9 ETZ J91 ETZ K91 HG D3.2 HG D5.1 HG E21 HG G26.3 IFW B42 LEE D105	
Vorlesung im HG E 7 151-0591-00 U Regelungstechnik I Groups are selected Die Übungen starten  Zusätzlich wird das S Semesterwoche, Mor 18-20 Uhr im HG E 1 angeboten wird. Im S	in der 2. Woche des Semesters. Study Center angeboten: ab der 3. ntags, 18-20 Uhr im HG E 1.1 und .1, wo die Möglichkeit des betreu Study Center können Studierende	3. d Mittwochs, uten Lernens				CHN G42 ETZ E9 ETZ J91 ETZ K91 HG D3.2 HG D5.1 HG E21 HG G26.3 IFW B42 LEE D105 LFW C4 ML F34	
Vorlesung im HG E 7 151-0591-00 U Regelungstechnik I Groups are selected Die Übungen starten  Zusätzlich wird das S Semesterwoche, Mor 18-20 Uhr im HG E 1 angeboten wird. Im S	in der 2. Woche des Semesters. Study Center angeboten: ab der 3. ntags, 18-20 Uhr im HG E 1.1 und .1, wo die Möglichkeit des betreu Study Center können Studierende	3. d Mittwochs, uten Lernens				CHN G42 ETZ E9 ETZ J91 ETZ K91 HG D3.2 HG D5.1 HG E21 HG G26.3 IFW B42 LEE D105 LFW C4	
Vorlesung im HG E 7 151-0591-00 U Regelungstechnik I Groups are selected Die Übungen starten  Zusätzlich wird das S Semesterwoche, Mor 18-20 Uhr im HG E 1 angeboten wird. Im S	in der 2. Woche des Semesters. Study Center angeboten: ab der 3. ntags, 18-20 Uhr im HG E 1.1 und .1, wo die Möglichkeit des betreu Study Center können Studierende	3. d Mittwochs, uten Lernens				CHN G42 ETZ E9 ETZ J91 ETZ K91 HG D3.2 HG D5.1 HG E21 HG G26.3 IFW B42 LEE D105 LFW C4 ML F34 ML F39	

Number	Title	Type	ECTS	Hours				Lecturers
402-0033-10L	Physics I	0	6 credits	4V+2U				
402-0033-10 V	Physik I Die Vorlesung beginnt am Dienstag der ers	sten Sen	nesterwoche.	4 hrs	Tue Wed	14-16 10-12	HPH G1 HPH G1	L. Degiorgi
402-0033-10 U	Physik I Die Übungen beginnen in der zweiten Sem Zusätzlich wird das Study Center angebote Uhr (d.h. nach den Uebungen) ab der 3. St Hönggerberg, wo die Möglichkeit des betre angeboten wird. Im Study Center können S Vorlesungsstoff vor- oder nachbereiten und und Organisation werden in der Vorlesung	en: Diens emesterv euten Lei Studierer d Übunge	stags 18-20 woche am mens nde en lösen. Ort	2 hrs	Tue	16-18	HCI D6 HCI E8 HCI F8 HCI F8 HCP E47.1 HCP E47.2 HCP E47.3 HCP E47.4 HIL B21 HIL C10.2 HIL D60.1 HIL E10.1 HIL E5 HIT J52 HIT K51 HPK D24.2 HPL D32 HPL D32	L. Degiorgi

# **▶▶** Engineering Tools

The Engineering Tools courses are for MAVT Bachelor's degree students only.

Number	Title	Type	ECTS	Hours				Lecturers
151-0021-00L	Engineering Tool: Introduction to MATLAB The Engineering Tools courses are for MAVT Bachelor's degree students only.	W+	0.4 credits	1K				
	Note: previous course title in German until HS18 "Ingenieur-Tool: Numerisches Rechnen".							
151-0021-00 K	Ingenieur-Tool: Einführung in MATLAB Blockkurs in der ersten Semesterwoche.			12s hrs	22.09. 23.09. 24.09.	14-18 14-18 14-18	HG F1 HG E7 HG E7	B. Berisha
252-0863-00L	Engineering Tool: Advanced Programming with C++ All Engineering Tool courses are for MAVT- Bachelor students only.	W+	0.4 credits	1K				
252-0863-00 K	Engineering Tool: Advanced Programming Block course (three half-day afternoon cour week of the Semester.			12s hrs	22.09. 23.09. 24.09.	14-18 14-18 14-18	ON LINE ON LINE ON LINE	F. O. Friedrich Wicker
	The lecturers will communicate the exact le courses.	sson tin	nes of ONLINE	Ē				

# ▶ 5. Semester

#### ▶▶ Compulsory Courses Examination Block 3

Number	Title	Гуре	ECTS	Hours				Lecturers
151-0261-00L	Thermodynamics III	)	3 credits	2V+1U				
151-0261-00 V	Thermodynamics III Online lecture: This lecture will primarily take Reserved rooms will remain blocked on camp follow the course from there.			2 hrs	Tue	08-10	NO C60	R. S. Abhari, A. Steinfeld
151-0261-00 U	Thermodynamics III Groups are selected in myStudies. Online exercise: Will primarily take place online will remain blocked on campus for students to from there.  Please note: The room HG D 1.1 is not available.	o follov	v the exercise	1 hrs	Tue	10-11	CAB G61 HG D1.1 IFW A36	R. S. Abhari, A. Steinfeld
151-0103-00L	Fluid Dynamics II	<b>)</b>	3 credits	2V+1U				
151-0103-00 V	Fluiddynamik II In der 1. und 2. Semesterwoche findet am Die			2 hrs	Mon 21.09. 28.09.	10-12 11-12 11-12	HG E7 ETF C1 ETF C1	P. Jenny
	jeweils eine Vorlesung, anstelle von Ubunger 1).							

## **▶▶** Electives

Number	Title	Type	ECTS	Hours				Lecturers
151-0573-00L	System Modeling	W	4 credits	2V+1U				
151-0573-00 V	System Modeling			2 hrs	Wed	08-10	HG E7	L. Guzzella

151-0573-00 II	System Modeling			1 hrs	Tue	13-14	LFV E41	L. Guzzella
101 0070 00 0	Groups are selected in myStudies.  Die Übungen finden ab der zweiten Semes.	torwock	ha statt	1 1113	140	17-18	LFW C5 CHN G42	E. Guzzena
	Di 13-14, Di 17-18 oder Do 8-9 gemäss Gru					17-10	HG D7.1	
	,		J		Thu	08-09	HG E1.1 LFV E41	
151-0575-01L	Signals and Systems	W	4 credits	2V+2U				
151-0575-01 V	Signals and Systems The lecture will start in the 2nd week of the	Semes	ster.	2 hrs	Thu	14-16	ETF C1	A. Carron
151-0575-01 U	Signals and Systems The exercise will start in the 3rd week of the	e Seme	ester.	2 hrs	Thu	16-18	ETF C1	A. Carron
151-0917-00L	Mass Transfer	W	4 credits	2V+2U				
151-0917-00 V	Mass Transfer			2 hrs	Wed	10-12	ML H44	<b>S. E. Pratsinis</b> , V. Mavrantzas, CJ. Shih
151-0917-00 U	Mass Transfer The exercise will start in the 2nd week of the	e Seme	ester.	2 hrs	Tue	14-16	HG E1.1	<b>S. E. Pratsinis</b> , V. Mavrantzas, CJ. Shih
151-0973-00L	Introduction into Process Engineering I	W	4 credits	2V+2U				
	Einführung in die Verfahrstechnik I Die Lehrveranstaltung beginnt in der zweite			2 hrs	Mon	08-10	ML F36	C. Müller
151-0973-00 U	Einführung in die Verfahrstechnik I Die Lehrveranstaltung beginnt in der zweite			2 hrs	Mon	14-16	ML F36	F. Donat
151-3207-00L	Lightweight	w	4 credits	2V+2U				
151-3207-00 V			esterwoche.	2 hrs	Mon	14-16	HG G3	P. Ermanni
151-3207-00 U				2 hrs	Thu	10-12	HG E5	P. Ermanni
227-0076-00L	Electrical Engineering II	w	4 credits	2V+2U				
	Elektrotechnik II	••	- Ground	2 hrs	Wed	10-12	HG E5	C. Studer
	Elektrotechnik II Groups are selected in myStudies.			2 hrs	Wed	16-18	CLA E4 HG D3.1 HG D5.1	C. Studer
					Thu	08-10	CAB G52 LEE C104 LEE C114 LEE D101 LEE D105	
363-0511-00L	Managerial Economics Not for MSc students belonging to D- MTEC!	W	4 credits	3V				
363-0511-00 V	Managerial Economics			3 hrs	Tue Wed	18-19 08-10	HG F5 HG G3	<b>V. Lohmann</b> , P. Egger, M. Köthenbürger
401-0435-00L	Computational Methods for Engineering Applications	W	4 credits	2V+2U				
401-0435-00 V	Computational Methods for Engineering Ap Lecture starts in the second week of the sec			2 hrs	Tue	16-18	HG E5	R. Käppeli, M. Petrella
401-0435-00 U	Computational Methods for Engineering Ap Groups are selected in myStudies. Exercises start in the second week of the se			2 hrs	Thu	10-12	CLA E4 HG E33.1 LFW B3	R. Käppeli, M. Petrella
401-0603-00L	Stochastics (Probability and Statistics)	W	4 credits	2V+1U				
401-0603-00 V	Stochastik			2 hrs	Mon	16-18	ETA F5	P. Cheridito
401-0603-00 U				1 hrs	Mon	18-19	HG D5.2	P. Cheridito
	Groups are selected in myStudies. Mo 18-19 oder Di 12-13 gemäss Gruppene Studiengang Materialwissenschaft geht nur				Tuo	10.10	HG E33.1 HG G26.5 LFW C5	
	Guarengang materialwissenschaft gent nur	IVIO 10	- 1 <i>3)</i>		Tue	12-13	ML F36	

# ▶▶ Focus Project

# ▶▶▶ Focus Projects in Mechatronics

Number	Title	Туре	ECTS	Hours		Lecturers
151-0073-10L	This course is part of a one-year course. The 14 credit points will be issued at the end of FS2022 with new enrolling for the same Focus Project in FS2022.	W	0 credits	15A		
	For MAVT BSc and ITET BSc only.					
	Prerequisites for the focus projects: a. Basis examination successfully passed b. Block 1 and 2 successfully passed					
	For enrollment, please contact the D-MAVT Student Administration.					
151-0073-10 A	Drone-Crane ■ Permission from lecturers required for all stu	ıdents		210s hrs by ap	pt.	R. Siegwart
151-0073-20L	AITHON This course is part of a one-year course.	W	0 credits	15A		

The 14 credit points will be issued at the end of FS2022 with new enrolling for the same Focus Project in FS2022.

For MAVT BSc and ITET BSc only.

Prerequisites for the focus projects:

a. Basis examination successfully passed

b. Block 1 and 2 successfully passed

For enrollment, please contact the D-MAVT

Student Administration.

151-0073-20 A AITHON ■

Permission from lecturers required for all students

210s hrs by appt.

15A

R. Siegwart

# 151-0073-30L Guidance, Navigation and Control for Recovery of a Sounding Rocket

This course is part of a one-year course. The 14 credit points will be issued at the end of FS2022 with new enrolling for the same Focus Project in FS2022.

For MAVT BSc and ITET BSc only.

Prerequisites for the focus projects: a. Basis examination successfully passed b. Block 1 and 2 successfully passed

For enrollment, please contact the D-MAVT

Student Administration.

151-0073-30 A Guidance, Navigation and Control for Recovery of a Sounding

Rocket ■

Permission from lecturers required for all students

210s hrs by appt.

M. Zeilinger

151-0073-40L SpaceCrab - Space Climbing Robot

This course is part of a one-year course. The 14 credit points will be issued at the end of FS2022 with new enrolling for the same Focus Project in FS2022.

For MAVT BSc and ITET BSc only.

Prerequisites for the focus projects: a. Basis examination successfully passed

b. Block 1 and 2 successfully passed

For enrollment, please contact the D-MAVT Student Administration.

151-0073-40 A SpaceCrab - Space Climbing Robot ■

Permission from lecturers required for all students

0 credits 15A

0 credits

15A

0 credits

210s hrs by appt.

M. Hutter

#### 151-0073-50L RAPTOR - Rapid Aerial Pick-

and-Transfer of Objects by Robots
This course is part of a one-year course.
The 14 credit points will be issued at the
end of FS2022 with new enrolling for the
same Focus Project in FS2022.

For MAVT BSc and ITET BSc only.

Prerequisites for the focus projects: a. Basis examination successfully passed b. Block 1 and 2 successfully passed

For enrollment, please contact the D-MAVT

Student Administration.

151-0073-50 A RAPTOR - Rapid Aerial Pick-and-Transfer of Objects by Robots ■ 210s hrs by appt.

R. Katzschmann

Permission from lecturers required for all students

#### ▶▶▶ Focus Projects in Manufacturing

Number	Title	Туре	ECTS	Hours	Lecturers
151-0075-10L	E-Sling RE This course is part of a one-year course. The 14 credit points will be issued at the end of FS2022 with new enrolling for the same Focus Project in FS2022.	w	0 credits	15A	
	For MAVT BSc and ITET BSc only.				
	Prerequisites for the focus projects: a. Basis examination successfully passed b. Block 1 and 2 successfully passed				
	For enrollment, please contact the D-MAVT Student Administration.				
151-0075-10 A	E-Sling RE ■  Permission from lecturers required for all students.	dents		210s hrs by appt.	K. Wegener

151-0075-20L	Formula Student This course is part of a one-year course. The 14 credit points will be issued at the end of FS2022 with new enrolling for the same Focus Project in FS2022.	W	0 credits	15A		
	For MAVT BSc and ITET BSc only.					
	Prerequisites for the focus projects: a. Basis examination successfully passed b. Block 1 and 2 successfully passed					
151-0075-20 A	For enrollment, please contact the D-MAVT Student Administration.  Formula Student   Pormission from leaturers required for all others.			210s hrs	by appt.	D. Mohr
151-0075-30L	Permission from lecturers required for all str Paris Hybrid	W	0 credits	15A		
131-0073-302	This course is part of a one-year course. The 14 credit points will be issued at the end of FS2022 with new enrolling for the same Focus Project in FS2022.	••	o credits	100		
	For MAVT BSc and ITET BSc only.					
	Prerequisites for the focus projects: a. Basis examination successfully passed b. Block 1 and 2 successfully passed					
	For enrollment, please contact the D-MAVT Student Administration.					
151-0075-30 A	Paris Hybrid ■  Permission from lecturers required for all sta	udents		210s hrs	by appt.	A. Kunz
▶▶▶ Focus	Projects in Energy, Flows and	Proce	esses			
Number	Title	Туре	ECTS	Hours		Lecturers
151-0076-10L	SOWA (Solar Water) – Drinking Water from Saline and Brackish Water Using Solar Energy	W	0 credits	15A		
	This course is part of a one-year course. The 14 credit points will be issued at the end of FS2022 with new enrolling for the same Focus Project in FS2022.					
	For MAVT BSc and ITET BSc only.					
	Prerequisites for the focus projects: a. Basis examination successfully passed b. Block 1 and 2 successfully passed					
	For enrollment, please contact the D-MAVT Student Administration.					
151-0076-10 A	SOWA (Solar Water) – Drinking Water from Water Using Solar Energy ■  Permission from lecturers required for all sti		and Brackish	210s hrs	by appt.	M. Mazzotti
▶▶▶ Focus	Projects in Biomedical Engine	ering				
Number	Title	Туре	ECTS	Hours		Lecturers
151-0077-10L	Hydrocephalus SmartShunt This course is part of a one-year course. The 14 credit points will be issued at the end of FS2022 with new enrolling for the same Focus-Project in FS2022.	W	0 credits	15A		
	For MAVT BSc and ITET BSc only.					
	Prerequisites for the focus projects: a. Basis examination successfully passed b. Block 1 and 2 successfully passed					
454 0077 40 4	For enrollment, please contact the D-MAVT Student Administration.			040		
	Hydrocephalus SmartShunt	! <b>-</b>	Materiele	210s hrs		M. Meboldt
	Projects in Design, Mechanics			Ua		Lasturara
Number 151-0079-10L	Title HRC3D - High Resolution 3D Printing of	Type	0 credits	Hours 15A		Lecturers
131-00/3-10L	Continuous Fiber Reinforced Composites This course is part of a one-year course. The 14 credit points will be issued at the end of FS2022 with new enrolling for the same Focus Project in FS2022.	VV	o creats	IJA		

For MAVT BSc and ITET BSc only.

Prerequisites for the focus projects:

a. Basis examination successfully passed

b. Block 1 and 2 successfully passed

For enrollment, please contact the D-MAVT

Student Administration.

151-0079-10 A HRC3D - High Resolution 3D Printing of Continuous Fiber

Reinforced Composites .

Permission from lecturers required for all students

151-0079-20L **Hybrid Rocket Engine 21** 0 credits 15A

This course is part of a one-year course. The 14 credit points will be issued at the end of FS2022 with new enrolling for the same Focus Project in FS2022.

For MAVT BSc and ITET BSc only.

Prerequisites for the focus projects: a. Basis examination successfully passed b. Block 1 and 2 successfully passed

For enrollment, please contact the D-MAVT

Student Administration.

151-0079-20 A Hybrid Rocket Engine 21 ■ 210s hrs by appt. L. Guzzella

210s hrs by appt.

P. Ermanni

Permission from lecturers required for all students

151-0079-30L Swissloop 0 credits

This course is part of a one-year course. The 14 credit points will be issued at the end of FS2022 with new enrolling for the same Focus Project in FS2022.

For MAVT BSc and ITET BSc only.

Prerequisites for the focus projects: a. Basis examination successfully passed b. Block 1 and 2 successfully passed

For enrollment, please contact the D-MAVT

Student Administration.

151-0079-30 A Swissloop ■ 210s hrs by appt. D. Kochmann

Permission from lecturers required for all students

#### ▶▶▶ Courses Eligible for Focus Projects

Number	Title	Type	ECTS	Hours				Lecturers
151-0079-99L	Vacuum Transport Seminar: Insights into Hyperloop Research	E-	0 credits	18				
151-0079-99 S	Vacuum Transport Seminar: Insights into H	lyperloo	Research	7s hrs	Mon/2	w 18-19	LEE E101	D. Kochmann
151-0761-00L	Practice Course Product Development Only students for focus projects. 2 up to 3 students per focus project.	W	1 credit	1G				
151-0761-00 G	Praxiskurs Produktentwicklung Diverse Termine gemäss Gruppeneinteilun Informationen über die Lehrveranstaltung e Dozierenden.			1 hrs	Thu	08-10	HG E5	M. Meboldt, C. R. Dietzsch, C. Schorno, M. Schütz
151-0763-00L	Practice Course to Focus Projects on CAD and CAE Based on Siemens NX	w	3 credits	3G				

- Max. 3 Students by one Focus Team

allowed

- Course is only useful and recommended for students using CAD and CAE Tools for their duty within the project itself

- Feel free to contact us, if there are open

questions: martin.schuetz@mavt.ethz.ch

151-0763-00 G Praxiskurs zu Fokusprojekten mit Schwerpunkt CAD und CAE mit 36s hrs Fri 08-17 HG K30.1 J.-L. Emery, M. Schütz

Siemens NX

Definitive Termine werden zu Beginn des Kurses bekannt gegeben; Weitere Informationen über Aufteilung der Gruppen für

die Übung erfolgen durch die Dozierenden. Der Kurs beginnt in der zweiten Semesterwoche.

Die teilnehmenden Studierenden müssen sich im Rahmen des Fokus-Projektes aktiv mit den Themen Konstruktion, CAD,

Auslegung und Simulation beschäftigen.

## **▶▶** Focus Specialization

#### ▶▶▶ Energy, Flows and Processes

Focus Coordinator: Prof. Christoph Müller

In order to achieve the required 20 credit points for the Focus Specialization Energy, Flows and Processes you need to choose at least 2 core courses (W+) (HS/FS) and at least 2 of the elective courses (HS/FS), according to the presentation of the Focus Specialisation (see

https://ethz.ch/content/dam/ethz/special-interest/mavt/department-dam/studium/bachelor/documents/EFP\_Focus.pdf). One course can be selected among all the courses offered by D-MAVT (Bachelors and Masters).

Number	Title	Type	ECTS	Hours				Lecturers
151-0123-00L	Experimental Methods for Engineers	W+	4 credits	2V+2U				
151-0123-00 V	Experimental Methods for Engineers Lecture starts in the first week.			2 hrs	Thu	14-16	ML F39	<b>T. Rösgen</b> , B. Schuermans, M. Tibbitt
151-0123-00 U	Experimental Methods for Engineers Exercises start in the first week.			2 hrs	Thu	08-10	ML F39	<b>T. Rösgen</b> , B. Schuermans, M. Tibbitt
151-0293-00L	Combustion and Reactive Processes in Energy and Materials Technology	W+	4 credits	2V+1U+2	2 <b>A</b>			
151-0293-00 V	Combustion and Reactive Processes in Ene Technology	rgy and	Materials	2 hrs	Thu	10-12	CAB G61	<b>N. Noiray</b> , F. Ernst, C. E. Frouzakis
151-0293-00 U	Combustion and Reactive Processes in Ene Technology	rgy and	Materials	1 hrs	Mon	17-18	ML F36	<b>N. Noiray</b> , F. Ernst, C. E. Frouzakis
151-0293-00 A	Combustion and Reactive Processes in Ene Technology	rgy and	Materials	30s hrs	by app	t.		<b>N. Noiray</b> , F. Ernst, C. E. Frouzakis
151-0221-00L	Introduction to Modeling and Optimization of Sustainable Energy Systems	W	4 credits	3G				
151-0221-00 G	Introduction to Modeling and Optimization of Systems The course starts in the second week.	Sustai	nable Energy	3 hrs	Wed Thu	16-18 13-14	HG D7.1 ML F36	G. Sansavini, A. Bardow
151-0109-00L	Turbulent Flows	W	4 credits	2V+1U				
151-0109-00 V	Turbulent Flows			2 hrs	Thu	08-10	ML E12	P. Jenny
151-0109-00 U	Turbulent Flows			1 hrs	Thu	13-14	HG D7.1	P. Jenny
151-0913-00L	Introduction to Photonics	w	4 credits	2V+2U				
151-0913-00 V	Introduction to Photonics			2 hrs	Thu	10-12	HG E22	R. Quidant, J. Ortega Arroyo
151-0913-00 U	Introduction to Photonics			2 hrs	Thu	14-16	HG E22	R. Quidant, J. Ortega Arroyo
151-0917-00L	Mass Transfer	W	4 credits	2V+2U				
151-0917-00 V	Mass Transfer			2 hrs	Wed	10-12	ML H44	S. E. Pratsinis, V. Mavrantzas CJ. Shih
151-0917-00 U	Mass Transfer The exercise will start in the 2nd week of the	e Seme	ster.	2 hrs	Tue	14-16	HG E1.1	<b>S. E. Pratsinis</b> , V. Mavrantzas CJ. Shih
151-0973-00L	Introduction into Process Engineering I	W	4 credits	2V+2U				
151-0973-00 V	Einführung in die Verfahrstechnik I Die Lehrveranstaltung beginnt in der zweiter	n Seme	sterwoche.	2 hrs	Mon	08-10	ML F36	C. Müller
151-0973-00 U	Einführung in die Verfahrstechnik I Die Lehrveranstaltung beginnt in der zweiter	n Seme	sterwoche	2 hrs	Mon	14-16	ML F36	F. Donat

#### ▶▶▶ Mechatronics and Robotics

Focus Coordinator: Prof. Marco Hutter

Number	Title	Type	ECTS	Hours				Lecturers
151-0509-00L	Microscale Acoustofluidics	W	4 credits	3G				
151-0509-00 G	Microscale Acoustofluidics The course will take place on 29.09.21 in I	ЛL F 36.		3 hrs	Wed 29.09.	13-16 13-16	LFO C13 ML F36	J. Dual
151-0575-01L	Signals and Systems	W	4 credits	2V+2U				
151-0575-01 V	Signals and Systems The lecture will start in the 2nd week of the	e Semest	er.	2 hrs	Thu	14-16	ETF C1	A. Carron
151-0575-01 U	Signals and Systems The exercise will start in the 3rd week of the	e Semes	ster.	2 hrs	Thu	16-18	ETF C1	A. Carron
151-0601-00L	Theory of Robotics and Mechatronics	W	4 credits	3G				
151-0601-00 G	Theory of Robotics and Mechatronics Online event: Will primarily take place onlin remain blocked on campus for students to there.				Mon	08-10 10-11	HG D1.2 ML E12	P. Korba, S. Stoeter
151-0604-00L	Microrobotics	W	4 credits	3G				
151-0604-00 G	Microrobotics The class starts in the second week.			3 hrs	Mon Thu	16-18 11-12	NO C60 NO C60	B. Nelson, N. Shamsudhin
151-0621-00L	Microsystems I: Process Technology and Integration	w	6 credits	3V+3U				
151-0621-00 V	Microsystems I: Process Technology and I The lecture starts in the second week of the			3 hrs	Thu	13-16	HG E5	C. Hierold, M. Haluska
151-0621-00 U	Microsystems I: Process Technology and I The exercise starts in the third week of the			3 hrs	Tue	16-19	HG E1.2	M. Haluska
151-0640-00L	Studies on Mechatronics	w	5 credits	11A				

The supervising professors can be selected in myStudies during registration of the course.

For exceptions please contact the focus coordinator and info@mavt.ethz.ch.

coordinator and info@mavt.ethz.ch. This course is not available to incoming exchange students.

151-0640-00 A	Studies on Mechatronics ■ The registration of the course may only take contact with the selected professor. Language: English or German, depending	•		150s hrs	by app	t.		Supervisors
151-0913-00L	Introduction to Photonics	W	4 credits	2V+2U				
151-0913-00L 151-0913-00 V	Introduction to Photonics	VV	4 Credits	2 <b>v+20</b> 2 hrs	Thu	10-12	HG E22	R. Quidant, J. Ortega Arroyo
	Introduction to Photonics			2 hrs	Thu	14-16	HG E22	R. Quidant, J. Ortega Arroyo
	Power Electronics	w	6 credits	4G		1110	110 222	Tit Quidant, o. Onloga / in oyo
	Leistungselektronik	VV	o credits	4 hrs	Thu	14-18	HG E1.2	J. W. Kolar
			• "		TTIU	14-10	110 L1.2	J. W. Kolai
<b>227-0124-00L</b> 227-0124-00 G	Embedded Systems Embedded Systems Exercises in groups.	W	6 credits	<b>4G</b> 4 hrs	Mon Wed Fri	14-16 16-18 16-18	ETF C1 ETZ D61.1 ETZ D96.1 ETF E1	L. Thiele, M. Magno
						10 10	ETZ D61.1 ETZ D96.1	
227-0517-10L	Fundamentals of Electric Machines	w	6 credits	4G				
227-0517-10 G	Fundamentals of Electric Machines			4 hrs	Thu	08-10 10-12	HG D5.2 HG D5.2	D. Bortis
376-1504-00L	Physical Human Robot Interaction (pHRI)	w	4 credits	2V+2U				
376-1504-00 V	Physical Human-Robot Interaction (pHRI) To apply for the course, please prepare a language (max. one A4 page). Please include in the program and semester you are in. Please like to attend the course and what you explice. The letter should be sent to Jan Di (jan.dittli@hest.ethz.ch) by 05.09.2021.	letter of r letter wh describe ect to lea	nich study why you wou		Thu	08-10	NO E11	O. Lambercy
376-1504-00 U	Physical Human-Robot Interaction (pHRI)	-		2 hrs	Thu	10-12	NO E11	O. Lambercy
	systems and Nanoscale Engine	ering						
Number	Title	Туре	ECTS	Hours				Lecturers
151-0621-00L	Microsystems I: Process Technology and Integration	W+	6 credits	3V+3U				
151-0621-00 V	Microsystems I: Process Technology and I The lecture starts in the second week of th			3 hrs	Thu	13-16	HG E5	C. Hierold, M. Haluska
151-0621-00 U	Microsystems I: Process Technology and I The exercise starts in the third week of the			3 hrs	Tue	16-19	HG E1.2	M. Haluska
151-0509-00L	Microscale Acoustofluidics	W	4 credits	3G				
151-0509-00 G	Microscale Acoustofluidics The course will take place on 29.09.21 in N	ЛL F 36.		3 hrs	Wed 29.09.	13-16 13-16	LFO C13 ML F36	J. Dual
151-0604-00L	Microrobotics	w	4 credits	3G				
151-0604-00 G	Microrobotics The class starts in the second week.			3 hrs	Mon Thu	16-18 11-12	NO C60 NO C60	B. Nelson, N. Shamsudhin
151-0643-00L	Studies on Micro and Nano Systems This course is not available to incoming exchange students.	W	5 credits	11A				
151-0643-00 A	Studies on Micro and Nano Systems The registration of the course may only take contact with the selected professor. Language: English or German, depending	•		150s hrs	by app	t.		Supervisors
151-0902-00L	Micro- and Nanoparticle Technology	W	6 credits	2V+2U				
	Number of participants is limited to 20. Additional ones could be enrolled by permission of the lecturer.			-				
151-0902-00 V	Micro- and Nanoparticle Technology  Permission from lecturers required for all s	tudents		2 hrs	Fri	10-12	ML F40	S. E. Pratsinis, G. Kelesidis, K. Wegner
151-0902-00 U	Micro- and Nanoparticle Technology Permission from lecturers required for all s			2 hrs	Wed	14-16	ML F40	S. E. Pratsinis, G. Kelesidis, V. Mavrantzas
151-0911-00L	Introduction to Plasmonics	W	4 credits	2V+1U				
151-0911-00 V	Introduction to Plasmonics  Does not take place this semester.  Will be offered again in US22			2 hrs				D. J. Norris
151-0911-00 U	Will be offered again in HS22. Introduction to Plasmonics Does not take place this semester. Will be offered again in HS22.			1 hrs				D. J. Norris
151-0913-00L	Introduction to Photonics	w	4 credits	2V+2U				
	Introduction to Photonics			2 hrs	Thu	10-12	HG E22	R. Quidant, J. Ortega Arroyo
I51-0913-00 U	Introduction to Photonics			2 hrs	Thu	14-16	HG E22	R. Quidant, J. Ortega Arroyo
151-0135-00L	Additional Case for the Focus Specialization Exclusive for D-MAVT Bachelor's students in Focus Specialization.	W	1 credit	2A				

#### ▶▶▶ Manufacturing Science

Focus Coordinator: Prof. Konrad Wegener

To achieve the required 20 credit points for the focus specialization you need to pass all 3 compulsory courses (HS/FS). The other 8 credit points can be achieved from the elective courses.

Number	Title	Type	ECTS	Hours				Lecturers
151-0705-00L	Manufacturing I	0	4 credits	2V+2U				
51-0705-00 V	Fertigungstechnik I			2 hrs	Thu	10-12	ML H41.1	K. Wegener, M. Boccadoro
I51-0705-00 U	Fertigungstechnik I Die Übungen beginnen in der zweiten Seme	esterwo	che.	2 hrs	Thu	12-14	ML H41.1	K. Wegener, M. Boccadoro
51-0733-00L	Forming Technology III - Forming Processes	0	4 credits	2V+2U				
51-0733-00 V	Umformtechnik III - Umformtechnische Verf Der Kurs wird zum letzten Mal im HS21 ang			2 hrs	Fri	08-10	HG G26.5	P. Hora
i51-0733-00 U	Umformtechnik III - Umformtechnische Verf Der Kurs wird zum letzten Mal im HS21 ang			2 hrs	Fri	10-12	HG G26.5	P. Hora
151-0703-00L	Operational Simulation of Production Lines	W+	4 credits	2V+1U				
I51-0703-00 V	Betriebliche Simulation von Produktionsanla Die Lehrveranstasltung beginnt in der zweit		esterwoche.	2 hrs	Tue	10-12	CLA E4	P. Acél
151-0703-00 U	Betriebliche Simulation von Produktionsanla Die Übungen beginnen in der dritten Semes alle zwei Wochen statt, jeweils für zwei Stul	sterwoch	ne und finden	1 hrs	Tue/2w	14-16	HG E26.1 HG K30.1	P. Acél
151-0717-00L	Mechanical Production: Assembly, Joining and Coating Technology	W+	4 credits	2V+1U				
151-0717-00 V	Mechanische Produktion: Montieren, Füger Die Lehrveranstasltung beginnt in der zweit			2 hrs	Tue	16-18	ML F34	<b>K. Wegener</b> , V. H. Derflinger, F. Durand, P. Jousset
151-0717-00 U	Mechanische Produktion: Montieren, Füger Die Übungsräume werden von den Doziere gegeben.			1 hrs	30.09.	14-16	ML J37.1	K. Wegener, V. H. Derflinger, F. Durand, P. Jousset
	Zusatzvorlesungen externe Referenten: - Donnerstag, 30.09.2021, 14-16 Uhr (Ort:tt - Donnerstag, 11.11.2021, 14-16 Uhr (Ort:tt - Donnerstag, 18.11.2021, 14-16 Uhr (Ort:tt	od)						
151-0719-00L	Quality of Machine Tools - Dynamics and Metrology at Micro and Submicro Level	W+	4 credits	2V+1U				
151-0719-00 V	Qualität von Werkzeugmaschinen - Dynami Submikromesstechnik	k, Mikro	- und	2 hrs	Mon	10-12	ML H34.3	A. Günther, D. Spescha
151-0719-00 U	Qualität von Werkzeugmaschinen - Dynami Submikromesstechnik	k, Mikro	- und	1 hrs	Wed	08-10	ML H34.3	A. Günther, D. Spescha
151-0723-00L	Manufacturing of Electronic Devices	W+	4 credits	3G				
151-0723-00 G	Manufacturing of Electronic Devices Die Lehrveranstaltung beginnt in der zweite	n Seme	sterwoche.	3 hrs	Wed	14-17	LEE C114	<b>A. Kunz</b> , A. Guber, R D. Moryson, F. Reichert
151-0731-00L	Basic Knowledge of Forming Technology Note: previous course title until HS19 "Forming Technology I - Basic Knowledge".	W+	4 credits	2V+2U				
151-0731-00 V	Grundlage der Umformtechnik  Der Kurs wird zum letzten Mal im HS21 and	geboten.		2 hrs	Mon	08-10	CLA E4	P. Hora
151-0731-00 U	Grundlage der Umformtechnik Der Kurs wird zum letzten Mal im HS21 ang			2 hrs	Mon	16-18	ML J34.3	P. Hora
51-0833-00L	Applied Finite Element Analysis	W+	4 credits	2V+2U				
51-0833-00 V	Applied Finite Element Analysis			2 hrs	Wed	10-12	ML F38	B. Berisha, N. Manopulo
51-0833-00 U	Applied Finite Element Analysis The exercises will start in the 2nd week of to	he Seme	ester.	2 hrs	Wed	14-16	IFW A36	B. Berisha
	Exciting Leadership in a Thrilling Real Business World	W	4 credits	3G				
151-0725-00L							ET7 E0	
1 <b>51-0725-00L</b> 151-0725-00 G	Exciting Leadership in a Thrilling Real Busin	ness Wo	orld	3 hrs	Wed	14-17	ETZ E9	A. Halbleib
151-0725-00 G		ness Wo	orld 6 credits	3 hrs <b>4G</b>	Wed	14-17	E12 E9	A. Halbleib

### **▶▶▶** Engineering for Health

Focus Coordinator: Prof. Bradley Nelson

Number	Title	Туре	ECTS	Hours				Lecturers
151-0509-00L	Microscale Acoustofluidics	W	4 credits	3G				
151-0509-00 G	Microscale Acoustofluidics The course will take place on 29.09.21 in M	L F 36.		3 hrs	Wed 29.09.	13-16 13-16	LFO C13 ML F36	J. Dual
151-0524-00L	Continuum Mechanics I	W	4 credits	2V+1U				
151-0524-00 V	Continuum Mechanics I			2 hrs	Fri	08-10	HG D5.2	E. Mazza, A. E. Ehret
151-0524-00 U	Continuum Mechanics I Exercises start in the second week of the se	emester		1 hrs	Wed	12-13	HG E1.1	E. Mazza, A. E. Ehret
151-0604-00L	Microrobotics	W	4 credits	3G				

151-0604-00 G	Microrobotics The class starts in the second week.		3 hrs	Mon Thu	16-18 11-12	NO C60 NO C60	B. Nelson, N. Shamsudhin
151-0621-00L	Microsystems I: Process Technology W and Integration	6 credits	3V+3U				
51-0621-00 V	Microsystems I: Process Technology and Integration The lecture starts in the second week of the Semes		3 hrs	Thu	13-16	HG E5	C. Hierold, M. Haluska
51-0621-00 U	Microsystems I: Process Technology and Integration The exercise starts in the third week of the Semeste		3 hrs	Tue	16-19	HG E1.2	M. Haluska
51-8101-00L	International Engineering: from Hubris W to Hope	4 credits	3G				
51-8101-00 G	International Engineering: from Hubris to Hope		3 hrs	Thu	15-18	LEE D105	E. Tilley, M. Kalina
2 <b>27-0385-10L</b> 227-0385-10 G	Biomedical Imaging Biomedical Imaging **together with University of Zurich**	6 credits	<b>5G</b> 5 hrs	Mon Tue	14-16 13-16	HG E19 HG E7	S. Kozerke, K. P. Prüssman
227-0393-10L	Bioelectronics and Biosensors W	6 credits	2V+2U				
	Bioelectronics and Biosensors Bioelectronics and Biosensors		2 hrs 2 hrs	Fri Fri	09-11 08-09 11-12	HG E1.2 HG E1.2 HG E1.2	J. Vörös, M. F. Yanik M. F. Yanik, J. Vörös
8 <b>76-0021-00L</b> 876-0021-00 G	Materials and Mechanics in Medicine W Materials and Mechanics in Medicine Groups are selected in myStudies. lecture: Di 14-16h exercises: Di 16-17h, start at the secound week af t The lecturers will communicate the exact lesson time ONLINE-exercises.		3G 3 hrs	Tue	14-16 16-17	HG F1 CHN G42 ETZ E8 HG D7.1 ML H41.1 ON LINE	<b>M. Zenobi-Wong</b> , J. G. Snedeker
7 <b>6-0203-00L</b> 76-0203-00 G	Movement and Sport Biomechanics W Bewegungs- und Sportbiomechanik Die Vorlesungen und Übungen finden im HS21 grur online statt. Die reservierten Räume bleiben für die auf dem Campus bestehen, um die Lehrveranstaltu hören. Vorlesung: Fr 14-16	Studierenden	<b>3G</b> 3 hrs	Fri	14-16 16-17	HCI J3 HCP E47.3 HIT F31.2 HIT F32 HIT H51 HIT J51	B. Taylor, R. List
76-1504-00L	Übungen: Fr 16-17  Physical Human Robot Interaction W	4 credits	2V+2U			HIT J52 HIT J53 HIT K52	
376-1504-00 V	(pHRI)  Physical Human-Robot Interaction (pHRI) ■  To apply for the course, please prepare a letter of m (max. one A4 page). Please include in the letter whi program and semester you are in. Please describe like to attend the course and what you expect to lea course. The letter should be sent to Jan Dittli (jan.dittli@hest.ethz.ch) by 05.09.2021.	ich study why you would	2 hrs	Thu	08-10	NO E11	O. Lambercy
76-1504-00 U	Physical Human-Robot Interaction (pHRI) ■		2 hrs	Thu	10-12	NO E11	O. Lambercy
<b>76-1714-00L</b> 76-1714-00 V	Biocompatible Materials  Biocompatible Materials  Vorlesung 9-11h  Uebungen/Gruppenarbeiten 11-12h	4 credits	<b>3V</b> 3 hrs	Fri	09-12	HG G3	<b>K. Maniura</b> , M. Rottmar, M. Zenobi-Wong
_	gement, Technology and Economics						
Focus (	Coordinators: Prof. Stefano Brusoni D-MTEC and Dr  Title Type	ECTS	mann D-N Hours	ITEC			Lecturers
63-0445-00L	Production and Operations Management W+	3 credits	2G				Lecturers
	Production and Operations Management This course can be followed fully online and offers e opportunities for students who want to engage with staff in the classroom.	extracurricular	2 hrs	Thu	14-16	CAB G11	T. Netland
63-0445-02L	Production and Operations Management W+ - Supplement Credit A parallel enrolment to the lecture 363- 0445-00L Production and Operations Management is mandatory.	1 credit	1A				
63-0445-02 A	Production and Operations Management – Supplem Does not take place this semester. Irregular lecture	nent Credit	7s hrs				T. Netland
63-0541-00L 63-0541-00 G	Systems Dynamics and Complexity Systems Dynamics and Complexity Lecture: Thursday, 08-10 h Exercises: Tuesday, 12-13 h The lecture takes place in classroom, online via live zoom and recorded.	3 credits	<b>3G</b> 3 hrs	Tue Thu	12-13 08-10	HG D1.2 HG D1.2	F. Schweitzer
363-0541-02L	Systems Dynamics and Complexity W+ (Additional Cases)	1 credit					

262 0541 0211	Only for Mechanical Engineering BSc. Systems Dynamics and Complexity (Additional Ca	leas)	2s hrs				G. Casiraghi
151-0733-00L	Forming Technology III - Forming W	4 credits	2V+2U				G. Casilagili
	Processes Umformtechnik III - Umformtechnische Verfahren	4 Credits	2 hrs	Fri	08-10	HG G26.5	P. Hora
151-0733-00 U	Der Kurs wird zum letzten Mal im HS21 angeboter Umformtechnik III - Umformtechnische Verfahren Der Kurs wird zum letzten Mel im HS21 angeboter		2 hrs	Fri	10-12	HG G26.5	P. Hora
351-0778-00L	Discovering Management  Entry level course in management for BSc, MSc and PHD students at all levels not belonging to D-MTEC. This course can be complemented with Discovering Management (Excercises) 351-0778-01.	3 credits	3G				
351-0778-00 G	Discovering Management Diese Lehrveranstaltung wird ab dem HS 2021 jäh angeboten. The lecture takes place in classroom, online via liv zoom and recorded.		3 hrs	Fri	08-11	HG E1.1	B. Clarysse, S. Brusoni, E. Fleisch, G. Grote, V. Hoffmann, T. Netland, Y. R. Shrestha, P. Tinguely, L. P. T. Vandeweghe
351-0778-01L	Discovering Management (Exercises) W Complementary exercises for the module Discovering Management.	1 credit	1U				·
351-0778-01 U	Prerequisite: Participation and successful completion of the module Discovering Management (351-0778-00L) is mandatory.  Discovering Management (Exercises)		1 hrs	Fri	11-12	HG E1.1	B. Clarysse, L. P. T. Vandeweghe
363-0387-00L	Corporate Sustainability W	3 credits	2G				
363-0387-00 G	Corporate Sustainability The course combines online learning elements an some of which are recorded. Several course sessi		2 hrs	Wed/2 Wed	16-18 16-18	HG E21 HG E22 HG F3	V. Hoffmann, C. Bening-Bach, N. U. Blum, J. Meuer
	attendance. Details are provided on the moodle co			Wed/2		ML E12	
<b>363-0389-00L</b> 363-0389-00 G	<b>Technology and Innovation Management W</b> Technology and Innovation Management The lecture takes place in classroom, online via zo recorded.	3 credits	<b>2G</b> 2 hrs	Mon 27.09.	14-16 14-16	NO C60 HG D1.2	S. Brusoni, A. Zeijen
<b>363-0389-02L</b> 363-0389-02 U	Technology and Innovation Management W (Additional Cases) Only for Mechanical Engineering BSc. Technology and Innovation Management (Addition When: informal meetings will be set up between st to give feedback.		1U 10s hrs				S. Brusoni
<b>363-0565-00L</b> 363-0565-00 V	Principles of Macroeconomics W Principles of Macroeconomics Di 16-18 im ETA F 5 mit Videoübertragung im ETH The lecture takes place in classroom, online via liv zoom and recorded.		2V 2 hrs	Tue	16-18	ETA F5 ETF E1	JE. Sturm
<b>363-0711-00L</b> 363-0711-00 V	Accounting for Managers W Accounting for Managers The lecture takes place in classroom, online via liv recorded.	3 credits restreaming and	2V 2 hrs	Thu	10-12	HG F3	JP. Chardonnens
<b>363-0790-00L</b> 363-0790-00 V	Technology Entrepreneurship  Technology Entrepreneurship  The lecture takes place online via (livestreaming or recorded. Reserved rooms will remain blocked on students to follow the course from there.		<b>2V</b> 2 hrs	Tue	18-20	HG E5	F. Hacklin
363-1082-00L	Enabling Entrepreneurship: From Science to Startup Students should provide a brief overview (unto 1 page) of their business ideas that they would like to commercialise through the course. If they do not have an idea, they are required to provide a motivation letter stating why they would like to do this elective. If you are unsure about the readiness of your idea or technology to be converted into a startup, please drop me a line to schedule a call or meeting to discuss.	3 credits	2V				
	The total number of students will be limited to 40. It is preferable that the students already form teams of at least two persons, where both the team-members would like to do the course. The names of the team-members should be provided together with the business idea or the motivation letter submitted by the students.						

363-1082-00 V	Enabling Entrepreneurship: From Science t	o Startup	)	2 hrs	Mon	16-18	HG E33.1	A. Sethi
363-1109-00L	Introduction to Microeconomics GESS (Science in Perspective): This course is only for students enrolled in a Bachelor's degree programme.	W	3 credits	2G				
	Students enrolled in a Master's degree programme may attend "Principles of Microeconomics" (LE 363-0503-00L) instead.							
	Note for D-MAVT students: If you have already successfully completed "Principles of Microeconomics" (LE 363-0503-00L), then you will not be permitted to attend it again.							
363-1109-00 G	Einführung in die Mikroökonomie Zusätzliche (freiwillige) Termine für Übunge werden zu Beginn der Vorlesung bekanntge		orlesung	2 hrs	Tue	10-12	HG E5	M. Wörter, M. Beck

#### **▶▶▶** Design, Mechanics and Materials

Focus Coordinator: Prof. Kristina Shea

In order to achieve the required 20 credit points for the Focus Specialization Design, Mechanics and Material you are free to choose any of the courses offered within the focus and are encouraged to select among those recommended. If you wish to take one of the Master level courses, you must get approval from the lecturer.

Number	Title	Type	ECTS	Hours				Lecturers
151-0364-00L	Lightweight Structures Laboratory Number of participants limited to 24.	W+	4 credits	5A				
151-0364-00 A	Strukturlabor Die Lehrveranstaltung beginnt in der zweite	n Seme	sterwoche.	5 hrs	Thu	14-17	IFW A36	M. Zogg, P. Ermanni
151-3207-00L	Lightweight	W+	4 credits	2V+2U				
151-3207-00 V		n Seme	sterwoche.	2 hrs	Mon	14-16	HG G3	P. Ermanni
151-3207-00 U	Leichtbau Die Lehrveranstaltung beginnt in der zweite	n Seme	sterwoche.	2 hrs	Thu	10-12	HG E5	P. Ermanni
151-3213-00L	Integrative Ski Building Workshop Number of participants limited to 12.	W+	4 credits	9P				
	To apply, please send the following information to jchapuis@ethz.ch by 31.08.2021: Letter of Motivation (one page), CV, Transcript of Records.							
151-3213-00 P	Integrative Ski Building Workshop Permission from lecturers required for all stic Courses on Wednesdays at 14-18h starting the semester.		second week of	120s hrs	06.10.	14-18 14-18 14-18	IFW C35 IFW C35 IFW C35	K. Shea
151-0509-00L	Microscale Acoustofluidics	W	4 credits	3G				
151-0509-00 G	Microscale Acoustofluidics The course will take place on 29.09.21 in M	L F 36.		3 hrs	Wed 29.09.	13-16 13-16	LFO C13 ML F36	J. Dual
151-0524-00L	Continuum Mechanics I	W	4 credits	2V+1U				
151-0524-00 V	Continuum Mechanics I			2 hrs	Fri	08-10	HG D5.2	E. Mazza, A. E. Ehret
151-0524-00 U	Continuum Mechanics I Exercises start in the second week of the se	emester	:	1 hrs	Wed	12-13	HG E1.1	E. Mazza, A. E. Ehret
151-0544-00L	Metal Additive Manufacturing - Mechanical Integrity and Numerical Analysis	W	4 credits	3G				
151-0544-00 G	Metal Additive Manufacturing - Mechanical Numerical Analysis	ntegrity	and	3 hrs	Mon	10-13	CAB G51	E. Hosseini
151-3209-00L	Engineering Design Optimization Number of participants limited to 60.	W	4 credits	4G				
151-3209-00 G	Engineering Design Optimization Online event: Will primarily take place online remain blocked on campus for students to fe there.			4 hrs	Wed	08-12	ETZ E8	K. Shea, T. Stankovic
327-0501-00L	Metals I Offered for the last time in HS 2021.	W	3 credits	2V+1U				
327-0501-00 V	Metalle I			2 hrs	Tue	09-11	HPT C103	R. Spolenak
327-0501-00 U	Metalle I			1 hrs	Tue	11-12	HPT C103	R. Spolenak
327-1204-00L	Materials at Work I	W	4 credits	4S				
	Materials at Work I			4 hrs	Thu	12-16	HCI H8.1	R. Spolenak, E. Dufresne, R. Koopmans

### **▶▶** Engineering Tools

The Engineering Tools courses are for MAVT Bachelor's degree students only.

Number	Title	Туре	ECTS	Hours				Lecturers
151-0015-10L	Engineering Tool: Experimental Modal Analysis All Engineering Tools courses are for MAVT Bachelor's degree students only.	W	0.4 credits	1K				
	Number of participants limited to 16.							
151-0015-10 K	Ingenieur-Tool: Experimentelle Modalanaly Der Blockkurs findet in der ersten Semeste ausserhalb der ETH (im PFA H 24, Techno 21/22/23.09.2021 14 - 18 Uhr	rwoche i		12s hrs				D. Spescha
151-0025-10L	Engineering Tool: Introduction to CAM and Motion Simulation All Engineering Tools courses are for MAVT Bachelor's degree students only.	W	0.4 credits	1K				
	Number of participants limited to 40.							
151-0025-10 K	Ingenieur-Tool: Einführung in CAM und Ber Blockkurs in der ersten Semesterwoche.	wegungs	ssimulation	12s hrs	<ul><li>21.09.</li><li>22.09.</li><li>23.09.</li></ul>	14-18	HG E19 HG E27 HG E19 HG E27 HG E19 HG E27	M. Schmid
151-0027-10L	Engineering Tool: Programming with LabView  All Engineering Tools courses are for MAVT Bachelor's degree students only.	W	0.4 credits	1K				
151-0027-10 K	Number of participants limited to 16.  Ingenieur-Tool: Programmierung mit LabVi	ΑW		12s hrs	21.09.	14-18	ML H34.1	L. Prochazka
101 0027 10 10	Blockkurs in der ersten Semesterwoche	C VV		123 1113	22.09. 23.09.	14-18	ML H34.1 ML H34.1	L. I Tooliazka
	Online-Veranstaltung: Diese Lehrveranstal. grundsätzlich online statt. Die reservierten Studierenden auf dem Campus bestehen, u Lehrveranstaltung dort zu hören.	Räume l						
151-0030-10L	Engineering Tool: Modelling and Servo Axis Control of Machine Tool Manipulators All Engineering Tools courses are for MAVT Bachelor's degree students only.	W	0.4 credits	1K				
	Number of participants limited to 30.							
151-0030-10 K	Ingenieur-Tool: Modellbildung und Antriebs WZM Blockkurs in der ersten Semesterwoche Laptop mit Matlab (je 2 Studierende) erford Die genauen Unterrichtszeiten von ONLINE werden von den Dozierenden kommunizier	derlich für E - Verar	r die Übungen.	12s hrs	22.09. 23.09. 24.09.	14-18	ON LINE ON LINE ON LINE	O. Zirn
151-0032-10L	Engineering Tool: Introduction to the Methods of Six Sigma Quality Control and Lean Production All Engineering Tools courses are for MAVT Bachelor's degree students only.  Number of participants limited to 36.	W	0.4 credits	1K				
151-0032-10 K	Ingenieur-Tool: Einführung in die Methoder Quality Control und Lean Production Blockkurs in der ersten Semesterwoche.	n von Six	Sigma	12s hrs	21.09. 22.09. 23.09.		LFW B2 LFW B2 LFW B2	B. G. Rüttimann
151-0047-00L	Engineering Tool: Agile Product Development All Engineering Tools courses are for MAVT Bachelor's degree students only.	W	0.4 credits	1K				
	Number of participants limited to 12.							
151-0047-00 K	Engineering Tool: Agile Product Developme Permission from lecturers required for all st Blockkurs in der ersten Semesterwoche.			12s hrs	21.09. 22.09. 23.09.	14-18	PFA L51 PFA L51 PFA L51	M. Meboldt
151-0057-10L	Engineering Tool: Systems Engineering for Project Work  All Engineering Tools courses are for MAVT Bachelor's degree students only.	W	0.4 credits	1K				
	Number of participants limited to 60.							

151-0061-10 K	Ingenieur-Tool: Wissenschaftliches Arbeiten mit LaTeX und Vektorgraphiken Blockkurs in der ersten Semesterwoche. Anwesenheitspflicht an allen drei Nachmittagen	12s hrs	21.09. 22.09. 23.09.	14-18	HG D1.1 HG D1.1 HG D1.1	O. Lambercy
151-0062-10L	Blockkurs in der ersten Semesterwoche.	1K				
	All Engineering Tools courses are for MAVT Bachelor's degree students only.  Number of participants limited to 25.					
51-0062-10 K	Engineering Tool: Computer-Aided Design Methods Block course in the first week of the semester.	12s hrs	21.09. 22.09.	14-18	HG E26.1 HG E26.1	T. Stankovic, K. Shea
	Online course: This course takes place online. The reserved room is meant for those students who want to follow the course from Zentrum campus.	n	23.09.	14-18	HG E26.1	
151-0067-10L	Engineering Tool: Sketching and W 0.4 credits Visualization of Technical Concepts All Engineering Tools courses are for MAVT Bachelor's degree students only.	1K				
	Number of participants limited to 20.					
151-0067-10 K	Ingenieur-Tool: Sketching und Visualisieren von technischen Konzepten Blockkurs in der ersten Semesterwoche.	12s hrs	21.09. 22.09. 23.09.	14-18 14-18 14-18	HG F26.3 HG F26.3 HG F26.3	H. Stahl
151-0091-10L	Engineering Tool: Scientific Writing W 0.4 credits All Engineering Tools courses are for MAVT Bachelor's degree students only.	1K				
	Number of participants limited to 60.					
I51-0091-10 K	Ingenieur-Tool: Wissenschaftliches Schreiben Blockkurs in der ersten Semesterwoche.	12s hrs	22.09. 23.09. 24.09.	14-18 14-18 14-18	LEE E101 LEE E101 LEE E101	M. Walter, T. Korner
	Online-Veranstaltung: Diese Lehrveranstaltung findet grundsätzlich online statt. Die reservierten Räume bleiben für die Studierenden auf dem Campus bestehen, um die Lehrveranstaltung dort zu hören.		24.00.	14 10		
252-0864-00L	Engineering Tool: Parallel and W 0.4 credits Concurrent Programming in C++	1K				
	All Engineering Tool courses are for MAVT- Bachelor students only.					
252-0864-00 K	Engineering Tool: Parallel and Concurrent Programming in C++ Block course (three half-day afternoon course) during the first week of the Semester.	12s hrs	21.09. 22.09. 23.09.	14-18 14-18 14-18	ML H43 ML H43 ML H43	M. Schwerhoff
	Online lecture: This lecture will primarily take place online. Reserved rooms will remain on campus for students to follow the course from there.					
► Worksho	p Training					

151-0003-00 P Werkstatt-Praxis external organisers

### ► Laboratory Practice

Students attend at least 10 Laboratory Practices during the 4th and 5th semester. 4 of them must be Physics laboratories. All laboratory works are graded "pass" or "fail". After completion of 10 laboratory training units, 2 credit points will be issued.

Please register online at www.mavt.ethz.ch/praktika

Number	Title	Type	ECTS	Hours	Lecturers
151-0029-10L	Laboratory Practice Enrollment is only possible under www.mavt.ethz.ch/praktika. No registration required via myStudies.	0	2 credits	4P	
151-0029-10 P	Labor-Praktika			4 hrs	Lecturers
► GESS Sc	cience in Perspective				
	see GESS Science in Perspective: Language Courses ETH/UZH				
	see GESS Science in Perspective: Type A: Enhancement of Reflection Capability				
	Recommended GESS Science in Perspective (Type B) for D-MAVT.				

## ► Bachelor's Thesis

Number	Title	Type	ECTS	Hours		Lecturers
151-0001-10L	Bachelor's Thesis Supervisor for the Bachelor's Thesis: - All D-MAVT professors (https://www.mavt.ethz.ch/the- department/people/professors.html) - Professors in other departments who are accredited to D-MAVT (https://www.mavt.ethz.ch/the- department/people/accredited- professors.html) - D-MAVT titular professors (https://www.mavt.ethz.ch/the- department/people/titular-professors.html). For enrollment with a titular professor, please contact the D-MAVT Student Administration.	w	14 credits	30D		
151-0001-10 D	Bachelor-Arbeit			420s hrs	by appt.	Supervisors
151-3630-00L	Bachelor's Thesis (Focus Spezialization Management, Technology and Economics) Supervisor for the Bachelor's Thesis: All D-MTEC professors (https://www.mtec.ethz.ch/people/professors.html)		14 credits	30D		
151-3630-00 D	•		echnology and	420s hrs	by appt.	Professors

Mechani	ical Engineering Bachelor - Key for Type			
0	Compulsory	E-	Recommended, not eligible for credits	
W+	Eligible for credits and recommended	Z	Courses outside the curriculum	
W	Eligible for credits	Dr	Suitable for doctorate	

Key for	Hours			
V	lecture	P	practical/laboratory course	
G	lecture with exercise	A	independent project	
U	exercise	D	diploma thesis	
S	seminar	R	revision course / private study	
K	colloquium			

ECTS European Credit Transfer and Accumulation System

Special students and auditors need special permission from the lecturers.

# **Mechanical Engineering Master**

#### **▶** Core Courses

# **▶▶** Energy, Flows and Processes

The courses listed in this category "Core Courses" are recommended. Alternative courses can be chosen in agreement with the tutor.

Number	Title	Type	ECTS	Hours				Lecturers
51-0105-00L	Quantitative Flow Visualization	W	4 credits	3G				
51-0105-00 G	Quantitative Flow Visualization This course will be offered for the last time 2021.	in Autum	nn Semester	3 hrs	Tue	10-13	ML H41.1	T. Rösgen
51-0107-20L	High Performance Computing for Science and Engineering (HPCSE) I	w	4 credits	4G				
51-0107-20 G	High Performance Computing for Science a (HPCSE) I Lecture: 12-14h Exercises: 14-16h	and Engi	neering	4 hrs	Fri	12-14 14-16	ML H44 ML H44	P. Koumoutsakos, S. M. Martin
51-0109-00L	Turbulent Flows	w	4 credits	2V+1U				
	Turbulent Flows			2 hrs	Thu	08-10	ML E12	P. Jenny
	Turbulent Flows			1 hrs	Thu	13-14	HG D7.1	P. Jenny
	Hydrodynamics and Cavitation Hydrodynamics and Cavitation	W	4 credits	<b>3G</b> 3 hrs	Mon	10-13	HG E21	<b>C. Bourquard</b> , L. Biasiori- Poulanges
51-0163-00L	Nuclear Energy Conversion	W	4 credits	2V+1U				
51-0163-00 V	Nuclear Energy Conversion  Does not take place this semester.			2 hrs				A. Manera
51-0163-00 U	Nuclear Energy Conversion Does not take place this semester. Andere Übungstermine können abgesproch	nen werd	len.	1 hrs				A. Manera
51-0185-00L	Radiation Heat Transfer	W	4 credits	2V+1U				
51-0185-00 V	Radiation Heat Transfer Online lecture: This lecture will primarily tak Reserved rooms will remain blocked on car follow the course from there.			2 hrs	Thu	10-12	ML F39	A. Steinfeld, P. Pozivil
51-0185-00 U	Radiation Heat Transfer Online event: Will primarily take place onlin remain blocked on campus for students to t there.			1 hrs	Thu	12-13	ML F39	A. Steinfeld, P. Pozivil
<b>51-0209-00L</b> 51-0209-00 G	Renewable Energy Technologies Renewable Energy Technologies Online event: Will primarily take place onlin remain blocked on campus for students to t there.				Tue	14-17	HG G5	A. Steinfeld, E. I. M. Casati
51-0213-00L	Fluid Dynamics with the Lattice Boltzmann Method	W	4 credits	3G				
51-0213-00 G	Fluid Dynamics with the Lattice Boltzmann This course will be taught in a hybrid of onli classroom formats; students will be informe class on campus or should join the live stre	ine and f ed who ca	an attend the	3 hrs	Wed	10-13	IFW B42	I. Karlin
<b>51-0215-00L</b> 51-0215-00 G	Engineering Acoustics I Engineering Acoustics I	W	4 credits	<b>3G</b> 3 hrs	Tue	09-12	HG E21	N. Noiray, B. Van Damme
<b>51-0216-00L</b> 51-0216-00 V	Wind Energy Wind Energy Online lecture: This lecture will primarily tak Reserved rooms will remain blocked on car			<b>2V+1U</b> 2 hrs	Thu	14-16	HG D7.1	N. Chokani
51-0216-00 U	follow the course from there.	online. R	eserved	1 hrs	Thu	16-17	HG D7.1	N. Chokani
<b>51-0227-00L</b> 51-0227-00 G	Basics of Air Transport (Aviation I) Basics of Air Transport (Aviation I)	W	4 credits	<b>3G</b> 3 hrs	Wed	13-16	CAB G11	P. Wild
51-0251-00L	Principles, Efficiency Optimization and Future Applications of IC Engines Note: previous course title until HS20 "IC-Engines: Principles, Thermodynamic Optimization and Future Applications".	W	4 credits	2V+1U				
51-0251-00 V	Principles, Efficiency Optimization and Futu Engines	ire Applio	cations of IC	2 hrs	Tue	10-12	ML F34	Y. M. Wright, P. Soltic
51-0251-00 U	Principles, Efficiency Optimization and Futu Engines	ıre Applio	cations of IC	1 hrs	Tue	12-13	ML F34	Y. M. Wright, P. Soltic
51-0368-00L	Aeroelasticity	W	4 credits	2V+1U				
51-0368-00 V	Aeroelasticity			2 hrs	Thu	10-12	CAB G52	M. Righi
51-0368-00 U				1 hrs	Thu	12-13	CAB G52	M. Righi

151-0709-00L	Stochastic Methods for Engineers and Natural Scientists	w	4 credits	4G				
151-0709-00 G	Stochastic Methods for Engineers and Natu Lecture: 10-12 Exercises: 12-14	ıral Scie	ntists	4 hrs	Wed	10-14	NO C6	D. W. Meyer-Massetti
151-0851-00L	Robot Dynamics	w	4 credits	2V+2U				
151-0851-00 V	Robot Dynamics ■			2 hrs	Tue	10-12	HG G5	M. Hutter, R. Siegwart
151-0851-00 U	Robot Dynamics ■			2 hrs	Wed	08-10	HG G5 IFW A36	M. Hutter, R. Siegwart
151-0911-00L	Introduction to Plasmonics	W	4 credits	2V+1U				
151-0911-00 V	Introduction to Plasmonics Does not take place this semester. Will be offered again in HS22.			2 hrs				D. J. Norris
151-0911-00 U	Introduction to Plasmonics Does not take place this semester. Will be offered again in HS22.			1 hrs				D. J. Norris
151-0917-00L	Mass Transfer	w	4 credits	2V+2U				
151-0917-00 V	Mass Transfer			2 hrs	Wed	10-12	ML H44	<b>S. E. Pratsinis</b> , V. Mavrantzas, CJ. Shih
151-0917-00 U	Mass Transfer The exercise will start in the 2nd week of the	e Seme	ster.	2 hrs	Tue	14-16	HG E1.1	<b>S. E. Pratsinis</b> , V. Mavrantzas, CJ. Shih
151-0927-00L	Rate-Controlled Separations in Fine Chemistry	w	6 credits	3V+1U				
151-0927-00 V		ct moda		3 hrs	Thu	11-14	ML F34	M. Mazzotti, V. Becattini
151-0927-00 U	Rate-Controlled Separations in Fine Chemi The class will be in a hybrid mode. The exa discussed and agreed upon with the studer week of the semester.	ct moda		1 hrs	Thu	14-15	ML F34	M. Mazzotti, V. Becattini
151-0951-00L	Process Design and Safety	W	4 credits	2V+1U				
151-0951-00 V	Process Design and Safety			2 hrs	Tue	08-10	ML F34	F. Trachsel, C. Hutter
151-0951-00 U	Process Design and Safety			1 hrs	Tue	13-14	ML F34	F. Trachsel, C. Hutter
151-1116-00L	Introduction to Aircraft and Car Aerodynamics Note: The previous course title in German until HS20 "Einführung in Flug- und Fahrzeugaerodynamik".	W	4 credits	3G				
151-1116-00 G	Introduction to Aircraft and Car Aerodynam	ics		3 hrs	Thu 23.09.	16-19 16-19	ML F39 ML F36	M. Immer, F. Schröder
101-0187-00L	Structural Reliability and Risk Analysis	W	3 credits	2G				
101-0187-00 G	Structural Reliability and Risk Analysis			2 hrs	Fri	10-12	HCI J6	S. Marelli
252-0834-00L	Information Systems for Engineers	W	4 credits	2V+1U				
252-0834-00 V	Information Systems for Engineers Online lecture: This lecture will primarily tak Reserved rooms will remain blocked on car follow the course from there.			2 hrs	Fri	14-16	HG E5	G. Fourny
252-0834-00 U	Information Systems for Engineers Groups are selected in myStudies.			1 hrs	Fri	16-17	CAB G52 CAB G56 CAB G57 CAB G59 ON LINE ON LINE ON LINE	G. Fourny
636-0507-00L	Synthetic Biology II Students in the MSc Biotechnology (Programme Regulations 2017) may select Synthetic Biology II instead of the Research Project 1.		8 credits	4A				
636-0507-00 A	Synthetic Biology II Does not take place this semester. Permission from lecturers required for all st This course will (hopefully!) be offered agai 2022!		umn Semester	4 hrs	by appt			S. Panke, Y. Benenson, J. Stelling

# **▶▶** Mechanics, Materials, Structures

The courses listed in this category "Core Courses" are recommended. Alternative courses can be chosen in agreement with the tutor.

Number	Title	Type	ECTS	Hours				Lecturers
151-0107-20L	High Performance Computing for Science and Engineering (HPCSE) I	W	4 credits	4G				
151-0107-20 G	High Performance Computing for Science (HPCSE) I Lecture: 12-14h Exercises: 14-16h	and Engi	neering	4 hrs	Fri	12-14 14-16	ML H44 ML H44	P. Koumoutsakos, S. M. Martin

01 02 10 00 0	Engineering Acoustics I Engineering Acoustics I	W	4 credits	<b>3G</b> 3 hrs	Tue	09-12	HG E21	N. Noiray, B. Van Damme
51-0317-00L	Visualization, Simulation and Interaction	w	4 credits	3G				,
51-0317-00 G	<ul> <li>Virtual Reality II</li> <li>Visualization, Simulation and Interaction - Vincential</li> </ul>	irtual Re	ality II	3 hrs	Mon	12-15	CLA E4	A. Kunz
71-0317-00 0	Additional lecture hour in consultation with to			31113	IVIOII	12-10	OLA L4	A. Null2
51-0353-00L	Mechanics of Composite Materials	W	4 credits	2V+1U				
51-0353-00 V	Mechanics of Composite Materials			2 hrs	Thu	09-11	ML F38	<b>P. Ermanni</b> , G. Pappas, M. Sakovsky
51-0353-00 U	Mechanics of Composite Materials			1 hrs	Thu	11-12	ML F38	P. Ermanni, G. Pappas, M. Sakovsky
51-0368-00L	Aeroelasticity	W	4 credits	2V+1U				
51-0368-00 V	Aeroelasticity			2 hrs	Thu	10-12	CAB G52	M. Righi
51-0368-00 U	Aeroelasticity			1 hrs	Thu	12-13	CAB G52	M. Righi
51-0509-00L	Microscale Acoustofluidics	W	4 credits	3G				
51-0509-00 G	Microscale Acoustofluidics The course will take place on 29.09.21 in Ma	L F 36.		3 hrs	Wed 29.09.	13-16 13-16	LFO C13 ML F36	J. Dual
51-0524-00L	Continuum Mechanics I	W	4 credits	2V+1U				
51-0524-00 V	Continuum Mechanics I			2 hrs	Fri	08-10	HG D5.2	E. Mazza, A. E. Ehret
51-0524-00 U	Continuum Mechanics I Exercises start in the second week of the se	mester.		1 hrs	Wed	12-13	HG E1.1	E. Mazza, A. E. Ehret
51-0525-00L	Dynamic Behavior of Materials Note: previous course title until HS19 "Wave Propagation in Solids".	W	4 credits	2V+2U				
51-0525-00 V	. 3			2 hrs	Fri	10-12	HG D5.2	<b>D. Mohr</b> , C. Roth, T. Tancogne-Dejean
51-0525-00 U	Dynamic Behavior of Materials			2 hrs	Fri	12-14	HG D5.2	D. Mohr, C. Roth, T. Tancogne-Dejean
51-0529-00L	Computational Mechanics II: Nonlinear FEA	W	4 credits	2V+2U				<u> </u>
51-0529-00 V	Computational Mechanics II: Nonlinear FEA			2 hrs	Tue 28.09. 26.10.	10-12 10-12 10-12	LEE E101 ETZ E8 n /a	L. De Lorenzis
51-0529-00 U	Computational Mechanics II: Nonlinear FEA			2 hrs	Tue	14-16	LEE E101	L. De Lorenzis
51-0532-00L	Nonlinear Dynamics and Chaos I	W	4 credits	2V+2U				
51-0532-00 V	Nonlinear Dynamics and Chaos I			2 hrs	Wed	10-12	LFW B1	G. Haller
1-0532-00 U	Nonlinear Dynamics and Chaos I			2 hrs	Tue	16-18	ML F39	G. Haller
51-0535-00L	Optical Methods in Experimental Mechanics	W	4 credits	3G				
51-0535-00 G	Optical Methods in Experimental Mechanics			3 hrs	Mon	14-17	ML J34.1	E. Hack, E. Mavrona
1-0550-00L	Adaptive Materials for Structural Applications	W	4 credits	3G				
51-0550-00 G	Adaptive Materials for Structural Application Online event: Will primarily take place online remain blocked on campus for students to for there.	e. Reser		3 hrs	Tue	09-12	LEE D105	A. Bergamini
	Custom Madalina							
51-0573-00L	System Modeling	W	4 credits	2V+1U				
51-0573-00 V	System Modeling	W	4 credits	2 hrs	Wed	08-10	HG E7	L. Guzzella
51-0573-00 V	System Modeling System Modeling	w	4 credits		Wed Tue	08-10 13-14	LFV E41	L. Guzzella L. Guzzella
51-0573-00 V	System Modeling System Modeling Groups are selected in myStudies.			2 hrs		13-14	LFV E41 LFW C5	
51-0573-00 V	System Modeling System Modeling	erwoche	e statt.	2 hrs			LFV E41	
51-0573-00 V	System Modeling System Modeling Groups are selected in myStudies. Die Übungen finden ab der zweiten Semest	erwoche	e statt.	2 hrs		13-14	LFV E41 LFW C5 CHN G42 HG D7.1 HG E1.1	
1-0573-00 V 1-0573-00 U	System Modeling System Modeling Groups are selected in myStudies. Die Übungen finden ab der zweiten Semest Di 13-14, Di 17-18 oder Do 8-9 gemäss Gru	erwoche ppeneir	e statt. nteilung.	2 hrs 1 hrs	Tue	13-14 17-18	LFV E41 LFW C5 CHN G42 HG D7.1	
51-0573-00 V 51-0573-00 U 51-0655-00L	System Modeling System Modeling Groups are selected in myStudies. Die Übungen finden ab der zweiten Semest	erwoche	e statt.	2 hrs	Tue	13-14 17-18	LFV E41 LFW C5 CHN G42 HG D7.1 HG E1.1	
51-0573-00 V 51-0573-00 U 51-0655-00L 51-0655-00 G	System Modeling System Modeling Groups are selected in myStudies. Die Übungen finden ab der zweiten Semest Di 13-14, Di 17-18 oder Do 8-9 gemäss Gru Skills for Creativity and Innovation	erwoche ppeneir	e statt. nteilung.	2 hrs 1 hrs	Tue	13-14 17-18 08-09	LFV E41 LFW C5 CHN G42 HG D7.1 HG E1.1 LFV E41	L. Guzzella
51-0573-00 V 51-0573-00 U 51-0655-00L 51-0655-00 G 51-0703-00L	System Modeling System Modeling Groups are selected in myStudies. Die Übungen finden ab der zweiten Semest Di 13-14, Di 17-18 oder Do 8-9 gemäss Gru  Skills for Creativity and Innovation Skills for Creativity and Innovation Operational Simulation of Production Lines Betriebliche Simulation von Produktionsanla	erwoche ppeneir W W	e statt. nteilung. 4 credits 4 credits	2 hrs 1 hrs 3G 3 hrs	Tue	13-14 17-18 08-09	LFV E41 LFW C5 CHN G42 HG D7.1 HG E1.1 LFV E41	L. Guzzella
51-0573-00 V 51-0573-00 U 51-0655-00L 51-0655-00 G 51-0703-00L	System Modeling System Modeling Groups are selected in myStudies. Die Übungen finden ab der zweiten Semest Di 13-14, Di 17-18 oder Do 8-9 gemäss Gru  Skills for Creativity and Innovation Skills for Creativity and Innovation Operational Simulation of Production Lines Betriebliche Simulation von Produktionsanla Die Lehrveranstasltung beginnt in der zweite	erwoche ppeneir  W  W  gen en Seme	e statt. nteilung.  4 credits  4 credits esterwoche.	2 hrs 1 hrs 3G 3 hrs 2V+1U	Tue Thu Fri	13-14 17-18 08-09 09-12	LFV E41 LFW C5 CHN G42 HG D7.1 HG E1.1 LFV E41	L. Guzzella  I. Goller, C. Kobe
51-0573-00 V 51-0573-00 U 51-0655-00L 51-0655-00 G 51-0703-00 V 51-0703-00 U	System Modeling System Modeling Groups are selected in myStudies. Die Übungen finden ab der zweiten Semest Di 13-14, Di 17-18 oder Do 8-9 gemäss Gru  Skills for Creativity and Innovation Skills for Creativity and Innovation Operational Simulation of Production Lines Betriebliche Simulation von Produktionsanla Die Lehrveranstasltung beginnt in der zweite Betriebliche Simulation von Produktionsanla Die Übungen beginnen in der dritten Semes alle zwei Wochen statt, jeweils für zwei Stur	w w gen en Semegen terwoch	e statt. nteilung. 4 credits 4 credits esterwoche. ne und finden	2 hrs 1 hrs 3G 3 hrs 2V+1U 2 hrs 1 hrs	Tue Thu Fri Tue	13-14 17-18 08-09 09-12	LFV E41 LFW C5 CHN G42 HG D7.1 HG E1.1 LFV E41 HG F26.5	I. Goller, C. Kobe P. Acél
51-0553-00 V 51-0573-00 U 51-0655-00L 51-0655-00 G 51-0703-00 V 51-0703-00 U	System Modeling System Modeling Groups are selected in myStudies. Die Übungen finden ab der zweiten Semest Di 13-14, Di 17-18 oder Do 8-9 gemäss Gru  Skills for Creativity and Innovation Skills for Creativity and Innovation Operational Simulation of Production Lines Betriebliche Simulation von Produktionsanla Die Lehrveranstasltung beginnt in der zweite Betriebliche Simulation von Produktionsanla Die Übungen beginnen in der dritten Semes	erwoche ppeneir  W  W  gen en Seme	e statt. nteilung.  4 credits  4 credits esterwoche.	2 hrs 1 hrs 3G 3 hrs 2V+1U 2 hrs	Tue Thu Fri Tue	13-14 17-18 08-09 09-12	LFV E41 LFW C5 CHN G42 HG D7.1 HG E1.1 LFV E41 HG F26.5	I. Goller, C. Kobe P. Acél
51-0573-00 V 51-0573-00 U 51-0655-00L 51-0655-00 G 51-0703-00 V 51-0703-00 U 51-0705-00L 51-0705-00 V	System Modeling System Modeling Groups are selected in myStudies. Die Übungen finden ab der zweiten Semest Di 13-14, Di 17-18 oder Do 8-9 gemäss Gru  Skills for Creativity and Innovation Skills for Creativity and Innovation Operational Simulation of Production Lines Betriebliche Simulation von Produktionsanla Die Lehrveranstasltung beginnt in der zweite Betriebliche Simulation von Produktionsanla Die Übungen beginnen in der dritten Semes alle zwei Wochen statt, jeweils für zwei Stur	w w gen en Semegen terwoch	e statt. nteilung. 4 credits 4 credits esterwoche. ne und finden	2 hrs 1 hrs 3G 3 hrs 2V+1U 2 hrs 1 hrs	Tue Thu Fri Tue Tue/2w	13-14 17-18 08-09 09-12 10-12 14-16	LFV E41 LFW C5 CHN G42 HG D7.1 HG E1.1 LFV E41 HG F26.5 CLA E4 HG E26.1 HG K30.1	I. Goller, C. Kobe  P. Acél P. Acél K. Wegener, M. Boccadoro
51-0573-00 V 51-0573-00 U 51-0655-00L 51-0655-00 G 51-0703-00 V 51-0703-00 U 51-0705-00 V 51-0705-00 U	System Modeling System Modeling Groups are selected in myStudies. Die Übungen finden ab der zweiten Semest Di 13-14, Di 17-18 oder Do 8-9 gemäss Gru  Skills for Creativity and Innovation Skills for Creativity and Innovation Operational Simulation of Production Lines Betriebliche Simulation von Produktionsanla Die Lehrveranstasltung beginnt in der zweite Betriebliche Simulation von Produktionsanla Die Übungen beginnen in der dritten Semes alle zwei Wochen statt, jeweils für zwei Stur  Manufacturing I Fertigungstechnik I Fertigungstechnik I Die Übungen beginnen in der zweiten Seme	w w gen serwoche gen w w gen terwoch nden. w	4 credits 4 credits esterwoche. ne und finden 4 credits	2 hrs 1 hrs 3G 3 hrs 2V+1U 2 hrs 1 hrs 2V+2U 2 hrs 2 hrs	Tue Thu Fri Tue Tue/2w Thu	13-14 17-18 08-09 09-12 10-12 14-16	LFV E41 LFW C5 CHN G42 HG D7.1 HG E1.1 LFV E41 HG F26.5 CLA E4 HG E26.1 HG K30.1	I. Goller, C. Kobe  P. Acél P. Acél K. Wegener, M. Boccadoro
51-0655-00L 51-0655-00 G 51-0703-00L 51-0703-00 U 51-0705-00L 51-0705-00 V	System Modeling System Modeling Groups are selected in myStudies. Die Übungen finden ab der zweiten Semest Di 13-14, Di 17-18 oder Do 8-9 gemäss Gru  Skills for Creativity and Innovation Skills for Creativity and Innovation Operational Simulation of Production Lines Betriebliche Simulation von Produktionsanla Die Lehrveranstasltung beginnt in der zweite Betriebliche Simulation von Produktionsanla Die Übungen beginnen in der dritten Semes alle zwei Wochen statt, jeweils für zwei Stur  Manufacturing I Fertigungstechnik I Fertigungstechnik I	w w gen en Semegen terwoch den. w	4 credits 4 credits esterwoche. ne und finden 4 credits	2 hrs 1 hrs 3G 3 hrs 2V+1U 2 hrs 1 hrs 2V+2U 2 hrs	Tue Thu Fri Tue Tue/2w Thu	13-14 17-18 08-09 09-12 10-12 14-16	LFV E41 LFW C5 CHN G42 HG D7.1 HG E1.1 LFV E41 HG F26.5 CLA E4 HG E26.1 HG K30.1	I. Goller, C. Kobe  P. Acél P. Acél

151-0717-00 U	Mechanische Produktion: Montieren, Fügen, Die Übungsräume werden von den Dozierend gegeben.			1 hrs	30.09.	14-16	ML J37.1	<b>K. Wegener</b> , V. H. Derflinger, F. Durand, P. Jousset
	Zusatzvorlesungen externe Referenten: - Donnerstag, 30.09.2021, 14-16 Uhr (Ort:tba - Donnerstag, 11.11.2021, 14-16 Uhr (Ort:tba - Donnerstag, 18.11.2021, 14-16 Uhr (Ort:tba	ĺ)						
151-0719-00L	Quality of Machine Tools - Dynamics and Metrology at Micro and Submicro Level	N	4 credits	2V+1U				
151-0719-00 V		Mikro-	und	2 hrs	Mon	10-12	ML H34.3	A. Günther, D. Spescha
151-0719-00 U	Qualität von Werkzeugmaschinen - Dynamik, Submikromesstechnik	Mikro-	und	1 hrs	Wed	08-10	ML H34.3	A. Günther, D. Spescha
151-0721-00L	Production Machines II	N	4 credits	2V+1U				
	Production Machines II			2 hrs	Thu	08-10	ML F40	K. Wegener, S. Weikert
	Production Machines II	A.	4	1 hrs	Tue/2w	14-16	ML F40	K. Wegener, S. Weikert
<b>151-0723-00L</b> 151-0723-00 G	Manufacturing of Electronic Devices  Manufacturing of Electronic Devices	N	4 credits	<b>3G</b> 3 hrs	Wed	14-17	LEE C114	A. Kunz, A. Guber, R
101 0720 00 0	Die Lehrveranstaltung beginnt in der zweiten	Semes	sterwoche.	01110	1100			D. Moryson, F. Reichert
151-0725-00L	Business World	N	4 credits	3G				
151-0725-00 G	Exciting Leadership in a Thrilling Real Busine	ss Wor	·ld	3 hrs	Wed	14-17	ETZ E9	A. Halbleib
151-0727-00L	Technology	N	4 credits	3K			=	
151-0727-00 K	Fertigungstechnisches Kolloquium Die Lehrveranstaltung beginnt ab der dritten der Regel 14-tägig.	Vorlesu	ıngswoche/ in	3 hrs	Wed/2w	<i>i</i> 13-18	ML F39	K. Wegener, A. Kunz
151-0729-00L	Welding Technology	N	4 credits	3G				
151-0729-00 G	Schweisstechnik			3 hrs	Mon Tue	15-16 08-10	CLA E4 CAB G56	K. Wegener
151-0733-00L	Forming Technology III - Forming N	N	4 credits	2V+2U	Tue	08-10	CAB G30	
151-0733-00 V	Umformtechnik III - Umformtechnische Verfal Der Kurs wird zum letzten Mal im HS21 ange			2 hrs	Fri	08-10	HG G26.5	P. Hora
151-0733-00 U	Umformtechnik III - Umformtechnische Verfal Der Kurs wird zum letzten Mal im HS21 ange	nren		2 hrs	Fri	10-12	HG G26.5	P. Hora
151-0833-00L	Applied Finite Element Analysis	N	4 credits	2V+2U				
	Applied Finite Element Analysis			2 hrs	Wed	10-12	ML F38	B. Berisha, N. Manopulo
151-0633-00 0	Applied Finite Element Analysis The exercises will start in the 2nd week of the	e Seme	ster.	2 hrs	Wed	14-16	IFW A36	B. Berisha
151-0917-00L	Mass Transfer	N	4 credits	2V+2U				
151-0917-00 V				2 hrs	Wed	10-12	ML H44	<b>S. E. Pratsinis</b> , V. Mavrantzas, CJ. Shih
151-0917-00 U	Mass Transfer The exercise will start in the 2nd week of the	Semes	ter.	2 hrs	Tue	14-16	HG E1.1	S. E. Pratsinis, V. Mavrantzas, CJ. Shih
101-0121-00L	Fatigue and Fracture in Materials and Structures	N	4 credits	3G				
101-0121-00 G	Fatigue and Fracture in Materials and Structu The lecture will primarily take place online. The remain blocked on campus for students to fol there.	he rese		3 hrs	Tue	10-13	HCI J6	E. Ghafoori, A. Taras
	Remark: Includes a visit to Empa and laborat at Empa laboratories.	ory tesi	ts by student					
227-0447-00L		N	6 credits	3V+1U				
	Image Analysis and Computer Vision			3 hrs	Thu	14-17	HG F1	L. Van Gool, E. Konukoglu, F. Yu
221-0441-00 U	Image Analysis and Computer Vision			1 hrs	Thu	17-19	ETZ D61.1 ETZ D61.2	<b>L. Van Gool</b> , E. Konukoglu, F. Yu
227-0523-00L		N	6 credits	4G				
227-0523-00 G	Eisenbahn-Systemtechnik I Online-Veranstaltung: Diese Lehrveranstaltur Der reservierte Raum bleibt für die Studieren Campus Zentrum bestehen, um die Lehrvera hören.	den au	f dem	4 hrs	Fri	08-12	LFW C1	M. Meyer
252-0535-00L	· · · · · · · · · · · · · · · · · · ·	N	10 credits	3V+2U+4				
252-0535-00 V	Advanced Machine Learning Freitag 8-10 HG F1 mit Videoübertragung ins Donnerstag 15-16 ETA F 5 mit Videoübertrag			3 hrs	Thu Fri	15-16 08-10	ETA F5 ETF E1 HG F1	J. M. Buhmann, C. Cotrini Jimenez
	-	,					HG F3	
252-0535-00 U	Advanced Machine Learning			2 hrs	Wed	14-16 16-18	CAB G61 CAB G61	J. M. Buhmann, C. Cotrini Jimenez
					Thu	16-18	ML F34	
					Fri	14-16	CAB G61	

252-0535-00 A	Advanced Machine Learning Project Work, no fixed presence required.			4 hrs				<b>J. M. Buhmann</b> , C. Cotrini Jimenez
52-0543-01L	Computer Graphics	w	8 credits	3V+2U+2	2A			
52-0543-01 V	Computer Graphics			3 hrs				
252-0543-01 U	Does not take place this semester.  Computer Graphics  Does not take place this semester.			2 hrs				
252-0543-01 A	Computer Graphics Does not take place this semester.			2 hrs				
52-0834-00L	Information Systems for Engineers	W	4 credits	2V+1U				
52-0834-00 V	Information Systems for Engineers Online lecture: This lecture will primarily tak Reserved rooms will remain blocked on can follow the course from there.	e place npus for	online. students to	2 hrs	Fri	14-16	HG E5	G. Fourny
252-0834-00 U	Information Systems for Engineers Groups are selected in myStudies.			1 hrs	Fri	16-17	CAB G52 CAB G56 CAB G57 CAB G59 ON LINE ON LINE ON LINE	G. Fourny
327-0501-00L	Metals I Offered for the last time in HS 2021.	w	3 credits	2V+1U				
327-0501-00 V				2 hrs	Tue	09-11	HPT C103	R. Spolenak
327-0501-00 U		14/	O are alle	1 hrs	Tue	11-12	HPT C103	R. Spolenak
351-0555-00L 351-0555-00 G	Open- and User Innovation Open- and User Innovation	W	3 credits	<b>2G</b> 23s hrs	22.09.	14-16	ON LINE	S. Häfliger, S. Spaeth
501 0000 00 0	Block course The Kick-off event will take place ONLINE, 2-16.00.	22.09.20	021 from 14.0		25.10. 26.10. 27.10.	09-17 09-17	ML H37.1 ML H37.1 ML H37.1	O. Haniger, O. Opacar
363-0445-00L	<b>Production and Operations Management</b>	W	3 credits	2G				
363-0445-00 G	Production and Operations Management This course can be followed fully online and opportunities for students who want to enga- staff in the classroom.			2 hrs	Thu	14-16	CAB G11	T. Netland
363-0445-02L	Production and Operations Management – Supplement Credit A parallel enrolment to the lecture 363- 0445-00L Production and Operations Management is mandatory.	W	1 credit	1A				
363-0445-02 A	Production and Operations Management – S Does not take place this semester. Irregular lecture	Supplen	nent Credit	7s hrs				T. Netland
363-0541-00L	Systems Dynamics and Complexity	w	3 credits	3G				
	Systems Dynamics and Complexity Lecture: Thursday, 08-10 h Exercises: Tuesday, 12-13 h The lecture takes place in classroom, online zoom and recorded.			3 hrs	Tue Thu	12-13 08-10	HG D1.2 HG D1.2	F. Schweitzer
376-1177-00L	Human Factors I	w	3 credits	2V				
376-1177-00 V	Human Factors I			2 hrs	Tue	14-16	HG G3	<b>M. Menozzi Jäckli</b> , R. Huang M. Siegrist
376-1219-00L	Rehabilitation Engineering II: Rehabilitation of Sensory and Vegetative Functions	W	3 credits	2V				
376-1219-00 V	Rehabilitation Engineering II: Rehabilitation Vegetative Functions	of Sens	sory and	2 hrs	Tue	08-10	CAB G11	R. Riener, O. Lambercy
101-0647-00L	Introduction to Mathematical Optimization	W	5 credits	2V+1U	_	10.10	110 55	5
	Introduction to Mathematical Optimization Introduction to Mathematical Optimization			2 hrs 1 hrs	Tue Wed	16-18 12-13	HG F5 HG D1.2	D. Adjiashvili D. Adjiashvili
	Groups are selected in myStudies. Wed 12-13 or Wed 16-17			1 1113	**************************************	16-17	IFW A36 ON LINE	2. Aujustiviii
I51-0544-00L	Metal Additive Manufacturing - Mechanical Integrity and Numerical Analysis	W	4 credits	3G				
151-0544-00 G	Metal Additive Manufacturing - Mechanical Numerical Analysis	ntegrity	and	3 hrs	Mon	10-13	CAB G51	E. Hosseini
►► Robotic	s, Systems and Control							
The co	urses listed in this category "Core Courses" a	are reco	mmended. Al	ternative co	ourses ca	n be chos	en in agreeme	nt with the tutor.
Number	Title	Туре	ECTS	Hours				Lecturers
<b>T</b>								

151-0107-20 G	High Performance Computing for Science (HPCSE) I Lecture: 12-14h Exercises: 14-16h	and Eng	ineering	4 hrs	Fri	12-14 14-16	ML H44 ML H44	P. Koumoutsakos, S. M. Martin
151-0325-00L	Planning and Decision Making for Autonomous Robots	W	4 credits	2V+1U				
	Planning and Decision Making for Autonor			2 hrs	Wed	10-12	HG E3	E. Frazzoli
	Planning and Decision Making for Autonom			1 hrs	Wed	12-13	HG F1	E. Frazzoli
151-0371-00L	Advanced Model Predictive Control Number of participants limited to 40.	W	4 credits	2V+1U				
151-0371-00 V	Advanced Model Predictive Control			2 hrs	Thu	10-12	HG D1.1	M. Zeilinger, A. Carron,
151_0371_00 II	The lecture will take place on 30.09.21 in Advanced Model Predictive Control	HG D 7.2	?	1 hrs	30.09. Thu	10-12 12-13	HG D7.2 HG D1.1	L. Hewing, J. Köhler  M. Zeilinger, A. Carron,
131-03/1-00 0	The lecture will take place on 30.09.21 in	HG D 7.2	2.	11115	30.09.		HG D7.2	L. Hewing, J. Köhler
151-0532-00L	Nonlinear Dynamics and Chaos I	W	4 credits	2V+2U				
	Nonlinear Dynamics and Chaos I			2 hrs	Wed	10-12	LFW B1	G. Haller
	Nonlinear Dynamics and Chaos I			2 hrs	Tue	16-18	ML F39	G. Haller
151-0563-01L	Dynamic Programming and Optimal Control	W	4 credits	2V+1U				
151-0563-01 V	Dynamic Programming and Optimal Contr The lecture will start in the 2nd week of Se Online lecture: This lecture will primarily to Reserved rooms will remain blocked on ca follow the course from there.	emester. ake place		2 hrs	Wed	14-16	HG F1	R. D'Andrea
151-0563-01 U	Dynamic Programming and Optimal Contr The exercise will start in the 2nd week of		r.	1 hrs	Wed	16-17	CAB G51 HG F1	R. D'Andrea
		1			29.09.	16-17	ML E12	
151-0567-00L	Engine Systems Engine Systems	W	4 credits	<b>3G</b> 3 hrs	Mon	08-10	ML F38	C. Onder
10 1-0001-00 G	Lecture: Monday 8-10h			51115	IVIUII	12-13	ML H41.1	J. Oliuci
	Exercises: Monday 12-13h				06.10.	12-14	ML E12	
151-0569-00L	Vehicle Propulsion Systems	w	4 credits	3G				
51-0569-00 G	Vehicle Propulsion Systems			3 hrs	Fri	08-10 12-14	ML F34 CHN E46	C. Onder, P. Elbert
51-0573-00L	System Modeling	W	4 credits	2V+1U				
	System Modeling			2 hrs	Wed	08-10	HG E7	L. Guzzella
151-0573-00 U	System Modeling Groups are selected in myStudies.			1 hrs	Tue	13-14	LFV E41 LFW C5	L. Guzzella
	Die Übungen finden ab der zweiten Seme					17-18	CHN G42	
	Di 13-14, Di 17-18 oder Do 8-9 gemäss G	ruppenei	nteilung.		Thu	08-09	HG D7.1 HG E1.1	
							LFV E41	
151-0593-00L	Embedded Control Systems Embedded Control Systems	W	4 credits	6 <b>G</b> 80s hrs	13.09.	09.10	ML H44	J. S. Freudenberg,
131-0333-00 G	This two-week block course take places d	laily (13-1	17.09.2021 &	0031113	13.09		HG G26.5	M. Schmid Daners
	20-24.09.2021) and is comprised of - Lectures: 8-12 h				17.09. 13.09	13-17	ML J44.1	
	- Exercises: 13-17 h				24.09.	13-17	IVIL 344.1	
					20.09.	08-12 13-17	HG F26.3 ML J44.1	
					21.09.	08-12	HG F26.3	
					22.09.	08-12	HG F26.3	
					23.09.	15-17 08-12	ML F39 HG F26.3	
					24.09.	08-12	LEE E101	
151-0601-00L	Theory of Robotics and Mechatronics	W	4 credits	3G				
151-0601-00 G	Theory of Robotics and Mechatronics Online event: Will primarily take place online remain blocked on campus for students to there.			3 hrs	Mon	08-10 10-11	HG D1.2 ML E12	P. Korba, S. Stoeter
151-0604-00L	Microrobotics	w	4 credits	3G				
151-0604-00 G	Microrobotics The class starts in the second week.			3 hrs	Mon Thu	16-18 11-12	NO C60 NO C60	B. Nelson, N. Shamsudhin
	Vision Algorithms for Mobile Robotics (University of Zurich)		6 credits	2V+2U				
51-0632-00L	No enrolment to this course at ETH Zurich Book the corresponding module directly a UZH as an incoming student. UZH Module Code: DINF2039	t						
151-0632-00L	Book the corresponding module directly a UZH as an incoming student.							
151-0632-00L	Book the corresponding module directly a UZH as an incoming student. UZH Module Code: DINF2039  Mind the enrolment deadlines at UZH: https://www.uzh.ch/cmsssl/en/studies/app	ıli	f Zurich)	2 hrs				D. Scaramuzza

151 0655 001	Skills for Creativity and Innovation	w	4 orodite	3G				
	Skills for Creativity and Innovation Skills for Creativity and Innovation	vv	4 credits	3 hrs	Fri	09-12	HG F26.5	I. Goller, C. Kobe
151-0727-00L	Colloquium on Manufacturing Technology	W	4 credits	3K				
151-0727-00 K	Fertigungstechnisches Kolloquium Die Lehrveranstaltung beginnt ab der dritter der Regel 14-tägig.	n Vorles	ungswoche/ ir	3 hrs	Wed/2	w 13-18	ML F39	K. Wegener, A. Kunz
151-0851-00L	Robot Dynamics	W	4 credits	2V+2U				
151-0851-00 V	,			2 hrs	Tue	10-12	HG G5	M. Hutter, R. Siegwart
151-0851-00 U	Robot Dynamics ■			2 hrs	Wed	08-10	HG G5 IFW A36	M. Hutter, R. Siegwart
151-0905-00L	Medical Technology Innovation - From Concept to Clinics	W	4 credits	3P				
151-0905-00 P	Medical Technology Innovation - From Cond	cept to (	Clinics	3 hrs	Tue	08-11	LFW C4	I. Herrmann
151-0917-00L	Mass Transfer	W	4 credits	2V+2U	\A/I	10.10	MI 1144	0 F Besteinie V Marendere
151-0917-00 V	Mass Transfer  Mass Transfer			2 hrs	Wed	10-12	ML H44 HG E1.1	S. E. Pratsinis, V. Mavrantzas, CJ. Shih
151-0917-00 U	The exercise will start in the 2nd week of the	e Seme	ster.	2 hrs	Tue	14-16	по ст.т	<b>S. E. Pratsinis</b> , V. Mavrantzas, CJ. Shih
151-1116-00L	Introduction to Aircraft and Car Aerodynamics Note: The previous course title in German	W	4 credits	3G				
	until HS20 "Einführung in Flug- und Fahrzeugaerodynamik".							
151-1116-00 G	Introduction to Aircraft and Car Aerodynamic	cs		3 hrs	Thu 23.09.	16-19 16-19	ML F39 ML F36	M. Immer, F. Schröder
227-0124-00L	Embedded Systems	W	6 credits	4G				
227-0124-00 G	Embedded Systems Exercises in groups.			4 hrs	Mon Wed	14-16 16-18	ETF C1 ETZ D61.1 ETZ D96.1	L. Thiele, M. Magno
					Fri	16-18	ETF E1 ETZ D61.1 ETZ D96.1	
227-0225-00L	Linear System Theory	w	6 credits	5G				
227-0225-00 G	Linear System Theory			5 hrs	Mon Wed 22.09.	09-12 10-12 10-12	IFW A36 ETZ E6 HG D1.1	A. lannelli
227-0447-00L	Image Analysis and Computer Vision	W	6 credits	3V+1U				
227-0447-00 V	Image Analysis and Computer Vision			3 hrs	Thu	14-17	HG F1	<b>L. Van Gool</b> , E. Konukoglu, F. Yu
227-0447-00 U	Image Analysis and Computer Vision			1 hrs	Thu	17-19	ETZ D61.1 ETZ D61.2	<b>L. Van Gool</b> , E. Konukoglu, F. Yu
	Fundamentals of Electric Machines Fundamentals of Electric Machines	W	6 credits	<b>4G</b> 4 hrs	Thu	08-10	HG D5.2	D. Bortis
227 0000 001	Custom Identification	187	4 anadita	21/.411		10-12	HG D5.2	
<b>227-0689-00L</b> 227-0689-00 V	System Identification System Identification	W	4 credits	<b>2V+1U</b> 2 hrs	Wed	10-12	HG D7.1	R. Smith
	System Identification			1 hrs	Wed	12-13	ETZ D61.1 HG D7.1	R. Smith
227-0920-00L	Seminar in Systems and Control	Z	0 credits	1S				
227-0920-00 S	Seminar in Systems and Control Detailed information on the seminars upon s Several seminars will take place during the the available slots may remain unoccupied. Seminars will be announced individually, en received detailed information for each one b	semest	er, but some o tudents will	1 hrs	Mon 21.09.	16-17 16-17	ML F38 ON LINE	F. Dörfler, R. D'Andrea, E. Frazzoli, M. H. Khammash, J. Lygeros, R. Smith
	Online lecture: This lecture will take place on Reserved room will remain reserved on can follow the course from there. From 01.11.21 in presence. Course website: https://nccr-automation.ch/news/2021/nccr-automation-	npus for	students to					
252-0834-00L	Information Systems for Engineers	W	4 credits	2V+1U				
252-0834-00 V	Information Systems for Engineers Online lecture: This lecture will primarily tak Reserved rooms will remain blocked on can follow the course from there.			2 hrs	Fri	14-16	HG E5	G. Fourny
252-0834-00 U	Information Systems for Engineers Groups are selected in myStudies.			1 hrs	Fri	16-17	CAB G52 CAB G56 CAB G57 CAB G59 ON LINE ON LINE ON LINE	G. Fourny

376-1504-00 U	Physical Human-Robot Interaction (pHRI)			2 hrs	Thu	10-12	NO E11	O. Lambercy
376-1304-00 V	To apply for the course, please prepare a le (max. one A4 page). Please include in the le program and semester you are in. Please dlike to attend the course and what you expecourse. The letter should be sent to Jan Ditt (jan.dittli@hest.ethz.ch) by 05.09.2021.	etter wh escribe ct to lea	hich study why you wou		mu	06-10	NO ETT	O. Lambercy
<b>376-1504-00L</b> 376-1504-00 V	Physical Human Robot Interaction (pHRI) Physical Human-Robot Interaction (pHRI)	W	4 credits	<b>2V+2U</b> 2 hrs	Thu	08-10	NO E11	O. Lambercy
376-1219-00 V	Rehabilitation Engineering II: Rehabilitation Vegetative Functions	of Sen	sory and	2 hrs	Tue	08-10	CAB G11	R. Riener, O. Lambercy
376-1219-00L	Rehabilitation Engineering II: Rehabilitation of Sensory and Vegetative Functions		3 credits	2V				
263-5902-00 A	Computer Vision			3 hrs				M. Pollefeys, S. Tang, F. Yu
263-5902-00 U	Computer Vision			1 hrs	Thu Fri	13-14 13-14	CAB G51 CAB G51	M. Pollefeys, S. Tang, F. Yu
263-5902-00 V	Computer Vision			3 hrs	Wed Thu	14-16 12-13	NO C60 HG G5	M. Pollefeys, S. Tang, F. Yu
263-5902-00L	Computer Vision	W	8 credits	3V+1U+				
263-5210-00 A	Probabilistic Artificial Intelligence			2 hrs				A. Krause
263-5210-00 U	Probabilistic Artificial Intelligence Q&A session: Monday, 17-18, via zoom			2 hrs	Thu	16-18	CHN C14	A. Krause
	Fr 10-12 und 13-14 im ETĂ F5 mit Videoüb	ertragu	ing ins ETF E	1		13-14	ETF E1 ETA F5 ETF E1	
263-5210-00 V	Probabilistic Artificial Intelligence			3 hrs	Fri	10-12	ETA F5	A. Krause
263-5210-00L	Probabilistic Artificial Intelligence	w	8 credits	3V+2U+	2A			
252-3110-00 A	Human Computer Interaction			2 hrs			LFW B3	O. Hilliges, C. Holz
252-3110-00 U	Human Computer Interaction			1 hrs	Thu	12-13	CAB G56 CHN F46	O. Hilliges, C. Holz
	Human Computer Interaction			2 hrs	Wed	14-16	HG D7.2	O. Hilliges, C. Holz

# ▶▶ Micro & Nanosystems

The courses listed in this category "Core Courses" are recommended. Alternative courses can be chosen in agreement with the tutor.

Number	Title	Type	ECTS	Hours				Lecturers
151-0107-20L	High Performance Computing for Science and Engineering (HPCSE) I	W	4 credits	4G				
151-0107-20 G	High Performance Computing for Science (HPCSE) I Lecture: 12-14h Exercises: 14-16h	and Engi	ineering	4 hrs	Fri	12-14 14-16	ML H44 ML H44	P. Koumoutsakos, S. M. Martin
151-0409-00L	Multiphysics Modeling and Simulation	W	4 credits	2V+2U				
151-0409-00 V	Multiphysics Modeling and Simulation			2 hrs	Wed	12-14	LFV E41	C. I. Roman
151-0409-00 U	Multiphysics Modeling and Simulation			2 hrs	Wed	16-18	LFV E41	C. I. Roman
151-0604-00L	Microrobotics	w	4 credits	3G				
151-0604-00 G	Microrobotics The class starts in the second week.			3 hrs	Mon Thu	16-18 11-12	NO C60 NO C60	B. Nelson, N. Shamsudhin
151-0605-00L	Nanosystems	w	4 credits	4G				
151-0605-00 G	Lecture: Thursday 10-13. Online lecture: T	4 hrs	Thu	10-13	ML F40	A. Stemmer		
	take place online. Reserved rooms will ren campus for students to follow the course fr Exercises: will take place in the laboratorie	nain bloc om there	ked on	, y				
151-0620-00L	take place online. Reserved rooms will ren campus for students to follow the course fr	nain bloc om there	ked on	3P				
<b>151-0620-00L</b> 151-0620-00 P	take place online. Reserved rooms will ren campus for students to follow the course fr Exercises: will take place in the laboratorie  Embedded MEMS Lab  Embedded MEMS Lab  - First part of the compulsory introductory I 27.09.2021 from 13:15h to 18h (venue: tbc - Second part of the compulsory introductory I compulsory introductory I compulsory introductory I compulsory introductory I compulsory introductory I compulsory introductory I compulsory introductory I compulsory introductory I compulsory introductory I compulsory introductory I compulsory	nain bloc rom there es.  W  decture: N	s. 5 credits		Mon 27.09	13-14 13-17 13-18	ML J34.1 ML J34.3 ML J37.1 CLA G2 MI H43	<b>C. Hierold</b> , S. Blunier, M. Haluska
	take place online. Reserved rooms will ren campus for students to follow the course fr Exercises: will take place in the laboratorie Embedded MEMS Lab Embedded MEMS Lab - First part of the compulsory introductory I 27.09.2021 from 13:15h to 18h (venue: tbd	main bloc rom there es.  W  decture: M d) bry lecture d) nrooms (c) c ~18:30 gggered.	5 credits  Monday e: Monday of CLA: 7 during the	3P	Mon 27.09. 04.10.		ML J34.3 ML J37.1	
	take place online. Reserved rooms will rencampus for students to follow the course frequencies: will take place in the laboratories.  Embedded MEMS Lab Embedded MEMS Lab - First part of the compulsory introductory I 27.09.2021 from 13:15h to 18h (venue: toc.) - Second part of the compulsory introductor 04.10.2021 from 13:15h to 18h (venue: toc.) - Practical portion of the course in the clear consecutive Mondays from 13:00 (exact) to Semester. Starting days for groups are star	main bloc rom there es.  W  decture: M d) bry lecture d) nrooms (c) c ~18:30 gggered.	5 credits  Monday e: Monday of CLA: 7 during the	3P	27.09.	13-17 13-18	ML J34.3 ML J37.1 CLA G2 ML H43	
151-0620-00 P	take place online. Reserved rooms will rencampus for students to follow the course frequencies: will take place in the laboratories.  Embedded MEMS Lab Embedded MEMS Lab Embedded MEMS Lab First part of the compulsory introductory legal 27.09.2021 from 13:15h to 18h (venue: toc.) second part of the compulsory introductory legal 27.09.2021 from 13:15h to 18h (venue: toc.) reactical portion of the course in the clear consecutive Mondays from 13:00 (exact) to Semester. Starting days for groups are stated the course in the clear consecutive in the clear consecutive Mondays from 13:00 (exact) to Semester. Starting days for groups are stated the course in the clear consecutive in the clear cons	main bloc rom there is.  W  lecture: M  ly  ny lecture nrooms of 2 ~18:30 ggered the cours W  ntegratio	5 credits  Monday e: Monday of CLA: 7 during the se. 6 credits	<b>3P</b> 45s hrs	27.09.	13-17 13-18	ML J34.3 ML J37.1 CLA G2 ML H43	
151-0620-00 P 151-0621-00L 151-0621-00 V	take place online. Reserved rooms will rencampus for students to follow the course frequencies: will take place in the laboratories.  Embedded MEMS Lab Embedded MEMS Lab Embedded MEMS Lab First part of the compulsory introductory legal 27.09.2021 from 13:15h to 18h (venue: the second part of the compulsory introductor 04.10.2021 from 13:15h to 18h (venue: the second part of the course in the clear consecutive Mondays from 13:00 (exact) to Semester. Starting days for groups are stared the Attendance is required at all meetings of Microsystems I: Process Technology and Integration Microsystems I: Process Technology and I	nain bloc rom there is.  W  lecture: M  lecture: M  nrooms (c) c ~18:30 ggered. the cours  W  Integration the Semes ntegration	5 credits  Monday e: Monday of CLA: 7 of during the se. 6 credits on	3P 45s hrs	27.09. 04.10.	13-17 13-18 13-18	ML J34.3 ML J37.1 CLA G2 ML H43 ML H43	M. Haluska
151-0620-00 P 151-0621-00L 151-0621-00 V	take place online. Reserved rooms will rencampus for students to follow the course frequencies: will take place in the laboratories.  Embedded MEMS Lab Embedded MEMS Lab Embedded MEMS Lab - First part of the compulsory introductory I 27.09.2021 from 13:15h to 18h (venue: the second part of the compulsory introductor 04.10.2021 from 13:15h to 18h (venue: the Practical portion of the course in the clear consecutive Mondays from 13:00 (exact) to Semester. Starting days for groups are stared the Attendance is required at all meetings of Microsystems I: Process Technology and Integration  Microsystems I: Process Technology and I The lecture starts in the second week of the Microsystems I: Process Technology and I	nain bloc rom there is.  W  lecture: M  lecture: M  nrooms (c) c ~18:30 ggered. the cours  W  Integration the Semes ntegration	5 credits  Monday e: Monday of CLA: 7 of during the se. 6 credits on	3P 45s hrs 3V+3U 3 hrs	27.09. 04.10.	13-17 13-18 13-18	ML J34.3 ML J37.1 CLA G2 ML H43 ML H43	M. Haluska  C. Hierold, M. Haluska

151-0911-00L	Introduction to Plasmonics	W	4 credits	2V+1U				D. I. Namia
151-0911-00 V	Introduction to Plasmonics  Does not take place this semester.  Will be offered again in HS22.			2 hrs				D. J. Norris
151-0911-00 U	Introduction to Plasmonics Does not take place this semester. Will be offered again in HS22.			1 hrs				D. J. Norris
151-0913-00L	Introduction to Photonics	W	4 credits	2V+2U				
151-0913-00 V	Introduction to Photonics			2 hrs	Thu	10-12	HG E22	R. Quidant, J. Ortega Arroyo
151-0913-00 U	Introduction to Photonics			2 hrs	Thu	14-16	HG E22	R. Quidant, J. Ortega Arroyo
151-0917-00L	Mass Transfer	W	4 credits	2V+2U				
151-0917-00 V	Mass Transfer			2 hrs	Wed	10-12	ML H44	<b>S. E. Pratsinis</b> , V. Mavrantzas, CJ. Shih
151-0917-00 U	Mass Transfer The exercise will start in the 2nd week of the	he Sem	nester.	2 hrs	Tue	14-16	HG E1.1	<b>S. E. Pratsinis</b> , V. Mavrantzas, CJ. Shih
151-0931-00L	Seminar on Particle Technology	Z	0 credits	3S				
151-0931-00 S	Seminar on Particle Technology			3 hrs	Fri	14-17	ML F40	S. E. Pratsinis
252-0834-00L	Information Systems for Engineers	W	4 credits	2V+1U				
252-0834-00 V	Information Systems for Engineers Online lecture: This lecture will primarily ta Reserved rooms will remain blocked on ca follow the course from there.			2 hrs	Fri	14-16	HG E5	G. Fourny
252-0834-00 U	Information Systems for Engineers Groups are selected in myStudies.			1 hrs	Fri	16-17	CAB G52 CAB G56 CAB G57 CAB G59 ON LINE ON LINE ON LINE	G. Fourny

# **▶▶** Bioengineering

The courses listed in this category "Core Courses" are recommended. Alternative courses can be chosen in agreement with the tutor.

Number	Title	Type	ECTS	Hours				Lecturers
151-0107-20L	High Performance Computing for Science and Engineering (HPCSE) I	W	4 credits	4G				
151-0107-20 G	High Performance Computing for Science (HPCSE) I Lecture: 12-14h Exercises: 14-16h	and Eng	ineering	4 hrs	Fri	12-14 14-16	ML H44 ML H44	P. Koumoutsakos, S. M. Martin
151-0317-00L	Visualization, Simulation and Interactio - Virtual Reality II	n W	4 credits	3G				
151-0317-00 G	Visualization, Simulation and Interaction - Additional lecture hour in consultation with			3 hrs	Mon	12-15	CLA E4	A. Kunz
151-8101-00L	International Engineering: from Hubris to Hope	W	4 credits	3G				
151-8101-00 G	International Engineering: from Hubris to H	lope		3 hrs	Thu	15-18	LEE D105	E. Tilley, M. Kalina
151-0917-00L	Mass Transfer	w	4 credits	2V+2U				
151-0917-00 V	Mass Transfer			2 hrs	Wed	10-12	ML H44	S. E. Pratsinis, V. Mavrantzas, CJ. Shih
151-0917-00 U	Mass Transfer The exercise will start in the 2nd week of to	he Seme	ester.	2 hrs	Tue	14-16	HG E1.1	S. E. Pratsinis, V. Mavrantzas, CJ. Shih
227-0385-10L	Biomedical Imaging	w	6 credits	5G				
227-0385-10 G	Biomedical Imaging **together with University of Zurich**			5 hrs	Mon Tue	14-16 13-16	HG E19 HG E7	S. Kozerke, K. P. Prüssmann
227-0386-00L	Biomedical Engineering	w	4 credits	3G				
227-0386-00 G	Biomedical Engineering **together with University of Zurich**			3 hrs	Wed	08-10 10-11	ETF E1 ETF E1	<b>J. Vörös</b> , S. J. Ferguson, S. Kozerke, M. P. Wolf, M. Zenobi-Wong
227-0393-10L	Bioelectronics and Biosensors	w	6 credits	2V+2U				
227-0393-10 V	Bioelectronics and Biosensors			2 hrs	Fri	09-11	HG E1.2	J. Vörös, M. F. Yanik
227-0393-10 U	Bioelectronics and Biosensors			2 hrs	Fri	08-09 11-12	HG E1.2 HG E1.2	M. F. Yanik, J. Vörös
227-0447-00L	Image Analysis and Computer Vision	W	6 credits	3V+1U				
227-0447-00 V	Image Analysis and Computer Vision			3 hrs	Thu	14-17	HG F1	<b>L. Van Gool</b> , E. Konukoglu, F. Yu
227-0447-00 U	Image Analysis and Computer Vision			1 hrs	Thu	17-19	ETZ D61.1 ETZ D61.2	<b>L. Van Gool</b> , E. Konukoglu, F. Yu
227-0939-00L	Cell Biophysics	w	6 credits	4G				
227-0939-00 G	Cell Biophysics			4 hrs	Tue Thu	16-18 16-18	HG D7.2 ML F38	T. Zambelli
227-0945-00L	Cell and Molecular Biology for Engineers I This course is part I of a two-semester	W	3 credits	2G				

227-0945-00 G	Cell and Molecular Biology for Engineers I			2 hrs	Thu	10-12	LFW C5	C. Frei
227-0965-00L	Micro and Nano-Tomography of Biological Tissues	W	4 credits	3G				
227-0965-00 G	Micro and Nano-Tomography of Biological	Tissues		3 hrs	Mon	09-12	ETZ E9	<b>M. Stampanoni</b> , F. Marone Welford
227-0981-00L	Cross-Disciplinary Research and Development in Medicine and Engineering A maximum of 12 medical degree students and 12 (biomedical) engineering degree students can be admitted, their number should be equal.	W	4 credits	2V+2A				
227-0981-00 V	Cross-Disciplinary Research and Developm Engineering ■ Permission from lecturers required for all st **together with University of Zurich**		ledicine and	2 hrs	Tue	10-12	HG E41	V. Kurtcuoglu, D. de Julien de Zelicourt, M. Meboldt, M. Schmid Daner O. Ullrich
	In order to synchronize the schedule betwe students, the course will start on Tuesday 2 The final lecture will be on 07.12.  IMPORTANT: Note that a special permission of the start of the	28.09.						
227-0981-00 A	required to register for this course. Contact that end.  Cross-Disciplinary Research and Developm Engineering ■	nent in M		2 hrs				V. Kurtcuoglu, D. de Julien de Zelicourt,
	Permission from lecturers required for all st **together with University of Zurich** 2 hours of group work to be scheduled inde		ly by the joint					M. Meboldt, M. Schmid Daner O. Ullrich
	teams of medical and engineering students			-17				
<b>252-0834-00L</b> 252-0834-00 V	Information Systems for Engineers Information Systems for Engineers Online lecture: This lecture will primarily tak Reserved rooms will remain blocked on car follow the course from there.			<b>2V+1U</b> 2 hrs	Fri	14-16	HG E5	G. Fourny
252-0834-00 U	Information Systems for Engineers Groups are selected in myStudies.			1 hrs	Fri	16-17	CAB G52 CAB G56 CAB G57 CAB G59 ON LINE ON LINE ON LINE	G. Fourny
376-0121-00L	Multiscale Bone Biomechanics Number of participants limited to 30	W	6 credits	4S				
376-0121-00 S	Multiscale Bone Biomechanics ■			4 hrs	Fri	12-16	HCP E47.2	R. Müller, XH. Qin
	Human Factors I Human Factors I	W	3 credits	<b>2V</b> 2 hrs	Tue	14-16	HG G3	M. Menozzi Jäckli, R. Huang,
376-1219-00L	Rehabilitation Engineering II: Rehabilitation of Sensory and Vegetative Functions	W	3 credits	2V				M. Siegrist
376-1219-00 V	Rehabilitation Engineering II: Rehabilitation Vegetative Functions	of Sens	ory and	2 hrs	Tue	08-10	CAB G11	R. Riener, O. Lambercy
376-1504-00L	Physical Human Robot Interaction (pHRI)	W	4 credits	2V+2U				
376-1504-00 V	Physical Human-Robot Interaction (pHRI) To apply for the course, please prepare a let (max. one A4 page). Please include in the laprogram and semester you are in. Please like to attend the course and what you expecurse. The letter should be sent to Jan Dit (jan.dittli@hest.ethz.ch) by 05.09.2021.	etter of n letter wh lescribe ect to lea	ich study why you would	2 hrs	Thu	08-10	NO E11	O. Lambercy
376-1504-00 U	Physical Human-Robot Interaction (pHRI)	1		2 hrs	Thu	10-12	NO E11	O. Lambercy
376-1651-00L	Clinical and Movement Biomechanics Number of participants limited to 50.	W	4 credits	3G				
	Clinical and Movement Biomechanics			3 hrs	Wed	14-17	HIL E9	N. Singh, R. List, P. Schütz
<b>376-1714-00L</b> 376-1714-00 V	Biocompatible Materials Biocompatible Materials Vorlesung 9-11h Uebungen/Gruppenarbeiten 11-12h	W	4 credits	3V 3 hrs	Fri	09-12	HG G3	K. Maniura, M. Rottmar, M. Zenobi-Wong
376-1985-00 U	Trauma Biomechanics Trauma Biomechanics Trauma Biomechanics	W	4 credits	<b>2V+1U</b> 2 hrs 1 hrs	Thu Thu/2w	10-12 14-16	HG D7.1 HG E33.3	KU. Schmitt, M. H. Muser KU. Schmitt, M. H. Muser
	Medical Physics I Medical Physics I Medical Physics I	W	6 credits	2V+1U 2 hrs 1 hrs	Thu Thu	16-18 18-19	HPT C103 HPT C103	P. Manser P. Manser

551-0319-00L	Cellular Biochemistry (Part I)	W	3 credits	2V				
551-0319-00 V	Cellular Biochemistry (Part I)			2 hrs	Mon	14-16	HCI J3	<b>U. Kutay</b> , G. Neurohr, M. Peter, K. Weis, I. Zemp

## ▶▶ Design, Computation, Product Development & Manufacturing

The courses listed in this category "Core Courses" are recommended. Alternative courses can be chosen in agreement with the tutor.

Number	Title	Type	ECTS	Hours				Lecturers
151-3209-00L	Engineering Design Optimization Number of participants limited to 60.	W	4 credits	4G				
151-3209-00 G	Engineering Design Optimization Online event: Will primarily take place online remain blocked on campus for students to fo there.				Wed	08-12	ETZ E8	K. Shea, T. Stankovic
151-3215-00L	Design for Additive Manufacturing For a place in the course please write a short letter of motivation stating why you like to attend the course, your experiences in CAD-Design, Simulation and additive manufacturing. Please mention in the letter, if you already have a suggestion for a part to be designed in the semester project. Send the letter to Julian Ferchow (email: ferchowj@ethz.ch),	W	4 credits	2G				
151-3215-00 G	Design for Additive Manufacturing ■			2 hrs	Tue	13-16	LEO B8.1	M. Meboldt, J. Ferchow
252-0834-00L	Information Systems for Engineers	W	4 credits	2V+1U				
252-0834-00 V	Information Systems for Engineers Online lecture: This lecture will primarily tak Reserved rooms will remain blocked on can follow the course from there.			2 hrs	Fri	14-16	HG E5	G. Fourny
252-0834-00 U	Information Systems for Engineers Groups are selected in myStudies.			1 hrs	Fri	16-17	CAB G52 CAB G56 CAB G57 CAB G59 ON LINE ON LINE ON LINE	G. Fourny
363-1065-00L	Design Thinking: Human-Centred Solutions to Real World Challenges	W	5 credits	5G				
363-1065-00 G	Design Thinking: Human-Centred Solutions Challenges Does not take place this semester. From FS22 in the spring semester.	to Real	World	5 hrs				S. Brusoni

## Multidisciplinary Courses

The students are free to choose individually from the Course Catalogue of ETH Zurich, ETH Lausanne and the Universities of Zurich (https://www.uzh.ch/cmsssl/en/studies/application/chmobilityin.html) and St. Gallen.

Course Catalogue of ETH Zurich

Recommended GESS Science in Perspective (Type B) for D-MAVT.

Semester P	roject
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Number	Title	Туре	ECTS	Hours		Lecturers
151-1002-00L	Semester Project Mechanical Engineering Only for Mechanical Engineering MSc.	0	8 credits	17A		
	The subject of the Semester Project and the choice of the supervisor (ETH-professor) are to be approved in advance by the tutor.					
151-1002-00 A	Semester Project Mechanical Engineering			240s hrs	by appt.	Professors

## ► Industrial Internship

Number	Title	Type	ECTS	Hours	Lecturers
151-1090-00L	Industrial Internship Access to the company list and request for recognition under www.mavt.ethz.ch/praxis.	0	8 credits		
	No registration required via myStudies.				
151-1090-00 P	Industrial Internship				external organisers
	Industrial Internship				external organise
3230 00	see GESS Science in Perspective: Language Courses ETH/UZH				
	see GESS Science in Perspective: Type A:				
	Enhancement of Reflection Capability				

#### ► Master's Thesis

Number	Title	Type	ECTS	Hours		Lecturers
151-1001-00L	Master's Thesis Mechanical Engineering Students who fulfill the following criteria are allowed to begin with their Master's Thesis: a. successful completion of the bachelor program; b. fulfilling of any additional requirements necessary to gain admission to the master programme; c. successful completion of the semester project and industrial internship; d. achievement of 28 ECTS in the category "Core Courses".		30 credits	64D		
	The Master's Thesis must be approved in advance by the tutor and is supervised by a professor of ETH Zurich.  To choose a titular professor as a supervisor, please contact the D-MAVT Student Administration.	,				
151-1001-00 D	Master's Thesis Mechanical Engineering ■			900s hrs	by appt.	Professors

## ► Course Units for Additional Admission Requirements

The courses below are only available for MSc students with additional admission requirements.

Number	Title	Type	ECTS	Hours	Lecturers
406-0173-AAL	Linear Algebra I and II Enrolment ONLY for MSc students with a decree declaring this course unit as an additional admission requirement.	E-	6 credits	13R	
	Any other students (e.g. incoming exchange students, doctoral students) CANNOT enrol for this course unit.				
406-0173-AA R	Linear Algebra I and II Self-study course. No presence required.			180s hrs	N. Hungerbühler
406-0353-AAL	Analysis III Enrolment ONLY for MSc students with a decree declaring this course unit as an additional admission requirement.	E-	4 credits	9R	
	Any other students (e.g. incoming exchange students, doctoral students) CANNOT enrol for this course unit.				
406-0353-AA R	Analysis III Self-study course. No presence required.			120s hrs	A. lozzi

Mechanica	I Engineering Master - Key for Type		
0	Compulsory	E-	Recommended, not eligible for credits
W+	Eligible for credits and recommended	Z	Courses outside the curriculum
W	Eligible for credits	Dr	Suitable for doctorate

V lecture		1 -		
		P	practical/laboratory course	
G lecture with ex	ercise	A	independent project	
U exercise		D	diploma thesis	
S seminar		R	revision course / private study	
K colloquium				

ECTS European Credit Transfer and Accumulation System

# **Mechanical and Process Engineering TC**

Detailed information on the programme: www.didaktischeausbildung.ethz.ch

## ► Educational Science

General course offerings in the category Educational Science are listed under "Programme: Educational Science for Teaching Diploma and TC".

Number	Title	Туре	ECTS	Hours				Lecturers
851-0240-00L	Human Learning (EW1) This lecture is only apt for students who intend to enrol in the programs "Teaching Diploma" or "Teaching Certificate". It is about learning in childhood and adolescence.	0	2 credits	2V				
851-0240-00 V	Menschliches Lernen (EW1)			2 hrs	Tue	18-20	HG F1	E. Stern
851-0242-11L	Gender Issues In Education and STEM Number of participants limited to 30.  Enrolment only possible with matriculation in Teaching Diploma or Teaching Certificate (excluding Teaching Diploma Sport).	W	2 credits	2\$				
	Prerequisite: students should be taking the course 851-0240-00L Human Learning (EW1) in parallel, or to have successfully completed it.							
851-0242-11 S	Gender Issues In Education and STEM ■			2 hrs	Thu	10-12	LEE C114	M. Berkowitz Biran, T. Braas C. M. Thurn
851-0242-06L	Cognitively Activating Instructions in MINT Subjects Enrolment only possible with matriculation in Teaching Diploma or Teaching Certificate (excluding Teaching Diploma Sport).	W	2 credits	2\$				
	This course unit can only be enrolled after successful participation in, or during enrollment in the course "Human Learning (EW 1)".							
851-0242-06 S	Kognitiv aktivierender Unterricht in den MIN Unregelmässige Lehrveranstaltung; für eine Semesterplanung wird um frühe Anmeldung Erscheinen zum ersten Lehrveranstaltungst	e reibung g und pe	gslose ersönliches	2 hrs	Wed	18-20	ML H41.1	R. Schumacher
851-0242-07L	Human Intelligence Enrolment only possible with matriculation in Teaching Diploma or Teaching Certificate (excluding Teaching Diploma Sport). Number of participants limited to 30. This course unit can only be enrolled after successful participation in, or during enrollment in the course "Human Learning (EW 1)".	W	1 credit	1\$				
851-0242-07 S	Menschliche Intelligenz Unregelmässige Lehrveranstaltung. An zwei Terminen findet die Lehrveranstaltu TeilnehmerInnen statt und an den übrigen Teinem Teil der Studierenden (Kleingruppen, gemeinsam vereinbart.	Termine.	n nur mit	14s hrs	Wed	16-18	ML F40	E. Stern
851-0242-08L	Research Methods in Educational Science Number of participants limited to 30 This course unit can only be enrolled after successful participation in, or during enrollment in the course "Human Learning (EW 1)".	W	1 credit	2\$				
851-0242-08 S	' '			21s hrs	Wed	12-15	LFW C1	P. Edelsbrunner, T. Braas, C. M. Thurn
	An den übrigen Terminen nur mit einem Tei (jeweils mit 1-2 Kleingruppen).							
851-0240-22L	Coping with Psychosocial Demands of Teaching (EW4 DZ) Number of participants limited to 20.	W	2 credits	3S				
	The successful participation in EW1 ("Human Learning") and EW2 ("Designing Learning Environments for School") is recommended, but not a mandatory prerequisite.							

hrs

Tue

09-12

HG E33.1 HG F26.5 HG G26.1 **U. Markwalder**, S. Maurer, S. Peteranderl

## ► Subject Didactics and Professional Training

Important: You can only enrol in the courses of this category if you have not more than 12 CP left for possible additional requirements.

Number	Title	Туре	ECTS	Hours				Lecturers
151-1079-00L	Teaching Internship Including Examination Lessons Mechanical and Process Engineering The teaching internship can just be visited it all other courses of TC are completed. Repetition of the teaching internship is excluded even if the examination lessons are to be repeated.	W	6 credits	13P				
151-1079-00 P	Unterrichtspraktikum mit Prüfungslektionen Verfahrenstechnik DZ ■	Maschir	nening. und	180s hrs	by appt	<b>.</b>		Q. Lohmeyer
<b>227-0857-00L</b> 227-0857-00 G	Didactics I for D-MAVT and D-ITET Fachdidaktik I für D-MAVT und D-ITET ■	0	4 credits	<b>3G</b> 3 hrs	Wed	16-19	ML J37.1	Q. Lohmeyer, A. Colotti

## ► Further Subject Didactics

For students enrolled from HS 2019: The courses offered here are credited under the category «Subject Didactics and Professional Training».

					<u> </u>	
Number	Title	Type	ECTS	Hours		Lecturers
151-1072-00L	Mentored Thesis in Didactics of Mechanical and Process Engineering	0	2 credits	4A		
151-1072-00 A	Mentorierte Arbeit Fachdidaktik Maschineningenieurwissenschaften und Ve	erfahrens	stechnik <b>=</b>	60s hrs	by appt.	Q. Lohmeyer

Mechanical and Process Engineering TC - Key for Type											
0	Compulsory	E-	Recommended, not eligible for credits								
W+	Eligible for credits and recommended	Z	Courses outside the curriculum								
W	Eligible for credits	Dr	Suitable for doctorate								

Key for	Hours			
V	lecture	P	practical/laboratory course	
G	lecture with exercise	A	independent project	
U	exercise	D	diploma thesis	
S	seminar	R	revision course / private study	
K	colloquium			

ECTS European Credit Transfer and Accumulation System

## **Materials Science Bachelor**

# ► Bachelor Studies (Programme Regulations 2020)

## ▶▶ Basis Courses Part 1

## ▶▶▶ First Year Examinations

Number	Title	Туре	ECTS	Hours				Lecturers
401-0261-G0L	Analysis I	0	8 credits	5V+3U				
401-0261-00 V	Analysis I Vorlesung			5 hrs	Mon/2w	08-10	HG F1 HG F3	A. Steiger
	Mo 8-10 (alternierend mit Schnellü	bungen), im HG	F1 mit		Wed	08-10	ETA F5	
	Videoübertragung ins HG F3.	ina numa ina 110 F	. 0		<b>-</b> ·	00.40	HG E3	
	Mi 8-10 im ETA F 5 mit Videoübert Fr 8-10 im ETA F 5 mit Videoüber				Fri	08-10	ETA F5 ETF E1	
401-0261-00 U	Analysis I	0 0		3 hrs	Mon/2w	08-10	CAB G51	A. Steiger
	Groups are selected in myStudies.  Die Übungen beginnen in der zwei	ton Competence	aho				CHN E46	
	Schnellübungen Mo 8-10 (alternier						CHN F46 HG D3.2	
	Fr 10-12 oder Fr 12-14 gemäss Gr	uppeneinteilung.					HG D5.2	
	Zusätzlich wird das Study Center a	ngeboten: Mittwo	ochs 18-20				HG D7.1 IFW A32.1	
	Uhr ab der 3. Semesterwoche im F	HĞ E 1.2, wo die	Möglichkeit				LFW B1	
	des betreuten Lernens angeboten Studierende Vorlesungsstoff vor- o			n			LFW C5 NO C6	
	lösen.						RZ F21	
					Fri	10-12	CHN D46	
							CHN F42 ETZ F91	
							ETZ H91	
							HG G26.1 IFW A32.1	
							IFW C33	
							LEE C104 LEE D101	
							LFW E13	
						40.44	NO C6	
						12-14	CHN D46 CHN F42	
							ETZ F91	
							ETZ H91 HG G26.1	
							IFW A32.1	
							IFW C33	
							LEE C104 LEE D101	
							LFW E13	
401-0171-00L	Linear Algebra I	0	3 credits	2V+1U			NO C6	
	Linear Algebra I Lineare Algebra I	U	3 Credits	2 hrs	Tue	10-12	ETA F5	N. Hungerbühler
	Groups are selected in myStudies.			0			ETF E1	
404 0474 00 11	Di 10-12 im ETA F 5 mit Videoübei	rtragung im ETF	E 1	4 1	E-:	40.44	045.050	N. Harris and Shiles
401-0171-00 U	Lineare Algebra I Groups are selected in myStudies.			1 hrs	Fri	10-11	CAB G52 CHN D48	N. Hungerbühler
	Ab der ERSTEN Semesterwoche:						HG G26.3	
	Fr 10-11 bzw. Fr 12-13 oder Fr 13- (entsprechend der Gruppeneinteilu						IFW A34 IFW C31	
	I: Fr 12-14 bzw. Fr 10-12).	ing far are obang	on in Analysis	5			LEE D105	
	In der ersten Semesterwoche finde regulären Übungsstunden für alle S						ML F34	
	in MATLAB statt (für die Übungsgr						ML J34.1 ML J34.3	
	finden die Übungen vom 24.09. im	Raum CAB G 59	9 statt, ab				ML J37.1	
	01.10. im Raum CAB G 52).					12-13	NO C44 CAB G52	
	Zusätzlich wird das Study Center a					14-10	CHN D48	
	Uhr ab der 3. Semesterwoche im F des betreuten Lernens angeboten						CHN E42	
	Studierende Vorlesungsstoff vor- o						ML F34 ML H41.1	
	lösen.					13-14	CAB G52	
							CAB G56 CHN D48	
							CHN E42	
							ML F34	
					24.09.	12-13	ML H41.1 CAB G59	
					-	13-14	CAB G59	
327-0112-00L	•	0	4 credits	2V+1U				
327-0112-00 V				2 hrs	Mon	10-12	HG E1.1	M. Niederberger
327-0112-00 U	Cnemie I			1 hrs	Thu	09-10	HCI D2 HCI D8	P. J. Walde, W. R. Caseri
402-0050-00L	Physics I	0	4 credits	2V+2U				
402-0050-00L		•	Toround	2 hrs	Thu	10-12	HPH G3	D. Rupp
	•			-	-	_		••

402-0050-00 U Physik I Die Übungen beginnen in der 2. Semesterwoche					Tue	12-14	HG D3.3 HG D5.1 HG D5.3 HG E22	D. Rupp	
327-0113-00L	Foundations of Materials Science I	0	2 credits	2G					
327-0113-00 G	Materialwissenschaftliche Grundlagen I			2 hrs	Wed	12-14	HIL E6	L. Isa	

▶▶▶	<b>Additional</b>	First \	<b>ear</b>	<b>Basic</b>	Courses
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Number	Title	Туре	ECTS	Hours				Lecturers
327-0111-00L	Projects and Lab Courses I	0	7 credits	7P				
327-0111-00 P	Projekte und Praktika I ■			7 hrs	Mon	16-18	HCI	M. B. Willeke, L. De Pietro,
	Effektive Anfangszeiten gemäss separatei	r Ankündi	iauna.		Wed	14-15	HCI F8	M. R. Dusseiller,
	3		J. J			14-18	HCI	S. Morgenthaler Kobas, T
					Thu	13-14	HCI D2	B. Schweizer
							HCI H2.1	
						13-18	HCI	
					22.09.	14-16	HCI D8	
					23.09.	13-15	HIL E3	
					27.09.	16-18	HCI G3	
					04.10.	16-18	HCI J4	
327-0114-00L	Programming I	0	2 credits	2G				
327-0114-00 G	Programmieren I			2 hrs	Mon	14-16	HIL E4	L. De Pietro

## **▶▶** Second Year Basic Courses

## **▶▶▶** Examination Blocks

## ▶▶▶ Examination Block 1

Number	Title	Type	ECTS	Hours				Lecturers
401-0363-10L	Analysis III	0	3 credits	2V+1U				
401-0363-10 V	Analysis III Lectures in HG F7 with video transmission Starts in the second week of the semester.	to HG F	5.	2 hrs	Thu	14-16	HG F5 HG F7	A. lozzi
404 0262 40 11				1 hro	Thu/4	16 17	CARCEC	A 10==i
401-0363-10 U	,			1 hrs	Thu/1	16-17	CAB G56	A. lozzi
	Groups are selected in myStudies.	<b>^</b>	_		Thu/2	16-17	CAB G56	
	Many of the exercise classes are offered in	German	1.		Thu/1	16-17	CAB G59	
	<b>-</b> "" "				Thu/2	16-17	CAB G59	
	Zusätzlich wird das Study Center angebote			r			CLA E4	
	ab der 3. Semesterwoche im HG E 1.1, wo				Thu/1	16-17	CLA E4	
	betreuten Lernens angeboten wird. Im Stud				Thu/2	16-17	HG G26.3	
	Studierende Vorlesungsstoff vor- oder nach lösen.	nbereiter	n und Ubunge	n	Thu/1	16-17	HG G26.3 HG G26.5	
					Thu/2	16-17	HG G26.5	
					Thu/1	16-17	LFW B3	
					Thu/2	16-17	LFW B3	
							LFW E13	
					Thu/1	16-17	LFW E13	
					Thu/2	16-17	ML F40	
					Thu/1	16-17	ML F40	
					Thu/2	16-17	ML J34.1	
					Thu/1	16-17	ML J34.1	
					1110/1	17-18	CAB G56	
					Thu/2	17-18	CAB G56	
					1110/2	17 10	CAB G59	
					Thu/1	17-18	CAB G59	
					Thu/2	17-18	CLA E4	
					Thu/1	17-18	CLA E4	
					TTIU/T	17-10	HG G26.3	
					Thu/2	17-18	HG G26.3	
					IIIu/Z	17-10	HG G26.5	
					Thu/1	17-18	HG G26.5	
					I Hu/ I	17-10		
					Th/0	47.40	LFW B3	
					Thu/2	17-18	LFW B3	
					Th/4	47.40	LFW E13	
					Thu/1	17-18	LFW E13	
					TI/0	47.40	ML F40	
					Thu/2	17-18	ML F40	
					Thu/1	17-18	ML J34.1	
					Thu/2	17-18	ML J34.1	
327-0316-00L	Quantum Mechanics for Materials Scientists	0	3 credits	2V+1U				
327-0316-00 V	Quantenmechanik für Materialwissenschaft	tler/inner	n I	2 hrs	Mon	10-12	HPV G5	S. M. Stepanow
327-0316-00 U	Quantenmechanik für Materialwissenschaft	tler/inner	n I	1 hrs	Wed	09-10	HCI D451	S. M. Stepanow
				0			HCP E47.3	
327-0313-00L	Materials Characterization I	0	3 credits	3G				
327-0313-00 G	Materials Characterization I			3 hrs	Fri	08-11	HCI H8.1	A. Lauria, A. Anastasaki
	nination Block 2							
►►► Exar								1
	Title	Type	ECTS	Hours				Lecturers
►►► Exar Number 327-0312-00L		Type O	ECTS 4 credits	Hours 4G				Lecturers

<b>327-0315-00L</b> 327-0315-00 G	Statistical Thermodynamics Statistical Thermodynamics Online event: Will primarily take place or remain blocked on campus for students there.				Thu	10-13	HCI D8	A. Gusev, H. C. Öttinger
327-0104-00L	Crystallography	0	2 credits	2G				
327-0104-00 G	Kristallografie			2 hrs	Mon	14-16	HCI D8	<b>T. Lottermoser</b> , M. Fiebig, A. Simonov, T. Weber
▶▶▶ Projec	cts and Applications							
Number	Title	Туре	ECTS	Hours				Lecturers
327-0314-00L	Computational Thinking Lab I	0	2 credits	1G				
327-0314-00 G	Computational Thinking Lab I			1 hrs	Mon	13-14	HCI D8	M. Kröger
327-0314-00 G 327-0311-00L	1 0	0	8 credits	1 hrs <b>8P</b>	Mon	13-14	HCI D8	M. Kröger

## ► Bachelor Studies (Programme Regulations 2017)

## ▶▶ 3. Semester

## ▶▶▶ Basic Courses Part 2

## ▶▶▶▶ Examination Block 1

The further courses of the examination block 1, regl. 2017 (327-0309-00L Organic Chemistry in Materials Science, 402-0041-00L Physics, 551-0015-00L Biology I) were offered for the last time in HS20.

Number	Title	Туре	ECTS	Hours				Lecturers
529-0051-00L	Analytical Chemistry I	0	3 credits	3G				
529-0051-00 G	Analytische Chemie I			3 hrs	Wed Thu	08-10 08-09	HCI G3 HPH G2	<b>D. Günther</b> , MO. Ebert, G. Schwarz, R. Zenobi

#### ▶▶▶▶ Examination Block 2

The further course of the examination block 2, regl. 2017 (327-0308-00L Programming Techniques in Materials Science) was offered for the last time in HS20.

Number	Title	Type	ECTS	Hours				Lecturers
401-0603-00L	Stochastics (Probability and Statistics)	0	4 credits	2V+1U				
401-0603-00 V	Stochastik			2 hrs	Mon	16-18	ETA F5	P. Cheridito
401-0603-00 U	Stochastik Groups are selected in myStudies. Mo 18-19 oder Di 12-13 gemäss Gruppene Studiengang Materialwissenschaft geht nur			1 hrs	Mon Tue	18-19 12-13	HG D5.2 HG E33.1 HG G26.5 LFW C5 ML F36	P. Cheridito
401-0363-10L	Analysis III	0	3 credits	2V+1U				
401-0363-10 V	Analysis III Lectures in HG F7 with video transmission Starts in the second week of the semester.	to HG F	5.	2 hrs	Thu	14-16	HG F5 HG F7	A. lozzi

401-0363-10 U Analysis III Thu/1 1 hrs 16-17 CAB G56 A. lozzi Groups are selected in myStudies. Thu/2 16-17 CAB G56 Many of the exercise classes are offered in German. Thu/1 16-17 CAB G59 Thu/2 16-17 CAB G59 Zusätzlich wird das Study Center angeboten: Montags 18-20 Uhr CLA E4 ab der 3. Semesterwoche im HG E 1.1, wo die Möglichkeit des Thu/1 16-17 CLA E4 betreuten Lernens angeboten wird. Im Study Center können Thu/2 16-17 HG G26.3 Studierende Vorlesungsstoff vor- oder nachbereiten und Übungen HG G26.3 Thu/1 16-17 HG G26.5 HG G26.5 Thu/2 16-17 Thu/1 16-17 I FW B3 LFW B3 Thu/2 16-17 LFW E13 Thu/1 16-17 LFW E13 Thu/2 16-17 ML F40 Thu/1 16-17 ML F40 Thu/2 16-17 ML J34.1 Thu/1 16-17 ML J34.1 17-18 CAB G56 Thu/2 17-18 CAB G56 CAB G59 Thu/1 17-18 CAB G59 17-18 Thu/2 CLA E4 17-18 CLA E4 Thu/1 HG G26.3 Thu/2 17-18 HG G26.3 HG G26.5 Thu/1 17-18 HG G26.5 LFW B3 Thu/2 17-18 LFW B3 LFW E13 Thu/1 17-18 LFW E13

#### ▶▶▶▶ Additional Basic Courses

Number	Title	Туре	ECTS	Hours				Lecturers
327-0311-00L	Projects and Lab Courses III	0	8 credits	8P				
327-0311-00 P	Projekte und Praktika III ■			8 hrs	Tue	08-18	HCI	M. B. Willeke, L. De Pietro, T
	Siehe auch separate Ankündigung.				Fri	13-18	HCI	B. Schweizer

ML F40

ML F40

ML J34.1

ML J34.1

Thu/2

Thu/1

Thu/2

17-18

17-18

17-18

#### ▶▶ 5. Semester

#### ▶▶▶ Basic Courses Part 2

#### ▶▶▶▶ Examination Block 5

Number	Title	Type	ECTS	Hours				Lecturers
327-0504-00L	Materials Characterisation Methods Offered for the last time in HS 2021.	0	3 credits	2V+1U				
327-0504-00 V	Materials Characterisation Methods			2 hrs	Mon	10-12	HCI D8	A. Hrabec
327-0504-00 U	Materials Characterisation Methods			1 hrs	Mon	12-13	HCI D8	A. Hrabec
327-0508-00L	Simulation Techniques in Materials Science Offered for the last time in HS 2021.	0	4 credits	2V+2U				
327-0508-00 V	Simulationstechniken in der Materialwisser	nschaft		2 hrs	Mon	14-16	HCI D2	C. Ederer
327-0508-00 U	Simulationstechniken in der Materialwisser	nschaft		2 hrs	Mon 27.09.	16-18 16-18	HCI G3 HCI D2	C. Ederer
327-0407-01L	Materials Physics I Offered for the last time in HS 2021.	0	5 credits	3V+2U				
327-0407-01 V	Materials Physics I			3 hrs	Tue 24.09.	14-17 16-19	HPH G3 HPH G3	P. Gambardella
327-0407-01 U	Materials Physics I			2 hrs	Thu	14-16	HCP E47.3 HPK D24.2	P. Gambardella

#### ▶▶▶ Examination Block 6

Number	Title	Type	ECTS	Hours				Lecturers
327-0501-00L	Metals I Offered for the last time in HS 2021.	0	3 credits	2V+1U				
327-0501-00 V	Metalle I			2 hrs	Tue	09-11	HPT C103	R. Spolenak
327-0501-00 U	Metalle I			1 hrs	Tue	11-12	HPT C103	R. Spolenak
327-0502-00L	Polymers I Offered for the last time in HS 2021.	0	3 credits	2V+1U				
327-0502-00 V	Polymere I Online-Veranstaltung: Diese Lehrveransta grundsätzlich online statt. Die reservierten Studierenden auf dem Campus bestehen, Lehrveranstaltung dort zu hören.	Räume l		2 hrs	Fri	10-12	HCP E47.3	M. Kröger
327-0502-00 U	Polymere I			1 hrs	Fri	12-13	HCP E47.3	M. Kröger
327-0503-00L	Ceramics I	0	3 credits	2V+1U				

	Offered for the last time in HS 2021.							
327-0503-00 V	Keramik I			2 hrs	Wed	I 09-11	HCI H2.1	M. Niederberger, A. Demirörs T. Graule
327-0503-00 U	Keramik I			1 hrs	Wed	l 11-12	HCI H2.1	<b>M. Niederberger</b> , A. Demirörs T. Graule
327-2131-00L	Materials of Life Offered for the last time in HS 2021.	0	3 credits	3G				
327-2131-00 G	Materials of Life			3 hrs	Thu	16-19	HCI D2	E. Dufresne
▶▶▶ Basic	Courses Part 3							
Number	Title	Туре	ECTS	Hours				Lecturers
	Practical Course V	0	6 credits	8P				
327-0511-00 P	Praktikum V ■ Siehe auch separate Ankündigung			8 hrs	Thu Fri	08-12 14-18	HCI HCI	M. B. Willeke, J. F. Löffler
▶▶▶ Comp	ensatory Courses							
Only p	ossible after consultation with the Director of	Studies.						
▶▶ Industri	ial Internship or Project							
Number	Title	Туре	ECTS	Hours				Lecturers
327-0001-00L	Industrial Internship Only for Materials Science BSc.	W	10 credits					
327-0001-00 P	Industriepraktikum							external organisers
327-0002-00L	<b>Project</b> Carrying out outside of D-MATL: Only possible after consultation with the Director of Studies.	W	10 credits					
327-0002-00 P	Projekt ■				by a	ppt.		Lecturers
▶▶ Bachel	or's Thesis							
Number	Title	Туре	ECTS	Hours				Lecturers
327-0620-00L	Bachelor's Thesis Only for Materials Science BSc Programme Regulations 2017.	0	10 credits	17D				
327-0620-00 D	Bachelor-Arbeit ■			240s hrs	Thu Fri	08-17 08-17		Professors
► GESS Sc	ience in Perspective							
▶▶ Science	e in Perspective							
	Recommended GESS Science in Perspective (Type B) for D-MATL.							
	see GESS Science in Perspective: Type A: Enhancement of Reflection Capability							
▶▶ Langua	ge Courses							
	see GESS Science in Perspective: Language Courses ETH/UZH							
Materials Scie	ence Bachelor - Key for Type							
	Compulsory			E-		Recomme	nded, not eligibl	e for credits
	Eligible for credits and recommended			Z			utside the curric	
W	Eligible for credits			Dr		Suitable fo	r doctorate	
Key for Hours								
•	lecture			Р		practical/la	boratory course	)
-	lecture with exercise			A		independe		
U	exercise			D		diploma th	esis	

0	Compulsory	E-	Recommended, not eligible for credits
W+	Eligible for credits and recommended	Z	Courses outside the curriculum
W	Eligible for credits	Dr	Suitable for doctorate
Key for I	Hours		
V	lecture	P	practical/laboratory course
G	lecture with exercise	A	independent project
U	exercise	D	diploma thesis
S	seminar	R	revision course / private study
K	colloquium		

## **Materials Science Master**

#### **▶** Core Courses

Number	Title	Type	ECTS	Hours				Lecturers
327-0505-00L	Surfaces, Interfaces and their Applications I	W	3 credits	2V+1U				
327-0505-00 V	Surfaces, Interfaces and their Applications I			2 hrs	Mon	09-11	HCI J7	N. Spencer, M. P. Heuberger, L. Isa
327-0505-00 U	Surfaces, Interfaces and their Applications I			1 hrs	Mon	11-12	HCI J7	<b>N. Spencer</b> , M. P. Heuberger, L. Isa
327-1201-00L	Transport Phenomena I	W Dr	5 credits	4G				
327-1201-00 G	Transport Phenomena I 14:00-15:00 Vorlesung 15:15-16:15 Übungen in zwei Gruppen 16:30-17:30 Vorlesung			4 hrs	Mon	14-18	HCP E47.3	J. Vermant
327-1202-00L	Solid State Physics and Chemistry of Materials I	W Dr	5 credits	4G				
327-1202-00 G	Solid State Physics and Chemistry of Materi	als I		4 hrs	Tue Wed	14-16 10-12	HCI J6 HIL E1	N. Spaldin
327-1203-00L	Complex Materials I: Synthesis & Assembly	W Dr	5 credits	4G				
327-1203-00 G	Complex Materials I: Synthesis & Assembly			4 hrs	Tue Thu	16-18 10-12	HCI D8 HCI D2	M. Niederberger, A. Lauria
327-1204-00L	Materials at Work I	W Dr	4 credits	<b>4S</b>				
327-1204-00 S	Materials at Work I			4 hrs	Thu	12-16	HCI H8.1	R. Spolenak, E. Dufresne, R. Koopmans
327-1207-00L	Engineering with Soft Materials	W Dr	5 credits	4G				
327-1207-00 G	Engineering with Soft Materials			4 hrs	Tue Fri	10-12 10-12	HCP E47.2 HCP E47.2	J. Vermant, L. Isa

## **▶** Elective Courses

The students are free to choose individually from the entire course offer of ETH Zürich on the Master level. Please consult the study administration in case of questions.

Number	Title	Type	ECTS	Hours				Lecturers
327-0702-00L	EM-Practical Course in Materials Science	W	2 credits	4P				
327-0702-00 P	EM-Practical in Materials Science Das Praktikum findet vom 1014. Januar 20 Laborräumen des ScopeM (ETH Hönggerbe	_	0	60s hrs				K. Kunze, S. Gerstl, F. Gramm, F. Krumeich, J. Reuteler
327-0703-00L	Electron Microscopy in Material Science	W	4 credits	2V+2U				
327-0703-00 V	Electron Microscopy in Material Science			2 hrs	Fri	08-10	HCI H2.1	K. Kunze, R. Erni, S. Gerstl, F. Gramm, A. Käch, F. Krumeich, M. Willinger
327-0703-00 U	Electron Microscopy in Material Science			2 hrs	Fri	12-14	HCI H2.1	K. Kunze, R. Erni, S. Gerstl, F. Gramm, A. Käch, F. Krumeich, M. Willinger
327-1101-00L	Biomineralization	W	2 credits	2V				
327-1101-00 V	Biomineralization			2 hrs	Tue	10-12	ML H34.3	KH. Ernst
327-1221-00L	Biological and Bio-Inspired Materials Students that already enroled in this course during their Bachelor's degree studies are not allowed to enrol again in their Master's.	W Dr	4 credits	3G				
327-1221-00 G	Biological and Bio-Inspired Materials			3 hrs	Thu	16-19	HCP E47.4	A. R. Studart, I. Burgert, R. Nicolosi Libanori, G. Panzarasa
327-2103-00L	Advanced Composite and Adaptive Material Systems	W	4 credits	2V+2U				
327-2103-00 V	Advanced Composite and Adaptive Material	Systen	ns	2 hrs	Tue	14-16	HCI D6	F. J. Clemens, B. Weisse
327-2103-00 U	Advanced Composite and Adaptive Material	Systen	ns	2 hrs	Wed	16-18	HCI D6	F. J. Clemens, B. Weisse
327-2105-00L	Supramolecular Aspects of Polymers	W	2 credits	1G				
327-2105-00 G	Supramolecular Aspects of Polymers			1 hrs	Tue	09-10	HCI F2	P. J. Walde
327-2125-00L	Microscopy Training SEM I -	W	2 credits	3P				

Introduction to SEM

The number of participants is limited. In case of overbooking, the course will be repeated once. All registrations will be recorded on the waiting list.

For PhD students, postdocs and others, a fee will be charged (http://www.scopem.ethz.ch/education/MTP .html).

All applicants must additionally register on this form: (link will follow) The selected applicants will be contacted

	and asked for confirmation a few weeks before the course date.					
327-2125-00 P	Microscopy Training SEM I - Introduction to SEM ■ This block course will take place during 5 full days (9am-5pm) on October 2529., 2021. Lectures will be held in the seminar room, practical exercises in rooms of ScopeM.		25.10. 26.10. 27.10. 29.10.	09-12	HIT F11.1 HIT F11.1 HIT F11.1 HIT F11.1	P. Zeng, A. G. Bittermann, S. Gerstl, L. Grafulha Morales, K. Kunze, J. Reuteler
	The repetition (if needed) of this course will take place on Jan 24. 28., 2022.	-				
327-2126-00L	Microscopy Training TEM I - W 2 credits Introduction to TEM The number of participants is limited. In case of overbooking, the course will be repeated once. All registrations will be recorded on the waiting list.	3P				
	For PhD students, postdocs and others, a fee will be charged (http://www.scopem.ethz.ch/education/MTP .html).					
	All applicants must additionally register on this form: (link will follow) The selected applicants will be contacted and asked for confirmation a few weeks before the course date.					
327-2126-00 P	Microscopy Training TEM I - Introduction to TEM This block course will take place during 5 full days (9am-5pm) on November 15., 2021. Lectures will be held in the seminar room, practical exercises in rooms of ScopeM.	35s hrs	02.11. 03.11.		HIT F11.1 HIT F11.1 HIT F11.1 HIT F11.1	P. Zeng, E. J. Barthazy Meier, A. G. Bittermann, F. Gramm, A. Sologubenko, M. Willinger
	The repetition (if needed) of this course will take place from 29.1103.12.2021.					
327-2127-00L	Sustainable Materials Management: W 2 credits Concepts, Methods and Principles	1V+1U				
327-2127-00 V	Sustainable Materials Management: Concepts, Methods and Principles	1 hrs	Fri/2w 24.09.	14-16 14-18	HCI J8 HCI D2	P. Wäger, R. Widmer
327-2127-00 U	Sustainable Materials Management: Concepts, Methods and Principles	1 hrs	Fri/2w	16-18	HCI J8	P. Wäger, R. Widmer
327-2128-00L	High Resolution Transmission Electron W 2 credits Microscopy Limited number of participants. More information here: https://scopem.ethz.ch/education/MTP.html	3G				
327-2128-00 G	High Resolution Transmission Electron Microscopy ■  This blockcourse will take place December 7-10, 2021, in the seminar room and rooms of ScopeM.	40s hrs	07.12. 08.12. 09.12. 10.12.	09-12	HIT F11.1 HIT F11.1 HIT F11.1 HIT F11.1	A. Sologubenko, R. Erni, R. Schäublin, M. Willinger, P. Zeng
<b>327-2129-00L</b> 327-2129-00 P	Analytical Electron Microscopy: EDS W 1 credit Analytical Electron Microscopy: EDS Does not take place this semester. This three-days block course takes place on September 28-30, 2021, (9am-5pm) in the seminar room and rooms of ScopeM.	<b>2P</b> 21s hrs				
327-2132-00L	Former title: Analytical Electron Microscopy  Multifunctional Ferroic Materials: W 2 credits	2G				
	Growth and Characterisation		Man	44.40	1101110.4	M. Turanto
	Multifunctional Ferroic Materials: Growth and Characterization  Advanced Analytical TEM W Dr 2 credits	2 hrs	Mon	14-16	HCI H8.1	M. Trassin
	Advanced Analytical TEM Does not take place this semester. Will probably be offered in a new form as of HS22.	40s hrs				to be announced
327-2136-00L	Chemical Analysis and Spectroscopy for W Dr 2 credits Energy Applications	2G				
	Chemical Analysis and Spectroscopy for Energy Applications	2 hrs	Mon	14-16	HCI E2	A. Borgschulte
327-2137-00L	Scattering Techniques for Material Characterization All enrolled students are initially placed on the "waiting list" until the registration deadline. In the case of more than 12 applicants, the students will be selected by the lecturers before the start of the lecture according to the priority criteria: master students before doctoral students, Material Science students before students of other departments.	2V+1U				
	Scattering Techniques for Material Characterization Scattering Techniques for Material Characterization	2 hrs 1 hrs	Wed Wed	15-17 14-15	HCI G574 HCI G574	<ul><li>T. Weber, A. Sologubenko</li><li>T. Weber, A. Sologubenko</li></ul>
327-2140-00L	Focused Ion Beam and Applications Number of participants limited to 6. PhD students will be asked for a fee.  W Dr 1 credit	2P				

327-2140-00 P	Registration form: (link will follow)  Focused Ion Beam and Applications ■  This three-days block course will take place 17.,2021 (9am-5pm) in the seminar room an			21s hrs	15.11. 16.11. 17.11.	09-12	HIT F11.1 HIT F11.1 n /a	P. Zeng, A. G. Bittermann, S. Gerstl, L. Grafulha Morales, J. Reuteler
327-2143-00L	Computational Multi-Scale Modeling of Solids	W	5 credits	3V+2U				
	Computational Multi-Scale Modeling of Solid Computational Multi-Scale Modeling of Solid			3 hrs 2 hrs	Wed Wed	13-16 16-18	HIT F31.1 HIL D60.1	P. Derlet P. Derlet
101-0121-00L	Fatigue and Fracture in Materials and Structures	w	4 credits	3G				
101-0121-00 G	Fatigue and Fracture in Materials and Structs The lecture will primarily take place online. T remain blocked on campus for students to fo there. Remark: Includes a visit to Empa and labora at Empa laboratories.	he rese	e lecture from	3 hrs	Tue	10-13	HCI J6	E. Ghafoori, A. Taras
	·	W	4 credits	<b>2G</b> 2 hrs	Mon	14-16	HIL E7	R. J. Flatt, I. Burgert
		w	2 credits	2G	IVIOIT	14 10	1112 27	Tr. 0. Flatt, 1. Burgon
	Concrete Technology		2 di dullo	2 hrs	Mon	16-18	HIL E9	<b>F. Constandopoulos</b> , M. Bäuml, G. Martinola, T. Wangler
<b>151-0353-00L</b> 151-0353-00 V	Mechanics of Composite Materials Mechanics of Composite Materials	W	4 credits	<b>2V+1U</b> 2 hrs	Thu	09-11	ML F38	P. Ermanni, G. Pappas,
151-0353-00 U	Mechanics of Composite Materials			1 hrs	Thu	11-12	ML F38	M. Sakovsky P. Ermanni, G. Pappas, M. Sakovsky
151-0544-00L	Metal Additive Manufacturing - Mechanical Integrity and Numerical Analysis	W	4 credits	3G				·
151-0544-00 G	Metal Additive Manufacturing - Mechanical Ir Numerical Analysis	ntegrity	and	3 hrs	Mon	10-13	CAB G51	E. Hosseini
151-0550-00L	Adaptive Materials for Structural Applications	W	4 credits	3G				
151-0550-00 G	Adaptive Materials for Structural Applications Online event: Will primarily take place online remain blocked on campus for students to for there.	. Reser		3 hrs	Tue	09-12	LEE D105	A. Bergamini
<b>151-0605-00L</b> 151-0605-00 G	•	in block m there.	red on	4G 4 hrs	Thu	10-13	ML F40	A. Stemmer
227-0617-00L	Solar Cells	W	4 credits	3G				
227-0617-00 G	Solar Cells			3 hrs	Wed	09-12	HG D7.2	<b>A. N. Tiwari</b> , R. Carron, Y. Romanyuk
227-0619-00L	Charge Transport in Energy Conversion and Storage Devices		6 credits	2V+2U				
	Charge Transport in Energy Conversion and Charge Transport in Energy Conversion and	-		2 hrs 2 hrs	Fri Fri	10-12 12-14	CAB G11 CAB G11	C. Battaglia C. Battaglia
		Otorag		21113	24.09.	12-14	ML E12	o. Battagila
<b>376-1103-00L</b> 376-1103-00 V	Frontiers in Nanotechnology Frontiers in Nanotechnology	W	4 credits	<b>4V</b> 4 hrs	Mon Fri	10-12 14-16	HCP E47.3 HCP E47.3	V. Vogel, further lecturers
376-1714-00L	Biocompatible Materials	w	4 credits	3V				
376-1714-00 V	Biocompatible Materials Vorlesung 9-11h Uebungen/Gruppenarbeiten 11-12h			3 hrs	Fri	09-12	HG G3	<b>K. Maniura</b> , M. Rottmar, M. Zenobi-Wong
402-0317-00L	Semiconductor Materials: Fundamentals and Fabrication	W	6 credits	2V+1U				
	Semiconductor Materials: Fundamentals and			2 hrs	Tue	14-16	HCI D2	S. Schön, W. Wegscheider
402-0317-00 U 402-0535-00L	Semiconductor Materials: Fundamentals and Introduction to Magnetism	d Fabric <b>W</b>	6 credits	1 hrs	Tue	16-17	HCI D2	S. Schön, W. Wegscheider
	Introduction to Magnetism		o credits	3 hrs	Mon	16-19	HIL E6	A. Vindigni
402-0595-00L		w	6 credits	2V+1U				
	Semiconductor Nanostructures Semiconductor Nanostructures or by appointment			2 hrs 1 hrs	Wed Wed	12-14 14-15	HCI J4 HIT J51 HIT K52	T. M. Ihn T. M. Ihn
402-0809-00L		w	8 credits	2V+2U				
402-0809-00 V 402-0809-00 U	Introduction to Computational Physics Introduction to Computational Physics			2 hrs 2 hrs	Tue Tue	10-12 08-10	HCI J7 HCI J7	A. Adelmann A. Adelmann

<b>529-0659-00L</b>	Electrochemistry: Fundamentals, Cells & Applications Electrochemistry: Fundamentals, Cells & A		6 credits	<b>3G</b> 3 hrs	Mon	09-12	HPT C103	L. Gubler
752-2314-00L		<b>W</b>	3 credits	2V	IVIOIT	03-12	111 1 0 103	L. Gubiel
	Physics of Food Colloids  Physics of Food Colloids	VV	3 Credits	2 hrs	Tue	10-12	ML F36	P. A. Fischer, R. Mezzenga
► Projects								
Number	Title	Туре	ECTS	Hours				Lecturers
<b>327-1210-00L</b> 327-1210-00 A	Project I Project I Ausführung in der Regel während der vorle	<b>O</b>	12 credits	<b>23A</b> 320s hrs				Professors
327-1211-00L	Project II	0	12 credits	23A				
327-1211-00 A		sungsfre	eien Zeit	320s hrs				Professors
► Master's	Thesis							
Number	Title	Туре	ECTS	Hours				Lecturers
327-9000-00L	Master's Thesis Only students who fulfill the following criteria are allowed to begin with their master thesis: a. successful completion of the bachelor programme; b. fulfilling of any additional requirements necessary to gain admission to the master programme.	0	30 credits	64D				
327-9000-00 D	Master's Thesis			900s hrs	by app	t.		Professors
► GESS Sc	ience in Perspective							
	see GESS Science in Perspective: Language Courses ETH/UZH							
	see GESS Science in Perspective: Type A: Enhancement of Reflection Capability							
	Recommended GESS Science in Perspective (Type B) for D-MATL.							
	Inits for Additional Admission	•		, , ,				
Number	urses below are only available for MSc stude  Title		ECTS	Hours	Juiremen	is.		Lecturers
327-0503-AAL	Ceramics I Enrolment ONLY for MSc students with a decree declaring this course unit as an additional admission requirement.	E-	3 credits	6R				
	Any other students (e.g. incoming exchange students, doctoral students) CANNOT enrol for this course unit.							
327-0503-AA R	Ceramics I Self-study course. No presence required.			90s hrs				M. Niederberger, A. Demirör T. Graule
327-0502-AAL	Polymers I Enrolment ONLY for MSc students with a decree declaring this course unit as an additional admission requirement.	E-	3 credits	6R				
	•							
	Any other students (e.g. incoming exchange students, doctoral students) CANNOT enrol for this course unit.							
327-0502-AA R	exchange students, doctoral students) CANNOT enrol for this course unit.			90s hrs				M. Kröger
	exchange students, doctoral students) CANNOT enrol for this course unit. Polymers I Self-study course. No presence required.	E-	3 credits	90s hrs				M. Kröger
	exchange students, doctoral students) CANNOT enrol for this course unit. Polymers I Self-study course. No presence required.  Polymers II Enrolment ONLY for MSc students with a decree declaring this course unit as an	E-	3 credits					M. Kröger
327-0606-AAL	exchange students, doctoral students) CANNOT enrol for this course unit. Polymers I Self-study course. No presence required.  Polymers II Enrolment ONLY for MSc students with a decree declaring this course unit as an additional admission requirement.  Any other students (e.g. incoming exchange students, doctoral students) CANNOT enrol for this course unit.	E-	3 credits					M. Kröger  T. A. Tervoort, T B. Schweizer
327-0502-AA R 327-0606-AAL 327-0606-AA R 327-0501-AAL	exchange students, doctoral students) CANNOT enrol for this course unit. Polymers I Self-study course. No presence required.  Polymers II Enrolment ONLY for MSc students with a decree declaring this course unit as an additional admission requirement.  Any other students (e.g. incoming exchange students, doctoral students) CANNOT enrol for this course unit. Polymers II Self-study course. No presence required.	E-	3 credits	6R				T. A. Tervoort, T

327-0501-AA R	Metals I Self-study course. No presence required.			90s hrs	R. Spolenak
327-0612-AAL	· · · · · · · · · · · · · · · · · · ·	E-	3 credits	6R	
	Any other students (e.g. incoming exchange students, doctoral students) CANNOT enrol for this course unit.				
327-0612-AA R	Metals II Self-study course. No presence required.			90s hrs	R. Spolenak
327-0610-AAL	Advanced Composites Enrolment ONLY for MSc students with a decree declaring this course unit as an additional admission requirement.	E-	3 credits	6R	
	Any other students (e.g. incoming exchange students, doctoral students) CANNOT enrol for this course unit.				
327-0610-AA R	Advanced Composites Self-study course. No presence required.			90s hrs	F. J. Clemens, A. Winistörfer
Materials Scie	ence Master - Key for Type				
0	Compulsory			E-	Recommended, not eligible for credits
	Eligible for credits and recommended			Z	Courses outside the curriculum
W	Eligible for credits			Dr	Suitable for doctorate
Key for Hours					
	lecture			Р	practical/laboratory course
-	lecture with exercise			A	independent project
_	exercise			D	diploma thesis
	seminar			R	revision course / private study
_	colloquium				

ECTS European Credit Transfer and Accumulation System

# **Mathematics (General Courses)**

## ► Generally Accessible Seminars and Colloquia

Number	Title	Type	ECTS	Hours				Lecturers
401-5000-00L	Zurich Colloquium in Mathematics	E-	0 credits					
401-5000-00 K	Zurich Colloquium in Mathematics **together with University of Zurich** More information at: https://studentservices.uzh.ch/uzh/anonyn language=DE&sap- ui-language=DE#/details/2021/003/SM/50		ex.html?sap-	4s hrs	Tue	16-17	UNI ZH.	R. Abgrall, M. Iacobelli, A. Bandeira, A. Iozzi, S. Mishra, R. Pandharipande University lecturers
	Place: Zoom Time: 16:30-17:30 https://math.ethz.ch/news- and- events/events/research- seminars/zurich-colloquium-in-mathematic	cs.html?s	=hs21					
401-5960-00L	Colloquium on Mathematics, Computer Science, and Education Subject didactics for mathematics and computer science teachers.	E-	0 credits					
401-5960-00 K	Kolloquium über Mathematik, Informatik u Programm: https://www.math.ethz.ch/math und-ausbildung/weiterbildung/kolloquium.l	hematik-	icht	4s hrs				<b>N. Hungerbühler</b> , M. Akveld D. Grawehr Morath, J. Hromkovic, P. Spindler

## ► Actuary SAA Education at ETH Zurich

Eligible for credits

W

Further pieces of information are available at Prof. M. Wüthrich's secretariat, HG F 42.

	Title	Type	ECTS	Hours				Lecturers
01-3925-00L	Non-Life Insurance: Mathematics and Statistics	W	8 credits	4V+1U				
01-3925-00 V	Non-Life Insurance: Mathematics and Stati	stics		4 hrs	Mon Tue	16-18 13-15	HG D7.1 HG D7.1	M. V. Wüthrich
01-3925-00 U	Non-Life Insurance: Mathematics and Stati	stics		1 hrs	Tue	15-16	HG D7.1	M. V. Wüthrich
01-3922-00L	Life Insurance Mathematics	w	4 credits	2V				
01-3922-00 V	Life Insurance Mathematics			2 hrs	Fri	16-18	HG E1.1	M. Koller
01-3929-00L	Financial Risk Management in Social and Pension Insurance	W	4 credits	2V				
01-3929-00 V	Financial Risk Management in Social and F	Pension I	Insurance	2 hrs	Wed	16-18	HG D7.2	P. Blum
01-3928-00L	Reinsurance Analytics	W	4 credits	2V				
01-3928-00 V	Reinsurance Analytics			2 hrs	Tue	16-18	HG E1.1	P. Antal, P. Arbenz
01-3927-00L	Mathematical Modelling in Life Insurance	W	4 credits	2V				
01-3927-00 V	Mathematical Modelling in Life Insurance			2 hrs	Thu	16-18	HG E1.1	T. J. Peter
01-3913-01L	Mathematical Foundations for Finance	w	4 credits	3V+2U				
01-3913-01 V	Mathematical Foundations for Finance **together with University of Zurich**			3 hrs	Tue Thu	08-10 13-14	HG G5 HG G5	B. Acciaio
01-3913-01 U	Mathematical Foundations for Finance Groups are selected in myStudies. **together with University of Zurich** Fri 8-10 or Fri 10-12			2 hrs	Fri	08-10 10-12	HG D7.1 HG D3.2	B. Acciaio
	Online course: This course takes place onlis meant for those students who want to for Zentrum campus.			n				
63-0565-00L	Principles of Macroeconomics	W	3 credits	2V				
63-0565-00 V	Principles of Macroeconomics Di 16-18 im ETA F 5 mit Videoübertragung The lecture takes place in classroom, onlin zoom and recorded.			2 hrs	Tue	16-18	ETA F5 ETF E1	JE. Sturm

Dr

Suitable for doctorate

Key for	Hours		
V	lecture	P	practical/laboratory course
G	lecture with exercise	A	independent project
U	exercise	D	diploma thesis
S	seminar	R	revision course / private study
K	colloquium		

**ECTS** 

European Credit Transfer and Accumulation System
Special students and auditors need special permission from the lecturers.

## **Mathematics Bachelor**

- ► Bachelor Studies (Programme Regulations 2021)
- ▶▶ First Year Compulsory Courses
- ▶▶▶ First Year Examination Block 1

Number	Title		ECTS	Hours				Lecturers
	Analysis I: One Variable	0	10 credits	6V+3U				
401-1261-07 V	Analysis I: eine Variable  Mi im HG F1 mit Videoübertragung ins			6 hrs	Mon	08-10	ETA F5 ETF E1	M. Einsiedler
	Mo und Do im ETA F 5 mit Videoüberti	ragung im ∈ i	FEI		Wed	08-10	HG F1 HG F3	
					Thu	08-10	ETA F5 ETF E1	
401-1261-07 U	Analysis I: eine Variable Groups are selected in myStudies. Übungen Fr 8-10 (Studiengänge Mathe 12-14.		- '	3 hrs Fr	Wed	12-13	HG E33.1 HG E33.3 HG E33.5 HG F26.5	M. Einsiedler
	Dritte Übungsstunde Mi 12-13 oder Mi Gruppeneinteilung. Zusätzlich wird das StudyCenter angel http://studycenter.ethz.ch/	-	SS				ML F34 ML F38 ML F40 ML H41.1	
						13-14	ML J34.1 ML J34.3 HG E33.1 HG E33.3 HG E33.5	
							HG F26.5 ML F34 ML F38 ML F40 ML H41.1	
					Fri	08-10	ML J34.1 ML J34.3 CAB G52 CAB G56 CHN D44 CHN D46	
							CHN D48 CLA E4 ETZ H91 HG G26.3 IFW A34	
							IFW C31 IFW C33 LEE C104 LEE C114 LEE D101 LEE D105	
						40.44	LFW B3 ML J34.1 ML J34.3 ML J37.1	
402-1701-00L	Physics I	0	7 credits	4V+2U		12-14	HCI H8.1	
402-1701-00 V	-			4 hrs	Tue	10-12	HCI G7 HPH G1	K. Ensslin
	G7 und Do 14-16 ins HCI J7				Thu	14-16	HCI J7 HPH G1	
402-1701-00 U	Physik I Zusätzlich wird das StudyCenter angel http://studycenter.ethz.ch/	boten:		2 hrs	Thu	12-14	HCI D4 HCI D6 HCI E2 HCI E8	K. Ensslin
							HCI F2 HCI J8 HCP E47.3	
							HCP E47.4 HIL B21 HIL D10.2 HIL D60.1	
							HIL E10.1 HIL E5 HIL F10.3	
							HIT F31.2 HIT F32 HIT H42 HIT J51	
							HIT J53 HIT K51 HIT K52	
							HPK D24.2 HPK D3 HPL D34 HPT C103	

252-0847-00L	Computer Science	0	5 credits	2V+2U					
252-0847-00 V	Informatik Vorlesung im HG F7 mit Videoübertragung i	ins HG	F5.	2 hrs	Tue	14-16	HG F5 HG F7	R. Sasse, F. O. Friedrich Wicker	
252-0847-00 U	Informatik Zusätzlich wird das StudyCenter angeboten http://studycenter.ethz.ch/	:		2 hrs	Tue	16-18	CAB G59 CHN D48 CHN E42 HG E21 HG E33.1 HG E33.5 HG F26.5 LFW C4	R. Sasse, F. O. Friedrich Wicker	
					Wed	10-12	CHN G46 HG D3.1 HG D3.3 HG D5.1 HG D5.3 HG E21 HG E33.5 HG G26.1 HG G26.3 LFV E41 LFW E13 ML H41.1		
						16-18	ML H34.3		

#### ▶▶▶ First Year Examination Block 2

Number	Title	Type	ECTS	Hours				Lecturers
401-1151-00L	Linear Algebra I	0	7 credits	4V+2U				
401-1151-00 V	Lineare Algebra I Vorlesung im HG F7 mit Videoübertragung	ins HG	F5.	4 hrs	Mon	10-12	HG F5 HG F7	R. Pink
					Wed	14-16	HG F5 HG F7	
401-1151-00 U	Lineare Algebra I Groups are selected in myStudies. Zusätzlich wird das StudyCenter angeboter http://studycenter.ethz.ch/	ı:		2 hrs	Mon	14-16	CAB G56 CAB G59 CHN D42 CHN D48 CHN G22 HG D5.2 HG E33.1 HG E33.5 HG G26.3 IFW C31 IFW C33 LEE C104 LEE D101 LFW C11 LFW E13 ML F39 ML H41.1 ML J34.3 ML J34.3 ML J37.1 RZ F21	R. Pink

## ► Bachelor Studies (Programme Regulations 2016)

#### **▶▶** First Year

Course units of the first year can be found in section Bachelor Studies (Programme Regulations 2021) - First Year Compulsory Courses.

## **▶▶** Compulsory Courses

## ▶▶▶ Examination Block I

In Examination Block I either the course unit 402-2883-00L Physics III or the course unit 402-2203-01L Classical Mechanics must be chosen and registered for an examination. (Students may also enrol for the other of the two course units; within the ETH Bachelor's programme in mathematics, this other course unit cannot be registered in myStudies for an examination nor can it be recognised for the Bachelor's degree.)

Number	Title	Type	ECTS	Hours				Lecturers
401-2303-00L	Complex Analysis	0	6 credits	3V+2U				
401-2303-00 V	Funktionentheorie			3 hrs	Tue Fri	10-12 11-12	NO C60 NO C60	T. H. Willwacher
401-2303-00 U	Funktionentheorie Groups are selected in myStudies.			2 hrs	Tue	14-16	ETZ E6 HG E33.1 HG G26.3 IFW A32.1 LEE C104 LEE D101 LEE D105 LFW C11 ML F38 ML J34.3 NO C44 NO C6	T. H. Willwacher
401-2333-00L	Methods of Mathematical Physics I	0	6 credits	3V+2U				
401-2333-00 V	Methoden der mathematischen Physik I			3 hrs	Wed Fri	08-10 10-11	NO C60 NO C60	G. Felder

401-3531-00L		N	10 credits	4V+1U				
Number		Гуре	ECTS	Hours				Lecturers
	ourses: Pure Mathematics							
► Core Cou	ırses							
401-2003-00 U	Algebra I Groups are selected in myStudies.			2 hrs	Wed	16-18	HG D5.2 HG E33.3 HG F26.5 HG G26.5 LFW C1	L. Halbeisen
401-2003-00 V				4 hrs	Wed Fri	14-16 08-10	HG G5 HG G5	L. Halbeisen
	The two-semester course Algebra I / Algebra II is offered for the last time in its current version in the Autumn Semester 2021 / Spring Semester 2022.							
401-2003-00L	Algebra I C	)	7 credits	4V+2U				<del>-</del>
Number		Гуре	ECTS	Hours				Lecturers
▶▶ Exami	ination Block II						01111212	
	Groups are selected in myStudies.					13-14	CHN D46 CHN E42 CHN D44 CHN D46 CHN E42	
252-0851-00 V	Algorithmen und Komplexität Algorithmen und Komplexität			2 hrs 1 hrs	Tue Wed	08-10 12-13	HG D1.2 CHN D44	J. Lengler, A. Steger J. Lengler, A. Steger
252-0851-00L	. ,	<b>)</b>	4 credits	2V+1U	Fri	14-16	HIL C10.2 HPL D32 HPL D34	
					Wed	10-12	HG E33.1 LFW C1 ML F40 ML J34.1 ML J34.3 ML J37.1	
402-2203-01 U	Allgemeine Mechanik Die Übungen beginnen in der 2. Semesterwo	che.		2 hrs	Tue	08-10	CHN D42 CHN D48 CHN E46	R. Renner
102-2203-01 V	Allgemeine Mechanik Die erste Vorlesung (23.09.21) findet im HCI HPH G 3 bzw. HIL E 3.	G 7 st	att, danach im	4 hrs	Mon Thu 23.09.	12-14 14-16 14-16	HPH G3 HIL E3 HCI G7	R. Renner
102-2203-01L	Classical Mechanics	N	7 credits	4V+2U			HIT J53 HIT K51 HPL D34	
	Language English, German and even Italian o						HCP E47.4 HIL D60.1 HIL E5 HIL F10.3 HIT F31.1 HIT F32 HIT H42 HIT J51	
102-2883-00 U	Physik III (Physics III) Possible options to be discussed when lecture	e start	ts:	2 hrs	Thu Thu	12-14 10-12	HPH G2 HCI D4 HCI F2	U. Keller
	Physik III (Physics III)			4 hrs	Mon	09-11	HPH G2	U. Keller
402-2883-00L	Physics III V	N	7 credits	4V+2U			LFW C11 ML F38 ML J34.1 ML J34.3 NO C44 NO C6	
+01-2333-00 U	Groups are selected in myStudies.			21115	rue	10-10	CHN G46 HG G26.3 IFW A32.1 LEE D101 LEE D105	G. Felder
401-2333-00 U	Methoden der mathematischen Physik I			2 hrs	Tue	16-18	CAB G52	G. Felder

Number	Title	Туре	ECTS	Hours	Lecturers
401-3531-00L	Differential Geometry I At most one of the three course units (Bachelor Core Courses) 401-3461-00L Functional Analysis I 401-3531-00L Differential Geometry I 401-3601-00L Probability Theory can be recognised for the Master's degree in Mathematics or Applied Mathematics. In this case, you cannot change the category assignment by yourself in myStudies but must take contact with the Study	W	10 credits	4V+1U	

	Administration Office (www.math.ethz.ch/studiensekretariat) after having received the credits.							
401-3531-00 V	Differential Geometry I			4 hrs	Mon Wed	14-16 14-16	ML H44 HG E5	J. Serra
401-3531-00 U	Differential Geometry I Groups are selected in myStudies. Thu 13-14 or Thu 16-17 or Fri 13-14			1 hrs	Thu Fri	13-14 16-17 13-14	HG E22 IFW C31 HG F3	J. Serra
	Core Courses: Pure Mathematics (Mathematics Master)							
401-3461-00L	Functional Analysis I At most one of the three course units (Bachelor Core Courses) 401-3461-00L Functional Analysis I 401-3531-00L Differential Geometry I 401-3601-00L Probability Theory can be recognised for the Master's degree in Mathematics or Applied Mathematics. In this case, you cannot change the category assignment by yourself in myStudies but must take contact with the Study Administration Office (www.math.ethz.ch/studiensekretariat) after having received the credits.	W	10 credits	4V+1U				
401-3461-00 V	Functional Analysis I			4 hrs	Mon Thu	10-12 14-16	HG D7.1 HG G5	J. Teichmann
401-3461-00 U	Functional Analysis I Groups are selected in myStudies.			1 hrs	Mon	09-10	HG G26.1 HG G26.5 ML J34.1	J. Teichmann
401-3001-61L	Algebraic Topology I	W	8 credits	4G				
401-3001-61 G	Algebraic Topology I			4 hrs	Wed Fri	10-12 14-16	HG E1.1 HG E1.1	W. Merry
401-3132-00L	Commutative Algebra	W	10 credits	4V+1U				
401-3132-00 V	Commutative Algebra			4 hrs	Wed Fri	16-18 08-10	HG E1.1 HG E5	E. Kowalski
401-3132-00 U	Commutative Algebra			1 hrs	Thu	09-10 12-13	HG E1.2 HG E1.2	E. Kowalski

# ▶► Core Courses: Applied Mathematics and Further Appl.-Oriented Fields

Number	Title	Type	ECTS	Hours				Lecturers
401-3651-00L	Numerical Methods for Elliptic and Parabolic Partial Differential Equations (University of Zurich) No enrolment to this course at ETH Zurich. Book the corresponding module directly at UZH as an incoming student. UZH Module Code: MAT802	W	9 credits	4V				
	Mind the enrolment deadlines at UZH: https://www.uzh.ch/cmsssl/en/studies/appli cation/deadlines.htmlCourse audience at ETH:							
	3rd year ETH BSc Mathematics and MSc Mathematics and MSc Applied Mathematics students. Other ETH-students are advised to attend the course "Numerical Methods for Partial Differential Equations" (401-0674-00L) in the CSE curriculum during the spring semester.							
101-3651-00 V	Numerical Methods for Elliptic and Parabolic Equations (University of Zurich) **Course at University of Zurich**	c Partial	Differential	4 hrs	Wed Thu	10-12 08-10	UNI ZH. UNI ZH.	S. Sauter
401-3601-00L	Probability Theory At most one of the three course units (Bachelor Core Courses) 401-3461-00L Functional Analysis I 401-3531-00L Differential Geometry I 401-3601-00L Probability Theory can be recognised for the Master's degree in Mathematics or Applied Mathematics. In this case, you cannot change the category assignment by yourself in myStudies but must take contact with the Study Administration Office (www.math.ethz.ch/studiensekretariat) after	W	10 credits	4V+1U				
	having received the credits.							

401-3601-00 U	Probability Theory Groups are selected in myStudies. Tue 14-15 or Tue 15-16 starting in the second w semester.	veek of the	1 hrs	Tue	14-15 15-16	HG F26.5 ML H41.1 HG F26.5 ML H41.1	W. Werner
401-3621-00L	Fundamentals of Mathematical Statistics W	10 credits	4V+1U				
	Fundamentals of Mathematical Statistics		4 hrs	Tue Wed	08-10 10-12	HG E5 HG E7	S. van de Geer
401-3621-00 U	Fundamentals of Mathematical Statistics		1 hrs	Tue	12-13	HG D7.1 HG E7	S. van de Geer
401-3901-00L	Linear & Combinatorial Optimization W	11 credits	4V+2U				
401-3901-00 V	Linear & Combinatorial Optimization (Mathematic Online lecture: This lecture will take place online will remain reserved on campus for students to for from there.	. Reserved rooms		Wed Thu	12-14 10-12	HG G5 HG G5	R. Zenklusen
401-3901-00 U	Linear & Combinatorial Optimization (Mathematic Groups are selected in myStudies. Thu 14-16 or Fri 10-12 or Fr 12-14 or Fri 14-16 (demand)	. ,	2 hrs	Thu Fri	14-16 10-12 12-14 14-16	HG F26.5 CAB G51 HG D3.2 HG F26.5	R. Zenklusen
401-3622-00L	Statistical Modelling W	8 credits	4G				
401-3622-00 G	Statistical Modelling		4 hrs	Mon Thu	10-12 14-16	ML D28 HG E1.1	C. Heinze-Deml
252-0057-00L	Theoretical Computer Science W	7 credits	4V+2U				
252-0057-00 V	Theoretische Informatik		4 hrs	Tue Fri	08-10 08-10	HG E7 HG E7	<b>J. Hromkovic</b> , H J. Böckenhauer
252-0057-00 U	Theoretische Informatik		2 hrs	Tue	14-16	CAB G52 CAB G59 HG E22 LFW C4 ML J37.1	<b>J. Hromkovic</b> , H J. Böckenhauer
				Wed	16-18	CAB G52 CAB G57 CAB G59 CHN D48 ETZ E7 ETZ G91 HG D3.3	
				Thu	16-18	HG D5.1 HG D5.3 HG E33.5 HG F26.5	
252-0209-00L	Algorithms, Probability, and Computing W	8 credits	4V+2U+	1A			
252-0209-00 V	Algorithms, Probability, and Computing		4 hrs	Mon Tue	14-16 14-16	ML D28 ML D28	B. Gärtner, M. Ghaffari, R. Kyng, A. Steger, D. Steurer
252-0209-00 U	Algorithms, Probability, and Computing		2 hrs	Wed	14-16 16-18	CAB G56 CAB G57 CAB G56	B. Gärtner, M. Ghaffari, R. Kyng, A. Steger, D. Steurer
252-0209-00 A	Algorithms, Probability, and Computing Project Work, no fixed presence required.		1 hrs				B. Gärtner, M. Ghaffari, R. Kyng, A. Steger, D. Steurer
	Core Courses: Applied Mathematics and Further ApplOriented Fields (Mathematics						

Further Appl.-Oriented Fields (Mathematics Master)

## **▶▶** Core Courses: Further Application-Oriented Fields

For the category assignment take contact with the Study Administration Office (www.math.ethz.ch/studiensekretariat) after having received the credits.

Number	Title	Type	ECTS	Hours				Lecturers
402-0205-00L	Quantum Mechanics I	w	10 credits	3V+2U				
402-0205-00 V	Quantenmechanik I			3 hrs	Tue Thu	10-12 12-13	HPV G4 HPV G4	M. Gaberdiel
402-0205-00 U	Quantenmechanik I Do 10-12 oder Do 16-18			2 hrs	Thu	10-12 16-18	HCI H8.1 HIT F31.2 HIT K52 HPK D24.2 HIL B21 HIL E10.1 HIT K51 HPK D24.2	M. Gaberdiel

## **▶** Electives

# ▶▶ Selection: Algebra, Number Thy, Topology, Discrete Mathematics, Logic

Number	Title	Type	ECTS	Hours				Lecturers
401-3059-00L	Combinatorics II	W	4 credits	2G				
401-3059-00 G	Kombinatorik II			2 hrs	Wed	18-20	HG D3.2	N. Hungerbühler
401-3033-00L	Gödel's Theorems	W	8 credits	3V+1U				
401-3033-00 V	Die Gödel'schen Sätze			3 hrs	Tue Wed	14-16 12-13	ML F39 HG G3	L. Halbeisen
401-3033-00 U	Die Gödel'schen Sätze			1 hrs	Wed	13-14	HG G3	L. Halbeisen

## ▶▶ Selection: Geometry

Number	Title	Туре	ECTS	Hours				Lecturers
401-3057-00L	Finite Geometries II	w	4 credits	2G				
401-3057-00 G	Endliche Geometrien II Does not take place this semester.			2 hrs				N. Hungerbühler
401-4207-71L	Coxeter Groups from a Geometric Viewpoint	W	4 credits	2V				
401-4207-71 V	Coxeter Groups from a Geometric Viewpoin lecturer M. Cordes	nt		2 hrs	Thu	14-16	CLA E4	

## ▶▶ Selection: Analysis

No offering in this semester yet

## **▶▶** Selection: Numerical Analysis

No offering in this semester yet

## ▶▶ Selection: Probability Theory, Statistics

Number	Title	Type	ECTS	Hours				Lecturers
401-3627-00L	High-Dimensional Statistics	w	4 credits	2V				
401-3627-00 V	High-Dimensional Statistics			2 hrs	Thu	08-10	CAB G61	P. L. Bühlmann
401-4623-00L	Time Series Analysis	w	6 credits	3G				
401-4623-00 G	Time Series Analysis Does not take place this semester.			3 hrs				F. Balabdaoui
401-0625-01L	Applied Analysis of Variance and Experimental Design	W	5 credits	2V+1U				
401-0625-01 V	Applied Analysis of Variance and Experin	nental Des	sign	2 hrs	Mon	14-16	HG G5	L. Meier
401-0625-01 U	Applied Analysis of Variance and Experin	nental Des	sign	1 hrs	Mon/2w	16-18	HG E1.1	L. Meier
401-0649-00L	Applied Statistical Regression	W	5 credits	2V+1U				
401-0649-00 V	Applied Statistical Regression			2 hrs	Mon	08-10	HG E1.2	M. Dettling
401-0649-00 U	Applied Statistical Regression Mon 10-12 might not work for all different course is offered. On sufficient demand, Mon 15-17 or Fri 10-12) for the exercise s	ther slots	(tentatively		Mon/2w	10-12	HG E1.2	M. Dettling
401-3628-14L	Bayesian Statistics	W	4 credits	2V				
401-3628-14 V	Bayesian Statistics			2 hrs	Tue	16-18	HG G3	F. Sigrist

## ▶▶ Selection: Financial and Insurance Mathematics

In the Bachelor's programme in Mathematics 401-3913-01L Mathematical Foundations for Finance is eligible as an elective course, but only if 401-3888-00L Introduction to Mathematical Finance isn't recognised for credits (neither in the Bachelor's nor in the Master's programme). For the category assignment take contact with the Study Administration Office (www.math.ethz.ch/studiensekretariat) after having received the credits.

Number	Title	Type	ECTS	Hours				Lecturers
401-3922-00L	Life Insurance Mathematics	w	4 credits	2V				
401-3922-00 V	Life Insurance Mathematics			2 hrs	Fri	16-18	HG E1.1	M. Koller
401-3925-00L	Non-Life Insurance: Mathematics and Statistics	W	8 credits	4V+1U				
401-3925-00 V	Non-Life Insurance: Mathematics and Stati	stics		4 hrs	Mon Tue	16-18 13-15	HG D7.1 HG D7.1	M. V. Wüthrich
401-3925-00 U	Non-Life Insurance: Mathematics and Stati	stics		1 hrs	Tue	15-16	HG D7.1	M. V. Wüthrich
401-3927-00L	Mathematical Modelling in Life Insurance	W	4 credits	2V				
401-3927-00 V	Mathematical Modelling in Life Insurance			2 hrs	Thu	16-18	HG E1.1	T. J. Peter
401-3928-00L	Reinsurance Analytics	w	4 credits	2V				
401-3928-00 V	Reinsurance Analytics			2 hrs	Tue	16-18	HG E1.1	P. Antal, P. Arbenz

## ▶▶ Selection: Mathematical Physics, Theoretical Physics

Number	Title	Туре	ECTS	Hours				Lecturers
402-0830-00L	General Relativity Special Students UZH must book the module PHY511 directly at UZH.	W	10 credits	4V+2U				
402-0830-00 V	General Relativity **together with University of Zurich**			4 hrs	Tue Thu	16-18 12-14	HPV G5 HPV G5	C. Anastasiou
	Online lecture: This lecture will primarily a Reserved rooms will remain blocked on a follow the course from there."							
402-0830-00 U	General Relativity **together with University of Zurich**			2 hrs	Thu	16-18	HIT F31.1 HIT F31.2 HIT J53 HIT K52	C. Anastasiou
					Fri	12-14	HCI D2 HCI D8 HIL F10.3 HIT J52	

## ▶▶ Selection: Mathematical Optimization, Discrete Mathematics

Number	Title	Type	ECTS	Hours				Lecturers
01-3055-64L	Algebraic Methods in Combinatorics	W	6 credits	2V+1U				
	Algebraic Methods in Combinatorics			2 hrs	Wed	10-12	IFW A36	B. Sudakov
01-3055-64 U	Algebraic Methods in Combinatorics			1 hrs	Mon	12-13 13-14	ML F34 ML F34	B. Sudakov
-► Auswah	nl: Theoretical Computer Scien	ce						
lumber	Title	Туре	ECTS	Hours				Lecturers
252-0417-00L	Randomized Algorithms and	W	10 credits	3V+2U+4	Α			
252-0417-00 V	Probabilistic Methods Randomized Algorithms and Probabilistic N	/lethods		3 hrs	Wed	08-09	ML D28	A. Steger
252-0417-00 II	Randomized Algorithms and Probabilistic N	10thode		2 hrs	Thu Tue	16-18 14-16	ML D28 HG D1.2	A. Steger
	-				rue	16-18	HG D1.2	-
252-0417-00 A	Randomized Algorithms and Probabilistic Na Project Work, no fixed presence required.	lethods		4 hrs				A. Steger
252-1425-00L	Geometry: Combinatorics and	W	8 credits	3V+2U+2	Α			
252-1425-00 V	Algorithms Geometry: Combinatorics and Algorithms			3 hrs	Mon	13-14	CAB G51	B. Gärtner, E. Welzl,
	, c			0.1	Thu	14-16	CAB G51	M. Hoffmann, M. Wettstein
252-1425-00 U	Geometry: Combinatorics and Algorithms			2 hrs	Mon 23.09.	14-16 16-18	CAB G51 CAB G51	B. Gärtner, E. Welzl, M. Hoffmann, M. Wettstein
252-1 <i>4</i> 25-00 A	Geometry: Combinatorics and Algorithms			2 hrs	30.09.	16-18	CAB G51	B. Gärtner, E. Welzl,
	Project Work, no fixed presence required.							M. Hoffmann, M. Wettstein
263-4500-00L	Advanced Algorithms	W	9 credits	3V+2U+3				
	Advanced Algorithms Online lecture: This lecture will primarily tal Reserved rooms will remain blocked on cal follow the course from there.			3 hrs	Wed	09-12	HG D5.2	M. Ghaffari, G. Zuzic
	Advanced Algorithms			2 hrs	Fri	10-12	CAB G59	M. Ghaffari, G. Zuzio
	Advanced Algorithms			3 hrs				M. Ghaffari, G. Zuzic
	on: Further Realms	T	ECTE	Цент				Locturers
Number 401-3502-71L	Title Reading Course	Type W	ECTS 2 credits	Hours 4A				Lecturers
	contact an authorised supervisor https://www.ethz.ch/content/dam/ethz/special- interest/math/department/Intranet/Students Study_Administration/Theses_Reading_Courses/berechtigungsliste.pdf and register your reading course in myStudies.	/						
401-3502-00 A	•	tudents		60s hrs	by app	t.		Supervisors
401-3503-71L	Reading Course	W	3 credits	6A				
	To start an individual reading course, contact an authorised supervisor https://www.ethz.ch/content/dam/ethz/specal-interest/math/department/Intranet/Students Study_Administration/Theses_Reading_Courses/berechtigungsliste.pdf and register your reading course in myStudies.	/						
401-3503-00 A	Reading Course (3 KP)  Permission from lecturers required for all si	tudents		90s hrs	by app	t.		Supervisors
401-3504-71L	Reading Course To start an individual reading course, contact an authorised supervisor https://www.ethz.ch/content/dam/ethz/specal-	W	4 credits	9A				
	interest/math/department/Intranet/Students Study_Administration/Theses_Reading_Courses/berechtigungsliste.pdf and register your reading course in myStudies.							
401-3504-00 A	Reading Course (4 KP)  Permission from lecturers required for all st	tudents		120s hrs	by app	t.		Supervisors
	Communication in Mathematics Communication in Mathematics Does not take place this semester.	W	2 credits	1V 1 hrs				W. Merry
►► Core Co	ourses and Electives (Mathema	tics N	aster)					
22.0 3.	Core Courses (Mathematics Master)							

## ► Seminars

NOTICE: The number of seminar places is limited, and the special selection procedure should help to allocate the places not primarily according to the registration time. Everybody is waitlisted first when he/she tries to register for a seminar in myStudies.

Moreover: Only one mathematics seminar can be chosen per semester.

Number	Title	Туре	ECTS	Hours				Lecturers
401-3050-71L	Student Seminar in Combinatorics Number of participants limited to 12.	W	4 credits	2\$				
401-3050-71 S	Student Seminar in Combinatorics			2 hrs	Fri	14-16	ML H34.3	B. Sudakov
401-3110-71L	Student Seminar in Elementary Number Theory Number of participants limited to 22.	W	4 credits	<b>2</b> S				
401-3110-71 S	Student Seminar in Elementary Number Tr	eory		2 hrs	Thu 23.09. 11.11.	12-14 12-14 12-14	HG G19.1 HG G19.2 HG G19.2	Ö. Imamoglu
401-3100-71L	Student Seminar in Number Theory: L- Functions Number of participants limited to 24.	W	4 credits	2\$				
401-3100-71 S	Student Seminar in Number Theory: L-Fun	ctions		2 hrs	Tue 21.09. 28.09.	12-14 12-14 12-14	NO C6 HG F26.5 HG F26.5	M. Schwagenscheidt
401-3550-71L	Student Seminar in Topological Data Analysis Number of participants limited to 12.	W	4 credits	28				
401-3550-71 S	Student Seminar in Topological Data Analy Online seminar: This seminar will primarily Reserved rooms will remain blocked on car follow the seminar from there.	take pla		2 hrs	Tue	16-18	HG D3.1	S. Kalisnik Hintz
401-3140-71L	Student Seminar in Algebraic Geometry Complex Algebraic Surfaces Number of participants limited to 12.	: W	4 credits	28				
401-3140-71 S	Student Seminar in Algebraic Geometry: C Surfaces	omplex /	Algebraic	2 hrs	Fri	12-14	HG F26.5	TH. Bülles, R. Pandharipande
401-3940-71L	Student Seminar in Mathematics and Data: Stochastic Optimization Number of participants limited to 12.	W	4 credits	28				
401-3940-00 S	Student Seminar in Mathematics and Data: Optimization Advisors: Prof. A. Bandeira, Dr. G. Chinot &			2 hrs	Thu	14-16	HG G19.2	A. Bandeira
401-3620-20L	Student Seminar in Statistics: Inference in Some Non-Standard Regression Problems Number of participants limited to 24. Mainly for students from the Mathematics Bachelor and Master Programmes who, in addition to the introductory course unit 401 2604-00L Probability and Statistics, have heard at least one core or elective course is statistics. Also offered in the Master Programmes Statistics resp. Data Science.	- n	4 credits	2\$				
401-3620-00 S	Student Seminar in Statistics: Inference in Regression Problems Remark: former title in FS 2020: Student S Inference in Non-Classical Regression Mod	eminar iı		2 hrs	Mon	16-18	HG E21	F. Balabdaoui, P. L. Bühlmann, M. H. Maathuis, N. Meinshausen, S. van de Geer
► Minor Co	Seminars (Mathematics Master)  Durses (Programme Regulations	s 2016	<u></u>					
Number	Title		ECTS	Hours				Lecturers
401-1511-00L	Geometry	W	3 credits	2V+1U				Locidiois
401-1511-00L 401-1511-00 V	-	••	o oreults	2 hrs	Fri	14-16	HG F5	T. Ilmanen
401-1511-00 U	Geometrie Groups are selected in myStudies.			1 hrs	Mon/2w	/ 16-18	CHN G42 CLA E4 LEE D101	T. Ilmanen
401-2113-71L	Sums of Squares	W	2 credits	2G				
401-2113-71 G	Summen von Quadraten			2 hrs	Thu 23.09.	16-18 16-18	HG E22 HG D3.2	
<b>402-0351-00L</b> 402-0351-00 V	<b>Astronomy</b> Astronomie	W	2 credits	<b>2V</b> 2 hrs	Wed	10-12	HG E1.2	S. P. Quanz
► Bachelor	r's Thesis							
Number	Title	Туре	ECTS	Hours				Lecturers
401-2000-00L	Scientific Works in Mathematics Target audience: Third year Bachelor students; Master students who cannot document to have received an adequate training in	0	0 credits					-

have received an adequate training in

401-2000-00 V	working scientifically. Scientific Works in Mathematics Groups are selected in myStudies. This mandatory course is offered twice per Carry your ETH student card with you to pu The lecturers will communicate the exact le	ove you	r identity.	1s hrs	28.09. 14.12.	18-19 18-19	ON LINE ON LINE	M. Burger
401-2000-01L	Lunch Sessions – Thesis Basics for Mathematics Students Details and registration for the optional MathBib training course: https://www.math.ethz.ch/mathbib- schulungen	Z	0 credits					
401-2000-01 G	Lunch Sessions – Thesis Basics für Mather geplant 4., 5., 6. und 8. Oktober 2021 über https://math.ethz.ch/library/training-courses	Mittag.		4s hrs				Speakers
401-3990-10L	Bachelor's Thesis Successful participation in the course unit 401-2000-00L Scientific Works in Mathematics is required. For more information, see www.math.ethz.ch/intranet/students/study- administration/theses.html	0	8 credits	11D				
401-3990-10 D	Bachelor-Arbeit ■			160s hrs	by appt			Supervisors

## **▶** GESS Science in Perspective

## **▶▶** Science in Perspective

see Science in Perspective: Type A: Enhancement of Reflection Capability

Recommended Science in Perspective (Type B) for D-MATH.

## **▶▶** Language Courses

see Science in Perspective: Language Courses ETH/UZH

## ► Additional Courses

Number	Title	Type	ECTS	Hours				Lecturers
401-5000-00L	Zurich Colloquium in Mathematics	E-	0 credits					
401-5000-00 K	Zurich Colloquium in Mathematics **together with University of Zurich** More information at: https://studentservices.uzh.ch/uzh/anony language=DE&sap- ui-language=DE#/details/2021/003/SM/5		ex.html?sap-	4s hrs	Tue	16-17	UNI ZH.	R. Abgrall, M. lacobelli, A. Bandeira, A. lozzi, S. Mishra, R. Pandharipande University lecturers
	Place: Zoom Time: 16:30-17:30 https://math.ethz.ch/news- and- events/events/research- seminars/zurich-colloquium-in-mathemat	tics.html?s	=hs21					
401-5990-00L	Zurich Graduate Colloquium	E-	0 credits	1K				
401-5990-00 K	Zurich Graduate Colloquium **together with University of Zurich** More information at: https://studentservices.uzh.ch/uzh/anony language=EN&sap- ui-language=EN#/details/2021/003/SM/5		ex.html?sap-	1 hrs	Tue	16-18	UNI ZH.	A. lozzi, further speakers
	Time: 16:15-18:00							
401-5960-00L	Colloquium on Mathematics, Computer Science, and Education Subject didactics for mathematics and computer science teachers.	er E-	0 credits					
401-5960-00 K	Kolloquium über Mathematik, Informatik Programm: https://www.math.ethz.ch/ma und-ausbildung/weiterbildung/kolloquium	thematik-	richt	4s hrs				<b>N. Hungerbühler</b> , M. Akveld, D. Grawehr Morath, J. Hromkovic, P. Spindler
402-0101-00L	The Zurich Physics Colloquium	E-	0 credits	1K				
402-0101-00 K	The Zurich Physics Colloquium **together with University of Zurich**			1 hrs	Wed	16-17	HPV G4	S. Huber, A. Refregier, University lecturers
	16:15-17:15 Uhr							
402-0800-00L	The Zurich Theoretical Physics Colloquium	E-	0 credits	1K				

402-0800-00 K The Zurich Theoretical Physics Colloquium
\*\*together with University of Zurich\*\*

More information at:

https://studentservices.uzh.ch/uzh/anonym/vvz/index.html?sap-

language=DE&sap-ui-language=DE#/details/2021/003/SM/50030258

The Colloquium takes place on selected Mondays during the academic semester on the Irchel Campus of UZH or at ETH

Hönggerberg Time: 16:45h

251-0100-00L Computer Science Colloquium	E-	0 credits	2K				
251-0100-00 K Kolloquium für Informatik			2 hrs	Mon	16-18	CAB G61	Lecturers

1 hrs

Mon

17-18

HIT H42

116 G05

University lecturers

0	Compulsory	E-	Recommended, not eligible for credits
W+	Eligible for credits and recommended	Z	Courses outside the curriculum
W	Eligible for credits	Dr	Suitable for doctorate
	Hours lecture	P	practical/laboratory course
V		P A	practical/laboratory course independent project
V G	lecture		·
Key for V G U S	lecture lecture with exercise	A	independent project

**ECTS** European Credit Transfer and Accumulation System

## **Mathematics TC**

Detailed information on the programme at: www.ethz.ch/didaktische-ausbildung

## ► Educational Science

General course offerings in the category Educational Science are listed under "Programme: Educational Science for Teaching Diploma and TC".

see Educational Science TC

## ► Subject Didactics and Professional Training

Important: You can only enrol in the courses of this category if you have not more than 12 CP left for possible additional requirements.

Number	Title	Туре	ECTS	Hours				Lecturers
401-3971-11L	Mathematics Didactics I Enrolment only possible with matriculation in Mathematics Teaching Diploma or Mathematics TC at ETH or in Mathematics Teaching Diploma at UZH.	W	4 credits	2G				
401-3971-11 G	Fachdidaktik Mathematik I Permission from lecturers required for all st Di 12-13 Nachbesprechung	udents		2 hrs	Tue	10-12	HG G26.5	A. Barth
401-9987-00L	Teaching Internship Including Examination Lessons Mathematics Teaching Internship Mathematics for TC. Repetition of the Teaching Internship is excluded even if Examination Lessons are to be repeated.	0	4 credits	9P				
401-9987-00 P	Unterrichtspraktikum mit Prüfungslektionen Permission from lecturers required for all sta		atik ∎	120s hrs	by app	t.		N. Hungerbühler
401-9983-00L	Mentored Work Subject Didactics Mathematics A Mentored Work Subject Didactics in Mathematics for TC and Teaching Diploma.	0	2 credits	4A				
401-9983-00 A	Mentorierte Arbeit Fachdidaktik Mathematik Lehrdiplom ■ Permission from lecturers required for all str		Z und	60s hrs	by app	t.		M. Akveld, K. Barro, A. Barth L. Halbeisen, N. Hungerbühler, C. Rüede
► Specializ	ed Courses in Respective Subj			tional Fo	cus			
Number	Title	Type	ECTS	Hours				Lecturers
<b>401-3057-00L</b> 401-3057-00 G	Finite Geometries II Endliche Geometrien II Does not take place this semester.	W	4 credits	<b>2G</b> 2 hrs				N. Hungerbühler
401-3059-00L	Combinatorics II	W	4 credits	2G				
401-3059-00 G	Kombinatorik II			2 hrs	Wed	18-20	HG D3.2	N. Hungerbühler
401-0293-00L	Mathematics III	W	5 credits	3V+2U				
401-0293-00 V	Mathematik III  - Montags findet die Vorlesung online (via Z reservierte Raum steht den Studierenden je um die Vorlesung von dort aus zu verfolgen - Dienstags findet die Vorlesung in Präsenz	doch zu		3 hrs	Mon Tue	08-10 13-14	HG G5 HG G5	E. W. Farkas
401-0293-00 U	Mathematik III Groups are selected in myStudies.			2 hrs	Tue/1 Tue/2 Tue/1 Tue/2 Tue/1 Tue/1 Tue/2 Tue/1 Tue/2 Tue/1 Tue/2	14-16 14-16 14-16 14-16 14-16 14-16 16-18 16-18 16-18 16-18 16-18 16-18	ETZ E9 ETZ E9 ETZ J91 ETZ J91 IFW C33 IFW C33 LFW C1 LFW C1 ETZ E9 ETZ L99 ETZ J91 ETZ J91 IFW C33 IFW C33 LFW C33 LFW C1 LFW C33 LFW C1 LFW C1	E. W. Farkas
401-9985-00L	Mentored Work Specialised Courses in the Respective Subject with an Educational Focus Mathematics A Mentored Work Specialised Courses in the Respective Subject with an Educational Focus in Mathematics for TC and Teaching Diploma.	0	2 credits	4A				
401-9985-00 A	Mentorierte Arbeit Fachwissenschaftliche V Fokus Mathematik A für DZ und LD ■ Permission from lecturers required for all sta		g mit pädag.	60s hrs	by app	t.		M. Akveld, K. Barro, A. Barth L. Halbeisen, N. Hungerbühler, A. F. Mülle , C. Rüede
► Colloquia	1							

Colloquium on Mathematics, Computer E-401-5960-00L 0 credits

Science, and Education

Subject didactics for mathematics and

computer science teachers.

401-5960-00 K Kolloquium über Mathematik, Informatik und Unterricht Programm: https://www.math.ethz.ch/mathematik-und-ausbildung/weiterbildung/kolloquium.html

4s hrs

**N. Hungerbühler**, M. Akveld, D. Grawehr Morath, J. Hromkovic, P. Spindler

O Compulsory E- Recommended, not eligible for credits W+ Eligible for credits and recommended Z Courses outside the curriculum W Eligible for credits Dr Suitable for doctorate	Mathema	atics TC - Key for Type		
	0	Compulsory	E-	Recommended, not eligible for credits
W Eligible for credits Dr Suitable for doctorate	W+	Eligible for credits and recommended	Z	Courses outside the curriculum
	W	Eligible for credits	Dr	Suitable for doctorate

Key for	Hours			
V	lecture	P	practical/laboratory course	
G	lecture with exercise	A	independent project	
U	exercise	D	diploma thesis	
S	seminar	R	revision course / private study	
K	colloquium			

**ECTS** European Credit Transfer and Accumulation System

# **Mathematics Teaching Diploma**

Detailed information on the programme at: www.ethz.ch/didaktische-ausbildung

## ► Educational Science

Course offerings in the category Educational Science are listed under "Programme: Educational Science for Teaching Diploma and TC".

see Educational Science Teaching Diploma

	Title	Type	ECTS	Hours				Lecturers
Number 401-3971-11L	Mathematics Didactics I Enrolment only possible with matriculation in Mathematics Teaching Diploma or Mathematics TC at ETH or in Mathematics Teaching Diploma at UZH.	О	4 credits	2G				Lecturers
401-3971-11 G	Fachdidaktik Mathematik I Permission from lecturers required for all stu Di 12-13 Nachbesprechung	udents		2 hrs	Tue	10-12	HG G26.5	A. Barth
401-9983-00L	Mentored Work Subject Didactics Mathematics A Mentored Work Subject Didactics in Mathematics for TC and Teaching Diploma.	0	2 credits	4A				
401-9983-00 A	Mentorierte Arbeit Fachdidaktik Mathematik Lehrdiplom ■ Permission from lecturers required for all str		Z und	60s hrs	by appt	t.		M. Akveld, K. Barro, A. Barth, L. Halbeisen, N. Hungerbühler, C. Rüede
401-9984-00L	Mentored Work Subject Didactics Mathematics B Mentored Work Subject Didactics in Mathematics for Teaching Diploma and for students upgrading TC to Teaching Diploma.	0	2 credits	4A				
401-9984-00 A	Mentorierte Arbeit Fachdidaktik Mathematik Permission from lecturers required for all str		liplom ■	60s hrs	by appt	t.		M. Akveld, K. Barro, A. Barth, L. Halbeisen, N. Hungerbühler, C. Rüede
► Profession	onal Training in Mathematics							
Number	Title	Туре	ECTS	Hours				Lecturers
<b>401-9970-00L</b> 401-9970-00 P	Introductory Internship Mathematics Enrolment only possible with matriculation in Mathematics Teaching Diploma or Mathematics TC at ETH. It is advisable to enrol in this course not prior to the first Mathematics Didactics course and not after the second Mathematics Didactics course.  Einführungspraktikum Mathematik	0	3 credits	<b>6P</b> 90s hrs	hy anni			N. Hungerbühler
	Einführungspraktikum Mathematik				by appt			N. Hungerbunier
401-3971-99L	Professional Exercises I Enrolment only possible with matriculation in Mathematics Teaching Diploma or Mathematics TC at ETH. Simultaneous enrolment in Mathematics Didactics - course unit 401-3971-11L - is compulsory.	0	1 credit	1 <b>G</b>				
401-3971-99 G	Berufspraktische Übungen I ■ Di 8-9 Vorbesprechung			1 hrs	Tue	09-10	HG G26.5	A. Barth, N. Hungerbühler
<b>401-9988-00L</b> 401-9988-00 P	<b>Teaching Internship Mathematics</b> Unterrichtspraktikum Mathematik Lehrdiplor Permission from lecturers required for all sta		8 credits	<b>17P</b> 240s hrs	by appt	t.		N. Hungerbühler
401-9989-00L	<b>Teaching Internship Mathematics II</b> <i>Teaching Internship for students upgrading TC to Teaching Diploma.</i>	W	4 credits	9P				
401-9989-00 P	Unterrichtspraktikum II Mathematik (ohne P Permission from lecturers required for all sta	-	ektionen) ■	120s hrs	by appt	t.		N. Hungerbühler
401-9991-01L	Examination Lesson I Mathematics Simultaneous enrolment in "Examination Lesson II Mathematics" (401-9991-02L) is compulsory.	0	1 credit	2P				
401-9991-01 P	Prüfungslektion untere Stufe Mathematik für Permission from lecturers required for all str	-	olom =	30s hrs	by appt	t.		N. Hungerbühler
401-9991-02L	Examination Lesson II Mathematics Simultaneous enrolment in "Examination Lesson I Mathematics" (401-9991-01L) is compulsory.	0	1 credit	2P				
	Prüfungslektion obere Stufe Mathematik für Permission from lecturers required for all stu	udents		30s hrs	by appt			N. Hungerbühler
_		00110	2 Eurtho	Cubi D	idacti	2		
► Spec. Co	urses in Resp. Subj. w/ Educ. F	ocus	& Fullile	Subj. D	luaciii	55		

<b>401-3059-00L</b> 401-3059-00 G	Combinatorics II Kombinatorik II	W	4 credits	<b>2G</b> 2 hrs	Wed	18-20	HG D3.2	N. Hungerbühler
	Finite Geometries II Endliche Geometrien II	W	4 credits	<b>2G</b> 2 hrs				N. Hungerbühler
	Does not take place this semester.							
<b>401-0293-00L</b> 401-0293-00 V	Mathematics III  Mathematik III  - Montags findet die Vorlesung online (via Z reservierte Raum steht den Studierenden je um die Vorlesung von dort aus zu verfolgen  - Dienstags findet die Vorlesung in Präsenz	doch zu		<b>3V+2U</b> 3 hrs	Mon Tue	08-10 13-14	HG G5 HG G5	E. W. Farkas
401-0293-00 U	-	Stati.		2 hrs	Tue/1 Tue/2 Tue/2 Tue/1 Tue/2 Tue/1 Tue/2 Tue/1 Tue/2 Tue/1 Tue/2	14-16 14-16 14-16 14-16 14-16 14-16 16-18 16-18 16-18 16-18 16-18	ETZ E9 ETZ E9 ETZ J91 ETZ J91 IFW C33 IFW C33 LFW C1 LFW C1 ETZ E9 ETZ E9 ETZ J91 ETZ J91 IFW C33 IFW C33 IFW C33 LFW C1 LFW C1 LFW C1	E. W. Farkas
401-9985-00L	Mentored Work Specialised Courses in the Respective Subject with an Educational Focus Mathematics A Mentored Work Specialised Courses in the Respective Subject with an Educational Focus in Mathematics for TC and Teaching		2 credits	4A	1,40,2			
401-9985-00 A	Diploma.  Mentorierte Arbeit Fachwissenschaftliche Verschus Mathematik A für DZ und LD ■  Permission from lecturers required for all ste		g mit pädag.	60s hrs	by app	t.		M. Akveld, K. Barro, A. Barth L. Halbeisen, N. Hungerbühler, A. F. Müllei , C. Rüede
<b>401-9986-00L</b> 401-9986-00 A	Mentored Work Specialised Courses in the Respective Subject with an Educational Focus Mathematics B Mentored Work Specialised Courses in the Respective Subject with an Educational Focus in Mathematics for Teaching Diploma and for students upgrading TC to Teaching Diploma.  Mentorierte Arbeit Fachwissenschaftliche Vpädagogischem Fokus Mathematik B Lehrd Permission from lecturers required for all states.	ertiefuną iplom ■	2 credits	<b>4A</b> 60s hrs	by appi	t.		M. Akveld, K. Barro, A. Barth L. Halbeisen, N. Hungerbühler, A. F. Müller , C. Rüede
► Compuls	ory Elective Courses							, o. Rueue
-	r course offerings from the category Education	nal Scie	ence are listed	l under "Pr	ogramme	: Educatio	onal Science fo	r Teaching Diploma and TC".
Number	Title	Туре	ECTS	Hours				Lecturers
<b>401-3059-00L</b> 401-3059-00 G	Combinatorics II Kombinatorik II	W	4 credits	<b>2G</b> 2 hrs	Wed	18-20	HG D3.2	N. Hungerbühler
	Finite Geometries II Endliche Geometrien II Does not take place this semester.	W	4 credits	<b>2G</b> 2 hrs				N. Hungerbühler
252-0855-00L	Computer Science in Secondary School Mathematics	W	4 credits	3G				
252-0855-00 G	Informatik im gymnasialen Mathematikunter Permission from lecturers required for all str	udents		3 hrs	Wed	10-13	CAB G57	J. Hromkovic, G. Serafini
	see Compulsory Elective Courses Teaching Diploma	1						
► Colloquia								
Number	Title	Туре	ECTS	Hours				Lecturers
401-5960-00L	Colloquium on Mathematics, Computer Science, and Education Subject didactics for mathematics and computer science teachers.	E-	0 credits					
401-5960-00 K	Kolloquium über Mathematik, Informatik und	d I Interri	4 ما م	4s hrs				N. Hungerbühler, M. Akveld,

w

4 credits

2G

401-3059-00L Combinatorics II

Mathem	atics Teaching Diploma - Key for Type		
0	Compulsory	E-	Recommended, not eligible for credits
W+	Eligible for credits and recommended	Z	Courses outside the curriculum
W	Eligible for credits	Dr	Suitable for doctorate
V	lecture	P	nractical/laboratory course
V G	lecture lecture with exercise	'	practical/laboratory course independent project
V G U	lecture lecture with exercise exercise	P A D	practical/laboratory course independent project diploma thesis
G	lecture with exercise	A	independent project

ECTS

European Credit Transfer and Accumulation System
Special students and auditors need special permission from the lecturers.

## **Mathematics Master**

#### **▶** Core Courses

For the Master's degree in Applied Mathematics the following additional condition (not manifest in myStudies) must be obeyed: At least 15 of the required 28 credits from core courses and electives must be acquired in areas of applied mathematics and further application-oriented fields.

#### **▶▶** Core Courses: Pure Mathematics

Number	Title	Type	ECTS	Hours				Lecturers
401-3225-00L	Introduction to Lie Groups	W	8 credits	4G				
401-3225-00 G	Introduction to Lie Groups Groups are selected in myStudies.			4 hrs	Wed Thu	08-10 10-12	ML E12 LFO C13	A. lozzi
401-3001-61L	Algebraic Topology I	W	8 credits	4G				
401-3001-61 G	Algebraic Topology I			4 hrs	Wed Fri	10-12 14-16	HG E1.1 HG E1.1	W. Merry
401-3132-00L	Commutative Algebra	W	10 credits	4V+1U				
401-3132-00 V	Commutative Algebra			4 hrs	Wed Fri	16-18 08-10	HG E1.1 HG E5	E. Kowalski
401-3132-00 U	Commutative Algebra			1 hrs	Thu	09-10 12-13	HG E1.2 HG E1.2	E. Kowalski

## ▶▶ Core Courses: Applied Mathematics and Further Appl.-Oriented Fields

Number	Title	Type	ECTS	Hours				Lecturers
401-3651-00L	Numerical Methods for Elliptic and Parabolic Partial Differential Equations (University of Zurich) No enrolment to this course at ETH Zurich. Book the corresponding module directly at UZH as an incoming student. UZH Module Code: MAT802	W	9 credits	4V				
	Mind the enrolment deadlines at UZH: https://www.uzh.ch/cmsssl/en/studies/appli cation/deadlines.htmlCourse audience at ETH:							
	3rd year ETH BSc Mathematics and MSc Mathematics and MSc Applied Mathematics students. Other ETH-students are advised to attend the course "Numerical Methods for Partial Differential Equations" (401-0674-00L) in the CSE curriculum during the spring semester.							
401-3651-00 V	Numerical Methods for Elliptic and Parabolic Equations (University of Zurich) **Course at University of Zurich**	c Partial	Differential	4 hrs	Wed Thu	10-12 08-10	UNI ZH. UNI ZH.	S. Sauter
401-3621-00L	Fundamentals of Mathematical Statistics	W	10 credits	4V+1U				
401-3621-00 V	Fundamentals of Mathematical Statistics			4 hrs	Tue Wed	08-10 10-12	HG E5 HG E7	S. van de Geer
401-3621-00 U	Fundamentals of Mathematical Statistics			1 hrs	Tue	12-13	HG D7.1 HG E7	S. van de Geer
401-3622-00L	Statistical Modelling	W	8 credits	4G				
401-3622-00 G	Statistical Modelling			4 hrs	Mon Thu	10-12 14-16	ML D28 HG E1.1	C. Heinze-Deml
401-4889-00L	Mathematical Finance	W	11 credits	4V+2U				
401-4889-00 V	Mathematical Finance			4 hrs	Tue Thu	08-10 08-10	HG E1.1 ML F36	D. Possamaï
401-4889-00 U	Mathematical Finance			2 hrs	Fri	10-12	ML F38	D. Possamaï
401-3901-00L	Linear & Combinatorial Optimization	W	11 credits	4V+2U				
401-3901-00 V	Linear & Combinatorial Optimization (Mathe Online lecture: This lecture will take place o will remain reserved on campus for students from there.	nline. R	eserved room		Wed Thu	12-14 10-12	HG G5 HG G5	R. Zenklusen
401-3901-00 U	Linear & Combinatorial Optimization (Mathe Groups are selected in myStudies. Thu 14-16 or Fri 10-12 or Fr 12-14 or Fri 14 demand)		,	2 hrs	Thu Fri	14-16 10-12 12-14 14-16	HG F26.5 CAB G51 HG D3.2 HG F26.5	R. Zenklusen

## **▶▶** Bachelor Core Courses: Pure Mathematics

Further restrictions apply, but in particular:

401-3531-00L Differential Geometry I can only be recognised for the Master Programme if 401-3532-00L Differential Geometry II has not been recognised for the Bachelor Programme.

Analogously for:

401-3461-00L Functional Analysis I - 401-3462-00L Functional Analysis II

401-3001-61L Algebraic Topology I - 401-3002-12L Algebraic Topology II 401-3132-00L Commutative Algebra - 401-3146-12L Algebraic Geometry

For the category assignment take contact with the Study Administration Office (www.math.ethz.ch/studiensekretariat) after having received the credits.

Number	Title	Туре	ECTS	Hours				Lecturers
401-3461-00L	Functional Analysis I At most one of the three course units (Bachelor Core Courses) 401-3461-00L Functional Analysis I 401-3531-00L Differential Geometry I 401-3601-00L Probability Theory can be recognised for the Master's degree in Mathematics or Applied Mathematics. In this case, you cannot change the category assignment by yourself in myStudies but must take contact with the Study Administration Office (www.math.ethz.ch/studiensekretariat) after having received the credits.	E-	10 credits	4V+1U				
401-3461-00 V	Functional Analysis I			4 hrs	Mon Thu	10-12 14-16	HG D7.1 HG G5	J. Teichmann
401-3461-00 U	Functional Analysis I Groups are selected in myStudies.			1 hrs	Mon	09-10	HG G26.1 HG G26.5 ML J34.1	J. Teichmann
401-3531-00L	Differential Geometry I At most one of the three course units (Bachelor Core Courses) 401-3461-00L Functional Analysis I 401-3531-00L Differential Geometry I 401-3601-00L Probability Theory can be recognised for the Master's degree in Mathematics or Applied Mathematics. In this case, you cannot change the category assignment by yourself in myStudies but must take contact with the Study Administration Office (www.math.ethz.ch/studiensekretariat) after having received the credits.	<b>E</b> -	10 credits	4V+1U				
401-3531-00 V	Differential Geometry I			4 hrs	Mon Wed	14-16 14-16	ML H44 HG E5	J. Serra
401-3531-00 U	Differential Geometry I Groups are selected in myStudies. Thu 13-14 or Thu 16-17 or Fri 13-14			1 hrs	Thu Fri	13-14 16-17 13-14	HG E22 IFW C31 HG F3	J. Serra

## ▶▶ Bachelor Core Courses: Applied Mathematics ...

Further restrictions apply, but in particular:
401-3601-00L Probability Theory can only be recognised for the Master Programme if neither 401-3642-00L Brownian Motion and Stochastic Calculus nor 401-3602-00L Applied Stochastic Processes has been recognised for the Bachelor Programme.

402-0205-00L Quantum Mechanics I is eligible as an applied core course, but only if 402-0224-00L Theoretical Physics (offered for the last time in FS 2016) isn't recognised for credits (neither in the Bachelor's nor in the Master's programme).

For the category assignment take contact with the Study Administration Office (www.math.ethz.ch/studiensekretariat) after having received the credits.

Number	Title	Type	ECTS	Hours				Lecturers
401-3601-00L	Probability Theory At most one of the three course units (Bachelor Core Courses) 401-3461-00L Functional Analysis I 401-3531-00L Differential Geometry I 401-3601-00L Probability Theory can be recognised for the Master's degree in Mathematics or Applied Mathematics. In this case, you cannot change the category assignment by yourself in myStudies but must take contact with the Study Administration Office (www.math.ethz.ch/studiensekretariat) after having received the credits.	) 1	10 credits	4V+1U				
401-3601-00 V	Probability Theory			4 hrs	Tue Thu	10-12 10-12	HG D1.2 HG E3	W. Werner
401-3601-00 U	Probability Theory Groups are selected in myStudies. Tue 14-15 or Tue 15-16 starting in the second semester.	ond wee	k of the	1 hrs	Tue	14-15 15-16	HG F26.5 ML H41.1 HG F26.5 ML H41.1	W. Werner
402-0205-00L	Quantum Mechanics I	W	10 credits	3V+2U				
402-0205-00 V	Quantenmechanik I			3 hrs	Tue Thu	10-12 12-13	HPV G4 HPV G4	M. Gaberdiel
402-0205-00 U	Quantenmechanik I Do 10-12 oder Do 16-18			2 hrs	Thu	10-12	HCI H8.1 HIT F31.2 HIT K52 HPK D24.2	M. Gaberdiel
						16-18	HIL B21 HIL E10.1 HIT K51 HPK D24.2	

#### **▶** Electives

For the Master's degree in Applied Mathematics the following additional condition (not manifest in myStudies) must be obeyed: At least 15 of the required 28 credits from core courses and electives must be acquired in areas of applied mathematics and further application-oriented fields.

## **▶▶** Electives: Pure Mathematics

# ►►► Selection: Algebra, Number Thy, Topology, Discrete Mathematics, Logic Number Title Type ECTS Hours

Number	Title	Туре	ECTS	Hours				Lecturers
401-3059-00L	Combinatorics II	W	4 credits	2G				
401-3059-00 G	Kombinatorik II			2 hrs	Wed	18-20	HG D3.2	N. Hungerbühler
401-3033-00L	Gödel's Theorems	W	8 credits	3V+1U				
401-3033-00 V	Die Gödel'schen Sätze			3 hrs	Tue	14-16	ML F39	L. Halbeisen
401 2022 00 11	Die Gödellechen Sätze			1 bro	Wed	12-13	HG G3 HG G3	L. Halbeisen
	Die Gödel'schen Sätze			1 hrs	Wed	13-14	HG G3	L. Haibeisen
▶▶▶ Select	tion: Geometry							
Number	Title	Туре	ECTS	Hours				Lecturers
401-3533-70L	Topics in Riemannian Geometry	W	6 credits	3V				
401-3533-70 V	Topics in Riemannian Geometry (Differentia	I Geome	etry III)	3 hrs	Mon	14-16	HG G19.1	U. Lang
					Wed	13-14	HG G19.2	
401-4207-71L	Coxeter Groups from a Geometric Viewpoint	W	4 credits	2V				
401-4207-71 V	Coxeter Groups from a Geometric Viewpoin	t		2 hrs	Thu	14-16	CLA E4	
	lecturer M. Cordes	-						
401-3057-00L	Finite Geometries II	W	4 credits	2G				
401-3057-00 G	Endliche Geometrien II			2 hrs				N. Hungerbühler
	Does not take place this semester.							
▶▶▶ Select	tion: Analysis							
Number	Title	Туре	ECTS	Hours				Lecturers
401-4421-71L	Harmonic Analysis	W	4 credits	2V				
	Harmonic Analysis			2 hrs	Thu	10-12	HG D1.2	A. Figalli
	Microlocal Analysis	w	6 credits	3G				
	Microlocal Analysis	••	o oround	3 hrs	Tue	10-12	LFW E13	P. Hintz
	Online lecture: This lecture will take place of				Thu	08-09	HG E7	
	will remain reserved on campus for students from there.	s to follo	w the course					
▶▶▶ Select	tion: Further Realms							
Number	Title	Type	ECTS	Hours				Lecturers
401-3502-71L	Reading Course	w	2 credits	4A				
	To start an individual reading course, contact an authorised supervisor							
	https://www.ethz.ch/content/dam/ethz/speci							
	al-	,						
	interest/math/department/Intranet/Students/ Study_Administration/Theses_Reading_Co							
	urses/berechtigungsliste.pdf							
	and register your reading course in							
401-3502-00 Δ	myStudies. Reading Course (2 KP) ■			60s hrs	by appt.			Supervisors
401-3302-00 A	Permission from lecturers required for all stu	ıdents		0051115	ву аррг.			Supervisors
401-3503-71L	Reading Course	W	3 credits	6A				
401-3303-71E	To start an individual reading course,	**	Joreans	VA.				
	contact an authorised supervisor							
	https://www.ethz.ch/content/dam/ethz/special-							
	interest/math/department/Intranet/Students/	,						
	Study_Administration/Theses_Reading_Co							
	urses/berechtigungsliste.pdf and register your reading course in							
	myStudies.							
401-3503-00 A	Reading Course (3 KP) ■	1 1		90s hrs	by appt.			Supervisors
	Permission from lecturers required for all stu							
401-3504-71L	Reading Course	W	4 credits	9A				
	To start an individual reading course, contact an authorised supervisor							
	https://www.ethz.ch/content/dam/ethz/speci							
	al- interest/math/department/Intranet/Students/	,						
	Study_Administration/Theses_Reading_Co							
	urses/berechtigungsliste.pdf							
	and register your reading course in myStudies.							
401-3504-00 A	Reading Course (4 KP) ■			120s hrs	by appt.			Supervisors
	Permission from lecturers required for all stu	ıdents			) - FF.			•
401-3504-02L		w	4 credits	18A				
· · · · · <del></del>	Reading Course (No. 2)							
	Reading Course (No. 2) To start an individual reading course,	••						
	To start an individual reading course, contact an authorised supervisor							
	To start an individual reading course,							

interest/math/department/Intranet/Students/ Study\_Administration/Theses\_Reading\_Co urses/berechtigungsliste.pdf and register your reading course in myStudies.

401-3504-00 A Reading Course (4 KP)

Permission from lecturers required for all students

Permission from lecturers required for all students

120s hrs by appt.

Supervisors

401-3504-02 A Reading Course (4 KP) No. 2

120s hrs by appt.

Supervisors

401-0000-00L Communication in Mathematics
401-0000-00 V Communication in Mathematics
Does not take place this semester.

W 2 credits 1V

W. Merry

## ▶▶ Electives: Applied Mathematics and Further Application-Oriented Fields

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## ▶▶▶ Selection: Numerical Analysis

Number	Title	Type	ECTS	Hours				Lecturers
401-4657-00L	Numerical Analysis of Stochastic Ordinary Differential Equations Alternative course title: "Computational Methods for Quantitative Finance: Monte Carlo and Sampling Methods"	W	6 credits	3V+1U				
401-4657-00 V	Numerical Analysis of Stochastic ODEs (Co Fin.: Monte Carlo and Sampling Methods)	mp. Me	th. Quant.	3 hrs	Mon Wed	16-18 14-15	HG D1.2 HG D5.2	A. Stein
401-4657-00 U	Numerical Analysis of Stochastic ODEs (Co Fin.: Monte Carlo and Sampling Methods) Groups are selected in myStudies.	mp. Me	th. Quant.	1 hrs	Wed	15-16	HG D5.2 LFW C1	A. Stein
401-4785-00L	Mathematical and Computational Methods in Photonics	W	8 credits	4G				
401-4785-00 G	Mathematical and Computational Methods i	n Photo	nics	4 hrs	Mon Wed	10-12 10-12	HG G26.5 HG G26.5	H. Ammari
401-5003-71L	At the Interface Between Semiclassical Analysis and Numerical Analysis of Wave-Scattering Problems	W	4 credits	2V				
401-5003-71 V	At the Interface Between Semiclassical Analysis of Wave-Scattering Problems Fridays, 10:15 - 12:00 First lecture: 1 October More information and registration (registrati September) https://math.ethz.ch/fim/activities/nachdiploilectures/euan-spence.html	on dead		2 hrs	Fri	10-12	HG G43	E. Spence

## ▶▶▶ Selection: Probability Theory, Statistics

Number	Title	Type	ECTS	Hours				Lecturers
401-4607-67L	Schramm-Loewner Evolutions	W	4 credits	2V				
401-4607-67 V	Schramm-Loewner Evolutions			2 hrs	Wed 03.11.	08-10 08-10	HG G19.1 HG G19.2	W. Werner
401-3822-17L	Ising Model	W	4 credits	2V				
401-3822-17 V	Ising Model			2 hrs	Wed	14-16	HG D1.2	V. Tassion
401-3628-14L	Bayesian Statistics	w	4 credits	2V				
401-3628-14 V	Bayesian Statistics			2 hrs	Tue	16-18	HG G3	F. Sigrist
401-0625-01L	Applied Analysis of Variance and Experimental Design	w	5 credits	2V+1U				
401-0625-01 V	Applied Analysis of Variance and Experim	ental Des	sign	2 hrs	Mon	14-16	HG G5	L. Meier
401-0625-01 U	Applied Analysis of Variance and Experim	lysis of Variance and Experimental Design			Mon/2w	16-18	HG E1.1	L. Meier
401-0649-00L	Applied Statistical Regression	W	5 credits	2V+1U				
401-0649-00 V	Applied Statistical Regression			2 hrs	Mon	08-10	HG E1.2	M. Dettling
401-0649-00 U	Applied Statistical Regression Mon 10-12 might not work for all different course is offered. On sufficient demand, of Mon 15-17 or Fri 10-12) for the exercise s	ther slots	(tentatively		Mon/2w	10-12	HG E1.2	M. Dettling
401-3627-00L	High-Dimensional Statistics	W	4 credits	2V				
401-3627-00 V	High-Dimensional Statistics			2 hrs	Thu	08-10	CAB G61	P. L. Bühlmann
401-4623-00L	Time Series Analysis	W	6 credits	3G				
401-4623-00 G	Time Series Analysis Does not take place this semester.			3 hrs				F. Balabdaoui
401-3612-00L	Stochastic Simulation	w	5 credits	3G				
401-3612-00 G	Stochastic Simulation  Does not take place this semester.			3 hrs				

#### **▶▶▶** Selection: Financial and Insurance Mathematics

In the Master's programmes in Mathematics resp. Applied Mathematics 401-3913-01L Mathematical Foundations for Finance is eligible as an elective course, but only if 401-3888-00L Introduction to Mathematical Finance isn't recognised for credits (neither in the Bachelor's nor in the Master's programme). For the category assignment take contact with the Study Administration Office (www.math.ethz.ch/studiensekretariat) after having received

the cre	dits.							
Number	Title	Type	ECTS	Hours				Lecturers
401-3925-00L	Non-Life Insurance: Mathematics and Statistics	W	8 credits	4V+1U				
401-3925-00 V		stics		4 hrs	Mon	16-18	HG D7.1	M. V. Wüthrich
401-3025-00 11	Non-Life Insurance: Mathematics and Statis	stice		1 hrs	Tue Tue	13-15 15-16	HG D7.1 HG D7.1	M. V. Wüthrich
401-3925-00 U	Life Insurance Mathematics	W	4 credits	2V	i ue	10-10	ווט טוז.ו	IVI. V. VVUIIIIICII
	Life Insurance Mathematics  Life Insurance Mathematics	**	+ creuits	2 hrs	Fri	16-18	HG E1.1	M. Koller
401-3928-00L	Reinsurance Analytics	w	4 credits	2V				
401-3928-00 V	Reinsurance Analytics			2 hrs	Tue	16-18	HG E1.1	P. Antal, P. Arbenz
401-3927-00L	Mathematical Modelling in Life	W	4 credits	2V				
401-3927-00 V	Insurance Mathematical Modelling in Life Insurance			2 hrs	Thu	16-18	HG E1.1	T. J. Peter
	ion: Mathematical Physics, The	oorotic	al Physic					
	<u> </u>							1 (
Number	Title	Type W	ECTS 10 gradits	Hours 4V+2U				Lecturers
402-0843-00L	Quantum Field Theory I Special Students UZH must book the module PHY551 directly at UZH.	VV	10 credits	4V+2U				
402-0843-00 V	Quantum Field Theory I **together with University of Zurich**			4 hrs	Mon Thu	14-16 10-12	HPV G4 HPV G5	G. M. Graf
	Lecture starts on 23 September 2021.							
402-0843-00 U	Quantum Field Theory I **together with University of Zurich**			2 hrs	Thu	14-16	HCP E47.4 HIL B21 HIL D10.2	G. M. Graf
	Thu 14-16 or Fri 10-12 Exercises start in the second week of the s	emostor			Fri	10-12	HIT H42	
	Exercises start in the Second week of the S	omester.			ΓII	10-12	HIT J51 HIT J53 HIT K52	
402-0861-00L	Statistical Physics	W	10 credits	4V+2U				
402-0861-00 V	Statistical Physics			4 hrs	Tue Wed	14-16 14-16	HPV G5 HPV G5	M. Sigrist
402-0861-00 U	Statistical Physics			2 hrs	Tue	16-18	HCI J4	M. Sigrist
					Wed	12-14	HIT J53 HIT H42	
					1100		HIT J51	
							HIT J52 HIT K51	
					Fri	16-18	HIT K51	
402-0830-00L	General Relativity Special Students UZH must book the	W	10 credits	4V+2U				
	module PHY511 directly at UZH.							
402-0830-00 V	General Relativity  **together with University of Zurich**			4 hrs	Tue Thu	16-18 12-14	HPV G5 HPV G5	C. Anastasiou
	,							
	Online lecture: This lecture will primarily talk Reserved rooms will remain blocked on car							
√U3-U03U ∪U II	follow the course from there."  General Relativity			2 hrc	Thu	16 10	HIT F31.1	C. Anastasiou
402-0830-00 U	**together with University of Zurich**			2 hrs	Thu	16-18	HIT F31.2	บ. Aแลงเลงเบน
							HIT J53 HIT K52	
					Fri	12-14	HCI D2	
							HCI D8 HIL F10.3	
							HIT J52	
402-0897-00L	Introduction to String Theory	W	6 credits	2V+1U	<b>T</b>	40.40	LIDY OF	I D-24-1
	Introduction to String Theory Introduction to String Theory			2 hrs 1 hrs	Tue Wed	10-12 10-11	HPV G5 HCI J4	J. Brödel J. Brödel
	200.9		_				HPL D32	
▶▶▶ Select	ion: Mathematical Optimization	ո, Disc	rete Math	ematics	8			
Number	Title	Type	ECTS	Hours				Lecturers
<b>401-3055-64L</b>	Algebraic Methods in Combinatorics	W	6 credits	2V+1U	۱۸۱۵ - ۱	10.10	IE/M A 2 C	P. Sudakov
401-3055-64 V 401-3055-64 U	Algebraic Methods in Combinatorics Algebraic Methods in Combinatorics			2 hrs 1 hrs	Wed Mon	10-12 12-13	IFW A36 ML F34	B. Sudakov B. Sudakov
						13-14	ML F34	
►►► Auswa	ahl: Theoretical Computer Scie	nce, D Type	Discrete M	lathema Hours	tics			Lecturers
263-4500-00L	Advanced Algorithms	W	9 credits	3V+2U+3	ЗΔ			LCCIUIGI 3
263-4500-00L	Advanced Algorithms  Advanced Algorithms	••	o oreuna	3 hrs	Wed	09-12	HG D5.2	M. Ghaffari, G. Zuzic
	<u> </u>				-			,
	Online lecture: This lecture will primarily talk Reserved rooms will remain blocked on car							

	Advanced Algorithms			2 hrs	Fri	10-12	CAB G59	M. Ghaffari, G. Zuzio
	Advanced Algorithms  Geometry: Combinatorics and	w	8 credits	3 hrs 3V+2U+2	Δ			M. Ghaffari, G. Zuzic
	Algorithms	**	o credits	3472072	~			
52-1425-00 V	Geometry: Combinatorics and Algorithms			3 hrs	Mon Thu	13-14 14-16	CAB G51 CAB G51	B. Gärtner, E. Welzl, M. Hoffmann, M. Wettstein
52-1425-00 U	Geometry: Combinatorics and Algorithms			2 hrs	Mon 23.09. 30.09.	14-16 16-18 16-18	CAB G51 CAB G51 CAB G51	B. Gärtner, E. Welzl, M. Hoffmann, M. Wettstein
52-1425-00 A	Geometry: Combinatorics and Algorithms Project Work, no fixed presence required.			2 hrs	30.03.	10-10	OAD OOT	B. Gärtner, E. Welzl, M. Hoffmann, M. Wettstein
52-0417-00L	Randomized Algorithms and Probabilistic Methods	W	10 credits	3V+2U+4	A			
52-0417-00 V	Randomized Algorithms and Probabilistic Me	thods		3 hrs	Wed	08-09	ML D28	A. Steger
52-0417-00 U	Randomized Algorithms and Probabilistic Me	thods		2 hrs	Thu Tue	16-18 14-16 16-18	ML D28 HG D1.2 HG D1.2	A. Steger
252-0417-00 A	Randomized Algorithms and Probabilistic Me Project Work, no fixed presence required.	thods		4 hrs		10-10	NG D1.2	A. Steger
->> Select	ion: Further Realms							
lumber		Туре	ECTS	Hours				Lecturers
101-4944-20L		W	8 credits	4G				
01-4944-20 G	Mathematics of Data Science			4 hrs	Thu Fri	12-14 10-12	HG G3 HG G5	A. Bandeira
27-0423-00L		W	4 credits	2V+1U				
	Neural Network Theory			2 hrs	Tue	10-12	HG F5	H. Bölcskei
227-0423-00 U	Neural Network Theory The exercise will take place online on: https://www.mins.ee.ethz.ch/teaching/nnt/dov The reserved room is meant for those student the course from the campus.			1 hrs	Tue	12-13	HG F5	H. Bölcskei
01-3502-71L	Reading Course To start an individual reading course, contact an authorised supervisor https://www.ethz.ch/content/dam/ethz/speci al-	W	2 credits	4A				
	interest/math/department/Intranet/Students/ Study_Administration/Theses_Reading_Co urses/berechtigungsliste.pdf and register your reading course in myStudies.							
101-3502-00 A	Reading Course (2 KP)  Permission from lecturers required for all study	dents		60s hrs	by appt			Supervisors
01-3503-71L	Reading Course	w	3 credits	6A				
	To start an individual reading course, contact an authorised supervisor https://www.ethz.ch/content/dam/ethz/speci al-							
	interest/math/department/Intranet/Students/ Study_Administration/Theses_Reading_Co urses/berechtigungsliste.pdf and register your reading course in							
401-3503-00 A	myStudies.  Reading Course (3 KP) ■  Permission from lecturers required for all students.	dents		90s hrs	by appt			Supervisors
101-3504-71L	•	W	4 credits	9A				
	To start an individual reading course, contact an authorised supervisor https://www.ethz.ch/content/dam/ethz/speci al-	••	a cround					
	interest/math/department/Intranet/Students/ Study_Administration/Theses_Reading_Co urses/berechtigungsliste.pdf and register your reading course in myStudies.							
01-3504-00 A	Reading Course (4 KP) ■ Permission from lecturers required for all students	dents		120s hrs	by appt			Supervisors
01-3504-02L	<u> </u>	w	4 credits	18A				
	and register your reading course in myStudies.							
·01-3504-00 A	Reading Course (4 KP)  Permission from lecturers required for all study	dents		120s hrs	by appt	-		Supervisors

401-3504-02 A	Reading Course (4 KP) No. 2 ■ Permission from lecturers required for all sto	udents		120s hrs by appt.	Supervisors
401-0000-00L	Communication in Mathematics	W	2 credits	1V	
401-0000-00 V	Communication in Mathematics  Does not take place this semester.			1 hrs	W. Merry

# ► Application Area

Only necessary and eligible for the Master degree in Applied Mathematics.

One of the application areas specified must be selected for the category Application Area for the Master degree in Applied Mathematics. At least 8 credits are required in the chosen application area.

#### **▶▶** Atmospherical Physics

Number	Title	Type	ECTS	Hours				Lecturers
701-1221-00L	Dynamics of Large-Scale Atmospheric Flow	W	4 credits	2V+1U				
701-1221-00 V	Dynamics of Large-Scale Atmospheric Flow	V		2 hrs	Wed	09-11	CHN E42	H. Wernli, L. Papritz
701-1221-00 11	Dynamics of Large-Scale Atmospheric Flow	V		1 hrs	Wed	11-12	CHN E42	H. Wernli, L. Papritz

Number	Title	Type	ECTS	Hours				Lecturers
636-0017-00L	Computational Biology	W	6 credits	3G+2A				
636-0017-00 G	Computational Biology			3 hrs	Mon	16-18	BSA E46	T. Vaughan
	The lecture will be held each Monday (16-18					40.40	HG D16.2	
	Basel and will be transmitted via videoconfe location. Tutorials will happen in both locatic Tutorials in Zürich: Monday 18-19h (HG D 1 Tutorials in Basel: Thursday 12-13h (BSA E Lecture on Monday and the Tutorial on Thur available for participation via Zoom. ATTENTION: Lecture starts on Monday, 27. Basel on Thursday 30.09	ons. 6.2) 46) rsday w	vill also be		Thu	18-19 12-13	HG D16.2 BSA E46	
636-0017-00 A	Computational Biology			2 hrs				T. Vaughan
	Project Work (compulsory continuous perfor no fixed presence required.	mance	assessments)	,				•
636-0007-00L	Computational Systems Biology	W	6 credits	3V+2U				
	Computational Systems Biology Lecture: "inverted classroom". Students are lecture videos provided ahead of a Zoom Qo held every Wednesday 16:15-17:00. Tutorials on Fridays 10:15-12:00 will be held In addition, students can sign up for Q&A se small groups (max. 30). They will be offered Wednesdays 15:15-16:00 in the lecture room HG D 3.2. F scheduling, see the course Moodle.	&A sess I via Zo essions on sele	sion that will be oom. in presence in ected	•	Wed	14-17	HG D3.2	J. Stelling
636-0007-00 U	Computational Systems Biology Tutorials on Fridays 10:15-12:00 will be held	l via Zo	oom.	2 hrs	Fri	10-12	HG D1.2	J. Stelling
636-0009-00L	<b>Evolutionary Dynamics</b>	w	6 credits	2V+1U+	2A			
636-0009-00 V	Evolutionary Dynamics Attention: lecture starts on Thursday, 30 Sep	2021		2 hrs	Thu	09-11	BSA E46 HG D16.2	N. Beerenwinkel
	Online lecture: This lecture will primarily take Reserved rooms will remain blocked for stud course from there.							
636-0009-00 U	Evolutionary Dynamics Online: Will primarily take place online. Reservemain blocked on campus for students to for there			1 hrs	Thu	11-12	BSA E46 HG D16.2	N. Beerenwinkel
636-0009-00 A	Evolutionary Dynamics Project Work (compulsory continuous perfor no fixed presence required.	mance	assessment),	2 hrs				N. Beerenwinkel

#### **▶▶** Control and Automation

Number	Title	Type	ECTS	Hours				Lecturers
151-0563-01L	Dynamic Programming and Optimal Control	W	4 credits	2V+1U				
151-0563-01 V	Dynamic Programming and Optimal Cont The lecture will start in the 2nd week of S Online lecture: This lecture will primarily t Reserved rooms will remain blocked on a follow the course from there.	emester. ake place		2 hrs	Wed	14-16	HG F1	R. D'Andrea
151-0563-01 U	Dynamic Programming and Optimal Cont The exercise will start in the 2nd week of			1 hrs	Wed	16-17	CAB G51 HG F1	R. D'Andrea
					29.09.	16-17	ML E12	

#### **▶▶** Economics

Number	Title	Туре	ECTS	Hours	Lecturers
401-3929-00L	Financial Risk Management in Social	W	4 credits	2V	

	and Pension Insurance							
	Financial Risk Management in Social and P			2 hrs	Wed	16-18	HG D7.2	P. Blum
363-0537-00L	Resource and Environmental Economics	W	3 credits	2G				
363-0537-00 G	Resource and Environmental Economics The lecture takes place in classroom, online recorded.	e via live	streaming and	2 hrs	Wed	10-12	HG G3	L. Bretschger
363-0503-00L	Principles of Microeconomics GESS (Science in Perspective): This lecture is for MSc students only. BSc students register for 363-1109-00L Einführung in die Mikroökonomie.	W	3 credits	2G	<b>-</b>	40.00	U0 57	
363-0503-00 G	Principles of Microeconomics The lecture takes place in classroom, online zoom and recorded.	via live	streaming or	2 hrs	Thu	18-20	HG F7	M. Filippini
<b>363-0565-00</b> V	Principles of Macroeconomics Principles of Macroeconomics Di 16-18 im ETA F 5 mit Videoübertragung The lecture takes place in classroom, online zoom and recorded.			<b>2V</b> 2 hrs	Tue	16-18	ETA F5 ETF E1	JE. Sturm
363-1021-00L	Monetary Policy Monetary Policy	W	3 credits	2V 2 hrs	Mon	14-16	LEE E101	JE. Sturm, A. Rathke
▶▶ Finance	· ·			21115	IVIOIT	14-10	LLL L IVI	JL. Sturm, A. Naure
Number	Title	Туре	ECTS	Hours				Lecturers
401-8905-00L	Financial Engineering (University of	W	6 credits	4G				Lecturers
	Zurich) No enrolment to this course at ETH Zurich. Book the corresponding module directly at UZH as an incoming student. UZH Module Code: MFOEC200  Mind the enrolment deadlines at UZH: https://www.uzh.ch/cmsssl/en/studies/appli cation/deadlines.html							
401-8905-00 G	Financial Engineering (University of Zurich) **Course at University of Zurich**			4 hrs				University lecturers
401-8913-00L	Advanced Corporate Finance I (University of Zurich) No enrolment to this course at ETH Zurich. Book the corresponding module directly at UZH as an incoming student. UZH Module Code: MOEC0455	W	6 credits	4G				
401-8013-00 G	Mind the enrolment deadlines at UZH: https://www.uzh.ch/cmsssl/en/studies/appli cation/deadlines.html Advanced Corporate Finance I (University of	f Zurich		4 hrs	Tue	14-16	UNI ZH.	University lecturers
401-0913-00 G	**Course at University of Zurich**	u Zuncn		41115	Thu	10-12	UNI ZH.	Oniversity recturers
▶► Image F	Processing and Computer Visio	n						
Number	Title		ECTS	Hours				Lecturers
<b>227-0447-00L</b> 227-0447-00 V	Image Analysis and Computer Vision Image Analysis and Computer Vision	W	6 credits	<b>3V+1U</b> 3 hrs	Thu	14-17	HG F1	<b>L. Van Gool</b> , E. Konukoglu, F. Yu
227-0447-00 U	Image Analysis and Computer Vision			1 hrs	Thu	17-19	ETZ D61.1 ETZ D61.2	<b>L. Van Gool</b> , E. Konukoglu, F. Yu
▶▶ Informa	tion and Communication Techr	nology	/					
Number	Title	Туре	ECTS	Hours				Lecturers
227-0105-00L	Introduction to Estimation and Machine Learning		6 credits	4G		44.40	FTF 04	
	Introduction to Estimation and Machine Lea			4 hrs	Fri	14-18	ETF C1	HA. Loeliger
227-0101-00L	Discrete-Time and Statistical Signal Processing Discrete-Time and Statistical Signal Process	<b>W</b>	6 credits	<b>4G</b> 4 hrs	Tue	14-18	HG F3	HA. Loeliger
	Information Theory I	W	6 credits	4G	1 46	14-10	11013	IIA. Lociigei
	Information Theory I			4 hrs	Wed	14-18	ETF C1	A. Lapidoth
►► Machine  The list	e Learning t is not yet complete.							
Number	Title	Туре	ECTS	Hours				Lecturers
<b>263-5210-00L</b> 263-5210-00 V	Probabilistic Artificial Intelligence Probabilistic Artificial Intelligence Fr 10-12 und 13-14 im ETA F5 mit Videoüb	<b>W</b> pertragui	8 credits	3V+2U+2 3 hrs	<b>?A</b> Fri	10-12 13-14	ETA F5 ETF E1 ETA F5 ETF E1	A. Krause

263-5210-00 U	Probabilistic Artificial Intelligence Q&A session: Monday, 17-18, via zoom			2 hrs	Thu	16-18	CHN C14	A. Krause
263-5210-00 A	Probabilistic Artificial Intelligence			2 hrs				A. Krause
263-3210-00L	Deep Learning Number of participants limited to 320.	W	8 credits	3V+2U+	2A			
263-3210-00 V	Deep Learning			3 hrs	Wed Thu	13-14 14-16	ML D28 ML D28	F. Perez Cruz, A. Lucchi
263-3210-00 U	Deep Learning			2 hrs	Mon Wed	16-18 16-18	HG G5 ML D28	F. Perez Cruz, A. Lucchi
263-3210-00 A	Deep Learning			2 hrs				F. Perez Cruz, A. Lucchi
252-3005-00L	Natural Language Processing Number of participants limited to 400.	W	5 credits	2V+2U+	1A			
252-3005-00 V	Natural Language Processing From HS21 in the autumn semester.			2 hrs	Mon	12-14	HG F7	R. Cotterell
252-3005-00 U	Natural Language Processing			2 hrs	Wed	12-14	HG F7	R. Cotterell
252-3005-00 A	Natural Language Processing			1 hrs				R. Cotterell
263-5255-00L	Foundations of Reinforcement Learning Number of participants limited to 190.	W	5 credits	2V+2A				
263-5255-00 V	Foundations of Reinforcement Learning			2 hrs	Fri	14-16	CAB G11	N. He
263-5255-00 A	Foundations of Reinforcement Learning			2 hrs				N. He

# ▶▶ Material Modelling and Simulation

Number	Title	Туре	ECTS	Hours				Lecturers
327-1201-00L	Transport Phenomena I	W	5 credits	4G				
327-1201-00 G	Transport Phenomena I 14:00-15:00 Vorlesung 15:15-16:15 Übungen in zwei Gruppen 16:30-17:30 Vorlesung			4 hrs	Mon	14-18	HCP E47.3	J. Vermant

# **▶▶** Quantum Chemistry

Number	Title	Туре	ECTS	Hours				Lecturers
529-0003-01L	Advanced Quantum Chemistry	W	6 credits	3G				
529-0003-01 G	Advanced Quantum Chemistry			3 hrs	Tue	12-14	HCI J4	M. Reiher, A. Baiardi
	Lecture Tue 12:00-14:00, Exercise Classes	Thursd	ay 10:00-11:0	00	Thu	10-11	HCI F8	
	Vorlesung Di 12-14 Uhr, Uebung Do 10-11	Uhr						

#### **▶▶** Simulation of Semiconductor Devices

"Simulation of Semiconductor Devices" is no longer offered as an application area.

#### **▶▶** Systems Design

Number	Title	Type	ECTS	Hours				Lecturers
363-0541-00L	Systems Dynamics and Complexity	W	3 credits	3G				
363-0541-00 G	Systems Dynamics and Complexity Lecture: Thursday, 08-10 h Exercises: Tuesday, 12-13 h The lecture takes place in classroom, onling zoom and recorded.	ne via live	estreaming or	3 hrs	Tue Thu	12-13 08-10	HG D1.2 HG D1.2	F. Schweitzer

### **▶▶** Theoretical Physics

In the Master's programme in Applied Mathematics 402-0205-00L Quantum Mechanics I is eligible as a course unit in the application area Theoretical Physics, but only if 402-0224-00L Theoretical Physics wasn't or isn't recognised for credits (neither in the Bachelor's nor in the Master's programme). For the category assignment take contact with the Study Administration Office (www.math.ethz.ch/studiensekretariat) after having received the credits.

Number	Title	Type	ECTS	Hours				Lecturers
402-0809-00L	Introduction to Computational Physics	w	8 credits	2V+2U				
402-0809-00 V	Introduction to Computational Physics			2 hrs	Tue	10-12	HCI J7	A. Adelmann
402-0809-00 U	Introduction to Computational Physics			2 hrs	Tue	08-10	HCI J7	A. Adelmann
402-2203-01L	Classical Mechanics	w	7 credits	4V+2U				
402-2203-01 V	Allgemeine Mechanik Die erste Vorlesung (23.09.21) findet im HC HPH G 3 bzw. HIL E 3.	CI G 7 st	att, danach im	4 hrs	Mon Thu 23.09.	12-14 14-16 14-16	HPH G3 HIL E3 HCI G7	R. Renner
402-2203-01 U	Allgemeine Mechanik Die Übungen beginnen in der 2. Semesterv	voche.		2 hrs	Tue	08-10	CHN D42 CHN D48 CHN E46	R. Renner
					Wed	10-12	HG E33.1 LFW C1 ML F40 ML J34.1 ML J34.3	
					Fri	14-16	ML J37.1 HIL C10.2 HPL D32 HPL D34	
402-0861-00L	Statistical Physics	W	10 credits	4V+2U				
402-0861-00 V	Statistical Physics			4 hrs	Tue Wed	14-16 14-16	HPV G5 HPV G5	M. Sigrist

402-0861-00 U	Statistical Physics			2 hrs	Tue Wed Fri	16-18 12-14 16-18	HCI J4 HIT J53 HIT H42 HIT J51 HIT J52 HIT K51	M. Sigrist
402-0843-00L	Quantum Field Theory I Special Students UZH must book the module PHY551 directly at UZH.	W	10 credits	4V+2U				
402-0843-00 V	Quantum Field Theory I  **together with University of Zurich**			4 hrs	Mon Thu	14-16 10-12	HPV G4 HPV G5	G. M. Graf
402-0843-00 U	**together with University of Zurich** Thu 14-16 or Fri 10-12			2 hrs	Thu	14-16	HCP E47.4 HIL B21 HIL D10.2 HIT H42	G. M. Graf
	Exercises start in the second week of the	semester			Fri	10-12	HIT J51 HIT J53 HIT K52	
402-0830-00L	General Relativity Special Students UZH must book the module PHY511 directly at UZH.	W	10 credits	4V+2U				
402-0830-00 V	•			4 hrs	Tue Thu	16-18 12-14	HPV G5 HPV G5	C. Anastasiou
	Online lecture: This lecture will primarily to Reserved rooms will remain blocked on co follow the course from there."							
402-0830-00 U	General Relativity **together with University of Zurich**			2 hrs	Thu	16-18	HIT F31.1 HIT F31.2 HIT J53 HIT K52	C. Anastasiou
					Fri	12-14	HCI D2 HCI D8 HIL F10.3 HIT J52	

# Electives Theoretical Physics

# **▶▶** Transportation Science

Number	Title	Type	ECTS	Hours				Lecturers
101-0417-00L	Transport Planning Methods	w	6 credits	4G				
101-0417-00 G	Transport Planning Methods			4 hrs	Mon Wed 22.09. 27.09. 29.09. 04.10. 06.10.	10-12 10-12 10-12 10-12 10-12 10-12 10-12	HIL F36.1 HIL F36.1 HCP E47.1 HIL F10.3 HCP E47.1 HIL F10.3 HCP E47.1	K. W. Axhausen

### ► Seminars and Semester Papers

#### **▶▶** Seminars

NOTICE: The number of seminar places is limited, and the special selection procedure should help to allocate the places not primarily according to the registration time. Everybody is waitlisted first when he/she tries to register for a seminar in myStudies.

Moreover: Only one mathematics seminar can be chosen per semester. In case you need to attend 2 seminars in this semester, please take contact with the Study Administration (email: studiensekretariat@math.ethz.ch).

Number	Title	Type	ECTS	Hours				Lecturers
401-3100-71L	Student Seminar in Number Theory: L- Functions Number of participants limited to 24.	W	4 credits	2\$				
401-3100-71 S	Student Seminar in Number Theory: L-Fund	tions		2 hrs	Tue 21.09. 28.09.	12-14 12-14 12-14	NO C6 HG F26.5 HG F26.5	M. Schwagenscheidt
401-3140-71L	Student Seminar in Algebraic Geometry: Complex Algebraic Surfaces Number of participants limited to 12.	W	4 credits	2\$				
401-3140-71 S	Student Seminar in Algebraic Geometry: Co Surfaces	mplex /	Algebraic	2 hrs	Fri	12-14	HG F26.5	TH. Bülles, R. Pandharipande
401-3050-71L	Student Seminar in Combinatorics Number of participants limited to 12.	W	4 credits	28				
401-3050-71 S	Student Seminar in Combinatorics			2 hrs	Fri	14-16	ML H34.3	B. Sudakov
401-4530-71L	Quasimorphisms and Symplectic Geometry Number of participants limited to 12.	W	4 credits	2\$				
401-4530-71 S	Quasimorphisms and Symplectic Geometry Advisors: V. Bosshard, P. Dietzsch			2 hrs	Wed	10-12	CHN D48	P. Biran, further speakers
401-4570-71L	Student Seminar in Symplectic vs. Contact Geometry	W	4 credits	28				

	Number of participants limited to 12.					
401-4570-71 S	Student Seminar in Symplectic vs. Contact Geometry	2 hrs	Wed	14-16	HG G19.2	A. Cannas da Silva
401-3940-71L	Student Seminar in Mathematics and W 4 cred Data: Stochastic Optimization Number of participants limited to 12.	lits 2S				
401-3940-00 S	Student Seminar in Mathematics and Data: Stochastic Optimization Advisors: Prof. A. Bandeira, Dr. G. Chinot and Dr. N. Zhivo.	2 hrs tovskii	Thu	14-16	HG G19.2	A. Bandeira
401-3620-20L	Student Seminar in Statistics: Inference W in Some Non-Standard Regression Problems Number of participants limited to 24. Mainly for students from the Mathematics Bachelor and Master Programmes who, in addition to the introductory course unit 401-2604-00L Probability and Statistics, have heard at least one core or elective course in statistics. Also offered in the Master Programmes Statistics resp. Data Science.	dits 2S				
401-3620-00 S	Student Seminar in Statistics: Inference in Some Non-Stand Regression Problems Remark: former title in FS 2020: Student Seminar in Statist Inference in Non-Classical Regression Models		Mon	16-18	HG E21	F. Balabdaoui, P. L. Bühlmann, M. H. Maathuis, N. Meinshausen, S. van de Geer
						O. Vall de Ocel
401-3910-71L	Student Seminar on Reinforcement W 4 crec Learning Number of participants limited to 12.	lits 2S				3. van de Geer

#### **▶▶** Semester Papers

There are several course units "Semester Paper" that are all equivalent. If, during your studies, you write several semester papers, choose among the different numbers in order to be able to obtain credits again.

Number	Title	Type	ECTS	Hours		Lecturers
401-3750-01L	Semester Paper Successful participation in the course unit 401-2000-00L Scientific Works in Mathematics is required. For more information, see www.math.ethz.ch/intranet/students/study- administration/theses.html	W	8 credits	11A		
401-3750-01 A	Semesterarbeit Mathematik Master (Nr. 1) ■ Permission from lecturers required for all str			160s hrs	by appt.	Supervisors
401-3750-02L	Semester Paper (No. 2) Successful participation in the course unit 401-2000-00L Scientific Works in Mathematics is required. For more information, see www.math.ethz.ch/intranet/students/study- administration/theses.html	W	8 credits	11A		
401-3750-02 A	Semesterarbeit Mathematik Master (Nr. 2)  Permission from lecturers required for all stu			160s hrs	by appt.	Supervisors
401-3750-03L	Semester Paper (No. 3) Successful participation in the course unit 401-2000-00L Scientific Works in Mathematics is required. For more information, see www.math.ethz.ch/intranet/students/study- administration/theses.html	W	8 credits	11A		
401-3750-03 A	Semesterarbeit Mathematik Master (Nr. 3)  Permission from lecturers required for all sta			160s hrs	by appt.	Supervisors

#### ► GESS Science in Perspective

Two credits are needed from the "Science in Perspective" programme with language courses excluded if three credits from language courses have already been recognised for the Bachelor's degree.

see https://ethz.ch/content/dam/ethz/common/docs/weisungssammlung/files-en/science-in-perspective.pdf (Eight credits must be acquired in this category: normally six during the Bachelor's degree programme, and two during the Master's degree programme. A maximum of three credits from language courses from the range of the Language Center of the University of Zurich and ETH Zurich may be recognised. In addition, only advanced courses (level B2 upwards) in the European languages English, French, Italian and Spanish are recognised. German language courses are recognised from level C2 upwards.)

see Science in Perspective: Language
Courses ETH/UZH

see Science in Perspective: Type A:
Enhancement of Reflection Capability

Recommended Science in Perspective
(Type B) for D-MATH.

### ► Master's Thesis

Number	Title	Type	ECTS	Hours	Lecturers
401-2000-00L	Scientific Works in Mathematics	0	0 credits		

Target audience: Third year Bachelor students; Master students who cannot document to have received an adequate training in working scientifically. 401-2000-00 V Scientific Works in Mathematics Groups are selected in myStudies. 28.09. 18-19 ON LINE 1s hrs M. Burger ONLINE 14.12. 18-19 This mandatory course is offered twice per semester.
Carry your ETH student card with you to prove your identity.
The lecturers will communicate the exact lesson times of ONLINE courses. 401-2000-01L Lunch Sessions - Thesis Basics for 0 credits Mathematics Students

Details and registration for the optional MathBib training course: https://www.math.ethz.ch/mathbibschulungen 401-2000-01 G Lunch Sessions - Thesis Basics für Mathematik-Studierende Speakers 4s hrs geplant 4., 5., 6. und 8. Oktober 2021 über Mittag. https://math.ethz.ch/library/training-courses/lunch-sessions.html 401-4990-00L Master's Thesis 30 credits 57D Only students who fulfil the following criteria are allowed to begin with their Master's thesis: a. successful completion of the Bachelor's programme: b. fulfilling of any additional requirements necessary to gain admission to the Master's programme. Successful participation in the course unit 401-2000-00L Scientific Works in Mathematics is required. For more information, see www.math.ethz.ch/intranet/students/study-

800s hrs by appt.

Supervisors

#### ► Additional Courses

401-4990-00 D Master's Thesis ■

administration/theses.html

Permission from lecturers required for all students

Number	Title	Type	ECTS	Hours				Lecturers
<b>401-5000-00L</b> 401-5000-00 K	Zurich Colloquium in Mathematics Zurich Colloquium in Mathematics **together with University of Zurich** More information at: https://studentservices.uzh.ch/uzh/anonym/language=DE&sap- ui-language=DE#/details/2021/003/SM/500.		0 credits ex.html?sap-	4s hrs	Tue	16-17	UNI ZH.	R. Abgrall, M. lacobelli, A. Bandeira, A. lozzi, S. Mishra, R. Pandharipande, University lecturers
	Place: Zoom Time: 16:30-17:30 https://math.ethz.ch/news- and- events/events/research- seminars/zurich-colloquium-in-mathematics	:.html?s	=hs21					
401-5990-00L	Zurich Graduate Colloquium	E-	0 credits	1K				
401-5990-00 K	Zurich Graduate Colloquium  **together with University of Zurich** More information at: https://studentservices.uzh.ch/uzh/anonym/ language=EN&sap- ui-language=EN#/details/2021/003/SM/500- Time: 16:15-18:00		ex.html?sap-	1 hrs	Tue	16-18	UNI ZH.	A. lozzi, further speakers
401-4530-00L	Geometry Graduate Colloquium	E-	0 credits	1K				
	Geometry Graduate Colloquium https://math.ethz.ch/news- and- events/events/research- seminars/geometry-graduate-colloquium.htm		Vereuns	1 hrs	Thu	16-17	HG G19.2	Speakers
401-5110-00L	Number Theory Seminar	E-	0 credits	1K				
401-5110-00 K	Number Theory Seminar			1 hrs	Fri	14-15	HG G43	Ö. Imamoglu, E. Kowalski, R. Pink, G. Wüstholz
401-5350-00L	Analysis Seminar	E-	0 credits	1K				
401-5350-00 K	Analysis Seminar **together with University of Zurich**			1 hrs	Tue	15-16	HG G43	A. Carlotto, F. Da Lio, A. Figalli N. Hungerbühler, M. Iacobelli, T. Ilmanen, L. Keller, T. Rivière, J. Serra, University lecturers
401-5370-00L	Ergodic Theory and Dynamical Systems	E-	0 credits	1K				

401-5370-00 K	Ergodic Theory and Dynamical Systems **together with University of Zurich** https://www.math.ethz.ch/news- and-			1 hrs	Mon	15-16	I27 H28	M. Akka Ginosar, M. Einsiedler, University lecturers
	events/events/research- seminars/ergodic-theory-and-dynamical-sy	stems.l	html					
<b>401-5530-00L</b> 401-5530-00 K	Geometry Seminar Geometry Seminar **together with University of Zurich** 15:45-16:45	E-	0 credits	1K 1 hrs	Wed	16-17	HG G43	M. Burger, M. Einsiedler, P. Feller, A. lozzi, U. Lang, University lecturers
<b>401-5580-00L</b> 401-5580-00 K	Symplectic Geometry Seminar Symplectic Geometry Seminar	E-	0 credits	<b>2K</b> 2 hrs	Mon	16-18	HG G43	P. Biran, A. Cannas da Silva
<b>401-5330-00L</b> 401-5330-00 K	Talks in Mathematical Physics Talks in Mathematical Physics **together with University of Zurich**	E-	0 credits	<b>1K</b> 1 hrs	Thu	15-17	HG G43	P. E. Y. Bousseau, A. Cattaneo, G. Felder, M. Gaberdiel, G. M. Graf, T. H. Willwacher
401-5650-00L	Zurich Colloquium in Applied and	E-	0 credits	1K				
401-5650-00 K	Computational Mathematics Zurich Colloquium in Applied and Computa **together with University of Zurich** More information at: https://studentservices.uzh.ch/uzh/anonym/2021/003/SM/50027666			1 hrs	Wed	16-17	HG E1.2	R. Abgrall, R. Alaifari, H. Ammari, R. Hiptmair, S. Mishra, S. Sauter
<b>401-5600-00L</b> 401-5600-00 K	Seminar on Stochastic Processes Seminar on Stochastic Processes **together with University of Zurich**	E-	0 credits	<b>1K</b> 1 hrs	Wed	17-18	HG G19.1	J. Bertoin, A. Nikeghbali, B. D. Schlein, V. Tassion, W. Werner
<b>401-5620-00L</b> 401-5620-00 K	Research Seminar on Statistics Research Seminar on Statistics **together with University of Zurich**  Starting time may vary (depending on whe takes place). For details see https://www.math.ethz.ch/n		0 credits	1K 1 hrs	Fri	15-17	HG G19.1	P. L. Bühlmann, M. H. Maathuis, N. Meinshausen, S. van de Geer, A. Bandeira, R. Furrer, L. Held, T. Hothorn, D. Kozbur, M. Wolf
	and- events/events/research-seminars/statistics	-resear	ch-seminar.htm	nl				
<b>401-5640-00L</b> 401-5640-00 K	ZüKoSt: Seminar on Applied Statistics **gemeinsam mit der Universität Zürich** Zeit: 15:15-16:30	E-	0 credits	<b>1K</b> 10s hrs	Fri	15-17	HG G19.1	M. Kalisch, F. Balabdaoui, A. Bandeira, P. L. Bühlmann, R. Furrer, L. Held, T. Hothorn, M. H. Maathuis, M. Mächler,
	Nach besonderem Programm gemäss Ank M. Kalisch Tel. 044 632 3435	uriaigui	rig, Kooruirialio	)TI				L. Meier, M. Robinson, C. Strobl, S. van de Geer
	Foundations of Data Science Seminar Foundations of Data Science Seminar https://www.math.ethz.ch/sfs/news- and-events/data-science-seminar.html Time: 16:15-17:15	E-	0 credits	3s hrs	23.09. 11.11. 02.12.	16-18 16-18 16-18	HG F3 HG G19.2 HG G19.1	P. L. Bühlmann, A. Bandeira, H. Bölcskei, F. Yang
401-5660-00L	Math and Data (MAD+)	E-	0 credits	1K				
401-5660-00 K	Math and Data (MAD+) https://math.ethz.ch/news- and-events/events/research-seminars/mata	h-and-d	lata.html	1 hrs				A. Bandeira, external organisers
401-5910-00L	Talks in Financial and Insurance	E-	0 credits	1K				
401-5910-00 K	Mathematics Talks in Financial and Insurance Mathema by announcement	tics		1 hrs	Thu	17-18	HG G43	P. Cheridito, M. Schweizer, J. Teichmann, M. V. Wüthrich
401-5900-00L	Optimization Seminar	E-	0 credits	1K				
401-5900-00 K	Optimization Seminar  Mon 16:30-17:30 (dates by announcement	·)		1 hrs	Mon	16-17	HG G19.1	A. Bandeira, R. Weismantel, R. Zenklusen
401-5960-00L	Colloquium on Mathematics, Computer Science, and Education Subject didactics for mathematics and computer science teachers.		0 credits					
401-5960-00 K	Kolloquium über Mathematik, Informatik ur Programm: https://www.math.ethz.ch/math und-ausbildung/weiterbildung/kolloquium.h	ematik-		4s hrs				N. Hungerbühler, M. Akveld, D. Grawehr Morath, J. Hromkovic, P. Spindler
<b>402-0101-00L</b> 402-0101-00 K	The Zurich Physics Colloquium The Zurich Physics Colloquium **together with University of Zurich**	E-	0 credits	<b>1K</b> 1 hrs	Wed	16-17	HPV G4	S. Huber, A. Refregier, University lecturers
	16:15-17:15 Uhr							
402-0800-00L	The Zurich Theoretical Physics Colloquium	E-	0 credits	1K				

402-0800-00 K The Zurich Theoretical Physics Colloquium

\*\*together with University of Zurich\*\* More information at:

https://studentservices.uzh.ch/uzh/anonym/vvz/index.html?sap-

language=DE&sap-ui-language=DE#/details/2021/003/SM/50030258

The Colloquium takes place on selected Mondays during the academic semester on the Irchel Campus of UZH or at ETH

Hönggerberg Time: 16:45h

251-0100-00L Computer Science Colloquium 251-0100-00 K Kolloquium für Informatik

0 credits

2K 2 hrs

1 hrs

Mon

Mon

17-18

CAB G61 16-18

HIT H42

116 G05

Lecturers

University lecturers

#### ► Course Units for Additional Admission Requirements

The courses below are only available for MSc students with additional admission requirements.

Number	Title	Type	ECTS	Hours	Lecturers
106-2004-AAL	Algebra II Enrolment ONLY for MSc students with a decree declaring this course unit as an additional admission requirement.	E-	5 credits	11R	
	Any other students (e.g. incoming exchange students, doctoral students) CANNOT enrol for this course unit.				
406-2004-AA R	Algebra II Self-study course. No presence required.			150s hrs	M. Burger
406-2005-AAL	Algebra I and II Enrolment ONLY for MSc students with a decree declaring this course unit as an additional admission requirement.	E-	12 credits	26R	
	Any other students (e.g. incoming exchange students, doctoral students) CANNOT enrol for this course unit.				
406-2005-AA R	Algebra I and II Self-study course. No presence required.			360s hrs	M. Burger, M. Einsiedler
406-2303-AAL	Complex Analysis Enrolment ONLY for MSc students with a decree declaring this course unit as an additional admission requirement.	E-	6 credits	13R	
	Any other students (e.g. incoming exchange students, doctoral students) CANNOT enrol for this course unit.				
406-2303-AA R	Complex Analysis Self-study course. No presence required.			180s hrs	T. H. Willwacher
406-2284-AAL	Measure and Integration Enrolment ONLY for MSc students with a decree declaring this course unit as an additional admission requirement.	E-	6 credits	13R	
	Any other students (e.g. incoming exchange students, doctoral students) CANNOT enrol for this course unit.				
406-2284-AA R	Measure and Integration Self-study course. No presence required.			180s hrs	F. Da Lio
406-2554-AAL	<b>Topology</b> Enrolment ONLY for MSc students with a decree declaring this course unit as an additional admission requirement.	E-	6 credits	13R	
	Any other students (e.g. incoming exchange students, doctoral students) CANNOT enrol for this course unit.				
406-2554-AA R	Topology Self-study course. No presence required.			180s hrs	P. Feller
406-2604-AAL	Probability and Statistics Enrolment ONLY for MSc students with a decree declaring this course unit as an additional admission requirement.	E-	7 credits	15R	
	Any other students (e.g. incoming exchange students, doctoral students) CANNOT enrol for this course unit.				
406-2604-AA R	Probability and Statistics Self-study course. No presence required.			210s hrs	J. Teichmann

Mathem	atics Master - Key for Type		
0	Compulsory	E-	Recommended, not eligible for credits
W+	Eligible for credits and recommended	Z	Courses outside the curriculum
W	Eligible for credits	Dr	Suitable for doctorate
V	lecture	P	practical/laboratory course
Key for			
G	lecture with exercise	A	independent project
U	exercise	D	diploma thesis
S	seminar	R	revision course / private study
K	colloquium		

ECTS

European Credit Transfer and Accumulation System
Special students and auditors need special permission from the lecturers.

# **Micro- and Nanosystems Master**

# ► Core Courses

# ▶▶ Devices and Systems

Number	Title	Turno	ECTS	Hours				Lecturers
227-0166-00L	Analog Integrated Circuits	Type W	6 credits	2V+2U				Lecturers
	Analog Integrated Circuits  Analog Integrated Circuits	**	0 Credits	2 hrs	Fri	10-12	ETZ E6	T. Jang
27-0166-00 U	Analog Integrated Circuits Some of the exercise lessons will take place ETZ D61.1.	e in com	puter room	2 hrs	Fri	14-16	ETZ E6	T. Jang
	To be announced during the course lesson	s.						
►► Energy	<b>Conversion and Quantum Phe</b>	nomei	na					
Number	Title	Туре	ECTS	Hours				Lecturers
151-0913-00L	Introduction to Photonics	W	4 credits	2V+2U				
151-0913-00 V	Introduction to Photonics			2 hrs	Thu	10-12	HG E22	R. Quidant, J. Ortega Arroyo
151-0913-00 U	Introduction to Photonics			2 hrs	Thu	14-16	HG E22	R. Quidant, J. Ortega Arroyo
102-0595-00L	Semiconductor Nanostructures	W+	6 credits	2V+1U				
402-0595-00 V 402-0595-00 U	Semiconductor Nanostructures Semiconductor Nanostructures			2 hrs 1 hrs	Wed Wed	12-14 14-15	HCI J4 HIT J51	T. M. Ihn T. M. Ihn
102-0595-00 0	or by appointment			11115	weu	14-15	HIT K52	1. WI. IIIII
►► Materia	I, Surfaces and Properties							
Number	Title	Туре	ECTS	Hours				Lecturers
51-0509-00L	Microscale Acoustofluidics	W	4 credits	3G				
51-0509-00 G	Microscale Acoustofluidics The course will take place on 29.09.21 in M	1L F 36.		3 hrs	Wed 29.09.	13-16 13-16	LFO C13 ML F36	J. Dual
151-0524-00L	Continuum Mechanics I	W+	4 credits	2V+1U				
151-0524-00 V	Continuum Mechanics I			2 hrs	Fri	08-10	HG D5.2	E. Mazza, A. E. Ehret
51-0524-00 U	Continuum Mechanics I  Exercises start in the second week of the s	emester.		1 hrs	Wed	12-13	HG E1.1	E. Mazza, A. E. Ehret
151-0902-00L	Micro- and Nanoparticle Technology Number of participants is limited to 20. Additional ones could be enrolled by permission of the lecturer.	W	6 credits	2V+2U				
51-0902-00 V	•	tudents		2 hrs	Fri	10-12	ML F40	<b>S. E. Pratsinis</b> , G. Kelesidis, K. Wegner
151-0902-00 U	Micro- and Nanoparticle Technology Permission from lecturers required for all si			2 hrs	Wed	14-16	ML F40	<b>S. E. Pratsinis</b> , G. Kelesidis, V. Mavrantzas
327-0505-00L	Surfaces, Interfaces and their Applications I	W	3 credits	2V+1U				
	Surfaces, Interfaces and their Applications			2 hrs	Mon	09-11	HCI J7	N. Spencer, M. P. Heuberger L. Isa
327-0505-00 U	Surfaces, Interfaces and their Applications	I		1 hrs	Mon	11-12	HCI J7	N. Spencer, M. P. Heuberger L. Isa
►► Modelli	ng and Simulation							
Number	Title	Type	ECTS	Hours				Lecturers
151-0107-20L	High Performance Computing for Science and Engineering (HPCSE) I	W	4 credits	4G				
51-0107-20 G	High Performance Computing for Science a (HPCSE) I Lecture: 12-14h Exercises: 14-16h	and Engi	neering	4 hrs	Fri	12-14 14-16	ML H44 ML H44	P. Koumoutsakos, S. M. Martin
<b>227-2037-00L</b> 227-2037-00 G	Physical Modelling and Simulation Physical Modelling and Simulation	W+	6 credits	<b>4G</b> 4 hrs	Thu	08-12	ETZ E6	J. Smajic
	ory Course							
Number	Title	Туре	ECTS	Hours				Lecturers
51-0620-00L	Embedded MEMS Lab	W+	5 credits	3P				
51-0620-00 P	Embedded MEMS Lab - First part of the compulsory introductory le 27.09.2021 from 13:15h to 18h (venue: the - Second part of the compulsory introducto	ecture: M ')	•	45s hrs	Mon	13-14	ML J34.1 ML J34.3 ML J37.1 CLA G2	<b>C. Hierold</b> , S. Blunier, M. Haluska
	04.10.2021 from 13:15h to 18h (venue: too - Practical portion of the course in the clear consecutive Mondays from 13:00 (exact) to Semester. Starting days for groups are start - Attendance is required at all meetings of	) nrooms c ~18:30 ggered.	of CLA: 7 during the		27.09. 04.10.	13-18 13-18	ML H43 ML H43	
►► Elective	Core Courses							
Number	Title	Туре	ECTS	Hours				Lecturers

	Multiphysics Modeling and Simulation			2 hrs	Wed	12-14	LFV E41	C. I. Roman
151-0409-00 U	Multiphysics Modeling and Simulation			2 hrs	Wed	16-18	LFV E41	C. I. Roman
151-0525-00L	Dynamic Behavior of Materials  Note: previous course title until HS19 "Wave Propagation in Solids".	W	4 credits	2V+2U				
151-0525-00 V	Dynamic Behavior of Materials			2 hrs	Fri	10-12	HG D5.2	<b>D. Mohr</b> , C. Roth, T. Tancogne-Dejean
151-0525-00 U	Dynamic Behavior of Materials			2 hrs	Fri	12-14	HG D5.2	<b>D. Mohr</b> , C. Roth, T. Tancogne-Dejean
151-0532-00L	Nonlinear Dynamics and Chaos I	W	4 credits	2V+2U				
151-0532-00 V				2 hrs	Wed	10-12	LFW B1	G. Haller
151-0532-00 U	Nonlinear Dynamics and Chaos I			2 hrs	Tue	16-18	ML F39	G. Haller
151-0593-00L	Embedded Control Systems	W	4 credits	6G				
151-0593-00 G	Embedded Control Systems This two-week block course take places dai. 20-24.09.2021) and is comprised of	ly (13-1	7.09.2021 &	80s hrs	13.09. 13.09 17.09.	08-10 08-12	ML H44 HG G26.5	J. S. Freudenberg, M. Schmid Daners
	- Lectures: 8-12 h - Exercises: 13-17 h				13.09 24.09.		ML J44.1	
					20.09.	08-12 13-17	HG F26.3 ML J44.1	
					21.09.	08-12	HG F26.3	
					22.09.	08-12	HG F26.3	
					22.00	15-17	ML F39	
					23.09. 24.09.	08-12 08-12	HG F26.3 LEE E101	
151-0605-00L	Nanosystems	w	4 credits	4G			<del></del>	
151-0605-00 G	-			4 hrs	Thu	10-13	ML F40	A. Stemmer
	Lecture: Thursday 10-13. Online lecture: The take place online. Reserved rooms will remaid campus for students to follow the course from Exercises: will take place in the laboratories	ain block m there	ked on	,				
151-0621-00L	Microsystems I: Process Technology and Integration	W	6 credits	3V+3U				
151-0621-00 V	Microsystems I: Process Technology and In The lecture starts in the second week of the			3 hrs	Thu	13-16	HG E5	C. Hierold, M. Haluska
151-0621-00 U	Microsystems I: Process Technology and In The exercise starts in the third week of the S			3 hrs	Tue	16-19	HG E1.2	M. Haluska
<b>151-0642-00L</b> 151-0642-00 S	Seminar on Micro and Nanosystems Seminar on Micro and Nanosystems	Z	0 credits	<b>1S</b> 1 hrs	Fri	14-16	CLA G2	C. Hierold
151-0911-00L	Introduction to Plasmonics	W	4 credits	2V+1U				
151-0911-00 V	Introduction to Plasmonics  Does not take place this semester.  Will be offered again in HS22.			2 hrs				D. J. Norris
151-0911-00 U	Introduction to Plasmonics  Does not take place this semester.  Will be offered again in HS22.			1 hrs				D. J. Norris
227-0145-00L	Solid State Electronics and Optics	w	6 credits	4G				
	Solid State Electronics and Optics			4 hrs	Mon Thu	14-16 14-16	ML F38 LFW C4	N. Yazdani, V. Wood
227-0157-00L	Semiconductor Devices: Physical Bases and Simulation	W	4 credits	3G				
227-0157-00 G	Semiconductor Devices: Physical Bases and	d Simula	ation	3 hrs	Mon	09-12	ETZ G91	A. Schenk, C. I. Roman
	Falls alle Hörende es wünschen, kann die V Deutsch gehalten werden.			00				
227-0225-00L	Linear System Theory	W	6 credits	5G				
227-0225-00 G	Linear System Theory			5 hrs	Mon Wed 22.09.	09-12 10-12 10-12	IFW A36 ETZ E6 HG D1.1	A. lannelli
227-0311-00L	Qubits, Electrons, Photons	W	6 credits	3V+2U				
	Qubits, Electrons, Photons			3 hrs	Thu Fri	08-10 13-14	CHN F42 ETZ E9	T. Zambelli
227-0311-00 U	Qubits, Electrons, Photons			2 hrs	Wed	10-12	HG D3.2	T. Zambelli
227-0468-00L	Analog Signal Processing and Filtering Suitable for Master Students as well as Doctoral Students.	W	6 credits	2V+2U				
227-0468-00 V	Analog Signal Processing and Filtering			2 hrs	Wed	08-10	CHN E46	H. Schmid
227-0468-00 U	Analog Signal Processing and Filtering			2 hrs	Wed	10-12	CHN E46	H. Schmid
227-0653-00L	Electromagnetic Precision Measurements and Opto-Mechanics	W	4 credits	2V+1U				
227-0653-00 V	Electromagnetic Precision Measurements a The course will take place online until further			2 hrs	Fri	09-11	ML H34.3	M. Frimmer
227-0653-00 U	Electromagnetic Precision Measurements a The course will take place online until further	•		1 hrs	Fri	11-12	ML H34.3	M. Frimmer
227-0663-00L	Nano-Optics	W	6 credits	2V+2U				
227-0663-00 V	Nano-Optics  Does not take place this semester.			2 hrs				M. Frimmer

227-0663-00 U	Nano-Optics Does not take place this semester.			2 hrs				M. Frimmer
02-0447-00L	Quantum Science with Superconducting Circuits	W	6 credits	2V+1U				
	Quantum Science with Superconducting Cir Quantum Science with Superconducting Cir			2 hrs 1 hrs	Fri Fri	14-16 16-17	HCI J6 HCP E47.1 HCP E47.2 HIL E5	C. Eichler C. Eichler
402-0811-00L	Programming Techniques for Scientific Simulations I	W	5 credits	4G				
402-0811-00 G	Programming Techniques for Scientific Simulation	ulations	l	4 hrs	Thu	14-18	HCI J3	R. Käppeli
529-0611-01L	Molecular Aspects of Catalysts and Surfaces	w	6 credits	4G				
529-0611-01 G	Molecular Aspects of Catalysts and Surface In addition to the lecture, there wil be an lab on some Mondays from 10-11. Students will beginning of the semester.	oratory		4 hrs	Tue Wed	16-18 10-12	HCI H2.1 HCI D8	J. A. van Bokhoven, D. Ferr
	Process Design and Development Process Design and Development	W	6 credits	<b>3G</b> 3 hrs	Tue Wed	10-12 13-14	HCI D8 HCI H2.1	G. Guillén Gosálbez
701-1239-00L	Aerosols I: Physical and Chemical	w	4 credits	2V+1U				
701-1239-00 V	<b>Principles</b> Aerosols I: Physical and Chemical Principles	3		2 hrs	Mon	14-16	CAB G52	M. Gysel Beer, D. Bell,
701-1239-00 U	Aerosols I: Physical and Chemical Principles	3		1 hrs	Mon	13-14	CAB G52	E. Weingartner  M. Gysel Beer, D. Bell,
752-3103-00L	Food Rheology I	W	3 credits	2V				E. Weingartner
752-3103-00 V	Food Rheology I			2 hrs	Tue	08-10	LFO C13	P. A. Fischer
	/www.uzh.ch/cmsssl/en/studies/application/c Course Catalogue of ETH Zurich ience in Perspective	•	,					
P 0200 00	see GESS Science in Perspective:							
	Language Courses ETH/UZH see GESS Science in Perspective: Type A:							
	Enhancement of Reflection Capability  Recommended GESS Science in							
	Perspective (Type B) for D-MAVT.							
► Semester	<b>-</b>							
Number	Title	Туре	ECTS	Hours				Lecturers
151-1007-00L	Semester Project Micro- and	0	8 credits	17A				
	Nanosystems Only for Micro- and Nanosystems MSc.  The subject of the Semester Project and the choice of the supervisor (ETH-professor) are to be approved in advance by the futor.							
	Only for Micro- and Nanosystems MSc.  The subject of the Semester Project and the choice of the supervisor (ETH-			240s hrs	by appt			Professors
151-1007-00 A	Only for Micro- and Nanosystems MSc.  The subject of the Semester Project and the choice of the supervisor (ETH-professor) are to be approved in advance by the tutor.			240s hrs	by appt			Professors
151-1007-00 A ▶ Industria	Only for Micro- and Nanosystems MSc.  The subject of the Semester Project and the choice of the supervisor (ETH-professor) are to be approved in advance by the tutor.  Semester Project Micro- and Nanosystems	Type	ECTS		by appt			
151-1007-00 A ▶ Industria Number	Only for Micro- and Nanosystems MSc.  The subject of the Semester Project and the choice of the supervisor (ETH-professor) are to be approved in advance by the tutor.  Semester Project Micro- and Nanosystems  Internship	Type O	ECTS 8 credits	240s hrs	by appt			Professors  Lecturers
151-1007-00 A ▶ Industria Number 151-1090-00L	Only for Micro- and Nanosystems MSc.  The subject of the Semester Project and the choice of the supervisor (ETH-professor) are to be approved in advance by the tutor.  Semester Project Micro- and Nanosystems  Internship  Title  Industrial Internship  Access to the company list and request for recognition under www.mavt.ethz.ch/praxis.  No registration required via myStudies.				by appt			Lecturers
151-1007-00 A ► Industrial Number 151-1090-00L	Only for Micro- and Nanosystems MSc.  The subject of the Semester Project and the choice of the supervisor (ETH-professor) are to be approved in advance by the tutor.  Semester Project Micro- and Nanosystems  I Internship  Title  Industrial Internship  Access to the company list and request for recognition under www.mavt.ethz.ch/praxis.  No registration required via myStudies. Industrial Internship				by appt			
151-1007-00 A ▶ Industria Number 151-1090-00L	Only for Micro- and Nanosystems MSc.  The subject of the Semester Project and the choice of the supervisor (ETH-professor) are to be approved in advance by the tutor.  Semester Project Micro- and Nanosystems  I Internship  Title  Industrial Internship  Access to the company list and request for recognition under www.mavt.ethz.ch/praxis.  No registration required via myStudies. Industrial Internship				by appt			Lecturers

"Core Courses".

The Master's Thesis must be approved in advance by the tutor and is supervised by a professor of ETH Zurich.
To choose a titular professor as a supervisor, please contact the D-MAVT Student Administration.

151-1006-00 D Master's Thesis Micro- and Nanosystems ■

Micro- and Nanosystems Master - Key for Type

colloquium

Κ

900s hrs by appt.

Professors

O	Compulsory	E-	Recommended, not eligible for credits	
W+	Eligible for credits and recommended	Z	Courses outside the curriculum	
W	Eligible for credits	Dr	Suitable for doctorate	
Key for	Hours			
V	lecture	P	practical/laboratory course	
G	lecture with exercise	A	independent project	
U	exercise	D	diploma thesis	
S	seminar	R	revision course / private study	

ECTS European Credit Transfer and Accumulation System

Special students and auditors need special permission from the lecturers.

# **Exchange Students**

#### ► Courses for Exchange Students

Prepare a study plan

In case the course catalogue of the upcoming semester is not available yet, please expect it to be like the year before. You can study at ETH Zurich as an exchange student for 1 or 2 semesters, starting in the autumn or in the spring semester. Exchange students may choose courses from different curricula and years, provided that at least two thirds of all courses are taken in the ETH Zurich department they are registered in. Please be sure to coordinate your schedule with your home university.

Exam sessions and End-of-semester examinations
Like all ETH Zurich students, exchange students are obliged to sit their exams during the official examination periods. Students are requested to be present at ETH Zurich during these periods. You are therefore expected to plan your studies, internships, jobs, and financial means accordingly.

#### **▶▶** Research Project

The courses below are only available for exchange students.

Number	Title	Туре	ECTS	Hours	Lecturers
900-0005-00L	5 Credit Project ONLY for mobility students.	W	5 credits	11A	
	Any other students (e.g.BSc, MSc, doctoral students) CANNOT enrol for this course unit.				
900-0005-00 A	5 Credit Project			150s hrs	Lecturers
900-0010-00L	10 Credit Project ONLY for mobility students.	W	10 credits	21A	
	Any other students (e.g.BSc, MSc, doctoral students) CANNOT enrol for this course unit.				
900-0010-00 A	10 Credit Project			300s hrs	Lecturers
900-0015-00L	15 Credit Project ONLY for mobility students.	w	15 credits	32A	
	Any other students (e.g.BSc, MSc, doctoral students) CANNOT enrol for this course unit.				
900-0015-00 A	15 Credit Project			450s hrs	Lecturers
900-0020-00L	20 Credit Project ONLY for mobility students.	W	20 credits	43A	
	Any other students (e.g.BSc, MSc, doctoral students) CANNOT enrol for this course unit.				
900-0020-00 A	20 Credit Project			600s hrs	Lecturers
900-0025-00L	25 Credit Project ONLY for mobility students.	W	25 credits	54A	
	Any other students (e.g.BSc, MSc, doctoral students) CANNOT enrol for this course unit.				
900-0025-00 A	25 Credit Project			750s hrs	Lecturers
900-0030-00L	<b>30 Credit Project</b> ONLY for mobility students.	W	30 credits	64A	
	Any other students (e.g.BSc, MSc, doctoral students) CANNOT enrol for this course unit.				
900-0030-00 A	30 Credit Project			900s hrs	Lecturers
900-0060-00L	60 Credit Project ONLY for mobility students.	W	60 credits	129A	
	Any other students (e.g.BSc, MSc, doctoral students) CANNOT enrol for this course unit.				
900-0060-00 A	60 Credit Project			1800s hrs	Lecturers
▶► Additio	nal Courses				
	by individual arrangement				
Exchange Stu	udents - Key for Type				
_	Compulsory			E-	Recommended, not eligible for credits
	Eligible for credits and recommended			Z	Courses outside the curriculum
W	Eligible for credits			Dr	Suitable for doctorate

Key for	Hours		
V	lecture	P	practical/laboratory course
G	lecture with exercise	A	independent project
U	exercise	D	diploma thesis
S	seminar	R	revision course / private study
K	colloquium		

**ECTS** 

European Credit Transfer and Accumulation System
Special students and auditors need special permission from the lecturers.

# **Neural Systems and Computation Master**

# **▶** Core Courses

# **▶▶** Compulsory Core Courses

Number	Title	Type	ECTS	Hours				Lecturers
227-1039-00L	Basics of Instrumentation, Measurement, and Analysis (University of Zurich) No enrolment to this course at ETH Zurich. Book the corresponding module directly at UZH as an incoming student. UZH Module Code: INI502	0	4 credits	98				
	Mind the enrolment deadlines at UZH: https://www.uzh.ch/cmsssl/en/studies/appli cation/deadlines.html							
	Registration in this class requires the permission of the instructors. Class size will be limited to available lab spots.  Preference is given to students that require this class as part of their major.							
227-1039-00 S	Basics of Instrumentation, Measurement, an of Zurich) **Course at University of Zurich**	d Analy	sis (University	120s hrs	by appt.			SC. Liu, T. Delbrück, R. Hahnloser, G. Indiveri, V. Mante, P. Pyk, D. Scaramuzza, W. von der Behrens
227-1031-00L	Journal Club (University of Zurich) No enrolment to this course at ETH Zurich. Book the corresponding module directly at UZH as an incoming student. UZH Module Code: INI702	0	2 credits	18				
	Mind the enrolment deadlines at UZH: https://www.uzh.ch/cmsssl/en/studies/appli cation/deadlines.html							
227-1031-00 S	Journal Club (University of Zurich) **Course at University of Zurich**			1 hrs				G. Indiveri
	Location: please see VVZ UZH							
227-1043-00L	Neuroinformatics - Colloquia (University of Zurich) No enrolment to this course at ETH Zurich. Book the corresponding module directly at UZH as an incoming student. UZH Module Code: INI701	Z	0 credits	1K				
	Mind the enrolment deadlines at UZH: https://www.uzh.ch/cmsssl/en/studies/appli cation/deadlines.html							
227-1043-00 K	Neuroinformatics - Colloquia (University of Z **Course at University of Zurich**	urich)		1 hrs	Fri	16-17	UNI ZH.	<b>SC. Liu</b> , R. Hahnloser, V. Mante
	Location: please see VVZ UZH							
227-1045-00L	Readings in Neuroinformatics (University of Zurich) No enrolment to this course at ETH Zurich. Book the corresponding module directly at UZH as an incoming student. UZH Module Code: INI431	0	3 credits	18				
	Mind the enrolment deadlines at UZH: https://www.uzh.ch/cmsssl/en/studies/appli cation/deadlines.html							
227-1045-00 S	Readings in Neuroinformatics (University of **Course at University of Zurich**	Zurich)		1 hrs	Tue	17-18	UNI ZH.	W. von der Behrens, R. Hahnloser, SC. Liu, V. Mante
	Besides the formal course hours, the course additional time (ca. 2 hours per week) to con-		ill also require					
	Location: please see VVZ UZH							

#### **▶▶▶** Systems Neurosciences

· · · · · · · · · · · · · · · · · · ·	1110 11001 0001011000								
Number	Title	Туре	ECTS	Hours				Lecturers	
227-0421-00L	Deep Learning in Artificial and Biological Neuronal Networks	W	4 credits	3G					
227-0421-00 G	Deep Learning in Artificial and Biological No	euronal l	Networks	3 hrs	Wed	09-12	ML F34	B. Grewe	
227-1037-00L	Introduction to Neuroinformatics	w	6 credits	2V+1U+	1A				

227-1037-00 V								
	Introduction to Neuroinformatics			2 hrs	Thu	08-10	NO C60	V. Mante, M. Cook, B. Grewe, G. Indiveri, D. Kiper, W. von der Behrens
227-1037-00 U	Introduction to Neuroinformatics			1 hrs	Thu	10-11	NO C60	V. Mante, M. Cook, B. Grewe, G. Indiveri, D. Kiper, W. von der Behrens
227-1037-00 A	Introduction to Neuroinformatics Self-study, no fixed presence required.			1 hrs				V. Mante
227-1051-00L	Systems Neuroscience (University of Zurich) No enrolment to this course at ETH Zurich. Book the corresponding module directly at UZH as an incoming student. UZH Module Code: INI415	W	6 credits	2V+1U				
	Mind the enrolment deadlines at UZH: https://www.uzh.ch/cmsssl/en/studies/appli cation/deadlines.html							
227-1051-00 V	Systems Neuroscience (University of Zurich	)		2 hrs				D. Kiper
227-1051-00 U	**Course at University of Zurich** Systems Neuroscience (University of Zurich **Course at University of Zurich**	)		1 hrs	by appt.			D. Kiper
	Dates by arrangement.							
▶▶▶ Neura	I Computation and Theoretical	Neuro	sciences					
Number	Title	Туре	ECTS	Hours				Lecturers
227-1037-00L	Introduction to Neuroinformatics	W	6 credits	2V+1U+1	Α			
227-1037-00 V	Introduction to Neuroinformatics			2 hrs	Thu	08-10	NO C60	V. Mante, M. Cook, B. Grewe, G. Indiveri, D. Kiper, W. von der Behrens
227-1037-00 U	Introduction to Neuroinformatics			1 hrs	Thu	10-11	NO C60	V. Mante, M. Cook, B. Grewe, G. Indiveri, D. Kiper, W. von der Behrens
227-1037-00 A	Introduction to Neuroinformatics Self-study, no fixed presence required.			1 hrs				V. Mante
227-0421-00L	Deep Learning in Artificial and Biological Neuronal Networks	W	4 credits	3G				
	Deep Learning in Artificial and Biological Ne			3 hrs	Wed	09-12	ML F34	B. Grewe
▶▶► Neuro	technologies and Neuromorphi	c Eng	ineering					
Number	Title	Туре	ECTS	Hours				Lecturers
227-1037-00L	Introduction to Neuroinformatics	W	6 credits	2V+1U+1		00.40	NO 000	V. W. 4. W. Q. 1. D. Q.
227-1037-00 V	Introduction to Neuroinformatics			2 hrs	Thu	08-10	NO C60	V. Mante, M. Cook, B. Grewe, G. Indiveri, D. Kiper, W. von der Behrens
				1 hrs	Thu	10-11	NO C60	V. Mante, M. Cook, B. Grewe, G. Indiveri, D. Kiper,
227-1037-00 U	Introduction to Neuroinformatics							W. von der Behrens
	Introduction to Neuroinformatics  Introduction to Neuroinformatics Self-study, no fixed presence required.			1 hrs				
	Introduction to Neuroinformatics	W	6 credits	1 hrs 2V+3U				W. von der Behrens
227-1037-00 A	Introduction to Neuroinformatics Self-study, no fixed presence required.  Neuromorphic Engineering I Registration in this class requires the permission of the instructors. Class size will be limited to available lab spots. Preference is given to students that require		6 credits					W. von der Behrens
227-1037-00 A	Introduction to Neuroinformatics Self-study, no fixed presence required.  Neuromorphic Engineering I Registration in this class requires the permission of the instructors. Class size will be limited to available lab spots. Preference is given to students that require this class as part of their major.  Information for UZH students: Enrolment to this course unit only possible at ETH. No enrolment to module INI404 at UZH. Please mind the ETH enrolment deadlines for UZH students: https://www.ethz.ch/en/studies/non-		6 credits					W. von der Behrens
227-1037-00 A	Introduction to Neuroinformatics Self-study, no fixed presence required.  Neuromorphic Engineering I Registration in this class requires the permission of the instructors. Class size will be limited to available lab spots. Preference is given to students that require this class as part of their major.  Information for UZH students: Enrolment to this course unit only possible at ETH. No enrolment to module INI404 at UZH. Please mind the ETH enrolment deadlines for UZH students: https://www.ethz.ch/en/studies/non- degree- courses/special- students/special-		6 credits					W. von der Behrens
227-1037-00 A  227-1033-00L	Introduction to Neuroinformatics Self-study, no fixed presence required.  Neuromorphic Engineering I Registration in this class requires the permission of the instructors. Class size will be limited to available lab spots. Preference is given to students that require this class as part of their major.  Information for UZH students: Enrolment to this course unit only possible at ETH. No enrolment to module INI404 at UZH. Please mind the ETH enrolment deadlines for UZH students: https://www.ethz.ch/en/studies/non- degree- courses/special-	udents		2V+3U 2 hrs	Mon	14-16	ON LINE	W. von der Behrens
227-1037-00 A  227-1033-00L	Introduction to Neuroinformatics Self-study, no fixed presence required.  Neuromorphic Engineering I Registration in this class requires the permission of the instructors. Class size will be limited to available lab spots. Preference is given to students that require this class as part of their major.  Information for UZH students: Enrolment to this course unit only possible at ETH. No enrolment to module INI404 at UZH. Please mind the ETH enrolment deadlines for UZH students: https://www.ethz.ch/en/studies/non-degree-courses/special-students/special-students-university-of-zurich.html Neuromorphic Engineering I Permission from lecturers required for all students-will communicate the exact less than the state of	udents sson tim		2V+3U 2 hrs	Mon by appt.		ON LINE	W. von der Behrens V. Mante  T. Delbrück, G. Indiveri, S
227-1037-00 A  227-1033-00L	Introduction to Neuroinformatics Self-study, no fixed presence required.  Neuromorphic Engineering I Registration in this class requires the permission of the instructors. Class size will be limited to available lab spots. Preference is given to students that require this class as part of their major.  Information for UZH students: Enrolment to this course unit only possible at ETH. No enrolment to module INI404 at UZH. Please mind the ETH enrolment deadlines for UZH students: https://www.ethz.ch/en/studies/non- degree- courses/special- students-university-of-zurich.html Neuromorphic Engineering I Permission from lecturers required for all stu- **together with University of Zurich** The lecturers will communicate the exact les courses. Neuromorphic Engineering I Permission from lecturers required for all stu-	udents sson tim		2V+3U 2 hrs			ON LINE	W. von der Behrens V. Mante  T. Delbrück, G. Indiveri, S C. Liu  T. Delbrück, G. Indiveri, S
227-1037-00 A  227-1033-00L  227-1033-00 V  227-1033-00 U	Introduction to Neuroinformatics Self-study, no fixed presence required.  Neuromorphic Engineering I Registration in this class requires the permission of the instructors. Class size will be limited to available lab spots. Preference is given to students that require this class as part of their major.  Information for UZH students: Enrolment to this course unit only possible at ETH. No enrolment to module INI404 at UZH. Please mind the ETH enrolment deadlines for UZH students: https://www.ethz.ch/en/studies/non-degree-courses/special-students/special-students/special-students/special-students/special-students/special-students/special-students/special-students/special-students/special-students/university-of-zurich.html Neuromorphic Engineering I Permission from lecturers required for all students-university of Zurich** The lecturers will communicate the exact lectourses. Neuromorphic Engineering I Permission from lecturers required for all students-university of Zurich**	udents sson tim		2V+3U 2 hrs			ON LINE	W. von der Behrens V. Mante  T. Delbrück, G. Indiveri, S C. Liu  T. Delbrück, G. Indiveri, S

2 hrs

08-09 11-12

Fri

HG E1.2 HG E1.2

M. F. Yanik, J. Vörös

# ► Electives

Number	Title	Туре	ECTS	Hours				Lecturers
101-0151-00L	Linear Algebra	W	5 credits	3V+2U				<del>-</del>
	Lineare Algebra Vorlesung im HG F1 mit Videoübertragung Dauer jeweils bis 12:45			3 hrs	Fri	10-13	HG F1 HG F3	V. C. Gradinaru
401-0151-00 U	Lineare Algebra Groups are selected in myStudies.			2 hrs	Tue	16-18	CAB G61 CHN C14	V. C. Gradinaru
	Ubungen: Di 16-18 oder Do 16-18 für Studiengang Ele Informationstechnologie gemäss Gruppene Do 10-12 für Studiengang Rechnergestützt Übungen in den einzelnen Übungsgruppen zweiten Semesterwoche.	inteilung te Wisse	ı. enschaften.		Thu	10-12	CLA E4 ML F40 NO D11 RZ F21 CAB G56 HG F26.5	
	Zusätzlich zu den Übungen wird ein Study ( (ab der zweiten Semesterwoche, gemäss https://metaphor.ethz.ch/x/2020/hs/401-015		· ·			16-18	CHN D48 CHN G46 ETZ E8 ETZ K91 ML E12	
01-0603-00L	Stochastics (Probability and Statistics)	w	4 credits	2V+1U				
401-0603-00 V 401-0603-00 U				2 hrs 1 hrs	Mon Mon	16-18 18-19	ETA F5 HG D5.2	P. Cheridito P. Cheridito
	Groups are selected in myStudies. Mo 18-19 oder Di 12-13 gemäss Gruppener Studiengang Materialwissenschaft geht nur				Tue	12-13	HG E33.1 HG G26.5 LFW C5 ML F36	
402-0811-00L	Programming Techniques for Scientific Simulations I	W	5 credits	4G				
102-0811-00 G	Programming Techniques for Scientific Sim	ulations	1	4 hrs	Thu	14-18	HCI J3	R. Käppeli
	Introduction to Computational Physics	W	8 credits	2V+2U				
	Introduction to Computational Physics			2 hrs	Tue	10-12	HCI J7	A. Adelmann
402-0809-00 U	Introduction to Computational Physics			2 hrs	Tue	08-10	HCI J7	A. Adelmann
327-0703-00L	Electron Microscopy in Material Science	W	4 credits	2V+2U				
327-0703-00 V	Electron Microscopy in Material Science			2 hrs	Fri	08-10	HCI H2.1	K. Kunze, R. Erni, S. Gerst F. Gramm, A. Käch, F. Krumeich, M. Willinger
327-0703-00 U	Electron Microscopy in Material Science			2 hrs	Fri	12-14	HCI H2.1	K. Kunze, R. Erni, S. Gerst F. Gramm, A. Käch, F. Krumeich, M. Willinger
402-0341-00L	Medical Physics I	W	6 credits	2V+1U				
	Medical Physics I			2 hrs	Thu	16-18	HPT C103	P. Manser
402-0341-00 U	Medical Physics I			1 hrs	Thu	18-19	HPT C103	P. Manser
227-1047-00L	Consciousness: From Philosophy to Neuroscience (University of Zurich) No enrolment to this course at ETH Zurich. Book the corresponding module directly at UZH as an incoming student. UZH Module Code: INI410	W	3 credits	2V				
	Mind the enrolment deadlines at UZH: https://www.uzh.ch/cmsssl/en/studies/appli cation/deadlines.html							
227-1047-00 V	Consciousness: From Philosophy to Neuros Zurich) **Course at University of Zurich**	science	(University of	2 hrs	Thu	17-19	UNI ZH.	D. Kiper
402-0674-00L	Physics in Medical Research: From Atoms to Cells	W	6 credits	2V+1U				
	Physics in Medical Research: From Atoms t			2 hrs	Fri	14-16	HCI H8.1	B. K. R. Müller
102-0674-00 U	Physics in Medical Research: From Atoms t	to Cells		1 hrs	Fri	16-17	HCI H8.1	B. K. R. Müller
227-0427-00L	Signal Analysis, Models, and Machine Learning This course was replaced by "Introduction to Estimation and Machine Learning" and "Advanced Signal Analysis, Modeling, and Machine Learning".	W	6 credits	4G				
227-0427-00 G	Signal Analysis, Models, and Machine Learn Does not take place this semester.	ning		4 hrs				HA. Loeliger
252-0535-00L	Advanced Machine Learning	W	10 credits	3V+2U+				
050 0505 00 \/	Advanced Machine Learning			3 hrs	Thu	15-16	ETA F5 ETF E1	J. M. Buhmann, C. Cotrini Jimenez
252-0535-00 V	Freitag 8-10 HG F1 mit Videoübertragung i	110 -						

CAB G61 252-0535-00 U Advanced Machine Learning 2 hrs Wed 14-16 J. M. Buhmann, 16-18 CAB G61 C. Cotrini Jimenez

Thu 16-18 ML F34

14-16 CAB G61 252-0535-00 A Advanced Machine Learning Project Work, no fixed presence required. J. M. Buhmann, C. Cotrini Jimenez 4 hrs

► GESS Science in Perspective

see GESS Science in Perspective: Language Courses ETH/UZH

see GESS Science in Perspective: Type A: Enhancement of Reflection Capability

Recommended GESS Science in Perspective (Type B) for D-ITET

# ► Master's Thesis and Semester Papers/Seminars

#### ▶▶ Option 1: Long Master's Thesis

Number	Title	Type	ECTS	Hours		Lecturers
227-1041-01L	NSC Master's Thesis (long) and Exam (University of Zurich) No enrolment to this course at ETH Zurich. Book the corresponding module directly at UZH as an incoming student. UZH Module Code: INI503	W	45 credits	96D		
	Mind the enrolment deadlines at UZH: https://www.uzh.ch/cmsssl/en/studies/appli cation/deadlines.html					
	Only students who fulfil the following criteria are allowed to begin with their master thesis: a. successful completion of the bachelor programme; b. fulfilling of any additional requirements necessary to gain admission to the master programme.	1				
227-1041-01 D	. •	iversity (	of Zurich)	96 hrs	by appt.	R. Hahnloser

# ▶▶ Option 2: Short Master's Thesis and Semester Papers/Seminars

#### **▶▶▶** Short Master Thesis

Number	Title	Type	ECTS	Hours		Lecturers
227-1041-02L	NSC Master's Thesis (short) and Exam (University of Zurich) No enrolment to this course at ETH Zurich. Book the corresponding module directly at UZH as an incoming student. UZH Module Code: INI504	W	29 credits	62D		
	https://www.uzh.ch/cmsssl/en/studies/appli cation/deadlines.html					
	Only students who fulfil the following criteria are allowed to begin with their master thesis: a. successful completion of the bachelor programme; b. fulfilling of any additional requirements necessary to gain admission to the master programme.	a				
227-1041-02 D		iversity	of Zurich)	62 hrs	by appt.	R. Hahnloser
▶▶▶ Seme	ster Papers/Seminars					
Number	Title	Туре	ECTS	Hours		Lecturers
227-1036-01L	NSC Master Short Project I (University of Zurich) No enrolment to this course at ETH Zurich. Book the corresponding module directly at UZH as an incoming student. UZH Module Code: INI505	f W	8 credits	17A		
	Mind the enrolment deadlines at UZH: https://www.uzh.ch/cmsssl/en/studies/appli cation/deadlines.html					
227-1036-01 A	NSC Master Short Project I (University of Zo **together with University of Zurich**	urich)		17 hrs	by appt.	R. Hahnloser
227-1036-02L	NSC Master Short Project II (University of Zurich) No enrolment to this course at ETH Zurich.	w	8 credits	17A		

Book the corresponding module directly at UZH as an incoming student. UZH Module Code: INI506

Mind the enrolment deadlines at UZH: https://www.uzh.ch/cmsssl/en/studies/appli cation/deadlines.html

227-1036-02 A NSC Master Short Project II (University of Zurich)
\*\*together with University of Zurich\*\*

17 hrs by appt. R. Hahnloser

0	Compulsory	E-	Recommended, not eligible for credits
W+	Eligible for credits and recommended	Z	Courses outside the curriculum
W	Eligible for credits	Dr	Suitable for doctorate
V	lecture	P	practical/laboratory course
	lecture with exercise	A	independent project
G			diploma thesis
G U	exercise	D	diploma triesis
G U S	exercise seminar	R	revision course / private study

**ECTS** European Credit Transfer and Accumulation System

Special students and auditors need special permission from the lecturers.

# **Nuclear Engineering Master**

MSc Nuclear Engineering is a joint program of EPF Lausanne and ETH Zurich. The first semester takes place in Lausanne. Students therefore have to enroll at EPFL.

For more information about the curriculum and courses see: http://master.epfl.ch/cms/site/master/lang/en/nuclearengineering

#### **▶** Core Courses

# ▶▶ 1. Semester (EPFL)

Number	Title	Typo	ECTS	Hours	Lecturers
		Туре			Lecturer 5
151-2011-00L	Physics of Nuclear Reactors (EPFL) No enrolment to this course at ETH Zurich. Book the corresponding module directly at EPFL.	0	4 credits	3G	
151-2011-00 G	Physics of Nuclear Reactors (EPFL) **Course at EPFL**			3 hrs	external organisers
151-2013-00L	Radiation and Reactor Experiments	0	4 credits	5G	
	(EPFL) No enrolment to this course at ETH Zurich. Book the corresponding module directly at EPFL.				
151-2013-00 G	Radiation and Reactor Experiments (EPFL) **Course at EPFL**			5 hrs	external organisers
151-2015-00L	Reactor Technology (EPFL) No enrolment to this course at ETH Zurich. Book the corresponding module directly at EPFL.	0	4 credits	3 <b>G</b>	
151-2015-00 G	Reactor Technology (EPFL) **Course at EPFL**			3 hrs	A. Manera, external organisers
151-2043-00L	Radiation Biology, Protection and Applications (EPFL) No enrolment to this course at ETH Zurich. Book the corresponding module directly at EPFL.	0	4 credits	3G	
151-2043-00 G	Radiation Biology, Protection and Applicatio **Course at EPFL**	ns (EPF	FL)	3 hrs	external organisers
151-2021-00L	Hydraulic Turbomachines (EPFL) No enrolment to this course at ETH Zurich. Book the corresponding module directly at EPFL.	W	4 credits	4G	
151-2021-00 G	Hydraulic Turbomachines (EPFL) **Course at EPFL**			4 hrs	external organisers
151-2023-00L	Nuclear Fusion and Plasma Physics (EPFL) No enrolment to this course at ETH Zurich. Book the corresponding module directly at EPFL.	W	4 credits	4G	
151-2023-00 G	Nuclear Fusion and Plasma Physics (EPFL) **Course at EPFL**	1		4 hrs	external organisers
151-2025-00L	Introduction to Particle Accelerators (EPFL) No enrolment to this course at ETH Zurich. Book the corresponding module directly at EPFL.	W	4 credits	4G	
151-2025-00 G	Introduction to Particle Accelerators (EPFL) **Course at EPFL**			4 hrs	external organisers
151-2041-00L	Introduction to Medical Radiation Physics (EPFL) No enrolment to this course at ETH Zurich. Book the corresponding module directly at EPFL.	W	4 credits	3G	
151-2041-00 G	Introduction to Medical Radiation Physics (E **Course at EPFL**	PFL)		3 hrs	external organisers
151-2047-00L	Physics of Atoms, Nuclei and Elementary Particles (EPFL) No enrolment to this course at ETH Zurich. Book the corresponding module directly at EPFL.	W	4 credits	4G	

151-2049-00L Energy Conversion and Renewable

3G

3 credits

No enrollment to this course at ETH Zunch. Book the corresponding module directly at EPPL.  151-205-00L Eductive Project Nuclear Engineering Only for Nuclear Engineering Only for Nuclear Engineering MSc.  The subject of the Elective Project and the choice of the supervisor (ETH or EPPL. professor) are to be approved in advance by the station.  The subject of the Elective Project Nuclear Engineering MSc.  The subject of the Elective Project Nuclear Engineering MSc.  The subject of the Elective Project Nuclear Engineering MSc.  The subject of the Elective Project Nuclear Engineering Sc.  The subject of the Elective Project Nuclear Engineering Sc.  Education Sc.  Elective Project Nuclear Engineering Sc.  240s hrs by appl. Professors  Professors  Professors  Professors  Professors  Professors  Professors  Professors  Professors  Professors  Professors  Professors  Lecturers  A. Pautz, H. Forroukhi, further lecturers of the subject of the Engineering Sc.  A. Pautz, H. Forroukhi, further lecturers or enroll to this course directly at EPPL.  151-203-00. Nuclear Computations Lab Students registered at ETH Zunch have to enroll to this course directly of EPPL.  151-203-00. Nuclear Computations Lab Students registered at ETH Zunch have to enroll to this course directly at EPPL.  151-203-00. Nuclear Computations Lab Students registered at ETH Zunch have to enroll to this course directly at EPPL.  151-203-00. Succent Registered at ETH Zunch have to enroll to this course directly at EPPL.  151-203-00. Succent Registered at ETH Zunch have to enroll to this course directly at EPPL.  151-203-00. Succent Registered at ETH Zunch have to enroll to this course directly at EPPL.  151-203-00. September 15 the Epple and the course directly at EPPL.  151-203-00. Decommissioning of Nuclear Power Plants Suddents registered at ETH Zunch have to enroll to this course directly at EPPL.  151-2045-00. Decommissioning of Nuclear Power Plants Suddents registered at ETH Zunch have to enroll to this course directly at EPPL.  151-2045-00. Decommis	131-2049-00L	Energy (EPFL)  No enrolment to this course at ETH Zurich.  Book the corresponding module directly at EPFL.	**	3 Credits	36				
No enrollment to this course at ETH Zurich. Book the corresponding moduled idirectly at EPPL.  151-2051-00 G Radiation Delection (EPFL)  The subject of the Elective Project Nuclear Engineering MSc.  The subject of the Elective Project and the choice of the supervisor (ETH or EPFL professor) are to be approved in advance by the tutor.  The subject of the Elective Project Nuclear Engineering MSc.  The subject of the Elective Project Nuclear Engineering MSc.  The subject of the Elective Project Nuclear Engineering MSc.  The subject of the Elective Project Nuclear Engineering MSc.  The subject of the Elective Project Nuclear Engineering MSc.  The subject of the Elective Project Nuclear Engineering MSc.  The subject of the Elective Project Nuclear Engineering MSc.  To subject of the Elective Project Nuclear Engineering MSc.  The subject of the Elective Project Nuclear Engineering MSc.  To subject of the Elective Project Nuclear Engineering MSc.  The Subject of the Elective Project Nuclear Engineering MSc.  The Subject of the Elective Project Nuclear Engineering MSc.  The Subject Nucle	151-2049-00 G		(EPFL)		3 hrs				external organisers
151-2005-00L Elective Project Nuclear Engineering Only for Nuclear Engineering Mode of the Supervisor (EPFL professor) are to be approved in advance by the study.  The subject of the Elective Project and the choice of the supervisor (EPFL professor) are to be approved in advance by the study.  151-2005-00 A Belietive Project Nuclear Engineering 240s hrs by appt. Professors  151-2005-00 A Belietive Project Nuclear Engineering 240s hrs by appt. Professors  151-1015-00 C Advanced Topics in Nuclear Reactor Materials registered at ETFL Zurich have to ensure directly at EPFL.  151-1015-00 C Advanced Topics in Nuclear Reactor Materials are enroll to this course directly at EPFL.  151-1015-00 C Advanced Topics in Nuclear Reactor Materials Professors at ETFL EPFL students on enroll to this course will take place at PSI.  151-2037-00 L Nuclear Computations Lab Students and Harman and the students are enroll to this course will take place at PSI.  151-2037-00 L Nuclear Computations Lab Students and Harman and the students are enroll to this course will take place at PSI.  151-2039-00 B Students registered at ETH Zurich have to enroll to this course will take place at PSI.  151-2039-00 B Students registered at ETH Zurich have to enroll to this course will take place at PSI.  151-2039-00 C Decommissioning of Nuclear Power O Plants Students registered at ETH Zurich have to enroll to this course at ETH EPFL students can enroll to this course at ETH EPFL students can enroll to this course at ETH EPFL students can enroll to this course at ETH EPFL students can enroll to this course at ETH EPFL students can enroll to this course at ETH EPFL students can enroll to this course at ETH EPFL students can enroll to this course at ETH EPFL students can enroll to this course directly at EPFL.  151-2045-00 C Decommissioning of Nuclear Power O Plants Students registered at ETH Zurich have to enroll to this course at ETH EPFL students can enroll to this course directly at EPFL.  151-2045-00 D Ecommissioning of Nuclear Power Power O Plants	151-2051-00L	No enrolment to this course at ETH Zurich. Book the corresponding module directly at	W	3 credits	3G				
Only for Nuclear Engineering MSc.  The subject of the Elective Project and the choice of the supervisor (ETH or EPFL professors) are to be approved in advance by the future.  P> 3. Semester (PSI)  Number Title Type ECTS Hours	151-2051-00 G				3 hrs				external organisers
choice of the supervision (ETH or EPFL professor) are to be approved in advance by the tutor.  151-2005-00 A Elective Project Nuclear Engineering  Type ECTS Hours	151-2005-00L		W	8 credits	17A				
Number   Title		choice of the supervisor (ETH or EPFL professor) are to be approved in advance by the tutor.							
Number Title Type ECTS Hours Lecturers  151-0150-00L Advanced Topics in Nuclear Reactor O A credits Students registered at ETH Zurich have to enroll to this course at ETH. EPFL students can enroll to this course at ETH. EPFL students can enroll to this course will take place at PSI Students registered at ETH Zurich have to enroll to this course will take place at PSI Students registered at ETH Zurich have to enroll to this course will take place at PSI Students registered at ETH Zurich have to enroll to this course will take place at PSI Students registered at ETH Zurich have to enroll to this course will take place at PSI Students registered at ETH Zurich have to enroll to this course will take place at PSI Students registered at ETH Zurich have to enroll to this course at ETH. EPFL students can enroll to this course will take place at PSI Students registered at ETH Zurich have to enroll to this course at ETH. EPFL students can enroll to this course at ETH. EPFL students can enroll to this course at ETH. EPFL students can enroll to this course at ETH. EPFL students can enroll to this course at ETH. EPFL students can enroll to this course at ETH. EPFL students can enroll to this course at ETH. EPFL students can enroll to this course at ETH. EPFL students can enroll to this course at ETH. EPFL students can enroll to this course at ETH. EPFL students can enroll to this course at ETH. EPFL students can enroll to this course at ETH. EPFL students can enroll to the scourse directly at EPFL.  151-2045-00 G Decommissioning of Nuclear Power Plants This block course will take place at PSI.  151-2045-00 G Decommissioning of Nuclear Power Plants Place at PSI.  151-2045-00 G Decommissioning of Nuclear Power Plants Place at PSI.  151-2045-00 G Decommissioning of Nuclear Power Plants Place at PSI.  151-2045-00 G Decommissioning of Nuclear Power Plants Place at PSI.  151-2045-00 G Decommissioning of Nuclear Power Plants Place at PSI.  151-2045-00 G Decommissioning of Nuclear Power Plants Place at PSI.  151-2045-00 G Decommiss	151-2005-00 A	Elective Project Nuclear Engineering			240s hrs	by app	t.		Professors
151-0150-00L Materials Students registered at ETH Zurich have to enroll to this course at ETH. EPFL students can enroll to this course at ETH. EPFL students can enroll to this course at ETH Zurich have to enroll to this course at ETH EPFL students can enroll to this course will take place at PSI.  151-2037-00L Nuclear Computations Lab Students registered at ETH Zurich have to enroll to this course will take place at PSI.  151-2037-00L Nuclear Computations Lab Students registered at ETH Zurich have to enroll to this course at ETH. EPFL students can enroll to this course at ETH. EPFL students can enroll to this course at ETH EPFL students can enroll to this course will take place at PSI.  151-2037-00L Seyond-Design-Basis Safety This block course will take place at PSI.  151-2039-00L Seyond-Design-Basis Safety Students registered at ETH Zurich have to enroll to this course at ETH EPFL students can enroll to this course at ETH EPFL students can enroll to this course at ETH Zurich have to enroll to the course at ETH Zurich have to enroll to the course at ETH Zurich have to enroll to this course at ETH Zurich have to enroll to this course at ETH Zurich have to enroll to this course at ETH Zurich have to enroll to this course at ETH Zurich have to enroll to this course at ETH Zurich have to enroll to this course at ETH Zurich have to enroll to this course at ETH Zurich have to enroll to this course at ETH Zurich have to enroll to this course at ETH EPFL students can enroll to this course at ETH EPFL students can enroll to this course at ETH EPFL students can enroll to this course at ETH Zurich have to enroll to the course at ETH Zurich have to enroll to the course at ETH EPFL students can enroll to this course at ETH Zurich have to enroll to the course at ETH Zurich have to enroll to the course at ETH Zurich have to enroll to the course at ETH Zurich have to enroll to the course at ETH Zurich have to enroll to the course at ETH Zurich have to enroll to the course at ETH Zurich have to enroll to the course at ETH Zuric	▶► 3. Semeste	er (PSI)							
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151-2037-00  Nuclear Computations Lab		Materials Students registered at ETH Zurich have to enroll to this course at ETH. EPFL students can enroll to this course directly at EPFL.		4 credits	3 <b>G</b>				
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151-2039-00L   Beyond-Design-Basis Safety   Students registered at ETH Zurich have to enroll to this course directly at EPFL.   Students registered at ETH EVEN Safety   Students registered at ETH EVE	151-2037-00L	Students registered at ETH Zurich have to enroll to this course at ETH. EPFL students		3 credits	3 <b>G</b>				
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This block course will take place at PSI.  D. Paladino  A. Pautz, F. Leibundgut, A. Manera  D. Paladino  A. Pautz, F. Leibundgut, A. Manera  D. Pautz, F. Leibundgut, A. Manera  D. Pautz, F. Leibundgut, A. Manera  D. Pautz, F. Leibundgut, A. Manera  D. Pautz, F. Leibundgut, A. Manera  D. Pautz, F. Leibundgut, A. Manera  D. Pautz, F. Leibundgut, A. Manera  D. Pautz, F. Leibundgut, A. Manera  D. Pautz, F. Leibundgut, A. Manera  D. Pautz, F. Leibundgut, A. Manera  D. Pautz, F. Leibundgut, A. Manera  D. Pautz, F. Leibundgut, A. Manera  D. Pautz, F. Leibundgut, A. Manera  D. Pautz, F. Leibundgut, A. Manera  D. Pautz, F. Leibundgut,	151-2039-00L	Students registered at ETH Zurich have to enroll to this course at ETH. EPFL students		4 credits	3G				
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This block course will take place at PSI.  A. Manera	151-2045-00L	Plants Students registered at ETH Zurich have to enroll to this course at ETH. EPFL students		4 credits	3G				
Only for Nuclear Enginering MSc.  The subject of the Elective Project and the choice of the supervisor (ETH or EPFL professor) are to be approved in advance by the tutor.  151-2005-00 A Elective Project Nuclear Engineering  240s hrs by appt.  Professors  227-0385-10 Biomedical Imaging  Elective Project Nuclear Engineering  W 6 credits  5 hrs Mon 14-16 HG E19 Tue 13-16 HG E7  227-0965-00 Micro and Nano-Tomography of Biological Tissues  227-0965-00 G Micro and Nano-Tomography of Biological Tissues  3 hrs Mon 09-12 ETZ E9 M. Stampanoni,	151-2045-00 G				3 hrs				
choice of the supervisor (ETH or EPFL professor) are to be approved in advance by the tutor.  151-2005-00 A Elective Project Nuclear Engineering 240s hrs by appt. Professors  227-0385-10L Biomedical Imaging W 6 credits 5G  227-0385-10 G Biomedical Imaging **together with University of Zurich** 5 hrs Mon 14-16 HG E19 Tue 13-16 HG E7  227-0965-00L Micro and Nano-Tomography of Biological Tissues 3 hrs Mon 09-12 ETZ E9 M. Stampanoni,	151-2005-00L		W	8 credits	17A				
227-0385-10L Biomedical Imaging W 6 credits 5G 227-0385-10 G Biomedical Imaging **together with University of Zurich** 5 hrs Mon 14-16 HG E19 Tue 13-16 HG E7  227-0965-00L Micro and Nano-Tomography of Biological Tissues 3 hrs Mon 09-12 ETZ E9 M. Stampanoni,		choice of the supervisor (ETH or EPFL professor) are to be approved in advance							
227-0385-10 G Biomedical Imaging **together with University of Zurich**  5 hrs Mon 14-16 HG E19 Tue 13-16 HG E7  S. Kozerke, K. P. Prüssmann Tue 13-16 HG E7  227-0965-00L Micro and Nano-Tomography of Biological Tissues  227-0965-00 G Micro and Nano-Tomography of Biological Tissues  3 hrs Mon 09-12 ETZ E9 M. Stampanoni,	151-2005-00 A	Elective Project Nuclear Engineering			240s hrs	by app	t.		Professors
227-0965-00L Micro and Nano-Tomography of W 4 credits 3G Biological Tissues 227-0965-00 G Micro and Nano-Tomography of Biological Tissues 3 hrs Mon 09-12 ETZ E9 M. Stampanoni,	<b>227-0385-10L</b> 227-0385-10 G	Biomedical Imaging	W	6 credits					S. Kozerke, K. P. Prüssmann
227-0965-00 G Micro and Nano-Tomography of Biological Tissues 3 hrs Mon 09-12 ETZ E9 M. Stampanoni,	227-0965-00L	Micro and Nano-Tomography of	W	4 credits	3G				
	227-0965-00 G	_	Tissues		3 hrs	Mon	09-12	ETZ E9	

#### **▶** Electives

Course from the catalogue of Master courses ETH Zurich and EPFL. At least 4 credit points must be collected from the offer of Science in Perspective (SiP) compulsory electives at ETH Zurich or Management of Technology and Entrepreneurship at EPFL.

#### ► Industrial Internship

Number	Title	Туре	ECTS	Hours	Lecturers
151-1090-00L	Industrial Internship Access to the company list and request for	0	8 credits		

No registration required via myStudies. 151-1090-00 P Industrial Internship external organisers

Number	Title	Type	ECTS	Hours		Lecturers
151-1020-00L	Semester Project Nuclear Engineering Only for Nuclear Enginering MSc.	0	8 credits	17A		
	The subject of the Semester Project and the choice of the supervisor (ETH or EPFL professor) are to be approved in advance by the tutor.					
151-1020-00 A	Semester Project Nuclear Engineering			240s hrs	by appt.	Professors
► Master's	Thesis					
Number	Title	Туре	ECTS	Hours		Lecturers
151-1009-00L	Master's Thesis Nuclear Engineering Students who fulfill the following criteria are allowed to begin with their Master's Thesis: a. successful completion of the bachelor programme; b. fulfilling of any additional requirements necessary to gain admission to the master programme. c. successful completion of the semester project. d. completion of minimum 72 ECTS in the categories "Core Courses" and "Electives" in the Master studies and completion of 8 ECTS in the "Semester Project"  For the supervision of the Master's Thesis, the following professors can be chosen: H M. Prasser (ETHZ), M.Q. Tran (EPFL), A. Pautz (EPFL)		30 credits	64D		
151-1009-00 D	Master's Thesis Nuclear Engineering ■			900s hrs	by appt.	Supervisors
_	neering Master - Key for Type					
	Compulsory			E-	Recommended, no	•
	Eligible for credits and recommended			Z	Courses outside the	
W	Eligible for credits			Dr	Suitable for doctora	te
Key for Hours						
•	lecture			Р	practical/laboratory	course
	lecture with exercise			A	independent projec	
	exercise			D	diploma thesis	•
	seminar			R	revision course / pri	ivate study
_	colloquium			11	revision course / pr	Tato Study

Special students and auditors need special permission from the lecturers.

# **Pharmaceutical Sciences Master**

# ► Core Courses I

Number	Title	Туре	ECTS	Hours				Lecturers
<b>535-0030-00L</b> 535-0030-00 G	Therapeutic Proteins Therapeutic Proteins	0	3 credits	<b>3G</b> 3 hrs	Mon	10-13	HIL E9	C. Halin Winter, D. Neri
<b>535-0041-00L</b> 535-0041-00 G	Pharmacology and Toxicology III Pharmacology and Toxicology III Online lecture: This lecture will take place of will remain reserved on campus for students from there.			<b>2G</b> 2 hrs	Mon	14-16	HCI G3	M. Detmar, U. Quitterer
<b>535-0050-00L</b> 535-0050-00 G	Pharmacoepidemiology and Drug Safety Pharmacoepidemiology and Drug Safety	0	3 credits	<b>2G</b> 2 hrs	Fri/1	08-12	ML F36	A. Burden, S. Russmann
535-0546-00L	Patents	0	1 credit	1V				
535-0546-00 V				1 hrs	Wed/1	10-12	HCI H8.1	A. Koepf, P. Pliska
511-0000-00L	Only for MSc Pharmaceutical Sciences.	0	2 credits	1G+1S				
511-0000-00 G	Drug Discovery and Development ■  Two-day block course with group work.			14s hrs	24.11. 25.11.	10-17 08-17	HG F26.3 HG F26.3	U. Thibaut, J. Hall
535-0901-01 S	From A to Z in Drug Discovery and Develop	ment I		1 hrs	Wed/1	08-10	HCI J3	J. Hall, KH. Altmann, M. Arand, J. Scheuermann, R. Schibli, H. U. Zeilhofer
511-0007-00L	Scientific Writing and Presenting Only for Pharmaceutical Sciences MSc.	0	2 credits	2G				
511-0007-00 G	Scientific Writing and Presenting ■			2 hrs	Mon	16-18	HCI D8	J. A. Hiss, A. Burden, J. Dolenc, JC. Leroux, O. Renn, C. Steuer
► Electives	<b>1</b>							
Number	Title	Туре	ECTS	Hours				Lecturers
535-0011-00L	Drug Seminar The course is reserved for students registered in the Master's programme in Pharmacy or in Pharmaceutical Sciences	w	5 credits	98				
535-0011-00 S	Drug Seminar ■  Presentation on 4th and 5th of November 2	021		125s hrs	23.09. 04.11. 05.11.	16-18 08-18 08-18	HCI J7 HIT E51 HIT E51	A. Burden, KH. Altmann, M. Detmar, K. Eyer, C. Halin Winter, J. Hall, S D. Krämer, JC. Leroux, C. Müller, V. I. Otto, U. Quitterer, R. Schibli, C. Steuer
511-1001-00L	Biopharmacy (Crash Course) Only for Pharmaceutical Sciences MSc.	E-	2 credits	1\$				
	Obligatory course if assigned by the Admission committee.							
	Biopharmacy (Crash Course)			14s hrs	Tue/1	10-12	HCI J8	SD. Krämer
511-1002-00L	Pharmaceutical Analytics and Pharmacopeia (Crash Course) Only for Pharmaceutical Sciences MSc.  Obligatory course if assigned by the Admission committee.	E-	2 credits	18				
511-1002-00 S	Pharmaceutical Analytics and Pharmacopei	ia (Crasl	n Course)	10s hrs	by appt			C. Steuer
511-1003-00L	Gene Technology (Crash Course) Only for Pharmaceutical Sciences MSc. Obligatory course if assigned by the	E-	1 credit	1S				
511-1003-00 S	Admission committee.  Gene Technology (Crash Course)			1 hrs	Wed/1	16-18	HCI J443	J. Scheuermann
535-0423-00L	Drug Delivery and Drug Targeting	w	2 credits	1.5V				
535-0423-00 V	Drug Delivery and Drug Targeting	14.		1.5 hrs	Tue/1	13-16	HIL E9	JC. Leroux, A. Steinauer
535-0250-00L	Biotransformation of Drugs and Xenobiotics	W	1 credit	1V				
	Biotransformation of Drugs and Xenobiotics			1 hrs	Tue/1	08-10	HIL E7	SD. Krämer
<b>535-0015-00L</b> 535-0015-00 V	History of Pharmacy Geschichte der Pharmazie	W	1 credit	1V 1 hrs	Tue/1	14-16	HCI D8	S. Ruppen
535-0344-00L	From Ethnopharmacy to Molecular Pharmacognosy	W	1 credit	1V		_		
	Von Ethnopharmazie zu molekularer Pharm			1 hrs	Wed/1	10-12	HIL E8	B. Frei Haller, A. Lardos
<b>535-0310-00L</b> 535-0310-00 V	Glycobiology in Drug Development Glycobiology in Drug Development	W	1 credit	1V 1 hrs	Wed/1	14-16	HIL E8	V. I. Otto
535-0300-00L	Molecular Mechanisms of Drug Actions and Targets	W	2 credits	1V				

	Number of participants limited to 24.	_						
	Molecular Mechanisms of Drug Actions and			1 hrs	Tue/1	16-18	HPT C103	J. Scheuermann
<b>535-0021-00L</b> 535-0021-00 V	Vitamins in Health and Disease Vitamine in der Vorsorge und Therapie	W	1 credit	1V 1 hrs	Wed/1	14-16	HCI J4	C. Müller
<b>535-0360-00L</b> 535-0360-00 V	Evidence Based Phytotherapy Rationale Phytotherapie an ausgewählten B	<b>W</b> eispiele	<b>1 credit</b> n	<b>1V</b> 1 hrs	Wed/1	16-18	HCI J4	K. Berger Büter
<b>535-0137-00L</b> 535-0137-00 V	Clinical Chemistry II Clinical Chemistry II	W	1 credit	<b>1V</b> 1 hrs	Tue/1	10-12	HCI J4	M. Hersberger
<b>535-0022-00L</b> 535-0022-00 V	Computer-Assisted Drug Design Computer-Assisted Drug Design	W	1 credit	<b>1V</b> 1 hrs	Mon/1	08-10	HCI D8	S. Riniker, G. Landrum
535-0024-00L	Methods in Drug Design Complementary to the practical course "Computer-Assisted Drug Design (Practical Course)" 535-0023-00L. Compulsory for the students of the practical course, open for other interested students.	W	1 credit	1V				
535-0024-00 V	Methods in Drug Design ■  Does not take place this semester.  Block lecture  Mandatory kick-off meeting			20s hrs				G. Schneider
535-0023-00L	Computer-Assisted Drug Design (Practical Course) Limited number of participants.	W	4 credits	6P				
535-0023-00 P	Praktikum Computer-Assisted Drug Design Does not take place this semester. Block lecture Mandatory kick-off meeting	•		80s hrs				G. Schneider
► Research	n Project							
Number	Title	Туре	ECTS	Hours				Lecturers
511-0003-00L	Practical Methods in Pharmaceutical Sciences Course title until HS 2020: Research Project I	0	8 credits	17A				
511-0003-00 A	Practical Methods in Pharmaceutical Science	es		17 hrs				Lecturers
► Electives	s II							
Number	Title	Туре	ECTS	Hours				Lecturers
511-0004-00L	Research Project Course title until HS 2020: Research Project II	W	15 credits	39A				
511-0004-00 A	Research Project ■			550s hrs				Lecturers
<b>511-0005-00L</b> 511-0005-00 A	Internship Internship ■	W	10 credits	<b>31A</b> 430s hrs				Lecturers
	Consolidation Work Consolidation Work ■	W	7 credits	14A 200s hrs				Lecturers
► Master's	Thesis							
Number	Title	Туре	ECTS	Hours				Lecturers
511-0002-00L	Master's Thesis Only students who fulfill the following criteria are allowed to begin with their master thesis: a. successful completion of the bachelor programme; b. fulfilling of any additional requirements necessary to gain admission to the master	0	30 credits	40D				
511-0002-00 D	programme. Master's Thesis ■			40 hrs	by appt			Lecturers
► GESS Sc	ience in Perspective							
	see Science in Perspective: Language Courses ETH/UZH							
	see Science in Perspective: Type A: Enhancement of Reflection Capability							
	Recommended Science in Perspective (Type B) for D-CHAB							
	Inits for Additional Admission F	-				<b>.</b> -		
	purses below are only available for MSc stude				quirement	ts.		Lastonam
Number 535-0421-441	Title  Galenical Pharmacy I-II	Type E-	ECTS 4 credits	Hours 7R				Lecturers
J3J-U4Z I-AAL	Galenical Pharmacy I+II	<b>E-</b>	+ credits	ľľ				

551-0103-AA R	exchange students, (e.g., incoming exchange students, doctoral students) CANNOT enrol for this course unit. Fundamentals of Biology II: Cell Biology Self-study course. No presence required.			150s hrs	U. Kutay, Y. Barral, G. Schertler, U. Suter, S. Werner
551-0103-AAL	Fundamentals of Biology II: Cell Biology Enrolment ONLY for MSc students with a decree declaring this course unit as an additional admission requirement.  Any other students (e.g. incoming	/ E-	5 credits	11R	
551-1323-AA R	Any other students (e.g. incoming exchange students, doctoral students) CANNOT enrol for this course unit. Fundamentals of Biology II: Biochemistry a Self-study course. No presence required.	nd Mole	cular Biology	150s hrs	<b>K. Locher</b> , N. Ban, R. Glockshuber, E. Weber-Ban
551-1323-AAL	Fundamentals of Biology II: Biochemistry and Molecular Biology Enrolment ONLY for MSc students with a decree declaring this course unit as an additional admission requirement.	E-	4 credits	11R	
	Any other students (e.g. incoming exchange students, doctoral students) CANNOT enrol for this course unit. Fundamentals of Biology II: Microbiology Self-study course. No presence required.			24s hrs	J. Vorholt-Zambelli
551-0110-AAL	Fundamentals of Biology II: Microbiology Enrolment ONLY for MSc students with a decree declaring this course unit as an additional admission requirement.	E-	2 credits	2R	
406-0603-AA R	Any other students (e.g. incoming exchange students, doctoral students) CANNOT enrol for this course unit.  Stochastics (Probability and Statistics) Self-study course. No presence required.			120s hrs	M. Kalisch
406-0603-AAL	Stochastics (Probability and Statistics) Enrolment ONLY for MSc students with a decree declaring this course unit as an additional admission requirement.	E-	4 credits	9R	
376-0173-AA R	Any other students (e.g. incoming exchange students, doctoral students) CANNOT enrol for this course unit.  Physiology I+II self-study course. No presence required.			150s hrs	C. Spengler
376-0173-AAL	Physiology I+II Enrolment ONLY for MSc students with a decree declaring this course unit as an additional admission requirement.	E-	5 credits	11R	
376-0172-AA R	additional admission requirement.  Any other students (e.g. incoming exchange students, doctoral students) CANNOT enrol for this course unit.  Anatomy I+II Self-study course. No presence required.			150s hrs	D. P. Wolfer
376-0172-AAL	Enrolment ONLY for MSc students with a decree declaring this course unit as an	E-	5 credits	11R	
535-0521-AA R	Any other students (e.g. incoming exchange students, doctoral students) CANNOT enrol for this course unit.  Pharmacology and Toxicology I+II Self-study course. No presence required.			100s hrs	U. Quitterer
535-0521-AAL	Pharmacology and Toxicology I+II Enrolment ONLY for MSc students with a decree declaring this course unit as an additional admission requirement.	E-	4 credits	7R	
535-0421-AA R	exchange students (c.g. moenting) exchange students, doctoral students) CANNOT enrol for this course unit. Galenical Pharmacy Self-study course. No presence required.			100s hrs	JC. Leroux

Pharma	ceutical Sciences Master - Key for Type			
W+	Eligible for credits and recommended	Z	Courses outside the curriculum	
W	Eligible for credits	Dr	Suitable for doctorate	
E-	Recommended, not eligible for credits	0	Compulsory	
V	lecture	P	practical/laboratory course	
Key for	Hours			
G	lecture with exercise	A	independent project	
U	exercise	D	diploma thesis	
S	seminar	R	revision course / private study	
K	colloquium			

ECTS

European Credit Transfer and Accumulation System
Special students and auditors need special permission from the lecturers.

# **Pharmaceutical Sciences Bachelor**

- ► Bachelor Studies (Programme Regulations 2020)
- ▶▶ First Year Compulsory Subjects
- **▶▶▶** First Year Examinations

# ▶▶▶▶ First Year Examination Block 1

Number	Title	Type	ECTS	Hours				Lecturers
29-1001-01L	General Chemistry (for Biol./Pharm.Sc.)	0	4 credits	4V+2U				
529-1001-01 V	Allgemeine Chemie (für Biol./Pharm.Wiss./H Di 10-12 Uhr im HG F1 mit Videoübertragun Do 8-10 Uhr im HCl G3 mit Videoübertragun	ig ińs H		4 hrs	Tue Thu	10-12 08-10	HG F1 HG F3 HCI G3	J. Cvengros
529-1001-01 U	Allgemeine Chemie (für Biol./Pharm.Wiss.)	ig ilis i i	Ci Gi	2 hrs	Wed	08-10	HCI G3 HCI G7 HCI D2	J. Cvengros
	Die Übungen beginnen erst in der zweiten V und wie folgt vorgesehen: Pharma: Mi 8-10	Voche, s	sind fakultativ		Fri	08-10	HCI H8.1 HCI J4 HCI D8	
	BIOL: Fr 8-10						HIT H42 HPT C103	
29-1011-00L	Organic Chemistry I (for Biol./Pharm.Sc./HST)	0	4 credits	4G				
29-1011-00 G	Organische Chemie I (für Biol./Pharm.Wiss./ Groups are selected in myStudies.	,	es su un su ima 110	4 hrs	Wed	10-12	HCI G3 HCI G7	C. Thilgen
	Vorlesung: Mi 10-12 Uhr im HCl G3 mit Vide G7 In den ersten beiden Wochen findet auch Fr HPH G 1 statt.		0 0	I	Fri	14-16	HCI D2 HCI D4 HCI D6 HCI D8 HCI E2	
	Die Übungen beginnen in der dritten Semes wie folgt vorgesehen: Fr 14-16 oder 16-18 U						HCI E8 HCI F2 HCI F8 HCI G7 HPK D24.2 HPV G4	
						16-18	HPV G5 HCI D2 HCI D4 HCI D6 HCI D8 HCI E2 HCI E8 HCI F2 HCI F8 HCI G7	
					24.09. 01.10.	14-16 14-16	HPK D24.2 HPV G4 HPV G5 HPH G1 HPH G1	
51-0125-00L	Fundamentals of Biology I: From Molecules to the Biochemistry of Cells	0	6 credits	5G				
51-0125-00 G	Grundlagen der Biologie I: von Molekülen zu Zellen			5 hrs	Mon Thu	12-14 10-12	HCI G7 HCI G7	J. Vorholt-Zambelli, N. Bar R. Glockshuber, K. Locher,
	Vorlesung: Montag 12-14 Uhr, Donnerstag 1 Übungen: Freitag 12-13 Uhr oder 13-14 Uhr		nr 		Fri	12-13 13-14	HCI G7 HCI G7	J. Piel
•►►► First	Year Examination Block 2							
lumber	Title	Туре	ECTS	Hours				Lecturers
35-0001-00L	Introduction to Pharmaceutical Sciences I	0	2 credits	2V				
35-0001-00 V	Einführung in die Pharmazeutischen Wissen	nschafte	n I	2 hrs	Fri	08-10	HCI J3	J. Hall, KH. Altmann, A. Burden, M. Detmar, C. Halin Winter, JC. Lerous U. Quitterer, R. Schibli, H. U. Zeilhofer
01-0291-00L	Mathematics I	0	6 credits	4V+2U				
101-0291-00 V	Mathematik I Vorlesung im HG F7 mit Videoübertragung i	ins HG I	F5.	4 hrs	Mon	08-10	HG F5 HG F7	A. Caspar
					Tue	08-10	HG F5 HG F7	

401-0291-00 U	Mathematik I Groups are selected in myStudies. Di 14-16 für Studiengang Gesundheitswisse Technologie. Mi 14-16 für Studiengänge Biologie bzw. Pl Wissenschaften. StudyCenter: Steht den Studierenden am E ab 16 Uhr in Begleitung der Übungen zur V	eutische und Mittwoch	2 hrs	Tue	14-16	CHN D48 ETZ E7 ETZ E8 ETZ F91 ETZ H91 HG D5.1 HG D5.3 HG E33.3 HG G26.1	A. Caspar	
					Wed	14-16	ML H34.3 CHN D44 CHN D46 CHN D48 CHN G46 CLA E4 HG F26.5 IFW C31 ML J34.1 ML J34.3	
402-0073-00L	Physics I	0	3 credits	2V+2U				
402-0073-00 V	Physik I			2 hrs	Mon	14-16	HPH G2	T. M. Ihn
402-0073-00 U				2 hrs	Mon	16-18	HCI E2 HCI H2.1 HCP E47.2 HIL E10.1 HIT F32 HIT J51 HIT J52 HIT J53 HIT K51 HIT K52 HPK D24.2	T. M. Ihn
▶▶▶ Additi	ional First Year Courses							
Number	Title	Type	ECTS	Hours				Lecturers
535-0667-00L	Communication and Social Competences	0	1 credit	1V				
535-0667-00 V	Kommunikation und soziale Kompetenz Findet im Rahmen der Einführungsvorlesur Pharmazeutischen Wissenschaften statt.	ng in die		8s hrs				J. Stadelwieser
535-1001-00L	Laboratory Course General Chemistry (for Biology and Pharmacy) Information about the practical course will be given on the first day.  Register in myStudies as early as possible, because the fire protection courses take	0	6 credits	8P				
	place separately before the internship starts.							
535-1001-00 P	Praktikum Allgemeine Chemie (für Biol./Pha			8 hrs	Tue	13-18	HCI C191.3	S. Gruber, KH. Altmann,

535-0667-00 V	Kommunikation und soziale Kompetenz Findet im Rahmen der Einführungsvorlesung in die Pharmazeutischen Wissenschaften statt.	8s hrs				J. Stadelwieser
535-1001-00L	Laboratory Course General Chemistry (for Biology and Pharmacy) Information about the practical course will be given on the first day.	8P				
	Register in myStudies as early as possible, because the fire protection courses take place separately before the internship starts.					
535-1001-00 P	Praktikum Allgemeine Chemie (für Biol./Pharm.Wiss.) ■ Informationsveranstaltung zum Praktikum findet am 21.9.2021, nachmittags statt (Raum und Zeit werden am Begrüssungstag bekanntgegeben).  Praktikumsbetrieb ab 3. Semesterwoche: Di: 13 - 18 (Gruppe A) Do: 13 - 18 (Gruppe B)	8 hrs	Tue	13-18	HCI C191.3 HCI C191.4 HCI E374 HCI E378 HCI G198.2 HCI J190.2 HCI J192.2 HCI J194.2 HCI J196.2	<b>S. Gruber</b> , KH. Altmann, J. Hall
	Theorieunterricht zum Praktikum ab 4. Semesterwoche: Di: 14 - 16 (Gruppe B) Do: 14 - 16 (Gruppe A)		Thu	14-16 13-18	HCI J198.2 HCI J7 HCI C191.3 HCI C191.4 HCI E374 HCI E378 HCI G198.2 HCI J190.2 HCI J192.2 HCI J194.2 HCI J194.2 HCI J196.2 HCI J198.2	
			21.09.	14-16 14-17	HCI J6 HCI J7	

# **▶▶** Second Year Courses

# **▶▶▶** Core Courses

Number	Title	Туре	ECTS	Hours				Lecturers
252-0852-00L	Foundations of Computer Science	0	4 credits	2V+2U				
252-0852-00 V	Grundlagen der Informatik			2 hrs	Mon	14-16	HG F1	L. E. Fässler, M. Dahinden
	Vorlesung im HG F1 mit Videoübertragung	orlesung im HG F1 mit Videoübertragung ins HG F3.					HG F3	

252-0852-00 U	Grundlagen der Informatik Es gibt keine fixen Übungsgruppen. Stattdes Studierenden alle 2 Wochen eine Projektauf, einer Assistenzperson. Die restlichen Zeiten	2 hrs	Mon	10-12	CAB H56 CAB H57 HG E26.1 HG E26.3	L. E. Fässler, M. Dahinden		
	Bearbeitung der Projektaufgaben zur Verfüg	iung.				16-18	HG E27 CAB H56 CAB H57 HG E19	
							HG E26.1 HG E26.3	
					Wed	18-19	HG E26.3 HG E26.1 HG E26.3	
							HG E27	
		_			Fri	16-18	HG D12	
401-0643-13L		0	3 credits	2V+1U	Mod	10.12	HC E1	M Kalioah
401-0643-13 V	Statistik II (für Biologie/Biochemie – Chem. Biologie/Pharmazeutische Wiss./HST) Findet im HG F 1 mit Videoüberttragung im I	HG F 3	statt.	2 hrs	Wed	10-12	HG F1 HG F3	M. Kalisch
401-0643-13 U	Statistik II (für Biologie/Biochemie – Chem.			1 hrs	Thu	08-09	HCI H2.1	M. Kalisch
	Biologie/Pharmazeutische Wiss./HST) Groups are selected in myStudies.					09-10	HCI H8.1 HCI H2.1	
	Do 9-10, Do 12-13 oder Do 13-14 für Studiel	0 0					HCI H8.1	
	Gesundheitswissenschaften und Technologi Do 9-10 für Studiengang Biochemie – Chem		Rinlagia			10-11 11-12	HCI H2.1 HCI H2.1	
	Do 8-9, Do 10-11 oder Do 11-12. für Studien	ngang E	Biologie.			12-13	HCI J4	
	Do 8-9 oder Do 9-10 für Studiengang Pharm Wissenschaften.	nazeutis	sche				HCI J7	
	wissenschaften.					13-14	HIT H51 HCI J4	
						10 14	HCI J7	
					Fri	10-11	HIT H51	
					FII	11-12	HIT F31.2 HIT F31.2	
551-0127-00L	Fundamentals of Biology III:	0	8 credits	6G				
	Multicellularity							
551-0127-00 G	Grundlagen der Biologie III: Multizellularität			6 hrs	Mon Tue	10-12 10-12	HCI G3 HCI G3	M. Stoffel, M. Künzler, O. Y. Martin, U. Suter,
					Fri	08-10	HCI G3	S. Werner, A. Wutz, S. C. Zeeman
376-0151-00L	Anatomy and Physiology I	0	5 credits	4V				
376-0151-00 V				4 hrs	Wed	08-10	103 G85	D. P. Wolfer, K. De Bock,
	Mi 8-10h Vorlesung im Hörsaal I24 G 55 mi ins I03 G 85	t Videoi	übertragung		Thu	10-12	124 G55 HCI G3	R. Fiore, S. Meissner, L. Slomianka, C. Spengler, M. Willecke
535-0225-00L	Pharmaceutical Analytics I	0	3 credits	3G				
535-0225-00 G	Pharmazeutische Analytik I ■			3 hrs	Mon Fri	08-09 10-12	HCI J6 HPV G4	C. Steuer
	-1				- ' ' '	10-12	111 V G4	
	atory Courses							
Number		Туре	ECTS	Hours				Lecturers
529-0229-00L	Practical Course Organic Chemistry (for Students of Biology and Pharmaceutical Sciences)  Latest online enrolment is 10 days before	0	8 credits	12P				
	the beginning of the semester. Students who did not pass the first-year examinations need the lecturers' written parmission to take this course.							
529-0229-00 P	Students who did not pass the first-year examinations need the lecturers' written permission to take this course.	ırm Wis	e ) =	12 hre	Tue	13-10	HCI G290 2	C Thilgen V Vamakoshi
529-0229-00 P	Students who did not pass the first-year examinations need the lecturers' written permission to take this course.  Praktikum Organische Chemie (für Biol./Pha Permission from lecturers required for all stu Vorbesprechungstermin und weitere Informa	idents ationen	werden im	12 hrs	Tue	13-19	HCI G290.2 HCI G292.2 HCI G294.2	C. Thilgen, Y. Yamakoshi
529-0229-00 P	Students who did not pass the first-year examinations need the lecturers' written permission to take this course.  Praktikum Organische Chemie (für Biol./Pha Permission from lecturers required for all stu Vorbesprechungstermin und weitere Informa Moodle-Kurs bekanntgegeben. Arbeitsbegin.	idents ationen	werden im	12 hrs	Tue	13-19	HCI G292.2	C. Thilgen, Y. Yamakoshi
529-0229-00 P	Students who did not pass the first-year examinations need the lecturers' written permission to take this course.  Praktikum Organische Chemie (für Biol./Pha Permission from lecturers required for all stu Vorbesprechungstermin und weitere Informa Moodle-Kurs bekanntgegeben. Arbeitsbegin. Stunde (s.t.).	idents ationen in jeweii	werden im Is zur vollen	12 hrs	Tue	13-19 13-19	HCI G292.2 HCI G294.2 HCI G296.2 HCI G298.2 HCI G290.2	C. Thilgen, Y. Yamakoshi
529-0229-00 P	Students who did not pass the first-year examinations need the lecturers' written permission to take this course.  Praktikum Organische Chemie (für Biol./Pha Permission from lecturers required for all stu Vorbesprechungstermin und weitere Informa Moodle-Kurs bekanntgegeben. Arbeitsbegin Stunde (s.t.).  Further information such as date, time, and p	idents ationen in jeweil place of	werden im Is zur vollen	12 hrs			HCI G292.2 HCI G294.2 HCI G296.2 HCI G298.2 HCI G290.2 HCI G292.2	C. Thilgen, Y. Yamakoshi
529-0229-00 P	Students who did not pass the first-year examinations need the lecturers' written permission to take this course.  Praktikum Organische Chemie (für Biol./Pha Permission from lecturers required for all stu Vorbesprechungstermin und weitere Informa Moodle-Kurs bekanntgegeben. Arbeitsbegin. Stunde (s.t.).	idents ationen in jeweil place of	werden im Is zur vollen	12 hrs			HCI G292.2 HCI G294.2 HCI G296.2 HCI G298.2 HCI G290.2 HCI G292.2 HCI G294.2 HCI G296.2	C. Thilgen, Y. Yamakoshi
529-0229-00 P	Students who did not pass the first-year examinations need the lecturers' written permission to take this course.  Praktikum Organische Chemie (für Biol./Pha Permission from lecturers required for all stu Vorbesprechungstermin und weitere Informa Moodle-Kurs bekanntgegeben. Arbeitsbegin Stunde (s.t.).  Further information such as date, time, and pintroductory lecture: see Moodle course. The	idents ationen in jeweil place of	werden im Is zur vollen	12 hrs	Wed	13-19	HCI G292.2 HCI G294.2 HCI G296.2 HCI G298.2 HCI G290.2 HCI G292.2 HCI G294.2 HCI G298.2	C. Thilgen, Y. Yamakoshi
529-0229-00 P	Students who did not pass the first-year examinations need the lecturers' written permission to take this course.  Praktikum Organische Chemie (für Biol./Pha Permission from lecturers required for all stu Vorbesprechungstermin und weitere Informa Moodle-Kurs bekanntgegeben. Arbeitsbegin Stunde (s.t.).  Further information such as date, time, and pintroductory lecture: see Moodle course. The	idents ationen in jeweil place of	werden im Is zur vollen	12 hrs			HCI G292.2 HCI G294.2 HCI G296.2 HCI G298.2 HCI G290.2 HCI G292.2 HCI G294.2 HCI G296.2 HCI G298.2 HCI G290.2 HCI G292.2	C. Thilgen, Y. Yamakoshi
529-0229-00 P	Students who did not pass the first-year examinations need the lecturers' written permission to take this course.  Praktikum Organische Chemie (für Biol./Pha Permission from lecturers required for all stu Vorbesprechungstermin und weitere Informa Moodle-Kurs bekanntgegeben. Arbeitsbegin Stunde (s.t.).  Further information such as date, time, and pintroductory lecture: see Moodle course. The	idents ationen in jeweil place of	werden im Is zur vollen	12 hrs	Wed	13-19	HCI G292.2 HCI G294.2 HCI G296.2 HCI G298.2 HCI G290.2 HCI G292.2 HCI G294.2 HCI G296.2 HCI G298.2 HCI G290.2 HCI G292.2 HCI G294.2	C. Thilgen, Y. Yamakoshi
529-0229-00 P	Students who did not pass the first-year examinations need the lecturers' written permission to take this course.  Praktikum Organische Chemie (für Biol./Pha Permission from lecturers required for all stu Vorbesprechungstermin und weitere Informa Moodle-Kurs bekanntgegeben. Arbeitsbegin Stunde (s.t.).  Further information such as date, time, and pintroductory lecture: see Moodle course. The	idents ationen in jeweil place of	werden im Is zur vollen	12 hrs	Wed	13-19	HCI G292.2 HCI G294.2 HCI G296.2 HCI G298.2 HCI G290.2 HCI G294.2 HCI G296.2 HCI G298.2 HCI G290.2 HCI G290.2 HCI G290.2 HCI G292.2 HCI G296.2	C. Thilgen, Y. Yamakoshi
529-0229-00 P	Students who did not pass the first-year examinations need the lecturers' written permission to take this course.  Praktikum Organische Chemie (für Biol./Pha Permission from lecturers required for all stu Vorbesprechungstermin und weitere Informa Moodle-Kurs bekanntgegeben. Arbeitsbegin Stunde (s.t.).  Further information such as date, time, and pintroductory lecture: see Moodle course. The	idents ationen in jeweil place of	werden im Is zur vollen	12 hrs	Wed	13-19	HCI G292.2 HCI G294.2 HCI G296.2 HCI G290.2 HCI G290.2 HCI G292.2 HCI G296.2 HCI G296.2 HCI G298.2 HCI G292.2 HCI G296.2 HCI G298.2 HCI G294.2 HCI G296.2	C. Thilgen, Y. Yamakoshi
529-0229-00 P	Students who did not pass the first-year examinations need the lecturers' written permission to take this course.  Praktikum Organische Chemie (für Biol./Pha Permission from lecturers required for all stu Vorbesprechungstermin und weitere Informa Moodle-Kurs bekanntgegeben. Arbeitsbegin Stunde (s.t.).  Further information such as date, time, and pintroductory lecture: see Moodle course. The	idents ationen in jeweil place of	werden im Is zur vollen	12 hrs	Wed	13-19 13-19	HCI G292.2 HCI G294.2 HCI G296.2 HCI G290.2 HCI G290.2 HCI G292.2 HCI G296.2 HCI G296.2 HCI G296.2 HCI G296.2 HCI G296.2 HCI G296.2 HCI G296.2 HCI G296.2 HCI G298.2 HCI G298.2	C. Thilgen, Y. Yamakoshi
529-0229-00 P	Students who did not pass the first-year examinations need the lecturers' written permission to take this course.  Praktikum Organische Chemie (für Biol./Pha Permission from lecturers required for all stu Vorbesprechungstermin und weitere Informa Moodle-Kurs bekanntgegeben. Arbeitsbegin Stunde (s.t.).  Further information such as date, time, and pintroductory lecture: see Moodle course. The	idents ationen in jeweil place of	werden im Is zur vollen	12 hrs	Wed	13-19 13-19	HCI G292.2 HCI G294.2 HCI G296.2 HCI G290.2 HCI G290.2 HCI G292.2 HCI G296.2 HCI G296.2 HCI G298.2 HCI G292.2 HCI G296.2 HCI G298.2 HCI G294.2 HCI G296.2	C. Thilgen, Y. Yamakoshi
529-0229-00 P	Students who did not pass the first-year examinations need the lecturers' written permission to take this course.  Praktikum Organische Chemie (für Biol./Pha Permission from lecturers required for all stu Vorbesprechungstermin und weitere Informa Moodle-Kurs bekanntgegeben. Arbeitsbegin Stunde (s.t.).  Further information such as date, time, and pintroductory lecture: see Moodle course. The	idents ationen in jeweil place of	werden im Is zur vollen	12 hrs	Wed Thu Fri	13-19 13-19 12-18	HCI G292.2 HCI G294.2 HCI G296.2 HCI G298.2 HCI G290.2 HCI G292.2 HCI G296.2 HCI G290.2 HCI G290.2 HCI G292.2 HCI G292.2 HCI G292.2 HCI G292.2 HCI G292.2 HCI G292.2 HCI G298.2 HCI G298.2	C. Thilgen, Y. Yamakoshi
529-0229-00 P	Students who did not pass the first-year examinations need the lecturers' written permission to take this course.  Praktikum Organische Chemie (für Biol./Pha Permission from lecturers required for all stu Vorbesprechungstermin und weitere Informa Moodle-Kurs bekanntgegeben. Arbeitsbegin Stunde (s.t.).  Further information such as date, time, and pintroductory lecture: see Moodle course. The	idents ationen in jeweil place of	werden im Is zur vollen	12 hrs	Wed Thu Fri 23.09.	13-19 13-19 12-18 16-19	HCI G292.2 HCI G294.2 HCI G296.2 HCI G298.2 HCI G290.2 HCI G292.2 HCI G296.2 HCI G296.2 HCI G292.2 HCI G292.2 HCI G292.2 HCI G294.2 HCI G296.2 HCI G296.2 HCI G296.2 HCI G298.2 HCI G298.2	C. Thilgen, Y. Yamakoshi
529-0229-00 P	Students who did not pass the first-year examinations need the lecturers' written permission to take this course.  Praktikum Organische Chemie (für Biol./Pha Permission from lecturers required for all stu Vorbesprechungstermin und weitere Informa Moodle-Kurs bekanntgegeben. Arbeitsbegin Stunde (s.t.).  Further information such as date, time, and pintroductory lecture: see Moodle course. The	idents ationen in jeweil place of	werden im Is zur vollen	12 hrs	Wed Thu Fri	13-19 13-19 12-18 16-19 13-14 14-18	HCI G292.2 HCI G294.2 HCI G296.2 HCI G298.2 HCI G290.2 HCI G292.2 HCI G296.2 HCI G290.2 HCI G290.2 HCI G292.2 HCI G292.2 HCI G292.2 HCI G292.2 HCI G292.2 HCI G292.2 HCI G298.2 HCI G298.2	C. Thilgen, Y. Yamakoshi

# ► Bachelor Studies (Programme Regulations 2013)

# **▶▶** Second Year

# ▶▶▶ Second Year Core Subjects

Number	Title	Туре	ECTS	Hours				Lecturers
535-0223-00L	Pharmaceutical Analytics I Only for Pharmaceutical Sciences BSc, Programme Regulations 2013.	0	1 credit	1.5G				
535-0223-00 G	Pharmazeutische Analytik I Lehrveranstaltung im Selbststudium. Keine erforderlich. Videoaufzeichnungen des Herbstsemester Studierenden zur Verfügung gestellt.			1.5 hrs				C. Steuer
	Die Lehrveranstaltung wird zum letzten Maangeboten.	l im HS	2021					
529-1023-00L	Physical Chemistry I (for Biology and Pharmacy) Only for - Biologie BSc (Programme Regulations 2013) and - Pharmaceutical Sciences BSc (Programme Regulations 2013)	0	3 credits	2V+1U				
529-1023-00 V	Physikalische Chemie I (für Biol./Pharm.Wi Lehrveranstaltung im Selbststudium. Keine erforderlich. Videoaufzeichnungen des Herbstsemester Studierenden zur Verfügung gestellt, aber	e Anwese s 2020 v	verden den	2 hrs				R. Riek
529-1023-00 U	Physikalische Chemie I (für Biol./Pharm.Wi Lehrveranstaltung im Selbststudium. Keine erforderlich. Videoaufzeichnungen des Herbstsemester Studierenden zur Verfügung gestellt.	Anwese		1 hrs				R. Riek
	Die Lehrveranstaltung wird zum letzten Ma angeboten.	l im HS :	2021					
<b>376-0151-00L</b> 376-0151-00 V	Anatomy and Physiology I Anatomie und Physiologie I Mi 8-10h Vorlesung im Hörsaal I24 G 55 n ins I03 G 85	<b>O</b> nit Video	5 credits übertragung	<b>4V</b> 4 hrs	Wed Thu	08-10 10-12	103 G85 124 G55 HCI G3	D. P. Wolfer, K. De Bock, R. Fiore, S. Meissner, L. Slomianka, C. Spengler, M. Willecke
529-1042-00L	Analytics Only for Pharmaceutical Sciences BSc, Programme Regulations 2013.	0	2 credits	1.5G				
529-1042-00 G	Analytik Lehrveranstaltung im Selbststudium. Keine erforderlich. Videoaufzeichnungen des Herbstsemester Studierenden zur Verfügung gestellt.			1.5 hrs				to be announced
	Die Lehrveranstaltung wird zum letzten Ma angeboten.	l im HS :	2021					
551-0103-00L	Fundamentals of Biology II: Cell Biology Only for - Biologie BSc (Programme Regulations 2013), - Pharmaceutical Sciences BSc (Programme Regulations 2013) - Health Sciences and Technology BSc (Programme Regulations 2017)	0	5 credits	5V				
551-0103-00 V	Grundlagen der Biologie II: Zellbiologie Lehrveranstaltung im Selbststudium. Keine erforderlich. Videoaufzeichnungen des Herbstsemester Studierenden zur Verfügung gestellt.			5 hrs				<b>S. Werner</b> , Y. Barral, U. Kutay, G. Schertler, U. Suter, I. Zemp
	Die Lehrveranstaltung wird zum letzten Ma angeboten.	I im HS	2021	_		_		
551-1323-00L	Fundamentals of Biology II: Biochemistry and Molecular Biology Only for - Biologie BSc (Programme Regulations 2013) and - Pharmaceutical Sciences BSc (Programme Regulations 2013)	0	4 credits	4G				

Videoaufzeichnungen des Herbstsemesters 2020 werden den Studierenden zur Verfügung gestellt.

Die Lehrveranstaltung wird zum letzten Mal im HS 2021

K. Locher, N. Ban, R. Glockshuber, E. Weber-Ban

# ▶▶▶ Laboratory Courses 2nd Year

Number	Title T	Гуре	ECTS	Hours				Lecturers
529-0229-00L	Practical Course Organic Chemistry (for Students of Biology and Pharmaceutical Sciences) Latest online enrolment is 10 days before the beginning of the semester. Students who did not pass the first-year examinations need the lecturers' written permission to take this course.	)	8 credits	12P				
529-0229-00 P	Praktikum Organische Chemie (für Biol./Pharr Permission from lecturers required for all stud Vorbesprechungstermin und weitere Informati Moodle-Kurs bekanntgegeben. Arbeitsbeginn Stunde (s.t.).	lents ionen	werden im	12 hrs	Tue	13-19	HCI G290.2 HCI G292.2 HCI G294.2 HCI G296.2 HCI G298.2	C. Thilgen, Y. Yamakosh
	Further information such as date, time, and plintroductory lecture: see Moodle course. The the top of the hour (s.t.).			Wed	13-19	HCI G290.2 HCI G292.2 HCI G294.2 HCI G296.2 HCI G298.2		
					Thu	13-19	HCI G290.2 HCI G292.2 HCI G294.2 HCI G296.2 HCI G298.2	
					Fri	12-18	HCI G290.2 HCI G292.2 HCI G294.2 HCI G296.2 HCI G298.2	
					23.09. 28.09. 30.09. 01.10.	16-19 13-14 14-18 13-18	HCI G3 HCI D2 HCI E2 HCI E2	

4 hrs

#### **▶▶** Third Year

# ▶▶▶ Third Year Core Subjects

Number	Title	Type	ECTS	Hours				Lecturers
535-0230-00L	Medicinal Chemistry I	0	2 credits	2V				
535-0230-00 V	Medizinische Chemie I			2 hrs	Mon 27.09. 04.10.	10-12 10-12 10-12	HCI J3 HIL E8 HIL E8	J. Hall
535-0421-00L	Galenical Pharmacy I	0	2 credits	2G				
535-0421-00 G	Galenische Pharmazie I Unterrichtssprache: Deutsch und Englisch Language: German and English			2 hrs	Fri	10-12	HCI J7	JC. Leroux, E. Giger
535-0521-00L	Pharmacology and Toxicology I	0	2 credits	2V				
535-0521-00 V	Pharmakologie und Toxikologie I Online-Veranstaltung: Diese Lehrveranstalt grundsätzlich online statt. Die reservierten Studierenden auf dem Campus bestehen, u Lehrveranstaltung dort zu hören.	Räume l		2 hrs	Fri	08-10	HCI J7	U. Quitterer, J. Abd Alla
535-0525-00L	Pharmaceutical Cases	0	1 credit	1G				
535-0525-00 G	Pharmazeutische Fallbeispiele ■			1 hrs	Tue/2	10-12	HCI J4	<ul><li>D. Stämpfli, S. Erni,</li><li>E. Kut Bacs, P. Obrist</li></ul>
535-0333-00L	Pharmaceutical Biology	0	3 credits	2V				
535-0333-00 V	Pharmazeutische Biologie			2 hrs	Thu	10-12	HCI J6	KH. Altmann, B. Pfeiffei
535-0810-00L	Gene Technology	0	2 credits	2G				
535-0810-00 G	Gene Technology			2 hrs	Wed	10-12	HCI J6	K. Eyer, J. Scheuermann
535-0830-00L	Pharmaceutical Immunology	0	2 credits	2G				
535-0830-00 G	Pharmaceutical Immunology			2 hrs	Wed	08-10	HCI J6	<ul><li>C. Halin Winter,</li><li>V. Collado Diaz</li></ul>
535-0210-00L	Radiopharmaceutical Chemistry	0	2 credits	2V				
535-0210-00 V	Radiopharmazeutische Chemie			2 hrs	Thu	08-10	HCI J6	R. Schibli, L. Mu
535-0165-00L	Clinical Microbiology	0	1 credit	1V				
535-0165-00 V	Medizinische Mikrobiologie			1 hrs	Tue/2	08-10	HIL E7	K. Lucke

# ►► Laboratory Courses 3rd Year

Respective lectures must be attended before/together with the Laboratory Courses. Special schedule for the Laboratory Courses.

Number	Title	Туре	ECTS	Hours				Lecturers
535-0219-00L	Laboratory Course in Pharmaceutical Analytics	0	3 credits	7P				
35-0219-00 P	•			100s hrs	21.09. 22.09.	13-15 13-15	HCI G3 HCI G7	C. Steuer
3 <b>5-0166-00L</b> 335-0166-00 G	Medical Microbiology Practical Course  Praktikum Medizinische Mikrobiologie ■  Permission from lecturers required for all stu Gemäss separatem Programm	<b>O</b> udents	1 credit	1 <b>G</b> 20s hrs				A. Lehner
535-0239-00L 535-0239-00 P	Practical Course in Medicinal Chemistry Praktikum Medizinische Chemie ■ Permission from lecturers required for all stu Gemäss separatem Programm		3 credits	<b>7P</b> 100s hrs				J. Hall, M. Detmar, C. Halin Winter, J. Scheuermann
► Compens	satory Courses							
Number	Title	Туре	ECTS	Hours				Lecturers
535-0344-00L 535-0344-00 V	From Ethnopharmacy to Molecular Pharmacognosy Von Ethnopharmazie zu molekularer Pharm	<b>W</b> akognos	1 credit	1V 1 hrs	Wed/1	10-12	HIL E8	B. Frei Haller, A. Lardos
535-0015-00L	History of Pharmacy Geschichte der Pharmazie	W	1 credit	1V 1 hrs	Tue/1	14-16	HCI D8	S. Ruppen
535-0360-00L	Evidence Based Phytotherapy Rationale Phytotherapie an ausgewählten B	<b>W</b> eispiele	1 credit	1V 1 hrs	Wed/1	16-18	HCI J4	K. Berger Büter
535-0021-00L	Vitamins in Health and Disease Vitamine in der Vorsorge und Therapie	W	1 credit	1V 1 hrs	Wed/1		HCI J4	C. Müller
535-0250-00L	Biotransformation of Drugs and Xenobiotics	w	1 credit	1V				
535-0250-00 V	Biotransformation of Drugs and Xenobiotics			1 hrs	Tue/1	08-10	HIL E7	SD. Krämer
535-0310-00L 535-0310-00 V	Glycobiology in Drug Development Glycobiology in Drug Development	W	1 credit	<b>1V</b> 1 hrs	Wed/1	14-16	HIL E8	V. I. Otto
535-0300-00L	Molecular Mechanisms of Drug Actions and Targets Number of participants limited to 24.	W	2 credits	1V				
535-0300-00 V	Molecular Mechanisms of Drug Actions and	Targets		1 hrs	Tue/1	16-18	HPT C103	J. Scheuermann
535-0423-00L 535-0423-00 V	<b>Drug Delivery and Drug Targeting</b> Drug Delivery and Drug Targeting	W	2 credits	<b>1.5V</b> 1.5 hrs	Tue/1	13-16	HIL E9	JC. Leroux, A. Steinauer
535-0022-00L 535-0022-00 V		W	1 credit	1V 1 hrs	Mon/1	08-10	HCI D8	S. Riniker, G. Landrum
376-0021-00L	Materials and Mechanics in Medicine	w	4 credits	3 <b>G</b>				
376-0021-00 G	Materials and Mechanics in Medicine Groups are selected in myStudies. lecture: Di 14-16h exercises: Di 16-17h, start at the secound w	eek af ti	he semester.	3 hrs	Tue	14-16 16-17	HG F1 CHN G42 ETZ E8 HG D7.1 ML H41.1	M. Zenobi-Wong, J. G. Snedeker
	The lecturers will communicate the exact les ONLINE-exercises.	sson tim	es of the				ON LINE	
376-1305-00L	Development of the Nervous System (University of Zurich) No enrolment to this course at ETH Zurich. Book the corresponding module directly at UZH as an incoming student. UZH Module Code: BIO344  Mind the enrolment deadlines at UZH:	W	3 credits	2V				
070 4005 00 1	https://www.uzh.ch/cmsssl/en/studies/application/deadlines.html		7	0.5	N4-	00.40	145.040	Habita and the Land
376-1305-00 V	Development of the Nervous System (Unive **together with University of Zurich**	-	·	2 hrs	Mon	08-10	I15 G40	University lecturers
	One hour of self-study per week is included							
376-1305-01L	Neural Systems for Sensory, Motor and Higher Brain Functions Information for UZH students: Enrolment to this course unit only possible at ETH. No enrolment to module BIO343 at UZH.  Please mind the ETH enrolment deadlines for UZH students: https://www.ethz.ch/en/studies/non-degree-courses/special-students/special-students-university-of-zurich.html	W	3 credits	2V				

376-1305-01 V	Neural Systems for Sensory, Motor and Hig **together with University of Zurich**	gher Brai	in Functions	2 hrs	Mon 20.09.	10-12 10-12	I15 G40 I15 G40	G. Schratt, J. Bohacek, L. Filli W. von der Behrens, further lecturers
	BE AWARE: Lecture starts already on 20.0	9.2021.						
	4 hours of self-study (preparation and post- included in the course.	-study) p	er week are					
<b>376-1714-00L</b> 376-1714-00 V	Biocompatible Materials Biocompatible Materials Vorlesung 9-11h Uebungen/Gruppenarbeiten 11-12h	W	4 credits	<b>3V</b> 3 hrs	Fri	09-12	HG G3	K. Maniura, M. Rottmar, M. Zenobi-Wong
551-0313-00L	Microbiology (Part I)	W	3 credits	2V				
551-0313-00 V				2 hrs	Mon	10-12	HCI G7	<b>WD. Hardt</b> , L. Eberl, J. Piel, M. Pilhofer
<b>551-0319-00L</b> 551-0319-00 V	Cellular Biochemistry (Part I) Cellular Biochemistry (Part I)	W	3 credits	<b>2V</b> 2 hrs	Mon	14-16	HCI J3	<b>U. Kutay</b> , G. Neurohr, M. Peter, K. Weis, I. Zemp
<b>752-1003-00L</b> 752-1003-00 V	Food Chemistry II Lebensmittelchemie II	W	3 credits	<b>2V</b> 2 hrs	Thu	10-12	CAB G11	L. Nyström, S. Boulos, M. Erzinger
752-4005-00L	Food Microbiology I	W	3 credits	2V				
752-4005-00 V	Lebensmittel-Mikrobiologie I			2 hrs	Tue	10-12	HG E1.1	M. Loessner
376-2017-00L	Biomechanics of Sports Injuries and Rehabilitation	W	3 credits	2V				
376-2017-00 V	Biomechanik von Sportverletzungen und Ro	ehabilita	tion	2 hrs	Mon	16-18	HG D5.2	KU. Schmitt, J. Goldhahn
752-4009-00L	Molecular Biology of Foodborne Pathogens	W	3 credits	2V				
752-4009-00 V	Molecular Biology of Foodborne Pathogens	3		2 hrs	Thu	10-12	HG E1.2	M. Loessner, M. Schmelcher, M. Schuppler, E. Wetter Slack
<b>752-5103-00L</b> 752-5103-00 G	Functional Microorganisms in Foods Functional Microorganisms in Foods  Online event: Will primarily take place online remain blocked on campus for students to there.			<b>2G</b> 2 hrs	Wed	14-16	HG D7.1	C. Lacroix, A. Geirnaert, A. Greppi
<b>752-6101-00L</b> 752-6101-00 V	Dietary Etiologies of Chronic Disease Dietary Etiologies of Chronic Disease	w	3 credits	<b>2V</b> 2 hrs	Thu	08-10	CAB G11	M. B. Zimmermann
<b>752-6105-00L</b> 752-6105-00 V	Epidemiology and Prevention Epidemiology and Prevention	W	3 credits	<b>2V</b> 2 hrs	Wed	12-14	CHN C14	M. Puhan, R. Heusser
<b>752-5001-00L</b> 752-5001-00 V	Food Biotechnology			<b>3V</b> 3 hrs	Mon Thu	10-12 09-10	LFV E41 LFV E41	C. Lacroix, F. Constancias, B. Pugin
► GESS Sc	cience in Perspective							
	see GESS Science in Perspective: Language Courses ETH/UZH							
	see GESS Science in Perspective: Type A: Enhancement of Reflection Capability	:						
	Recommended GESS Science in Perspective (Type B) for D-CHAB.							
Pharmaceutic	cal Sciences Bachelor - Key for Type							
W+	Eligible for credits and recommended			Z	C	courses ou	tside the curric	ulum
	Eligible for credits			Dr	_	Suitable for		
E-	Recommended, not eligible for credits			0	С	Compulsory	'	
Key for Hours	<b>3</b>							
V	lecture			Р	р	ractical/lab	oratory course	
G	lecture with exercise			Α		ndependen	•	
U	exercise			D		iploma the		
S	seminar			R	re	evision cou	ırse / private st	udy
K	colloquium							
ECTS	Furnnean Credit Transfer and Accumulation	System						

ECTS European Credit Transfer and Accumulation System

Special students and auditors need special permission from the lecturers.

# **Pharmacy Master**

# ► Core Courses I

Number	Title	Type	ECTS	Hours				Lecturers
535-0011-00L	Drug Seminar	Type	5 credits	9S				Ecoturor3
535-0011-00L	The course is reserved for students registered in the Master's programme in Pharmacy or in Pharmaceutical Sciences	U	5 Credits	95				
535-0011-00 S	Drug Seminar ■  Presentation on 4th and 5th of November 2	021		125s hrs	23.09. 04.11. 05.11.	16-18 08-18 08-18	HCI J7 HIT E51 HIT E51	A. Burden, KH. Altmann, M. Detmar, K. Eyer, C. Halin Winter, J. Hall, S D. Krämer, JC. Leroux, C. Müller, V. I. Otto, U. Quitterer, R. Schibli, C. Steuer
535-0041-00L	Pharmacology and Toxicology III	0	2 credits	2G				
535-0041-00 G	Pharmacology and Toxicology III Online lecture: This lecture will take place o will remain reserved on campus for students from there.				Mon	14-16	HCI G3	M. Detmar, U. Quitterer
<b>535-0050-00L</b> 535-0050-00 G	Pharmacoepidemiology and Drug Safety Pharmacoepidemiology and Drug Safety	0	3 credits	<b>2G</b> 2 hrs	Fri/1	08-12	ML F36	A. Burden, S. Russmann
535-0030-00L	Therapeutic Proteins	0	3 credits	3 <b>G</b>				7 Barasii, Si Itassiiaiii
	Therapeutic Proteins		Jereuris	3 hrs	Mon	10-13	HIL E9	C. Halin Winter, D. Neri
535-0137-00L	Clinical Chemistry II Clinical Chemistry II	0	1 credit	<b>1V</b> 1 hrs	Tue/1	10-12	HCI J4	M. Hersberger
	<u> </u>			11115	Tue/T	10-12	110134	M. Hersberger
	urses (Clinical Subjects)	_						
Number	Title	Туре	ECTS	Hours				Lecturers
<b>535-5512-00L</b> 535-5512-00 G	Triage, Diagnostics, Therapy Support Triage, Diagnostik, Therapiebegleitung ■	0	9 credits	<b>12G</b> 168s hrs	Thu/1 Fri/1 09.11 10.12.	08-12 14-18 08-17	HG D3.2 ML E12 ML H37.1	E. Kut Bacs, S. Erni, P. Obrist, D. Petralli-Nietlispach, K. Prader-Schneiter, I. S. Vogel Kahmann, P. Wiedemeier
► Electives	<b>S</b>							
Number	Title	Туре	ECTS	Hours				Lecturers
535-0423-00L	Drug Delivery and Drug Targeting	W	2 credits	1.5V				
535-0423-00 V	Drug Delivery and Drug Targeting			1.5 hrs	Tue/1	13-16	HIL E9	JC. Leroux, A. Steinauer
535-0250-00L	Biotransformation of Drugs and Xenobiotics	W	1 credit	1V				
535-0250-00 V	Biotransformation of Drugs and Xenobiotics			1 hrs	Tue/1	08-10	HIL E7	SD. Krämer
<b>535-0546-00L</b> 535-0546-00 V	Patents Patents	W	1 credit	<b>1V</b> 1 hrs	Wed/1	10-12	HCI H8.1	A. Koepf, P. Pliska
535-0015-00L	History of Pharmacy	w	1 credit	1V				7.1.1.10 p., 1.1.1.10.10
	Geschichte der Pharmazie	•••	rorean	1 hrs	Tue/1	14-16	HCI D8	S. Ruppen
535-0344-00L	From Ethnopharmacy to Molecular Pharmacognosy	W	1 credit	1V				
535-0344-00 V	Von Ethnopharmazie zu molekularer Pharm	akogno	sie	1 hrs	Wed/1	10-12	HIL E8	B. Frei Haller, A. Lardos
535-0300-00L	Molecular Mechanisms of Drug Actions and Targets  Number of participants limited to 24.	W	2 credits	1V				
535-0300-00 V		Targets	3	1 hrs	Tue/1	16-18	HPT C103	J. Scheuermann
535-0310-00L	Glycobiology in Drug Development	W	1 credit	1V			=-	W 1 200
	Glycobiology in Drug Development	147	4 114	1 hrs	Wed/1	14-16	HIL E8	V. I. Otto
<b>535-0021-00L</b> 535-0021-00 V	Vitamins in Health and Disease Vitamine in der Vorsorge und Therapie	W	1 credit	<b>1V</b> 1 hrs	Wed/1	14-16	HCI J4	C. Müller
535-0360-00L	Evidence Based Phytotherapy	w	1 credit	1V				
535-0360-00 V	Rationale Phytotherapie an ausgewählten E	Beispiele	n	1 hrs	Wed/1	16-18	HCI J4	K. Berger Büter
<b>535-0022-00L</b> 535-0022-00 V	Computer-Assisted Drug Design Computer-Assisted Drug Design	W	1 credit	<b>1V</b> 1 hrs	Mon/1	08-10	HCI D8	S. Riniker, G. Landrum
535-0024-00L	Methods in Drug Design Complementary to the practical course "Computer-Assisted Drug Design (Practical Course)" 535-0023-00L. Compulsory for the students of the practical course, open for other interested students.	W	1 credit	1V	-			
535-0024-00 V	Methods in Drug Design ■  Does not take place this semester.  Block lecture  Mandatory kick-off meeting			20s hrs				G. Schneider

535-0023-00L Computer-Assisted Drug Design (Practical Course) Limited number of participants. 535-0023-00 P Praktikum Computer-Assisted Drug Design ■ G. Schneider 80s hrs Does not take place this semester. Block lecture Mandatory kick-off meeting Practical Pharmacy I Number Title Type **ECTS** Hours Lecturers 535-5521-00L 0 3G Therapeutic Skills I 3 credits 535-5521-00 G Therapeutic Skills I ■ 48s hrs 20.09. 10-18 ML H37.1 A. Küng Krähenmann, S. Erni, E. Kut Bacs, D. Petralli-20.09.-08-18 ML H37.1 Nietlispach, D. Stämpfli, 08.10. I. S. Vogel Kahmann, ML H37.1 08-12 23.09. P. Wiedemeier 27.09 08-16 MI H37.1 535-5522-00L Therapeutic Skills II 3 credits 3G 535-5522-00 G Therapeutic Skills II ■ 48s hrs 20.09. 10-18 ML H37.1 A. Küng Krähenmann, S. Erni, E. Kut Bacs, D. Petralli-20.09.-08-18 ML H37.1 08.10. Nietlispach, D. Stämpfli, 23.09. 08-12 ML H37.1 I. S. Vogel Kahmann, P. Wiedemeier 27.09. 08-16 ML H37.1 ► Practical Pharmacy II Number **ECTS** Hours Lecturers Type Pharmaceutical Manufacturing in Small 535-5502-00L 3 credits 5G Quantities (Compounding) 535-5502-00 G Arzneimittelherstellung in kleinen Mengen ■ 64s hrs P. G. Tiefenböck, A. Romagna Gemäss separatem Programm 535-5503-00L Institutional Pharmacy 0 2 credits 3G 535-5503-00 G Institutionelle Pharmazie ■ 40s hrs P. Wiedemeier, J. Beney, by appt. M. Lutters, I. S. Vogel Kahmann 535-5524-00L Clinical Trainings 2 credits 3G 535-5524-00 G Clinical Trainings ■ 40s hrs A. Gutzeit, D. Stämpfli, P. Wiedemeier ▶ Compensatory Courses The elective courses can be used as compensatory courses. ▶ GESS Science in Perspective see Science in Perspective: Language Courses ETH/UZH see Science in Perspective: Type A: Enhancement of Reflection Capability Recommended Science in Perspective (Type B) for D-CHAB ▶ Master's Thesis **ECTS** Number Title Type Hours Lecturers 535-0660-00L 40D Master's Thesis 30 credits Only students who fulfill the following criteria are allowed to begin with their master thesis: a. successful completion of the bachelor programme; b. fulfilling of any additional requirements necessary to gain admission to the master programme. 535-0660-00 D Master's Thesis ■ Lecturers 40 hrs by appt. ► Course Units for Additional Admission Requirements The courses below are only available for MSc students with additional admission requirements. Number **ECTS** Hours Lecturers Title Type 535-0135-AAL 2R Clinical Chemistry I 1 credit Enrolment ONLY for MSc students with a decree declaring this course unit as an additional admission requirement. Any other students (e.g. incoming exchange students, doctoral students) CANNOT enrol for this course unit. 535-0135-AA R Clinical Chemistry I 30s hrs M. Hersberger Self-study course. No presence required. 535-0440-AAL Quality Management in Pharmaceutical E-1 credit 2R

w

4 credits

6P

Enrolment ONLY for MSc students with a decree declaring this course unit as an additional admission requirement.

Any other students (e.g. incoming exchange students, doctoral students) CANNOT enrol for this course unit.

535-0440-AA R Quality Management in Pharmaceutical Business 30s hrs A. Sterchi Self-study course. No presence required.

4 credits

2 credits

5 credits

4 credits

9R

2R

11R

11R

406-0603-AAL Stochastics (Probability and Statistics) E-

Enrolment ONLY for MSc students with a decree declaring this course unit as an additional admission requirement.

Any other students (e.g. incoming exchange students, doctoral students) CANNOT enrol for this course unit.

406-0603-AA R Stochastics (Probability and Statistics)
Self-study course. No presence required.

120s hrs M. Kalisch

551-0110-AAL Fundamentals of Biology II:

Microbiology
Enrolment ONLY for MSc students with a decree declaring this course unit as an additional admission requirement.

Any other students (e.g. incoming exchange students, doctoral students) CANNOT enrol for this course unit.

551-0110-AA R Fundamentals of Biology II: Microbiology Self-study course. No presence required.

24s hrs J. Vorholt-Zambelli

551-0103-AAL Fundamentals of Biology II: Cell Biology E-

Enrolment ONLY for MSc students with a decree declaring this course unit as an additional admission requirement.

Any other students (e.g. incoming exchange students, doctoral students) CANNOT enrol for this course unit.

551-0103-AA R Fundamentals of Biology II: Cell Biology Self-study course. No presence required.

150s hrs **U. Kutay**, Y. Barral, G. Schertler, U. Suter,

S. Werner

551-1323-AAL Fundamentals of Biology II:

Biochemistry and Molecular Biology Enrolment ONLY for MSc students with a decree declaring this course unit as an additional admission requirement.

Any other students (e.g. incoming exchange students, doctoral students) CANNOT enrol for this course unit.

551-1323-AA R Fundamentals of Biology II: Biochemistry and Molecular Biology 150s hrs

Self-study course. No presence required.

E-

K. Locher, N. Ban, R. Glockshuber, E. Weber-Ban

Pharmacy Master - Key for Type

0	Compulsory	E-	Recommended, not eligible for credits
W+	Eligible for credits and recommended	Z	Courses outside the curriculum
W	Eligible for credits	Dr	Suitable for doctorate

**Key for Hours** 

V	lecture	Р	practical/laboratory course
G	lecture with exercise	Α	independent project
U	exercise	D	diploma thesis
S	seminar	R	revision course / private study
K	colloquium		

ECTS European Credit Transfer and Accumulation System

Special students and auditors need special permission from the lecturers.

# **Physics (General Courses)**

# ► Generally Accessible Seminars and Colloquia

Number	Title	Type	ECTS	Hours				Lecturers	
402-0101-00L	The Zurich Physics Colloquium	E-	0 credits	1K					
402-0101-00 K	The Zurich Physics Colloquium **together with University of Zurich**			1 hrs	Wed	16-17	HPV G4	S. Huber, A. Refregier, University lecturers	
	16:15-17:15 Uhr								
Physics (Gen	eral Courses) - Key for Type								
0	Compulsory			E-	R	ecommen	ded, not eligib	le for credits	
W+	Eligible for credits and recommended			Z	Courses outside the curriculum				
W	Eligible for credits			Dr	Suitable for doctorate				
Key for Hours	<b>.</b>								
V	lecture			Р	р	ractical/lab	oratory course	e	
G	lecture with exercise			Α	in	dependen	t project		
U	exercise			D	d	iploma the	sis		
S	seminar			R	re	evision cou	ırse / private s	tudy	
K	colloquium								

# **Physics Bachelor**

### ► First Year

Minor Courses
GESS Science in Perspective
First Year Compulsory Courses

# ► Bachelor Studies (Programme Regulations 2021)

# **▶▶** First Year Compulsory Courses

# ▶▶▶ First Year Examination Block 1

Number	Title	Type	ECTS	Hours				Lecturers
401-1261-07L	Analysis I: One Variable	0	10 credits	6V+3U				
401-1261-07 V	Analysis I: eine Variable Mi im HG F1 mit Videoübertragung ins HG	F3.		6 hrs	Mon	08-10	ETA F5 ETF E1	M. Einsiedler
	Mo und Do im ETA F 5 mit Videoübertragui	ng im E1	TFE1		Wed	08-10	HG F1 HG F3	
					Thu	08-10	ETA F5 ETF E1	
401-1261-07 U	Analysis I: eine Variable Groups are selected in myStudies. Übungen Fr 8-10 (Studiengänge Mathemat 12-14. Dritte Übungsstunde Mi 12-13 oder Mi 13-1 Gruppeneinteilung. Zusätzlich wird das StudyCenter angeboter http://studycenter.ethz.ch/	4 gemä:	• •	3 hrs ≂r	Wed	12-13	HG E33.1 HG E33.3 HG E33.5 HG F26.5 ML F34 ML F38 ML F40 ML H41.1 ML J34.1 ML J34.3 HG E33.1 HG E33.3 HG E33.5	M. Einsiedler
					Fri	08-10	HG F26.5 ML F34 ML F38 ML F40 ML H41.1 ML J34.1 ML J34.3 CAB G52	
402 4704 001	Physical		7 analika	414-211		12-14	CAB G56 CHN D44 CHN D46 CHN D48 CLA E4 ETZ H91 HG G26.3 IFW A34 IFW C31 IFW C33 LEE C104 LEE C114 LEE D101 LEE D105 LFW B3 ML J34.1 ML J34.3 ML J37.1 HCI H8.1	
<b>402-1701-00L</b> 402-1701-00 V		0	7 credits	<b>4V+2U</b> 4 hrs	Tue	10-12	HCI G7	K. Ensslin
.52 1751 00 V	Findet im HPH G1 statt mit Videoübertragu G7 und Do 14-16 ins HCl J7	ng Di 10	1-12 ins HCI	11110	Thu	14-16	HPH G1 HCI J7 HPH G1	211001111

402-1701-00 U	Physik I Zusätzlich wird das StudyCenter angeboter http://studycenter.ethz.ch/	n:		2 hrs	Thu	12-14	HCI D4 HCI D6 HCI E2 HCI E8 HCI F2 HCI J8 HCP E47.3 HCP E47.4 HIL B21 HIL D10.2 HIL D60.1 HIL E10.1 HIL E5 HIL F10.3 HIT F31.2 HIT F32 HIT H32 HIT J53 HIT K51 HIT K52 HPK D24.2 HPK D34 HPT C103	K. Ensslin
<b>252-0847-00L</b> 252-0847-00 V	Computer Science	0	5 credits	<b>2V+2U</b> 2 hrs	Tue	14-16	HG F5	R. Sasse,
	Vorlesung im HG F7 mit Videoübertragung	ins HG F	<del>-</del> 5.		100	14 10	HG F7	F. O. Friedrich Wicker
252-0847-00 U	Informatik Zusätzlich wird das StudyCenter angeboter http://studycenter.ethz.ch/	n:		2 hrs	Tue Wed	10-12	CAB G59 CHN D48 CHN E42 HG E21 HG E33.1 HG E33.5 HG F26.5 LFW C4 CHN G46 HG D3.1 HG D5.3 HG D5.1 HG D5.3 HG E21 HG E33.5 HG G26.1 HG G26.3 LFV E41 LFW E13 ML H41.1 ML H34.3	R. Sasse, F. O. Friedrich Wicker

# ▶▶▶ First Year Examination Block 2

Number	Title	Type	ECTS	Hours				Lecturers
401-1151-00L	Linear Algebra I	0	7 credits	4V+2U				
401-1151-00 V	Lineare Algebra I Vorlesung im HG F7 mit Videoübertragung	ins HG	F5.	4 hrs	Mon	10-12	HG F5 HG F7	R. Pink
					Wed	14-16	HG F5 HG F7	
401-1151-00 U	Lineare Algebra I Groups are selected in myStudies. Zusätzlich wird das StudyCenter angeboten. http://studycenter.ethz.ch/	):		2 hrs	Mon	14-16	CAB G56 CAB G59 CHN D42 CHN D48 CHN G22 HG D5.2 HG E33.1 HG E33.5 HG G26.3 IFW C31 IFW C33 LEE C104 LEE D101 LFW C11 LFW E13 ML F39 ML H41.1 ML J34.3 ML J37.1 RZ F21	R. Pink

# ► Bachelor Studies (Programme Regulations 2016)

# **▶▶** Second and Third Year Compulsory Courses

# ▶▶▶ Examination Block I

Number	Title	Type	ECTS	Hours	Lecturers
401-2303-00L	Complex Analysis	0	6 credits	3V+2U	

Groups are	theorie e selected in myStudies.			2 hrs	Fri Tue	11-12 14-16	NO C60 ETZ E6 HG E33.1 HG G26.3 IFW A32.1 LEE C104 LEE D101 LEE D105 LFW C11 ML F38 ML J34.3 NO C44 NO C6	T. H. Willwacher
401-2333-00 V Methoden 401-2333-00 U Methoden	of Mathematical Physics I der mathematischen Physik I der mathematischen Physik I e selected in myStudies.	0	6 credits	3V+2U 3 hrs 2 hrs	Wed Fri Tue	08-10 10-11 16-18	NO C60 NO C60 CAB G52 CHN G46 HG G26.3 IFW A32.1 LEE D101 LEE D105 LFW C11 ML F38 ML J34.1 ML J34.3 NO C44 NO C6	G. Felder G. Felder
	Physics III)			4V+2U 4 hrs 2 hrs	Mon Thu Thu	09-11 12-14 10-12	HPH G2 HPH G2 HCI D4 HCI F2 HCP E47.4 HIL D60.1 HIL E5 HIL F10.3 HIT F31.1 HIT F32 HIT H42 HIT J51 HIT J53 HIT J53 HIT J53 HIT J53	U. Keller U. Keller
►►► Examination E	lock II							
Number Title		Туре	ECTS	Hours				Lecturers
HPH G 3 b 402-2203-01 U Allgemeine	Mechanik Yorlesung (23.09.21) findet im H zw. HIL E 3. Mechanik		<b>7 credits</b> att, danach im	<b>4V+2U</b> 4 hrs 2 hrs	Mon Thu 23.09. Tue	12-14 14-16 14-16 08-10	HPH G3 HIL E3 HCI G7 CHN D42	R. Renner
Die Ubung	en beginnen in der 2. Semestei	rwoche.			Wed Fri	10-12	CHN D48 CHN E46 HG E33.1 LFW C1 ML F40 ML J34.1 ML J37.1 HIL C10.2	
							HPL D32 HPL D34	
►►► Examination E	lock III							
Number Title		Туре	ECTS	Hours				Lecturers
<b>402-0205-00L Quantum</b> 402-0205-00 V Quantenm	<b>Mechanics I</b> echanik I	0	10 credits	<b>3V+2U</b> 3 hrs	Tue	10-12	HPV G4	M. Gaberdiel
402-0205-00 U Quantenm Do 10-12 o	echanik I der Do 16-18			2 hrs	Thu Thu	12-13 10-12 16-18	HPV G4 HCI H8.1 HIT F31.2 HIT K52 HPK D24.2 HIL B21 HIL E10.1 HIT K51 HPK D24.2	M. Gaberdiel
► Core Courses								
	Experimental Physic	S Type	ECTS	Hours				Lecturers

402-0263-00L	Astrophysics I	w	10 credits	3V+2U				
402-0263-00 V	Astrophysics I			3 hrs	Tue	14-16	HPV G4	S. Lilly
					Wed	13-14	HPV G5	
402-0263-00 U	Astrophysics I			2 hrs	Thu	08-10	HIT J51 HIT J52	S. Lilly
							HPL D34	
					Fri	14-16	HCP E47.1	
							HIT F32	
							HIT K52	
402-0255-00L	Introduction to Solid State Physics	W	10 credits	3V+2U				
402-0255-00 V	Einführung in die Festkörperphysik			3 hrs	Thu	14-16	HPH G3	C. Degen
					Fri	13-14	HPH G3	
402-0255-00 U	Einführung in die Festkörperphysik			2 hrs	Wed	14-16	HCI E2	C. Degen
	Die Übungen beginnen in der 2. Semesterwo	oche.					HIT F31.2	-
							HIT F32	
	Mi 14-16 oder Do 8-10.						HIT H51	
					Thu	08-10	HIT F31.2	
							HIT F32	
							HIT J53	

### ► Practical Courses

Number	Title	Type	ECTS	Hours				Lecturers
402-0000-01L	Physics Lab 1 Enrollment is only possible under https://www.lehrbetrieb.ethz.ch/laborpraktik a. No registration required via myStudies. For further information visit: https://ap.phys.ethz.ch		5 credits	1V+4P				
402-0000-01 V	Only students from 3rd Semester BSc Physics on are admitted to Physics Lab 2. Physikpraktikum 1 Ehemals: Einführung in das Experimentiere	n I (AP	I)	1 hrs	Mon 27.09.	11-12 14-18	HPH G2 HPH G3	A. Eichler, M. Kroner
	Die Vorlesung beginnt in der zweiten Seme an diesem Tag ausnahmsweise von Montag 12 Uhr entfällt).							
402-0000-01 P	Physikpraktikum 1 Praktikumszeiten entweder Mo 15-19 oder i	Fr 14-18	3.	4 hrs	Mon Fri	15-19 14-18	HPP HPP	A. Eichler, M. Kroner
402-0000-09L	Physics Lab 3	0	7 credits	13P				
402-0000-09 P	Physikpraktikum 3 Montag obligatorisch. Das Praktikum ist auch Di, Mi und Fr geöffn	net.		180s hrs	Mon	09-16	HPP	M. Donegà, S. Gvasaliya

# ▶ Proseminars, Experimental and Theoretical Semester Papers

To organise a semester project take contact with one of the instructors.

Number	Title	Туре	ECTS	Hours				Lecturers
402-0210-BSL	Proseminar Theoretical Physics The number of participants is limited.	W	8 credits	<b>4S</b>				
	Proseminar Theoretical Physics (Physics Bac Permission from lecturers required for all stude First meeting will be communicated During this meeting, the list of student partice finalised, topics and tutors will be assigned. Since Proseminar presentations during the consense are often thematically linked, we suit deregistrations from the module be done by to of the semester. No shows after this will resugrade.	dents ipants v ourse o iggest i he first	will be of the that all three weeks	4 hrs	Mon	08-12	HIT F32 HIT J52	Supervisors
102-0217-BSL	Semester Project in Theoretical Physics	W	8 credits	15A				
402-0217-BS A	Semesterarbeit in theoretischer Physik (Phys Permission from lecturers required for all stud		nelor) ■	210s hrs	by appt.			Supervisors
402-0215-BSL	Experimental Semester Project in Physics	W	8 credits	15A				
402-0215-BS A	Experimentelle Semesterarbeit in Physik (Physik in Physik in Permission from lecturers required for all study	•	achelor) ■	210s hrs	by appt.			Supervisors
402-0719-BSL	Particle Physics at PSI (Paul Scherrer Institute)	W	8 credits	15P				
102-0719-00 P	Particle Physics at PSI (Paul Scherrer Institut Permission from lecturers required for all stud Usually three weeks during summer semeste on available PSI beam times. The exact date during FS. Please consult the lecturer.	dents er break		210s hrs				A. Soter, A. S. Antognini
402-0717-BSL	Particle Physics at CERN	W	8 credits	15P				
402-0717-00 P	Particle Physics at CERN ■ Permission from lecturers required for all stud	dents		210s hrs	by appt.			W. Lustermann
	Medical Physics	W	8 credits	15P				

210s hrs Mon

HPP

09-16

M. Donegà, S. Gvasaliya

#### 402-0000-10L Physics Lab 4 8 credits 15P

Prerequiste: "Physics Lab 3" completed. Before enroling in "Physics Lab 4", please enrol in "Physics Lab 3".

Enrol at most once in the course of the

Bachelor programme! 402-0000-10 P Physikpraktikum 4

Montag ist obligatorisch.

Das Praktikum ist auch Di, Mi und Fr geöffnet Wer die Vorlesungs- und Übungsbestandteile aus

Fortgeschrittenes Experimentieren I (VP I) nicht besucht hat, ist

gehalten, diese nachzuholen.

#### ► GESS Science in Perspective

#### **▶▶** Science in Perspective

see Science in Perspective: Type A: Enhancement of Reflection Capability

Recommended Science in Perspective (Type B) for D-PHYS.

#### **▶▶** Language Courses

see Science in Perspective: Language Courses ETH/UZH

# ► Additional Courses, Seminars and Colloquia

### ▶▶ First or Second Year Additional Courses

Number	Title	Type	ECTS	Hours				Lecturers
402-0351-00L	Astronomy	Z	2 credits	2V				
402-0351-00 V	Astronomie			2 hrs	Wed	10-12	HG E1.2	S. P. Quanz
401-1511-00L	Geometry	Z	3 credits	2V+1U				
401-1511-00 V	Geometrie Wird im HS 2021 letztmals angeboten.			2 hrs	Fri	14-16	HG F5	T. Ilmanen
401-1511-00 U	Geometrie Groups are selected in myStudies.			1 hrs	Mon/2w	16-18	CHN G42 CLA E4 LEE D101	T. Ilmanen

#### ▶▶ Additional Courses (from Second Year Mathematics Bachelor)

Number	Title	Type	ECTS	Hours				Lecturers
401-2003-00L	Algebra I The two-semester course Algebra I / Algebra II is offered for the last time in its current version in the Autumn Semester 2021 / Spring Semester 2022.	Z	7 credits	4V+2U				
401-2003-00 V	Algebra I			4 hrs	Wed Fri	14-16 08-10	HG G5 HG G5	L. Halbeisen
401-2003-00 U	Algebra I Groups are selected in myStudies.			2 hrs	Wed	16-18	HG D5.2 HG E33.3 HG F26.5 HG G26.5 LFW C1	L. Halbeisen

#### ▶▶ Seminars and Colloquia

Number	Title	Type	ECTS	Hours				Lecturers
402-0101-00L	The Zurich Physics Colloquium	E-	0 credits	1K				
402-0101-00 K	The Zurich Physics Colloquium  **together with University of Zurich**			1 hrs	Wed	16-17	HPV G4	S. Huber, A. Refregier, University lecturers
	16:15-17:15 Uhr							
402-0800-00L	The Zurich Theoretical Physics Colloquium	E-	0 credits	1K				
402-0800-00 K	The Zurich Theoretical Physics Colloquium **together with University of Zurich** More information at: https://studentservices.uzh.ch/uzh/anonym/language=DE&sap-ui-language=DE#/details/2021/003/SM/500	/vvz/inde	ex.html?sap-	1 hrs	Mon	17-18	HIT H42 I16 G05	University lecturers
	The Colloquium takes place on selected Mo academic semester on the Irchel Campus o Hönggerberg Time: 16:45h							
401-5330-00L	Talks in Mathematical Physics	E-	0 credits	1K				

401-5330-00 K	Talks in Mathematical Physics **together with University of Zurich**			1 hrs	Thu	15-17	HG G43	P. E. Y. Bousseau, A. Cattaneo, G. Felder, M. Gaberdiel, G. M. Graf, T. H. Willwacher
	Solid State Physics Solid State Physics	E-	0 credits	<b>1S</b> 1 hrs	Thu	18-19	HPF G6	A. Zheludev, C. Degen, K. Ensslin, D. Pescia, M. Sigrist, A. Wallraff
	Laser Seminar Laser Seminar	E-	0 credits	<b>1S</b> 1 hrs	Mon	18-19	HPF G6	T. Esslinger, J. Faist, J. Home, U. Keller, F. Merkt, H. J. Wörner
402-0600-00L	Nuclear and Particle Physics with Applications	E-	0 credits	<b>2</b> S				
402-0600-00 S	Nuclear and Particle Physics with Application Durchführung nach Vereinbarung	ons		2 hrs	Tue	18-20	HPK D24.2	<b>A. Rubbia</b> , G. Dissertori, K. S. Kirch, R. Wallny
<b>402-0893-00L</b> 402-0893-00 S	Particle Physics Seminar Particle Physics Seminar **together with University of Zurich** More information at: https://studentservices.uzh.ch/uzh/anonym/language=DE&sap-ui-language=DE#/details/2021/003/SM/5003		0 credits	<b>1S</b> 1 hrs	Tue	11-13	UNI	T. K. Gehrmann
402-0700-00L	Seminar in Elementary Particle Physics Special Students UZH must book the modu. PHY463 directly at UZH.		0 credits	1S				
402-0700-00 S	Seminar in Elementary Particle Physics **together with University of Zurich**			1 hrs				M. Spira, University lecturers
	gemäss Ankündigung auf https://www.psi.cl colloquia	h/en/ltp/i	thursday-					
402-0746-00L	Seminar: Particle and Astrophysics (Aktuelles aus der Teilchen- und Astrophysik)	E-	0 credits	18				
402-0746-00 S	Seminar: Particle and Astrophysics (Aktuelle und Astrophysik) **together with University of Zurich** More information at: https://studentservices.uzh.ch/uzh/anonym/language=DE&sap-ui-language=DE#/details/2021/003/SM/500	'vvz/inde		1 hrs	Mon Tue	14-16 14-16	UNI ZH. UNI ZH.	University lecturers
	The course takes place at UZH Irchel Y35 F	<del>-</del> 32						
<b>402-0300-00L</b> 402-0300-00 S	IPA Colloquium IPA Colloquium	E-	0 credits	<b>1S</b> 1 hrs	Tue/2w	16-17	HIT H42	A. Biland, A. Refregier, H. M. Schmid, further lecturers
<b>402-0530-00L</b> 402-0530-00 S	Mesoscopic Systems Mesoscopic Systems	E-	0 credits	<b>1S</b> 1 hrs	Fri	11-12	HPF E6	T. M. Ihn
227-0980-00L	Seminar on Biomedical Magnetic Resonance	E-	0 credits	1S				
227-0980-00 S	Seminar on Biomedical Magnetic Resonance	e		1 hrs	Thu	12-13	ETZ E6	<b>K. P. Prüssmann</b> , S. Kozerke, M. Weiger Senften
227-1043-00L	Neuroinformatics - Colloquia (University of Zurich) No enrolment to this course at ETH Zurich. Book the corresponding module directly at UZH as an incoming student. UZH Module Code: INI701	E-	0 credits	1K				
	Mind the enrolment deadlines at UZH: https://www.uzh.ch/cmsssl/en/studies/appli cation/deadlines.html							
227-1043-00 K	Neuroinformatics - Colloquia (University of Z **Course at University of Zurich**	Zurich)		1 hrs	Fri	16-17	UNI ZH.	<b>SC. Liu</b> , R. Hahnloser, V. Mante
	Location: please see VVZ UZH							
402-0396-00L	Recent Research Highlights in	E-	0 credits	1S				
	Astrophysics (University of Zurich) No enrolment to this course at ETH Zurich. Book the corresponding module directly at UZH as an incoming student. UZH Module Code: AST006							
	No enrolment to this course at ETH Zurich. Book the corresponding module directly at UZH as an incoming student.				Thu		UNI ZH.	

# ► Selection of Higher Semester Courses

Number	Title	Туре	ECTS	Hours				Lecturers
	Electives (Physics Master)							
402-0811-00L	Programming Techniques for Scientific Simulations I	W	5 credits	4G				
402-0811-00 G	Programming Techniques for Scientific Sim	ulations	1	4 hrs	Thu	14-18	HCI J3	R. Käppeli
402-0713-00L	Astro-Particle Physics I	W	6 credits	2V+1U				
402-0713-00 V	Astro-Particle Physics I Online event: Will primarily take place online remain blocked on campus for students to fi there.			2 hrs	Thu	14-16	HIT F32	A. Biland
402-0713-00 U	Astro-Particle Physics I or by appointment			1 hrs	Thu	16-17	HIT F32 HIT H51	A. Biland
	Online event: Will primarily take place online remain blocked on campus for students to futhere.			II				
402-0737-00L	Energy and Sustainability in the 21st Century (Part I)	W	6 credits	2V+1U				
402-0737-00 V	Energy and Sustainability in the 21st Centur	ry (Part	I)	2 hrs	Fri	09-11	HIT F32	P. Morf
402-0737-00 U	Energy and Sustainability in the 21st Centur	ry (Part	1)	1 hrs	Fri 24.09.	11-12 08-12	HIT F32 HIT F12	P. Morf
402-0461-00L	Quantum Information Theory	W	8 credits	3V+1U				
402-0461-00 V	Quantum Information Theory			3 hrs	Wed	10-12	HPV G4	P. Kammerlander
402-0461-00 U	Quantum Information Theory			1 hrs	Thu Thu	14-15 15-16	HPV G4 HCI J4	P. Kammerlander
							HPV G4	
402-0580-00L	Superconductivity	W	6 credits	2V+1U				
402-0580-00 V	'			2 hrs	Mon	14-16	HPV G5	V. Geshkenbein
402-0580-00 U	Superconductivity			1 hrs	Mon Wed	16-17 12-13	HIL F10.3 HIL F10.3	V. Geshkenbein
402-0674-00L	Physics in Medical Research: From Atoms to Cells	W	6 credits	2V+1U				
102-0674-00 V	Physics in Medical Research: From Atoms t			2 hrs	Fri	14-16	HCI H8.1	B. K. R. Müller
402-0674-00 U	Physics in Medical Research: From Atoms t	o Cells		1 hrs	Fri	16-17	HCI H8.1	B. K. R. Müller
227-1037-00L	Introduction to Neuroinformatics	W	6 credits	2V+1U+1	Α			
227-1037-00 V	Introduction to Neuroinformatics			2 hrs	Thu	08-10	NO C60	V. Mante, M. Cook, B. Grewe G. Indiveri, D. Kiper, W. von der Behrens
227-1037-00 U	Introduction to Neuroinformatics			1 hrs	Thu	10-11	NO C60	V. Mante, M. Cook, B. Grewe G. Indiveri, D. Kiper, W. von der Behrens
227-1037-00 A	Introduction to Neuroinformatics Self-study, no fixed presence required.			1 hrs				V. Mante
401-3531-00L	Differential Geometry I At most one of the three course units	W	10 credits	4V+1U				
	(Bachelor Core Courses) 401-3461-00L Functional Analysis I 401-3531-00L Differential Geometry I							
	401-3601-00L Probability Theory can be recognised for the Master's degree							
	in Mathematics or Applied Mathematics. In this case, you cannot change the category assignment by yourself in myStudies but							
	must take contact with the Study Administration Office (www.math.ethz.ch/studiensekretariat) after							
	having received the credits.							
401-3531-00 V	•			4 hrs	Mon Wed	14-16 14-16	ML H44 HG E5	J. Serra
401-3531-00 U	Differential Geometry I			1 hrs	Thu	13-14	HG E22	J. Serra
	Groups are selected in myStudies. Thu 13-14 or Thu 16-17 or Fri 13-14				Fri	16-17 13-14	IFW C31 HG F3	
101-3461-00L	Functional Analysis I At most one of the three course units	W	10 credits	4V+1U				
	(Bachelor Core Courses) 401-3461-00L Functional Analysis I 401-3531-00L Differential Geometry I 401-3601-00L Probability Theory							
	can be recognised for the Master's degree in Mathematics or Applied Mathematics. In this case, you cannot change the category							
	assignment by yourself in myStudies but must take contact with the Study Administration Office (www.math.ethz.ch/studiensekretariat) after							
	(www.matn.etnz.cn/studiensekretariat) after having received the credits.							

401-3461-00 V	Functional Analysis I		4 hrs	Mon	10-12	HG D7.1	J. Teichmann
401-3461-00 U	Functional Analysis I		1 hrs	Thu Mon	14-16 09-10	HG G5 HG G26.1	J. Teichmann
	Groups are selected in myStudies.					HG G26.5 ML J34.1	
01-3601-00L	Probability Theory W	/ 10 cre	dits 4V+1U				
	At most one of the three course units						
	(Bachelor Core Courses)						
	401-3461-00L Functional Analysis I						
	401-3531-00L Differential Geometry I						
	401-3601-00L Probability Theory						
	can be recognised for the Master's degree						
	in Mathematics or Applied Mathematics. In						
	this case, you cannot change the category						
	assignment by yourself in myStudies but must take contact with the Study						
	Administration Office						
	(www.math.ethz.ch/studiensekretariat) after						
	having received the credits.						
104 0004 00 1/	9		4 1	<b>T</b>	40.40	110 D4 0	14/ 14/
101-3601-00 V	Probability Theory		4 hrs	Tue Thu	10-12 10-12	HG D1.2 HG E3	W. Werner
104 2604 00 11	Drobobility Theory		1 bro	Tue	14-15	HG F26.5	W. Werner
101-3001-00 0	Probability Theory Groups are selected in myStudies.		1 hrs	rue	14-15	ML H41.1	vv. vverner
	Tue 14-15 or Tue 15-16 starting in the second	d week of the			15-16	HG F26.5	
	semester.	week of the			13-10	ML H41.1	
104 0004 001			124 437 411			=	
401-3621-00L		/ 10 cre		_			
401-3621-00 V	Fundamentals of Mathematical Statistics		4 hrs	Tue	08-10	HG E5	S. van de Geer
404 0004 00 11	For demonstrate of Mathematical Obstiction		4 5	Wed	10-12	HG E7	0 de 0
101-3621-00 U	Fundamentals of Mathematical Statistics		1 hrs	Tue	12-13	HG D7.1 HG E7	S. van de Geer
						TIG L7	
102-0247-00L	Electronics for Physicists I (Analogue) W Number of participants limited to 40.	/ 4 cred	its 2V+2P				
100 00 17 00 1/			0.5	<b>-</b> :	4440	LIDT O400	0 Bi W F
402-0247-00 V	Electronics for Physicists I (Analogue)		2 hrs	Fri	14-16	HPT C103	G. Bison, W. Erdmann
400 00 4 <b>7</b> 00 <b>D</b>	Fr 13:45-17:30 (Vorlesung und Praktikum)		0.1	<b>-</b> ·	40.40	LIDT O400	0 D: W F I
402-0247-00 P	Electronics for Physicists I (Analogue) Fr 13:45-17:30 (Vorlesung und Praktikum)		2 hrs	Fri	16-18	HPT C103	G. Bison, W. Erdmann
	Fr 13.45-17.30 (Vonesung und Praktikum)						
402-0010-00L	Basics of Computing Environments for Z	0 cred	its				
	Scientists						
	Enrollment is only possible under https://www.lehrbetrieb.ethz.ch/laborpraktik						
	a						
	No registration required via myStudies.						
	The registration required via my etadios.						
	Introduction:						
	- IT at D-PHYS (Herzog): 29.9. 1300						
	- IT at D-PHYS 2. Termin (Herzog): 7.10.						
	1300						
	Modules:						
	- Linux Basics I (Müller): 13.10. 1300						
	- Linux Basics II (Müller): 20.10. 1300 - Python Ecosystem I (Becker): 27.10.						
	1300						
	- Python Ecosystem II (Becker): 3.11. 1300						
	- System Aspects (Herzog): 10.11. 1300						
102-0010-00 V	Basics of Computing Environments for Scientis	sts	2s hrs	29.09.	13-14	HPV G4	
					13-14	HPV G4	
hysics Bach	nelor - Key for Type						
V+	Eligible for credits and recommended		Z	C	OURSES OU	tside the curric	ılum
	Eligible for credits		Dr	_	uitable for		
			0	-			
Ē-	Recommended, not eligible for credits		0		ompulsory	•	
(ey for Hours							
/	lecture		P	рі	ractical/lab	oratory course	
3	lecture with exercise		Α	in	dependen	t project	
_	lecture with exercise exercise		A D		dependen		
J				di	ploma the		udy
J S	exercise		D	di	ploma the	sis	udy

#### ECTS European Credit Transfer and Accumulation System

Special students and auditors need special permission from the lecturers.

# **Physics TC**

Detailed information on the programme at: www.didaktischeausbildung.ethz.ch

### ► Educational Science

General course offerings in the category Educational Science are listed under "Programme: Educational Science for Teaching Diploma and TC".

Number	Title		ECTS	Hours				Lecturers
351-0240-00L	Human Learning (EW1) This lecture is only apt for students who intend to enrol in the programs "Teaching Diploma" or "Teaching Certificate". It is about learning in childhood and adolescence.	0	2 credits	2V				
351-0240-00 V	Menschliches Lernen (EW1)			2 hrs	Tue	18-20	HG F1	E. Stern
351-0240-22L	Coping with Psychosocial Demands of Teaching (EW4 DZ)  Number of participants limited to 20.	W	2 credits	3\$				
	The successful participation in EW1 ("Human Learning") and EW2 ("Designing Learning Environments for School") is recommended, but not a mandatory prerequisite.							
351-0240-22 S	Bewältigung psychosozialer Anforderungen DZ) ■	im Leh	rberuf (EW4	3 hrs	Tue	09-12	HG E33.1 HG F26.5 HG G26.1	<ul><li>U. Markwalder, S. Maurer,</li><li>S. Peteranderl</li></ul>
851-0242-06L	Cognitively Activating Instructions in MINT Subjects Enrolment only possible with matriculation in Teaching Diploma or Teaching Certificate (excluding Teaching Diploma Sport).	W	2 credits	2\$				
	This course unit can only be enrolled after successful participation in, or during enrollment in the course "Human Learning (EW 1)".							
351-0242-06 S	Kognitiv aktivierender Unterricht in den MIN Unregelmässige Lehrveranstaltung; für eine Semesterplanung wird um frühe Anmeldung Erscheinen zum ersten Lehrveranstaltungs	e reibung g und pe	gslose ersönliches	2 hrs	Wed	18-20	ML H41.1	R. Schumacher
51-0242-07L	Human Intelligence Enrolment only possible with matriculation in Teaching Diploma or Teaching Certificate (excluding Teaching Diploma Sport). Number of participants limited to 30. This course unit can only be enrolled after successful participation in, or during enrollment in the course "Human Learning (EW 1)".	w	1 credit	18				
51-0242-07 S	Menschliche Intelligenz Unregelmässige Lehrveranstaltung. An zwei Terminen findet die Lehrveranstalt TeilnehmerInnen statt und an den übrigen einem Teil der Studierenden (Kleingruppen gemeinsam vereinbart.	Termine	n nur mit	14s hrs	Wed	16-18	ML F40	E. Stern
51-0242-08L	Research Methods in Educational Science Number of participants limited to 30 This course unit can only be enrolled after successful participation in, or during enrollment in the course "Human Learning (EW 1)".	W	1 credit	2\$				
851-0242-08 S	Forschungsmethoden der empirischen Bildi Unregelmässige Lehrveranstaltung.	ungsfors	schung	21s hrs	Wed	12-15	LFW C1	<b>P. Edelsbrunner</b> , T. Braas, C. M. Thurn
	Zwei obligatorische Präsenztermine: 29.09. An den übrigen Terminen nur mit einem Te (jeweils mit 1-2 Kleingruppen).							
351-0242-11L	<b>Gender Issues In Education and STEM</b> Number of participants limited to 30.	W	2 credits	2\$				
	Enrolment only possible with matriculation in Teaching Diploma or Teaching Certificate (excluding Teaching Diploma Sport).							
	Prerequisite: students should be taking the course 851-0240-00L Human Learning (EW1) in parallel, or to have successfully completed it.							

2 hrs Thu 10-12 LEE C114

**M. Berkowitz Biran**, T. Braas, C. M. Thurn

► Subject Didactics and Professional Training

Important: You can only enrol in the courses of this category if you have not more than 12 CP left for possible additional requirements.

Number	Title	Type	ECTS	Hours				Lecturers
402-0910-00L	Physics Didactics I: Special Didactics of Physics Teaching Limited number of participants. Further information is available from the lecturer via email: mamohr@ethz.ch	0	4 credits	3 <b>G</b>				
	Simultaneous enrolment in Introductory Internship Physics - course 402-0920-00L - is compulsory for Teaching Diploma Physic							
	Information for UZH students: Enrolment to this course unit only possible at ETH. No enrolment to module 090Phy1 at UZH.							
	Please mind the ETH enrolment deadlines for UZH students: https://www.ethz.ch/en/studies/non-degree-							
	courses/special- students/special- students-university-of-zurich.html							
102-0910-00 G	Fachdidaktik Physik I: Spezielle Didaktik de **gemeinsam mit der Universität Zürich**	s Physik	unterrichts =	3 hrs	Thu	15-18	Ex tern	M. Mohr
	Zeit: Wöchentlich 15:30-18:00 Ort: Kantonsschule Zürcher Oberland, Sche Wetzikon, Zimmer 2.24	ellerstras	sse 18, 8620					
	Blockveranstaltung am 7.10. Daten: keine Veranstaltung am 14.10. und 2 schriftliche Anmeldung bis 31.8.	21.10.						
402-0915-00L	Teaching Internship Including Examination Lessons Physics Teaching Internship Physics for TC, Repetition of the Teaching Internship is excluded even if Examination Lessons are to be repeated.	0	4 credits	9P				
402-0915-00 P	Unterrichtspraktikum mit Prüfungslektionen Permission from lecturers required for all stu	•	•	120s hrs	by appt.			M. Mohr
402-0917-00L	Mentored Work Subject Didactics Physics A Mentored Work Subject Didactics in Physics for TC and Teaching Diploma.	0	2 credits	4A				
402-0917-00 A	Mentorierte Arbeit Fachdidaktik Physik A für Permission from lecturers required for all str		I Lehrdiplom ■	60s hrs	by appt.			G. Schiltz, A. Vaterlaus
<ul><li>Specializ</li></ul>	ed Courses in Respective Subj	ect wi	th Educati	ional Fo	cus			
Number	Title	Туре	ECTS	Hours				Lecturers
102-0737-00L	Energy and Sustainability in the 21st Century (Part I)	W	6 credits	2V+1U				
	Energy and Sustainability in the 21st Centur Energy and Sustainability in the 21st Centur	•	•	2 hrs 1 hrs	Fri Fri 24.09.	09-11 11-12 08-12	HIT F32 HIT F32 HIT F12	P. Morf P. Morf
402-0922-00L	Mentored Work Specialised Courses in Physics with an Educational Focus A Mentored Work Specialised Courses in the Respective Subject with an Educational Focus in Physics for TC and Teaching Diploma.	0	2 credits	4A				
402-0922-00 A	Mentorierte Arbeit Fachwissenschaftliche Vor Fokus Physik A für DZ und Lehrdiplom ■ Permission from lecturers required for all sta		g mit pädag.	60s hrs	by appt.	•		G. Schiltz, A. Vaterlaus
	Physics in the Smartphone Physics in the Smartphone	W	6 credits	<b>3G</b> 3 hrs				M. Sigrist
	Does not take place this semester.							
402-0505-00L 402-0505-00 G 402-0247-00L	Does not take place this semester.	w	4 credits	2V+2P				
402-0505-00 G 402-0247-00L	Does not take place this semester.  Electronics for Physicists I (Analogue) Number of participants limited to 40.  Electronics for Physicists I (Analogue) Fr 13:45-17:30 (Vorlesung und Praktikum)	W	4 credits	2V+2P 2 hrs 2 hrs	Fri Fri	14-16 16-18	HPT C103	G. Bison, W. Erdmann G. Bison, W. Erdmann

Physics	TC - Key for Type			
W+	Eligible for credits and recommended	Z	Courses outside the curriculum	
W	Eligible for credits	Dr	Suitable for doctorate	
E-	Recommended, not eligible for credits	0	Compulsory	
Key for	Hours			
.,	Hours lecture	P	practical/laboratory course	
V		P   A	practical/laboratory course independent project	
V G	lecture	'		
Key for V G U S	lecture lecture with exercise	A	independent project	

ECTS European Credit Transfer and Accumulation System

Special students and auditors need special permission from the lecturers.

# **Physics Teaching Diploma**

Detailed information on the programme at: www.didaktischeausbildung.ethz.ch

#### **▶** Educational Science

Course offerings in the category Educational Science are listed under "Programme: Educational Science for Teaching Diploma and TC".

Number	Title	Type	ECTS	Hours				Lecturers
851-0242-06L	Cognitively Activating Instructions in MINT Subjects Enrolment only possible with matriculation in Teaching Diploma or Teaching Certificate (excluding Teaching Diploma Sport).	W	2 credits	2\$				
	This course unit can only be enrolled after successful participation in, or during enrollment in the course "Human Learning (EW 1)".							
851-0242-06 S	Kognitiv aktivierender Unterricht in den MIN Unregelmässige Lehrveranstaltung; für eine Semesterplanung wird um frühe Anmeldung Erscheinen zum ersten Lehrveranstaltungst	e reibung g und pe	gslose ersönliches	2 hrs	Wed	18-20	ML H41.1	R. Schumacher
851-0242-07L	Human Intelligence Enrolment only possible with matriculation in Teaching Diploma or Teaching Certificate (excluding Teaching Diploma Sport). Number of participants limited to 30. This course unit can only be enrolled after successful participation in, or during enrollment in the course "Human Learning (EW 1)".	W	1 credit	1\$				
851-0242-07 S	Menschliche Intelligenz Unregelmässige Lehrveranstaltung. An zwei Terminen findet die Lehrveranstalte TeilnehmerInnen statt und an den übrigen Teilnem Teil der Studierenden (Kleingruppen, gemeinsam vereinbart.	Termine.	n nur mit	14s hrs	Wed	16-18	ML F40	E. Stern
851-0242-08L	Research Methods in Educational Science Number of participants limited to 30 This course unit can only be enrolled after successful participation in, or during enrollment in the course "Human Learning (EW 1)".	W	1 credit	2\$				
851-0242-08 S	Forschungsmethoden der empirischen Bildt Unregelmässige Lehrveranstaltung. Zwei obligatorische Präsenztermine: 29.09. An den übrigen Terminen nur mit einem Tei (jeweils mit 1-2 Kleingruppen).	und 17.	.11.	21s hrs	Wed	12-15	LFW C1	P. Edelsbrunner, T. Braas, C. M. Thurn
851-0242-11L	Gender Issues In Education and STEM Number of participants limited to 30.  Enrolment only possible with matriculation in Teaching Diploma or Teaching	W	2 credits	2\$				
	Certificate (excluding Teaching Diploma Sport).  Prerequisite: students should be taking the course 851-0240-00L Human Learning (EW1) in parallel, or to have successfully completed it.							
851-0242-11 S	Gender Issues In Education and STEM			2 hrs	Thu	10-12	LEE C114	<b>M. Berkowitz Biran</b> , T. Braas, C. M. Thurn
	see Educational Science Teaching Diploma	!						

# ► Subject Didactics in Physics

Important: You can only enrol in the courses of this category if you have not more than 12 CP left for possible additional requirements.

•	-	•		•	•
Number	Title	Туре	ECTS	Hours	Lecturers
402-0910-00L	Physics Didactics I: Special Didactics of Physics Teaching Limited number of participants. Further information is available from the lecturer via email: mamohr@ethz.ch	0	4 credits	3G	
	Simultaneous enrolment in Introductory Internship Physics - course 402-0920-00L - is compulsory for Teaching Diploma Physic				
	Information for UZH students: Enrolment to this course unit only possible at ETH. No enrolment to module 090Phy1				

at UZH. Please mind the ETH enrolment deadlines for UZH students: https://www.ethz.ch/en/studies/nondegreecourses/specialstudents/specialstudents-university-of-zurich.html 402-0910-00 G Fachdidaktik Physik I: Spezielle Didaktik des Physikunterrichts ■ 3 hrs \*\*gemeinsam mit der Universität Zürich\*\* Zeit: Wöchentlich 15:30-18:00 Ort: Kantonsschule Zürcher Oberland, Schellerstrasse 18, 8620 Wetzikon, Zimmer 2.24

Thu 15-18 Ex tern M. Mohr

4A

2 credits

Blockveranstaltung am 7.10.

Daten: keine Veranstaltung am 14.10. und 21.10. schriftliche Anmeldung bis 31.8.

Permission from lecturers required for all students

402-0917-00L **Mentored Work Subject Didactics** Physics A

Mentored Work Subject Didactics in Physics for TC and Teaching Diploma. 402-0917-00 A Mentorierte Arbeit Fachdidaktik Physik A für DZ und Lehrdiplom ■ 60s hrs

G. Schiltz, A. Vaterlaus

402-0918-00L **Mentored Work Subject Didactics** 2 credits Physics B Mentored Work Subject Didactics in

Physics for TC and Teaching Diploma. 402-0918-00 A Mentorierte Arbeit Fachdidaktik Physik B Lehrdiplom ■ Permission from lecturers required for all students

60s hrs by appt.

by appt.

G. Schiltz, A. Vaterlaus

#### ► Professional Training in Physics

Number	Title	Type	ECTS	Hours		Lecturers
402-0920-00L	Introductory Internship Physics Simultaneous enrolment in Physics Didactics: Special Didactics of Physics Teaching - course 402-0910-00L - is compulsory.	0	3 credits	6P		
402-0920-00 P	Einführungspraktikum Physik ■			90s hrs	by appt.	M. Mohr
402-0911-00L	Teaching Internship Physics	0	8 credits	17P		
402-0911-00 P	Unterrichtspraktikum Physik Lehrdiplom ■ Permission from lecturers required for all st	udents		240s hrs	by appt.	M. Mohr
402-0913-00L	Teaching Internship Physics II Teaching Internship for students upgrading TC to Teaching Diploma.	W	4 credits	9P		
402-0913-00 P	Unterrichtspraktikum II Physik (ohne Prüfur Permission from lecturers required for all st	U	nen) ■	120s hrs	by appt.	M. Mohr
402-0921-01L	Examination Lesson I Physics Simultaneous enrolment in "Examination Lesson II Physics" (402-0921-02L) is compulsory.	0	1 credit	2P		
402-0921-01 P	Prüfungslektion untere Stufe Physik für Leh Permission from lecturers required for all st		•	30s hrs	by appt.	M. Mohr
402-0921-02L	Examination Lesson II Physics Simultaneous enrolment in "Examination Lesson I Physics" (402-0921-01L) is compulsory.	0	1 credit	2P		
402-0921-02 P	Prüfungslektion obere Stufe Physik für Lehr Permission from lecturers required for all st		•	30s hrs	by appt.	M. Mohr

# ▶ Spec. Courses in Resp. Subj. w/ Educ. Focus & Further Subj. Didactics

Core courses that counted towards the Bachelor or Master programme in physics or comprised additional admission requirements in subject didactics are not eligible for the teaching diploma.

Number	Title	Type	ECTS	Hours				Lecturers
402-0351-00L	Astronomy	W	2 credits	2V				
402-0351-00 V	Astronomie			2 hrs	Wed	10-12	HG E1.2	S. P. Quanz
402-0737-00L	Energy and Sustainability in the 21st Century (Part I)	W	6 credits	2V+1U				
402-0737-00 V	Energy and Sustainability in the 21st Centu	ıry (Part	I)	2 hrs	Fri	09-11	HIT F32	P. Morf
402-0737-00 U	Energy and Sustainability in the 21st Centu	ıry (Part	I)	1 hrs	Fri 24.09.	11-12 08-12	HIT F32 HIT F12	P. Morf

402-0922-00L Mentored Work Specialised Courses in Physics with an Educational Focus A

Mentored Work Specialised Courses in the Respective Subject with an Educational Focus in Physics for TC and Teaching Diploma.

2 credits 4A

402-0922-00 A	Mentorierte Arbeit Fachwissenschaftliche Ve Fokus Physik A für DZ und Lehrdiplom ■ Permission from lecturers required for all stu	Ü	mit pädag.	60s hrs	by app	t.		G. Schiltz, A. Vaterlaus
402-0923-00L	Mentored Work Specialised Courses in Physics with an Educational Focus B Mentored Work Specialised Courses in the Respective Subject with an Educational Focus in Physics for Teaching Diploma and for students upgrading TC to Teaching Diploma.	W	2 credits	4A				
402-0923-00 A	Mentorierte Arbeit Fachwissenschaftliche Ve pädagogischem Fokus Physik B Lehrdiplom Permission from lecturers required for all stu	•	mit	60s hrs	by app	t.		G. Schiltz, A. Vaterlaus
402-0924-00L	Internship Physics Didactics Internship Physics Didactics for Teaching Diploma with Physics as First Subject.	W	4 credits	9P				
402-0924-00 P	Fachdidaktikpraktikum Physik  Permission from lecturers required for all stu Termine: Einführungsveranstaltung: 17.12., Raum nac Abschluss-Seminar: nach Absprache		rache	120s hrs				M. Mohr, A. Vaterlaus
402-0263-00L	Astrophysics I	W	10 credits	3V+2U				
402-0263-00 V	Astrophysics I			3 hrs	Tue Wed	14-16 13-14	HPV G4 HPV G5	S. Lilly
402-0263-00 U	Astrophysics I			2 hrs	Thu Fri	08-10 14-16	HIT J51 HIT J52 HPL D34 HCP E47.1 HIT F32 HIT K52	S. Lilly
402-0255-00L	Introduction to Solid State Physics	w	10 credits	3V+2U			11111102	
	Einführung in die Festkörperphysik	••	10 orcans	3 hrs	Thu Fri	14-16 13-14	HPH G3 HPH G3	C. Degen
402-0255-00 U	Einführung in die Festkörperphysik Die Übungen beginnen in der 2. Semesterw	oche.		2 hrs	Wed	14-16	HCI E2 HIT F31.2 HIT F32	C. Degen
	Mi 14-16 oder Do 8-10.				Thu	08-10	HIT H51 HIT F31.2 HIT F32 HIT J53	
402-0505-00L	Physics in the Smartphone	w	6 credits	3G				
402-0505-00 G	Physics in the Smartphone Does not take place this semester.			3 hrs				M. Sigrist
402-0247-00L	Electronics for Physicists I (Analogue) Number of participants limited to 40.	W	4 credits	2V+2P				
402-0247-00 V	Electronics for Physicists I (Analogue) Fr 13:45-17:30 (Vorlesung und Praktikum)			2 hrs	Fri	14-16	HPT C103	G. Bison, W. Erdmann
402-0247-00 P	Electronics for Physicists I (Analogue) Fr 13:45-17:30 (Vorlesung und Praktikum)			2 hrs	Fri	16-18	HPT C103	G. Bison, W. Erdmann
► Compuls	ory Elective Courses							
Further	r course offerings from the category Education			d under "Pro	ogramme	: Education	onal Science for	Teaching Diploma and TC".
Number	Title	Туре	ECTS	Hours				Lecturers
402-0737-00L	Century (Part I)	W	6 credits	2V+1U				
	Energy and Sustainability in the 21st Century			2 hrs	Fri	09-11	HIT F32	P. Morf
402-0737-00 U	Energy and Sustainability in the 21st Century	y (Part I	)	1 hrs	Fri 24.09.	11-12 08-12	HIT F32 HIT F12	P. Morf
252-0855-00L	Computer Science in Secondary School	W	4 credits	3G				

Number	Title Typ	e ECTS	Hours				Lecturers
402-0737-00L	Energy and Sustainability in the 21st W Century (Part I)	6 credits	2V+1U				
402-0737-00 V	Energy and Sustainability in the 21st Century (Pa	art I)	2 hrs	Fri	09-11	HIT F32	P. Morf
402-0737-00 U	Energy and Sustainability in the 21st Century (Pa	art I)	1 hrs	Fri 24.09.	11-12 08-12	HIT F32 HIT F12	P. Morf
252-0855-00L	Computer Science in Secondary School W Mathematics	4 credits	3G				
252-0855-00 G	Informatik im gymnasialen Mathematikunterricht Permission from lecturers required for all studen		3 hrs	Wed	10-13	CAB G57	J. Hromkovic, G. Serafini
	see Compulsory Elective Courses Teaching Diploma						
402-0247-00L	Electronics for Physicists I (Analogue) W Number of participants limited to 40.	4 credits	2V+2P				
402-0247-00 V	Electronics for Physicists I (Analogue) Fr 13:45-17:30 (Vorlesung und Praktikum)		2 hrs	Fri	14-16	HPT C103	G. Bison, W. Erdmann
402-0247-00 P	Electronics for Physicists I (Analogue) Fr 13:45-17:30 (Vorlesung und Praktikum)		2 hrs	Fri	16-18	HPT C103	G. Bison, W. Erdmann
Physics Teacl	hing Diploma - Key for Type						
•	Compulsory		E-	R	ecommen	ded, not eligible	for credits
	Eligible for credits and recommended		Z			tside the curricu	
	Eligible for credits		2 Dr	_		doctorate	muni

Key for	Hours		
V	lecture	P	practical/laboratory course
G	lecture with exercise	A	independent project
U	exercise	D	diploma thesis
S	seminar	R	revision course / private study
K	colloquium		

**ECTS** 

European Credit Transfer and Accumulation System
Special students and auditors need special permission from the lecturers.

# **Physics Master**

#### **▶** Core Courses

Number

One Core Course in Experimental or Theoretical Physics from Physics Bachelor is eligible; however, this Core Course from Physics Bachelor cannot be used to compensate for the mandatory Core Course in Experimental or Theoretical Physics.

Hours

Lecturers

For the category assignment keep the choice "no category" and take contact with the Study Administration (www.phys.ethz.ch/studies/study-administration.html) after having received the credits.

**ECTS** 

Type

#### **▶▶** Core Courses in Theoretical Physics

Title

402-0402-00L Ultrafast Laser Physics

402-0402-00 V Ultrafast Laser Physics

402-0402-00 U Ultrafast Laser Physics

402-0891-00L Phenomenology of Particle Physics I

402-0891-00 V Phenomenology of Particle Physics I

		, ,						
402-0861-00L	Statistical Physics	W	10 credits	4V+2U				
402-0861-00 V	Statistical Physics			4 hrs	Tue Wed	14-16 14-16	HPV G5 HPV G5	M. Sigrist
02-0861-00 U	Statistical Physics			2 hrs	Tue	16-18	HCI J4 HIT J53	M. Sigrist
					Wed	12-14	HIT H42 HIT J51 HIT J52 HIT K51	
					Fri	16-18	HIT K51	
02-0843-00L	Quantum Field Theory I Special Students UZH must book the module PHY551 directly at UZH.	W	10 credits	4V+2U				
02-0843-00 V	Quantum Field Theory I **together with University of Zurich**			4 hrs	Mon Thu	14-16 10-12	HPV G4 HPV G5	G. M. Graf
	Lecture starts on 23 September 2021.							
402-0843-00 U	Quantum Field Theory I **together with University of Zurich**  Thu 14-16 or Fri 10-12			2 hrs	Thu	14-16	HCP E47.4 HIL B21 HIL D10.2 HIT H42	G. M. Graf
	Exercises start in the second week of the	semester	;		Fri	10-12	HIT J51 HIT J53 HIT K52	
02-0830-00L	General Relativity Special Students UZH must book the module PHY511 directly at UZH.	W	10 credits	4V+2U				
102-0830-00 V	General Relativity **together with University of Zurich**			4 hrs	Tue Thu	16-18 12-14	HPV G5 HPV G5	C. Anastasiou
	Online lecture: This lecture will primarily a Reserved rooms will remain blocked on a follow the course from there."							
102-0830-00 U	General Relativity **together with University of Zurich**			2 hrs	Thu	16-18	HIT F31.1 HIT F31.2 HIT J53 HIT K52	C. Anastasiou
					Fri	12-14	HCI D2 HCI D8 HIL F10.3 HIT J52	
►► Core Co	ourses: Experimental Physics							
lumber	Title	Туре	ECTS	Hours				Lecturers
02-0257-00L	Advanced Solid State Physics	W	10 credits	3V+2U				
02-0257-00 V	Advanced Solid State Physics			3 hrs	Tue Thu	12-13 14-16	HPV G5 HPV G5	K. Povarov
02-0257-00 U	Advanced Solid State Physics			2 hrs	Thu Fri	08-10 14-16	HCP E47.2 HIT K52 HIT J51	K. Povarov
102 0442 001	Quantum Ontics	W	10 credits	3V+2U	1 11	14-10	1111 331	
<b>102-0442-00L</b> 102-0442-00 V	Quantum Optics Quantum Optics	VV	TO Credits	3 <b>v+20</b> 3 hrs	Wed Fri	10-12 09-10	HPV G5 HPV G5	T. Esslinger
l02-0442-00 U	Quantum Optics			2 hrs	Tue	10-12	HIT F32 HIT H51	T. Esslinger

w

10 credits

10 credits

3V+2U

3 hrs

2 hrs

3V+2U

3 hrs

HIT J51

HCI D6 HCI D8 HCI F2 HIT H42

HIT H51

HIT H51

HIT K51

HPV G5

HPV G5

L. P. Gallmann, S. Johnson,

L. P. Gallmann, S. Johnson,

P. Crivelli, A. de Cosa

U. Keller

U. Keller

Thu

Wed

Thu

Wed

Mon

Tue

16-18

13-14

10-12

14-16

12-14

13-14

2 hrs Tue

e 14-16

08-10

Wed

HCP E47.1 HCP E47.2 HIT K51 HPT C103

P. Crivelli, A. de Cosa

#### **▶** Electives

# **▶▶** Electives: Physics and Mathematics

$\triangleright$	· Se	lection:	Solid	State	<b>Physics</b>
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Number	Title	Type	ECTS	Hours				Lecturers
402-0526-00L	Ultrafast Processes in Solids	W	6 credits	2V+1U				
402-0526-00 V	Ultrafast Processes in Solids			2 hrs	Fri	10-12	HIT H51	Y. M. Acremann
402-0526-00 U	Ultrafast Processes in Solids			1 hrs	Fri	12-13	HIT H51	Y. M. Acremann
402-0535-00L	Introduction to Magnetism	W	6 credits	3G				
402-0535-00 G	Introduction to Magnetism			3 hrs	Mon	16-19	HIL E6	A. Vindigni
402-0595-00L	Semiconductor Nanostructures	W	6 credits	2V+1U				
402-0595-00 V	Semiconductor Nanostructures			2 hrs	Wed	12-14	HCI J4	T. M. Ihn
402-0595-00 U	Semiconductor Nanostructures or by appointment			1 hrs	Wed	14-15	HIT J51 HIT K52	T. M. Ihn
402-0317-00L	Semiconductor Materials: Fundamentals and Fabrication	W	6 credits	2V+1U				
402-0317-00 V	Semiconductor Materials: Fundamentals an	d Fabrio	cation	2 hrs	Tue	14-16	HCI D2	S. Schön, W. Wegscheider
402-0317-00 U	Semiconductor Materials: Fundamentals an	d Fabrio	cation	1 hrs	Tue	16-17	HCI D2	S. Schön, W. Wegscheider
402-0447-00L	Quantum Science with Superconducting Circuits	W	6 credits	2V+1U				
402-0447-00 V	Quantum Science with Superconducting Cir	cuits		2 hrs	Fri	14-16	HCI J6	C. Eichler
402-0447-00 U	Quantum Science with Superconducting Cir	cuits		1 hrs	Fri	16-17	HCP E47.1 HCP E47.2 HIL E5	C. Eichler
402-0505-00L	Physics in the Smartphone	W	6 credits	3G				
402-0505-00 G	Physics in the Smartphone Does not take place this semester.			3 hrs				M. Sigrist

#### ▶▶▶ Selection: Quantum Electronics

Number	Title	Туре	ECTS	Hours				Lecturers
402-0464-00L	Optical Properties of Semiconductors	W	8 credits	2V+2U				
402-0464-00 V	Optical Properties of Semiconductors			2 hrs	Mon	12-14	HIT J53	J. Faist, P. Anantha Murthy
402-0464-00 U	Optical Properties of Semiconductors			2 hrs	Mon	14-16	HIT F31.2	J. Faist, P. Anantha Murthy
402-0484-00L	Experimental and Theoretical Aspects of Quantum Gases	W	6 credits	2V+1U				
402-0484-00 V	Experimental and Theoretical Aspects of Quantum Does not take place this semester.	uantum	Gases	2 hrs				T. Esslinger
402-0484-00 U	Experimental and Theoretical Aspects of Quantum Does not take place this semester.	uantum	Gases	1 hrs				T. Esslinger
402-0444-00L	Advanced Quantum Optics	W	6 credits	2V+1U				
402-0444-00 V	Advanced Quantum Optics  Does not take place this semester.			2 hrs				A. Imamoglu
402-0444-00 U	Advanced Quantum Optics  Does not take place this semester.			1 hrs				A. Imamoglu
402-0465-58L	Intersubband Optoelectronics	W	6 credits	2V+1U				
402-0465-58 V	Intersubband Optoelectronics  Does not take place this semester.			2 hrs				G. Scalari
402-0465-58 U	Intersubband Optoelectronics  Does not take place this semester.			1 hrs				G. Scalari

# ▶▶▶ Selection: Particle Physics

Number	Title	Type	ECTS	Hours				Lecturers
402-0715-00L	Low Energy Particle Physics	W	6 credits	2V+1U				
402-0715-00 V	Low Energy Particle Physics Online lecture: This lecture will primarily tal Reserved rooms will remain blocked on cal follow the course from there.			2 hrs	Mon	09-11	HIT F31.1	A. Soter, P. A. Schmidt- Wellenburg
402-0715-00 U	Low Energy Particle Physics Online exercises: Will primarily take place or rooms will remain blocked on campus for s exercises from there.			1 hrs	Mon	11-12	HIT F31.1	A. Soter, P. A. Schmidt- Wellenburg
402-0767-00L	Neutrino Physics	W	6 credits	2V+1U				
402-0767-00 V	Neutrino Physics			2 hrs	Tue	14-16	HIL C10.2	A. Rubbia, D. Sgalaberna
402-0767-00 U	Neutrino Physics			1 hrs	Tue	16-17	HIT F31.1	A. Rubbia, D. Sgalaberna
402-0725-00L	Experimental Methods and Instruments	w	6 credits	3V+1U				

402-0725-00L Experimental Methods and Instruments W of Particle Physics

of Particle Physics Special Students UZH must book the module PHY461 directly at UZH.

402-0725-00 V	Experimental Methods and Instruments of Partic **together with University of Zurich**	le Physics	3 hrs	Wed Thu	14-16 13-14	UNI ZH. UNI ZH.	U. Langenegger, T. Schietinger, University lecturers
402-0725-00 U	Experimental Methods and Instruments of Partic **together with University of Zurich**	le Physics	1 hrs	Thu	14-15	UNI ZH.	U. Langenegger, T. Schietinger, University lecturers
402-0777-00L	Particle Accelerator Physics and W	6 credits	2V+1U				
	Modeling I	0.00					
	Particle Accelerator Physics and Modeling I Particle Accelerator Physics and Modeling I		2 hrs 1 hrs	Fri Fri	10-12 13-14	HIT J52 HIT J51	A. Adelmann A. Adelmann
	,	2		FII	13-14	ПП 331	A. Adelinaili
<b>402-0851-00L</b> 402-0851-00 G	QCD: Theory and Experiment  QCD: Theory and Experiment  Does not take place this semester.  **together with University of Zurich**	3 credits	<b>3G</b> 40s hrs				<b>G. Dissertori</b> , University lecturers
	Block course						
▶▶▶ Selec	tion: Theoretical Physics						
Number	Title Typ	e ECTS	Hours				Lecturers
402-0461-00L	Quantum Information Theory W	8 credits	3V+1U				
402-0461-00 V	Quantum Information Theory		3 hrs	Wed Thu	10-12 14-15	HPV G4 HPV G4	P. Kammerlander
402-0461-00 U	Quantum Information Theory		1 hrs	Thu	15-16	HCI J4 HPV G4	P. Kammerlander
402-0811-00L	Programming Techniques for Scientific W Simulations I	5 credits	4G				
402-0811-00 G	Programming Techniques for Scientific Simulation		4 hrs	Thu	14-18	HCI J3	R. Käppeli
402-0809-00L	Introduction to Computational Physics W	8 credits	2V+2U	_	40.1-		A Adab
	Introduction to Computational Physics Introduction to Computational Physics		2 hrs 2 hrs	Tue Tue	10-12 08-10	HCI J7 HCI J7	A. Adelmann A. Adelmann
402-0580-00L	Superconductivity W	6 credits	2V+1U	Tue	00-10	110137	A. Aucilialiii
402-0580-00L 402-0580-00 V		o credits	2 hrs	Mon	14-16	HPV G5	V. Geshkenbein
	Superconductivity		1 hrs	Mon	16-17	HIL F10.3	V. Geshkenbein
400 0404 001		0 12	01/ 411	Wed	12-13	HIL F10.3	
<b>402-0484-00L</b> 402-0484-00 V	Experimental and Theoretical Aspects of W Quantum Gases Experimental and Theoretical Aspects of Quantu	6 credits	2V+1U 2 hrs				T. Esslinger
402 0404 00 V	Does not take place this semester.	an Gases	21113				1. Essiniger
402-0484-00 U	Experimental and Theoretical Aspects of Quantu Does not take place this semester.	ım Gases	1 hrs				T. Esslinger
<b>402-0833-00L</b> 402-0833-00 V	,	6 credits	<b>2V+1U</b> 2 hrs				
402-0833-00 U	Particle Physics in the Early Universe Does not take place this semester.		1 hrs				
402-0897-00L	Introduction to String Theory W	6 credits	2V+1U				
	Introduction to String Theory		2 hrs	Tue	10-12	HPV G5	J. Brödel
	Introduction to String Theory	0	1 hrs	Wed	10-11	HCI J4 HPL D32	J. Brödel
	Parametric Phenomena W Parametric Phenomena	6 credits	<b>3G</b> 3 hrs				
	Does not take place this semester.						
402-0845-80L	Scattering Amplitudes in Quantum Field W	6 credits	2V+1U				
	Theories Special Students UZH must book the						
	module PHY577 directly at UZH.						
402-0845-80 V	Scattering Amplitudes in Quantum Field Theorie Does not take place this semester. **together with University of Zurich**	S	2 hrs				University lecturers
402-0845-80 U	Scattering Amplitudes in Quantum Field Theorie	s	1 hrs				University lecturers
	Does not take place this semester. **together with University of Zurich**						
402-0886-00L	Quantum Chromodynamics W Special Students UZH must book the module PHY564 directly at UZH.	6 credits	2V+1U				
402-0886-00 V	•		2 hrs	Mon	10-12	HCP E47.1	T. K. Gehrmann
	**together with University of Zurich** Former "Introduction to Quantum Chromodynan in the autumn semester.	nics", from HS21					
402-0886-00 U			1 hrs	Mon	12-13	HCP E47.1	T. K. Gehrmann
	**together with University of Zurich** Former "Introduction to Quantum Chromodynan in the autumn semester.	nics", from HS21					
402-0845-61L	Effective Field Theories for Particle W	6 credits	2V+1U				
	Physics Special Students UZH must book the						

402-0845-61 V	module PHY578 directly at UZH.  Effective Field Theories for Particle Physics  **together with University of Zurich**	5		2 hrs	Tue	14-16	HCI H8.1	P. Stoffer
	More information at:							
402-0845-61 U	https://www.physik.uzh.ch/en/teaching/PH' Effective Field Theories for Particle Physics **together with University of Zurich**		nl	1 hrs	Tue	16-17	HCI H8.1 HIT K52	P. Stoffer
	More information at: https://www.physik.uzh.ch/en/teaching/PH	Y578.htn	าไ					
402-0490-00L	Advanced Methods in Quantum Many- Body Theory	W	8 credits	3V+1U				
	Advanced Methods in Quantum Many-Bod Advanced Methods in Quantum Many-Bod			3 hrs 1 hrs	Thu Thu	10-13 13-14	HPL D32 HPL D32	E. Demler E. Demler
	tion: Astrophysics	, ,						
Number	Title	Туре	ECTS	Hours				Lecturers
402-0713-00L	Astro-Particle Physics I	W	6 credits	2V+1U				
402-0713-00 V	Astro-Particle Physics I Online event: Will primarily take place onlir remain blocked on campus for students to there.				Thu	14-16	HIT F32	A. Biland
402-0713-00 U	Astro-Particle Physics I or by appointment			1 hrs	Thu	16-17	HIT F32 HIT H51	A. Biland
	Online event: Will primarily take place onlir remain blocked on campus for students to there.							
402-0393-00L	Theoretical Cosmology and Different Aspects of Gravity	W	8 credits	4V				
402-0393-00 V	Theoretical Cosmology and Different Aspectores not take place this semester.	cts of Gr	avity	4 hrs				L. Heisenberg
102-0352-00L	Astronomical Observations and Instrumentation	W	6 credits	2V+1U				
102-0352-00 V	Astronomical Observations and Instrument	ation		2 hrs	Wed	12-14	HIT K52	H. M. Schmid, A. M. Glauser, L. Harra, V. J. Sterken
402-0352-00 U	Astronomical Observations and Instrument	ation		1 hrs	Wed	15-16	HIT K52	H. M. Schmid, A. M. Glauser, L. Harra, V. J. Sterken
402-0368-11L	Earth - A (Unique?) Habitable Planet	W	6 credits	2V+1U				
	Earth - A (Unique?) Habitable Planet			2 hrs	Fri	10-12	HIL E9	S. P. Quanz
	Earth - A (Unique?) Habitable Planet			1 hrs	Fri	12-13	HIL E9	S. P. Quanz
102-0368-07L	Lecture Series: Space Research and Exploration Lecture Series: Space Research and Exploration	W	1 credit	<b>2V</b> 2 hrs	Tue	12-14	HG F7	S. P. Quanz
+02-0300-07 V	Lecture Series. Space Research and Expic	nalion		21115	21.09.	12-14	HPT C103	5. P. Quanz
402-0355-00L	Planet Formation Number of participants limited to 20.	W	6 credits	2V+1U				
	Deadline of waiting list expires on 04.10.2021.							
	Planet Formation			2 hrs	Wed	09-11	HIT F31.2	J. Szulágyi
102-0355-00 U	Planet Formation			1 hrs	Wed	11-12	HIT F31.2	J. Szulágyi
102-0371-62L	Cosmological Probes	W	6 credits	2V+1U				
	Cosmological Probes			2 hrs	Thu	10-12	HIT J43.1	A. Refregier
	Cosmological Probes			1 hrs	Thu	12-13	HIT J43.1	A. Refregier
102-0363-00L	Effective Field Theory in Cosmology  Effective Field Theory in Cosmology	W	6 credits	<b>2V+1U</b> 2 hrs	Mon	14-16	HCI H2.1	L. Senatore
	Effective Field Theory in Cosmology			1 hrs	Mon	16-17	HIL E7	L. Senatore
	tion: Further Electives			11113	WIOTI	10 17	1112 27	L. Conditore
Number	Title	Туре	ECTS	Hours				Lecturers
402-0737-00L	Energy and Sustainability in the 21st Century (Part I)	W	6 credits	2V+1U				
402-0737-00 V	Energy and Sustainability in the 21st Centu	ıry (Part	I)	2 hrs	Fri	09-11	HIT F32	P. Morf
102-0737-00 U	Energy and Sustainability in the 21st Centu	ıry (Part	I)	1 hrs	Fri 24.09.	11-12 08-12	HIT F32 HIT F12	P. Morf
102-0247-00L	Electronics for Physicists I (Analogue) Number of participants limited to 40.	W	4 credits	2V+2P	00.	00 12	1 12	
402-0247-00 V				2 hrs	Fri	14-16	HPT C103	G. Bison, W. Erdmann
402-0247-00 P	Electronics for Physicists I (Analogue) Fr 13:45-17:30 (Vorlesung und Praktikum)			2 hrs	Fri	16-18	HPT C103	G. Bison, W. Erdmann
<b>151-0409-00L</b> 151-0409-00 V	Multiphysics Modeling and Simulation	W	4 credits	<b>2V+2U</b> 2 hrs	Wed	12-14	LFV E41	C. I. Roman

#### **▶▶▶** Selection: Neuroinformatics

Number	Title	Type	ECTS	Hours				Lecturers
227-1033-00L	Neuromorphic Engineering I Registration in this class requires the permission of the instructors. Class size will be limited to available lab spots. Preference is given to students that require this class as part of their major.	W	6 credits	2V+3U				
	Information for UZH students: Enrolment to this course unit only possible at ETH. No enrolment to module INI404 at UZH. Please mind the ETH enrolment deadlines							
	for UZH students: https://www.ethz.ch/en/studies/non- degree- courses/special-							
	students/special- students-university-of-zurich.html							
227-1033-00 V	Neuromorphic Engineering I Permission from lecturers required for all stu **together with University of Zurich** The lecturers will communicate the exact les courses.		es of ONLINE	2 hrs	Mon	14-16	ON LINE	T. Delbrück, G. Indiveri, SC. Liu
227-1033-00 U	Neuromorphic Engineering I Permission from lecturers required for all stu **together with University of Zurich**	udents		3 hrs	by appt.			T. Delbrück, G. Indiveri, SC. Liu
	Dates by arrangement.							
227-1037-00L	Introduction to Neuroinformatics	W	6 credits	2V+1U+	1A			
227-1037-00 V	Introduction to Neuroinformatics			2 hrs	Thu	08-10	NO C60	V. Mante, M. Cook, B. Grewe G. Indiveri, D. Kiper, W. von der Behrens
227-1037-00 U	Introduction to Neuroinformatics			1 hrs	Thu	10-11	NO C60	V. Mante, M. Cook, B. Grewe G. Indiveri, D. Kiper, W. von der Behrens
227-1037-00 A	Introduction to Neuroinformatics Self-study, no fixed presence required.			1 hrs				V. Mante
▶▶▶ Select	tion: Biophysics, Physical Chen	nistry						
Number	Title	Туре	ECTS	Hours				Lecturers
551-1601-00L	Biophysics of Biological Macromolecules The course will only take place with a minimum of 6 participants	W	6 credits	2V+1U				
551-1601-00 V	Does not take place this semester.			2 hrs				F. Allain, S. Jonas
551-1601-00 U	Biophysics of Biological Macromolecules Does not take place this semester.			1 hrs				F. Allain, S. Jonas
▶▶▶ Select	tion: Medical Physics							
Number	Title	Туре	ECTS	Hours				Lecturers
402-0341-00L	Medical Physics I	W	6 credits	2V+1U				
402-0341-00 V	7			2 hrs	Thu	16-18	HPT C103	P. Manser
402-0341-00 U 402-0674-00L	Medical Physics I  Physics in Medical Research: From Atoms to Cells	w	6 credits	1 hrs 2V+1U	Thu	18-19	HPT C103	P. Manser
402-0674-00 V	Physics in Medical Research: From Atoms to	o Cells		2 hrs	Fri	14-16	HCI H8.1	B. K. R. Müller
	Physics in Medical Research: From Atoms t			1 hrs	Fri	16-17	HCI H8.1	B. K. R. Müller
	tion: Environmental Physics							
Number	Title	Туре	ECTS	Hours				Lecturers
701-1239-00L	Aerosols I: Physical and Chemical Principles	W	4 credits	2V+1U				
701-1239-00 V	Aerosols I: Physical and Chemical Principles	S		2 hrs	Mon	14-16	CAB G52	<ul><li>M. Gysel Beer, D. Bell,</li><li>E. Weingartner</li></ul>
701-1239-00 U	Aerosols I: Physical and Chemical Principles	S		1 hrs	Mon	13-14	CAB G52	M. Gysel Beer, D. Bell, E. Weingartner
701-0475-00L	Atmospheric Physics	W	3 credits	2G				
701-0475-00 G	Atmosphärenphysik Im Anschluss an die LV findet ein freiwillige Tutorial im gleichen Raum (CHN F46) statt.	s, einst	ündiges	2 hrs	Wed	10-12	CHN F46	U. Lohmann
	Tuloriai im gleichen Raum (Chiv F46) statt.							
701-1221-00L	Dynamics of Large-Scale Atmospheric Flow	W	4 credits	2V+1U				

701-1221-00 U	701-1221-00 U Dynamics of Large-Scale Atmospheric Flow					11-12	CHN E42	H. Wernli, L. Papritz
	Boundary Layer Meteorology  Boundary Layer Meteorology	w	4 credits	<b>3G</b> 3 hrs	Fri	08-10	CAB G51	M. Rotach. P. Calanca
031-4033-03 G	Boundary Layer Meteorology			31113		12-13	CAB G51	WI. Rotacii, F. Calanca

### **▶▶▶** Selection: Mathematics

Number	Title	Type	ECTS	Hours				Lecturers
401-3531-00L	Differential Geometry I At most one of the three course units (Bachelor Core Courses) 401-3461-00L Functional Analysis I 401-3531-00L Differential Geometry I 401-3601-00L Probability Theory can be recognised for the Master's degree in Mathematics or Applied Mathematics. In this case, you cannot change the category assignment by yourself in myStudies but must take contact with the Study Administration Office (www.math.ethz.ch/studiensekretariat) after having received the credits.	W	10 credits	4V+1U				
401-3531-00 V	Differential Geometry I			4 hrs	Mon Wed	14-16 14-16	ML H44 HG E5	J. Serra
401-3531-00 U	Differential Geometry I Groups are selected in myStudies. Thu 13-14 or Thu 16-17 or Fri 13-14			1 hrs	Thu	13-14 16-17 13-14	HG E22 IFW C31 HG F3	J. Serra
401-3461-00L	Functional Analysis I At most one of the three course units (Bachelor Core Courses) 401-3461-00L Functional Analysis I 401-3531-00L Differential Geometry I 401-3601-00L Probability Theory can be recognised for the Master's degree in Mathematics or Applied Mathematics. In this case, you cannot change the category assignment by yourself in myStudies but must take contact with the Study Administration Office (www.math.ethz.ch/studiensekretariat) after having received the credits.	W	10 credits	4V+1U				
101-3461-00 V	Functional Analysis I			4 hrs	Mon Thu	10-12 14-16	HG D7.1 HG G5	J. Teichmann
401-3461-00 U	Functional Analysis I Groups are selected in myStudies.			1 hrs	Mon	09-10	HG G26.1 HG G26.5 ML J34.1	J. Teichmann
401-3601-00L	Probability Theory At most one of the three course units (Bachelor Core Courses) 401-3461-00L Functional Analysis I 401-3531-00L Differential Geometry I 401-3601-00L Probability Theory can be recognised for the Master's degree in Mathematics or Applied Mathematics. In this case, you cannot change the category assignment by yourself in myStudies but must take contact with the Study Administration Office (www.math.ethz.ch/studiensekretariat) after having received the credits.	W	10 credits	4V+1U				
401-3601-00 V	Probability Theory			4 hrs	Tue Thu	10-12 10-12	HG D1.2 HG E3	W. Werner
401-3601-00 U	Probability Theory Groups are selected in myStudies. Tue 14-15 or Tue 15-16 starting in the second semester.	ond wee	ek of the	1 hrs	Tue	14-15 15-16	HG E3 HG F26.5 ML H41.1 HG F26.5 ML H41.1	W. Werner
401-3621-00L	Fundamentals of Mathematical Statistics	W	10 credits	4V+1U				
I01-3621-00 V	Fundamentals of Mathematical Statistics			4 hrs	Tue Wed	08-10 10-12	HG E5 HG E7	S. van de Geer
401-3621-00 U	Fundamentals of Mathematical Statistics			1 hrs	Tue	12-13	HG D7.1 HG E7	S. van de Geer

# ▶▶▶ Selection: Electives at the University of Zurich

University of Zurich lecturers explicitly recommended the following courses also to physics students at ETH Zurich.

Recognition of the corresponding external ECTS credits has to be granted by the Director of Studies. Submit your request to the Study Administration (www.phys.ethz.ch/studies/study-administration.html).

Number	Title	Туре	ECTS	Hours	Lecturers
401-7851-00L	Theoretical Astrophysics (University of Zurich) No enrolment to this course at ETH Zurich. Book the corresponding module directly at UZH as an incoming student. UZH Module Code: AST512		10 credits	4V+2U	

	Mind the enrolment deadlines at UZH: https://www.uzh.ch/cmsssl/en/studies/appli cation/deadlines.html							
401-7851-00 V	Theoretical Astrophysics (University of Zurich **Course at University of Zurich**	1)		4 hrs	Mon Tue 20.09.	10-12 10-12 10-12	UNI ZH. UNI ZH. UNI ZH.	University lecturers
401-7851-00 U	Theoretical Astrophysics (University of Zurich**Course at University of Zurich**	1)		2 hrs	Mon 20.09.	13-15 13-15	UNI ZH. UNI ZH.	University lecturers
401-7855-00L	Computational Astrophysics (University V of Zurich) No enrolment to this course at ETH Zurich. Book the corresponding module directly at UZH as an incoming student. UZH Module Code: AST245	W	6 credits	2V				
	Mind the enrolment deadlines at UZH: https://www.uzh.ch/cmsssl/en/studies/appli cation/deadlines.html							
401-7855-00 V	Computational Astrophysics (University of Zu **Course at University of Zurich**	ırich)		2 hrs	Tue	12-14	UNI ZH.	L. M. Mayer
402-6394-00L	Advanced Topics of Theoretical Cosmology (University of Zurich) No enrolment to this course at ETH Zurich. Book the corresponding module directly at UZH as an incoming student. UZH Module Code: AST802	w .	4 credits	1V				
	Mind the enrolment deadlines at UZH: https://www.uzh.ch/cmsssl/en/studies/appli cation/deadlines.html							
402-6394-00 V	Advanced Topics of Theoretical Cosmology ( **Course at University of Zurich**	Universi	ty of Zurich)	20s hrs				J. Yoo
	Lectures for two weeks, 30.08 (Mon) until 10. o'clock.	.09 (Fri),	10-12					

#### **▶▶** General Electives

Students may choose General Electives from the entire course programme of ETH Zurich - with the following restrictions: courses that belong to the first or second year of a Bachelor curriculum at ETH Zurich as well as courses from GESS "Science in Perspective" are not eligible here.

The following courses are explicitly recommended to physics students by their lecturers. (Courses in this list may be assigned to the category "General Electives" directly in myStudies. For the category assignment of other eligible courses keep the choice "no category" and take contact with the Study Administration (www.phys.ethz.ch/studies/study-administration.html) after having received the credits.)

Number	Title	Type	ECTS	Hours				Lecturers
529-0433-01L	Advanced Physical Chemistry: Statistical Thermodynamics	W	6 credits	3G				
529-0433-01 G	Advanced Physical Chemistry: Statistical T Vorlesung: Mo 8-10 Übungen Di 8-9 oder Di 10-11	hermody	/namics	3 hrs	Mon Tue	08-10 08-09	HCI J4 HCI D4 HCI D6 HCI E2 HCI E8 HCI F2 HCI J4	R. Riek, J. Richardson
					11.10.	10-11 08-10	HCI F2 HCI E8 HCI F2 HCI F8 HCP E47.1 HCP E47.3	
151-0163-00L	Nuclear Energy Conversion	W	4 credits	2V+1U				
151-0163-00 V	Nuclear Energy Conversion  Does not take place this semester.			2 hrs				A. Manera
151-0163-00 U	Nuclear Energy Conversion Does not take place this semester. Andere Übungstermine können abgesproc	hen werd	den.	1 hrs				A. Manera
151-0103-00L	Fluid Dynamics II	w	3 credits	2V+1U				
151-0103-00 V	Fluiddynamik II In der 1. und 2. Semesterwoche findet am jeweils eine Vorlesung, anstelle von Übung 1).			2 hrs	Mon 21.09. 28.09.	10-12 11-12 11-12	HG E7 ETF C1 ETF C1	P. Jenny
151-0103-00 U	Fluiddynamik II Groups are selected in myStudies. Die Übungen beginnen in der 3. Semesten	woche.		1 hrs	Tue	11-12	CAB G61 HG D1.1 IFW A36	P. Jenny
151-0532-00L	Nonlinear Dynamics and Chaos I	w	4 credits	2V+2U				
151-0532-00 V	Nonlinear Dynamics and Chaos I			2 hrs	Wed	10-12	LFW B1	G. Haller
151-0532-00 U	Nonlinear Dynamics and Chaos I			2 hrs	Tue	16-18	ML F39	G. Haller
151-0213-00L	Fluid Dynamics with the Lattice Boltzmann Method	W	4 credits	3G				

151-0213-00 G	Fluid Dynamics with the Lattice Boltzmann National This course will be taught in a hybrid of onling classroom formats; students will be informed class on campus or should join the live stream.	ne and f d who ca	an attend the	3 hrs	Wed	10-13	IFW B42	I. Karlin
151-0105-00L	Quantitative Flow Visualization	w	4 credits	3G				
	Quantitative Flow Visualization This course will be offered for the last time is 2021.			3 hrs	Tue	10-13	ML H41.1	T. Rösgen
51-0911-00L	Introduction to Plasmonics	W	4 credits	2V+1U				
151-0911-00 V	Introduction to Plasmonics Does not take place this semester. Will be offered again in HS22.			2 hrs				D. J. Norris
151-0911-00 U	Introduction to Plasmonics Does not take place this semester. Will be offered again in HS22.			1 hrs				D. J. Norris
151-0107-20L	High Performance Computing for Science and Engineering (HPCSE) I	W	4 credits	4G				
151-0107-20 G	High Performance Computing for Science a (HPCSE) I Lecture: 12-14h Exercises: 14-16h	nd Engi	neering	4 hrs	Fri	12-14 14-16	ML H44 ML H44	P. Koumoutsakos, S. M. Martin
227-1047-00L	Consciousness: From Philosophy to Neuroscience (University of Zurich) No enrolment to this course at ETH Zurich. Book the corresponding module directly at UZH as an incoming student. UZH Module Code: INI410  Mind the enrolment deadlines at UZH: https://www.uzh.ch/cmsssl/en/studies/appli	W	3 credits	2V				
227-1047-00 V	cation/deadlines.html Consciousness: From Philosophy to Neuros Zurich) **Course at University of Zurich**	cience (	(University of	2 hrs	Thu	17-19	UNI ZH.	D. Kiper
151-0621-00L	Microsystems I: Process Technology and Integration	W	6 credits	3V+3U				
151-0621-00 V	Microsystems I: Process Technology and In The lecture starts in the second week of the			3 hrs	Thu	13-16	HG E5	C. Hierold, M. Haluska
151-0621-00 U	Microsystems I: Process Technology and In The exercise starts in the third week of the S	tegratio	n	3 hrs	Tue	16-19	HG E1.2	M. Haluska
227-0385-10L	Biomedical Imaging	W	6 credits	5G				
227-0385-10 G	Biomedical Imaging **together with University of Zurich**			5 hrs	Mon Tue	14-16 13-16	HG E19 HG E7	S. Kozerke, K. P. Prüssmann
227-0386-00L	Biomedical Engineering	W	4 credits	3G				
227-0386-00 G	Biomedical Engineering **together with University of Zurich**			3 hrs	Wed	08-10 10-11	ETF E1 ETF E1	<b>J. Vörös</b> , S. J. Ferguson, S. Kozerke, M. P. Wolf, M. Zenobi-Wong
227-0965-00L	Micro and Nano-Tomography of Biological Tissues	W	4 credits	3G				
227-0965-00 G	Micro and Nano-Tomography of Biological T	issues		3 hrs	Mon	09-12	ETZ E9	<b>M. Stampanoni</b> , F. Marone Welford
227-0157-00L	Semiconductor Devices: Physical Bases and Simulation	W	4 credits	3G				
227-0157-00 G	Semiconductor Devices: Physical Bases and Falls alle Hörende es wünschen, kann die V Deutsch gehalten werden.			3 hrs	Mon	09-12	ETZ G91	A. Schenk, C. I. Roman
227-0663-00L	Nano-Optics	W	6 credits	2V+2U				
227-0663-00 V	Nano-Optics Does not take place this semester.			2 hrs				M. Frimmer
227-0663-00 U	Nano-Optics Does not take place this semester.			2 hrs				M. Frimmer
227-0301-00L	Optical Communication Fundamentals	W	6 credits	2V+1U+	1P			
	Optical Communication Fundamentals			2 hrs	Tue	14-16	ETZ K91	J. Leuthold
	Optical Communication Fundamentals			1 hrs	Tue	16-17	ETZ K91	J. Leuthold
	Optical Communication Fundamentals			1 hrs	Tue	17-18	ETZ K91	J. Leuthold
	VLSI 1: HDL based design for FPGAs VLSI 1: HDL based design for FPGAs	W	6 credits	<b>5G</b> 5 hrs	Tue Wed	08-10 13-16	ETF C1 ETZ D61.1 ETZ D61.2 ETZ D96.1	F. K. Gürkaynak, L. Benini
227-0148-00L	VLSI III: Test and Fabrication of VLSI Circuits	W	6 credits	4G				
227-0148-00 G	VLSI III: Test and Fabrication of VLSI Circui Does not take place this semester. Will be offered in spring 2022 as "227-0148- VLSI: measurement and testing"		SI4: Practical	4 hrs				L. Benini

151-0620-00L	Embedded MEMS Lab	W	5 credits	3P				
151-0620-00 P	Embedded MEMS Lab			45s hrs	Mon	13-14	ML J34.1	C. Hierold, S. Blunier,
	- First part of the compulsory introductory le 27.09.2021 from 13:15h to 18h (venue: tbd)		/londay				ML J34.3 ML J37.1	M. Haluska
	- Second part of the compulsory introductor		e: Monday			13-17	CLA G2	
	04.10.2021 from 13:15h to 18h (venue: tbd)	ĺ	•		27.09.	13-18	ML H43	
	- Practical portion of the course in the clear				04.10.	13-18	ML H43	
	consecutive Mondays from 13:00 (exact) to Semester. Starting days for groups are stage		auring the					
	- Attendance is required at all meetings of t		se.					
529-0443-01L	Advanced Magnetic Resonance	w	6 credits	3G				
	Advanced Magnetic Resonance			3 hrs	Wed	10-13	HCI J3	G. Jeschke, A. Barnes
327-2132-00L	Multifunctional Ferroic Materials:	w	2 credits	2G				
	<b>Growth and Characterisation</b>							
327-2132-00 G	Multifunctional Ferroic Materials: Growth ar	d Chara	acterization	2 hrs	Mon	14-16	HCI H8.1	M. Trassin
327-0703-00L	<b>Electron Microscopy in Material Science</b>	W	4 credits	2V+2U				
327-0703-00 V	Electron Microscopy in Material Science			2 hrs	Fri	08-10	HCI H2.1	K. Kunze, R. Erni, S. Gerstl,
								F. Gramm, A. Käch, F. Krumeich, M. Willinger
327-0703-00 U	Electron Microscopy in Material Science			2 hrs	Fri	12-14	HCI H2.1	<b>K. Kunze</b> , R. Erni, S. Gerstl,
								F. Gramm, A. Käch,
								F. Krumeich, M. Willinger
27-0702-00L	EM-Practical Course in Materials	W	2 credits	4P				
227 0702 00 0	Science EM-Practical in Materials Science			60a k				K Kunzo C Coreti
27-0702-00 P	Das Praktikum findet vom 1014. Januar 2	022 gan	ztaas in den	60s hrs				<b>K. Kunze</b> , S. Gerstl, F. Gramm, F. Krumeich,
	Laborräumen des ScopeM (ETH Hönggerb	0	U					J. Reuteler
27-2125-00L	Microscopy Training SEM I -	W	2 credits	3P				
	Introduction to SEM							
	The number of participants is limited. In							
	case of overbooking, the course will be repeated once. All registrations will be							
	recorded on the waiting list.							
	-							
	For PhD students, postdocs and others, a							
	fee will be charged (http://www.scopem.ethz.ch/education/MTF	•						
	.html).							
	AH							
	All applicants must additionally register on this form: (link will follow)							
	The selected applicants will be contacted							
	and asked for confirmation a few weeks							
	before the course date.							
327-2125-00 P	Microscopy Training SEM I - Introduction to			35s hrs	25.10.		HIT F11.1	P. Zeng, A. G. Bittermann,
	This block course will take place during 5 fu October 2529., 2021. Lectures will be held				26.10. 27.10.	09-12 09-12	HIT F11.1 HIT F11.1	S. Gerstl, L. Grafulha Morales K. Kunze, J. Reuteler
	practical exercises in rooms of ScopeM.	<i>i</i>	seriiriai 100iii,			13-16	HIT F11.1	rt. rtanzo, o. rtodtoloi
	The repetition (if needed) of this course will 28, 2022	take pla	ace on Jan 24.	-				
27 2420 001	28., 2022.							
327-2126-00L	28., 2022. Microscopy Training TEM I -	take pla	ace on Jan 24.  2 credits	- 3P				
327-2126-00L	28., 2022.							
327-2126-00L	28., 2022.  Microscopy Training TEM I - Introduction to TEM The number of participants is limited. In case of overbooking, the course will be							
327-2126-00L	28., 2022.  Microscopy Training TEM I - Introduction to TEM  The number of participants is limited. In case of overbooking, the course will be repeated once. All registrations will be							
327-2126-00L	28., 2022.  Microscopy Training TEM I - Introduction to TEM The number of participants is limited. In case of overbooking, the course will be							
327-2126-00L	28., 2022.  Microscopy Training TEM I - Introduction to TEM The number of participants is limited. In case of overbooking, the course will be repeated once. All registrations will be recorded on the waiting list.  For PhD students, postdocs and others, a							
327-2126-00L	28., 2022.  Microscopy Training TEM I - Introduction to TEM  The number of participants is limited. In case of overbooking, the course will be repeated once. All registrations will be recorded on the waiting list.  For PhD students, postdocs and others, a fee will be charged	W						
327-2126-00L	28., 2022.  Microscopy Training TEM I - Introduction to TEM The number of participants is limited. In case of overbooking, the course will be repeated once. All registrations will be recorded on the waiting list.  For PhD students, postdocs and others, a	W						
327-2126-00L	28., 2022.  Microscopy Training TEM I - Introduction to TEM  The number of participants is limited. In case of overbooking, the course will be repeated once. All registrations will be recorded on the waiting list.  For PhD students, postdocs and others, a fee will be charged (http://www.scopem.ethz.ch/education/MTF.html).	W						
327-2126-00L	28., 2022.  Microscopy Training TEM I - Introduction to TEM The number of participants is limited. In case of overbooking, the course will be repeated once. All registrations will be recorded on the waiting list.  For PhD students, postdocs and others, a fee will be charged (http://www.scopem.ethz.ch/education/MTF.html).  All applicants must additionally register on	W						
327-2126-00L	28., 2022.  Microscopy Training TEM I - Introduction to TEM  The number of participants is limited. In case of overbooking, the course will be repeated once. All registrations will be recorded on the waiting list.  For PhD students, postdocs and others, a fee will be charged (http://www.scopem.ethz.ch/education/MTF.html).  All applicants must additionally register on this form: (link will follow)	W						
327-2126-00L	28., 2022.  Microscopy Training TEM I - Introduction to TEM  The number of participants is limited. In case of overbooking, the course will be repeated once. All registrations will be recorded on the waiting list.  For PhD students, postdocs and others, a fee will be charged (http://www.scopem.ethz.ch/education/MTF.html).  All applicants must additionally register on this form: (link will follow) The selected applicants will be contacted and asked for confirmation a few weeks	W						
	28., 2022.  Microscopy Training TEM I - Introduction to TEM  The number of participants is limited. In case of overbooking, the course will be repeated once. All registrations will be recorded on the waiting list.  For PhD students, postdocs and others, a fee will be charged (http://www.scopem.ethz.ch/education/MTF.html).  All applicants must additionally register on this form: (link will follow) The selected applicants will be contacted and asked for confirmation a few weeks before the course date.	W		3P				
	28., 2022.  Microscopy Training TEM I - Introduction to TEM  The number of participants is limited. In case of overbooking, the course will be repeated once. All registrations will be recorded on the waiting list.  For PhD students, postdocs and others, a fee will be charged (http://www.scopem.ethz.ch/education/MTF.html).  All applicants must additionally register on this form: (link will follow) The selected applicants will be contacted and asked for confirmation a few weeks before the course date.  Microscopy Training TEM I - Introduction to	w TEM	2 credits	<b>3P</b> 35s hrs	01.11.		HIT F11.1	
	28., 2022.  Microscopy Training TEM I - Introduction to TEM  The number of participants is limited. In case of overbooking, the course will be repeated once. All registrations will be recorded on the waiting list.  For PhD students, postdocs and others, a fee will be charged (http://www.scopem.ethz.ch/education/MTF.html).  All applicants must additionally register on this form: (link will follow) The selected applicants will be contacted and asked for confirmation a few weeks before the course date.  Microscopy Training TEM I - Introduction to This block course will take place during 5 full.	TEM ull days	2 credits	<b>3P</b> 35s hrs	02.11.	09-12	HIT F11.1	A. G. Bittermann, F. Gramm,
	28., 2022.  Microscopy Training TEM I - Introduction to TEM  The number of participants is limited. In case of overbooking, the course will be repeated once. All registrations will be recorded on the waiting list.  For PhD students, postdocs and others, a fee will be charged (http://www.scopem.ethz.ch/education/MTF.html).  All applicants must additionally register on this form: (link will follow) The selected applicants will be contacted and asked for confirmation a few weeks before the course date.  Microscopy Training TEM I - Introduction to	TEM ull days	2 credits	<b>3P</b> 35s hrs	02.11. 03.11.	09-12		
	Microscopy Training TEM I - Introduction to TEM The number of participants is limited. In case of overbooking, the course will be repeated once. All registrations will be recorded on the waiting list.  For PhD students, postdocs and others, a fee will be charged (http://www.scopem.ethz.ch/education/MTF.html).  All applicants must additionally register on this form: (link will follow) The selected applicants will be contacted and asked for confirmation a few weeks before the course date.  Microscopy Training TEM I - Introduction to This block course will take place during 5 ft. November 15., 2021. Lectures will be held practical exercises in rooms of ScopeM.	TEM ull days	2 credits (9am-5pm) on seminar room,	<b>3P</b> 35s hrs	02.11. 03.11.	09-12 09-12	HIT F11.1 HIT F11.1	A. G. Bittermann, F. Gramm,
	28., 2022.  Microscopy Training TEM I - Introduction to TEM  The number of participants is limited. In case of overbooking, the course will be repeated once. All registrations will be recorded on the waiting list.  For PhD students, postdocs and others, a fee will be charged (http://www.scopem.ethz.ch/education/MTF.html).  All applicants must additionally register on this form: (link will follow) The selected applicants will be contacted and asked for confirmation a few weeks before the course date.  Microscopy Training TEM I - Introduction to This block course will take place during 5 ft. November 15., 2021. Lectures will be held.	TEM ull days	2 credits (9am-5pm) on seminar room,	<b>3P</b> 35s hrs	02.11. 03.11.	09-12 09-12	HIT F11.1 HIT F11.1	A. G. Bittermann, F. Gramm,
:27-2126-00 P	28., 2022.  Microscopy Training TEM I - Introduction to TEM  The number of participants is limited. In case of overbooking, the course will be repeated once. All registrations will be recorded on the waiting list.  For PhD students, postdocs and others, a fee will be charged (http://www.scopem.ethz.ch/education/MTF.html).  All applicants must additionally register on this form: (link will follow) The selected applicants will be contacted and asked for confirmation a few weeks before the course date.  Microscopy Training TEM I - Introduction to This block course will take place during 5 ft. November 15., 2021. Lectures will be helopractical exercises in rooms of ScopeM.	TEM ull days	2 credits (9am-5pm) on seminar room,	<b>3P</b> 35s hrs	02.11. 03.11.	09-12 09-12	HIT F11.1 HIT F11.1	A. G. Bittermann, F. Gramm,
327-2126-00 P 363-0541-00L	28., 2022.  Microscopy Training TEM I - Introduction to TEM  The number of participants is limited. In case of overbooking, the course will be repeated once. All registrations will be recorded on the waiting list.  For PhD students, postdocs and others, a fee will be charged (http://www.scopem.ethz.ch/education/MTF.html).  All applicants must additionally register on this form: (link will follow)  The selected applicants will be contacted and asked for confirmation a few weeks before the course date.  Microscopy Training TEM I - Introduction to This block course will take place during 5 ft. November 15., 2021. Lectures will be held practical exercises in rooms of ScopeM.  The repetition (if needed) of this course will 29.1103.12.2021.  Systems Dynamics and Complexity  Systems Dynamics and Complexity	TEM Ill days	2 credits (9am-5pm) on seminar room,	<b>3P</b> 35s hrs	02.11. 03.11. 05.11.	09-12 09-12 13-16	HIT F11.1 HIT F11.1 HIT F11.1 HG D1.2	
327-2126-00 P 363-0541-00L	28., 2022.  Microscopy Training TEM I - Introduction to TEM  The number of participants is limited. In case of overbooking, the course will be repeated once. All registrations will be recorded on the waiting list.  For PhD students, postdocs and others, a fee will be charged (http://www.scopem.ethz.ch/education/MTF.html).  All applicants must additionally register on this form: (link will follow) The selected applicants will be contacted and asked for confirmation a few weeks before the course date.  Microscopy Training TEM I - Introduction to This block course will take place during 5 ft. November 15., 2021. Lectures will be held practical exercises in rooms of ScopeM.  The repetition (if needed) of this course will 29.1103.12.2021.  Systems Dynamics and Complexity Systems Dynamics and Complexity Lecture: Thursday, 08-10 h	TEM Ill days	2 credits (9am-5pm) on seminar room,	3P 35s hrs	02.11. 03.11. 05.11.	09-12 09-12 13-16	HIT F11.1 HIT F11.1 HIT F11.1	A. G. Bittermann, F. Gramm, A. Sologubenko, M. Willinger
327-2126-00 P 36 <b>3-0541-00</b> L	28., 2022.  Microscopy Training TEM I - Introduction to TEM  The number of participants is limited. In case of overbooking, the course will be repeated once. All registrations will be recorded on the waiting list.  For PhD students, postdocs and others, a fee will be charged (http://www.scopem.ethz.ch/education/MTF.html).  All applicants must additionally register on this form: (link will follow)  The selected applicants will be contacted and asked for confirmation a few weeks before the course date.  Microscopy Training TEM I - Introduction to This block course will take place during 5 ft. November 15., 2021. Lectures will be held practical exercises in rooms of ScopeM.  The repetition (if needed) of this course will 29.1103.12.2021.  Systems Dynamics and Complexity  Systems Dynamics and Complexity	TEM Ill days if in the s	2 credits  (9am-5pm) on seminar room, acce from  3 credits	3P 35s hrs	02.11. 03.11. 05.11.	09-12 09-12 13-16	HIT F11.1 HIT F11.1 HIT F11.1 HG D1.2	A. G. Bittermann, F. Gramm, A. Sologubenko, M. Willinger

363-1065-00L	Design Thinking: Human-Centred Solutions to Real World Challenges	W	5 credits	5G				
363-1065-00 G	Design Thinking: Human-Centred Solutions Challenges Does not take place this semester. From FS22 in the spring semester.	to Real	World	5 hrs				S. Brusoni
227-0655-00L	Nonlinear Optics	w	6 credits	2V+2U				
227-0655-00 V	Nonlinear Optics Does not take place this semester.			2 hrs				J. Leuthold
227-0655-00 U	Nonlinear Optics Does not take place this semester.			2 hrs				J. Leuthold
227-0423-00L	Neural Network Theory	W	4 credits	2V+1U				
227-0423-00 V	Neural Network Theory			2 hrs	Tue	10-12	HG F5	H. Bölcskei
227-0423-00 U	Neural Network Theory The exercise will take place online on: https://www.mins.ee.ethz.ch/teaching/nnt/d The reserved room is meant for those stude the course from the campus.			1 hrs	Tue	12-13	HG F5	H. Bölcskei
227-0653-00L	Electromagnetic Precision Measurements and Opto-Mechanics	W	4 credits	2V+1U				
227-0653-00 V	Electromagnetic Precision Measurements a The course will take place online until further than the course will take place on the course will be course to the	er notice	).	2 hrs 1 hrs	Fri Fri	09-11	ML H34.3	M. Frimmer
227-0653-00 U		omagnetic Precision Measurements and Opto-Mechanics ourse will take place online until further notice.				11-12	ML H34.3	M. Frimmer
252-0834-00L	Information Systems for Engineers	W	4 credits	2V+1U				
252-0834-00 V	Information Systems for Engineers Online lecture: This lecture will primarily tal Reserved rooms will remain blocked on cal follow the course from there.			2 hrs	Fri	14-16	HG E5	G. Fourny
252-0834-00 U	Information Systems for Engineers Groups are selected in myStudies.			1 hrs	Fri	16-17	CAB G52 CAB G56 CAB G57 CAB G59 ON LINE ON LINE ON LINE	G. Fourny
227-0939-00L	Cell Biophysics	W	6 credits	4G				
227-0939-00 G	Cell Biophysics			4 hrs	Tue Thu	16-18 16-18	HG D7.2 ML F38	T. Zambelli
701-1253-00L	Analysis of Climate and Weather Data	W	3 credits	2G				
701-1253-00 G	Analysis of Climate and Weather Data Does not take place this semester.			2 hrs				C. Frei
51-0209-00L	Renewable Energy Technologies	w	4 credits	3G				
151-0209-00 G	Renewable Energy Technologies Online event: Will primarily take place onlin remain blocked on campus for students to there.				Tue	14-17	HG G5	A. Steinfeld, E. I. M. Casati
701-1257-00L	European Climate Change	w	3 credits	2G				
	European Climate Change			2 hrs	Mon	10-12	LFO C13	<b>C. Schär</b> , J. Rajczak, S. C. Scherrer
63-0537-00L	Resource and Environmental Economics	W	3 credits	2G				

# ► Proseminars and Semester Papers

To organise a semester project take contact with one of the instructors.

Not all lecturers are directly eligible in myStudies if "Professors" is the required type of lecturers. In such cases please take contact with the Study Administration (www.phys.ethz.ch/studies/study-administration.html).

Number	Title	Type	ECTS	Hours				Lecturers
402-0210-MSL	Proseminar Theoretical Physics The number of participants is limited.	W	8 credits	<b>4S</b>				
	Proseminar Theoretical Physics (Physics Ma Physics Master) ■  Permission from lecturers required for all stu- First meeting will be communicated.  During this meeting, the list of student particular finalised, topics and tutors will be assigned.  Since Proseminar presentations during the communicate are often thematically linked, we support the semester are often thematically linked, we support the semester. No shows after this will resignate.	idents cipants course uggest the firs	will be of the that all t three weeks	4 hrs	Mon	08-12	HIT F32 HIT J52	Supervisors

402-0217-MS A	Semester Project in Theoretical Physics  Permission from lecturers required for all sto	ıdents		210s hrs	by app	t.		Supervisors
402-0215-MSL	Experimental Semester Project in Physics	W	8 credits	15A				
102-0215-MS A	Experimental Semester Project in Physics (I Energy Physics Master)  Permission from lecturers required for all stu	•	Master / High	- 210s hrs	by app	t.		Supervisors
402-0740-00L	Experimental Foundations of Particle Physics	W	8 credits	3S				
	Experimental Foundations of Particle Physic		0 12	3 hrs	Tue	09-12	HCI E2	M. Backhaus, M. Donegà
	Particle Physics at CERN Particle Physics at CERN ■ Permission from lecturers required for all stu	<b>W</b> udents	8 credits	<b>15P</b> 210s hrs	by app	t.		W. Lustermann
402-0719-MSL	Particle Physics at PSI (Paul Scherrer Institute)	W	8 credits	15P				
402-0719-00 P	Particle Physics at PSI (Paul Scherrer Institut Permission from lecturers required for all stu Usually three weeks during summer semest on available PSI beam times. The exact data during FS. Please consult the lecturer.	idents er breai		210s hrs				A. Soter, A. S. Antognini
	Medical Physics Medizinische Physik ■	W	8 credits	<b>15P</b> 210s hrs	by ann	+		A. J. Lomax, K. P. Prüssmanr
402-0340-00 F	Permission from lecturers required for all stu	ıdents		21051115	ру арр	ι.		A. J. Lomax, N. F. Frussman
► GESS Sc	ience in Perspective							
	see GESS Science in Perspective: Language Courses ETH/UZH							
	see GESS Science in Perspective: Type A: Enhancement of Reflection Capability							
	Recommended GESS Science in Perspective (Type B) for D-PHYS.							
► Master's	Thesis							
Number	Title	Туре	ECTS	Hours				Lecturers
<b>402-2000-00L</b> 402-2000-00 V	Scientific Works in Physics Target audience: Master students who cannot document to have received an adequate training in working scientifically.  Directive https://www.ethz.ch/content/dam/ethz/common/docs/weisungssammlung/files-en/declaration-of-originality.pdf Scientific Works in Physics The lecture will be performed twice: on 28 C	O October :	<b>0 credits</b>	2s hrs				C. Eichler
	December 2021 from 16:45-18:30. Only one attended.							
402-0900-30L	Master's Thesis Only students who fulfil the following criteria are allowed to begin with their master's thesis: a. successful completion of the bachelor programme; b. fulfilling of any additional requirements necessary to gain admission to the master programme. c. have acquired at least 8 credits in the category Proseminars and Semester Papers.	0	30 credits	57D				
	Further information: http://www.phys.ethz.ch/phys/education/ma ster/msc-theses							
	Master's Thesis ■			800s hrs	by app	t.		Supervisors
	s, Colloquia, and Additional Cou		FOTO	Ue····-				Lastinara
Number	Title	Туре	ECTS	Hours				Lecturers
<b>402-0101-00L</b> 402-0101-00 K	The Zurich Physics Colloquium The Zurich Physics Colloquium **together with University of Zurich**	E-	0 credits	1 <b>K</b> 1 hrs	Wed	16-17	HPV G4	S. Huber, A. Refregier, University lecturers
	16:15-17:15 Uhr							
402-0800-00L	The Zurich Theoretical Physics	E-	0 credits	1K				

	The Zurich Theoretical Physics Colloquium **together with University of Zurich** More information at: https://studentservices.uzh.ch/uzh/anonym/ language=DE&sap- ui-language=DE#/details/2021/003/SM/5003		x.html?sap-	1 hrs	Mon	17-18	HIT H42 I16 G05	University lecturers
	The Colloquium takes place on selected Mc academic semester on the Irchel Campus o Hönggerberg Time: 16:45h							
	Talks in Mathematical Physics Talks in Mathematical Physics **together with University of Zurich**	E-	0 credits	<b>1K</b> 1 hrs	Thu	15-17	HG G43	P. E. Y. Bousseau, A. Cattaneo, G. Felder, M. Gaberdiel, G. M. Graf, T. H. Willwacher
<b>402-0501-00L</b> 402-0501-00 S	Solid State Physics Solid State Physics	E-	0 credits	<b>1S</b> 1 hrs	Thu	18-19	HPF G6	A. Zheludev, C. Degen, K. Ensslin, D. Pescia, M. Sigrist, A. Wallraff
<b>402-0551-00L</b> 402-0551-00 S	Laser Seminar Laser Seminar	E-	0 credits	<b>1S</b> 1 hrs	Mon	18-19	HPF G6	T. Esslinger, J. Faist, J. Home, U. Keller, F. Merkt, H. J. Wörner
402-0600-00L	Nuclear and Particle Physics with Applications	E-	0 credits	2S				
402-0600-00 S	Nuclear and Particle Physics with Application  Durchführung nach Vereinbarung	ons		2 hrs	Tue	18-20	HPK D24.2	A. Rubbia, G. Dissertori, K. S. Kirch, R. Wallny
	Particle Physics Seminar	E-	0 credits	15				
402-0893-00 S	Particle Physics Seminar  **together with University of Zurich** More information at: https://studentservices.uzh.ch/uzh/anonym/ language=DE&sap- ui-language=DE#/details/2021/003/SM/500		x.html?sap-	1 hrs	Tue	11-13	UNI	T. K. Gehrmann
402-0700-00L	Seminar in Elementary Particle Physics Special Students UZH must book the modu. PHY463 directly at UZH.		0 credits	1S				
402-0700-00 S	Seminar in Elementary Particle Physics **together with University of Zurich**			1 hrs				M. Spira, University lecturers
	gemäss Ankündigung auf https://www.psi.cl colloquia	h/en/Itp/t	hursday-					
402-0746-00L	Seminar: Particle and Astrophysics (Aktuelles aus der Teilchen- und Astrophysik)	E-	0 credits	1S				
402-0746-00 S	Seminar: Particle and Astrophysics (Aktuelle und Astrophysik)  **together with University of Zurich** More information at: https://studentservices.uzh.ch/uzh/anonym/language=DE&sap-ui-language=DE#/details/2021/003/SM/5003	/vvz/inde		1 hrs	Mon Tue	14-16 14-16	UNI ZH. UNI ZH.	University lecturers
	The course takes place at UZH Irchel Y35 F	<del>-</del> 32						
<b>402-0300-00L</b> 402-0300-00 S	IPA Colloquium IPA Colloquium	E-	0 credits	<b>1S</b> 1 hrs	Tue/2w	16-17	HIT H42	A. Biland, A. Refregier,
402-0396-00L	Recent Research Highlights in Astrophysics (University of Zurich) No enrolment to this course at ETH Zurich. Book the corresponding module directly at UZH as an incoming student. UZH Module Code: AST006	E-	0 credits	15				H. M. Schmid, further lecturers
402-0396-00 S	Mind the enrolment deadlines at UZH: https://www.uzh.ch/cmsssl/en/studies/application/deadlines.html Recent Research Highlights in Astrophysics **Course at University of Zurich**	s (Univer	sity of Zurich)	1 hrs	Thu	16-17	UNI ZH.	University lecturers
<b>402-0530-00L</b> 402-0530-00 S	Mesoscopic Systems Mesoscopic Systems	E-	0 credits	<b>1S</b> 1 hrs	Fri	11-12	HPF E6	T. M. Ihn
402-0530-00 S	Current Topics in Accelerator Mass	E-	0 credits	15	1 11	11-12		
	Spectrometry and Its Applications Current Topics in Accelerator Mass Spectro			1 hrs	Wed	12-13	HPK D24.2	M. Christl, S. Willett
402-0620-00 S	Applications							

227-0980-00 S	Seminar on Biomedical Magnetic Resonance		1 hrs	Thu	12-13	ETZ E6	<b>K. P. Prüssmann</b> , S. Kozerke, M. Weiger Senften
227-1043-00L	Neuroinformatics - Colloquia (University E-of Zurich) No enrolment to this course at ETH Zurich. Book the corresponding module directly at UZH as an incoming student. UZH Module Code: INI701	0 credits	1K				
	Mind the enrolment deadlines at UZH: https://www.uzh.ch/cmsssl/en/studies/appli cation/deadlines.html						
227-1043-00 K	Neuroinformatics - Colloquia (University of Zuri**Course at University of Zurich**	ch)	1 hrs	Fri	16-17	UNI ZH.	<b>SC. Liu</b> , R. Hahnloser, V. Mante
	Location: please see VVZ UZH						
651-1581-00L	Seminar in Glaciology E-	3 credits	2S				
651-1581-00 S	Seminar in Glaciology Format and topics will be introduced in the first September 2021. Attendence is required.	session on 22	2 hrs	Wed	16-18	HPK D3	A. Bauder
402-0010-00L	Basics of Computing Environments for Scientists  Enrollment is only possible under https://www.lehrbetrieb.ethz.ch/laborpraktik a No registration required via myStudies.	0 credits					
	Introduction: - IT at D-PHYS (Herzog): 29.9. 1300 - IT at D-PHYS 2. Termin (Herzog): 7.10. 1300						
	Modules: - Linux Basics I (Müller): 13.10. 1300 - Linux Basics II (Müller): 20.10. 1300 - Python Ecosystem I (Becker): 27.10. 1300 - Python Ecosystem II (Becker): 3.11. 1300 - System Aspects (Herzog): 10.11. 1300						
402-0010-00 V	, , ,	ts	2s hrs	29.09. 07.10.	13-14 13-14	HPV G4 HPV G4	

### ► Course Units for Additional Admission Requirements

Dr

0

W+

Suitable for doctorate

Eligible for credits and recommended

Compulsory

The courses below are only available for MSc students with additional admission requirements.

Number	Title	Type	ECTS	Hours	Lecturers
406-0204-AAL	Electrodynamics Enrolment ONLY for MSc students with a decree declaring this course unit as an additional admission requirement.	E-	7 credits	15R	
	Any other students (e.g. incoming exchange students, doctoral students) CANNOT enrol for this course unit.				
406-0204-AA R	Electrodynamics Self-study course. No presence required.			210s hrs	C. Anastasiou
401-2673-AAL	Numerical Methods for CSE Enrolment ONLY for MSc students with a decree declaring this course unit as an additional admission requirement.	E-	9 credits	19R	
	Any other students (e.g. incoming exchange students, doctoral students) CANNOT enrol for this course unit.				
401-2673-AA R	Numerical Methods for CSE Self-study course. No presence required. This course completely coincides with 401-2 Methods for CSE. All information published applies to this one. Participating students are in the course unit 401-2663-00L as well to e information.	for that re reque	course also sted to enrol	270s hrs	R. Hiptmair

W

E-

Z

Eligible for credits

Recommended, not eligible for credits

Courses outside the curriculum

Key for	Hours		
V	lecture	P	practical/laboratory course
G	lecture with exercise	A	independent project
U	exercise	D	diploma thesis
S	seminar	R	revision course / private study
K	colloquium		

**ECTS** 

European Credit Transfer and Accumulation System
Special students and auditors need special permission from the lecturers.

### **Quantitative Finance Master**

see www.msfinance.ch/index.html?/portrait/Curriculum.html

Students in the Joint Degree Master's Programme "Quantitative Finance" must book University of Zurich modules directly at the University of Zurich. Those modules are not listed here.

#### **▶** Core Courses

### **▶▶** Economic Theory for Finance

For possible (additional) course offerings see www.msfinance.ch

#### **▶▶** Mathematical Methods for Finance

For possible additional course offerings see www.msfinance.ch

Number	Title	Type	ECTS	Hours				Lecturers
401-3913-01L	Mathematical Foundations for Finance	W	4 credits	3V+2U				
401-3913-01 V	Mathematical Foundations for Finance **together with University of Zurich**			3 hrs	Tue Thu	08-10 13-14	HG G5 HG G5	B. Acciaio
401-3913-01 U	Mathematical Foundations for Finance Groups are selected in myStudies. **together with University of Zurich** Fri 8-10 or Fri 10-12			2 hrs	Fri	08-10 10-12	HG D7.1 HG D3.2	B. Acciaio
	Online course: This course takes place onl is meant for those students who want to for Zentrum campus.			m				

#### **▶** Elective Courses

### **▶▶** Economic Theory for Finance

For possible additional course offerings see www.msfinance.ch

Number	Title	Type	ECTS	Hours				Lecturers
401-4633-00L	Data Analytics in Organisations and Business	W	5 credits	2V+1U				
401-4633-00 V	Data Analytics in Organisations and Busin	ess		2 hrs	Fri	14-16	HG G5	I. Flückiger
401-4633-00 U	Data Analytics in Organisations and Busin	ess		1 hrs	Fri/2w	16-18	HG G5	I. Flückiger
363-1081-00L	Asset Liability Management and Treasury Risks Number of participants limited to 40.	W	3 credits	2V				
363-1081-00 V	Asset Liability Management and Treasury Block course	Risks		28s hrs	24.09.	09-17	HG F26.1 HG F26.3	P. Mangold, M. Eichhorn
					22.10.	09-17	HG E33.3 HG E33.5	
					12.11.	09-17	HG E33.3 HG E33.5	
					10.12.	09-17	HG E33.3 HG E33.5	

#### **▶▶** Mathematical Methods for Finance

For possible additional course offerings see www.msfinance.ch

Number	Title	Type	ECTS	Hours				Lecturers
401-3925-00L	Non-Life Insurance: Mathematics and Statistics	W	8 credits	4V+1U				
401-3925-00 V	Non-Life Insurance: Mathematics and Stati	stics		4 hrs	Mon Tue	16-18 13-15	HG D7.1 HG D7.1	M. V. Wüthrich
401-3925-00 U	Non-Life Insurance: Mathematics and Stati	stics		1 hrs	Tue	15-16	HG D7.1	M. V. Wüthrich
401-4889-00L	Mathematical Finance	w	11 credits	4V+2U				
401-4889-00 V	Mathematical Finance			4 hrs	Tue Thu	08-10 08-10	HG E1.1 ML F36	D. Possamaï
401-4889-00 U	Mathematical Finance			2 hrs	Fri	10-12	ML F38	D. Possamaï
401-4657-00L	Numerical Analysis of Stochastic Ordinary Differential Equations Alternative course title: "Computational Methods for Quantitative Finance: Monte Carlo and Sampling Methods"	W	6 credits	3V+1U				
401-4657-00 V	Numerical Analysis of Stochastic ODEs (Ci Fin.: Monte Carlo and Sampling Methods)	omp. Me	th. Quant.	3 hrs	Mon Wed	16-18 14-15	HG D1.2 HG D5.2	A. Stein
401-4657-00 U	Numerical Analysis of Stochastic ODEs (Cifin.: Monte Carlo and Sampling Methods) Groups are selected in myStudies.	omp. Me	th. Quant.	1 hrs	Wed	15-16	HG D5.2 LFW C1	A. Stein
401-3929-00L	Financial Risk Management in Social and Pension Insurance	W	4 credits	2V				
401-3929-00 V	Financial Risk Management in Social and F	Pension I	Insurance	2 hrs	Wed	16-18	HG D7.2	P. Blum
401-3922-00L	Life Insurance Mathematics	W	4 credits	2V				
401-3922-00 V	Life Insurance Mathematics			2 hrs	Fri	16-18	HG E1.1	M. Koller
401-3928-00L	Reinsurance Analytics	W	4 credits	2V				
	Reinsurance Analytics			2 hrs	Tue	16-18	HG E1.1	P. Antal, P. Arbenz

#### ► Master's Thesis

Quantita	Quantitative Finance Master - Key for Type									
0	Compulsory	E-	Recommended, not eligible for credits							
W+	Eligible for credits and recommended	Z	Courses outside the curriculum							
W	Eligible for credits	Dr	Suitable for doctorate							

Key for	Key for Hours									
V	lecture	P	practical/laboratory course							
G	lecture with exercise	A	independent project							
U	exercise	D	diploma thesis							
S	seminar	R	revision course / private study							
K	colloquium									

ECTS European Credit Transfer and Accumulation System

■ Special students and auditors need special permission from the lecturers.

# **Quantum Engineering Master**

#### **▶** Core Courses

A minimum of 24 credits must be obtained from core courses during the MSc QE, course selection is subject to the tutor's agreement.

### **▶▶** Quantum Technology Lab

This core course is a prerequisite for participation in the QuanTech Labs of the second and third semester.

Number	Title	Туре	ECTS	Hours				Lecturers
227-1831-10L	Case Studies: Applications of Quantum Technology Only for Quantum Engineering MSc	W+	3 credits	6G				
227-1831-10 G	Case Studies: Applications of Quantum Tech Permission from lecturers required for all stu- The first lecture (27.09.21) take place in HG	dents		90s hrs	Mon 27.09.	16-18 16-18	HG D1.1 HG E3	L. Novotny

### **▶▶** Engineering Core Courses

These core courses target students with a physics background and all those who need additional engineering foundations.

Number	Title	Type	ECTS	Hours				Lecturers
227-0103-00L	Control Systems	W	6 credits	2V+2U				
227-0103-00 V	Regelsysteme			2 hrs	Mon	10-12	NO C60	F. Dörfler
227-0103-00 U	Regelsysteme			2 hrs	Tue 21.09.	10-12 12-14	CHN C14 CHN C14	F. Dörfler
227-0116-00L	VLSI 1: HDL based design for FPGAs	w	6 credits	5G				
227-0116-00 G	VLSI 1: HDL based design for FPGAs			5 hrs	Tue Wed	08-10 13-16	ETF C1 ETZ D61.1 ETZ D61.2 ETZ D96.1	F. K. Gürkaynak, L. Benini
227-0166-00L	Analog Integrated Circuits	W	6 credits	2V+2U				
227-0166-00 V	Analog Integrated Circuits			2 hrs	Fri	10-12	ETZ E6	T. Jang
227-0166-00 U	Analog Integrated Circuits Some of the exercise lessons will take place ETZ D61.1. To be announced during the course lesson		nputer room	2 hrs	Fri	14-16	ETZ E6	T. Jang
227-0301-00L	Optical Communication Fundamentals	w	6 credits	2V+1U+	1P			
227-0301-00 V	Optical Communication Fundamentals			2 hrs	Tue	14-16	ETZ K91	J. Leuthold
227-0301-00 U	Optical Communication Fundamentals			1 hrs	Tue	16-17	ETZ K91	J. Leuthold
227-0301-00 P	Optical Communication Fundamentals			1 hrs	Tue	17-18	ETZ K91	J. Leuthold
227-0417-00L	Information Theory I	w	6 credits	4G				
227-0417-00 G	Information Theory I			4 hrs	Wed	14-18	ETF C1	A. Lapidoth

### **▶▶** Physics Core Courses

These core courses target students with an engineering background and all those who need additional physics foundations.

Number	Title	Type	ECTS	Hours				Lecturers
402-0205-00L	Quantum Mechanics I	w	10 credits	3V+2U				
402-0205-00 V	Quantenmechanik I			3 hrs	Tue Thu	10-12 12-13	HPV G4 HPV G4	M. Gaberdiel
402-0205-00 U	Quantenmechanik I Do 10-12 oder Do 16-18			2 hrs	Thu	10-12 16-18	HCI H8.1 HIT F31.2 HIT K52 HPK D24.2 HIL B21 HIL E10.1 HIT K51 HPK D24.2	M. Gaberdiel
402-0209-00L	Quantum Physics for Non-Physicists	w	6 credits	3V+2U				
402-0209-00 V	Quantum Physics for Non-Physicists			3 hrs	Tue Thu	10-12 12-13	ML H44 ML F36	L. Pacheco Cañamero B. de Rio
402-0209-00 U	Quantum Physics for Non-Physicists			2 hrs	Thu	10-12	ML F36	L. Pacheco Cañamero B. de Rio
402-0255-00L	Introduction to Solid State Physics	w	10 credits	3V+2U				
402-0255-00 V	Einführung in die Festkörperphysik			3 hrs	Thu Fri	14-16 13-14	HPH G3 HPH G3	C. Degen
402-0255-00 U	Einführung in die Festkörperphysik Die Übungen beginnen in der 2. Semesterv Mi 14-16 oder Do 8-10.	voche.		2 hrs	Wed	14-16	HCI E2 HIT F31.2 HIT F32 HIT H51	C. Degen
	IVII 14-10 Ouel D0 6-10.				Thu	08-10	HIT F31.2 HIT F32 HIT J53	
402-0442-00L	Quantum Optics	w	10 credits	3V+2U				
402-0442-00 V	Quantum Optics			3 hrs	Wed Fri	10-12 09-10	HPV G5 HPV G5	T. Esslinger

402-0442-00 U	Quantum Optics			2 hrs	Tue Thu	10-12 16-18	HIT F32 HIT H51 HIT J51 HCI D6 HCI D8 HCI F2 HIT H42	T. Esslinger
402-0861-00L	Statistical Physics	w	10 credits	4V+2U				
402-0861-00 V	Statistical Physics			4 hrs	Tue Wed	14-16 14-16	HPV G5 HPV G5	M. Sigrist
402-0861-00 U	Statistical Physics			2 hrs	Tue	16-18	HCI J4 HIT J53	M. Sigrist
					Wed	12-14	HIT H42 HIT J51 HIT J52 HIT K51	
					Fri	16-18	HIT K51	
402-0461-00L	Quantum Information Theory	W	8 credits	3V+1U				
402-0461-00 V	Quantum Information Theory			3 hrs	Wed Thu	10-12 14-15	HPV G4 HPV G4	P. Kammerlander
402-0461-00 U	Quantum Information Theory			1 hrs	Thu	15-16	HCI J4 HPV G4	P. Kammerlander

#### ► Electives

This is a selection of courses particularly suitable for the MSc QE. In agreement with the tutor, students may choose other courses from the ETH course catalogue.

Number	Title	Type	ECTS	Hours				Lecturers
227-0101-00L	Discrete-Time and Statistical Signal Processing	W	6 credits	4G				
227-0101-00 G	Discrete-Time and Statistical Signal Process	sing		4 hrs	Tue	14-18	HG F3	HA. Loeliger
227-0145-00L	Solid State Electronics and Optics	W	6 credits	4G				
227-0145-00 G	Solid State Electronics and Optics			4 hrs	Mon Thu	14-16 14-16	ML F38 LFW C4	N. Yazdani, V. Wood
227-0146-00L	Analog-to-Digital Converters	W	6 credits	2V+2U				
227-0146-00 V	Analog-to-Digital Converters  Does not take place this semester.			2 hrs				
227-0146-00 U	Analog-to-Digital Converters  Does not take place this semester.			2 hrs				
227-0157-00L	Semiconductor Devices: Physical Bases and Simulation	W	4 credits	3G				
227-0157-00 G	Semiconductor Devices: Physical Bases and Falls alle Hörende es wünschen, kann die V Deutsch gehalten werden.			3 hrs	Mon	09-12	ETZ G91	A. Schenk, C. I. Roman
227-0166-00L	Analog Integrated Circuits	W	6 credits	2V+2U				
227-0166-00 V	Analog Integrated Circuits			2 hrs	Fri	10-12	ETZ E6	T. Jang
227-0166-00 U	Analog Integrated Circuits Some of the exercise lessons will take place ETZ D61.1. To be announced during the course lessons		nputer room	2 hrs	Fri	14-16	ETZ E6	T. Jang
227-0225-00L	Linear System Theory	W	6 credits	5G				
227-0225-00 G	Linear System Theory			5 hrs	Mon Wed 22.09.	09-12 10-12 10-12	IFW A36 ETZ E6 HG D1.1	A. lannelli
227-0311-00L	Qubits, Electrons, Photons	W	6 credits	3V+2U				
227-0311-00 V	Qubits, Electrons, Photons			3 hrs	Thu Fri	08-10 13-14	CHN F42 ETZ E9	T. Zambelli
227-0311-00 U	Qubits, Electrons, Photons			2 hrs	Wed	10-12	HG D3.2	T. Zambelli
227-0427-00L	Signal Analysis, Models, and Machine Learning This course was replaced by "Introduction to Estimation and Machine Learning" and "Advanced Signal Analysis, Modeling, and Machine Learning".	W	6 credits	4G				
227-0427-00 G	Signal Analysis, Models, and Machine Learn Does not take place this semester.	ning		4 hrs				HA. Loeliger
227-0468-00L	<b>Analog Signal Processing and Filtering</b> Suitable for Master Students as well as Doctoral Students.	W	6 credits	2V+2U				
227-0468-00 V	Analog Signal Processing and Filtering			2 hrs	Wed	08-10	CHN E46	H. Schmid
227-0468-00 U	Analog Signal Processing and Filtering			2 hrs	Wed	10-12	CHN E46	H. Schmid
227-0653-00L	Electromagnetic Precision Measurements and Opto-Mechanics	W	4 credits	2V+1U				
227-0653-00 V	Electromagnetic Precision Measurements a The course will take place online until further	nd Opto er notice	o-Mechanics	2 hrs	Fri	09-11	ML H34.3	M. Frimmer
	Electromagnetic Precision Measurements a		NA b t	1 hrs	Fri	11-12	ML H34.3	M. Frimmer

402-0465-581	Intersubband Optoelectronics	w	6 credits	2V+1U				
	Intersubband Optoelectronics  Does not take place this semester.	••	oorcans	2 hrs				G. Scalari
402-0465-58 U	Intersubband Optoelectronics Does not take place this semester.			1 hrs				G. Scalari
227-0655-00L	Nonlinear Optics	w	6 credits	2V+2U				
227-0655-00 V	Nonlinear Optics			2 hrs				J. Leuthold
227-0655-00 U	Does not take place this semester.  Nonlinear Optics  Does not take place this semester.			2 hrs				J. Leuthold
227-0663-00L	Nano-Optics	w	6 credits	2V+2U				
227-0663-00 V	•			2 hrs				M. Frimmer
227-0663-00 U	Nano-Optics  Does not take place this semester.			2 hrs				M. Frimmer
151-0563-01L	Dynamic Programming and Optimal Control	W	4 credits	2V+1U				
151-0563-01 V		mester. ke place		2 hrs	Wed	14-16	HG F1	R. D'Andrea
151-0563-01 U	,			1 hrs	Wed	16-17	CAB G51	R. D'Andrea
	The exercise will start in the 2nd week of S	semester			29.09.	16-17	HG F1 ML E12	
252-0535-00L	Advanced Machine Learning	w	10 credits	3V+2U+	4A			
252-0535-00 V	Advanced Machine Learning			3 hrs	Thu	15-16	ETA F5	J. M. Buhmann,
	Freitag 8-10 HG F1 mit Videoübertragung Donnerstag 15-16 ETA F 5 mit Videoüberti				Fri	08-10	ETF E1 HG F1	C. Cotrini Jimenez
252-0535-00 U	Advanced Machine Learning			2 hrs	Wed	14-16	HG F3 CAB G61	J. M. Buhmann,
						16-18	CAB G61	C. Cotrini Jimenez
					Thu Fri	16-18 14-16	ML F34 CAB G61	
252-0535-00 A	Advanced Machine Learning Project Work, no fixed presence required.			4 hrs			0/12/001	J. M. Buhmann, C. Cotrini Jimenez
252-0836-00L	Computer Science II	W	4 credits	2V+2U				
252-0836-00 V	Informatik II			2 hrs	Thu	10-12	HG E7	M. Schwerhoff, F. O. Friedrich Wicker
252-0836-00 U	Informatik II			2 hrs	Fri	16-18	CHN D42 CHN D44 CHN D46 CHN D48 LFW B3 LFW C1 LFW C11 LFW E13	M. Schwerhoff, F. O. Friedrich Wicker
402-0257-00L	Advanced Solid State Physics	W	10 credits	3V+2U				
402-0257-00 V	Advanced Solid State Physics			3 hrs	Tue Thu	12-13 14-16	HPV G5 HPV G5	K. Povarov
402-0257-00 U	Advanced Solid State Physics			2 hrs	Thu	08-10	HCP E47.2 HIT K52	K. Povarov
					Fri	14-16	HIT J51	
402-0317-00L	Semiconductor Materials: Fundamentals and Fabrication	s W	6 credits	2V+1U				
	Semiconductor Materials: Fundamentals an			2 hrs	Tue	14-16	HCI D2	S. Schön, W. Wegscheider
	Semiconductor Materials: Fundamentals a			1 hrs	Tue	16-17	HCI D2	S. Schön, W. Wegscheider
<b>402-0402-00L</b> 402-0402-00 V	Ultrafast Laser Physics Ultrafast Laser Physics	W	10 credits	<b>3V+2U</b> 3 hrs	Wed Thu	13-14 10-12	HIT H51 HIT H51	<b>L. P. Gallmann</b> , S. Johnson, U. Keller
402-0402-00 U	Ultrafast Laser Physics			2 hrs	Wed	14-16	HIT K51	L. P. Gallmann, S. Johnson, U. Keller
402-0444-00L	Advanced Quantum Optics	w	6 credits	2V+1U				
402-0444-00 V	Advanced Quantum Optics			2 hrs				A. Imamoglu
402-0444-00 U	Does not take place this semester.  Advanced Quantum Optics			1 hrs				A. Imamoglu
402-0447-00L	Does not take place this semester.  Quantum Science with Superconducting	g W	6 credits	2V+1U				
402-0447-00 \/	Circuits  Quantum Science with Superconducting Ci	ircuite		2 hrs	Fri	14-16	HCI J6	C. Eichler
	Quantum Science with Superconducting Co			2 nrs 1 hrs	Fri	16-17	HCP E47.1 HCP E47.2 HIL E5	C. Eichler
402-0464-00L	Optical Properties of Semiconductors	W	8 credits	2V+2U				
402-0464-00 V	• •			2 hrs	Mon	12-14 14-16	HIT J53	J. Faist, P. Anantha Murthy
402-0464-00 U	Optical Properties of Semiconductors			2 hrs	Mon	14-16	HIT F31.2	J. Faist, P. Anantha Murthy

102-0484-00L	Experimental and Theoretical Aspects of Quantum Gases	W	6 credits	2V+1U				
102-0484-00 V	Experimental and Theoretical Aspects of Quantum Does not take place this semester.	antum	Gases	2 hrs				T. Esslinger
102-0484-00 U	Experimental and Theoretical Aspects of Qu Does not take place this semester.	ıantum	Gases	1 hrs				T. Esslinger
402-0535-00L	Introduction to Magnetism	W	6 credits	3G				
402-0535-00 G	Introduction to Magnetism			3 hrs	Mon	16-19	HIL E6	A. Vindigni
402-0595-00L	Semiconductor Nanostructures	W	6 credits	2V+1U				
	Semiconductor Nanostructures			2 hrs	Wed	12-14	HCI J4	T. M. Ihn
402-0595-00 U	Semiconductor Nanostructures or by appointment			1 hrs	Wed	14-15	HIT J51 HIT K52	T. M. Ihn
	Parametric Phenomena	W	6 credits	3G				
402-0469-67 G	Parametric Phenomena  Does not take place this semester.			3 hrs				
► Semeste	r Project							
Number	Title	Type	ECTS	Hours				Lecturers
227-1871-00L	Semester Project Registration in myStudies required! Supervisor must be a professor at D-ITET or D-PHYS, see http://master- qe.ethz.ch/education/semester-project.html Semester Project ■	0	12 credits	20A 280s hrs	hy ann	t		Supervisors
	Permission from lecturers required for all stu	udents		2003 1113	Бу црр			Cupervisors
► Internshi	•							
Number	Title	Туре	ECTS	Hours				Lecturers
227-1873-00L	Internship in Industry Only for Quantum Engineering MSc.	0	12 credits					
227-1873-00 P	Internship in Industry ■							external organisers
227-1873-10L	QuanTech Workshops Only for Quantum Engineering MSc.	W	12 credits					
227-1873-10 P	QuanTech Workshops							G. Raino, M. Frimmer
► Master's	Thesis							
Number	Title	Туре	ECTS	Hours				Lecturers
227-1800-00L	Master's Thesis Admission only if ALL of the following apply: a) bachelor program successfully completed; b) acquired (if applicable) all credits from additional requirements for admission to master program; c) successfully completed the semester project.  Note: the conditions above are not	0	30 credits	68D				
227-1800-00 D	applicable to incoming exchange students.  Registration in mystudies required!  Supervisor must be a professor at D-ITET or D-PHYS, see http://master-qe.ethz.ch/education/master-project.html.  Master's Thesis			950s hrs	by app	t.		Supervisors
► GESS Sc	cience in Perspective				*			<u> </u>
3233 30	see Science in Perspective: Language Courses ETH/UZH							
	see Science in Perspective: Type A: Enhancement of Reflection Capability							
	Recommended Science in Perspective (Type B) for D-ITET							
Quantum Eng	gineering Master - Key for Type							
_			I	Е	D	000mmc=	dod not olicib	lo for gradita
W+	Compulsory Eligible for credits and recommended Fligible for credits			E- Z Dr			ided, not eligib itside the curric	

Dr

Suitable for doctorate

W

Eligible for credits

Key for	Hours		
V	lecture	P	practical/laboratory course
G	lecture with exercise	A	independent project
U	exercise	D	diploma thesis
S	seminar	R	revision course / private study
K	colloquium		

**ECTS** 

European Credit Transfer and Accumulation System
Special students and auditors need special permission from the lecturers.

# **Geospatial Engineering Bachelor**

## **▶** Basic Courses

#### **▶▶** First Year Examinations

Number	Title	Type	ECTS	Hours				Lecturers
401-0241-00L	Analysis I	0	7 credits	5V+2U				
401-0241-00 V	Analysis I			5 hrs	Mon Wed Thu/2w	08-10 08-10 08-10	ETF C1 HPH G2 ETF C1	M. Akveld
401-0241-00 U	Groups are selected in myStudies.			2 hrs	Thu	10-12	CHN D48 LFW E13	M. Akveld
	Do 10-12 (ausser für Studiengang Umweltingenieurwissenschaften) oder Dogemäss Gruppeneinteilung (Übungen 25: entsprechend umgekehrt Do 10-12 oder 18).	2-0845-00 Do 14-16	U Informatik oder Do 16-	I		14-16	ML J34.3 CHN D48 LFW C1 LFW E13 ML F40	
	Zusätzlich wird ab der zweiten Semesten gemeinsam für die Analysis I- und die Lin angeboten. Das StudyCenter findet mont mittwochs von 16-18 Uhr statt. Infos zu d auf der Moodle-Seite der Vorlesung.	eare Alge ags von 18	bra-Vorlesung 8-20 Uhr sowi			16-18	ML H41.1 LFW C1 ML H41.1	
401-0141-00L	Linear Algebra	0	5 credits	3V+1U				
401-0141-00 V	Lineare Algebra			3 hrs	Wed Thu/2w	10-12 08-10	HPH G2 ETF C1	M. Akka Ginosar
401-0141-00 U	Lineare Algebra Groups are selected in myStudies. Übungen Do 12-13 oder Do 13-14 gemäs Zusätzlich wird ab der zweiten Semestes gemeinsam für die Analysis I- und die Lin angeboten. Das StudyCenter findet mont mittwochs von 16-18 Uhr statt. Infos zu d auf der Moodle-Seite der Vorlesung.	woche ein eare Alge ags von 18	StudyCenter bra-Vorlesung 8-20 Uhr sowi		Thu	12-13	CHN D42 CHN D48 HG E33.3 LFW C1 LFW E13 CHN D42 CHN D48 HG E33.3 LFW C1 LFW E13	M. Akka Ginosar
252-0845-00L	Computer Science I	0	5 credits	2V+2U				
252-0845-00 V	Informatik I			2 hrs	Mon	12-14	HG F1	C. Cotrini Jimenez, R. Sasse
252-0845-00 U	Groups are selected in myStudies.			2 hrs	Thu	14-16	ETZ J91 HG E33.1 IFW C33 LFW C5 ON LINE CHN D46 ETZ G91 ETZ J91 HG E33.1 ON LINE	C. Cotrini Jimenez, R. Sasse
103-0313-00L	Spatial Planning and Landscape Development	0	5 credits	4G				
103-0313-00 G	Raum- und Landschaftsentwicklung GZ			4 hrs	Mon Fri	16-18 14-16	HCI J3 HIL E8	A. Grêt-Regamey, K. Hollenstein, J. Van Wezemael
103-0214-00L	Cartography Fundamentals	0	5 credits	4G				
103-0214-00 G	Kartografie GZ			4 hrs	Tue	14-18	HIL E7	L. Hurni
103-0116-00L	Ecology and Soil Science	0	3 credits	2G				
	Ökologie und Bodenkunde			2 hrs	Tue	10-12	HCP E47.3	S. Tobias

### **▶▶** Additional Basic Courses

No offer in Autumn Semester.

## ► Compulsory Courses

## ▶▶ Examination Block 1

Number	Title	Type	ECTS	Hours				Lecturers
401-0243-00L	Analysis III	0	3 credits	2V+1U				
401-0243-00 V	Analysis III			2 hrs	Tue	10-12	HPH G2	M. Akka Ginosar
401-0243-00 U	Analysis III Groups are selected in myStudies. Mi 9-10 für Studiengang Raumbezogene Ingenieurwissenschaften. Fr 12-13 oder Fr 13-14 für Studiengang Bauingenieurwissenschaften gemäss Grup Zusätzlich wird das StudyCenter angebote dazu folgen (ab der zweiten Semesterwoche)	•	Ü	1 hrs	Wed Fri	09-10 12-13 13-14	NO C6 HIT F31.2 HIT H42 HIT F31.2 HIT F32 HIT H42	M. Akka Ginosar

103-0233-10 G	GIS GZ Vorlesung: Mo 10-12 Übungen: Do 8-11			5 hrs	Mon Thu 22.12. 23.12.	10-12 08-11 15-18 08-12	HIL D53 HIL E15.2 HIT E51 HIT E51	W. Kuhn
<b>103-0187-02L</b> 103-0187-02 G	Satellite Geodesy Satellitengeodäsie	0	4 credits	<b>3G</b> 3 hrs	Tue	13-16	HIL D53	M. Rothacher
	Earth Observation Erdbeobachtung	0	4 credits	<b>3G</b> 3 hrs	Thu	13-16 14-15	HIL E8 HIL E15.2	I. Hajnsek, E. Baltsavias
<b>351-1158-00L</b> 351-1158-00 G	Principles of Economics Ökonomie In classroom, online via livestreaming or zo (Einführungsvorlesung 22.9. sowie Gastvo In classroom, online via livestreaming or zo groups); 6 Präsenzveranstaltungen. Online via livestreaming or zoom and recoi zoom, this will be recorded).	rlesung : oom, not	10.11.). recorded (4	<b>2G</b> 2 hrs	Wed	10-12	HG E41 LEE C104 LEE C114 LEE D101 LEE D105 ML D28 ML E12	U. Renold, T. Bolli, P. McDonald, M. E. Oswald- Egg, F. Pusterla
351-0703-00L	Introduction to Law Students who have attended or will attend the lecture "Introduction to Law for Civil Engineering and Architecture" (851-0703-03L) or "Introduction to Law" (851-0708-00L), cannot register for this course unit.  Particularly suitable for students of D-	0	2 credits	2V				
851-0703-00 \/	ARCH, D-MAVT, D-MATL Grundzüge des Rechts			2 hrs	Mon	14-16	HG E1.2	O. Streiff Gnöpff
	ation block 2			21113	IVIOIT	14-10	110 L1.2	O. Ottelli Oliopii
Number	Title	Туре	ECTS	Hours				Lecturers
102-0043-00L	Physics I	0	4 credits	3V+1U				
02-0043-00 V	Physics I (Physik I)			3 hrs	Tue	16-17	HPH G2	J. Home
00 0040 0011	Discovilled			4 6	Thu	16-18	HPH G2	Lillama
.02-0043-00 U	Physik I Di 17-18 für Studiengang Rechnergestützte Mi 9-10 (oder Di 17-18 als Ausweichtermin Chemie bzw. Chemieingenieurwissenscha Interdisziplinäre Naturwissenschaften.	) für Stu	diengänge	1 hrs	Tue	17-18 09-10	HCI D2 HIT F31.1 HIT H51 HIT J51 CAB G52	J. Home
	Mi 12-13 für Studiengang Raumbezogene Ingenieurwissenschaften. Do 10-11 für Studiengang Biochemie.				Thu	12-13 10-11	HG E21 HG E22 HG E33.5 HG G26.3 ML H41.1 ML J34.1 ML J34.3 HG D3.2 HCI D6	
103-0253-01L	Parameter Estimation	0	4 credits	3 <b>G</b>				
103-0253-01 G	Parameterschätzung			3 hrs	Wed	14-17	HCI D2	E. Brockmann
►► Examin	ation Block 3							
lumber	Title	Туре	ECTS	Hours				Lecturers
<b>363-1004-00L</b> 363-1004-00 G	Operations Research Operations Research The lecture takes place in classroom, online zoom and recorded.	<b>O</b> e via live	3 credits estreaming or	<b>2G</b> 2 hrs	Mon	08-10	ML F39	S. Bütikofer van Oordt
<b>101-0031-01L</b> 101-0031-01 G	Systems Engineering Systems Engineering Vorlesung: Donnerstag Übung: Montag Fragestunde: Wird in der ersten Vorlesung	<b>O</b> bekanni	4 credits	<b>4G</b> 4 hrs	Mon Thu	16-18 10-12	HIL E4 ETF C1	B. T. Adey
	Online lecture: This lecture will primarily tan Reserved rooms will remain reserved on co follow the course from there.							
101-0515-00L	Project Management Projektmanagement	0	2 credits	<b>2G</b> 2 hrs	Fri	14-16	HIL E1	C. G. C. Marxt
101-0515-0015	,			5			= .	
	BIOCKS							
► Elective I								
► Elective I ►► Geodes	y and Satellite Navigation  Title	Type	ECTS	Hours				Lecturers
► Elective I ►► Geodes Number 103-0139-00L	y and Satellite Navigation	Type W	ECTS 6 credits	Hours 4G 4 hrs	Tue Thu	14-16 14-16	HIL E6 HCP E47.1	Lecturers  R. Hohensinn

Number	Title	Туре	ECTS	Hours				Lecturers
103-0115-01L	Geodetic Measuring Technology and Laserscanning	W	6 credits	4G				
103-0115-01 G	Geodätische Messtechnik und Laserscannii	ng 		4 hrs	Wed	13-17	HIL D53	M. Vollmer, A. Wieser, N. Meyer
►► GIS and	l Cartography							
Number	Title	Туре	ECTS	Hours				Lecturers
103-0717-00L	Geoinformation Technologies and Analysis	W	6 credits	5G	_	10.10	LW 545.0	W 1/2 1
103-0717-00 G	Geoinformationstechnologien und -analyser	າ 		5 hrs	Tue Wed	10-13 10-12	HIL E15.2 HIL E7	W. Kuhn
►► Spatial	and Environmental Planning							
Number	Title	Туре	ECTS	Hours				Lecturers
103-0325-02L	Integrated Spatial Planning in Cities and Districts		6 credits	4G	M	10.40	50	O. Di Oarla Alvana
103-0325-02 G	Integrierte Raumentwicklung in Städten und	Quartie	ren 	4 hrs	Mon	12-16	HIL E8	G. Di Carlo Alvarez, F. Günther
►► Traffic S	Systems							
Number	Title	Туре	ECTS	Hours				Lecturers
	<b>Public Transport and Railways</b> Public Transport and Railways	W	3 credits	<b>2G</b> 2 hrs	Fri	12-14	HIL E1	A. Nash, H. Orth, S. Schrani
►► Networl	k Infrastructure							
Number	Title	Туре	ECTS	Hours				Lecturers
<b>052-0609-00L</b> 052-0609-00 G	Energy- and Climate Systems I Energie- und Klimasysteme I	W	2 credits	<b>2G</b> 2 hrs	Fri	10-12	HIL E3	A. Schlüter
	Keine Lehrveranstaltung am 29.10. (Semina 17/24.12. (vor Schlussabgaben).	arwoche	) sowie am					
052-0701-00L	Urban Design I	W	2 credits	2V	Thu	09.40	⊔р⊔ С1	M. Wagner
052-0701-00 V	Keine Lehrveranstaltung am 28.10. (Semina und 16.12. (vor Schlussabgaben).	arwoche	) sowie am 9.	2 hrs	Thu	08-10	HPH G1	M. Wagner
Elective	es ETH Zurich  Course Catalogue of ETH Zurich							
►► Recomi	mended Electives of Bachelor D	egree	Program	me				
Number	Title	Туре	ECTS	Hours				Lecturers
	Cartography Seminar Kartografie-Seminar Die Lehrveranstaltung findet nach Vereinba Dozierenden statt.	<b>W</b> rung mit	4 credits	9 <b>S</b> 120s hrs				L. Hurni
	Cartography Lab 1 Kartografie-Labor 1 Die Lehrveranstaltung findet nach Vereinba Dozierenden statt.	<b>W</b> rung mit	6 credits	<b>13S</b> 180s hrs				L. Hurni
	Cartography Lab 2 Kartografie-Labor 2 Die Lehrveranstaltung findet nach Vereinba Dozierenden statt.	<b>W</b> rung mit	8 credits	<b>17S</b> 240s hrs				L. Hurni
► GESS Sc	ience in Perspective							
	e in Perspective							
	see Science in Perspective: Type A: Enhancement of Reflection Capability							
	Recommended Science in Perspective (Type B) for D-BAUG							
▶▶ Langua	ge Courses							
<u> </u>	see Science in Perspective: Language Courses ETH/UZH							
► Bachelor	's Thesis							
Number	Title	Туре	ECTS	Hours				Lecturers
103-0006-10L	Bachelor's Thesis Registration in myStudies by 15 January for theses during the spring semester, by 15 August for theses during the autumn semester.		10 credits	21D				
103-0006-10 D	Bachelor-Arbeit ■			300s hrs	by appt			Lecturers

0	Compulsory	E-	Recommended, not eligible for credits
W+	Eligible for credits and recommended	Z	Courses outside the curriculum
W	Eligible for credits	Dr	Suitable for doctorate

Key for	Hours		
V	lecture	P	practical/laboratory course
G	lecture with exercise	A	independent project
U	exercise	D	diploma thesis
S	seminar	R	revision course / private study
K	colloquium		
		l l	

ECTS

European Credit Transfer and Accumulation System
Special students and auditors need special permission from the lecturers.

## **Spatial Development and Infrastructure Systems Master**

## ► Master Studies (Programme Regulations 2021)

## **▶▶** Compulsory Courses

Number	Title	Type	ECTS	Hours				Lecturers
101-0467-01L	Transport Systems Only for master students, otherwise a special permisson by the lecturers is required.	0	6 credits	4G				
101-0467-01 G	Transport Systems			4 hrs	Wed Thu	08-10 14-16	HIT K52 HIT K52	<b>K. W. Axhausen</b> , A. Kouvelas Y. Zhu
103-0317-00L	Introduction to Spatial Development and Transformation Only for master students, otherwise a special permisson by the lecturer is required.	0	3 credits	2G				
103-0317-00 G	Introduction to Spatial Development and Tra	nsforma	ation	2 hrs	Tue	10-12	HIL E6	M. Nollert, D. Kaufmann
103-0347-00L	Landscape Planning and Environmental Systems	0	3 credits	2V				
103-0347-00 V	Landscape Planning and Environmental Sys	tems		2 hrs	Fri	08-10	HIL E8	A. Grêt-Regamey
103-0377-10L	Basics of RE&IS Only for Spatial Development and Infrastructure Systems MSc.	0	3 credits	2G				
103-0377-10 G	Basics of RE&IS			2 hrs	Thu	16-18	HIL D10.2	<b>K. W. Axhausen</b> , B. T. Adey, A. Grêt-Regamey, C. Sailer
101-0509-10L	Network Infrastructure 1 Only for Spatial Development and Infrastructure Systems MSc.	0	3 credits	2G				
101-0509-10 G	Network Infrastructure 1			2 hrs	Tue	14-16	HCI H2.1	B. T. Adey, C. Martani
103-0378-00L	Introduction to the Programming Language R	0	3 credits	2G				
103-0378-00 G	Introduction to the Programming Language I	3		2 hrs	Thu	10-12	HIL H40.8	M. J. Van Strien, A. Grêt- Regamey

## **▶▶** Major Courses

## ▶▶▶ Major in Spatial and Landscape Development

Number	Title	Type	ECTS	Hours				Lecturers
103-0337-00L	Site and Project Development	w	3 credits	2G				
103-0337-00 G	Standort- und Projektentwicklung			2 hrs	Fri 08.10. 15.10. 12.11.	12-14 12-14 12-14 12-14	HIL H40.9 HIT K51 HIT K51 HIT K51	A. Gonzalez Martinez, M. Sudau, J. Van Wezemael
103-0417-02L	Methodology of Planning Research and Practice Only for master students, otherwise a special permisson by the lecturer is required.	W	3 credits	2G				
103-0417-02 G	Methoden der Planung in Forschung und Pr	raxis		2 hrs	Wed	14-16	HIL D60.1	A. Peric Momcilovic, T. B. Hug, R. Streit
851-0707-00L	Space Planning Law and Environment Particularly suitable for students of D- ARCH, D-BAUG, D-USYS	W	2 credits	2G				
851-0707-00 G	Raumplanungsrecht und Umwelt Vorlesungs-/Übungsveranstaltung nach spe Online-Veranstaltung: Diese Lehrveranstalt grundsätzlich online statt. Die reservierten f Studierenden auf dem Campus bestehen, u Lehrveranstaltung dort zu hören.	ung fina Räume l	let	2 hrs	Wed	16-18	HG F5	O. Bucher
103-0327-00L	History of Spatial Planning	w	3 credits	2V				
103-0327-00 V	Geschichte der Raumplanung			2 hrs	Mon	10-12	HIL D10.2	M. Koll-Schretzenmayr
103-0569-00L	European Aspects of Spatial Development	W	3 credits	2G				
103-0569-00 G	European Aspects of Spatial Development Online lecture: This lecture will primarily tak Reserved rooms will remain available for sta seminar from there.			2 hrs	Tue	16-18	HIL D53	A. Peric Momcilovic
103-0347-01L	Landscape Planning and Environmental Systems (GIS Exercises)	W	3 credits	2U				
103-0347-01 U	Landscape Planning and Environmental Sys	stems (0	GIS Exercises)	2 hrs	Wed	16-18	HIL E10.1 HIL E15.2 HIL F15.4	A. Grêt-Regamey, C. Brouille N. Klein
701-1631-00L	Foundations of Ecosystem Management	W	5 credits	3G				
701-1631-00 G	Foundations of Ecosystem Management			3 hrs	Thu	10-13	CHN G46 HG E41	<b>J. Ghazoul</b> , C. Garcia, J. Garcia Ulloa, A. Giger Dray
					23.09.	10-13	HG E33.1	

052-0705-00L	Ecological Assessment and Evaluation	W	3 credits	<b>3G</b> 3 hrs	Mon	16-19	CHN E46	F. Knaus
J32-0703-00L		w	2 credits	2V	IVIOIT	10 10	OTHV E-40	T. Milaus
052-0705-00 V	Landscape Architecture I Landschaftsarchitektur I Keine Lehrveranstaltung am 29.10. (Semina 17/24.12. (vor Schlussabgaben).			2 hrs	Fri	08-10	HIL E3	D. Richter
03-0468-00L	Participatory Modeling in Integrated	W	3 credits	2G				
03-0468-00 G	Landscape Development Participatory Modeling in Integrated Landsc Please consult the lecture's website for deta			2 hrs	Thu	14-16	HIL H35.1 HIL H40.4	E. Celio, N. Salliou
	rooms and program. https://irl.ethz.ch/education/courses/msc/pa tml	rticipatoı	ry_modelling.h	)	07.10. 14.10. 11.11. 09.12.	14-16 14-16 14-16 14-16	HIL E10.1 n /a n /a n /a	
	Room information of dates 07.10., 14.10., will be published later on.	11.11. ar	nd 09.12.2021					
02-0317-00L	Advanced Environmental Assessments Master students in Environmental Engineering choosing module Ecological Systems Design are not allowed to enrol 102-0317-00 Advanced Environmental Assessments (3KP) as already included in 102-0307-01 Advanced Environmental, Social and Economic Assessments (5KP).	W	3 credits	2G	_			
02-0317-00 G	Advanced Environmental Assessments			2 hrs	Thu	10-12	HIL E9	S. Pfister, R. Frischknecht
063-0703-00L	Architecture of Territory: Territorial Design in Histories, Theories and Projects This core course (ending with «00L») can only be passed once! Please check before signing up. Architecture of Territory: Territorial Design in and Projects	<b>W</b> n Histori	2 credits es, Theories	2V 2 hrs	Thu	10-12	ONA E7	M. Topalovic
Naior	No course on 28.10. (seminar week) 16./23 critiques).  in Transport Systems and Beha							
	<u> </u>							1
lumber	Title	Туре	ECTS	Hours				Lecturers
	Public Transport Design and Operations Public Transport Design and Operations	W	6 credits	<b>4G</b> 4 hrs	Mon Thu	14-16 08-10	HIL E10.1 HIL E10.1	F. Corman, F. Leutwiler
	Basics of Air Transport (Aviation I) Basics of Air Transport (Aviation I)	W	4 credits	<b>3G</b> 3 hrs	Wed	13-16	CAB G11	P. Wild
	<b>Transport Planning Methods</b> Transport Planning Methods	W	6 credits	<b>4G</b> 4 hrs	Mon	10-12 10-12	HIL F36.1 HIL F36.1	K. W. Axhausen
					Wed 22.09. 27.09. 29.09. 04.10. 06.10.	10-12 10-12 10-12 10-12 10-12	HCP E47.1 HIL F10.3 HCP E47.1 HIL F10.3 HCP E47.1	
01-0437-00L	Traffic Engineering	w	6 credits	4G	22.09. 27.09. 29.09. 04.10.	10-12 10-12 10-12 10-12	HCP E47.1 HIL F10.3 HCP E47.1 HIL F10.3	
	Traffic Engineering Traffic Engineering	w	6 credits	<b>4G</b> 4 hrs	22.09. 27.09. 29.09. 04.10.	10-12 10-12 10-12 10-12	HCP E47.1 HIL F10.3 HCP E47.1 HIL F10.3	A. Kouvelas
01-0437-00 G 227-0523-00L		<b>W</b> ung finde	6 credits et online statt. If dem		22.09. 27.09. 29.09. 04.10. 06.10.	10-12 10-12 10-12 10-12 10-12	HCP E47.1 HIL F10.3 HCP E47.1 HIL F10.3 HCP E47.1	A. Kouvelas M. Meyer
01-0437-00 G <b>27-0523-00L</b> 27-0523-00 G	Traffic Engineering  Railway Systems I Eisenbahn-Systemtechnik I Online-Veranstaltung: Diese Lehrveranstalt Der reservierte Raum bleibt für die Studiere Campus Zentrum bestehen, um die Lehrver	W ung finde nden au ranstaltu W	6 credits et online statt. If dem ing dort zu  3 credits	4 hrs	22.09. 27.09. 29.09. 04.10. 06.10. Mon Tue	10-12 10-12 10-12 10-12 10-12 16-18 16-18	HCP E47.1 HIL F10.3 HCP E47.1 HIL F10.3 HCP E47.1 HIL D10.2 HIL D10.2	
01-0437-00 G 27-0523-00L 27-0523-00 G 63-1047-00L 63-1047-00 G 01-0492-00L	Traffic Engineering  Railway Systems I Eisenbahn-Systemtechnik I Online-Veranstaltung: Diese Lehrveranstalt Der reservierte Raum bleibt für die Studiere Campus Zentrum bestehen, um die Lehrver hören.  Urban Systems and Transportation Urban Systems and Transportation The lecture takes place in classroom, online zoom and recorded.  Microscopic Modelling and Simulation of Traffic Operations	W ung finden au ranstaltu W e via live	6 credits et online statt. if dem ing dort zu  3 credits streaming or  3 credits	4 hrs  4G 4 hrs  2G 2 hrs	22.09. 27.09. 29.09. 04.10. 06.10. Mon Tue	10-12 10-12 10-12 10-12 10-12 16-18 16-18 08-12	HCP E47.1 HIL F10.3 HCP E47.1 HIL F10.3 HCP E47.1 HIL D10.2 HIL D10.2 LFW C1	M. Meyer G. Loumeau
01-0437-00 G  27-0523-00L 27-0523-00 G  63-1047-00L 63-1047-00 G  01-0492-00L 01-0492-00 G	Traffic Engineering  Railway Systems I Eisenbahn-Systemtechnik I Online-Veranstaltung: Diese Lehrveranstalt Der reservierte Raum bleibt für die Studiere Campus Zentrum bestehen, um die Lehrver hören.  Urban Systems and Transportation Urban Systems and Transportation The lecture takes place in classroom, online zoom and recorded.  Microscopic Modelling and Simulation of Traffic Operations Microscopic Modelling and Simulation of Tra	wung finden au ranstaltu w e via live w	6 credits et online statt. if dem ing dort zu  3 credits streaming or  3 credits erations	4 hrs  4G 4 hrs  2G 2 hrs  2 hrs	22.09. 27.09. 29.09. 04.10. 06.10. Mon Tue	10-12 10-12 10-12 10-12 10-12 16-18 16-18	HCP E47.1 HIL F10.3 HCP E47.1 HIL F10.3 HCP E47.1 HIL D10.2 HIL D10.2	M. Meyer
01-0437-00 G  27-0523-00L 27-0523-00 G  63-1047-00L 63-1047-00 G  01-0492-00L 01-0492-00 G  01-0491-00L	Traffic Engineering  Railway Systems I Eisenbahn-Systemtechnik I Online-Veranstaltung: Diese Lehrveranstalt Der reservierte Raum bleibt für die Studiere Campus Zentrum bestehen, um die Lehrver hören.  Urban Systems and Transportation Urban Systems and Transportation The lecture takes place in classroom, online zoom and recorded.  Microscopic Modelling and Simulation of Traffic Operations Microscopic Modelling and Simulation of Tra	wung finden au ranstaltu w e via live w	6 credits et online statt. if dem ing dort zu  3 credits streaming or  3 credits	4 hrs  4G 4 hrs  2G 2 hrs	22.09. 27.09. 29.09. 04.10. 06.10. Mon Tue	10-12 10-12 10-12 10-12 10-12 16-18 16-18 08-12	HCP E47.1 HIL F10.3 HCP E47.1 HIL F10.3 HCP E47.1 HIL D10.2 HIL D10.2 LFW C1	M. Meyer G. Loumeau
01-0437-00 G  27-0523-00L 27-0523-00 G  63-1047-00L 63-1047-00 G  01-0492-00L 01-0491-00L 01-0491-00 G  01-0469-00L	Traffic Engineering  Railway Systems I Eisenbahn-Systemtechnik I Online-Veranstaltung: Diese Lehrveranstalt Der reservierte Raum bleibt für die Studiere Campus Zentrum bestehen, um die Lehrver hören.  Urban Systems and Transportation Urban Systems and Transportation The lecture takes place in classroom, online zoom and recorded.  Microscopic Modelling and Simulation of Traffic Operations Microscopic Modelling and Simulation of Tra Agent Based Modeling in Transportation	wung finden auranstaltu we via live w affic Ope w	6 credits et online statt. If dem ing dort zu  3 credits streaming or  3 credits erations 6 credits  6 credits	4 hrs  4G 4 hrs  2G 2 hrs  2hrs  4G	22.09. 27.09. 29.09. 04.10. 06.10.  Mon Tue  Fri  Thu  Mon Mon	10-12 10-12 10-12 10-12 10-12 16-18 16-18 08-12 10-12	HCP E47.1 HIL F10.3 HCP E47.1 HIL F10.3 HCP E47.1 HIL D10.2 HIL D10.2 LFW C1  LFW B1  HIL G15.4  HPK D24.2	M. Meyer  G. Loumeau  M. Makridis
01-0437-00 G  27-0523-00L  27-0523-00 G  63-1047-00L  63-1047-00 G  01-0492-00 G  01-0491-00L  01-0491-00 G  01-0469-00L  01-0469-00 G	Railway Systems I Eisenbahn-Systemtechnik I Online-Veranstaltung: Diese Lehrveranstalt Der reservierte Raum bleibt für die Studiere Campus Zentrum bestehen, um die Lehrver hören. Urban Systems and Transportation Urban Systems and Transportation The lecture takes place in classroom, online zoom and recorded. Microscopic Modelling and Simulation of Traffic Operations Microscopic Modelling and Simulation of Tra Agent Based Modeling in Transportation Agent Based Modeling in Transportation Road Safety Strassenverkehrssicherheit: Grundlagen, W	wung finden auranstaltu we via live w affic Ope w	6 credits et online statt. If dem ing dort zu  3 credits streaming or  3 credits erations 6 credits  6 credits	4 hrs  4G 4 hrs  2G 2 hrs  2G 4 hrs  4G 4 hrs	22.09. 27.09. 29.09. 04.10. 06.10.  Mon Tue  Fri  Thu  Mon Tue	10-12 10-12 10-12 10-12 10-12 16-18 16-18 08-12 10-12	HCP E47.1 HIL F10.3 HCP E47.1 HIL F10.3 HCP E47.1 HIL D10.2 HIL D10.2 LFW C1  LFW C1  HIL G15.4  HPK D24.2 HPK D24.2	M. Meyer  G. Loumeau  M. Makridis  M. Balac

101-0549-00L	Selected Topics on Legal Aspects in	w	3 credits	2G				
101-0549-00 G	Civil Engineering  AK Baurecht			2 hrs	Wed	16-18	HIL E6	H. Briner, D. Trümpy
101-0492-00L	Microscopic Modelling and Simulation of Traffic Operations	w	3 credits	2G				
101-0492-00 G	Microscopic Modelling and Simulation of Tra	affic Ope	erations	2 hrs	Thu	10-12	HIL G15.4	M. Makridis
101-0469-00L	Road Safety	W	6 credits	4G				
101-0469-00 G	Strassenverkehrssicherheit: Grundlagen, W Verfahren	irkungsv	veisen,	4 hrs	Fri	14-18	HIL F10.3	M. Deublein, P. Eberling
101-0419-02L	Railway Infrastructures 2	W	2 credits	2G	_	40.40	50	
101-0419-02 G	Bahninfrastrukturen 2			2 hrs	Tue	16-18	HIL E6	<b>U. A. Weidmann</b> , P. Güldenapfel, M. Kohler, M. J. Manhart
▶▶▶ Major	Courses for all Majors							
Number	Title	Туре	ECTS	Hours				Lecturers
063-0701-00L	Methods of Urban Research This core course (ends with «OOL») can only be passed once! Please check this before signing up	W	2 credits	2G				
063-0701-00 G	Methoden der Stadtforschung Keine Lehrveranstaltung am 28.10. (Semina 16./23.12. (vor Schlussabgaben). ONLINE: Diese Lehrveranstaltung wird hauf angeboten. Der reservierte Raum steht den zur Verfügung, um das Seminar von dort au	otsächlid Studierd	ch online enden jedoch	2 hrs	Thu	14-16	HIL E1	C. Schmid, I. Apostol, N. Bathla, L. Howe, C. Ting
363-0541-00L	Systems Dynamics and Complexity	W	3 credits	3G				
363-0541-00 G	Systems Dynamics and Complexity Lecture: Thursday, 08-10 h Exercises: Tuesday, 12-13 h The lecture takes place in classroom, online zoom and recorded.	via live	streaming or	3 hrs	Tue Thu	12-13 08-10	HG D1.2 HG D1.2	F. Schweitzer
▶► Interdis	ciplinary Project Work							
Number	Title	Туре	ECTS	Hours				Lecturers
103-0020-00L	Interdisciplinary Project Only for Spatial Development and Infrastructure Systems MSc, Programme Regulations 2021.	0	16 credits	34A				
103-0020-00 A	Interdisziplinäre Projektarbeit Die aufgeführten Raum- und Vorlesungszeit organisatorischen Gründen aufgeführt. Die nicht verpflichtet, an diesem bestimmten Or bestimmten Zeit zu arbeiten. Die offiziellen Kontaktstunden zwischen Stu Dozierenden sind normalerweise für dieses	Studiere t und zu dierende Zeitfens	nden sind dieser en und ster (d.h.	480s hrs	23.09.	15-18	HCI J8	A. Grêt-Regamey
	Mittwochnachmittag) geplant, jedoch sind A und werden in der Projektbeschreibung ang							
►► Master's	und werden in der Projektbeschreibung ang							
►► Master's	und werden in der Projektbeschreibung ang			Hours				Lecturers
	s Thesis Title  Master's Thesis Only for Spatial Development and Infrastructure Systems MSc, Programme Regulations 2021.  Before starting the Master's thesis, students must have a. obtained the Bachelor's degree; b. fulfilled all specified admission conditions, if any; c. acquired at least 90 credits in the Master's programme, including the credits in the mandatory courses and 12 credits in	Type O	t.	Hours 43D				Lecturers
Number 103-0010-10L	und werden in der Projektbeschreibung ang  S Thesis  Title  Master's Thesis Only for Spatial Development and Infrastructure Systems MSc, Programme Regulations 2021.  Before starting the Master's thesis, students must have a. obtained the Bachelor's degree; b. fulfilled all specified admission conditions, if any; c. acquired at least 90 credits in the Master's programme, including the credits in the mandatory courses and 12 credits in the area of the interdisciplinary project. Master-Arbeit	Type O	ECTS		by appt.			Lecturers
Number 103-0010-10L	s Thesis  Title  Master's Thesis Only for Spatial Development and Infrastructure Systems MSc, Programme Regulations 2021.  Before starting the Master's thesis, students must have a. obtained the Bachelor's degree; b. fulfilled all specified admission conditions, if any; c. acquired at least 90 credits in the Master's programme, including the credits in the mandatory courses and 12 credits in the area of the interdisciplinary project. Master-Arbeit Permission from lecturers required for all starting.	Type O	ECTS 20 credits	43D	by appt.			
Number 103-0010-10L 103-0010-10 D ► Master St	s Thesis  Title  Master's Thesis Only for Spatial Development and Infrastructure Systems MSc, Programme Regulations 2021.  Before starting the Master's thesis, students must have a. obtained the Bachelor's degree; b. fulfilled all specified admission conditions, if any; c. acquired at least 90 credits in the Master's programme, including the credits in the mandatory courses and 12 credits in the area of the interdisciplinary project. Master-Arbeit Permission from lecturers required for all states.	Type O	ECTS 20 credits	43D	by appt.			
Number 103-0010-10L 103-0010-10 D ► Master St ►► Major C	s Thesis  Title  Master's Thesis Only for Spatial Development and Infrastructure Systems MSc, Programme Regulations 2021.  Before starting the Master's thesis, students must have a. obtained the Bachelor's degree; b. fulfilled all specified admission conditions, if any; c. acquired at least 90 credits in the Master's programme, including the credits in the mandatory courses and 12 credits in the area of the interdisciplinary project. Master-Arbeit Permission from lecturers required for all states (Programme Regulations ourses)	Type O	ECTS 20 credits	43D	by appt.			
Number 103-0010-10L 103-0010-10 D ► Master St ►► Major C	s Thesis  Title  Master's Thesis Only for Spatial Development and Infrastructure Systems MSc, Programme Regulations 2021.  Before starting the Master's thesis, students must have a. obtained the Bachelor's degree; b. fulfilled all specified admission conditions, if any; c. acquired at least 90 credits in the Master's programme, including the credits in the mandatory courses and 12 credits in the area of the interdisciplinary project. Master-Arbeit Permission from lecturers required for all states.	Type O	ECTS 20 credits	43D	by appt.			

103-0468-00 G	Participatory Modeling in Integrated Landso Please consult the lecture's website for det rooms and program. https://irl.ethz.ch/education/courses/msc/pa	ailed info	ormation abou		Thu 07.10.	14-16 14-16	HIL H35.1 HIL H40.4 HIL E10.1	E. Celio, N. Salliou
	tril  Room information of dates 07.10., 14.10.,	·	,_		14.10. 11.11. 09.12.		n /a n /a n /a	
	will be published later on.							
<b>052-0801-00L</b> 052-0801-00 G	Global History of Urban Design I Global History of Urban Design I No course on 28.10. (seminar week) 16./23 critiques).	<b>W</b> 3.12. (be	2 credits	<b>2G</b> 2 hrs	Thu	10-12	HIL E4	T. Avermaete
▶▶▶ Maior	in Transport Systems and Beh	aviou	r					
Number	Title	Туре		Hours				Lecturers
363-0445-00L	Production and Operations Management		3 credits	2G				
363-0445-00 G	Production and Operations Management This course can be followed fully online and opportunities for students who want to enga- staff in the classroom.			2 hrs	Thu	14-16	CAB G11	T. Netland
363-0445-02L	Production and Operations Management – Supplement Credit A parallel enrolment to the lecture 363- 0445-00L Production and Operations Management is mandatory.	t W	1 credit	1A				
363-0445-02 A	-	Supplen	nent Credit	7s hrs				T. Netland
101-0491-00L	Agent Based Modeling in Transportation	ı W	6 credits	4G				
	Agent Based Modeling in Transportation		o orouno	4 hrs	Mon Tue	10-12 14-16	HPK D24.2 HPK D24.2	M. Balac
<b>101-0469-00L</b> 101-0469-00 G	Road Safety Strassenverkehrssicherheit: Grundlagen, W Verfahren	<b>W</b> Virkungs	6 credits weisen,	<b>4G</b> 4 hrs	Fri	14-18	HIL F10.3	M. Deublein, P. Eberling
101-0492-00L	Microscopic Modelling and Simulation of Traffic Operations	W	3 credits	2G				
101-0492-00 G	Microscopic Modelling and Simulation of Tr	affic Ope	erations	2 hrs	Thu	10-12	HIL G15.4	M. Makridis
401-0647-00L	Introduction to Mathematical Optimization	W	5 credits	2V+1U				
401-0647-00 V	Introduction to Mathematical Optimization			2 hrs	Tue	16-18	HG F5	D. Adjiashvili
	Introduction to Mathematical Optimization Groups are selected in myStudies. Wed 12-13 or Wed 16-17			1 hrs	Wed	12-13 16-17	HG D1.2 IFW A36 ON LINE	D. Adjiashvili
▶▶▶ Netwo	ork Infrastructure							
Number	Title	Type	ECTS	Hours				Lecturers
<b>101-0258-00L</b> 101-0258-00 G	River Engineering River Engineering	W	3 credits	<b>2G</b> 2 hrs	Wed	16-18	HIL E8	V. Weitbrecht, I. Schalko, K. Sperger
101-0469-00L	Road Safety	w	6 credits	4G				-1 - 0 -
101-0469-00 G	Strassenverkehrssicherheit: Grundlagen, W Verfahren	Virkungs	weisen,	4 hrs	Fri	14-18	HIL F10.3	M. Deublein, P. Eberling
101-0492-00L	Microscopic Modelling and Simulation of Traffic Operations	W	3 credits	2G				
101-0492-00 G	Microscopic Modelling and Simulation of Tr	affic Ope	erations	2 hrs	Thu	10-12	HIL G15.4	M. Makridis
101-0419-02L	•	W	2 credits	2G	_	46.1-	=-	
101-0419-02 G	Bahninfrastrukturen 2			2 hrs	Tue	16-18	HIL E6	U. A. Weidmann, P. Güldenapfel, M. Kohler, M. J. Manhart
101-0187-00L	Structural Reliability and Risk Analysis	W	3 credits	2G	<b>-</b> ·	40.45	1101.10	O M!"
	Structural Reliability and Risk Analysis			2 hrs	Fri	10-12	HCI J6	S. Marelli
▶ <b>▶▶</b> Major	Courses for all Majors							
Number	Title	Туре	ECTS	Hours				Lecturers
101-0507-00L	Infrastructure Management 3: Optimisation Tools	W	6 credits	2 <b>G</b>				P. T. Ades
101-0507-00 G	Infrastructure Management 3: Optimisation Does not take place this semester. Next time in HS22.	IOOIS		2 hrs				B. T. Adey
▶► Interdis	ciplinary Project Work							
Number	Title	Туре	ECTS	Hours				Lecturers
101-0489-02L	Interdisciplinary Project	0	12 credits	26A				

Only for Spatial Development and Infrastructure Systems MSc, Programme Regulations 2009.

101-0489-02 A Interdisziplinäre Projektarbeit

Die aufgeführten Raum- und Vorlesungszeiten sind nur aus organisatorischen Gründen aufgeführt. Die Studierenden sind nicht verpflichtet, an diesem bestimmten Ort und zu dieser bestimmten Zeit zu arbeiten.

Die offiziellen Kontaktstunden zwischen Studierenden und Dozierenden sind normalerweise für dieses Zeitfenster (d.h. Mittwochnachmittag) geplant, jedoch sind Abweichungen möglich und werden in der Projektbeschreibung angekündigt.

HIL F36.1 A. Grêt-Regamey

#### ▶▶ Master's Thesis

Number	Title	Туре	ECTS	Hours		Lecturers
103-0010-00L	Master's Thesis Only for Spatial Development and Infrastructure Systems MSc, Programme Regulations 2009.	0	24 credits	51D		
	Before starting the Master's thesis, students must have a. obtained the Bachelor's degree; b. fulfilled all specified admission conditions, if any; c. acquired at least 90 credits in the Master's programme, including the credits in the mandatory courses and 12 credits in the area of the interdisciplinary project.	•				
103-0010-00 D	Master-Arbeit Permission from lecturers required for all sto	udents		720s hrs	by appt.	Supervisors

360s hrs Wed

13-18

#### **▶** Electives

The entire course programs of ETH Zurich and Universitiy Zurich are open to the students to individual selection. The students have themselves to check whether they meet the admission requirements for a course.

#### **▶▶** Recommended Electives of Master Degree Programme

Number	Title	Type	ECTS	Hours				Lecturers
103-0227-00L	Cartography III	w	5 credits	4G				
103-0227-00 G	Cartography III			4 hrs	Mon	13-17	HIL G22	L. Hurni
151-0757-00L	Environmental Management	w	2 credits	2G				
151-0757-00 G	Umwelt-Management Online-Veranstaltung: Diese Lehrveranstalt grundsätzlich online statt. Die reservierten R Studierenden auf dem Campus bestehen, u Lehrveranstaltung dort zu hören.	Räume l		2 hrs	Wed	18-20	ML D28	R. Züst
851-0703-03L	Private Construction Law Only for Civil Engineering BSc, Spatial Development and Infrastructure Systems MSc and UZH MNF Geographie/Erdsystemswissenschaften.	W	2 credits	2V				
851-0703-03 V	Privates Baurecht ■			2 hrs	Mon	16-18	HG F5	T. Ender, E. Rüegg
101-0193-00L	Systemic Design Labs: RE:GENERATE Alpine-Urban Circularity	W	4 credits	2S				
101-0193-00 S	Systemic Design Labs: RE:GENERATE Alp Intro: 24.9.21, 14-17h Block (excursion/field work): 1317.10.21, f Final presentation: 10.12.21, 14-17h		•	30s hrs				T. Luthe
101-0507-00L	Infrastructure Management 3: Optimisation Tools	W	6 credits	2G				
101-0507-00 G	Infrastructure Management 3: Optimisation Does not take place this semester. Next time in HS22.	Tools		2 hrs				B. T. Adey
401-0647-00L	Introduction to Mathematical Optimization	W	5 credits	2V+1U				
401-0647-00 V	Introduction to Mathematical Optimization			2 hrs	Tue	16-18	HG F5	D. Adjiashvili
401-0647-00 U	Introduction to Mathematical Optimization Groups are selected in myStudies. Wed 12-13 or Wed 16-17			1 hrs	Wed	12-13 16-17	HG D1.2 IFW A36 ON LINE	D. Adjiashvili
101-0258-00L	River Engineering	W	3 credits	2G				
101-0258-00 G	River Engineering			2 hrs	Wed	16-18	HIL E8	V. Weitbrecht, I. Schalko K. Sperger
363-0445-00L	Production and Operations Management	W	3 credits	2G				
363-0445-00 G	Production and Operations Management This course can be followed fully online and opportunities for students who want to enga- staff in the classroom.			2 hrs	Thu	14-16	CAB G11	T. Netland
701-0565-00L	Fundamentals of Natural Hazards Management	W	3 credits	3G				

701-0565-00 G	Grundzüge des Naturgefahrenmanagement Does not take place this semester. Zusätzlich zwei obligatorische, ganztägige i		nen.	3 hrs				<b>V. Griess</b> , B. Krummenacher, S. Löw
<b>052-0801-00L</b> 052-0801-00 G	Global History of Urban Design I Global History of Urban Design I No course on 28.10. (seminar week) 16./23 critiques).	<b>W</b> 3.12. (bet	2 credits fore final	<b>2G</b> 2 hrs	Thu	10-12	HIL E4	T. Avermaete
<b>101-0187-00L</b> 101-0187-00 G	Structural Reliability and Risk Analysis Structural Reliability and Risk Analysis	W	3 credits	<b>2G</b> 2 hrs	Fri	10-12	HCI J6	S. Marelli
<b>363-0565-00L</b> 363-0565-00 V	Principles of Macroeconomics Principles of Macroeconomics Di 16-18 im ETA F 5 mit Videoübertragung The lecture takes place in classroom, online zoom and recorded.			<b>2V</b> 2 hrs	Tue	16-18	ETA F5 ETF E1	JE. Sturm
<b>052-0707-00L</b> 052-0707-00 V	Urban Design III Urban Design III No course on 28.10. (seminar week) 16./23 critiques).	<b>W</b> 3.12. (bet	2 credits fore final	2V 2 hrs	Thu	08-10	ONA E7	H. Klumpner, M. Fessel
363-0445-02L	Production and Operations Management – Supplement Credit A parallel enrolment to the lecture 363- 0445-00L Production and Operations Management is mandatory.	· W	1 credit	1A				
363-0445-02 A	Production and Operations Management – Does not take place this semester. Irregular lecture	Supplem	nent Credit	7s hrs				T. Netland
401-3901-00L	Linear & Combinatorial Optimization	w	11 credits	4V+2U				
401-3901-00 V	•	ematical enline. Re	Optimization) eserved rooms	4 hrs	Wed Thu	12-14 10-12	HG G5 HG G5	R. Zenklusen
401-3901-00 U	Linear & Combinatorial Optimization (Mathe Groups are selected in myStudies. Thu 14-16 or Fri 10-12 or Fr 12-14 or Fri 14 demand)			2 hrs	Thu Fri	14-16 10-12 12-14 14-16	HG F26.5 CAB G51 HG D3.2 HG F26.5	R. Zenklusen
401-0625-01L	Applied Analysis of Variance and Experimental Design	W	5 credits	2V+1U				
401-0625-01 V 401-0625-01 U			ŭ	2 hrs 1 hrs	Mon Mon/2w	14-16 16-18	HG G5 HG E1.1	L. Meier L. Meier
<b>101-0249-00L</b> 101-0249-00 S	Hydraulic Engineering: Selected Topics Prerequisites: 101-0247-01L Hydraulic Engineering II or equivalent course. Hydraulic Engineering: Selected Topics Teaching language mainly English, selected in German. Former Title until HS19: Ausgewählte Kapit Wasserbau (in German).	d lecture	-	2 <b>S</b> 2 hrs	Thu	16-18	HIL E7	R. Boes
▶► Elective	es ETH Zurich							
	Course Catalogue of ETH Zurich							
► GESS Sc	ience in Perspective							
	see GESS Science in Perspective: Language Courses ETH/UZH							
	see GESS Science in Perspective: Type A: Enhancement of Reflection Capability							
	Recommended GESS Science in Perspective (Type B) for D-BAUG.							
	Inits for Additional Admission Foundation In the Initial Initi	-		nission req	uirement	S.		
Number	Title		ECTS	Hours				Lecturers
101-0031-AAL	Systems Engineering Enrolment ONLY for MSc students with a decree declaring this course unit as an additional admission requirement.	E-	4 credits	9R				
	Any other students (e.g. incoming exchange students, doctoral students) CANNOT enrol for this course unit.							
101-0031-AA R	Systems Engineering Self-study course. No presence required.			120s hrs				B. T. Adey
101 0414 8 41	Transport Diameira (Transportation I)	_	0	CD.				

6R

3 credits

101-0414-AAL Transport Planning (Transportation I)

Enrolment ONLY for MSc students with a decree declaring this course unit as an

	7				
	Any other students (e.g. incoming exchange students, doctoral students) CANNOT enrol for this course unit.				
101-0414-AA R	Transport Planning (Transportation I) Self-study course. No presence required.			90s hrs	K. W. Axhausen
101-0515-AAL	Project Management Enrolment ONLY for MSc students with a decree declaring this course unit as an additional admission requirement.	E-	2 credits	4R	
	Any other students (e.g. incoming exchange students, doctoral students) CANNOT enrol for this course unit.				
101-0515-AA R	Project Management Self-study course. No presence required.			60s hrs	B. T. Adey
102-0516-AAL	Environmental Impact Assessment Enrolment ONLY for MSc students with a decree declaring this course unit as an additional admission requirement.	E-	3 credits	6R	
102-0516-AA R	Any other students (e.g. incoming exchange students, doctoral students) CANNOT enrol for this course unit. Environmental Impact Assessment			90s hrs	SE. Rabe
	Self-study course. No presence required.				
103-0116-AAL	Ecology and Soil Science Enrolment ONLY for MSc students with a decree declaring this course unit as an additional admission requirement.	E-	3 credits	6R	
103-0116-AA R	Any other students (e.g. incoming exchange students, doctoral students) CANNOT enrol for this course unit. Ecology and Soil Science			90s hrs	S. Tobias
103-0313-AAL	Self-study course. No presence required.  Spatial Planning and Landscape		5 credits	11R	
	Development Enrolment ONLY for MSc students with a decree declaring this course unit as an additional admission requirement.	_	<b>.</b>		
	Any other students (e.g. incoming exchange students, doctoral students) CANNOT enrol for this course unit.				
103-0313-AA R	Spatial Planning and Landscape Developm Self-study course. No presence required.	nent		150s hrs	SE. Rabe
103-0357-AAL	Environmental Planning Enrolment ONLY for MSc students with a decree declaring this course unit as an additional admission requirement.	E-	3 credits	6R	
103-0357-∆∆ R	Any other students (e.g. incoming exchange students, doctoral students) CANNOT enrol for this course unit. Environmental Planning			90s hrs	SE. Rabe
	Self-study course. No presence required.				
103-0414-AAL	Transport Basics Enrolment ONLY for MSc students with a decree declaring this course unit as an additional admission requirement.	E-	4 credits	9R	
103-0414-AA R	Any other students (e.g. incoming exchange students, doctoral students) CANNOT enrol for this course unit. Transport Basics			120s hrs	K. W. Axhausen
	Self-study course. No presence required.				
252-0846-AAL	Computer Science II  Enrolment ONLY for MSc students with a decree declaring this course unit as an additional admission requirement.	E-	4 credits	9R	
252-0846-AA R	Any other students (e.g. incoming exchange students, doctoral students) CANNOT enrol for this course unit.  Computer Science II			120s hrs	F. O. Friedrich Wicker,
406-0242-AAL	Self-study course. No presence required.  Analysis II	E-	7 credits	15R	R. Sasse
+00-0242-AAL	Enrolment ONLY for MSc students with a decree declaring this course unit as an additional admission requirement.	Ŀ	r creuits	1011	

Any other students (e.g. incoming exchange students, doctoral students) CANNOT enrol for this course unit. 406-0242-AA R Analysis II M. Akveld 210s hrs Self-study course. No presence required. Mathematics I 6 credits 406-0251-AAL E-13R Enrolment ONLY for MSc students with a decree declaring this course unit as an additional admission requirement. Any other students (e.g. incoming exchange students, doctoral students) CANNOT enrol for this course unit. F. Da Lio 406-0251-AA R Mathematics I 180s hrs Self-study course. No presence required. 406-0603-AAL Stochastics (Probability and Statistics) 4 credits 9R Enrolment ONLY for MSc students with a decree declaring this course unit as an additional admission requirement. Any other students (e.g. incoming exchange students, doctoral students) CANNOT enrol for this course unit. 406-0603-AA R Stochastics (Probability and Statistics) 120s hrs M. Kalisch Self-study course. No presence required. 103-2233-AAL GIS Basics 6 credits 13R Enrolment ONLY for MSc students with a decree declaring this course unit as an additional admission requirement. Any other students (e.g. incoming exchange students, doctoral students) CANNOT enrol for this course unit. W. Kuhn 103-2233-AA R GIS Basics 180s hrs Self-study course. No presence required. 252-0856-AAL **Computer Science** 4 credits E-9R Enrolment ONLY for MSc students with a decree declaring this course unit as an additional admission requirement. Any other students (e.g. incoming exchange students, doctoral students) CANNOT enrol for this course unit. 252-0856-AA R Computer Science 120s hrs F. O. Friedrich Wicker, Self-study course. No presence required. R. Sasse 103-0717-AAL Geoinformation Technologies and 6 credits 13R **Analysis** Enrolment ONLY for MSc students with a decree declaring this course unit as an additional admission requirement. Any other students (e.g. incoming exchange students, doctoral students) CANNOT enrol for this course unit. 103-0717-AA R Geoinformation Technologies and Analysis 180s hrs W. Kuhn Self-study course. No presence required. 103-0234-AAL 5 credits 11R Enrolment ONLY for MSc students with a decree declaring this course unit as an additional admission requirement. Any other students (e.g. incoming exchange students, doctoral students) CANNOT enrol for this course unit. 103-0234-AA R GIS II 150s hrs W. Kuhn Self-study course. No presence required.

Spatial D	Development and Infrastructure Systems Master - Key for T	Гуре	
0	Compulsory	E-	Recommended, not eligible for credits
W+	Eligible for credits and recommended	Z	Courses outside the curriculum
W	Eligible for credits	Dr	Suitable for doctorate
		1	

Key for	Hours		
V	lecture	P	practical/laboratory course
G	lecture with exercise	A	independent project
U	exercise	D	diploma thesis
S	seminar	R	revision course / private study
K	colloquium		

**ECTS** 

European Credit Transfer and Accumulation System
Special students and auditors need special permission from the lecturers.

# **Computational Science and Engineering Bachelor**

## ► First Year Compulsory Courses

## ▶▶ First Year Examination Block 1

Number	Title	Type	ECTS	Hours				Lecturers
401-0151-00L	Linear Algebra	0	5 credits	3V+2U				
401-0151-00 V	Lineare Algebra Vorlesung im HG F1 mit Videoübe Dauer jeweils bis 12:45	ertragung ins HG I	<b>=</b> 3.	3 hrs	Fri	10-13	HG F1 HG F3	V. C. Gradinaru
401-0151-00 U	Lineare Algebra Groups are selected in myStudies Übungen: Di 16-18 oder Do 16-18 für Studie Informationstechnologie gemäss of Do 10-12 für Studiengang Rechn Übungen in den einzelnen Übung zweiten Semesterwoche.	ı. enschaften.	2 hrs	Tue Thu	16-18 10-12 16-18	CAB G61 CHN C14 CLA E4 ML F40 NO D11 RZ F21 CAB G56 HG F26.5 CHN D48	V. C. Gradinaru	
	Zusätzlich zu den Übungen wird e (ab der zweiten Semesterwoche, https://metaphor.ethz.ch/x/2020/h				10-10	CHN D46 CHN G46 ETZ E8 ETZ K91 ML E12		
252-0025-01L	Discrete Mathematics	0	7 credits	4V+2U				
252-0025-01 V	252-0025-01 V Diskrete Mathematik Findet im ETA F 5 mit Videoübertragung im ETI		1 statt.	4 hrs	Mon Wed	14-16 14-16	ETA F5 ETF E1 ETA F5	U. Maurer
							ETF E1	
202-0020-01-0	Diskrete Mathematik Groups are selected in myStudies Keine Übungsstunden in der erste	en Semesterwoche	Э.	2 hrs	Tue	14-16	CAB G52 CAB G56 CAB G56 CAB G57 CHN D42 CHN D44 CHN D48 CHN E42 ETZ F91 ETZ G91 ETZ H91 ETZ K91 HG F26.5 LFW B3 LFW E13 CAB G57 CHN D46 CHN G22 HG E21 HG E33.5 HG G26.5 IFW A34 IFW C31 LFW E13 NO E11 NO E39	U. Maurer
252-0856-00L	Computer Science	0	4 credits	2V+2U				
252-0856-00 V	Informatik			2 hrs	Mon 22.09.	08-10 10-12	ML E12 HG D1.2	F. O. Friedrich Wicker, R. Sasse
252-0856-00 U	Informatik Übungen finden ab der zweiten S	emesterwoche sta	ntt.	2 hrs	Tue Wed	14-16 10-12	HIT K51 HIT K52 CAB G56 LFW B3	<b>F. O. Friedrich Wicker</b> , R. Sasse

## ▶▶ First Year Examination Block 2

Number	Title	Type	ECTS	Hours				Lecturers
101-0231-10L	Analysis 1 Students in BSc EEIT may instead register for 401-1261-07L Analysis I: One Variable (for BSc Mathematics, BSc Physics and BSc Interdisciplinary Science (Phys Chem)), and take the performance assessment of the corresponding two-semester course. Students in BSc EEIT who wish to register for 401-1261-07L/401-1262-07L Analysis I: One Variable/Analysis II: Several Variables instead of 401-0231-10L/401-0232-10L Analysis 1/Analysis 2 must get in touch with the Study Administration before the registration.		8 credits	4V+3U				
401-0231-10 V	Analysis 1 (für EEIT und RW) Findet im HG F7 mit Videoübertragung ins I	НG F5 s	tatt.	4 hrs	Wed Thu	08-10 08-10	HG F5 HG F7 HG F5 HG F7	T. Rivière

401-0231-10 U	Analysis 1 (für EEIT und RW) Groups are selected in myStudies. Übungen: Mo 10-12 für Studiengang Rechnergestützt Mo 14-16 oder Mo 16-18 gemäss Gruppen: Studiengänge Elektrotechnik und Informatic Interdisziplinäre Naturwissenschaften. Schnellübungen Fr 8-10 (14-täglich). Zusätzlich zu den Übungen wird ein Study 11-12 im IFW D 42 ab der zweiten Semeste	einteilur onstechi Center a	ng für nologie bzw. angeboten: Di	3 hrs	Mon Fri/2w	10-12 14-16 16-18	CAB G56 LFW C4 ETZ F91 ETZ J91 HG D3.1 HG E22 LEE C114 LFV E41 ETZ J91 HG D3.1 HG E22 LEE C104 LEE C104 LEV E41 ETZ E9 ETZ K91 HG D3.2 IFW A32.1 LFV E41 LFV E41	T. Rivière
402-0043-00L	Physics I	0	4 credits	3V+1U				
402-0043-00 V	Physics I (Physik I)			3 hrs	Tue Thu	16-17 16-18	HPH G2 HPH G2	J. Home
402-0043-00 U	Physik I Di 17-18 für Studiengang Rechnergestützte Mi 9-10 (oder Di 17-18 als Ausweichtermin) Chemie bzw. Chemieingenieurwissenschaf Interdisziplinäre Naturwissenschaften. Mi 12-13 für Studiengang Raumbezogene Ingenieurwissenschaften. Do 10-11 für Studiengang Biochemie.	für Stu	diengänge	1 hrs	Tue Wed	17-18 09-10 12-13 10-11	HCI D2 HIT F31.1 HIT H51 HIT J51 CAB G52 HG E21 HG E22 HG E33.5 HG G26.3 ML H41.1 ML J34.1 ML J34.3 HG D3.2 HCI D6	J. Home

## **▶** Basic Courses

#### ▶▶ Block G1

Number	Title	Type	ECTS	Hours				Lecturers
401-0353-00L	Analysis 3	0	4 credits	2V+2U				
401-0353-00 V	Analysis 3			2 hrs	Mon	08-10	HG G3	M. lacobelli
401-0353-00 U	Analysis 3 Groups are selected in myStudies. Exercises start in the second week of the se Es wird auch mindestens eine Übungsgrup, angeboten.			2 hrs	Fri	10-12	CAB G56 CLA E4 ETZ E7 ETZ J91 ETZ K91 LEE C114 LFV E41 LFW B3	M. Iacobelli
401-0647-00L	Introduction to Mathematical Optimization	0	5 credits	2V+1U				
401-0647-00 V	Introduction to Mathematical Optimization			2 hrs	Tue	16-18	HG F5	D. Adjiashvili
401-0647-00 U	Introduction to Mathematical Optimization Groups are selected in myStudies. Wed 12-13 or Wed 16-17			1 hrs	Wed	12-13 16-17	HG D1.2 IFW A36 ON LINE	D. Adjiashvili
401-2673-00L	Numerical Methods for CSE	0	9 credits	2V+2U+4	₽P			
401-2673-00 V	Numerical Methods for CSE This course is designed in a flipped classro video tutorials and supplemented by a weel and-answer session, for which attendance is recommended.	kly ques	tion-	2 hrs	Fri	14-16	HG F1	R. Hiptmair
401-2673-00 U	Numerical Methods for CSE Groups are selected in myStudies.			2 hrs	Mon	10-12	LFW B3 ML F40 NO D11	R. Hiptmair
401-2673-00 P	Numerical Methods for CSE Self-study based on video tutorial and lectu	ıre notes	i.	4 hrs				R. Hiptmair
▶▶ Block G	<b>3</b> 2							
Number	Title	Туре	ECTS	Hours				Lecturers
402-0811-00L	Programming Techniques for Scientific Simulations I	0	5 credits	4G				
402-0811-00 G	Programming Techniques for Scientific Sim	ulations	1	4 hrs	Thu	14-18	HCI J3	R. Käppeli
252-0061-00L	Systems Programming and Computer Architecture	0	7 credits	4V+2U				
252-0061-00 V	Systems Programming and Computer Archi	itecture		4 hrs	Tue	10-12	HG E7	T. Roscoe, A. Klimovi

252-0061-00 U	Systems Programming and Computer Architecture Groups are selected in myStudies. The lecturers will communicate the exact lesson times of ONLINE courses.	2 hrs	Wed	12-14	CAB G56 CAB G59 CHN D48 CHN G46 ETZ G91 CHN D42 CHN G22 ETZ G91 ETZ J91 ETZ K91 HG G26.3 LEE D105	T. Roscoe, A. Klimovic
					LEE D105 ML H34.3 ON LINE	

#### ▶▶ Block G3

All course units within Block G3 are offered in the spring semester.

#### ▶▶ Block G4

All course units within Block G4 are offered in the spring semester.

## ► Core Courses from Group I (Modules)

#### **▶▶** Module A

Number	Title	Туре	ECTS	Hours				Lecturers
151-0107-20L	High Performance Computing for Science and Engineering (HPCSE) I	W	4 credits	4G				
151-0107-20 G	O G High Performance Computing for Science and Engineering (HPCSE) I Lecture: 12-14h Exercises: 14-16h		4 hrs	Fri	12-14 14-16	ML H44 ML H44	P. Koumoutsakos, S. M. Martin	

#### ▶▶ Module B

Number	Title	Туре	ECTS	Hours				Lecturers
263-2800-00L	Design of Parallel and High-Performance W Computing Number of participants limited to 125.		9 credits	3V+2U+	-3A			
263-2800-00 V	Design of Parallel and High-Performance Co	mputin	g	3 hrs	Mon	13-16	CAB G11	T. Hoefler, M. Püschel
263-2800-00 U	Design of Parallel and High-Performance Co	mputin	g	2 hrs	Thu	14-16	CHN C14	T. Hoefler, M. Püschel
263-2800-00 A	Design of Parallel and High-Performance Con Project Work, no fixed presence required.	mputin	g	3 hrs				T. Hoefler, M. Püschel

#### ► Core Courses from Group II

No offering in the Autumn Semester.

## ► Fields of Specialization

## **▶▶** Astrophysics

Number	Title	Туре	ECTS	Hours				Lecturers
401-7851-00L	Theoretical Astrophysics (University of Zurich) No enrolment to this course at ETH Zurich. Book the corresponding module directly at UZH as an incoming student. UZH Module Code: AST512	W	10 credits	4V+2U				
	Mind the enrolment deadlines at UZH: https://www.uzh.ch/cmsssl/en/studies/appli cation/deadlines.html							
401-7851-00 V	Theoretical Astrophysics (University of Zurich **Course at University of Zurich **	1)		4 hrs	Mon Tue 20.09.	10-12 10-12 10-12	UNI ZH. UNI ZH. UNI ZH.	University lecturers
401-7851-00 U	Theoretical Astrophysics (University of Zurich **Course at University of Zurich**	n)		2 hrs	Mon 20.09.	13-15 13-15	UNI ZH. UNI ZH.	University lecturers
401-7855-00L	Computational Astrophysics (University of Zurich) No enrolment to this course at ETH Zurich. Book the corresponding module directly at UZH as an incoming student. UZH Module Code: AST245	W	6 credits	2V				
	Mind the enrolment deadlines at UZH: https://www.uzh.ch/cmsssl/en/studies/appli cation/deadlines.html							
401-7855-00 V	Computational Astrophysics (University of Zu **Course at University of Zurich**	rich)		2 hrs	Tue	12-14	UNI ZH.	L. M. Mayer

#### **▶▶** Physics of the Atmosphere

Number	Title	Туре	ECTS	Hours				Lecturers
701-0023-00L	Atmosphere	W	3 credits	2V				
701-0023-00 V	Atmosphäre			2 hrs	Tue	10-12	HG E3	E. M. Fischer, T. Peter

## **▶▶** Chemistry

Number	Title	Туре	ECTS	Hours				Lecturers
529-0004-01L	Classical Simulation of (Bio)Molecular Systems	W	6 credits	4G				
529-0004-01 G	Classical Simulation of (Bio)Molecular Syst 2 hr lecture + 2 hr exercise session in our of students can choose between two alternative either on Tuesdays 7:30-9:30 a.m. or on The a.m.; the course was previously named CS remains the same, but the new title is more	compute ive exerc hursdays CCBP (th	ise sessions, 3 7:45-9:45 e content	4 hrs	Tue	10-12	HCI D2	<b>P. H. Hünenberger</b> , J. Dolenc, S. Riniker

## **▶▶** Fluid Dynamics

Number	Title	Type	ECTS	Hours				Lecturers
151-0103-00L	Fluid Dynamics II	W	3 credits	2V+1U				
151-0103-00 V	Fluiddynamik II In der 1. und 2. Semesterwoche findet am jeweils eine Vorlesung, anstelle von Übung 1).			2 hrs	Mon 21.09. 28.09.	10-12 11-12 11-12	HG E7 ETF C1 ETF C1	P. Jenny
151-0103-00 U	Fluiddynamik II Groups are selected in myStudies. Die Übungen beginnen in der 3. Semestere	voche.		1 hrs	Tue	11-12	CAB G61 HG D1.1 IFW A36	P. Jenny

## **▶▶** Systems and Control

Number	Title	Type	ECTS	Hours				Lecturers
227-0103-00L	Control Systems	w	6 credits	2V+2U				
227-0103-00 V	Regelsysteme			2 hrs	Mon	10-12	NO C60	F. Dörfler
227-0103-00 U	Regelsysteme			2 hrs	Tue 21.09.	10-12 12-14	CHN C14 CHN C14	F. Dörfler
227-0045-00L	Signals and Systems I	w	4 credits	2V+2U				
227-0045-00 V	Signal- und Systemtheorie I			2 hrs	Thu	08-10	HG F1	H. Bölcskei
227-0045-00 U	Signal- und Systemtheorie I			2 hrs	Tue	16-18	ETZ E6 HG E22 LEE C104 LEE C114 LFV E41	H. Bölcskei

#### **▶▶** Robotics

Only one of the two course units
263-5902-00L Computer Vision resp.
227-0447-00L Image Analysis and Computer Vision
may be recognised for credits. More precisely, it is also not allowed to have recognised one course unit for the Bachelor's and the other course unit for the Master's degree.

Number	Title	Type	ECTS	Hours				Lecturers
151-0601-00L	Theory of Robotics and Mechatronics	W	4 credits	3G				
151-0601-00 G	Theory of Robotics and Mechatronics Online event: Will primarily take place onlin remain blocked on campus for students to there.				Mon	08-10 10-11	HG D1.2 ML E12	P. Korba, S. Stoeter
252-0535-00L	Advanced Machine Learning	W	10 credits	3V+2U+	-4A			
252-0535-00 V	Advanced Machine Learning Freitag 8-10 HG F1 mit Videoübertragung			3 hrs	Thu	15-16	ETA F5 ETF E1	<b>J. M. Buhmann</b> , C. Cotrini Jimenez
	Donnerstag 15-16 ETA F 5 mit Videoübertr	agung in	s ETF E 1		Fri	08-10	HG F1 HG F3	
252-0535-00 U	Advanced Machine Learning			2 hrs	Wed	14-16 16-18	CAB G61 CAB G61	J. M. Buhmann, C. Cotrini Jimenez
					Thu Fri	16-18 14-16	ML F34 CAB G61	
252-0535-00 A	Advanced Machine Learning Project Work, no fixed presence required.			4 hrs				<b>J. M. Buhmann</b> , C. Cotrini Jimenez
263-3210-00L	Deep Learning Number of participants limited to 320.	W	8 credits	3V+2U+	2A			
263-3210-00 V	Deep Learning			3 hrs	Wed Thu	13-14 14-16	ML D28 ML D28	F. Perez Cruz, A. Lucchi
263-3210-00 U	Deep Learning			2 hrs	Mon Wed	16-18 16-18	HG G5 ML D28	F. Perez Cruz, A. Lucchi
263-3210-00 A	Deep Learning			2 hrs				F. Perez Cruz, A. Lucchi
263-5210-00L	Probabilistic Artificial Intelligence	W	8 credits	3V+2U+	-2A			
263-5210-00 V	Probabilistic Artificial Intelligence Fr 10-12 und 13-14 im ETA F5 mit Videoül	bertragui	ng ins ETF Et	3 hrs	Fri	10-12	ETA F5 ETF E1	A. Krause
						13-14	ETA F5 ETF E1	
263-5210-00 U	Probabilistic Artificial Intelligence Q&A session: Monday, 17-18, via zoom			2 hrs	Thu	16-18	CHN C14	A. Krause
263-5210-00 A	Probabilistic Artificial Intelligence			2 hrs				A. Krause
263-5902-00L	Computer Vision	W	8 credits	3V+1U+	3A			
263-5902-00 V	Computer Vision			3 hrs	Wed Thu	14-16 12-13	NO C60 HG G5	M. Pollefeys, S. Tang, F. Yo

263-5902-00 U	Computer Vision			1 hrs	Thu Fri	13-14 13-14	CAB G51 CAB G51	M. Pollefeys, S. Tang, F. Yu
263-5902-00 A	Computer Vision			3 hrs				M. Pollefeys, S. Tang, F. Yu
27-0447-00L	Image Analysis and Computer Vision	w	6 credits	3V+1U				
27-0447-00 V	Image Analysis and Computer Vision			3 hrs	Thu	14-17	HG F1	<b>L. Van Gool</b> , E. Konukoglu, F. Yu
27-0447-00 U	Image Analysis and Computer Vision			1 hrs	Thu	17-19	ETZ D61.1 ETZ D61.2	<b>L. Van Gool</b> , E. Konukoglu, F. Yu
51-0563-01L	Dynamic Programming and Optimal Control	W	4 credits	2V+1U				
151-0563-01 V		mester. ke place		2 hrs	Wed	14-16	HG F1	R. D'Andrea
51-0563-01 U	Dynamic Programming and Optimal Contro The exercise will start in the 2nd week of S		:	1 hrs	Wed 29.09.	16-17 16-17	CAB G51 HG F1 ML E12	R. D'Andrea
51-0851-00L	Robot Dynamics	w	4 credits	2V+2U	29.09.	10-17	IVIL L 12	
	Robot Dynamics ■	••	4 Orcuits	2 hrs	Tue	10-12	HG G5	M. Hutter, R. Siegwart
	Robot Dynamics ■			2 hrs	Wed	08-10	HG G5 IFW A36	M. Hutter, R. Siegwart
►► Physics	S							
Number	Title	Туре	ECTS	Hours				Lecturers
102-0809-00L	Introduction to Computational Physics	W	8 credits	2V+2U				
102-0809-00 V	Introduction to Computational Physics			2 hrs	Tue	10-12	HCI J7	A. Adelmann
102-0809-00 U	Introduction to Computational Physics			2 hrs	Tue	08-10	HCI J7	A. Adelmann
►► Compu	tational Finance							
lumber	Title	Туре	ECTS	Hours				Lecturers
01-3913-01L	Mathematical Foundations for Finance	W	4 credits	3V+2U				
01-3913-01 V	Mathematical Foundations for Finance			3 hrs	Tue	08-10	HG G5	B. Acciaio
	**together with University of Zurich**				Thu	13-14	HG G5	
101-3913-01 U	Mathematical Foundations for Finance Groups are selected in myStudies. **together with University of Zurich** Fri 8-10 or Fri 10-12			2 hrs	Fri	08-10 10-12	HG D7.1 HG D3.2	B. Acciaio
	Online course: This course takes place onl is meant for those students who want to for Zentrum campus.			m				
401-4657-00L	Numerical Analysis of Stochastic Ordinary Differential Equations Alternative course title: "Computational Methods for Quantitative Finance: Monte Carlo and Sampling Methods"	W	6 credits	3V+1U				
101-4657-00 V	Numerical Analysis of Stochastic ODEs (Confin.: Monte Carlo and Sampling Methods)	omp. Me	th. Quant.	3 hrs	Mon Wed	16-18 14-15	HG D1.2 HG D5.2	A. Stein
401-4657-00 U	Numerical Analysis of Stochastic ODEs (Confin.: Monte Carlo and Sampling Methods)  Groups are selected in myStudies.	omp. Me	th. Quant.	1 hrs	Wed	15-16	HG D5.2 LFW C1	A. Stein
►► Electro	magnetics							
Number	Title	Туре	ECTS	Hours				Lecturers
<b>227-2037-00L</b> 227-2037-00 G	Physical Modelling and Simulation Physical Modelling and Simulation	W	6 credits	<b>4G</b> 4 hrs	Thu	08-12	ETZ E6	J. Smajic
►► Geophy	/sics							
Recon Subjec Subjec Subjec Subjec Subjec Subjec	nmended combinations: ct 1 + Subject 2 ct 1 + Subject 3 ct 2 + Subject 3 ct 3 + Subject 4 ct 5 + Subject 6 + Subject 8 ct 4 + Subject 5 ct 7 + Subject 8							
<u> </u>	hysics: Subject 1							•
Number	Title	Туре	ECTS	Hours				Lecturers
6 <b>51-4007-00L</b> 651-4007-00 V	Continuum Mechanics Continuum Mechanics	W	3 credits	<b>2V</b> 2 hrs	Wed	14-16	NO E51.1	T. Gerya

Hours

4G

Lecturers

Type ECTS

6 credits

▶▶▶ Geophysics: Subject 2

Numerical Modelling I and II: Theory and W Applications

Number

651-4241-00L

651-4241-00 G Numerical Modeling I: Theory NO F39 24s hrs Mon/1 08-12 T. Gerya 651-4241-01 G Numerical Modeling II: Applications NO F39 T. Gerya 28s hrs Mon/2 08-12

▶▶▶ Geophysics: Subject 3

Offered in the spring semester

▶▶▶ Geophysics: Subject 4

Offered in the spring semester

$\triangleright \triangleright \triangleright$	Geo	physics:	Sub	ject 5
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Number	Title	Type	ECTS	Hours				Lecturers
651-4014-00L	Seismic Waves II	W	3 credits	2G				
651-4014-00 G	Seismic Waves II			2 hrs	Tue	10-12	ML F40	T. Diehl, F. Lanza,
	Remark: former title until HS 2020: Tomogi	raphic In	naging					A. Obermann

## ▶▶▶ Geophysics: Subject 6

Offered in the spring semester

#### ▶▶▶ Geophysics: Subject 7

Offered in the spring semester

Number	Title	Туре	ECTS	Hours				Lecturers
651-4273-00L	Numerical Modelling in Fortran	w	3 credits	2V				
651-4273-00 V	Numerical Modelling in Fortran			2 hrs	Mon	16-18	NO C6	P. Tackley
▶▶ Biology	,							
Number	Title	Туре	ECTS	Hours				Lecturers
636-0007-00L	Computational Systems Biology	w	6 credits	3V+2U				
636-0007-00 V	Computational Systems Biology Lecture: "inverted classroom". Students are electure videos provided ahead of a Zoom Q& held every Wednesday 16:15-17:00. Tutorials on Fridays 10:15-12:00 will be held In addition, students can sign up for Q&A ses small groups (max. 30). They will be offered wednesdays 15:15-16:00 in the lecture room HG D 3.2. For scheduling, see the course Moodle.	A sess via Zoo ssions i on sele	ion that will be om. in presence in octed		Wed	14-17	HG D3.2	J. Stelling
636-0007-00 U	Computational Systems Biology Tutorials on Fridays 10:15-12:00 will be held	via Zo	om.	2 hrs	Fri	10-12	HG D1.2	J. Stelling
636-0706-00L	Spatio-Temporal Modelling in Biology	w	4 credits	3G				
	Spatio-Temporal Modelling in Biology The lecture course will be offered as "inverted Lecture videos, slides, and scripts will be may Moodle, and students are expected to watch the lecture. The 45-minute in person lecture is answer student question where necessary, a application examples with students to deeper of the material. Similarly, problem sheets and made available ahead of the tutorial. The tute address further questions. As students from a Zurich participate in the course, lectures and offered in alternating weeks in Basel and Zur participation is always possible. It is a new for Feedback will be most welcome. Thursday 10-11 Q&A Lecture (BS) Thursday 11-12 Tutorial (BS) Friday 11-12 Q&A Lecture (ZH) Friday 12-13 Tutorial (ZH) Course starts: Friday, Sept. 24 in ZH	d class de ava the vio time se nd to o n their d solutio rials s both Ba tutoria ich. Re	room". ilable via leos ahead of rves to liscuss understanding ons will be erve to ls will be emote	3 hrs	Thu Fri	10-11 11-12 11-12 12-13	BSD G207.1 BSD G207.1 HG D16.2 HG D16.2	D. Iber
227-1037-00L	Introduction to Neuroinformatics	w	6 credits	2V+1U+	1A			
	Introduction to Neuroinformatics  Introduction to Neuroinformatics			2 hrs 1 hrs	Thu	08-10	NO C60	V. Mante, M. Cook, B. Grewe G. Indiveri, D. Kiper, W. von der Behrens V. Mante, M. Cook, B. Grewe
								G. Indiveri, D. Kiper, W. von der Behrens
227-1037-00 A	Introduction to Neuroinformatics			1 hrs				V. Mante

#### **▶** Electives

In the 'electives' subcategory, at least two course units must be successfully completed.

Number	Title	Type	ECTS	Hours				Lecturers
151-0709-00L	Stochastic Methods for Engineers and Natural Scientists	W	4 credits	4G				
151-0709-00 G	Stochastic Methods for Engineers and Natu Lecture: 10-12 Exercises: 12-14	ural Scie	ntists	4 hrs	Wed	10-14	NO C6	D. W. Meyer-Massetti

151-0317-00L	Visualization, Simulation and Interaction - Virtual Reality II	W	4 credits	3G				
151-0317-00 G	Visualization, Simulation and Interaction - V Additional lecture hour in consultation with the			3 hrs	Mon	12-15	CLA E4	A. Kunz
151-0833-00L	,	W	4 credits	2V+2U				
	Applied Finite Element Analysis			2 hrs	Wed	10-12	ML F38	B. Berisha, N. Manopulo
I51-0833-00 U	Applied Finite Element Analysis The exercises will start in the 2nd week of t	he Seme	ester.	2 hrs	Wed	14-16	IFW A36	B. Berisha
151-0529-00L	Computational Mechanics II: Nonlinear FEA	W	4 credits	2V+2U				
151-0529-00 V	Computational Mechanics II: Nonlinear FEA	4		2 hrs	Tue 28.09. 26.10.	10-12 10-12 10-12	LEE E101 ETZ E8 n /a	L. De Lorenzis
151-0529-00 U	Computational Mechanics II: Nonlinear FEA	Ą		2 hrs	Tue	14-16	LEE E101	L. De Lorenzis
263-2800-00L	Design of Parallel and High-Performance Computing Number of participants limited to 125.	∍ W	9 credits	3V+2U+3	BA			
263-2800-00 V	Design of Parallel and High-Performance C	omputin	g	3 hrs	Mon	13-16	CAB G11	T. Hoefler, M. Püschel
	Design of Parallel and High-Performance C	•	•	2 hrs	Thu	14-16	CHN C14	T. Hoefler, M. Püschel
263-2800-00 A	Design of Parallel and High-Performance C Project Work, no fixed presence required.	omputin	g	3 hrs				T. Hoefler, M. Püschel
227-0102-00L	Discrete Event Systems	w	6 credits	4G				
227-0102-00 G	Diskrete Ereignissysteme			4 hrs	Thu	14-16 16-18	HG D7.2 HG D7.2	R. Jacob, L. Vanbever, R. Wattenhofer
227-0116-00L	VLSI 1: HDL based design for FPGAs	w	6 credits	5G				
227-0116-00 G	VLSI 1: HDL based design for FPGAs			5 hrs	Tue Wed	08-10 13-16	ETF C1 ETZ D61.1 ETZ D61.2 ETZ D96.1	F. K. Gürkaynak, L. Benini
227-0147-10L	VLSI 3: Full-Custom Digital Circuit Design	W	6 credits	2V+3U				
227-0147-10 V	VLSI 3: Full-Custom Digital Circuit Design Permission from lecturers required for all st	udents		2 hrs	Mon	10-12	ETZ E8	C. Studer, O. Castañeda Fernández
227-0147-10 U	VLSI 3: Full-Custom Digital Circuit Design Permission from lecturers required for all st			3 hrs	Thu	13-16	ETZ G91	C. Studer, O. Castañeda Fernández
227-0148-00L	VLSI III: Test and Fabrication of VLSI Circuits	W	6 credits	4G				
227-0148-00 G	VLSI III: Test and Fabrication of VLSI Circu Does not take place this semester. Will be offered in spring 2022 as "227-0148 VLSI: measurement and testing"		SI4: Practical	4 hrs				L. Benini
<b>227-0417-00L</b> 227-0417-00 G	Information Theory I Information Theory I	W	6 credits	<b>4G</b> 4 hrs	Wed	14-18	ETF C1	A. Lapidoth
227-0427-00L	Signal Analysis, Models, and Machine Learning This course was replaced by "Introduction to Estimation and Machine Learning" and "Advanced Signal Analysis, Modeling, and Machine Learning".	W	6 credits	4G				
227-0427-00 G	Signal Analysis, Models, and Machine Lear Does not take place this semester.	ning		4 hrs				HA. Loeliger
227-0971-00L	Computational Psychiatry Please note that participation in this course and the practical sessions requires additional registration at: http://www.translationalneuromodeling.org/ cpcourse/		3 credits	48				
227-0971-00 S	Computational Psychiatry Block course from 13.09.2021 - 18.09.2021 8:00 - 18:30h	,		60s hrs	13.09 17.09. 18.09.		ON LINE	K. Stephan
252-0417-00L	Randomized Algorithms and Probabilistic Methods	W	10 credits	3V+2U+4	ŀΑ			
252-0417-00 V	Randomized Algorithms and Probabilistic M	1ethods		3 hrs	Wed Thu	08-09 16-18	ML D28 ML D28	A. Steger
252-0417-00 U	Randomized Algorithms and Probabilistic M	1ethods		2 hrs	Tue	14-16 16-18	HG D1.2 HG D1.2	A. Steger
252-0417-00 A	Randomized Algorithms and Probabilistic N Project Work, no fixed presence required.	1ethods		4 hrs		13 10	110 01.2	A. Steger
<b>252-0206-00L</b> 252-0206-00 V	Visual Computing Visual Computing	W	8 credits	<b>4V+3U</b> 4 hrs	Tue	10-12	HG G3	S. Coros, M. Pollefeys
	Visual Computing			3 hrs	Thu Tue	14-16 13-16	HG G3 CHN G42	S. Coros, M. Pollefeys
	Computer Graphics Computer Graphics	W	8 credits	<b>3V+2U+2</b> 3 hrs	Thu 2A	09-12	IFW A36	
252-0543-01 V	Does not take place this semester.			3 nrs				

252-05/3-01	Computer Graphics			2 hrs				
	Does not take place this semester.							
252-0543-01 A	Computer Graphics  Does not take place this semester.			2 hrs				
252-0546-00L	Physically-Based Simulation in Computer Graphics	W	5 credits	2V+1U+1	Α			
252-0546-00 V	Physically-Based Simulation in Computer Gr	aphics		2 hrs	Tue	10-12	CAB G51	V. da Costa de Azevedo, B. Solenthaler, B. Thomaszewski
252-0546-00 U	Physically-Based Simulation in Computer Gr	aphics		1 hrs	Tue	16-17	CAB G51	V. da Costa de Azevedo, B. Solenthaler, B. Thomaszewski
252-0546-00 A	Physically-Based Simulation in Computer Gr	aphics		1 hrs				V. da Costa de Azevedo, B. Solenthaler, B. Thomaszewski
252-0834-00L	· · · · · · · · · · · · · · · · · · ·	W	4 credits	2V+1U				
252-0834-00 V	Information Systems for Engineers Online lecture: This lecture will primarily take Reserved rooms will remain blocked on cam follow the course from there.			2 hrs	Fri	14-16	HG E5	G. Fourny
	Information Systems for Engineers Groups are selected in myStudies.			1 hrs	Fri	16-17	CAB G52 CAB G56 CAB G57 CAB G59 ON LINE ON LINE	G. Fourny
<b>401-3627-00L</b> 401-3627-00 V	High-Dimensional Statistics High-Dimensional Statistics	W	4 credits	<b>2V</b> 2 hrs	Thu	08-10	CAB G61	P. L. Bühlmann
<b>401-4623-00L</b> 401-4623-00 G	Time Series Analysis Time Series Analysis Does not take place this semester.	W	6 credits	<b>3G</b> 3 hrs				F. Balabdaoui
<b>401-3901-00L</b> 401-3901-00 V					Wed Thu	12-14 10-12	HG G5 HG G5	R. Zenklusen
401-3001-00 II	will remain reserved on campus for students from there. Linear & Combinatorial Optimization (Mather			2 hre	Thu	14-16	HG F26.5	R. Zenklusen
401-3901-00 0	Groups are selected in myStudies. Thu 14-16 or Fri 10-12 or Fr 12-14 or Fri 14-demand)		. ,	21115	Fri	10-12 12-14 14-16	CAB G51 HG D3.2 HG F26.5	R. Zelikiuseli
402-2203-01L		W	7 credits	4V+2U				
402-2203-01 V	Allgemeine Mechanik Die erste Vorlesung (23.09.21) findet im HCl HPH G 3 bzw. HIL E 3.	G 7 sta	att, danach im	4 hrs	Mon Thu 23.09.	12-14 14-16 14-16	HPH G3 HIL E3 HCI G7	R. Renner
402-2203-01 U	Allgemeine Mechanik Die Übungen beginnen in der 2. Semesterwe	oche.		2 hrs	Tue	08-10	CHN D42 CHN D48 CHN E46	R. Renner
					Wed	10-12	HG E33.1 LFW C1 ML F40 ML J34.1 ML J34.3	
					Fri	14-16	ML J37.1 HIL C10.2 HPL D32 HPL D34	
227-1033-00L	Neuromorphic Engineering I Registration in this class requires the permission of the instructors. Class size will be limited to available lab spots. Preference is given to students that require this class as part of their major.	W	6 credits	2V+3U				
	Information for UZH students: Enrolment to this course unit only possible at ETH. No enrolment to module INI404 at UZH. Please mind the ETH enrolment deadlines							
	for UZH students: https://www.ethz.ch/en/studies/non- degree- courses/special- students/special-							
	students-university-of-zurich.html							T. Delbrück, G. Indiveri, S

227-1033-00 U Neuromorphic Engineering I 3 hrs by appt. T. Delbrück, G. Indiveri, S.-Permission from lecturers required for all students \*\*together with University of Zurich\*\* C. Liu Dates by arrangement. 327-1201-00L Transport Phenomena I W 5 credits 4G 327-1201-00 G Transport Phenomena I 4 hrs 14-18 HCP E47.3 J. Vermant Mon 14:00-15:00 Vorlesung 15:15-16:15 Übungen in zwei Gruppen 16:30-17:30 Vorlesung see also Fields of Specialization Electives (CSE Master)

► Addition	al Electives from the Fields of S	Specia	llization (C	SE Ma	ster)			
Number	Title	Туре	ECTS	Hours				Lecturers
651-4053-05L	Boundary Layer Meteorology	W	4 credits	3G				
651-4053-05 G	Boundary Layer Meteorology			3 hrs	Fri	08-10 12-13	CAB G51 CAB G61	M. Rotach, P. Calanca
701-1221-00L	Dynamics of Large-Scale Atmospheric Flow	W	4 credits	2V+1U				
701-1221-00 V	Dynamics of Large-Scale Atmospheric Flow	N		2 hrs	Wed	09-11	CHN E42	H. Wernli, L. Papritz
701-1221-00 U	Dynamics of Large-Scale Atmospheric Flow	N		1 hrs	Wed	11-12	CHN E42	H. Wernli, L. Papritz
529-0003-01L	Advanced Quantum Chemistry	w	6 credits	3G				
529-0003-01 G	Advanced Quantum Chemistry Lecture Tue 12:00-14:00, Exercise Classes Vorlesung Di 12-14 Uhr, Uebung Do 10-11		ay 10:00-11:00	3 hrs	Tue Thu	12-14 10-11	HCI J4 HCI F8	M. Reiher, A. Baiardi
151-0105-00L	Quantitative Flow Visualization	W	4 credits	3G				
151-0105-00 G	Quantitative Flow Visualization This course will be offered for the last time 2021.	in Autun	nn Semester	3 hrs	Tue	10-13	ML H41.1	T. Rösgen
151-0109-00L	Turbulent Flows	w	4 credits	2V+1U				
151-0109-00 V	Turbulent Flows			2 hrs	Thu	08-10	ML E12	P. Jenny
151-0109-00 U	Turbulent Flows			1 hrs	Thu	13-14	HG D7.1	P. Jenny
151-0213-00L	Fluid Dynamics with the Lattice Boltzmann Method	W	4 credits	3G				
151-0213-00 G	Fluid Dynamics with the Lattice Boltzmann This course will be taught in a hybrid of one classroom formats; students will be informa- class on campus or should join the live stre	line and i ed who d	an attend the	3 hrs	Wed	10-13	IFW B42	I. Karlin
252-0535-00L	Advanced Machine Learning	w	10 credits	3V+2U+	4A			
252-0535-00 V	Advanced Machine Learning Freitag 8-10 HG F1 mit Videoübertragung Donnerstag 15-16 ETA F 5 mit Videoüberti			3 hrs	Thu Fri	15-16 08-10	ETA F5 ETF E1 HG F1 HG F3	J. M. Buhmann, C. Cotrini Jimenez
252-0535-00 U	Advanced Machine Learning			2 hrs	Wed Thu	14-16 16-18 16-18	CAB G61 CAB G61 ML F34	<b>J. M. Buhmann</b> , C. Cotrini Jimenez
					Fri	14-16	CAB G61	
252-0535-00 A	Advanced Machine Learning Project Work, no fixed presence required.			4 hrs				J. M. Buhmann, C. Cotrini Jimenez
636-0017-00L	Computational Biology	W	6 credits	3G+2A				
636-0017-00 G	Computational Biology The lecture will be held each Monday (16-Basel and will be transmitted via videoconf		ner in Zurich or	3 hrs	Mon	16-18 18-19	BSA E46 HG D16.2 HG D16.2	T. Vaughan
	location. Tutorials will happen in both locat Tutorials in Zürich: Monday 18-19h (HG D Tutorials in Basel: Thursday 12-13h (BSA I Lecture on Monday and the Tutorial on The available for participation via Zoom. ATTENTION: Lecture starts on Monday, 2: Basel on Thursday 30.09	16.2) E 46) ursday w			Thu	12-13	BSA E46	
636-0017-00 A	Computational Biology Project Work (compulsory continuous perfo no fixed presence required.	ormance	assessments)	2 hrs				T. Vaughan

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Number	Title	Туре	ECTS	Hours				Lecturers
401-3667-71L	Case Studies Seminar (Autumn Semester 2021)	W	3 credits	2S				
401-3667-00 S	Case Studies Seminar Attendance mandatory.			2 hrs	Thu	16-18	HG D1.2 HG D16.2	V. C. Gradinaru, R. Hiptmair, M. Reiher

#### ► GESS Science in Perspective

## ▶▶ Science in Perspective

see Science in Perspective: Type A: Enhancement of Reflection Capability

## **▶▶** Science in Perspective

see Science in Perspective: Language Courses ETH/UZH

#### ► Bachelor's Thesis

If you wish to have recognised 402-2000-00L Scientific Works in Physics instead of 401-2000-00L Scientific Works in Mathematics (as allowed for the CSE programme), take contact with the Study Administration Office (www.math.ethz.ch/studiensekretariat) after having passed the performance assessment

assess	sment.							
Number	Title	Туре	ECTS	Hours				Lecturers
<b>401-2000-00L</b> 401-2000-00 V	Scientific Works in Mathematics Target audience: Third year Bachelor students; Master students who cannot document to have received an adequate training in working scientifically. Scientific Works in Mathematics Groups are selected in myStudies. This mandatory course is offered twice per Carry your ETH student card with you to pi			1s hrs	28.09. 14.12.		ON LINE ON LINE	M. Burger
	The lecturers will communicate the exact le courses.	esson tin	nes of ONL	INE				
401-2000-01L	Lunch Sessions – Thesis Basics for Mathematics Students Details and registration for the optional MathBib training course: https://www.math.ethz.ch/mathbib- schulungen	Z	0 credits					
i01-2000-01 G	Lunch Sessions – Thesis Basics für Mathe geplant 4., 5., 6. und 8. Oktober 2021 übe https://math.ethz.ch/library/training-courses	r Mittag.		4s hrs				Speakers
102-2000-00L	Scientific Works in Physics Target audience: Master students who cannot document to have received an adequate training in working scientifically.	W	0 credits					
	Directive https://www.ethz.ch/content/dam/ethz/com mon/docs/weisungssammlung/files- en/declaration-of-originality.pdf							
102-2000-00 V	Scientific Works in Physics The lecture will be performed twice: on 28 December 2021 from 16:45-18:30. Only or attended.			2s hrs				C. Eichler
101-3990-18L	Bachelor's Thesis Successful participation in the course unit 401-2000-00L Scientific Works in Mathematics or 402-2000-00L Scientific Works in Physicsis is required. For more information, see www.math.ethz.ch/intranet/students/study- administration/theses.html	0	14 credit	s 30D				
i01-3990-18 D	Bachelor-Arbeit (RW) ■			420s hrs	by appt	•		Supervisors
Colloqui	a							
lumber	Title	Type	ECTS	Hours				Lecturers
01-5650-00L	Zurich Colloquium in Applied and Computational Mathematics	E-	0 credits	1K				
01-5650-00 K	Zurich Colloquium in Applied and Computa **together with University of Zurich** More information at: https://studentservices.uzh.ch/uzh/anonym/2021/003/SM/50027666			1 hrs tails	Wed	16-17	HG E1.2	R. Abgrall, R. Alaifari, H. Ammari, R. Hiptmair, S. Mishra, S. Sauter
Computation	al Science and Engineering Bachelor -	Key for	Туре					
)	Compulsory			E-	Re	ecommen	ded, not eligibl	e for credits
	Eligible for credits and recommended Eligible for credits			Z Dr			tside the curric doctorate	ulum

Key for	Hours		
V	lecture	P	practical/laboratory course
G	lecture with exercise	A	independent project
U	exercise	D	diploma thesis
S	seminar	R	revision course / private study
K	colloquium		

**ECTS** 

European Credit Transfer and Accumulation System
Special students and auditors need special permission from the lecturers.

# **Computational Science and Engineering Master**

## ► Core Courses

Number	Title	Туре	ECTS	Hours				Lecturers
401-4671-00L	Advanced Numerical Methods for CSE	W	9 credits	4V+2U+	IP			
	Advanced Numerical Methods for CSE		5 2. Zuilo	4 hrs	Mon Tue	16-18 16-18	HG F1 HG F1	S. Mishra
401-4671-00 U	Advanced Numerical Methods for CSE Groups are selected in myStudies. Thu 8-10 or Fri 14-16			2 hrs	Thu Fri	08-10 14-16	HG F26.5 LEE C104	S. Mishra
401-4671-00 P	Advanced Numerical Methods for CSE			1 hrs				S. Mishra
252-0535-00L	Advanced Machine Learning	W	10 credits	3V+2U+4	IA			
252-0535-00 V	Advanced Machine Learning			3 hrs	Thu	15-16	ETA F5	J. M. Buhmann,
	Freitag 8-10 HG F1 mit Videoübertragung i Donnerstag 15-16 ETA F 5 mit Videoübertra				Fri	08-10	ETF E1 HG F1 HG F3	C. Cotrini Jimenez
252-0535-00 U	Advanced Machine Learning			2 hrs	Wed	14-16 16-18	CAB G61 CAB G61	<b>J. M. Buhmann</b> , C. Cotrini Jimenez
					Thu Fri	16-18 14-16	ML F34 CAB G61	
252-0535-00 A	Advanced Machine Learning Project Work, no fixed presence required.			4 hrs		11.10	0/12/001	<b>J. M. Buhmann</b> , C. Cotrini Jimenez
► Fields of	Specialization							
►► Astroph	ysics							
Number	Title	Туре	ECTS	Hours				Lecturers
401-7851-00L	Theoretical Astrophysics (University of Zurich) No enrolment to this course at ETH Zurich. Book the corresponding module directly at UZH as an incoming student. UZH Module Code: AST512	W	10 credits	4V+2U				
	Mind the enrolment deadlines at UZH: https://www.uzh.ch/cmsssl/en/studies/application/deadlines.html							
401-7851-00 V	Theoretical Astrophysics (University of Zurich**  **Course at University of Zurich**	ch)		4 hrs	Mon Tue 20.09.	10-12 10-12 10-12	UNI ZH. UNI ZH. UNI ZH.	University lecturers
401-7851-00 U	Theoretical Astrophysics (University of Zurich** **Course at University of Zurich**	ch)		2 hrs	Mon 20.09.	13-15 13-15	UNI ZH. UNI ZH.	University lecturers
401-7855-00L	Computational Astrophysics (University of Zurich) No enrolment to this course at ETH Zurich. Book the corresponding module directly at UZH as an incoming student. UZH Module Code: AST245  Mind the enrolment deadlines at UZH:	W	6 credits	2V				
401-7855-00 V	https://www.uzh.ch/cmsssl/en/studies/appli cation/deadlines.html Computational Astrophysics (University of Z **Course at University of Zurich**	(urich)		2 hrs	Tue	12-14	UNI ZH.	L. M. Mayer
▶▶ Physics	of the Atmosphere							
Number	Title	Туре	ECTS	Hours				Lecturers
701-0023-00L	Atmosphere	w	3 credits	2V				
701-0023-00 V	•			2 hrs	Tue	10-12	HG E3	E. M. Fischer, T. Peter
	<b>Boundary Layer Meteorology</b> Boundary Layer Meteorology	W	4 credits	<b>3G</b> 3 hrs	Fri	08-10 12-13	CAB G51 CAB G61	M. Rotach, P. Calanca
701-1221-00L	Dynamics of Large-Scale Atmospheric Flow	W	4 credits	2V+1U				
	Dynamics of Large-Scale Atmospheric Flow Dynamics of Large-Scale Atmospheric Flow			2 hrs 1 hrs	Wed Wed	09-11 11-12	CHN E42 CHN E42	H. Wernli, L. Papritz H. Wernli, L. Papritz
401-5930-00L	Seminar in Physics of the Atmosphere for CSE	W	4 credits	28				
401-5930-00 S	Seminar in Physics of the Atmosphere for C Diese Lehrveranstaltung wird zeitlich und o LV 701-1211-01 S "Master Seminar: Atmos koordiniert.	rganisat		2 hrs	Mon	08-10	ML F40	H. Joos, C. Schär
▶▶ Chemis	try							

4G

6 credits

529-0004-01L Classical Simulation of (Bio)Molecular Systems

529-0004-01 G	G Classical Simulation of (Bio)Molecular Systems 2 hr lecture + 2 hr exercise session in our computer room; the students can choose between two alternative exercise sessions, either on Tuesdays 7:30-9:30 a.m. or on Thursdays 7:45-9:45 a.m.; the course was previously named CSCBP (the content remains the same, but the new title is more adequate)				Tue	10-12	HCI D2	P. H. Hünenberger, J. Dolenc, S. Riniker
529-0003-01L	Advanced Quantum Chemistry	W	6 credits	3G				
529-0003-01 G	Advanced Quantum Chemistry Lecture Tue 12:00-14:00, Exercise Classes Vorlesung Di 12-14 Uhr, Uebung Do 10-11		day 10:00-11:0	3 hrs	Tue Thu	12-14 10-11	HCI J4 HCI F8	M. Reiher, A. Baiardi
401-5940-00L	Seminar in Chemistry for CSE	W	4 credits	2S				
401-5940-00 S	Seminar in Chemistry for CSE			2 hrs	by app	ot.		P. H. Hünenberger, M. Reiher

## **▶▶** Fluid Dynamics

One of the course units 151-0103-00L Fluid Dynamics II 151-0109-00L Turbulent Flows is compulsory.

Number	Title	Type	ECTS	Hours				Lecturers
151-0103-00L	Fluid Dynamics II	0	3 credits	2V+1U				
151-0103-00 V			11-12 h	2 hrs	Mon 21.09. 28.09.	10-12 11-12 11-12	HG E7 ETF C1 ETF C1	P. Jenny
151-0103-00 U	Fluiddynamik II Groups are selected in myStudies. Die Übungen beginnen in der 3. Semestel	rwoche.		1 hrs	Tue	11-12	CAB G61 HG D1.1 IFW A36	P. Jenny
151-0109-00L	Turbulent Flows	W	4 credits	2V+1U				
151-0109-00 V	Turbulent Flows			2 hrs	Thu	08-10	ML E12	P. Jenny
151-0109-00 U	Turbulent Flows			1 hrs	Thu	13-14	HG D7.1	P. Jenny
151-0532-00L	Nonlinear Dynamics and Chaos I	W	4 credits	2V+2U				
151-0532-00 V	Nonlinear Dynamics and Chaos I			2 hrs	Wed	10-12	LFW B1	G. Haller
151-0532-00 U	Nonlinear Dynamics and Chaos I			2 hrs	Tue	16-18	ML F39	G. Haller
151-0105-00L	Quantitative Flow Visualization	w	4 credits	3G				
151-0105-00 G	Quantitative Flow Visualization This course will be offered for the last time 2021.	e in Autun	nn Semester	3 hrs	Tue	10-13	ML H41.1	T. Rösgen
151-0213-00L	Fluid Dynamics with the Lattice Boltzmann Method	w	4 credits	3G				
151-0213-00 G	Fluid Dynamics with the Lattice Boltzmanr This course will be taught in a hybrid of or classroom formats; students will be informated class on campus or should join the live str	nline and t ned who c	an attend the	3 hrs	Wed	10-13	IFW B42	I. Karlin
401-5950-00L	Seminar in Fluid Dynamics for CSE	W	4 credits	<b>2S</b>				
401-5950-00 S	Seminar in Fluid Dynamics for CSE ■ Definition of a project after individual cons or Prof. Rösgen	ultation w	ith Prof. Jenny	2 hrs	by app	:		P. Jenny, T. Rösgen
►► System	s and Control							
Number	Title	Type	ECTS	Hours				Lecturers
227-0103-00L	Control Systems	W	6 credits	2V+2U				
221-0103-00L				2 hrs	Mon	10-12	NO C60	F. Dörfler
227-0103-00L 227-0103-00 V	Regelsysteme					10 10	CHN C14	F. Dörfler
227-0103-00 V	Regelsysteme Regelsysteme			2 hrs	Tue	10-12		1. Dome
227-0103-00 V 227-0103-00 U	Regelsysteme	187	C are die		Tue 21.09.	12-14	CHN C14	T. Dorner
227-0103-00 V 227-0103-00 U 227-0225-00L	Regelsysteme  Linear System Theory	w	6 credits	5G	21.09.	12-14	CHN C14	
227-0103-00 V 227-0103-00 U 227-0225-00L	Regelsysteme	W	6 credits		21.09. Mon	12-14 09-12	CHN C14 IFW A36	A. lannelli
227-0103-00 V 227-0103-00 U 227-0225-00L	Regelsysteme  Linear System Theory	W	6 credits	5G	21.09.	12-14	CHN C14	
227-0103-00 V 227-0103-00 U <b>227-0225-00L</b> 227-0225-00 G	Regelsysteme  Linear System Theory	W	6 credits	5G	21.09. Mon Wed	12-14 09-12 10-12	IFW A36 ETZ E6	
227-0103-00 V 227-0103-00 U 227-0225-00L 227-0225-00 G	Regelsysteme  Linear System Theory Linear System Theory	w	4 credits	<b>5G</b> 5 hrs	21.09. Mon Wed	12-14 09-12 10-12	IFW A36 ETZ E6	
227-0103-00 V 227-0103-00 U 227-0225-00L 227-0225-00 G 151-0575-01 V	Regelsysteme  Linear System Theory Linear System Theory  Signals and Systems Signals and Systems	<b>W</b> e Semest	4 credits	5G 5 hrs	21.09. Mon Wed 22.09.	09-12 10-12 10-12	IFW A36 ETZ E6 HG D1.1	A. lannelli
227-0103-00 V 227-0103-00 U 227-0225-00L 227-0225-00 G 151-0575-01 V	Regelsysteme  Linear System Theory Linear System Theory  Signals and Systems Signals and Systems The lecture will start in the 2nd week of the Signals and Systems	<b>W</b> e Semest	4 credits	5G 5 hrs 2V+2U 2 hrs	21.09.  Mon Wed 22.09.	09-12 10-12 10-12 14-16	CHN C14  IFW A36 ETZ E6 HG D1.1  ETF C1  ETF C1	A. lannelli A. Carron
227-0103-00 V 227-0103-00 U 227-0225-00L 227-0225-00 G 151-0575-01 V 151-0575-01 U 151-0563-01L	Regelsysteme  Linear System Theory Linear System Theory  Signals and Systems Signals and Systems The lecture will start in the 2nd week of the Signals and Systems The exercise will start in the 3rd week of the Dynamic Programming and Optimal	W e Semest he Semes W ol emester. ake place	4 credits er. ster. 4 credits online.	5G 5 hrs 2V+2U 2 hrs 2 hrs	21.09.  Mon Wed 22.09.	09-12 10-12 10-12 14-16	CHN C14  IFW A36 ETZ E6 HG D1.1  ETF C1	A. lannelli A. Carron
227-0103-00 V 227-0103-00 U 227-0225-00L 227-0225-00 G 151-0575-01 V 151-0575-01 U 151-0563-01 V	Regelsysteme  Linear System Theory Linear System Theory  Signals and Systems Signals and Systems The lecture will start in the 2nd week of the Signals and Systems The exercise will start in the 3rd week of the Dynamic Programming and Optimal Control Dynamic Programming and Optimal Control Dynamic Programming and Optimal Control Dynamic Programming and Optimal Control Dynamic Programming and Optimal Control Eventual Start in the 2nd week of Secondine lecture: This lecture will primarily to Reserved rooms will remain blocked on care	W e Semest he Semes W ol emester. ake place ampus for	4 credits er. eter. 4 credits online. students to	5G 5 hrs 2V+2U 2 hrs 2 hrs 2V+1U	21.09.  Mon Wed 22.09.  Thu Thu	09-12 10-12 10-12 14-16 16-18	CHN C14  IFW A36 ETZ E6 HG D1.1  ETF C1  ETF C1	A. lannelli A. Carron A. Carron

252-0535-00 V	Freitag 8-10 HG F1 mit Videoübertragung ins HG F3		3 hrs	Thu	15-16	ETA F5 ETF E1	<b>J. M. Buhmann</b> , C. Cotrini Jimenez
	Donnerstag 15-16 ETA F 5 mit Videoübertragung ins ETF I	E 1		Fri	08-10	HG F1 HG F3	
252-0535-00 U	Advanced Machine Learning		2 hrs	Wed	14-16 16-18	CAB G61 CAB G61	<b>J. M. Buhmann</b> , C. Cotrini Jimenez
				Thu Fri	16-18 14-16	ML F34 CAB G61	
252-0535-00 A	Advanced Machine Learning Project Work, no fixed presence required.		4 hrs				<b>J. M. Buhmann</b> , C. Cotrini Jimenez
401-5850-00L	Seminar in Systems and Control for CSE W 4 cred	dits	2\$				
401-5850-00 S	Seminar in Systems and Control for CSE		2 hrs	by app	t.		J. Lygeros

#### **▶▶** Robotics

Only one of the two course units
263-5902-00L Computer Vision resp.
227-0447-00L Image Analysis and Computer Vision
may be recognised for credits. More precisely, it is also not allowed to have recognised one course unit for the Bachelor's and the other course unit for the Master's degree.

Thu 12-13 HG 65  Thu 13-14 CAB G51 M. Pollefeys, S. Tang, F.  263-5902-00 A Computer Vision  3 hrs  M. Pollefeys, S. Tang, F.  227-0447-00 L Image Analysis and Computer Vision  W 6 credits 3V+1U  227-0447-00 V Image Analysis and Computer Vision  1 hrs  Thu 14-17 HG F1 L. Van Gool, E. Konukog F. Yu  227-0447-00 U Image Analysis and Computer Vision  1 hrs  Thu 17-19 ETZ D61.2 F. Yu  151-0563-01 L Dynamic Programming and Optimal Control  The lecture will start in the 2nd week of Semester.  Online lecture: This lecture will primarily take place online.  Reserved rooms will remain blocked on campus for students to follow the course from there.  151-0563-01 U Dynamic Programming and Optimal Control  The exercise will start in the 2nd week of Semester.  Online Roserved rooms will remain blocked on campus for students to follow the course from there.  151-0563-01 U Dynamic Programming and Optimal Control  The exercise will start in the 2nd week of Semester.  151-0563-00 V Robot Dynamics  W 4 credits  2 hrs  Wed 16-17 CAB G51 R. D'Andrea  R. D'Andrea  R. D'Andrea  M. Hutter, R. Siegwart  151-0851-00 V Robot Dynamics  2 hrs  Wed 08-10 HG G5  M. Hutter, R. Siegwart  M. Hutter, R. Siegwart	Number	Title	Type	ECTS	Hours				Lecturers
Online event: Will primarily take place online. Reserved rooms will remain blocked on campus for students to follow the course from there.	51-0601-00L	Theory of Robotics and Mechatronics	W	4 credits	3G				
25-0535-00 V   Advanced Machine Learning   Freiting 8-10 Hole Film II Videolibertragung ins HG F3   Donnerstag 15-16 ETA F 5   ETA F5   HG F1   HG	51-0601-00 G	Online event: Will primarily take place onlir remain blocked on campus for students to			III	Mon		-	P. Korba, S. Stoeter
Freilag 8-10 HG F1 mit Videoübertragung ins HG F3   Series   Fri   Series   Series   HG F1   HG F3	52-0535-00L	Advanced Machine Learning	W	10 credits	3V+2U+	4A			
16-18   CAB Get   16-18   C	252-0535-00 V	Freitag 8-10 HG F1 mit Videoübertragung			3 hrs			ETF E1 HG F1	•
Advanced Machine Learning	52-0535-00 U	Advanced Machine Learning			2 hrs	Thu	16-18 16-18	CAB G61 ML F34	
Number of participants limited to 320.	:52-0535-00 A				4 hrs		14-10	OAD 001	
Thu   14-16   ML   D28   F. Perez Cruz, A. Lucchi   Thu   14-16   ML   D28   F. Perez Cruz, A. Lucchi   F. Perez Cruz, F. Perez Cruz, F. Perez Cruz, F. P	63-3210-00L		W	8 credits	3V+2U+	2A			
2 hrs   2 h	:63-3210-00 V	Deep Learning			3 hrs			ML D28	F. Perez Cruz, A. Lucchi
## 10-12 ##		, ,							
R3-5210-00 V Probabilistic Artificial Intelligence Fr 10-12 und 13-14 im ETA F5 mit Videoübertragung ins ETF E1  R3 hrs Fri 13-14 ETA F5 ETF E1  R3 hrs Fri 13-14 ETA F5 ETF E1  R3 hrs ETA F5 ETF E1  R3 hrs ETA F5 ETF E1  R3 hrs ETA F5 ETF E1  R3 hrs ETA F5 ETF E1  R3 hrs ETA F5 ETF E1  R4 hrs ETA F5 ETF E1  R5 hrs ETF E1  R5 hrs ETF E1  R5 hrs ETF E1  R5 hrs ETF E1  R5 hrs ETF E1  R5 hrs ETF E1  R5 hrs ETF E1  R5 hrs ETF E1  R5 hrs ETF E1  R6 hrs ETF E1  R5 hrs ETF E1  R6 hrs ETF E1  R6 hrs ETF E1  R6 hrs ETA F5 ETF E1  R7 hrs ETA F5 ETA F5 ETF E1  R6 hrs ETA F5 ET	.63-3210-00 A	Deep Learning			2 hrs				F. Perez Cruz, A. Lucchi
Fr 10-12 und 13-14 im ETÀ F5 mit Videoübertragung ins ETF E1 13-14 ETA F5 ETF E1 13-14 CHN C14 A. Krause  A. Krause  63-5902-00 L Computer Vision W 8 credits 3V+1U+3A  3 hrs Wed 14-16 NO C60 Thu 12-13 HG G5 M. Pollefeys, S. Tang, F. F1 13-14 CAB G51 M. Pollefeys, S. Tang, F. F1 13-14 CAB G51 M. Pollefeys, S. Tang, F. M. Pollefeys, S. Tang, F. M. Pollefeys, S. Tang, F. M. Pollefeys, S. Tang, F. M. Pollefeys, S. Tang, F. Thu 14-17 HG F1 L. Van Gool, E. Konukog F. Yu 27-0447-00 U Image Analysis and Computer Vision 1 hrs Thu 17-19 ETZ D61.1 L. Van Gool, E. Konukog F. Yu 27-0447-00 U Image Analysis and Computer Vision 1 hrs Thu 17-19 ETZ D61.1 L. Van Gool, E. Konukog F. Yu 27-0447-00 U Dynamic Programming and Optimal Control The lecture will start in the 2nd week of Semester. Online lecture: This lecture will primarily take place online. Reserved rooms will remain blocked on campus for students to follow the course from there.  51-0563-01 U Dynamic Programming and Optimal Control The exercise will start in the 2nd week of Semester.  51-0563-00 V Robot Dynamics  V 4 credits 21-12 Uncorned  1 hrs Wed 16-17 CAB G51 HG F1 HG F1 29.09. 16-17 ML E12  51-0851-00 V Robot Dynamics  1 hrs Tue 10-12 HG G5 M. Hutter, R. Siegwart M. Hutter, R. Siegwart M. Hutter, R. Siegwart M. Hutter, R. Siegwart		•	W	8 credits	3V+2U+	2A			
63-5210-00 U Probabilistic Artificial Intelligence	63-5210-00 V		bertragu	ng ins ETF E1		Fri		ETF E1	A. Krause
A. Krause   Computer Vision   W   S credits   SV+1U+3A	:63-5210-00 U				2 hrs	Thu	16-18		A. Krause
3 hrs Wed 14-16 NO C60 Thu 12-13 HG G5 63-5902-00 U Computer Vision 1 hrs Thu 12-13 HG G5 63-5902-00 U Computer Vision 2 hrs Thu 13-14 CAB G51 Fri 13-14 CAB G51 Fri 13-14 CAB G51 M. Pollefeys, S. Tang, F. G63-5902-00 A Computer Vision 3 hrs Thu 13-14 CAB G51 M. Pollefeys, S. Tang, F. G7-0447-00 L Image Analysis and Computer Vision W 6 credits 3V+1U 27-0447-00 U Image Analysis and Computer Vision 3 hrs Thu 14-17 HG F1 L. Van Gool, E. Konukog F. Yu 27-0447-00 U Image Analysis and Computer Vision 1 hrs Thu 17-19 ETZ D61.1 ETZ D61.2 F. Yu 51-0563-01 L Dynamic Programming and Optimal Control The lecture will start in the 2nd week of Semester. Online lecture: This lecture will start in the 2nd week of Semester. Online lecture: This lecture will start in the 2nd week of Semester. Online lecture: The lecture will start in the 2nd week of Semester. The exercise will start in the 2nd week of Semester.  51-0563-01 U Dynamic Programming and Optimal Control The exercise will start in the 2nd week of Semester.  51-0563-01 U Dynamic Programming and Optimal Control The exercise will start in the 2nd week of Semester.  51-0563-01 U Dynamic Programming and Optimal Control The exercise will start in the 2nd week of Semester.  51-0563-01 U Dynamic Programming and Optimal Control The exercise will start in the 2nd week of Semester.  51-0563-01 U Dynamic Programming and Optimal Control The exercise will start in the 2nd week of Semester.  51-0563-01 U Dynamic Programming and Optimal Control The exercise will start in the 2nd week of Semester.  51-0563-01 U Dynamic Programming and Optimal Control The exercise will start in the 2nd week of Semester.  51-0563-01 U Dynamic Programming and Optimal Control The exercise will start in the 2nd week of Semester.  51-0563-01 U Dynamic Programming and Optimal Control The exercise will start in the 2nd week of Semester.  51-0563-01 U Dynamic Programming and Optimal Control The exercise will start in the 2nd week of Semester.  51-0563-01 U Dynamic Programming and Optimal Control The exercise wil	63-5210-00 A	• • • • • • • • • • • • • • • • • • • •			2 hrs				A. Krause
3 hrs Wed 14-16 NO C60 Thu 12-13 HG G5 63-5902-00 U Computer Vision 1 hrs Thu 12-13 HG G5 63-5902-00 U Computer Vision 1 hrs Thu 13-14 CAB G51 Fri 13-14 CAB G51 M. Pollefeys, S. Tang, F. G3-5902-00 A Computer Vision 3 hrs Thu 13-14 CAB G51 M. Pollefeys, S. Tang, F. G3-5902-00 A Computer Vision 3 hrs M. Pollefeys, S. Tang, F. G3-5902-00 L Image Analysis and Computer Vision W 6 credits 3V+1U 27-0447-00 U Image Analysis and Computer Vision 1 hrs Thu 14-17 HG F1 L. Van Gool, E. Konukog F. Yu 27-0447-00 U Image Analysis and Computer Vision 1 hrs Thu 17-19 ETZ D61.1 L. Van Gool, E. Konukog F. Yu 51-0563-01 L Dynamic Programming and Optimal Control The lecture will start in the 2nd week of Semester. Online lecture: This lecture will start in the 2nd week of Semester. Online lecture: This lecture will start in the 2nd week of Semester. Online lecture: This lecture will start in the 2nd week of Semester. Seserved rooms will remain blocked on campus for students to follow the course from there.  51-0563-01 U Dynamic Programming and Optimal Control The exercise will start in the 2nd week of Semester.  51-0851-00 L Robot Dynamics W 4 credits 2V+2U 2 hrs Tue 10-12 HG G5 M. Hutter, R. Siegwart M. Hutter, R. Sieg	63-5902-00L	Computer Vision	w	8 credits	3V+1U+	3A			
63-5902-00 U Computer Vision  1 hrs Thu 13-14 CAB G51 Fri 13-14 CAB G51 CAB G51 Pri 13-14 CAB G51 CAB G51 M. Pollefeys, S. Tang, F. M. Pollefeys, S	63-5902-00 V	•			3 hrs				M. Pollefeys, S. Tang, F. Yu
27-0447-00 L Image Analysis and Computer Vision W 6 credits 3V+1U 27-0447-00 V Image Analysis and Computer Vision W 6 credits 3V+1U 27-0447-00 V Image Analysis and Computer Vision 3 hrs Thu 14-17 HG F1 L. Van Gool, E. Konukog F. Yu 27-0447-00 U Image Analysis and Computer Vision 1 hrs Thu 17-19 ETZ D61.1 L. Van Gool, E. Konukog F. Yu 27-0447-00 U Image Analysis and Computer Vision 1 hrs Thu 17-19 ETZ D61.2 F. Yu  51-0563-01 L Dynamic Programming and Optimal Control The lecture will start in the 2nd week of Semester.  Online lecture: This lecture will primarily take place online. Reserved rooms will remain blocked on campus for students to follow the course from there.  51-0563-01 U Dynamic Programming and Optimal Control The exercise will start in the 2nd week of Semester.  51-0563-01 U Dynamic Programming and Optimal Control The exercise will start in the 2nd week of Semester.  51-0563-01 U Dynamic Programming and Optimal Control The exercise will start in the 2nd week of Semester.  51-0563-01 U Dynamic Programming and Optimal Control The exercise will start in the 2nd week of Semester.  51-0563-01 U Dynamic Programming and Optimal Control The exercise will start in the 2nd week of Semester.  2 hrs Wed 16-17 CAB G51 R. D'Andrea HG F1 ML E12  51-0851-00 V Robot Dynamics V 2 hrs Tue 10-12 HG G5 M. Hutter, R. Siegwart M. Hutter, R. Siegwart M. Hutter, R. Siegwart M. Hutter, R. Siegwart IFW A36	63-5902-00 U	Computer Vision			1 hrs				M. Pollefeys, S. Tang, F. Yu
227-0447-00 V Image Analysis and Computer Vision  3 hrs Thu 14-17 HG F1 L. Van Gool, E. Konukog F. Yu  1 hrs Thu 17-19 ETZ D61.1 L. Van Gool, E. Konukog F. Yu  51-0563-01 L Dynamic Programming and Optimal W 4 credits Control  51-0563-01 V Dynamic Programming and Optimal Control  The lecture will start in the 2nd week of Semester.  Online lecture: This lecture will primarily take place online.  Reserved rooms will remain blocked on campus for students to follow the course from there.  51-0563-01 U Dynamic Programming and Optimal Control  The exercise will start in the 2nd week of Semester.  51-0563-01 U Bynamic Programming and Optimal Control  The exercise will start in the 2nd week of Semester.  51-0563-00 V Robot Dynamics W 4 credits  2 hrs Tue 10-12 HG G5 M. Hutter, R. Siegwart  M. Hutter, R. Siegwart  M. Hutter, R. Siegwart  M. Hutter, R. Siegwart  M. Hutter, R. Siegwart	.63-5902-00 A	Computer Vision			3 hrs				M. Pollefeys, S. Tang, F. Yu
F. Yu 27-0447-00 U Image Analysis and Computer Vision  1 hrs Thu 17-19 ETZ D61.1 L. Van Gool, E. Konukog ETZ D61.2 F. Yu  51-0563-01L Dynamic Programming and Optimal W 4 credits Control  51-0563-01 V Dynamic Programming and Optimal Control The lecture will start in the 2nd week of Semester. Online lecture: This lecture will primarily take place online. Reserved rooms will remain blocked on campus for students to follow the course from there.  51-0563-01 U Dynamic Programming and Optimal Control The exercise will start in the 2nd week of Semester.  51-0563-01 U Dynamic Programming and Optimal Control The exercise will start in the 2nd week of Semester.  51-0563-00 V Robot Dynamics W 4 credits 2 hrs Tue 10-12 HG G5 M. Hutter, R. Siegwart M. Hutter, R. Siegwart M. Hutter, R. Siegwart	27-0447-00L	Image Analysis and Computer Vision	w	6 credits	3V+1U				
51-0563-01L Dynamic Programming and Optimal W 4 credits Control  51-0563-01 V Dynamic Programming and Optimal Control The lecture will start in the 2nd week of Semester. Online lecture: This lecture will primarily take place online. Reserved rooms will remain blocked on campus for students to follow the course from there.  51-0563-01 U Dynamic Programming and Optimal Control The exercise will start in the 2nd week of Semester.  51-0851-00L Robot Dynamics  W 4 credits  2 hrs Wed 16-17 CAB G51 HG F1 29.09. 16-17 ML E12  51-0851-00 V Robot Dynamics W 4 credits 2 hrs Tue 10-12 HG G5 M. Hutter, R. Siegwart 51-0851-00 U Robot Dynamics ■ 2 hrs Wed 08-10 HG G5 IFW A36	27-0447-00 V	Image Analysis and Computer Vision			3 hrs	Thu	14-17	HG F1	<b>L. Van Gool</b> , E. Konukoglu, F. Yu
Control  51-0563-01 V Dynamic Programming and Optimal Control The lecture will start in the 2nd week of Semester. Online lecture: This lecture will primarily take place online. Reserved rooms will remain blocked on campus for students to follow the course from there.  51-0563-01 U Dynamic Programming and Optimal Control The exercise will start in the 2nd week of Semester.  51-0851-00L Robot Dynamics W 4 credits 51-0851-00 V Robot Dynamics ■ 2 hrs Tue 10-12 HG G5 M. Hutter, R. Siegwart S1-0851-00 U Robot Dynamics ■ 2 hrs Wed 08-10 HG G5 M. Hutter, R. Siegwart M. Hutter, R. Siegwart M. Hutter, R. Siegwart	27-0447-00 U	Image Analysis and Computer Vision			1 hrs	Thu	17-19		<b>L. Van Gool</b> , E. Konukoglu, F. Yu
The lecture will start in the 2nd week of Semester. Online lecture: This lecture will primarily take place online. Reserved rooms will remain blocked on campus for students to follow the course from there.  51-0563-01 U Dynamic Programming and Optimal Control The exercise will start in the 2nd week of Semester.  51-0851-00L Robot Dynamics W 4 credits 2V+2U  51-0851-00 V Robot Dynamics ■ 2 hrs Tue 10-12 HG G5 M. Hutter, R. Siegwart 51-0851-00 U Robot Dynamics ■ 2 hrs Wed 08-10 HG G5 M. Hutter, R. Siegwart M. Hutter, R. Siegwart	51-0563-01L		W	4 credits	2V+1U				
The exercise will start in the 2nd week of Semester.       HG F1         29.09.       16-17       ML E12         51-0851-00 L       Robot Dynamics       W       4 credits       2V+2U         51-0851-00 V       Robot Dynamics ■       2 hrs       Tue       10-12       HG G5       M. Hutter, R. Siegwart         51-0851-00 U       Robot Dynamics ■       2 hrs       Wed       08-10       HG G5       M. Hutter, R. Siegwart         51-0851-00 U       Robot Dynamics ■       2 hrs       Wed       08-10       HG G5       M. Hutter, R. Siegwart	51-0563-01 V	The lecture will start in the 2nd week of Se Online lecture: This lecture will primarily ta Reserved rooms will remain blocked on ca	mester. ke place		2 hrs	Wed	14-16	HG F1	R. D'Andrea
51-0851-00L         Robot Dynamics         W         4 credits         2V+2U           51-0851-00 V         Robot Dynamics ■         2 hrs         Tue         10-12         HG G5         M. Hutter, R. Siegwart           51-0851-00 U         Robot Dynamics ■         2 hrs         Wed         08-10         HG G5         M. Hutter, R. Siegwart           FW A36         IFW A36         HG G5         IFW A36         M. Hutter         HG G5         IFW A36	51-0563-01 U			:	1 hrs			HG F1	R. D'Andrea
51-0851-00 V Robot Dynamics ■ 2 hrs Tue 10-12 HG G5 <b>M. Hutter</b> , R. Siegwart 51-0851-00 U Robot Dynamics ■ 2 hrs Wed 08-10 HG G5 IFW A36 <b>M. Hutter</b> , R. Siegwart 10-12 HG G5 IFW A36	E4 00E4 00'	Dahat Dunamia	14/	4	0)/-014	29.09.	10-17	IVIL E IZ	
51-0851-00 U Robot Dynamics ■ 2 hrs Wed 08-10 HG G5 M. Hutter, R. Siegwart IFW A36		-	W	4 credits		Tuo	10.12	HC CF	M Huttor D Ciaguart
		· ·						HG G5	•
(17 NOS) DEL SAMINAY IN DANASIAC SAY C'SE W. A GRADISA 30	101-5860-00L	Seminar in Robotics for CSE	w	4 credits	28			IFW A36	

401-5860-00 S Seminar in Robotics for CSE

The study plan will be discussed individually. Please contact the responsible lecturer if you are interested in this course, see https://asl.ethz.ch/education/cse-robotics.html for further details.

## **▶▶** Physics

For the field of specialization `Physics' basic knowledge in quantum mechanics is required.

Number	Title	Туре	·	Hours	4			Lecturers
402-0809-00L	Introduction to Computational Physics	W	8 credits	2V+2U				200101010
	Introduction to Computational Physics	••	o orcans	2 hrs	Tue	10-12	HCI J7	A. Adelmann
	Introduction to Computational Physics			2 hrs	Tue	08-10	HCI J7	A. Adelmann
402-0205-00L	Quantum Mechanics I	w	10 credits	3V+2U				
	Quantenmechanik I		To orcans	3 hrs	Tue	10-12	HPV G4	M. Gaberdiel
402-0205-00 U	Quantenmechanik I Do 10-12 oder Do 16-18			2 hrs	Thu Thu	12-13 10-12 16-18	HPV G4 HCI H8.1 HIT F31.2 HIT K52 HPK D24.2 HIL B21 HIL E10.1 HIT K51 HPK D24.2	M. Gaberdiel
402-0461-00L	Quantum Information Theory	W	8 credits	3V+1U				
402-0461-00 V	Quantum Information Theory			3 hrs	Wed Thu	10-12 14-15	HPV G4 HPV G4	P. Kammerlander
402-0461-00 U	Quantum Information Theory			1 hrs	Thu	15-16	HCI J4 HPV G4	P. Kammerlander
402-0777-00L	Particle Accelerator Physics and Modeling I	W	6 credits	2V+1U				
402-0777-00 V	Particle Accelerator Physics and Modeling I			2 hrs	Fri	10-12	HIT J52	A. Adelmann
402-0777-00 U	Particle Accelerator Physics and Modeling I			1 hrs	Fri	13-14	HIT J51	A. Adelmann
401-5810-00L	Seminar in Physics for CSE	w	4 credits	2S				
401-5810-00 S	Seminar in Physics for CSE			2 hrs	by appt	t.		A. Adelmann
▶▶ Comput	tational Finance							
Number	Title	Туре	ECTS	Hours				Lecturers
401-3913-01L	Mathematical Foundations for Finance	W	4 credits	3V+2U				200101010
	Mathematical Foundations for Finance  **together with University of Zurich**	VV	4 Credits	3 hrs	Tue Thu	08-10 13-14	HG G5 HG G5	B. Acciaio
401-3913-01 U	Mathematical Foundations for Finance Groups are selected in myStudies. **together with University of Zurich** Fri 8-10 or Fri 10-12			2 hrs	Fri	08-10 10-12	HG D7.1 HG D3.2	B. Acciaio
	Online course: This course takes place onling is meant for those students who want to follow Zentrum campus.			n				
401-4657-00L	Numerical Analysis of Stochastic Ordinary Differential Equations Alternative course title: "Computational Methods for Quantitative Finance: Monte Carlo and Sampling Methods"	W	6 credits	3V+1U				
401-4657-00 V	Numerical Analysis of Stochastic ODEs (Co Fin.: Monte Carlo and Sampling Methods)	mp. Me	eth. Quant.	3 hrs	Mon Wed	16-18 14-15	HG D1.2 HG D5.2	A. Stein
401-4657-00 U	Numerical Analysis of Stochastic ODEs (Co Fin.: Monte Carlo and Sampling Methods) Groups are selected in myStudies.	mp. Me	eth. Quant.	1 hrs	Wed	15-16	HG D5.2 LFW C1	A. Stein
401-8905-00L	Financial Engineering (University of Zurich) No enrolment to this course at ETH Zurich. Book the corresponding module directly at UZH as an incoming student. UZH Module Code: MFOEC200	W	6 credits	4G				
	Mind the enrolment deadlines at UZH: https://www.uzh.ch/cmsssl/en/studies/appli cation/deadlines.html							
401-8905-00 G	Financial Engineering (University of Zurich) **Course at University of Zurich**			4 hrs				University lecturers
363-0561-00L	Financial Market Risks	W	3 credits	2G				
363-0561-00 G	Financial Market Risks The lecture takes place in classroom, online zoom and recorded.	e via liv	estreaming or	2 hrs	Mon	10-12	ML H44	D. Sornette
404 5920 001	Seminar in Computational Finance for	w	4 credits	2S				
401-5820-00L	CSE							

2 hrs

## **▶▶** Electromagnetics

Number	Title	Type	ECTS	Hours				Lecturers
227-0110-00L	Electromagnetic Waves: Materials, Effects, and Antennas	W	6 credits	2V+2U				
227-0110-00 V	Electromagnetic Waves: Materials, Effects,	and Ant	ennas	2 hrs	Wed	14-16	ETZ E8	U. Koch
227-0110-00 U	Electromagnetic Waves: Materials, Effects,	and Ant	ennas	2 hrs	Wed	16-18	ETZ E8	U. Koch
227-2037-00L	Physical Modelling and Simulation	w	6 credits	4G				
227-2037-00 G	Physical Modelling and Simulation			4 hrs	Thu	08-12	ETZ E6	J. Smajic
227-0301-00L	Optical Communication Fundamentals	w	6 credits	2V+1U+	1P			
227-0301-00 V	Optical Communication Fundamentals			2 hrs	Tue	14-16	ETZ K91	J. Leuthold
227-0301-00 U	Optical Communication Fundamentals			1 hrs	Tue	16-17	ETZ K91	J. Leuthold
227-0301-00 P	Optical Communication Fundamentals			1 hrs	Tue	17-18	ETZ K91	J. Leuthold
401-4785-00L	Mathematical and Computational Methods in Photonics	W	8 credits	4G				
401-4785-00 G	Mathematical and Computational Methods	in Photo	nics	4 hrs	Mon Wed	10-12 10-12	HG G26.5 HG G26.5	H. Ammari
401-5870-00L	Seminar in Electromagnetics for CSE	W	4 credits	2S				
401-5870-00 S	Seminar in Electromagnetics for CSE			2 hrs	by app	t.		J. Smajic, J. Leuthold

#### **▶▶** Geophysics

Recommended combinations: Subject 2 + Subject 5 + Subject 6 + Subject 7 Subject 2 + Subject 4 + Subject 5 + Subject 6 + Subject 8 Subject 2 + Subject 5 + Subject 6 + (Subject 1 or Subject 3)

#### ▶▶▶ Geophysics: Subject 1

Number	Title	Type	ECTS	Hours				Lecturers
651-4007-00L	Continuum Mechanics	W	3 credits	2V				
651-4007-00 V	Continuum Mechanics			2 hrs	Wed	14-16	NO E51.1	T. Gerya

#### ▶▶▶ Geophysics: Subject 2

Number	Title	Type	ECTS	Hours				Lecturers
651-4241-00L	Numerical Modelling I and II: Theory and Applications	W	6 credits	4G				
651-4241-00 G	Numerical Modeling I: Theory			24s hrs	Mon/1	08-12	NO F39	T. Gerya
651-4241-01 G	Numerical Modeling II: Applications			28s hrs	Mon/2	08-12	NO F39	T. Gerya

#### ▶▶▶ Geophysics: Subject 3

Offered in the spring semester

## ▶▶▶ Geophysics: Subject 4

Offered in the spring semester

#### ▶▶▶ Geophysics: Subject 5

Number	Title	Type	ECTS	Hours				Lecturers
651-4014-00L	Seismic Waves II	W	3 credits	2G				
651-4014-00 G	Seismic Waves II			2 hrs	Tue	10-12	ML F40	T. Diehl, F. Lanza,
	Remark: former title until HS 2020: Tomogr	aphic In	naging					A. Obermann

#### ▶▶▶ Geophysics: Subject 6

Offered in the spring semester

#### ▶▶▶ Geophysics: Subject 7

Offered in the spring semester

#### ▶▶▶ Geophysics: Subject 8

Number	Title	Туре	ECTS	Hours				Lecturers
651-4273-00L	Numerical Modelling in Fortran	W	3 credits	2V				
651-4273-00 V	Numerical Modelling in Fortran			2 hrs	Mon	16-18	NO C6	P. Tackley
▶▶▶ Geopl	hysics: Seminar							
Number	Title	Туре	ECTS	Hours				Lecturers
401-5880-00L	Seminar in Geophysics for CSE	W	4 credits	2S				
401-5880-00 S	Seminar in Geophysics for CSE			2 hrs	by app	t.		T. Gerya, P. Tackley
<b>▶▶</b> Biology	1							
Number	Title	Туре	ECTS	Hours				Lecturers
636-0007-00L	Computational Systems Biology	W	6 credits	3V+2U				

636-0007-00 V	Computational Systems Biology Lecture: "inverted classroom". Students are expelecture videos provided ahead of a Zoom Q&A scheld every Wednesday 16:15-17:00.  Tutorials on Fridays 10:15-12:00 will be held via In addition, students can sign up for Q&A session small groups (max. 30). They will be offered on swednesdays  15:15-16:00 in the lecture room HG D 3.2. For descheduling, see the course Moodle.	ession that will be Zoom. ns in presence in selected		Wed	14-17	HG D3.2	J. Stelling
636-0007-00 U	Computational Systems Biology Tutorials on Fridays 10:15-12:00 will be held via	Zoom.	2 hrs	Fri	10-12	HG D1.2	J. Stelling
636-0017-00L	Computational Biology W	6 credits	3G+2A	Man	40.40	DCA E40	T Vaushan
636-0017-00 G	Computational Biology The lecture will be held each Monday (16-18 h) e	either in Zurich or	3 hrs	Mon	16-18	BSA E46 HG D16.2	T. Vaughan
	Basel and will be transmitted via videoconference location. Tutorials will happen in both locations. Tutorials in Zürich: Monday 18-19h (HG D 16.2) Tutorials in Basel: Thursday 12-13h (BSA E 46) Lecture on Monday and the Tutorial on Thursday available for participation via Zoom.  ATTENTION: Lecture starts on Monday, 27.09, Il Basel on Thursday 30.09	v will also be		Thu	18-19 12-13	HG D16.2 BSA E46	
636-0017-00 A	Computational Biology Project Work (compulsory continuous performan no fixed presence required.	ce assessments),	2 hrs				T. Vaughan
636-0706-00L	Spatio-Temporal Modelling in Biology W	4 credits	3G				
636-0706-00 G	Spatio-Temporal Modelling in Biology  The lecture course will be afford as "inverted of	aceroom"	3 hrs	Thu	10-11	BSD G207.1	D. Iber
227-1037-00L	The lecture course will be offered as "inverted cla Lecture videos, slides, and scripts will be made a Moodle, and students are expected to watch the Hecture. The 45-minute in person lecture time answer student question where necessary, and tapplication examples with students to deepen the of the material. Similarly, problem sheets and so made available ahead of the tutorial. The tutorial address further questions. As students from both Zurich participate in the course, lectures and tuto offered in alternating weeks in Basel and Zurich. participation is always possible. It is a new form of Feedback will be most welcome.  Thursday 10-11 Q&A Lecture (BS) Thiursday 11-12 Tutorial (BS) Friday 11-12 Q&A Lecture (ZH) Friday 12-13 Tutorial (ZH) Course starts: Friday, Sept. 24 in ZH  Deep Learning in Artificial and Biological Neuron  Introduction to Neuroinformatics W  Introduction to Neuroinformatics	available via videos ahead of serves to o discuss eir understanding lutions will be s serve to a Basel and orials will be Remote of teaching.	3G 3 hrs 2V+1U+1 2 hrs	Wed A Thu	11-12 11-12 12-13 09-12	ML F34  NO C60	B. Grewe  V. Mante, M. Cook, B. Grewe, G. Indiveri, D. Kiper, W. von der Behrens
227-1037-00 U	Introduction to Neuroinformatics		1 hrs	Thu	10-11	NO C60	V. Mante, M. Cook, B. Grewe, G. Indiveri, D. Kiper, W. von der Behrens
227-1037-00 A	Introduction to Neuroinformatics Self-study, no fixed presence required.		1 hrs				V. Mante
► Electives	electives' subcategory, at least two course units n	nust be successfu	ılly comple	eted.			
Number	Title Typ		Hours				Lecturers
101-0250-00L	Solving Partial Differential Equations in W parallel on GPUs	4 credits	3G				
101-0250-00 G	Solving Partial Differential Equations in parallel of	n GPUs	3 hrs	Tue	13-16	HCI E8	L. Räss, S. Omlin, M. Werder
151-0709-00L	Stochastic Methods for Engineers and W Natural Scientists	4 credits	4G				
151-0709-00 G	Stochastic Methods for Engineers and Natural Sc Lecture: 10-12 Exercises: 12-14	cientists	4 hrs	Wed	10-14	NO C6	D. W. Meyer-Massetti
151-0317-00L	Visualization, Simulation and Interaction W	4 credits	3G				
	- Virtual Reality II						

2V+1U

2 hrs

HG D1.1 HG D7.2

Thu 10-12 30.09. 10-12 **M. Zeilinger**, A. Carron, L. Hewing, J. Köhler

4 credits

151-0371-00L Advanced Model Predictive Control Number of participants limited to 40.

151-0371-00 V Advanced Model Predictive Control
The lecture will take place on 30.09.21 in HG D 7.2.

151-0371-00 U	Advanced Model Predictive Control The lecture will take place on 30.09.21 in H	G D 7.2		1 hrs	Thu 30.09.	12-13 12-13	HG D1.1 HG D7.2	M. Zeilinger, A. Carron, L. Hewing, J. Köhler
	Applied Finite Element Analysis	W	4 credits	2V+2U				
	Applied Finite Element Analysis			2 hrs	Wed	10-12	ML F38	B. Berisha, N. Manopulo
151-0833-00 U	Applied Finite Element Analysis The exercises will start in the 2nd week of t	he Sem	ester.	2 hrs	Wed	14-16	IFW A36	B. Berisha
151-0529-00L	Computational Mechanics II: Nonlinear FEA	w	4 credits	2V+2U				
	Computational Mechanics II: Nonlinear FEA			2 hrs	Tue 28.09. 26.10.	10-12 10-12 10-12	LEE E101 ETZ E8 n /a	L. De Lorenzis
151-0529-00 U	Computational Mechanics II: Nonlinear FEA	4		2 hrs	Tue	14-16	LEE E101	L. De Lorenzis
263-2800-00L	Design of Parallel and High-Performance Computing	e W	9 credits	3V+2U+3	Α			
263-2800-00 \/	Number of participants limited to 125.  Design of Parallel and High-Performance C	omputin	ıa.	3 hrs	Mon	13-16	CAB G11	T. Hoefler, M. Püschel
	Design of Parallel and High-Performance C	•	ŭ	2 hrs	Thu	14-16	CHN C14	T. Hoefler, M. Püschel
	Design of Parallel and High-Performance C Project Work, no fixed presence required.	•	ŭ	3 hrs				T. Hoefler, M. Püschel
263-5905-00L	Mixed Reality	w	5 credits	3G+1A				
263-5905-00 G	-		0.000	3 hrs	Mon	10-13	CAB G11	I. Armeni, F. Bogo, M. Pollefeys
263-5905-00 A	Mixed Reality			1 hrs				I. Armeni, F. Bogo, M. Pollefeys
227-0102-00L	Discrete Event Systems	w	6 credits	4G				•
	Diskrete Ereignissysteme		- J. Junio	4 hrs	Thu	14-16 16-18	HG D7.2 HG D7.2	R. Jacob, L. Vanbever, R. Wattenhofer
227-0116-00L	VLSI 1: HDL based design for FPGAs	w	6 credits	5G				
	VLSI 1: HDL based design for FPGAs		orcuits	5 hrs	Tue Wed	08-10 13-16	ETF C1 ETZ D61.1 ETZ D61.2 ETZ D96.1	F. K. Gürkaynak, L. Benini
227-0147-10L	VLSI 3: Full-Custom Digital Circuit Design	W	6 credits	2V+3U				
227-0147-10 V	VLSI 3: Full-Custom Digital Circuit Design Permission from lecturers required for all st	udents		2 hrs	Mon	10-12	ETZ E8	<ul><li>C. Studer,</li><li>O. Castañeda Fernández</li></ul>
227-0147-10 U	VLSI 3: Full-Custom Digital Circuit Design Permission from lecturers required for all st	udents		3 hrs	Thu	13-16	ETZ G91	<ul><li>C. Studer,</li><li>O. Castañeda Fernández</li></ul>
227-0148-00L	VLSI III: Test and Fabrication of VLSI Circuits	W	6 credits	4G				
227-0148-00 G	VLSI III: Test and Fabrication of VLSI Circu Does not take place this semester. Will be offered in spring 2022 as "227-0148 VLSI: measurement and testing"		SI4: Practical	4 hrs				L. Benini
227-0417-00L	Information Theory I	w	6 credits	4G				
227-0417-00 G	Information Theory I			4 hrs	Wed	14-18	ETF C1	A. Lapidoth
227-0427-00L	Signal Analysis, Models, and Machine Learning This course was replaced by "Introduction to Estimation and Machine Learning" and "Advanced Signal Analysis, Modeling, and	W	6 credits	4G				
	Machine Learning".							
227-0427-00 G	Signal Analysis, Models, and Machine Lear Does not take place this semester.	ning		4 hrs				HA. Loeliger
	Embedded Systems	W	6 credits	4G				
227-0124-00 G	Embedded Systems Exercises in groups.			4 hrs	Mon Wed	14-16 16-18	ETF C1 ETZ D61.1	L. Thiele, M. Magno
					Fri	16-18	ETZ D96.1 ETF E1 ETZ D61.1 ETZ D96.1	
227-0971-00L	Computational Psychiatry Please note that participation in this course and the practical sessions requires additional registration at: http://www.translationalneuromodeling.org/ cpcourse/		3 credits	48				
227-0971-00 S	Computational Psychiatry Block course from 13.09.2021 - 18.09.2021	,		60s hrs	13.09 17.09.		ON LINE	K. Stephan
	8:00 - 18:30h				18.09.	08-18	ON LINE	
	Concepts of Object-Oriented Programming	W	8 credits	3V+2U+2				
252-0237-00 V	Concepts of Object-Oriented Programming Online lecture: This lecture will take place of will remain blocked on campus for students from there.			3 hrs s	Thu	09-12	HG E1.1	P. Müller

252-0237-00 U	Concepts of Object-Oriented Programming			2 hrs	Fri	08-10 10-12	CAB G57 CHN D42 CAB G57 CHN D42	P. Müller
252 0227 00 A	Concents of Object Oriented Programming			2 hrs			CHN D44	P. Müller
	Concepts of Object-Oriented Programming	w	10 credits	3V+2U+	4.6			r. wuitei
252-0417-00L	Randomized Algorithms and Probabilistic Methods		To credits	3 hrs	<b>4A</b> Wed	09.00	ML D28	A Storer
	Randomized Algorithms and Probabilistic N Randomized Algorithms and Probabilistic N			2 hrs	Thu Tue	08-09 16-18 14-16	ML D28 HG D1.2	A. Steger A. Steger
	Randomized Algorithms and Probabilistic N			4 hrs	ruc	16-18	HG D1.2	A. Steger
	Project Work, no fixed presence required.							
<b>252-0543-01L</b> 252-0543-01 V	Computer Graphics Computer Graphics Does not take place this semester.	w	8 credits	<b>3V+2U+</b> 3 hrs	2A			
252-0543-01 U	Computer Graphics Does not take place this semester.			2 hrs				
252-0543-01 A	Computer Graphics Does not take place this semester.			2 hrs				
252-0546-00L	Physically-Based Simulation in Computer Graphics	W	5 credits	2V+1U+	1A			
252-0546-00 V	Physically-Based Simulation in Computer G	Graphics		2 hrs	Tue	10-12	CAB G51	V. da Costa de Azevedo, B. Solenthaler, B. Thomaszewski
252-0546-00 U	Physically-Based Simulation in Computer G	Graphics		1 hrs	Tue	16-17	CAB G51	V. da Costa de Azevedo, B. Solenthaler, B. Thomaszewski
252-0546-00 A	Physically-Based Simulation in Computer G	Graphics		1 hrs				V. da Costa de Azevedo, B. Solenthaler, B. Thomaszewski
261-5100-00L	Computational Biomedicine Number of participants limited to 120.	W	5 credits	2V+1U+	1A			
261-5100-00 V	Computational Biomedicine Online lecture: This lecture will take place of will remain on campus for students to follow there.			2 hrs	Tue	10-12	ML F39	V. Boeva, G. Rätsch
261-5100-00 U				1 hrs	Tue	13-14	ML F39	V. Boeva, G. Rätsch
261-5100-00 A				1 hrs				V. Boeva, G. Rätsch
401-3621-00L	Fundamentals of Mathematical Statistics	s W	10 credits	4V+1U				
401-3621-00 V	Fundamentals of Mathematical Statistics			4 hrs	Tue Wed	08-10 10-12	HG E5 HG E7	S. van de Geer
401-3621-00 U	Fundamentals of Mathematical Statistics			1 hrs	Tue	12-13	HG D7.1 HG E7	S. van de Geer
<b>401-3627-00L</b>	High-Dimensional Statistics High-Dimensional Statistics	W	4 credits	2V 2 hrs	Thu	08-10	CAB G61	P. L. Bühlmann
401-4623-00L	Time Series Analysis	w	6 credits	3 <b>G</b>	1114			T E Daningini
	Time Series Analysis Does not take place this semester.	••	o creatis	3 hrs				F. Balabdaoui
401-3901-00L	Linear & Combinatorial Optimization	w	11 credits	4V+2U				
	Linear & Combinatorial Optimization (Mathe Online lecture: This lecture will take place of will remain reserved on campus for student from there.	ematical online. R	Optimization) eserved rooms	4 hrs	Wed Thu	12-14 10-12	HG G5 HG G5	R. Zenklusen
401-3901-00 U	Linear & Combinatorial Optimization (Mathe Groups are selected in myStudies. Thu 14-16 or Fri 10-12 or Fr 12-14 or Fri 14 demand)			2 hrs	Thu Fri	14-16 10-12 12-14 14-16	HG F26.5 CAB G51 HG D3.2 HG F26.5	R. Zenklusen
401-4944-20L	Mathematics of Data Science	W	8 credits	4G				
401-4944-20 G	Mathematics of Data Science			4 hrs	Thu Fri	12-14 10-12	HG G3 HG G5	A. Bandeira
227-0423-00L	Neural Network Theory	W	4 credits	2V+1U				
227-0423-00 V	•			2 hrs	Tue	10-12	HG F5	H. Bölcskei
227-0423-00 U	Neural Network Theory The exercise will take place online on: https://www.mins.ee.ethz.ch/teaching/nnt/d The reserved room is meant for those stude the course from the campus.			1 hrs	Tue	12-13	HG F5	H. Bölcskei
227-1033-00L	Neuromorphic Engineering I Registration in this class requires the permission of the instructors. Class size with be limited to available lab spots. Preference is given to students that require this class as part of their major.		6 credits	2V+3U				

	Information for UZH students: Enrolment to this course unit only possible at ETH. No enrolment to module INI404 at UZH. Please mind the ETH enrolment deadlines for UZH students: https://www.ethz.ch/en/studies/non-degree-courses/special-students/special-students-university-of-zurich.html							
227-1033-00 V	•		es of ONLINE	2 hrs	Mon	14-16	ON LINE	<b>T. Delbrück</b> , G. Indiveri, SC. Liu
227-1033-00 U		ents		3 hrs	by appt.			T. Delbrück, G. Indiveri, SC. Liu
	Dates by arrangement.							
327-1201-00L	Transport Phenomena I W	1	5 credits	4G				
327-1201-00 G	Transport Phenomena I 14:00-15:00 Vorlesung 15:15-16:15 Übungen in zwei Gruppen 16:30-17:30 Vorlesung			4 hrs	Mon	14-18	HCP E47.3	J. Vermant
252-3005-00L	Natural Language Processing  Number of participants limited to 400.	1	5 credits	2V+2U+	1A			
252-3005-00 V	Natural Language Processing From HS21 in the autumn semester.			2 hrs	Mon	12-14	HG F7	R. Cotterell
252-3005-00 U	Natural Language Processing			2 hrs	Wed	12-14	HG F7	R. Cotterell
252-3005-00 A	Natural Language Processing			1 hrs				R. Cotterell
263-2400-00L	Reliable and Trustworthy Artificial Wintelligence	I	6 credits	2V+2U+	1A			
263-2400-00 V	Reliable and Trustworthy Artificial Intelligence Online event: Will primarily take place online. remain blocked on campus for students to folk there.			2 hrs I	Wed	14-16	HG G3	M. Vechev
263-2400-00 U	Reliable and Trustworthy Artificial Intelligence Exercise session will start in the second week Online event: Will primarily take place online. remain blocked on campus for students to folk there.	Reser	ved rooms will	2 hrs	Mon Wed	12-14 12-14	CAB G56 CAB G51	M. Vechev
263-2400-00 A	Reliable and Trustworthy Artificial Intelligence			1 hrs				M. Vechev
	see also Fields of Specialization							
	<u> </u>							

### ► Case Studies

Number	Title	Туре	ECTS	Hours				Lecturers
401-3667-71L	Case Studies Seminar (Autumn Semester 2021)	W	3 credits	2S				
401-3667-00 S	Case Studies Seminar Attendance mandatory.			2 hrs	Thu	16-18	HG D1.2 HG D16.2	V. C. Gradinaru, R. Hiptmair, M. Reiher

### ► Semester Paper

There are several course units "Semester Paper" that are all equivalent. If, during your studies, you write several semester papers, choose among the different numbers in order to be able to obtain credits again.

Number	Title	Type	ECTS	Hours	Lecturers
401-3740-01L	Semester Paper Successful participation in the course unit 401-2000-00L Scientific Works in Mathematics or 402-2000-00L Scientific Works in Physicsis is required. For more information, see www.math.ethz.ch/intranet/students/study- administration/theses.html Supervisors only authorised for term papers must be assigned by the Study Administration.	W	8 credits	11A	
401-3740-01 A	Semesterarbeit RW Master ■ Permission from lecturers required for all st	udents		160s hrs by appt.	Supervisors
401-3740-02L	Semester Paper (No. 2) Successful participation in the course unit 401-2000-00L Scientific Works in Mathematics or 402-2000-00L Scientific Works in Physicsis is required. For more information, see www.math.ethz.ch/intranet/students/study- administration/theses.html Supervisors only authorised for term papers	W	8 credits	11A	

401-3740-02 A Semesterarbeit RW Master ■

Permission from lecturers required for all students

160s hrs by appt.

Supervisors

#### ► GESS Science in Perspective

Two credits are needed from the "Science in Perspective" programme with language courses excluded if three credits from language courses have already been recognised for the Bachelor's degree.

see https://ethz.ch/content/dam/ethz/common/docs/weisungssammlung/files-en/science-in-perspective.pdf (Eight credits must be acquired in this category: normally six during the Bachelor's degree programme, and two during the Master's degree programme. A maximum of three credits from language courses from the range of the Language Center of the University of Zurich and ETH Zurich may be recognised. In addition, only advanced courses (level B2 upwards) in the European languages English, French, Italian and Spanish are recognised. German language courses are recognised from level C2 upwards.)

see Science in Perspective: Language Courses ETH/UZH

see Science in Perspective: Type A: Enhancement of Reflection Capability

Recommended Science in Perspective (Type B) for D-MATH.

#### ▶ Master's Thesis

If you wish to have recognised 402-2000-00L Scientific Works in Physics instead of 401-2000-00L Scientific Works in Mathematics (as allowed for the

Number	Title	Type	ECTS	Hours			Lecturers
401-2000-00L	Scientific Works in Mathematics Target audience: Third year Bachelor students; Master students who cannot document to have received an adequate training in working scientifically.	0	0 credits				
401-2000-00 V	Scientific Works in Mathematics Groups are selected in myStudies. This mandatory course is offered twice per Carry your ETH student card with you to pro The lecturers will communicate the exact le courses.	ove your	identity.	1s hrs	18-19 18-19	ON LINE ON LINE	M. Burger
401-2000-01L	Lunch Sessions – Thesis Basics for Mathematics Students Details and registration for the optional MathBib training course: https://www.math.ethz.ch/mathbib- schulungen	Z	0 credits				
401-2000-01 G	Lunch Sessions – Thesis Basics für Mather geplant 4., 5., 6. und 8. Oktober 2021 über https://math.ethz.ch/library/training-courses.	Mittag.		4s hrs			Speakers
402-2000-00L	Scientific Works in Physics Target audience: Master students who cannot document to have received an adequate training in working scientifically.  Directive https://www.ethz.ch/content/dam/ethz/com mon/docs/weisungssammlung/files-	W	0 credits				
402-2000-00 V	en/declaration-of-originality.pdf Scientific Works in Physics The lecture will be performed twice: on 28 ( December 2021 from 16:45-18:30. Only one attended.			2s hrs			C. Eichler
401-4990-01L	Master's Thesis Only students who fulfil the following criteria are permitted to commence the Master's thesis: a. successful completion of the Bachelor's programme; b. fulfilling of any additional requirements necessary to gain admission to the Master's programme; c. successful completion of 1) at least two course units in the category 'Core courses'; 2) at least five course units, including a seminar, in the category 'Fields of specialisation'; and 3) the semester paper. Successful participation in the course unit 401-2000-00L Scientific Works in Mathematics or 402-2000-00L Scientific Works in Physicsis is required. For more information, see		30 credits	57D			

401-4990-01 D Master's Thesis (CSE) ■

800s hrs by appt. Permission from lecturers required for all students

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Number	Title	Type	ECTS	Hours				Lecturers
401-5650-00L	Zurich Colloquium in Applied and Computational Mathematics	E-	0 credits	1K				
401-5650-00 K	Zurich Colloquium in Applied and Computa **together with University of Zurich** More information at: https://studentservices.uzh.ch/uzh/anonym/ /2021/003/SM/50027666			1 hrs	Wed	16-17	HG E1.2	R. Abgrall, R. Alaifari, H. Ammari, R. Hiptmair, S. Mishra, S. Sauter

Supervisors

### ► Course Units for Additional Admission Requirements

The courses below are only available for MSc students with additional admission requirements.

Number	Title	Type	ECTS	Hours	Lecturers
106-0353-AAL	Analysis III  Enrolment ONLY for MSc students with a decree declaring this course unit as an additional admission requirement.  Any other students (e.g. incoming	E-	4 credits	9R	
	exchange students, doctoral students) CANNOT enrol for this course unit.				
406-0353-AA R	Analysis III Self-study course. No presence required.			120s hrs	A. lozzi
406-0603-AAL	Stochastics (Probability and Statistics) Enrolment ONLY for MSc students with a decree declaring this course unit as an additional admission requirement.	E-	4 credits	9R	
	Any other students (e.g. incoming exchange students, doctoral students) CANNOT enrol for this course unit.				
406-0603-AA R	Stochastics (Probability and Statistics) Self-study course. No presence required.			120s hrs	M. Kalisch
401-2673-AAL	Numerical Methods for CSE Enrolment ONLY for MSc students with a decree declaring this course unit as an additional admission requirement.	E-	9 credits	19R	
	Any other students (e.g. incoming exchange students, doctoral students) CANNOT enrol for this course unit.				
401-2673-AA R	Numerical Methods for CSE Self-study course. No presence required. This course completely coincides with 401- Methods for CSE. All information published applies to this one. Participating students a in the course unit 401-2663-00L as well to information.	l for that ire reque	course also	270s hrs	R. Hiptmair
401-0674-AAL	Numerical Methods for Partial Differential Equations Enrolment ONLY for MSc students with a decree declaring this course unit as an additional admission requirement.	E-	10 credits	21R	
	Any other students (e.g. incoming exchange students, doctoral students) CANNOT enrol for this course unit.				
401-0674-AA R	Numerical Methods for Partial Differential E Self-study course based on video tutorial a presence required.	•		300s hrs	R. Hiptmair
252-0232-AAL	Software Engineering Enrolment ONLY for MSc students with a decree declaring this course unit as an additional admission requirement.	E-	6 credits	13R	
	Any other students (e.g. incoming exchange students, doctoral students) CANNOT enrol for this course unit.				
252-0232-AA R	Software Engineering Self-study course. No presence required.			180s hrs	F. O. Friedrich Wicker, M. Schwerhoff

Comput	Computational Science and Engineering Master - Key for Type									
0	Compulsory	E-	Recommended, not eligible for credits							
W+	Eligible for credits and recommended	Z	Courses outside the curriculum							
W	Eligible for credits	Dr	Suitable for doctorate							

Key for	Hours		
V	lecture	P	practical/laboratory course
G	lecture with exercise	A	independent project
U	exercise	D	diploma thesis
S	seminar	R	revision course / private study
K	colloquium		

**ECTS** 

European Credit Transfer and Accumulation System
Special students and auditors need special permission from the lecturers.

# **Robotics, Systems and Control Master**

### **▶** Core Courses

Number	Title	Type	ECTS	Hours				Lecturers
51-0107-20L	High Performance Computing for Science and Engineering (HPCSE) I	W	4 credits	4G				
51-0107-20 G	High Performance Computing for Science a (HPCSE) I Lecture: 12-14h Exercises: 14-16h	and Engi	neering	4 hrs	Fri	12-14 14-16	ML H44 ML H44	P. Koumoutsakos, S. M. Martin
151-0325-00L	Planning and Decision Making for Autonomous Robots	W	4 credits	2V+1U				
	Planning and Decision Making for Autonom Planning and Decision Making for Autonom			2 hrs 1 hrs	Wed Wed	10-12 12-13	HG E3 HG F1	E. Frazzoli E. Frazzoli
151-0371-00L	Advanced Model Predictive Control Number of participants limited to 40.	W	4 credits	2V+1U				
151-0371-00 V	Advanced Model Predictive Control The lecture will take place on 30.09.21 in H	IG D 7.2.		2 hrs	Thu 30.09.	10-12 10-12	HG D1.1 HG D7.2	M. Zeilinger, A. Carron, L. Hewing, J. Köhler
151-0371-00 U	Advanced Model Predictive Control The lecture will take place on 30.09.21 in H	IG D 7.2.		1 hrs	Thu 30.09.	12-13 12-13	HG D1.1 HG D7.2	<b>M. Zeilinger</b> , A. Carron, L. Hewing, J. Köhler
151-0509-00L	Microscale Acoustofluidics	W	4 credits	3G				
151-0509-00 G	Microscale Acoustofluidics The course will take place on 29.09.21 in M	1L F 36.		3 hrs	Wed 29.09.	13-16 13-16	LFO C13 ML F36	J. Dual
151-0563-01L	Dynamic Programming and Optimal Control	W	4 credits	2V+1U				
151-0563-01 V	Dynamic Programming and Optimal Control The lecture will start in the 2nd week of Sei Online lecture: This lecture will primarily take Reserved rooms will remain blocked on car follow the course from there.	mester. ke place		2 hrs	Wed	14-16	HG F1	R. D'Andrea
151-0563-01 U	Dynamic Programming and Optimal Contro The exercise will start in the 2nd week of S			1 hrs	Wed	16-17	CAB G51 HG F1	R. D'Andrea
					29.09.	16-17	ML E12	
<b>151-0593-00L</b> 151-0593-00 G	Embedded Control Systems Embedded Control Systems This two-week block course take places da 20-24.09.2021) and is comprised of Lectures: 8-12 h - Exercises: 13-17 h	<b>W</b> ily (13-1)	4 credits 7.09.2021 &	<b>6G</b> 80s hrs	13.09. 13.09. 17.09. 13.09. 24.09.		ML H44 HG G26.5 ML J44.1	J. S. Freudenberg, M. Schmid Daners
					20.09. 21.09. 22.09. 23.09. 24.09.	08-12 13-17 08-12 08-12 15-17 08-12 08-12	HG F26.3 ML J44.1 HG F26.3 HG F26.3 ML F39 HG F26.3 LEE E101	
	Theory of Robotics and Mechatronics Theory of Robotics and Mechatronics Online event: Will primarily take place onlin remain blocked on campus for students to there.				Mon	08-10 10-11	HG D1.2 ML E12	P. Korba, S. Stoeter
151-0604-00L	Microrobotics	W	4 credits	3 <b>G</b>		40.40	NO 000	D. Nalasan N. Ohaasasadhii
151-0604-00 G	The class starts in the second week.			3 hrs	Mon Thu	16-18 11-12	NO C60 NO C60	B. Nelson, N. Shamsudhir
151-0632-00L	Vision Algorithms for Mobile Robotics (University of Zurich) No enrolment to this course at ETH Zurich. Book the corresponding module directly at UZH as an incoming student. UZH Module Code: DINF2039  Mind the enrolment deadlines at UZH:	W	6 credits	2V+2U				
151-0622 00 \/	https://www.uzh.ch/cmsssl/en/studies/application/deadlines.html		Zurich)	2 hrs				D. Scaramuzza
151-0632-00 V	Vision Algorithms for Mobile Robotics (Univ **Course at University of Zurich**	ersity of	Zunch)	2 hrs				D. Scaramuzza
151-0632-00 U	Vision Algorithms for Mobile Robotics (Univ **Course at University of Zurich**	ersity of	Zurich)	2 hrs				D. Scaramuzza
151-0851-00L	Robot Dynamics	W	4 credits	2V+2U				
151-0851-00 V	Robot Dynamics ■			2 hrs	Tue	10-12	HG G5	M. Hutter, R. Siegwart
151-0851-00 U	Robot Dynamics ■			2 hrs	Wed	08-10	HG G5 IFW A36	M. Hutter, R. Siegwart
151-1116-00L	Introduction to Aircraft and Car Aerodynamics Note: The previous course title in German until HS20 "Einführung in Flug- und Fahrzeugaerodynamik".	W	4 credits	3G				

151-1116-00 G	Introduction to Aircraft and Car Aerodynam	ics		3 hrs	Thu 23.09.	16-19 16-19	ML F39 ML F36	M. Immer, F. Schröder
151-0532-00L	Nonlinear Dynamics and Chaos I	w	4 credits	2V+2U				
51-0532-00 V	Nonlinear Dynamics and Chaos I			2 hrs	Wed	10-12	LFW B1	G. Haller
51-0532-00 U	Nonlinear Dynamics and Chaos I			2 hrs	Tue	16-18	ML F39	G. Haller
27-0102-00L	Discrete Event Systems	w	6 credits	4G				
27-0102-00 G	Diskrete Ereignissysteme			4 hrs	Thu	14-16 16-18	HG D7.2 HG D7.2	R. Jacob, L. Vanbever, R. Wattenhofer
27-0103-00L	Control Systems	w	6 credits	2V+2U				
27-0103-00 V	Regelsysteme			2 hrs	Mon	10-12	NO C60	F. Dörfler
27-0103-00 U	Regelsysteme			2 hrs	Tue 21.09.	10-12 12-14	CHN C14 CHN C14	F. Dörfler
27-0124-00L	Embedded Systems	W	6 credits	4G				
27-0124-00 G	Embedded Systems			4 hrs	Mon	14-16	ETF C1	L. Thiele, M. Magno
	Exercises in groups.				Wed	16-18	ETZ D61.1 ETZ D96.1	
					Fri	16-18	ETF E1	
							ETZ D61.1 ETZ D96.1	
07 0005 001	Liver Occupations The com-	14/	0				E12 D96.1	
27-0225-00L	Linear System Theory Linear System Theory	W	6 credits	<b>5G</b> 5 hrs	Mon	09-12	IFW A36	A. lannelli
27-0225-00 G	Linear System meory			51115	Wed	10-12	ETZ E6	A. Idillielli
					22.09.	10-12	HG D1.1	
27-0247-00L	Power Electronic Systems I	w	6 credits	4G				
27-0247-00 G	Power Electronic Systems I			4 hrs	Tue	14-16	HG D5.2	J. Biela, F. Krismer
						16-18	HG D5.2	
27-0447-00L	Image Analysis and Computer Vision	W	6 credits	3V+1U	<b>-</b> .			
27-0447-00 V	Image Analysis and Computer Vision			3 hrs	Thu	14-17	HG F1	<b>L. Van Gool</b> , E. Konukoglu, F. Yu
27-0447-00 U	Image Analysis and Computer Vision			1 hrs	Thu	17-19	ETZ D61.1	L. Van Gool, E. Konukoglu,
							ETZ D61.2	F. Yu
27-0526-00L	Power System Analysis	w	6 credits	4G				
27-0526-00 G	Power System Analysis			4 hrs	Wed	14-18	ETZ E6	G. Hug
	The language of instruction will be chosen first lecture (English or German)	by the st	udents in the					
27-0689-00L	System Identification	W	4 credits	2V+1U				
27-0689-00 V	System Identification			2 hrs	Wed	10-12	HG D7.1	R. Smith
27-0689-00 U	System Identification			1 hrs	Wed	12-13	ETZ D61.1 HG D7.1	R. Smith
27-0697-00L	Industrial Process Control	w	4 credits	3G				
	Industrial Process Control	••	4 Orcuits	3 hrs	Tue	13-16	ETZ G91	A. Horch, M. Mercangöz
	Upon special arrangement, on some aftern extended. Single lectures may be given on		lecture will be	•				<b>3</b>
27-0920-00L	Seminar in Systems and Control	Z	0 credits	1S				
27-0920-00 S	Seminar in Systems and Control			1 hrs	Mon	16-17	ML F38	F. Dörfler, R. D'Andrea,
	Detailed information on the seminars upon Several seminars will take place during the			f	21.09.	16-17	ON LINE	E. Frazzoli, M. H. Khammash J. Lygeros, R. Smith
	the available slots may remain unoccupied		•					o. 2, go. oo, o
	Seminars will be announced individually, en received detailed information for each one							
	received detailed information for each one	ыу еппап.						
	Online lecture: This lecture will take place of							
	Reserved room will remain reserved on cal follow the course from there.	mpus tor	students to					
	From 01.11.21 in presence.							
	Course website: https://nccr-							
	automation.ch/news/2021/nccr-automation			-10				
52-0535-00L	Advanced Machine Learning	W	10 credits	3V+2U+4		15 10	CT^ CC	I M Dukmann
.ט <b>∠-</b> Uט35 <b>-</b> UU V	Advanced Machine Learning Freitag 8-10 HG F1 mit Videoübertragung	ins HG F	<del>-</del> 3	3 hrs	Thu	15-16	ETA F5 ETF E1	J. M. Buhmann, C. Cotrini Jimenez
	Donnerstag 15-16 ETA F 5 mit Videoüberti	ragung in	s ETF E 1		Fri	08-10	HG F1	
NEO 0505 00 11	Advanced Marking Lagrania			0 k	10/- 1	11.10	HG F3	I M Dub
:52-0535-00 U	Advanced Machine Learning			2 hrs	Wed	14-16 16-18	CAB G61 CAB G61	J. M. Buhmann, C. Cotrini Jimenez
					Thu	16-18	ML F34	5. 55a omionoz
				4.1	Fri	14-16	CAB G61	
52-0535-00 A	Advanced Machine Learning  Project Work, no fixed presence required.			4 hrs				J. M. Buhmann, C. Cotrini Jimenez
E0 2440 00'		147	C oradir-	2)/ . 411 /	2 4			J. Count diffichez
52-3110-00L	Number of participants limited to 150.	W	6 credits	2V+1U+2	ZA			
52-3110-00 V	Human Computer Interaction			2 hrs	Wed	14-16	HG D7.2	O. Hilliges, C. Holz
	Human Computer Interaction			1 hrs	Thu	12-13	CAB G56	O. Hilliges, C. Holz
							CHN F46	
							LEMARA	
52-3110-00 A	Human Computer Interaction			2 hrs			LFW B3	O Hilliges C Holz
	Human Computer Interaction  Advanced Topics in Machine Learning	W	2 credits	2 hrs			LFW B3	O. Hilliges, C. Holz

	Number of participants limited to 40.							
	The deadline for deregistering expires at the end of the fourth week of the semester. Students who are still registered after that date, but do not attend the seminar, will officially fail the seminar.							
252-5051-00 S	Advanced Topics in Machine Learning			2 hrs	Tue Thu	16-18 16-18	CAB G56 CAB G57	J. M. Buhmann, R. Cotterell, J. Vogt, F. Yang
252-5701-00L	Advanced Topics in Computer Graphics and Vision  Number of participants limited to 24.	W	2 credits	28				
	The deadline for deregistering expires at the end of the third week of the semester. Students who are still registered after that date, but do not attend the seminar, will officially fail the seminar.							
252-5701-00 S	Advanced Topics in Computer Graphics and	Vision		2 hrs	Thu	14-16	CAB G56	M. Pollefeys, O. Sorkine Hornung, S. Tang
263-5210-00L	Probabilistic Artificial Intelligence	w	8 credits	3V+2U+	2A			
263-5210-00 V	Probabilistic Artificial Intelligence Fr 10-12 und 13-14 im ETA F5 mit Videoübe	ertraqu	na ins FTF F1	3 hrs	Fri	10-12	ETA F5 ETF E1	A. Krause
		agu	g =			13-14	ETA F5 ETF E1	
263-5210-00 U	Probabilistic Artificial Intelligence Q&A session: Monday, 17-18, via zoom			2 hrs	Thu	16-18	CHN C14	A. Krause
263-5210-00 A	Probabilistic Artificial Intelligence			2 hrs				A. Krause
263-5902-00L	Computer Vision	w	8 credits	3V+1U+	3A			
263-5902-00 V	Computer Vision			3 hrs	Wed Thu	14-16 12-13	NO C60 HG G5	M. Pollefeys, S. Tang, F. Yu
263-5902-00 U	Computer Vision			1 hrs	Thu Fri	13-14 13-14	CAB G51 CAB G51	M. Pollefeys, S. Tang, F. Yu
263-5902-00 A	Computer Vision			3 hrs				M. Pollefeys, S. Tang, F. Yu
263-5905-00L	Mixed Reality	w	5 credits	3G+1A				
263-5905-00 G	Mixed Reality			3 hrs	Mon	10-13	CAB G11	I. Armeni, F. Bogo, M. Pollefeys
263-5905-00 A	Mixed Reality			1 hrs				I. Armeni, F. Bogo, M. Pollefeys
376-1504-00L	Physical Human Robot Interaction (pHRI)	w	4 credits	2V+2U				
376-1504-00 V	Physical Human-Robot Interaction (pHRI) ■			2 hrs	Thu	08-10	NO E11	O. Lambercy
	To apply for the course, please prepare a let (max. one A4 page). Please include in the let program and semester you are in. Please de like to attend the course and what you expectourse. The letter should be sent to Jan Dittli (jan.dittli@hest.ethz.ch) by 05.09.2021.	tter wh scribe t to lea	ich study why you woul	ľd				
376-1504-00 U	Physical Human-Robot Interaction (pHRI) ■			2 hrs	Thu	10-12	NO E11	O. Lambercy
636-0007-00L	Computational Systems Biology	w	6 credits	3V+2U				

636-0007-00L	Computational Systems Biology	W	6 credits	3V+2U				
636-0007-00 V	Computational Systems Biology Lecture: "inverted classroom". Students lecture videos provided ahead of a Zoo held every Wednesday 16:15-17:00. Tutorials on Fridays 10:15-12:00 will be In addition, students can sign up for Q8 small groups (max. 30). They will be off Wednesdays 15:15-16:00 in the lecture room HG D 3 scheduling, see the course Moodle.	m Q&A se held via 2 A session ered on se	ession that will b Zoom. es in presence in elected	e	Wed	14-17	HG D3.2	J. Stelling
636-0007-00 U	Computational Systems Biology Tutorials on Fridays 10:15-12:00 will be	held via 2	Zoom.	2 hrs	Fri	10-12	HG D1.2	J. Stelling

► Multidisciplinary Courses

Number	Title	Type	ECTS	Hours				Lecturers
	Any courses offered by the Departments of MAVT, ITET or INFK. Your tutor must agree to this choice.	•						
151-0623-00L	ETH Zurich Distinguished Seminar in Robotics, Systems and Controls	W	1 credit	18				
151-0623-00 S	ETH Zurich Distinguished Seminar in Robot Controls The seminar is organized by all IRIS profes (http://www.iris.ethz.ch/the-institute.html).	, ,	tems and	1 hrs	Fri/2w	16-18	HG G5	<b>B. Nelson</b> , M. Chli, M. Hutter, R. Katzschmann, R. Riener, R. Siegwart

### ► GESS Science in Perspective

see GESS Science in Perspective: Language Courses ETH/UZH Recommended GESS Science in Perspective (Type B) for D-MAVT.

### ► Semester Project

Number	Title	Туре	ECTS	Hours	Lecturers
					LEGIUIEI3
151-1014-00L	Semester Project Robotics, Systems and Control Only for Robotics, Systems and Control MSc.	0	8 credits	17A	
	The subject of the Semester Project and the choice of the supervisor (ETH-professor) are to be approved in advance by the tutor.				
151-1014-00 A	Semester Project Robotics, Systems and Co	ontrol		240s hrs by appt.	Professors
Industrial Inte	ernship				
Number	Title	Туре	ECTS	Hours	Lecturers
151-1090-00L	Industrial Internship Access to the company list and request for recognition under www.mavt.ethz.ch/praxis.	0	8 credits		
151_1000_00 P	No registration required via myStudies. Industrial Internship				external organisers
	<u>'</u>				external organisers
► Master's	Thesis				
Number	Title	Type	ECTS	Hours	Lecturers
151-1016-00L	Master's Thesis Robotics, Systems and Control Students who fulfill the following criteria are allowed to begin with their Master's Thesis: a. successful completion of the bachelor program; b. fulfilling of any additional requirements necessary to gain admission to the master programme; c. successful completion of the semester project; d. achievement of 28 ECTS in the category "Core Courses".		30 credits	64D	
	The Master's Thesis must be approved in advance by the tutor and is supervised by a professor of ETH Zurich or an adjunct faculty of RSC.  To choose a titular professor as a supervisor, please contact the D-MAVT Student Administration.				
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Robotics.	Systems	and	Control	waster	- nev	TOT	Ivpe

151-1016-00 D Master's Thesis Robotics, Systems and Control ■

0	Compulsory	E-	Recommended, not eligible for credits
W+	Eligible for credits and recommended	Z	Courses outside the curriculum
W	Eligible for credits	Dr	Suitable for doctorate

900s hrs by appt.

Professors

### **Key for Hours**

V	lecture	P	practical/laboratory course
G	lecture with exercise	A	independent project
U	exercise	D	diploma thesis
S	seminar	R	revision course / private study
K	colloquium		

ECTS European Credit Transfer and Accumulation System

Special students and auditors need special permission from the lecturers.

# Science, Technology, and Policy Master

### ► Social Sciences

Number	Title	Type	ECTS	Hours				Lecturers
860-0003-00L	Cornerstone Science, Technology, and Policy Only for Science, Technology, and Policy MSc and PhD. ISTP-PhD students please register via the Study Administration.	0	2 credits	18				
860-0003-00 S	Cornerstone Science, Technology, and Police Block Course	cy ■		20s hrs	16.09. 17.09. 20.09. 08.10.	09-17 09-17 15-18 13-17	IFW C33 IFW C33 IFW A32.1 RZ F21	T. Bernauer
860-0004-00L	Bridging Science, Technology, and Policy Only for Science, Technology, and Policy MSc and PhD. ISTP-PhD students please register via the Study Administration.	0	3 credits	2\$				
860-0004-00 S	Bridging Science, Technology, and Policy			2 hrs	Tue	10-12	IFW B42	T. Bernauer, T. Schmidt
860-0005-00L	Colloquium Science, Technology, and Policy (HS) Only for Science, Technology, and Policy MSc and PhD.	0	1 credit	2K				
860-0005-00 K	Colloquium Science, Technology, and Policy	′		2 hrs	Wed	12-14	RZ F21	T. Schmidt, T. Bernauer
860-0031-00L	Policy Analysis Only for Science, Technology, and Policy MSc.	0	4 credits	2V				
860-0031-00 V	Policy Analysis			2 hrs	Wed	14-16	IFW A32.1	T. Schmidt, B. Steffen, F. M. Egli
363-0503-00L	Principles of Microeconomics GESS (Science in Perspective): This lecture is for MSc students only. BSc students register for 363-1109-00L Einführung in die Mikroökonomie.	0	3 credits	2G				
363-0503-00 G	Principles of Microeconomics The lecture takes place in classroom, online zoom and recorded.	via live	estreaming or	2 hrs	Thu	18-20	HG F7	M. Filippini
860-0041-00L	Statistics 1 Only for Science, Technology and Policy MSc.	0	4 credits	2V				
860-0041-00 V	Statistics 1			2 hrs	Wed	10-12	HG F26.5	E. K. Smith
► Minor in	Natural Sciences and Engineeri	ng						
▶▶ Urbaniz	ation and Planning	-						
Number	Title	Туре	ECTS	Hours				Lecturers
063-0703-00L	Architecture of Territory: Territorial Design in Histories, Theories and Projects This core course (ending with «OOL») can only be passed once! Please check before signing up.	W	2 credits	2V				
063-0703-00 V	Architecture of Territory: Territorial Design in and Projects No course on 28.10. (seminar week) 16./23. critiques).			2 hrs	Thu	10-12	ONA E7	M. Topalovic
701-1453-00L	Ecological Assessment and Evaluation Ecological Assessment and Evaluation	W	3 credits	<b>3G</b> 3 hrs			CHN E46	F. Knaus

101-0427-01L	<b>Public Transport Design and Operations</b>	W	6 credits	4G				
103-0347-00 V	Landscape Planning and Environmental Syst	tems		2 hrs	Fri	08-10	HIL E8	A. Grêt-Regamey
103-0347-00L	Landscape Planning and Environmental Systems	W	3 credits	2V				
103-0347-01 U	Landscape Planning and Environmental Syst	tems	(GIS Exercises)	2 hrs	Wed	16-18	HIL E10.1 HIL E15.2 HIL F15.4	A. Grêt-Regamey, C. Brouillet, N. Klein
103-0347-01L	Landscape Planning and Environmental Systems (GIS Exercises)	W	3 credits	2U				
101-0509-00 G	Infrastructure Management 1: Process Project: Mon 9-10 Lecture: Fr 10-12			3 hrs	Mon Fri	09-10 10-12	HIL E1 HIL F10.3	B. T. Adey
101-0509-00L	Infrastructure Management 1: Process	w	6 credits	3G				
363-1047-00 G	Urban Systems and Transportation The lecture takes place in classroom, online zoom and recorded.	via liv	estreaming or	2 hrs	Thu	10-12	LFW B1	G. Loumeau
363-1047-00L	Urban Systems and Transportation	w	3 credits	2G				
701-1453-00 G	Ecological Assessment and Evaluation			3 hrs	Mon	16-19	CHN E46	F. Knaus
701-1453-00L	Ecological Assessment and Evaluation	w	3 credits	3G				
063-0703-00 V	Projects This core course (ending with «OOL») can only be passed once! Please check before signing up. Architecture of Territory: Territorial Design in and Projects No course on 28.10. (seminar week) 16./23.: critiques).			2 hrs	Thu	10-12	ONA E7	M. Topalovic

101-0427-01 G	Public Transport Design and Operations			4 hrs	Mon Thu	14-16 08-10	HIL E10.1 HIL E10.1	F. Corman, F. Leutwiler
103-0317-00L	Introduction to Spatial Development and	W	3 credits	2G				
	Transformation Only for master students, otherwise a special permisson by the lecturer is required.							
103-0317-00 G	Introduction to Spatial Development and Tra	ansform	ation	2 hrs	Tue	10-12	HIL E6	M. Nollert, D. Kaufmann
	Urban Design III Urban Design III No course on 28.10. (seminar week) 16./23	<b>W</b> 3.12. (be	2 credits fore final	<b>2V</b> 2 hrs	Thu	08-10	ONA E7	H. Klumpner, M. Fessel
054 0252 001	critiques).	\A/	2 aradita	26				
851-0252-08L	Evidence-Based Design: Methods and Tools For Evaluating Architectural Design Number of participants limited to 40	W	3 credits	2\$				
	Particularly suitable for students of D-							
851-0252-08 S	ARCH Evidence-Based Design: Methods and Tool Architectural Design	s For E	valuating	2 hrs	Fri	10-12	HIL E10.1	<ul><li>M. Gath Morad, C. Hölscher,</li><li>L. Narvaez Zertuche,</li><li>C. Veddeler</li></ul>
►► Energy	and Mobility							
Number	Title	Туре	ECTS	Hours				Lecturers
151-0216-00L	Wind Energy	W	4 credits	2V+1U				
151-0216-00 V	Wind Energy Online lecture: This lecture will primarily tak Reserved rooms will remain blocked on car follow the course from there.	e place npus foi	online. r students to	2 hrs	Thu	14-16	HG D7.1	N. Chokani
151-0216-00 U				1 hrs	Thu	16-17	HG D7.1	N. Chokani
227-0731-00L	Power Market I - Portfolio and Risk Management	W	6 credits	4G				
227-0731-00 G	Power Market I - Portfolio and Risk Manage	ement		4 hrs	Tue	08-12	HG D7.1	D. Reichelt, G. A. Koeppel
363-1047-00L	Urban Systems and Transportation	w	3 credits	2G				, 11
363-1047-00 G	Urban Systems and Transportation The lecture takes place in classroom, online zoom and recorded.	e via live	estreaming or	2 hrs	Thu	10-12	LFW B1	G. Loumeau
<b>151-0163-00L</b> 151-0163-00 V	Nuclear Energy Conversion  Nuclear Energy Conversion  Does not take place this semester.	W	4 credits	<b>2V+1U</b> 2 hrs				A. Manera
151-0163-00 U	Nuclear Energy Conversion Does not take place this semester. Andere Übungstermine können abgesproch	nen werd	den.	1 hrs				A. Manera
151-1633-00L	Energy Conversion This course is intended for students outside of D-MAVT.	W	4 credits	3G				
	Energy Conversion			3 hrs	Mon	10-13	NO C6	I. Karlin, G. Sansavini
<b>151-0567-00L</b> 151-0567-00 G	Engine Systems Engine Systems	W	4 credits	<b>3G</b> 3 hrs	Mon	08-10	ML F38	C. Onder
	Lecture: Monday 8-10h Exercises: Monday 12-13h				06.10.	12-13 12-14	ML H41.1 ML E12	
227-0122-00L	Introduction to Electric Power	W	4 credits	2V+2U				
227-0122-00 V	Transmission: System & Technology Introduction to Electric Power Transmission Technology	: Syster	n &	2 hrs	Thu	08-10	ML H44	C. Franck, G. Hug
227-0122-00 U	Introduction to Electric Power Transmission Technology	: Syster	n &	2 hrs	Thu	10-12	ML H44	C. Franck, G. Hug
227-0665-00L	Battery Integration Engineering Priority given to Electrical and Mechanical Engineering students	W	3 credits	2V+1U				
	Students are required to have attended one of the following courses: - 227-0664-00L Technology and Policy of Electrical Energy Storage - 529-0440-00L Physical Electrochemistry and Electrocatalysis - 529-0191-01L Renewable Energy Technologies II, Energy Storage and Conversion - 529-0659-00L Electrochemistry (Exception for PhD students).	•						
	Battery Integration Engineering Battery Integration Engineering			2 hrs 1 hrs	Mon Mon	13-15 15-16	NO D11 NO D11	T. J. Patey T. J. Patey

### ▶▶ Data and Computer Science

Number	Title	Туре	ECTS	Hours				Lecturers
63-3210-00L	Deep Learning Number of participants limited to 320.	w	8 credits	3V+2U+	2A			
63-3210-00 V	Deep Learning			3 hrs	Wed Thu	13-14 14-16	ML D28 ML D28	F. Perez Cruz, A. Lucchi
63-3210-00 U	Deep Learning			2 hrs	Mon Wed	16-18 16-18	HG G5 ML D28	F. Perez Cruz, A. Lucchi
63-3210-00 A	Deep Learning			2 hrs		.0.0	2 220	F. Perez Cruz, A. Lucchi
52-1414-00L	System Security	w	7 credits	2V+2U+	2A			
	System Security			2 hrs	Mon	10-12	HG D1.2	S. Capkun, A. Perrig
252-1414-00 U	System Security The exercises begin in the second week of	of the sem	ester.	2 hrs	Thu	14-16 16-18	HG D3.2 CAB G11	S. Capkun, A. Perrig
252-1414-00 A	System Security			2 hrs				S. Capkun, A. Perrig
263-4640-00L	Network Security	W	8 credits	2V+2U+	3A			
:63-4640-00 V	Network Security			2 hrs	Tue	10-12	HG E1.2	A. Perrig, S. Frei, M. Legner K. Paterson
	Network Security			2 hrs	Thu	16-18	CAB G61	A. Perrig, S. Frei, M. Legner K. Paterson
263-4640-00 A	Network Security  Project Work, no fixed presence required.			3 hrs				A. Perrig, S. Frei, M. Legner K. Paterson
52-0535-00L	•	W	10 credits	3V+2U+				
252-0535-00 V	Advanced Machine Learning Freitag 8-10 HG F1 mit Videoübertragung	n ine HC !	=3	3 hrs	Thu	15-16	ETA F5 ETF E1	J. M. Buhmann, C. Cotrini Jimenez
	Donnerstag 15-16 ETA F 5 mit Videoüber				Fri	08-10	HG F1 HG F3	C. Cottini Jimenez
252-0535-00 U	Advanced Machine Learning			2 hrs	Wed	14-16	CAB G61	J. M. Buhmann,
	-				Thu	16-18 16-18	CAB G61 ML F34	C. Cotrini Jimenez
					Fri	14-16	CAB G61	
252-0535-00 A	Advanced Machine Learning Project Work, no fixed presence required.			4 hrs				<b>J. M. Buhmann</b> , C. Cotrini Jimenez
63-2400-00L	Reliable and Trustworthy Artificial Intelligence	w	6 credits	2V+2U+	1 <b>A</b>			
263-2400-00 V	Reliable and Trustworthy Artificial Intellige Online event: Will primarily take place onlaremain blocked on campus for students to there.	ine. Rese		2 hrs	Wed	14-16	HG G3	M. Vechev
263-2400-00 U		reek of the ine. Rese	rved rooms wi	2 hrs	Mon Wed	12-14 12-14	CAB G56 CAB G51	M. Vechev
263-2400-00 A	Reliable and Trustworthy Artificial Intellige	nce		1 hrs				M. Vechev
263-3845-00L	Data Management Systems	w	8 credits	3V+1U+	3A			
	Data Management Systems			3 hrs	Wed Fri	10-12 08-09	CAB G61 HG G3	G. Alonso
263-3845-00 U	Data Management Systems			1 hrs	Fri	09-10	HG D5.1 HG E21 HG G26.1	G. Alonso
263-3845-00 A	Data Management Systems			3 hrs			HG G20.1	G. Alonso
263-5902-00L	Computer Vision	w	8 credits	3V+1U+	3A			
	Computer Vision			3 hrs	Wed Thu	14-16 12-13	NO C60 HG G5	M. Pollefeys, S. Tang, F. Yu
	Computer Vision			1 hrs	Thu Fri	13-14 13-14	CAB G51 CAB G51	M. Pollefeys, S. Tang, F. Yu
263-5902-00 A	Computer Vision			3 hrs				M. Pollefeys, S. Tang, F. Yu
252-3005-00L	Number of participants limited to 400.	w	5 credits	2V+2U+	1A			
	Natural Language Processing From HS21 in the autumn semester.			2 hrs	Mon	12-14	HG F7	R. Cotterell
	Natural Language Processing			2 hrs	Wed	12-14	HG F7	R. Cotterell
	Natural Language Processing			1 hrs				R. Cotterell
►► LITE SCI Number	ience and Health  Title	Туре	ECTS	Hours				Lecturers
								_coturers
<b>376-0021-00L</b> 376-0021-00 G	Materials and Mechanics in Medicine Materials and Mechanics in Medicine Groups are selected in myStudies. lecture: Di 14-16h exercises: Di 16-17h, start at the secound	<b>W</b> week af i	4 credits	3G 3 hrs	Tue	14-16 16-17	HG F1 CHN G42 ETZ E8 HG D7.1	M. Zenobi-Wong, J. G. Snedeker
	exercises. Br re rrn, etart at the ecceana							
	The lecturers will communicate the exact ONLINE-exercises.		nes of the				ML H41.1 ON LINE	

376-1103-00 V	Frontiers in Nanotechnology			4 hrs	Mon Fri	10-12 14-16	HCP E47.3 HCP E47.3	V. Vogel, further lecturers
376-1714-00L	Biocompatible Materials	W	4 credits	3V				
376-1714-00 V	Biocompatible Materials Vorlesung 9-11h Uebungen/Gruppenarbeiten 11-12h			3 hrs	Fri	09-12	HG G3	K. Maniura, M. Rottmar, M. Zenobi-Wong
376-0300-00L	Translational Science for Health and	W	3 credits	2G				
376-0300-00 G	<b>Medicine</b> Translational Science for Health and Medic	ine ∎		2 hrs	Fri	10-12	IFW A36	J. Goldhahn, C. Wolfrum
<b>752-6105-00L</b> 752-6105-00 V	<b>Epidemiology and Prevention</b> Epidemiology and Prevention	W	3 credits	<b>2V</b> 2 hrs	Wed	12-14	CHN C14	<b>M. Puhan</b> , R. Heusser
752-6151-00L	Public Health Concepts	w	3 credits	2V				
752-6151-00 V	Public Health Concepts			2 hrs	Mon 27.09.	14-16 14-16	HG D1.1 CHN G42	R. Heusser
636-0109-00L	Stem Cells: Biology and Therapeutic	W	4 credits	3G				
636-0109-00 G	Manipulation Stem Cells: Biology and Therapeutic Manip Does not take place this semester. This lecture will not be held in Autumn Sem offered again in Autumn Semester 2022.		21. It will be	3 hrs				T. Schroeder
376-0225-00L	Physical Activities and Health	w	3 credits	2V				
	Physical Activities and Health		- O O O O O O O O O O O O O O O O O O O	2 hrs	Fri	14-16	HIL E6	R. Knols, E. de Bruin, further speakers
	ces and Environment	T	FOTO					Lastimore
Number	Title	Туре	ECTS	Hours				Lecturers
103-0347-00L	Landscape Planning and Environmental Systems Landscape Planning and Environmental Sy		3 credits	<b>2V</b> 2 hrs	Fri	08-10	HIL E8	A. Grêt-Regamey
	· · · · · · · · · · · · · · · · · · ·				- 1 11	00-10	TIIL LO	A. Gret-Negamey
<b>651-4057-00L</b> 651-4057-00 G	Climate History and Palaeoclimatology Climate History and Palaeoclimatology	W	3 credits	<b>2G</b> 2 hrs	Fri	10-12	ML F39	H. Stoll, I. Hernández Almeida H. Zhang
701-1341-00L	Water Resources and Drinking Water	w	3 credits	2G				
	Water Resources and Drinking Water Online event: Will primarily take place onlin remain blocked on campus for students to i there.	e. Reser	ved rooms wil	2 hrs	Fri	08-10	CAB G11	<b>S. Hug</b> , M. Berg, F. Hammes, U. von Gunten
701-1677-00L	Quantitative Vegetation Dynamics: Models from Tree to Globe	W	3 credits	3G				
701-1677-00 G	Quantitative Vegetation Dynamics: Models Online event: Will primarily take place onlin rooms will remain blocked on campus for si course from there.	e (Zoom	). Reserved	3 hrs	Fri	14-17	CHN G22	<b>H. Lischke</b> , U. Hiltner, B. Rohner
651-4097-00L	Applied Mineralogy and Non-Metallic Resources I	W	3 credits	2G				
651-4097-00 G	Applied Mineralogy and Non-Metallic Resou The lecture starts in the second week of the		ter.	2 hrs	Thu	08-10	NO E39	R. Kündig
701-1346-00L	Carbon Mitigation Number of participants limited to 90. Priority is given to the target groups: Bachelor and Master Environmental Sciences and PHD Environmental Sciences until September 21st,2021. Waiting list will be deleted October 1st, 2021.	<b>W</b> s	3 credits	2G				
701-1346-00 G	Carbon Mitigation			2 hrs	Mon	10-12	CHN C14	N. Gruber
103-0347-01L	Systems (GIS Exercises)		3 credits	2U				
103-0347-01 U	Landscape Planning and Environmental Sy	stems (C	GIS Exercises)	2 hrs	Wed	16-18	HIL E10.1 HIL E15.2 HIL F15.4	A. Grêt-Regamey, C. Brouillet, N. Klein
701-1253-00L	Analysis of Climate and Weather Data	W	3 credits	2G				
701-1253-00 G	Analysis of Climate and Weather Data Does not take place this semester.			2 hrs				C. Frei
701-1551-00L	Sustainability Assessment Number of participants limited to 35.	W	3 credits	2G				
	Waiting list will be deleted October 1st, 2021.							
	No enrollment possible after October 1st, 2021.							
701-1551-00 G	Sustainability Assessment			2 hrs	Fri	10-12	CHN G42	P. Krütli, D. Nef
701-1257-00L	European Climate Change	w	3 credits	2G				

Mon

10-12 LFO C13 2 hrs

**C. Schär**, J. Rajczak, S. C. Scherrer

► Case Stu			F070					1 (
Number	Title	Туре		Hours				Lecturers
860-0011-00L	Agent-Based Modeling and Social System Simulation - With Coding Project Only for Science, Technology, and Policy MSc.	W	6 credits	2S+2A				
	Prerequisites: Good mathematical skills, basic programming skills, elementary probability and statistics.							
851-0101-86 S	Complex Social Systems: Modeling Agents,	Learnii	ng, and Game	s 2 hrs	Mon	16-18	HG D7.2	N. Antulov-Fantulin, T. Asikis D. Helbing
	Online seminar: This seminar will primarily to Reserved rooms will remain blocked on can follow the seminar from there.							2e.sg
	Complex Social Systems: Modeling Agents, - With Coding Project	Learnii	ng, and Game	s 2 hrs				N. Antulov-Fantulin, T. Asikis D. Helbing
	Transport Planning Methods Transport Planning Methods	W	6 credits	4G 4 hrs	Mon Wed 22.09. 27.09. 29.09. 04.10. 06.10.	10-12 10-12 10-12 10-12 10-12 10-12 10-12	HIL F36.1 HIL F36.1 HCP E47.1 HIL F10.3 HCP E47.1 HIL F10.3 HCP E47.1	K. W. Axhausen
860-0012-01L	Cooperation and Conflict Over International Water Resources, In-Depth Case Study Only for Science, Technology, and Policy MSc and PhD students.	W	3 credits	2A				
	Prerequisite: you have to be enrolled in 860-0012-00L during the same semester.							
860-0012-01 A	Cooperation and Conflict Over International Depth Case Study ■	Water	Resources, In-	· 2 hrs				B. Wehrli, T. Bernauer
860-0012-00L	Cooperation and Conflict Over International Water Resources Number of participants limited to 40. Priority for Science, Technology, and Policy MSc.	W	3 credits	28				
	This is a research seminar at the Master level. PhD students are also welcome.							
860-0012-00 S	Cooperation and Conflict Over International	Water	Resources	2 hrs	Tue	12-14	LEE D105	<b>B. Wehrli</b> , T. Bernauer, E. Calamita, T. U. Siegfried
► Electives	•							
Number	Title	Туре	ECTS	Hours				Lecturers
351-0778-01L	Discovering Management (Exercises) Complementary exercises for the module Discovering Managment.	W	1 credit	1U				
	Prerequisite: Participation and successful completion of the module Discovering Management (351-0778-00L) is mandatory.							
	Discovering Management (Exercises)			1 hrs	Fri	11-12	HG E1.1	B. Clarysse, L. P. T. Vandeweghe
351-0778-00L	Discovering Management Entry level course in management for BSc, MSc and PHD students at all levels not belonging to D-MTEC. This course can be complemented with Discovering Management (Excercises) 351-0778-01.	W	3 credits	3G				
351-0778-00 G	Discovering Management Diese Lehrveranstaltung wird ab dem HS 20 angeboten. The lecture takes place in classroom, online zoom and recorded.			3 hrs	Fri	08-11	HG E1.1	B. Clarysse, S. Brusoni, E. Fleisch, G. Grote, V. Hoffmann, T. Netland, Y. R. Shrestha, P. Tinguely, L. P. T. Vandeweghe
851-0609-06L	Governing the Energy Transition	w	2 credits	2V				
851-0609-06 V	Primarily suited for Master and PhD level. Governing the Energy Transition			2 hrs	Thu	16-18	NO C60	T. Schmidt, N. Schmid, S. Sewerin
363-1065-00L	Design Thinking: Human-Centred	w	5 credits	5G				J. 001101111
	Solutions to Real World Challenges Design Thinking: Human-Centred Solutions Challenges Does not take place this semester. From FS22 in the spring semester.			5 hrs				S. Brusoni

Number	Title	Tyne	ECTS	Hours				Lecturers
► Master's	Thesis							
860-0700-00 P	Internship - Long The long internship corresponds to a worklo accomplished within 6 months.	ad of 36	60 hours, to be	)				external organisers
860-0700-00L	Internship - Long The internship can be started the earliest in the second semester. The internship needs to be approved by the study director. Therefore students need to hand in a short description to the study secretary before they start the internship.		12 credits					
860-0600-00 P	Internship - Short The short internship corresponds to a workle be accomplished within 3 months.							external organisers
	The internship can be started the earliest in the second semester. The internship needs to be approved by the study director. Therefore students need to hand in a short description to the study secretary before they start the internship.		o creuits					
Number 860-0600-00L	Title Internship - Short	Type W	ECTS 6 credits	Hours				Lecturers
	erformance counts as electives.							
► Internshi	critiques).	(80)						
<b>052-0707-00L</b> 052-0707-00 V	Urban Design III Urban Design III No course on 28.10. (seminar week) 16./23.	<b>W</b> .12. (bei	2 credits	<b>2V</b> 2 hrs	Thu	08-10	ONA E7	H. Klumpner, M. Fessel
701-1563-00 G	Climate Policy			3 hrs	Mon Wed Fri	09-10 09-10 09-10	CHN C14 CAB G51 HG F5	A. Patt, S. Hanger-Kopp
	Resource and Environmental Economics The lecture takes place in classroom, online recorded.  Climate Policy	via live W	streaming and	2 hrs / 3 <b>G</b>	Wed	10-12	HG G3	L. Bretschger
363-0537-00L	Resource and Environmental Economics	W	3 credits	2G				
	Number of participants limited to 50.  Computational Social Science ■  Online seminar: This seminar will primarily the Reserved rooms will remain blocked on can follow the seminar from there.	npus for	students to	2 hrs	Tue	18-20	RZ F21	<b>D. Helbing</b> , J. Argota Sánchez Vaquerizo, M. Korecki
851-0585-41L	Computational Social Science	W	3 credits	2S				
851-0467-00 S	Number of participants limited to 50.  From Traffic Modeling to Smart Cities and D Online seminar: This seminar will primarily to Reserved rooms will remain blocked on can follow the seminar from there.	ake plac	ce online.	2 hrs	Mon	18-20	IFW A32.1	D. Helbing, S. Mahajan
851-0467-00L	From Traffic Modeling to Smart Cities and Digital Democracies	w	3 credits	2S				
. 51 1001-00 G	. Januariono or Ecopyotom Management			0.110	23.09.	10-13	HG E41 HG E33.1	J. Garcia Ulloa, A. Giger Dray
	Foundations of Ecosystem Management Foundations of Ecosystem Management	w	5 credits	<b>3G</b> 3 hrs	Thu	10-13	CHN G46	J. Ghazoul, C. Garcia,
865-0008-00 G	Policy Evaluation and Applied Statistics Does not take place this semester. Termine n.V. Ort: CLD			40s hrs				I. Günther
865-0008-00L	Policy Evaluation and Applied Statistics Only for MAS in Development and Cooperation and Science, Technology, and		3 credits	3G				
860-0034-00 V	Opinion Surveys and Experiments  Designing and Implementing Public Opinion  Experiments	Survey	s and	2 hrs	Mon	14-16	IFW B42	L. P. Fesenfeld, F. Quoss
860-0034-00L	Designing and Implementing Public	w	4 credits	2V	IVIOIT	10-10	11013	1. Demadei
860-0023-00L	International Environmental Politics Particularly suitable for students of D-ITET, D-USYS International Environmental Politics	W	3 credits	2V 2 hrs	Mon	16-18	HG F3	T. Bernauer
	International Organizations Field trip to Geneva.			20s hrs				D. Hangartner
	Studies MSc.							

860-0900-00L Master's Thesis O 30 credits 64D

Only students who fulfill the following criteria are allowed to begin with their master thesis:

a. successful completion of the bachelor

programme; b. fulfilling of any additional requirements necessary to gain admission to the master

programme.

860-0900-00 D Master's Thesis ■

seminar

colloquium

S

Κ

900s hrs by appt.

Professors

revision course / private study

Science	, Technology, and Policy Master - Key for Type		
0	Compulsory	E-	Recommended, not eligible for credits
W+	Eligible for credits and recommended	Z	Courses outside the curriculum
W	Eligible for credits	Dr	Suitable for doctorate
Key for	Hours		
V	lecture	P	practical/laboratory course
G	lecture with exercise	A	independent project
U	exercise	D	diploma thesis

R

ECTS European Credit Transfer and Accumulation System

Special students and auditors need special permission from the lecturers.

### **Sport Teaching Diploma**

Detailed information on the programme at: www.didaktischeausbildung.ethz.ch

#### **▶** Educational Science

Course offerings in the category Educational Science are listed under "Programme: Educational Science for Teaching Diploma and TC".

Number	Title	Type	ECTS	Hours				Lecturers
	see Educational Science Teaching Diploma	!						
851-0240-15L	Designing Educational Environments in Physical Education (EW2 Sport) Compulsory course requirements for EW2 Sport: This course is required to be taken prior to EW4 Sport "Outdoor Education: Concepts and Practice" (851-0242-02L)	0	4 credits	2 <b>S</b>				
851-0240-15 S	Die Gestaltung schulischer Lernumgebunge Sport) ■ Unregelmässige Veranstaltung. Outdoor-Weekend: 2./3.10.2021 Das-Outdoor-Weekend muss vollumfänglich max. 1 Absenz bei den übrigen Terminen	·	`	28s hrs	Tue	18-20	LEE D101	H. Gubelmann, R. Scharpf
851-0240-00L	Human Learning (EW1) This lecture is only apt for students who intend to enrol in the programs "Teaching Diploma" or "Teaching Certificate". It is about learning in childhood and adolescence.	0	2 credits	2V				
851-0240-00 V	Menschliches Lernen (EW1)			2 hrs	Tue	18-20	HG F1	E. Stern
851-0242-08L	Research Methods in Educational Science Number of participants limited to 30 This course unit can only be enrolled after successful participation in, or during enrollment in the course "Human Learning (EW 1)".	W	1 credit	2S				
851-0242-08 S	Forschungsmethoden der empirischen Bildu Unregelmässige Lehrveranstaltung.	ungsfors	schung	21s hrs	Wed	12-15	LFW C1	<b>P. Edelsbrunner</b> , T. Braas, C. M. Thurn
	Zwei obligatorische Präsenztermine: 29.09. An den übrigen Terminen nur mit einem Tei (jeweils mit 1-2 Kleingruppen).							

### ► Subject Didactics in Sport

Important: You can only enrole in the courses of this category if you have not more than 12 CP left for possible additional requirements.

Number	Title	Type	ECTS	Hours				Lecturers
557-0315-00L	Sports Didactics I Only for Teaching Diploma Sports.	0	4 credits	2V				
	Simultaneous enrolment in Introductory Internship Sports - course 557-0210-00L - is compulsory.							
557-0315-00 V	Fachdidaktik Sport I ■ Unterricht in den Sporthallen Hönggerberg 16.00 - 17.55h			2 hrs	Tue	16-18	HPS C21.2 HPS C21.3 HPS D29	R. Scharpf, O. Graf
557-0203-01L	Mentored Work Subject Didactics Sport Only for Teaching Diploma Sports.	0	4 credits	9A				
557-0203-01 A	Mentorierte Arbeit Fachdidaktik Sport ■			120s hrs	by app	t.		Supervisors

### ► Professional Training in Sport

Important: You can only enrole in the courses of this category if you have not more than 12 CP left for possible additional requirements.

Number	Title	Type	ECTS	Hours				Lecturers
557-0210-00L	Introductory Internship Sports Only for Teaching Diploma Sports.	0	3 credits	6P				
	Simultaneous enrolment in Sports Didactic I - course 557-0315-00L - is compulsory.	s						
557-0210-00 P	Einführungspraktikum Sport ■			90s hrs	by app	t.		O. Graf, R. Scharpf
557-0208-00L	Teaching Internship Sport Only for Teaching Diploma Sports.	0	8 credits	17P				
557-0208-00 P	Unterrichtspraktikum Sport Lehrdiplom ■			240s hrs	by app	t.		O. Graf, R. Scharpf
557-0220-00L	Partial Teaching Internship Sport Only for Teaching Diploma Sports.	0	5 credits	11P				
557-0220-00 P	Teilpraktikum Unterricht an gymnasialer Ma	aturitätss	schule =	150s hrs	by app	t.		O. Graf, R. Scharpf
557-0215-00L	Professional Exercises Only for Teaching Diploma Sports.	0	2 credits	4G				
557-0215-00 G	Berufspraktische Uebungen Sporthalle Hönggerberg Hallen 1+2			60s hrs	Tue	10-12	HPS C21.1 HPS C21.2	O. Graf

557-0211-01L	Examination Lesson I Sports Only for Teaching Diploma Sports.	0	1 credit	2P		
	Simultaneous enrolment in "Examination Lesson II Sports" (557-0211-02L) is compulsory.					
557-0211-01 P	Prüfungslektion untere Stufe Sport ■			30s hrs	by appt.	O. Graf, R. Scharpf
557-0211-02L	Examination Lesson II Sports Only for Teaching Diploma Sports.	0	1 credit	2P		
	Simultaneous enrolment in "Examination Lesson I Sports" (557-0211-01L) is compulsory.					

### ▶ Spec. Courses in Resp. Subj. w/ Educ. Focus & Further Subj. Didactics

### ▶▶ Specialized Courses in Respective Subject with Educational Focus I

At least 6 CP's must be obtained in this category.

Number	Title	Type	ECTS	Hours				Lecturers	
376-1033-00L	History of Sports	W	2 credits	2V					
376-1033-00 V	Sportgeschichte			2 hrs	Thu	16-18	HG E33.3	M. Gisler	
376-1107-00L	Sport Pedagogy	w	2 credits	2V					
376-1107-00 V	Sportpädagogik Diese Lehrveranstaltung findet grundsätzlic reservierten Räume bleiben für die Studiere Campus bestehen, um die Lehrveranstaltun	enden al	uf dem	2 hrs	Thu	10-12	NO C44	C. Herrmann	
376-1117-00L	Sport Psychology	w	2 credits	2V					
376-1117-00 V	Sportpsychologie Exkursion: Sa 18.12.2021 Skispringen Wel (Die Termine 12.10./19.10./16.11. entfallen		gelberg	2 hrs	Tue	14-16	HG E1.2	H. Gubelmann	
376-1127-00L	Sociology of Sport	w	2 credits	2V					
376-1127-00 V	Sportsoziologie			2 hrs	Thu	08-10	NO C6	R. Bürgi, M. Lamprecht	
557-0205-00L	Mentored Work Specialised Courses in the Respective Subject with an Educational Focus Sport A Only for Teaching Diploma Sports.	0	2 credits	4A					
557-0205-00 A	Mentorierte Arbeit Fachwissenschaftliche V Fokus Sport A für Lehrdiplom ■ Die mentorierte Arbeit wird in einem der 2 g Fachbereiche geleistet!			60s hrs	by app	ot.		Supervisors	

### ▶▶ Specialized Courses in Respective Subject with Educational Focus II

At least 6 CP's must be obtained in this category.

Further courses must be chosen from the "Sport Practical: Major Education".

Number	Title	Type	ECTS	Hours	Lecturers
557-0206-00L	Mentored Work Specialised Courses in the Respective Subject with an Educational Focus Sport B Only for Teaching Diploma Sports.	0	2 credits	4A	
	Prerequisite: Sports Didactics I				
557-0206-00 A	Mentorierte Arbeit Fachwissenschaftliche V pädagogischem Fokus Sport B Lehrdiplom Die mentorierte Arbeit wird in einem Grund Vertiefungsfach geleistet.	-	9	60s hrs by appt.	Supervisors
	see Sport Teaching Diploma, Sport Practical: Major Education				

### ► Compulsory Elective Courses

At least 6 CP's must be acquired in this category.

Further courses must be chosen from the "Sports Practice: Major Education and Specialized Education".

see Sport Teaching Diploma, Sport Practical: Major Education

#### **▶** Sports Practice

The Teaching Diploma in Sports will only be granted to students holding a Master, Diploma or Licentiate degree in Human Movement Sciences and Sports or Health Sciences and Technology . Additionally, a Sports Practice encompassing 56 CP's is required. The Sports Practice can be partly conducted during the Bachelor and Master programmes in Sports.

#### **▶▶** Assessments

Number	Title	Type	ECTS	Hours	Lecturers
557-0101-00L	Assessment I Shaping Only for Health Sciences and Technology BSc and Teaching Diploma Sports.	0	2 credits	2G	

557-0101-00 G	Assessment I Gestalten 1. Gruppe 13.30 - 15.00h 2. Gruppe 15.10 - 16.40h Sporthallen Hönggerberg			2 hrs	Thu	13-15 13-17 15-17	HPS C21.1 HPS E24.1 HPS C21.1	MM. Jäggi, C. König
557-0103-00L	Assessment II Toning Only for Health Sciences and Technology BSc and Teaching Diploma Sport.	0	2 credits	2G				
557-0103-00 G	Assessment II Leisten ■ Hallen 1-3 Hönggerberg			2 hrs	Fri	08-11	HPS C21.1 HPS D29 HPS E24.1	M. Zürcher, A. Krebs, M. Perk
▶▶ Basic E	ducation							
Number	Title	Туре	ECTS	Hours				Lecturers
557-0412-01L	Dance I	W	2 credits	2G				
557-0412-01 G	Prerequisites: Assessment I (BSc HST).  Tanz I ■  Gruppe 1: 13.30h-15.00h Arena 2 + 3  Gruppe 2: 15.15h-16.45h Arena 2 + 3			2 hrs	Mon	14-17	HPS E24.1 HPS E28.1	C. Gmünder
	Obligatorisch für LD Sport neues Reglemen	nt!						
557-0433-00L	Apparatus Gymnastics and Trampoline I Prerequisites: Assessment I BSc HST.		2 credits	2G				
557-0433-00 G	Geräteturnen und Trampolin I ■ Hallen Hönggerberg 13.15h-14.45h 1. Gruppe 14.45h-16.15h 2. Gruppe			2 hrs	Fri	13-15 15-17	HPS C21.3 HPS C21.3	MM. Jäggi
	Obligatorisch für LD Sport neues Reglemen	nt!						
557-0454-01L	Swimming I Prerequisites: Assessment II BSc HST.	W	2 credits	2G				
	Enrolment only via Study Administration HST!							
557-0454-01 G	Schwimmen I ■ Wird nur ausnahmsweise im HS21 angebot Frühjahrssemester statt.	en - finc	det normal im	2 hrs	Thu	10-12	Ex tern	M. Perk
	BESUCH IM HS21 NUR FÜR STUDIEREN DURCH DAS STUDIENSEKRETARIAT KO WURDEN (als Ersatz für FS21).							
	Unterricht im Hallenbad Oerlikon am Donne	erstag 10	0.30-12.00h.					
557-0503-01L	Basketball 1 Prerequisites: Assessment III (BSc HST).	W	2 credits	2G				
557-0503-01 G	1. Gruppe 07.45 - 09.15h 2. Gruppe 09.45 - 11.15h Hallen 1-3 Hönggerberg			2 hrs	Thu	08-11	HPS C21.1	C. Ferrari
	Obligatorisch für LD Sport neues Reglemen	nt!						
557-0514-03L	Soccer I	w	2 credits	2G				
FF7 0F44 00 O	Prerequisites: Assessment III BSc HST.			0.5	Th	40.44	LICA FILINT	II A Book to D. O. Horseles
557-0514-03 G	Obligatorisch für LD Sport neues Reglemen Genaue Zeiten: 1. Gruppe 12.00 - 13.30h 2. Gruppe 16.15 - 17.45h	nt!		2 hrs	Thu	12-14 16-18	HSA -FLUNT	H. A. Russheim, P. C. Humbe
		ekretaria	at					
	Gruppeneinteilung wird durch das Studiens vorgenommen.							
557-0533-01L	vorgenommen. Floorball I	w	2 credits	2G				
<b>557-0533-01L</b> 557-0533-01 G	vorgenommen.  Floorball I  Prerequisites: Assessment III BSc HST	W	2 credits	<b>2G</b> 2 hrs	Fri	13-15	HPS C21.1	F. Ungrad
	vorgenommen.  Floorball I  Prerequisites: Assessment III BSc HST  Unihockey I  Unterricht 13.15h-14.45h Hönggerberg		2 credits		Fri	13-15	HPS C21.1	F. Ungrad
	vorgenommen.  Floorball I  Prerequisites: Assessment III BSc HST  Unihockey I ■  Unterricht 13.15h-14.45h Hönggerberg  Obligatorisch für LD Sport neues Reglemen.		2 credits		Fri	13-15	HPS C21.1	F. Ungrad
557-0533-01 G	vorgenommen.  Floorball I  Prerequisites: Assessment III BSc HST  Unihockey I ■  Unterricht 13.15h-14.45h Hönggerberg  Obligatorisch für LD Sport neues Reglement  Handball I  Prerequisites: Assessment III (BSc HST).	nt!		2 hrs	Fri	13-15 08-11	HPS C21.1	F. Ungrad  F. Lüchinger
557-0533-01 G 557-0522-01L	vorgenommen.  Floorball I Prerequisites: Assessment III BSc HST Unihockey I ■ Unterricht 13.15h-14.45h Hönggerberg  Obligatorisch für LD Sport neues Reglemen  Handball I Prerequisites: Assessment III (BSc HST).  Handball I ■ Ort: Sporthallen Irchel 1. Gruppe: 07.45 - 09.15h	w		2 hrs				

557-0601-00 G	Badminton I ■  Does not take place this semester.  Obligatorisch für LD Sport neues Reglemen	nt!		2 hrs				
	Findet ab 2022 neu im Frühlingssemester s	tatt!						
557-0603-01L	Snowsports I - Ski Prerequisites: Assessment I+II (BSc HST) passed.	W	2 credits	2G				
557-0603-01 G	Schneesport I - Ski ■  Blockwoche in Davos vom 09.01.2022 bis separate Anmeldung über Studiensekretaria		022.	2 hrs				C. Elmiger-Schnyder, further lecturers
	Obligatorisch für LD Sport neues Reglemen	nt!						
557-0603-02L	Snowsports I - Snowboard Prerequisites: Assessment I+II (BSc HST) passed.	W	2 credits	2G				
557-0603-02 G	Schneesport I - Snowboard ■  Blockwoche in Davos vom 09.01.2022 - 14. separate Anmeldung über Studiensekretaria			2 hrs				C. Elmiger-Schnyder, further lecturers
	Obligatorisch für LD Sport neues Reglemen	nt!						
►► Major E	ducation							
Number	Title	Туре	ECTS	Hours				Lecturers
557-0426-00L	Fitness II Prerequisites: successful completion of Basic Education in Fitness.	W	2 credits	2G				
557-0426-00 G	08.00 - 09.30h Arena 2 Hönggerberg			2 hrs	Wed	08-10	HPS E24.1	A. Sonderegger, C. Romano
557-0539-00L	Gymnastics / Acrobatics II Prerequisite: Successful completion of the basic course "Apparatus Gymnastics and Trampoline I" (557-0433-00L).	W	2 credits	2G				
557-0539-00 G	Geräteturnen / Akrobatik II Unterricht Sporthalle Hönggerberg 10.30-12.00h			2 hrs	Fri	10-12	HPS C21.2 HPS C21.3	MM. Jäggi
557-0541-00L	Badminton / Volleyball II  Prerequisite: Successful completion of the basic courses "Badminton I" and "Volleyball I" (557-0601-00L / 557-0542-01L).	w	2 credits	2G				
557-0541-00 G	Badminton / Volleyball II Unterricht Sporthallen Hönggerberg (Hallen	1 & 2)		2 hrs	Mon	15-17	HPS C21.1	M. Attinger, P. Lüscher Luchsinger
►► Educati	on Acquired Outside ETH							
Number	Title	Туре	ECTS	Hours				Lecturers
557-0450-00L	Life Saving Rescue Test Plus Pool SLRG Only for Teaching Diploma Sports.	0	2 credits					
	Confirmation of course attendance Brevet Basis Pool and Brevet Plus Pool SLRG.							
557-0450-00 P	External education! Credit points only for Teaching Diploma Sports!  Rettungsschwimmen Plus Pool SLRG				by appt	<u>.</u>		external organisers
557-0451-00L	First Responder Level 2 Only for Teaching Diploma Sports.	0	2 credits		-7			
	Confirmation of course attendance "First Responder Level 2 IVR . More information: www.samariter.ch or ivr- ias.ch							
557.0454.00 D	External education! Credit points only for Teaching Diploma Sports!				h., anns			automal arrania ra
	Ersthelfer Stufe 2 ■  L+S-Coach School and Youth Sports	0	2 credits		by appt	•		external organisers
337-U432-UUL	J+S-Coach School and Youth Sports Only for Teaching Diploma Sports.	U	2 credits					
	Acquisition of the certificate "J+S-Coach School and Youth Sports.							
	External education! Credit points only for Teaching Diploma Sports. Information on signing in for the course will be provided by the study administration HST.							
557-0452-00 P	J+S-Leiter Schulsport Jugendsport Bitte berücksichtigen Sie, dass die J+S-Kur. angeboten werden. separate Anmeldung über Studiensekretaria	-	ils im Sommer					external organisers

#### **▶▶** Compensation Courses

Number	Title	Type	ECTS	Hours				Lecturers
557-0603-01L	Snowsports I - Ski Prerequisites: Assessment I+II (BSc HST) passed.	W	2 credits	2G				
557-0603-01 G	Schneesport I - Ski ■  Blockwoche in Davos vom 09.01.2022 bis separate Anmeldung über Studiensekretari			2 hrs				C. Elmiger-Schnyder, further lecturers
	Obligatorisch für LD Sport neues Reglemen	nt!						
557-0603-02L	<b>Snowsports I - Snowboard</b> Prerequisites: Assessment I+II (BSc HST) passed.	W	2 credits	2G				
557-0603-02 G	Schneesport I - Snowboard ■  Blockwoche in Davos vom 09.01.2022 - 14 separate Anmeldung über Studiensekretari		="	2 hrs				<b>C. Elmiger-Schnyder</b> , further lecturers
	Obligatorisch für LD Sport neues Reglemen	nt!						
557-0605-01L	Snowsports II - Ski Prerequisite: Basic course Snowsports I passed.	W	2 credits	2G				
557 OGOE O4 C	Only for students in Health Sciences and Technology and Teaching Diploma Sports.			2 hrs				C Elminar Schmudar further
557-0605-01 G	Schneesport II - Ski ■ Blockwoche in Davos vom 09.01.2022 bis Separate Anmeldung über Studiensekretar			21115				C. Elmiger-Schnyder, further lecturers
557-0605-02L	Snowsports II - Snowboard Prerequisite: Basic course Snowsports I passed.	W	2 credits	2G				
	Only for students in Health Sciences and Technology and Teaching Diploma Sports.							
557-0605-02 G	Schneesport II - Snowboard ■			2 hrs				C. Elmiger-Schnyder, further
	Blockwoche in Davos vom 09.01.2022 bis Separate Anmeldung über Studiensekretar							lecturers
557-0605-03L	Snowsports II - Telemark Prerequisite: Basic course Snowsports I passed.	W	2 credits	2G				
	Only for students in Health Sciences and Technology and Teaching Diploma Sports.							
557-0605-03 G	Schneesport II - Telemark ■ Blockwoche in Davos vom 09.01.2022 - 14 Separate Anmeldung über Studiensekretar			2 hrs				C. Elmiger-Schnyder, further lecturers
557-0605-04L	Snowsports II - Off-piste Prerequisite: Basic course Snowsports I passed.	W	2 credits	2G				
557-0605-04 G	Only for students in Health Sciences and Technology and Teaching Diploma Sports. Schneesport II - Offpist ■			2 hrs				C. Elmiger-Schnyder, further
	Blockwoche in Davos vom 09.01.2022 - 14 Separate Anmeldung über Studiensekretar							lecturers
► Additiona	al Requirements in Sports Scie	nce						
Number	Title	Туре	ECTS	Hours				Lecturers
376-0203-00L	Movement and Sport Biomechanics	W	4 credits	3G	F-:	14.40	HCI IO	P. Toylor D. Lint
376-0203-00 G	Bewegungs- und Sportbiomechanik Die Vorlesungen und Übungen finden im H online statt. Die reservierten Räume bleibe auf dem Campus bestehen, um die Lehrve hören.	n für die	Studierenden	3 hrs	Fri	14-16 16-17	HCI J3 HCP E47.3 HIT F31.2 HIT F32 HIT H51 HIT J51	B. Taylor, R. List
	Vorlesung: Fr 14-16 Übungen: Fr 16-17						HIT J52 HIT J53 HIT K52	
<b>376-0207-00L</b> 376-0207-00 G	Exercise Physiology Sportphysiologie Der Hörsaal 135-F-32 steht zur Verfügung, zoom auf dem eigenen Laptop zu folgen.	<b>W</b> um der \	4 credits  Vorlesung via	<b>3G</b> 3 hrs	Thu	14-17	I17 M5 I35 F32	C. Spengler, R. M. Rossi
376-1033-00L	History of Sports	w	2 credits	2V				
376-1033-00 V	Sportgeschichte			2 hrs	Thu	16-18	HG E33.3	M. Gisler
<b>376-1107-00L</b> 376-1107-00 V	Sport Pedagogy Sportpädagogik	W ch online	2 credits	<b>2V</b> 2 hrs	Thu	10-12	NO C44	C. Herrmann
	Diese Lehrveranstaltung findet grundsätzlic reservierten Räume bleiben für die Studier Campus bestehen, um die Lehrveranstaltu	enden al	uf dem					

376-1117-00L	Sport Psychology	W	2 credits	2V				
376-1117-00 V	Sportpsychologie Exkursion: Sa 18.12.2021 Skispringen Wo (Die Termine 12.10./19.10./16.11. entfalle		ngelberg	2 hrs	Tue	14-16	HG E1.2	H. Gubelmann
376-1127-00L	Sociology of Sport	w	2 credits	2V				
376-1127-00 V	Sportsoziologie			2 hrs	Thu	08-10	NO C6	R. Bürgi, M. Lamprecht
376-0130-00L	Laboratory Course in Exercise Physiology Number of participants limited to 48.	W	3 credits	4P				
	HST: Possible from the 5th semester on.							
376-0130-00 P	Praktikum Sportphysiologie *** BITTE BEACHTEN ***: Aufgrund der bezüglich Pandemie-Lage wird evtl. die m Praktikums kurzfristig reduziert. Die Zulassung zum Praktikum erfolgt in di des Belegungstermins.	aximale	Belegung des		Thu	08-12	I17 M5	C. Spengler
	Die Veranstaltung findet wöchentlich statt Zürichs.  Details zum Praktikumsablauf werden in d							
	Praktikumsbeginn schriftlich bekanntgege Der Besuch aller Praktikumstage ist oblig Für absehbare, zwingende Abwesenheite Wochen vor Semesterbeginn ein schriftlic einzureichen.	ben. atorisch. n ist bis	spätestens 4					
376-2019-00L	Praktikumsbeginn schriftlich bekanntgege Der Besuch aller Praktikumstage ist obligt Für absehbare, zwingende Abwesenheite Wochen vor Semesterbeginn ein schriftlic	ben. atorisch. n ist bis	spätestens 4	2 <b>G</b>				
	Praktikumsbeginn schriftlich bekanntgege Der Besuch aller Praktikumstage ist obliga Für absehbare, zwingende Abwesenheite Wochen vor Semesterbeginn ein schriftlic einzureichen.	ben. atorisch. n ist bis hes Ges	spätestens 4 uch	<b>2G</b> 2 hrs	Tue	10-12	HPS C21.3 HPS D29	R. Scharpf, P. Schütz
376-2019-00 G	Praktikumsbeginn schriftlich bekanntgege Der Besuch aller Praktikumstage ist oblige Für absehbare, zwingende Abwesenheite Wochen vor Semesterbeginn ein schriftlic einzureichen.  Applied Movement Analysis	ben. atorisch. n ist bis hes Ges	spätestens 4 uch	_	Tue	10-12		R. Scharpf, P. Schütz
376-2019-00 G  Sport Teachin	Praktikumsbeginn schriftlich bekanntgege Der Besuch aller Praktikumstage ist oblige Für absehbare, zwingende Abwesenheite Wochen vor Semesterbeginn ein schriftlic einzureichen.  Applied Movement Analysis Angewandte Bewegungsanalyse	ben. atorisch. n ist bis hes Ges	spätestens 4 uch	_		10-12 Suitable for	HPS D29	R. Scharpf, P. Schütz
376-2019-00 G  Sport Teachin	Praktikumsbeginn schriftlich bekanntgege Der Besuch aller Praktikumstage ist oblige Für absehbare, zwingende Abwesenheite Wochen vor Semesterbeginn ein schriftlic einzureichen.  Applied Movement Analysis Angewandte Bewegungsanalyse	ben. atorisch. n ist bis hes Ges	spätestens 4 uch	2 hrs	S	Suitable for	HPS D29	
376-2019-00 G  Sport Teachin  O (E-	Praktikumsbeginn schriftlich bekanntgege Der Besuch aller Praktikumstage ist oblige Für absehbare, zwingende Abwesenheite Wochen vor Semesterbeginn ein schriftlic einzureichen.  Applied Movement Analysis Angewandte Bewegungsanalyse  g Diploma - Key for Type  Compulsory	ben. atorisch. n ist bis hes Ges	spätestens 4 uch	2 hrs	S	Suitable for	HPS D29  doctorate credits and reco	
376-2019-00 G  Sport Teachin  O (E-	Praktikumsbeginn schriftlich bekanntgege Der Besuch aller Praktikumstage ist oblige Für absehbare, zwingende Abwesenheite Wochen vor Semesterbeginn ein schriftlic einzureichen.  Applied Movement Analysis Angewandte Bewegungsanalyse  Ig Diploma - Key for Type Compulsory Recommended, not eligible for credits Courses outside the curriculum	ben. atorisch. n ist bis hes Ges	spätestens 4 uch	2 hrs  Dr W+	S	Suitable for	HPS D29  doctorate credits and reco	
Sport Teachin O E- Z Key for Hours	Praktikumsbeginn schriftlich bekanntgege Der Besuch aller Praktikumstage ist oblige Für absehbare, zwingende Abwesenheite Wochen vor Semesterbeginn ein schriftlic einzureichen.  Applied Movement Analysis Angewandte Bewegungsanalyse  Ig Diploma - Key for Type Compulsory Recommended, not eligible for credits Courses outside the curriculum	ben. atorisch. n ist bis hes Ges	spätestens 4 uch	2 hrs  Dr W+	S E E	Suitable for Eligible for	HPS D29  doctorate credits and reco	
Sport Teachin O E- Z Key for Hours	Praktikumsbeginn schriftlich bekanntgege Der Besuch aller Praktikumstage ist oblige Für absehbare, zwingende Abwesenheite Wochen vor Semesterbeginn ein schriftlic einzureichen.  Applied Movement Analysis Angewandte Bewegungsanalyse  g Diploma - Key for Type Compulsory Recommended, not eligible for credits Courses outside the curriculum	ben. atorisch. n ist bis hes Ges	spätestens 4 uch	2 hrs  Dr W+ W	S E E	Suitable for Eligible for	doctorate credits and reco	
Sport Teachin O E- Z Key for Hours	Praktikumsbeginn schriftlich bekanntgege Der Besuch aller Praktikumstage ist oblige Für absehbare, zwingende Abwesenheite Wochen vor Semesterbeginn ein schriftlic einzureichen.  Applied Movement Analysis Angewandte Bewegungsanalyse  Tig Diploma - Key for Type Compulsory Recommended, not eligible for credits Courses outside the curriculum	ben. atorisch. n ist bis hes Ges	spätestens 4 uch	2 hrs  Dr W+ W	S E E	Suitable for diligible for diligible for diligible for directical/late	doctorate credits and recordits	
Sport Teachin O E- Z Key for Hours V G U	Praktikumsbeginn schriftlich bekanntgege Der Besuch aller Praktikumstage ist oblige Für absehbare, zwingende Abwesenheite Wochen vor Semesterbeginn ein schriftlic einzureichen.  Applied Movement Analysis Angewandte Bewegungsanalyse  Tig Diploma - Key for Type Compulsory Recommended, not eligible for credits Courses outside the curriculum	ben. atorisch. n ist bis hes Ges	spätestens 4 uch	2 hrs  Dr W+ W	S E E	Suitable for Eligible for Eligible for Practical/late Independer Iiploma the	doctorate credits and recordits	nmended

ECTS

European Credit Transfer and Accumulation System
Special students and auditors need special permission from the lecturers.

### **Public Policy Bachelor**

#### ▶ 1. Semester

#### **▶▶** Core Courses First Year Examinations

#### ▶▶▶ Examination Block 1

Students are free to take the exam either in German or in French. They may choose between 853-0723-00L 'Introduction to Torts, Contract and Insurance Law' or 851-0709-00L 'Introduction to Civil Law' (French)

Number	Title	Туре	ECTS	Hours				Lecturers	
853-0723-00L	Introduction to Torts, Contracts and Insurance Law Only for Public Policy BA.		3 credits	2V					
853-0723-00 V	Privatrecht - Einführung in das Haftpflicht- u Versicherungsrecht ■	nd		2 hrs	Wed	08-10	CHN D48	C. von Zedtwitz	
851-0709-00L	Introduction to Civil Law	W	2 credits	2V					
851-0709-00 V	Introduction au Droit civil Mit Erklärungen auch in italienischer Sprach	e.		2 hrs	Mon	18-20	HG F1	H. Peter	
851-0577-00L	Principles of Political Science	0	4 credits	2V+1U					
851-0577-00 V	Politikwissenschaft: Grundlagen			2 hrs	Fri	14-16	ETZ E8	T. Bernauer	
851-0577-00 U	Politikwissenschaft: Grundlagen			1 hrs	Fri	16-17	ETZ E8	T. Bernauer	
853-0033-00L	Leadership I For BA Public Policy and DAS Military Sceinces only.	0	3 credits	2V					
853-0033-00 V	Leadership I ■			2 hrs	Tue	16-18	LEE E101	<b>F. Kernic</b> , F. Demont, M. Holenweger	
▶▶▶ Exam	ination Block 2								
Number	Title	Туре	ECTS	Hours				Lecturers	
351-1034-00L	Microeconomics	0	3 credits	2V					
351-1034-00 V	Mikroökonomie (VWL) ■			2 hrs	Thu	08-10	IFW A34	A. Fetz, M. Gysler	
	The lecture takes place in classroom, online	via live	estreaming or						

	200m, not recorded.				
853-0725-00L	History Part One: Europe (The Cradle of Modernity, Britain, 1789-1914)	0	3 credits	2V	

853-0725-00 V Geschichte I: Europa (Grossbritannien, Mutterland der Moderne, 2 hrs Wed 14-16 ML E12 H. Fischer-Tiné Military Psychology and Pedagogy I 853-0037-00L 4 credits 2V+3U Only for Public Policy BA 853-0037-00 V Militärpsychologie und -pädagogik I HG E33.3 H. Annen 2 hrs Tue 10-12

853-0037-00 U Militärpsychologie und -pädagogik I (Übungswoche)

Gemäss separatem Programm.

▶▶ Remaining Core Courses of the Bachelor Programme

Number	Title	Type	ECTS	Hours				Lecturers
	Proseminar I: Political Methodology Only for Public Policy BA	О	3 credits	28				Lecturers
853-0205-00 S	Proseminar I ■ Permission from lecturers required for all	students		2 hrs	Thu	10-12	IFW D42	F. M. Lichtin, S. Gomm
853-0064-00L	Military Sociology I	0	3 credits	2V				
853-0064-00 V	Militärsoziologie I			2 hrs	Mon	14-16	IFW A32.1	T. Szvircsev Tresch, S. De Rosa, T. Ferst

40s hrs

H. Annen

### **▶▶** Languages

#### ▶▶▶ First Foreign Language

	5 5 5							
Number	Title	Туре	ECTS	Hours				Lecturers
853-0405-00L	English, Part I Only for Public Policy BA	0	3 credits	2G				
853-0405-00 G	Sprachunterricht Englisch, Teil I  Die Vorlesung findet in 2 Grupper  Semesterbeginn. Obligatorische Übungswoche im 2  Vorlesung, 2 Stunden individuelle  Anwesenheit des Dozenten.	n statt. Einteilung Zwischensemeste	r. 2 Stunden	2 hrs	Fri/2w	08-12	CHN G22 CHN G46	S. Schweizer

#### ▶ 3. Semester

#### ▶▶ Remaining Core Courses of the Bachelor Programme

Number	Title	Туре	ECTS	Hours				Lecturers
853-0015-00L	Conflict Research I: Political Violence Only for Public Policy BA.	0	4 credits	2V+1U				
853-0015-00 V	Konfliktforschung I: Politische Gewalt ■			2 hrs	Wed	14-16	LFW B3	A. Juon
853-0015-00 U	Konfliktforschung I: Politische Gewalt ■			1 hrs	Wed	16-17	LFW B3	A. Juon
853-0047-00L	World Politics Since 1945: The History of International Relations	0	4 credits	2V+1U				

353-0101-02L		J	3 creuits	2 hrs	Mon	12-14	HG F26.5	M. M. Keupp
853-0101-02L	Defense Economics I	0	3 credits	2V				
853-0302-00 S				2 hrs	Tue	09-11	CHN E42	R. Sczepanski
853-0302-00 U	,			1 hrs	Tue	11-12	CHN E42	R. Sczepanski
853-0302-00L	European Integration Only for Public Policy BA.	0	4 credits	1U+2S				
853-0082-00 V	Strategische Studien I			2 hrs	Tue	14-16	IFW A36	M. Mantovani
853-0082-00L	Strategic Studies I	0	3 credits	2V				
853-0063-00 U	Militärgeschichte I (Übungswoche) Gemäss separatem Programm.			40s hrs	by appt			A. Wettstein, T. Cubito
853-0063-00 V	Militärgeschichte I			2 hrs	Mon	16-18	HG D3.2	<ul><li>A. Wettstein, T. Cubito,</li><li>M. Olsansky</li></ul>
853-0063-00L	Military History I Only for Public Policy BA	0	4 credits	2V+3U				
853-0065-00 V	Betriebswirtschaftslehre I Online-Veranstaltung: Diese Lehrveranstalt grundsätzlich online statt. Die reservierten I Studierenden auf dem Campus bestehen, u Lehrveranstaltung dort zu hören.	Räume k		3 hrs	Mon	08-11	ML F34	P. Barmettler
853-0065-00L	Business Administration I	0	4 credits	3V				
853-0047-00 U	Uebungen zu Weltpolitik seit 1945: Geschic Beziehungen		•		Wed	09-10	CAB G11	A. Dossi
353-0047-00 V	Only for Public Policy BA and DAS Military Sciences Weltpolitik seit 1945: Geschichte der interna	ationaler	n Beziehungen	2 hrs	Wed	10-12	CAB G11	L. Horovitz

## ▶▶▶ First Foreign Language

Number	Title	Туре	ECTS	Hours				Lecturers
853-0416-00L	English, Part III Only for Public Policy BA	0	3 credits	2G				
853-0416-00 G	Sprachunterricht Englisch, Teil III  Obligatorische Übungswoche im Zwischen Die Vorlesung findet in 2 Gruppen statt. Eis Semesterbeginn. 2 Stunden Vorlesung, 2 Stunden individue. Studierenden in Anwesenheit des Dozente	nteilung . Ile Arbeit	zu	2 hrs	Fri/2w	08-12	IFW B42 IFW C35	S. Schweizer

### ▶ 5. Semester

### ▶▶ Remaining Core Courses of the Bachelor's Programme

Number	Title	Type	ECTS	Hours				Lecturers
853-0049-00L	Introduction to Constitutional Law in Security Policy	0	3 credits	2V				
853-0049-00 V	Staatsrechtliche Grundlagen der Sicherheits	politik		2 hrs	Wed	10-12	IFW C31	R. Müller
853-0038-00L	Swiss Foreign Policy	0	3 credits	2V				
853-0038-00 V	Schweizerische Aussenpolitik			2 hrs	Fri	14-16	CAB G51	D. Möckli
853-0321-00L	Advanced Course II (Seminar) Only for Public Policy BA	0	4 credits	3S				
853-0321-00 S	Seminar II  Permission from lecturers required for all studies Seminar wird mehrfach geführt.	ıdents		3 hrs	Thu	09-12	IFW C31 IFW C35	E. Nussio, M. M. Keupp
853-0061-00L	Introduction to Cybersecurity Politics	0	3 credits	2G				
853-0061-00 G	Einführung in die Cybersicherheitspolitik			2 hrs	Wed	14-16	HG F3	M. Dunn Cavelty, F. J. Egloff
<b>853-0046-00L</b> 853-0046-00 V	Social Psychology of Groups Sozialpsychologie der Gruppe ■ Permission from lecturers required for all stu	<b>O</b> udents	3 credits	<b>2V</b> 2 hrs	Tue 05.10.	10-12 14-16	IFW A34 IFW C42	T. Heilmann

### **▶▶** Languages

### ▶▶▶ Second Foreign Language

Number	Title	Type	ECTS	Hours				Lecturers
853-0402-00L	German, Part II Only for Public Policy BA	W	3 credits	2G				
853-0402-00 G	Sprachunterricht Deutsch, Teil II Start am Freitag, 01.10.2021. Züsätzlich eine obligatorische Übungswo Zwischensemester	oche im		2 hrs	Fri/2w	08-12	IFW B42	S. Schweizer
853-0404-00L	French, Part II Only for Public Policy BA	W	3 credits	2G				
853-0404-00 G	Sprachunterricht Französisch, Teil II Die Vorlesung findet in 2 Gruppen statt. Semesterbeginn. Obligatorische Übungswoche im Zwisch	ŭ		2 hrs	Fri	08-10 10-12	IFW D42 IFW D42	S. Schweizer

### ▶▶ Bachelor's Colloquium and Bachelor's Thesis

Number	Title	Туре	ECTS	Hours				Lecturers
853-0315-00L	BA Colloquium Only for BA Public Policy.	0	2 credits	2K				
853-0315-00 K	Bachelor-Kolloquium ■ Permission from lecturers required for all stud	dents		2 hrs	Thu	14-16	IFW D42	F. Schimmelfennig
853-0654-00L	Bachelor's Thesis	0	10 credits	8D				
853-0654-00 D	Bachelor-Arbeit ■  Permission from lecturers required for all study.	dents		8 hrs	by app	ot.		Lecturers

#### **▶** Electives

### **▶▶** Recommended Elective Courses

Number	Title	Type	ECTS	Hours				Lecturers
853-8002-00L	The Role of Technology in National and International Security Policy	W+	3 credits	2G				
853-8002-00 G	Die Rolle von Technologie in nationaler und Sicherheitspolitik	d interna	tionaler	2 hrs	Tue	08-10	IFW A36	<b>M. Haas</b> , A. Dossi, M. Leese, O. Thränert

### **▶▶** Additional Elective Courses

Number	Title	Type	ECTS	Hours				Lecturers
376-1033-00L	History of Sports	w	2 credits	2V				
376-1033-00 V	Sportgeschichte			2 hrs	Thu	16-18	HG E33.3	M. Gisler
376-1107-00L	Sport Pedagogy	w	2 credits	2V				
376-1107-00 V	Sportpädagogik Diese Lehrveranstaltung findet grundsätzlich			2 hrs	Thu	10-12	NO C44	C. Herrmann
	reservierten Räume bleiben für die Studiere Campus bestehen, um die Lehrveranstaltun	nden al	uf dem					
376-1117-00L	Sport Psychology	W	2 credits	2V				
376-1117-00 V	Sportpsychologie Exkursion: Sa 18.12.2021 Skispringen Welt (Die Termine 12.10./19.10./16.11. entfallen)		gelberg	2 hrs	Tue	14-16	HG E1.2	H. Gubelmann
376-1127-00L	Sociology of Sport	W	2 credits	2V				
376-1127-00 V	Sportsoziologie			2 hrs	Thu	08-10	NO C6	R. Bürgi, M. Lamprecht
851-0589-00L	Technology and Innovation for Development	W	3 credits	2V				
851-0589-00 V	Technology and Innovation for Developmen	t		2 hrs	Tue	12-14	LEE D101	P. Aerni
860-0023-00L	International Environmental Politics Particularly suitable for students of D-ITET, D-USYS	W	3 credits	2V				
860-0023-00 V	International Environmental Politics			2 hrs	Mon	16-18	HG F3	T. Bernauer
363-0341-00L	Introduction to Management	W	3 credits	2G				
363-0341-00 G	Introduction to Management The lecture takes place in classroom, online zoom and recorded.	via live	estreaming or	2 hrs	Thu	16-18	HG F7	<b>Z. Zagorac-Uremovic</b> , J. O'Neil
851-0735-10L	Business Law Number of participants limited to 100	W	2 credits	2V				
	Particularly suitable for students of D-ITET, D-MAVT							
851-0735-10 V	Wirtschaftsrecht			2 hrs	Thu	14-16	HG D1.2	P. Peyrot
101-0515-00L	Project Management	W	2 credits	2G				
101-0515-00 G	Projektmanagement			2 hrs	Fri	14-16	HIL E1	C. G. C. Marxt
701-0985-00L	Social Intercourse with Current Environmental Risks	W	1 credit	1V				
701-0985-00 V	Gesellschaftlicher Umgang mit aktuellen Un Does not take place this semester.	nweltrisi	ken	1 hrs				B. Nowack
701-0703-00L	Environmental Ethics	W	2 credits	2V				
701-0703-00 V	Ethik und Umwelt			2 hrs	Fri	12-14	HG F7	A. Deplazes Zemp
151-0757-00L	Environmental Management	w	2 credits	2G				
	Umwelt-Management			2 hrs	Wed	18-20	ML D28	R. Züst
	Online-Veranstaltung: Diese Lehrveranstaltu grundsätzlich online statt. Die reservierten F Studierenden auf dem Campus bestehen, u Lehrveranstaltung dort zu hören.	Räume I						
851-0180-00L	Research Ethics Number of participants limited to 40	W	2 credits	2G				
	Particularly suitable for students of D-BIOL, D-CHAB, D-HEST							
851-0180-00 G	Research Ethics ■			2 hrs	Wed	18-20	LFW C1	G. Achermann, P. Emch
	One additional hour of home work per week	will bo	roquired					·

851-0861-01L Arabic I A1.1 2 credits W 3G

No enrolment to this course at ETH Zurich. Book the corresponding course directly at "Language Center of UZH and ETH Zürich".

Course fees: https://www.sprachenzentrum.uzh.ch/en/Sprachkurse/Kursgebuehren1.html

Registration dates: https://www.sprachenzentrum.uzh.ch/en/an

gebot.html

851-0861-01 G Arabisch I A1.1 (Sprachenzentrum)

\*\*Kurs vom Sprachenzentrum der UZH und der ETH Zürich\*\*

University lecturers

Public Po	Public Policy Bachelor - Key for Type									
Dr	Suitable for doctorate	W	Eligible for credits							
0	Compulsory	E-	Recommended, not eligible for credits							
W+	Eligible for credits and recommended	Z	Courses outside the curriculum							

3 hrs

Key for	Hours		
V	lecture	P	practical/laboratory course
G	lecture with exercise	A	independent project
U	exercise	D	diploma thesis
S	seminar	R	revision course / private study
K	colloquium		

**ECTS** European Credit Transfer and Accumulation System

Special students and auditors need special permission from the lecturers.

### **Statistics Master**

The following courses belong to the curriculum of the Master's Programme in Statistics. The corresponding credits do not count as external credits even for course units where an enrolment at ETH Zurich is not possible.

### ► Master Studies (Programme Regulations 2020)

#### **▶▶** Core Courses

### **▶▶▶** Statistical Modelling

Number	Title	Туре	ECTS	Hours				Lecturers
<b>401-3622-00L</b> 401-3622-00 G	Statistical Modelling Statistical Modelling	W	8 credits	<b>4G</b> 4 hrs	Mon Thu	10-12 14-16	ML D28 HG E1.1	C. Heinze-Deml
	Time Series Analysis Time Series Analysis	W	6 credits	<b>3G</b> 3 hrs	-			F. Balabdaoui
	Does not take place this semester.							
	ed Statistics	_						
Number	Title	Туре	ECTS	Hours				Lecturers
401-0625-01L	Applied Analysis of Variance and Experimental Design	W	5 credits	2V+1U				
	Applied Analysis of Variance and Experimer Applied Analysis of Variance and Experimer		0	2 hrs 1 hrs	Mon Mon/2w	14-16	HG G5 HG E1.1	L. Meier L. Meier
		itai Des	ign	1 1115	IVIOI1/2W	10-10	по ст.т	L. Weler
	ematical Statistics							•
Number	Title	Туре	ECTS	Hours				Lecturers
<b>401-3621-00L</b> 401-3621-00 V	Fundamentals of Mathematical Statistics Fundamentals of Mathematical Statistics	W	10 credits	<b>4V+1U</b> 4 hrs	Tue Wed	08-10 10-12	HG E5 HG E7	S. van de Geer
401-3621-00 U	Fundamentals of Mathematical Statistics			1 hrs	Tue	12-13	HG D7.1 HG E7	S. van de Geer
401-8623-00L	Likelihood Inference (University of Zurich)	W	5 credits	3G				
	No enrolment to this course at ETH Zurich. Book the corresponding module directly at UZH as an incoming student. UZH Module Code: STA402							
	Mind the enrolment deadlines at UZH: https://www.uzh.ch/cmsssl/en/studies/appli cation/deadlines.html							
401-8623-00 G	Likelihood Inference (University of Zurich) **Course at University of Zurich**			3 hrs				University lecturers
▶▶ Subject	Specific Electives							
Number	Title	Туре	ECTS	Hours				Lecturers
401-3601-00L	Probability Theory At most one of the three course units (Bachelor Core Courses) 401-3461-00L Functional Analysis I 401-3531-00L Differential Geometry I 401-3601-00L Probability Theory can be recognised for the Master's degree in Mathematics or Applied Mathematics. In this case, you cannot change the category assignment by yourself in myStudies but must take contact with the Study Administration Office (www.math.ethz.ch/studiensekretariat) after having received the credits.	W	10 credits	4V+1U				
401-3601-00 V	Probability Theory			4 hrs	Tue Thu	10-12 10-12	HG D1.2 HG E3	W. Werner
401-3601-00 U	Probability Theory Groups are selected in myStudies. Tue 14-15 or Tue 15-16 starting in the second semester.	ond wee	k of the	1 hrs	Tue	14-15 15-16	HG F26.5 ML H41.1 HG F26.5 ML H41.1	W. Werner
<b>401-3627-00L</b> 401-3627-00 V	High-Dimensional Statistics High-Dimensional Statistics	w	4 credits	2V 2 hrs	Thu	08-10	CAB G61	P. L. Bühlmann
401-3612-00L	Stochastic Simulation	w	5 credits	3G				
.0. 00.2 002	Stochastic Simulation			3 hrs				
	Does not take place this semester.							
401-3612-00 G 401-4633-00L	Data Analytics in Organisations and Business	W	5 credits	2V+1U				
401-3612-00 G 401-4633-00L 401-4633-00 V	Data Analytics in Organisations and Business Data Analytics in Organisations and Busines	ss	5 credits	2 hrs	Fri	14-16	HG G5	I. Flückiger
401-3612-00 G <b>401-4633-00</b> L 401-4633-00 V 401-4633-00 U	Data Analytics in Organisations and Business Data Analytics in Organisations and Busines Data Analytics in Organisations and Busines	ss ss		2 hrs 1 hrs	Fri Fri/2w	14-16 16-18	HG G5 HG G5	I. Flückiger I. Flückiger
401-3612-00 G 401-4633-00L 401-4633-00 V 401-4633-00 U 401-6217-00L	Data Analytics in Organisations and Business Data Analytics in Organisations and Busines Data Analytics in Organisations and Busines	ss ss W	5 credits	2 hrs				•

401-0627-00L	Smoothing and Nonparametric W Regression with Examples	N 4	credits	2G				
101-0627-00 G	Smoothing and Nonparametric Regression wit Online course: This course takes place online is meant for those students who want to follow Zentrum campus.  Online-Veranstaltung: Diese Lehrveranstaltun Der reservierte Raum bleibt für die Studierend Campus Zentrum bestehen, um die Lehrverarhören.	e. The resolve the country  If	served room urse from online statt. dem	2 hrs	Fri	14-16	ETZ F91	S. Beran-Ghosh
47-6289-00L	Sampling Surveys Special Students "University of Zurich (UZH)" in the Master Program in Biostatistics at UZH cannot register for this course unit electronically. Forward the lecturer's written permission to attend to the Registrar's Office. Alternatively, the lecturer may also send an email directly to registrar@ethz.ch. The Registrar's Office will then register you for the course.	N 2	credits	1G				
47-6289-00 G	Stichproben-Erhebungen ■  Does not take place this semester.  Blockkurs. Weitere Informationen unter http://s	/stat.ethz	ch/wbl/wbl	17.5s hrs				
01-3628-14L	Bayesian Statistics W	N 4	credits	2V				
	Bayesian Statistics			2 hrs	Tue	16-18	HG G3	F. Sigrist
	Linear & Combinatorial Optimization Wathem.  Linear & Combinatorial Optimization (Mathem.  Online lecture: This lecture will take place onli will remain reserved on campus for students to from there.	atical Op ine. Res	erved rooms		Wed Thu	12-14 10-12	HG G5 HG G5	R. Zenklusen
401-3901-00 U	Linear & Combinatorial Optimization (Mathem Groups are selected in myStudies. Thu 14-16 or Fri 10-12 or Fr 12-14 or Fri 14-16 demand)		•	2 hrs	Thu Fri	14-16 10-12 12-14 14-16	HG F26.5 CAB G51 HG D3.2 HG F26.5	R. Zenklusen
101-4944-20L	Mathematics of Data Science V	N 8	credits	4G				
01-4944-20 G	Mathematics of Data Science			4 hrs	Thu Fri	12-14 10-12	HG G3 HG G5	A. Bandeira
52-0535-00L	Advanced Machine Learning V	V 1	0 credits	3V+2U+4	4			
252-0535-00 V	Advanced Machine Learning Freitag 8-10 HG F1 mit Videoübertragung ins Donnerstag 15-16 ETA F 5 mit Videoübertragu		ETF E 1	3 hrs	Thu Fri	15-16 08-10	ETA F5 ETF E1 HG F1	J. M. Buhmann, C. Cotrini Jimenez
252-0535-00 U	Advanced Machine Learning			2 hrs	Wed Thu Fri	14-16 16-18 16-18 14-16	HG F3 CAB G61 CAB G61 ML F34 CAB G61	J. M. Buhmann, C. Cotrini Jimenez
252-0535-00 A	Advanced Machine Learning Project Work, no fixed presence required.			4 hrs		14-10	OAD 001	<b>J. M. Buhmann</b> , C. Cotrini Jimenez
252-3005-00L	Natural Language Processing  Number of participants limited to 400.	V 5	credits	2V+2U+1	4			
252-3005-00 V	Natural Language Processing From HS21 in the autumn semester.			2 hrs	Mon	12-14	HG F7	R. Cotterell
	Natural Language Processing			2 hrs	Wed	12-14	HG F7	R. Cotterell
	Natural Natural Theory	N 4	orodito.	1 hrs				R. Cotterell
	Neural Network Theory  Neural Network Theory	₩ 4	credits	<b>2V+1U</b> 2 hrs	Tue	10-12	HG F5	H. Bölcskei
	Neural Network Theory The exercise will take place online on: https://www.mins.ee.ethz.ch/teaching/nnt/dow The reserved room is meant for those student the course from the campus.			1 hrs	Tue	12-13	HG F5	H. Bölcskei
401-6282-00L	Statistical Analysis of High-Throughput Genomic and Transcriptomic Data (University of Zurich) No enrolment to this course at ETH Zurich. Book the corresponding module directly at UZH as an incoming student. UZH Module Code: STA426	N 5	credits	3G				
401-6282-00 G	Mind the enrolment deadlines at UZH: https://www.uzh.ch/cmsssl/en/studies/appli cation/deadlines.html Statistical Analysis of High-Throughput Genon Transcriptomic Data (University of Zurich) **Course at University of Zurich**	mic and		3 hrs	Mon	09-12	UNI ZH.	H. Rehrauer, M. Robinson
401-8625-00L	**Course at University of Zurich**  Clinical Biostatistics (University of Zurich)  No enrolment to this course at ETH Zurich.  Book the corresponding module directly at	<b>N</b> 6	credits	4G				

UZH Module Code: STA404

Mind the enrolment deadlines at UZH: https://www.uzh.ch/cmsssl/en/studies/appli

cation/deadlines.html

	CallOff/ucaulifics.fillfil							
401-8625-00 G	Clinical Biostatistics (University of Zurich) **Course at University of Zurich**			4 hrs	Thu	09-10 10-12 15-16	UNI ZH. UNI ZH. UNI ZH.	University lecturers
263-3210-00L	Deep Learning Number of participants limited to 320.	W	8 credits	3V+2U+	+2A			
263-3210-00 V	Deep Learning			3 hrs	Wed Thu	13-14 14-16	ML D28 ML D28	F. Perez Cruz, A. Lucchi
263-3210-00 U	Deep Learning			2 hrs	Mon Wed	16-18 16-18	HG G5 ML D28	F. Perez Cruz, A. Lucchi
263-3210-00 A	Deep Learning			2 hrs				F. Perez Cruz, A. Lucchi
263-5210-00L	Probabilistic Artificial Intelligence	w	8 credits	3V+2U+	+2A			
263-5210-00 V	Probabilistic Artificial Intelligence Fr 10-12 und 13-14 im ETA F5 mit Videoü.	bertragu	ing ins ETF E1	3 hrs	Fri	10-12 13-14	ETA F5 ETF E1 ETA F5 ETF E1	A. Krause
263-5210-00 U	Probabilistic Artificial Intelligence Q&A session: Monday, 17-18, via zoom			2 hrs	Thu	16-18	CHN C14	A. Krause
263-5210-00 A	Probabilistic Artificial Intelligence			2 hrs				A. Krause

#### **▶▶** Free Electives

Several further courses offered at the University of Zurich belong to the curriculum of the Master's Programme in Statistics. With the consent by the Advisor (http://stat.ethz.ch/~kalisch/) such a course is eligible as a free elective.

Course Catalogue

### ► Master Studies (Programme Regulations 2014)

#### **▶▶** Core Courses

In each subject area, the core courses offered are normally mathematical as well as application-oriented in content. For each subject area, only one of these is recognised for the Master degree.

### **▶▶▶** Regression

Number	Title	Type	ECTS	Hours				Lecturers
401-0649-00L	Applied Statistical Regression	W	5 credits	2V+1U				
401-0649-00 V	Applied Statistical Regression			2 hrs	Mon	08-10	HG E1.2	M. Dettling
401-0649-00 U	Applied Statistical Regression Mon 10-12 might not work for all differen course is offered. On sufficient demand, Mon 15-17 or Fri 10-12) for the exercise	other slots	(tentatively		Mon/2w	10-12	HG E1.2	M. Dettling
404 2022 001	Statistical Modelling	w	8 credits	4G				
401-3622-00L	Statistical Modelling	**	o creatts	40				
	•	••	o credits	4 hrs	Mon Thu	10-12 14-16	ML D28 HG E1.1	C. Heinze-Deml
401-3622-00 G	J			_				C. Heinze-Deml
<b>401-3622-00L</b> 401-3622-00 G  ►►► Analy Number	Statistical Modelling			_				C. Heinze-Deml

rtainibo.	T KIO	. , , , ,	_0.0					200101010
401-0625-01L	Applied Analysis of Variance and Experimental Design	W	5 credits	2V+1U				
401-0625-01 V	Applied Analysis of Variance and Experime	ntal Des	ign	2 hrs	Mon	14-16	HG G5	L. Meier
401-0625-01 U	Applied Analysis of Variance and Experime	ntal Des	ign	1 hrs	Mon/2w	16-18	HG E1.1	L. Meier

### **▶▶▶** Multivariate Statistics

No course offerings in this semester.

### ▶▶▶ Time Series and Stochastic Processes

Number	Title	Туре	ECTS	Hours	Lecturers
401-4623-00L	Time Series Analysis	W	6 credits	3G	
401-4623-00 G	Time Series Analysis Does not take place this semester.			3 hrs	F. Balabdaoui

#### ▶▶▶ Mathematical Statistics

Number	Title	Туре	ECTS	Hours				Lecturers
401-3621-00L	Fundamentals of Mathematical Statistics	w	10 credits	4V+1U				
401-3621-00 V	Fundamentals of Mathematical Statistics			4 hrs	Tue Wed	08-10 10-12	HG E5 HG E7	S. van de Geer
401-3621-00 U	Fundamentals of Mathematical Statistics			1 hrs	Tue	12-13	HG D7.1 HG E7	S. van de Geer
401-8623-00L	Likelihood Inference (University of	w	5 credits	3G				

#### 401-8623-00L Likelihood Inference (University of W

Zurich)

No enrolment to this course at ETH Zurich. Book the corresponding module directly at UZH as an incoming student. UZH Module Code: STA402

Mind the enrolment deadlines at UZH:

3 hrs

University lecturers

### ▶▶ Specialization Areas and Electives

### ▶▶▶ Statistical and Mathematical Courses

Number	Title	Type	ECTS	Hours				Lecturers
401-3601-00L	Probability Theory At most one of the three course units (Bachelor Core Courses) 401-3461-00L Functional Analysis I 401-3531-00L Differential Geometry I 401-3601-00L Probability Theory can be recognised for the Master's degree in Mathematics or Applied Mathematics. In this case, you cannot change the category assignment by yourself in myStudies but must take contact with the Study Administration Office (www.math.ethz.ch/studiensekretariat) after having received the credits.	<b>w</b>	10 credits	4V+1U				
401-3601-00 V	Probability Theory			4 hrs	Tue Thu	10-12 10-12	HG D1.2 HG E3	W. Werner
401-3601-00 U	Probability Theory Groups are selected in myStudies. Tue 14-15 or Tue 15-16 starting in the second semester.	ond wee	k of the	1 hrs	Tue	14-15 15-16	HG F26.5 ML H41.1 HG F26.5 ML H41.1	W. Werner
<b>401-3627-00L</b> 401-3627-00 V	High-Dimensional Statistics High-Dimensional Statistics	W	4 credits	<b>2V</b> 2 hrs	Thu	08-10	CAB G61	P. L. Bühlmann
401-3612-00L	Stochastic Simulation	w	5 credits	3 <b>G</b>				
401-3612-00 G	Stochastic Simulation Does not take place this semester.			3 hrs				
401-4633-00L	Data Analytics in Organisations and Business	W	5 credits	2V+1U				
	Data Analytics in Organisations and Busines			2 hrs	Fri	14-16	HG G5	I. Flückiger
401-4633-00 U	Data Analytics in Organisations and Busines  Using R for Data Analysis and Graphics		1.5 credits	1 hrs	Fri/2w	16-18	HG G5	I. Flückiger
	(Part II)				Tuo/2	14.16	CAR C11	M Mächler
401-0217-00 G	Using R for Data Analysis and Graphics (Pa Smoothing and Nonparametric	<b>W</b>	4 credits	14s hrs 2G	Tue/2	14-16	CAB G11	M. Mächler
	Regression with Examples Smoothing and Nonparametric Regression of Online course: This course takes place online is meant for those students who want to follow Zentrum campus. Online-Veranstaltung: Diese Lehrveranstaltunger reservierte Raum bleibt für die Studiere Campus Zentrum bestehen, um die Lehrverhören.	with Exa ne. The ow the c ung find nden au	amples reserved room course from let online statt. If dem	2 hrs	Fri	14-16	ETZ F91	S. Beran-Ghosh
447-6221-00L	Nonparametric Regression Special Students "University of Zurich (UZH)" in the Master Program in Biostatistics at UZH cannot register for this course unit electronically. Forward the lecturer's written permission to attend to the Registrar's Office. Alternatively, the lecturer may also send an email directly to registrar@ethz.ch. The Registrar's Office will then register you for the course.		1 credit	1G				M Müəblər
447-6221-00 G	Nichtparametrische Regression ■ Does not take place this semester. Blockkurs. Weitere Informationen unter http	://stat.et	thz.ch/wbl/wbl	10.5s hrs				M. Mächler
447-6233-00L	Spatial Statistics Special Students "University of Zurich (UZH)" in the Master Program in Biostatistics at UZH cannot register for this course unit electronically. Forward the lecturer's written permission to attend to the Registrar's Office. Alternatively, the lecturer may also send an email directly to registrar @ethz.ch. The Registrar's Office will then register you for the course.		1 credit	1G				
447-6233-00 G	Spatial Statistics ■ Does not take place this semester. Block course. For further information see http://stat.ethz.ch/wbl/wbl			10.5s hrs				
447-6245-00L	Data Mining Special Students "University of Zurich (UZH)" in the Master Program in	W	1 credit	1G				

Biostatistics at UZH cannot register for this course unit electronically. Forward the lecturer's written permission to attend to the Registrar's Office. Alternatively, the lecturer may also send an email directly to registrar@ethz.ch. The Registrar's Office will then register you for the course. 447-6245-00 G Data-Mining = M. Mächler 14s hrs Does not take place this semester. Blockkurs. Weitere Informationen unter http://stat.ethz.ch/wbl/wbl 447-6257-00L **Repeated Measures** 1 credit 1G Special Students "University of Zurich (UZH)" in the Master Program in Biostatistics at UZH cannot register for this course unit electronically. Forward the lecturer's written permission to attend to the Registrar's Office. Alternatively, the lecturer may also send an email directly to registrar@ethz.ch. The Registrar's Office will then register you for the course. 447-6257-00 G Wiederholte Messungen ■ 10.5s hrs Does not take place this semester. Blockkurs. Weitere Informationen unter http://stat.ethz.ch/wbl/wbl 447-6191-00L Statistical Analysis of Financial Data 2 credits 1G Special Students "University of Zurich (UZH)" in the Master Program in Biostatistics at UZH cannot register for this course unit electronically. Forward the lecturer's written permission to attend to the Registrar's Office. Alternatively, the lecturer may also send an email directly to registrar@ethz.ch. The Registrar's Office will then register you for the course. 447-6191-00 G Statistical Analysis of Financial Data ■ 17.5s hrs Does not take place this semester. Block course. For further information see http://stat.ethz.ch/wbl/wbl 447-6289-00L Sampling Surveys 2 credits **1G** Special Students "University of Zurich (UZH)" in the Master Program in Biostatistics at UZH cannot register for this course unit electronically. Forward the lecturer's written permission to attend to the Registrar's Office. Alternatively, the lecturer may also send an email directly to registrar@ethz.ch. The Registrar's Office will then register you for the course. 447-6289-00 G Stichproben-Erhebungen ■ 17.5s hrs Does not take place this semester. Blockkurs. Weitere Informationen unter http://stat.ethz.ch/wbl/wbl 4 credits 2V **Bavesian Statistics** 2 hrs Tue 16-18 HG G3 F. Sigrist w 2G **Baves Methods** 2 credits

401-3628-14L 401-3628-14 V Bayesian Statistics 447-6273-00L Special Students "University of Zurich

(UZH)" in the Master Program in Biostatistics at UZH cannot register for this course unit electronically. Forward the lecturer's written permission to attend to the Registrar's Office. Alternatively, the lecturer may also send an email directly to registrar@ethz.ch. The Registrar's Office will then register you for the course.

447-6273-00 G Bayes-Methoden ■ 21s hrs

Does not take place this semester.

Blockkurs. Weitere Informationen unter http://stat.ethz.ch/wbl/wbl

401-3913-01L **Mathematical Foundations for Finance** 4 credits 3V+2U 401-3913-01 V Mathematical Foundations for Finance 08-10 HG G5 B. Acciaio 3 hrs Tue \*\*together with University of Zurich\* 13-14 HG G5 Thu 08-10 HG D7.1 401-3913-01 U Mathematical Foundations for Finance 2 hrs Fri B. Acciaio Groups are selected in myStudies. 10-12 HG D3.2 \*\*together with University of Zurich\*\* Fri 8-10 or Fri 10-12 Online course: This course takes place online. The reserved room is meant for those students who want to follow the course from Zentrum campus.

401-3901-00L **Linear & Combinatorial Optimization** 4V+2U 11 credits 401-3901-00 V Linear & Combinatorial Optimization (Mathematical Optimization) 4 hrs HG G5 R. Zenklusen Wed 12-14 Online lecture: This lecture will take place online. Reserved rooms Thu 10-12 HG G5 will remain reserved on campus for students to follow the course from there.

401-3901-00 U	Linear & Combinatorial Optimization (Mathe Groups are selected in myStudies. Thu 14-16 or Fri 10-12 or Fr 12-14 or Fri 14 demand)		. ,	2 hrs	Thu Fri	14-16 10-12 12-14 14-16	HG F26.5 CAB G51 HG D3.2 HG F26.5	R. Zenklusen
<b>401-4944-20L</b> 401-4944-20 G	Mathematics of Data Science Mathematics of Data Science	W	8 credits	<b>4G</b> 4 hrs	Thu Fri	12-14 10-12	HG G3 HG G5	A. Bandeira
<b>252-0535-00L</b> 252-0535-00 V	Advanced Machine Learning Advanced Machine Learning Freitag 8-10 HG F1 mit Videoübertragung	<b>W</b>	10 credits	<b>3V+2U+</b> 4 3 hrs	<b>4A</b> Thu	15-16	ETA F5 ETF E1	J. M. Buhmann, C. Cotrini Jimenez
	Donnerstag 15-16 ETA F 5 mit Videoübertra				Fri	08-10	HG F1 HG F3	C. Cotiiii Jimenez
252-0535-00 U	Advanced Machine Learning			2 hrs	Wed Thu	14-16 16-18 16-18	CAB G61 CAB G61 ML F34	J. M. Buhmann, C. Cotrini Jimenez
252-0535-00 A	Advanced Machine Learning Project Work, no fixed presence required.			4 hrs	Fri	14-16	CAB G61	<b>J. M. Buhmann</b> , C. Cotrini Jimenez
52-3005-00L	Natural Language Processing Number of participants limited to 400.	W	5 credits	2V+2U+	1A			
	From HS21 in the autumn semester.			2 hrs	Mon	12-14	HG F7	R. Cotterell
	Natural Language Processing Natural Language Processing			2 hrs 1 hrs	Wed	12-14	HG F7	R. Cotterell R. Cotterell
27-0423-00L	Neural Network Theory	W	4 credits	2V+1U				
	Neural Network Theory			2 hrs	Tue	10-12	HG F5	H. Bölcskei
227-0423-00 U	Neural Network Theory The exercise will take place online on: https://www.mins.ee.ethz.ch/teaching/nnt/di The reserved room is meant for those stude the course from the campus.			1 hrs	Tue	12-13	HG F5	H. Bölcskei
401-6282-00L	Statistical Analysis of High-Throughput Genomic and Transcriptomic Data (University of Zurich) No enrolment to this course at ETH Zurich. Book the corresponding module directly at UZH as an incoming student. UZH Module Code: STA426  Mind the enrolment deadlines at UZH:	w	5 credits	3G				
401-6282-00 G	https://www.uzh.ch/cmsssl/en/studies/appli cation/deadlines.html Statistical Analysis of High-Throughput Ger Transcriptomic Data (University of Zurich)	nomic ar	nd	3 hrs	Mon	09-12	UNI ZH.	H. Rehrauer, M. Robinson
	**Course at University of Zurich**							
401-8625-00L	Clinical Biostatistics (University of Zurich) No enrolment to this course at ETH Zurich. Book the corresponding module directly at UZH as an incoming student. UZH Module Code: STA404	w	6 credits	4G				
	Mind the enrolment deadlines at UZH: https://www.uzh.ch/cmsssl/en/studies/appli cation/deadlines.html							
401-8625-00 G	Clinical Biostatistics (University of Zurich) **Course at University of Zurich**			4 hrs	Thu	09-10 10-12 15-16	UNI ZH. UNI ZH. UNI ZH.	University lecturers
447-6201-00L	Nonparametric and Resampling Methods Special Students "University of Zurich	W	2 credits	2G				
447-6201-00 G	(UZH)" in the Master Program in Biostatistics at UZH cannot register for this course unit electronically. Forward the lecturer's written permission to attend to the Registrar's Office. Alternatively, the lecturer may also send an email directly to registrar@ethz.ch. The Registrar's Office will then register you for the course.  Nonparametric and Resampling Methods Block course on: 17.01.2022 / 24.01.2022 / Lectures: 8-10 and 14-16		2022	21s hrs	24.01.	08-18 08-18 08-18	HG D1.1 HG D1.1 HG D1.1	L. Meier, D. Kuonen
N N 04-41 4	Exercises: 10-12 and 16-18	4	alia!lele (					
	tical and Mathematical Courses				S			
Number	Title	Туре		Hours				Lecturers
101-6215-00L	Using R for Data Analysis and Graphics (Part I) Using R for Data Analysis and Graphics (Part I)		1.5 credits	1 <b>G</b> 14s hrs	Tue/1	14-16	CAB G11	M. Mächler
TO 1-02 10-00 G	Coming IX Tot Data Attatyons allu Graphics (Pa	art 1)		1-01110	i ue/ i	1-1-10	OUD GII	IVI. IVIGOTITEI

Students select one area of application and look for suitable courses in which quantitative methods and modeling play a role. They need the consent by the Advisor (http://stat.ethz.ch/~kalisch/) that the chosen courses are eligible in the category "Application Areas".

For the category assignment of eligible courses keep the choice "no category" and take contact with the Study Administration Office (www.math.ethz.ch/studiensekretariat/staff/ekuenti) after having received the credits. The Study Administration Office needs the Advisor's consent.

#### ► Seminar or Semester Paper

Number	Title	Type	ECTS	Hours				Lecturers
401-3620-20L	Student Seminar in Statistics: Inference in Some Non-Standard Regression Problems Number of participants limited to 24. Mainly for students from the Mathematics Bachelor and Master Programmes who, in addition to the introductory course unit 401-2604-00L Probability and Statistics, have heard at least one core or elective course in statistics. Also offered in the Master Programmes Statistics resp. Data Science.		4 credits	28				
401-3620-00 S	Student Seminar in Statistics: Inference in S Regression Problems Remark: former title in FS 2020: Student Se Inference in Non-Classical Regression Mod	eminar ir		2 hrs	Mon	16-18	HG E21	F. Balabdaoui, P. L. Bühlmann, M. H. Maathuis, N. Meinshausen, S. van de Geer
401-3630-04L	Semester Paper Successful participation in the course unit 401-2000-00L Scientific Works in Mathematics is required. For more information, see www.math.ethz.ch/intranet/students/study- administration/theses.html	W	4 credits	6A				
401-3630-04 A	Semesterarbeit (Statistik) 4 KP ■			80s hrs	by appt			Supervisors
401-3630-06L	Semester Paper Successful participation in the course unit 401-2000-00L Scientific Works in Mathematics is required. For more information, see www.math.ethz.ch/intranet/students/study- administration/theses.html	W	6 credits	9A				
401-3630-06 A	Semesterarbeit (Statistik) 6 KP ■			120s hrs	by appt			Supervisors
252-5051-00L	Advanced Topics in Machine Learning Number of participants limited to 40.  The deadline for deregistering expires at the end of the fourth week of the semester. Students who are still registered after that date, but do not attend the seminar, will officially fail the seminar.	W	2 credits	2S				
252-5051-00 S	Advanced Topics in Machine Learning ■			2 hrs	Tue Thu	16-18 16-18	CAB G56 CAB G57	J. M. Buhmann, R. Cotterell, J. Vogt, F. Yang

#### ► GESS Science in Perspective

Two credits are needed from the "Science in Perspective" programme with language courses excluded if three credits from language courses have already been recognised for the Bachelor's degree.

see https://ethz.ch/content/dam/ethz/common/docs/weisungssammlung/files-en/science-in-perspective.pdf (Eight credits must be acquired in this category: normally six during the Bachelor's degree programme, and two during the Master's degree programme. A maximum of three credits from language courses from the range of the Language Center of the University of Zurich and ETH Zurich may be recognised. In addition, only advanced courses (level B2 upwards) in the European languages English, French, Italian and Spanish are recognised. German language courses are recognised from level C2 upwards.)

·r ··· /
ESS Science in Perspective: lage Courses ETH/UZH
ESS Science in Perspective: Type A: ncement of Reflection Capability
nmended GESS Science in ective (Type B) for D-MATH.

#### ► Master's Thesis

nber	Title	Type	ECTS	Hours				Lecturers
401-2000-00L	Scientific Works in Mathematics Target audience: Third year Bachelor students; Master students who cannot document to have received an adequate training in working scientifically.	0	0 credits					
2000-00 V	Scientific Works in Mathematics Groups are selected in myStudies. This mandatory course is offered twice per Carry your ETH student card with you to pr The lecturers will communicate the exact le courses.	ove you	r identity.	1s hrs	28.09. 14.12.	18-19 18-19	ON LINE ON LINE	M. Burger
00-01L	Lunch Sessions – Thesis Basics for	Z	0 credits					

#### **Mathematics Students**

Details and registration for the optional MathBib training course: https://www.math.ethz.ch/mathbib-

schulungen

401-2000-01 G Lunch Sessions – Thesis Basics für Mathematik-Studierende geplant 4., 5., 6. und 8. Oktober 2021 über Mittag. https://math.ethz.ch/library/training-courses/lunch-sessions.html

4s hrs

Speakers

401-4990-02L Master's Thesis 30 credits 57D

Only students who fulfil the following criteria are allowed to begin with their Master's thesis:

a. successful completion of the Bachelor's programme; b. fulfilling of any additional requirements necessary to gain admission to the Master's programme;

c. They have acquired at least 16 credits in the category "Core courses" for Programme Regulations 2014 and 40 credits in the category "Main Areas" for Programme Regulations 2020.

Successful participation in the course unit 401-2000-00L Scientific Works in Mathematics is required. For more information, see www.math.ethz.ch/intranet/students/studyadministration/theses.html

401-4990-02 D Master's Thesis (Statistics) ■

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W+

W

Compulsory

Eligible for credits

Eligible for credits and recommended

800s hrs by appt.

Supervisors

#### ► Course Units for Additional Admission Requirements

The sources below are only evailable for MCs students with additional admission requirements

Number	Title	Type	ECTS	Hours	Lecturers
406-0173-AAL	Linear Algebra I and II Enrolment ONLY for MSc students with a decree declaring this course unit as an additional admission requirement.	E-	6 credits	13R	
	Any other students (e.g. incoming exchange students, doctoral students) CANNOT enrol for this course unit.				
406-0173-AA R	Linear Algebra I and II Self-study course. No presence required.			180s hrs	N. Hungerbühler
406-0243-AAL	Analysis I and II Enrolment ONLY for MSc students with a decree declaring this course unit as an additional admission requirement.	E-	14 credits	30R	
	Any other students (e.g. incoming exchange students, doctoral students) CANNOT enrol for this course unit.				
406-0243-AA R	Analysis I and II Self-study course. No presence required.			420s hrs	M. Akveld
406-0603-AAL	Stochastics (Probability and Statistics) Enrolment ONLY for MSc students with a decree declaring this course unit as an additional admission requirement.	E-	4 credits	9R	
	Any other students (e.g. incoming exchange students, doctoral students) CANNOT enrol for this course unit.				
406-0603-AA R	Stochastics (Probability and Statistics) Self-study course. No presence required.			120s hrs	M. Kalisch
406-2604-AAL	Probability and Statistics Enrolment ONLY for MSc students with a decree declaring this course unit as an additional admission requirement.	E-	7 credits	15R	
	Any other students (e.g. incoming exchange students, doctoral students) CANNOT enrol for this course unit.				
406-2604-AA R	Probability and Statistics Self-study course. No presence required.			210s hrs	J. Teichmann

E-

Ζ

Dr

Recommended, not eligible for credits

Courses outside the curriculum

Suitable for doctorate

Key for	Hours		
V	lecture	P	practical/laboratory course
G	lecture with exercise	A	independent project
U	exercise	D	diploma thesis
S	seminar	R	revision course / private study
K	colloquium		

**ECTS** 

European Credit Transfer and Accumulation System
Special students and auditors need special permission from the lecturers.

# **Environmental Engineering Bachelor**

### ▶ 1. Semester

## ▶▶ First Year Examinations (1. Sem.)

Number	Title	Туре	ECTS	Hours				Lecturers
401-0241-00L	Analysis I	0	7 credits	5V+2U				
401-0241-00 V	Analysis I			5 hrs	Mon Wed Thu/2w	08-10 08-10 08-10	ETF C1 HPH G2 ETF C1	M. Akveld
401-0241-00 U	Analysis I Groups are selected in myStudies. Do 10-12 (ausser für Studiengang Umweltingenieurwissenschaften) oder Do gemäss Gruppeneinteilung (Übungen 252- entsprechend umgekehrt Do 10-12 oder E 18).	U Informatik	2 hrs	Thu	10-12 14-16	CHN D48 LFW E13 ML J34.3 CHN D48 LFW C1 LFW E13 ML F40	M. Akveld	
	Zusätzlich wird ab der zweiten Semesterwigemeinsam für die Analysis I- und die Line angeboten. Das StudyCenter findet monta, mittwochs von 16-18 Uhr statt. Infos zu der auf der Moodle-Seite der Vorlesung.	are Alge gs von 1	bra-Vorlesung 8-20 Uhr sowi			16-18	ML H41.1 LFW C1 ML H41.1	
401-0141-00L	Linear Algebra	0	5 credits	3V+1U				
	Lineare Algebra			3 hrs	Wed Thu/2w		HPH G2 ETF C1	M. Akka Ginosar
401-0141-00 U	Lineare Algebra Groups are selected in myStudies. Übungen Do 12-13 oder Do 13-14 gemäss Zusätzlich wird ab der zweiten Semesterw gemeinsam für die Analysis I- und die Line angeboten. Das StudyCenter findet monta, mittwochs von 16-18 Uhr statt. Infos zu der auf der Moodle-Seite der Vorlesung.	oche ein are Alge gs von 1	StudyCenter bra-Vorlesung 8-20 Uhr sowi		Thu	12-13	CHN D42 CHN D48 HG E33.3 LFW C1 LFW E13 CHN D42 CHN D48 HG E33.3 LFW C1 LFW E13	M. Akka Ginosar
252-0845-00L	Computer Science I	0	5 credits	2V+2U				
252-0845-00 V	Informatik I			2 hrs	Mon	12-14	HG F1	C. Cotrini Jimenez, R. Sasse
252-0845-00 U	Informatik I Groups are selected in myStudies.			2 hrs	Thu	14-16 16-18	HG E33.1 IFW C33 LFW C5 ON LINE CHN D46	C. Cotrini Jimenez, R. Sasse
							ETZ G91 ETZ J91 HG E33.1 ON LINE	
<b>101-0031-01L</b> 101-0031-01 G	Systems Engineering Systems Engineering Vorlesung: Donnerstag Übung: Montag Fragestunde: Wird in der ersten Vorlesung	<b>O</b> bekann	4 credits	<b>4G</b> 4 hrs	Mon Thu	16-18 10-12	HIL E4 ETF C1	B. T. Adey
	Online lecture: This lecture will primarily ta Reserved rooms will remain reserved on co follow the course from there.							
651-0032-00L	Geology and Petrography	0	4 credits	2V+1U				
651-0032-00 V	Geologie und Petrographie Geologie und Petrographie Groups are selected in myStudies. In Gruppen			2 hrs 1 hrs	Fri Fri/2w	10-12 12-14	HPH G2 HIL B18.2 HIL B18.2 HIL B21 HIL B21 HIL D10.2 HIL D53 HIL D53 HIL D53 HIL E10.1 HIL E10.1 HIL E5	M. O. Saar, K. Rauchenstein K. Rauchenstein
						14-16	HIL E5 HIL B18.2 HIL B18.2 HIL B21 HIL B21 HIL D10.2 HIL D53 HIL D53 HIL D53 HIL E10.1 HIL E10.1 HIL E5 HIL E5	

529-2001-02L	Chemistry I	0	4 credits	2V+2U				
529-2001-02 V	Chemie I Vorlesung im HG F1 mit Videoübertragung	ins HG	F3.	2 hrs	Tue	08-10	HG F1 HG F3	J. Cvengros
529-2001-02 U	Übungen: Mi 14-16 für Umweltingenieurwissenschafte Do 10-12 für Agrar-, Lebensmittel-, Erdwiss		ften	2 hrs	Wed Thu	14-16 10-12	CHN C14 ETZ E8 ETZ H91 HG G26.3 IFW A34	J. Cvengros, J. E. E. Buschmann, P. Funck, E. C. Meister, R. Verel
	Fr 8-10 für Umweltnaturwissenschaften				Fri	08-10	IFW B42 ETZ J91 IFW A36	

### ▶ 3. Semester

### ▶▶ Compulsory Courses 3. Semester

### ▶▶▶ Examination Block 1

Number	Title	Type	ECTS	Hours				Lecturers
402-0023-01L	Physics	0	7 credits	5V+2U				
402-0023-01 V	Physics			5 hrs	Wed Fri	10-12 09-12	HPH G3 HPH G3	S. Johnson
402-0023-01 U	Physics Do 8-10 für Studiengang Bauingenieurwiss Do 14-16 für Umweltingenieurwissenschaf		ten	2 hrs	Thu	08-10	HCI D4 HCI D6 HCI F8 HIL D60.1 HIT F31.1 HIT K51	S. Johnson
						14-16	HIT F31.2 HIT K51	
101-0203-01L	Hydraulics I	0	5 credits	3V+1U				
101-0203-01 V	Hydraulik I			3 hrs	Thu	10-13	HIL E1	R. Stocker
101-0203-01 U	Hydraulik I (in G) Übungen Mi 08-09 oder 09-10 Uhr für Baut Umweltnaturwissenschaften Übungen Mi 12-13 oder 13-14 Uhr für	ing und		1 hrs	Wed	08-09	HIL B18.2 HIL D60.1 HIL E5 HIL F10.3	R. Stocker
	Umweltingenieurwissenschaften					09-10 12-13	HIL B18.2 HIL D60.1 HIL E5 HIL F10.3 HIL E9	
						13-14	HIL B21	
					29.09.	08-10	HIL E9 HCI D8	
103-0233-01L	GIS I (for Environmental Engineers)	0	3 credits	2G				
103-0233-01 G	GIS I (für Umweltingenieurwissenschaften) Vorlesung: Fr 12-14 (14-tägig, ab 1. Seme Übungen in Gruppen: Di 8-10 oder Fr 12- Semesterwoche). Letzte Semesterwoche: Übung für beide G 21.12.2021 8-10.	esterwoci 14 (14-tä	igig, ab 2.	2 hrs	Tue/2w Fri/2w	08-10 12-14	HIL E15.2 HIL E15.2 HIL E6	P. Kiefer
102-0293-00L	Hydrology	0	3 credits	2G				
102-0293-00 G	, ,,	e place o mpus for	online. students to	2 hrs	Tue	14-16	HIL E4	P. Burlando
701-0243-01L	Biology III: Essentials of Ecology	0	3 credits	2V				
701-0243-01 V	Biologie III: Ökologie Vorlesung im HG F 1 mit Videoübertragung	g ins HG	F 3.	2 hrs	Mon	10-12	HG F1 HG F3	C. Buser Moser
►►► Exami	nation Block 2							
Number	Title	Туре	ECTS	Hours				Lecturers
752-4001-00L	Microbiology	0	2 credits	2V				
752-4001-00 V	Mikrobiologie			2 hrs	Mon	08-10	ML D28	M. Ackermann, M. Schuppler J. Vorholt-Zambelli
752-0100-00L	Biochemistry	0	2 credits	2V				
7 32-0 100-00L								

### ▶▶ Compulsory Courses 5. Semester

### ▶▶▶ Examination Block 3

Number	Title	Type	ECTS	Hours				Lecturers
102-0215-00L	Urban Water Management II	0	4 credits	2G				
102-0215-00 G	Siedlungswasserwirtschaft II			2 hrs	Tue	10-12	HIL E8	M. Maurer, P. Staufer
102-0455-01L	Groundwater I	0	4 credits	3G				
102-0455-01 G	Groundwater I			3 hrs	Wed/2	2w 16-18	CHN F46	J. Jimenez-Martinez,
	Excercises on Wednesdays, lecture on Frid	days.			Fri	10-12	HIL E8	M. Willmann
102-0635-01L	Air Pollution Control	0	6 credits	4G				

102-0635-01 G	Luftreinhaltung			4 hrs	Wed Fri	10-12 08-10	HIL E6 HIL E6	J. Wang, B. Buchmann
	Earth Observation Erdbeobachtung	0	4 credits	<b>3G</b> 3 hrs	Thu	13-16 14-15	HIL E8 HIL E15.2	I. Hajnsek, E. Baltsavias
▶▶▶ Exami	nation Block 4							
Number	Title	Туре	ECTS	Hours				Lecturers
101-0031-02L	Business Administration	0	2 credits	2V				
101-0031-02 V	Betriebswirtschaftslehre			2 hrs	Thu	08-10	HG G5	M. Passardi, P. Barmettler
851-0723-00L	Environmental Law I: Fundamentals and Concepts Only for Environmental Engineering BSc	10	2 credits	2V			0.11.1.5.40	
851-0723-00 V	Umweltrecht I: Grundlagen und Konzepte Online-Veranstaltung: Diese Lehrveranstalt grundsätzlich online statt. Die reservierten Studierenden auf dem Campus bestehen, Lehrveranstaltung dort zu hören.	Räume l		2 hrs	Mon	12-14	CHN F46	A. Gossweiler, C. Jäger, M. Pflüger
101-0515-00L	Project Management	0	2 credits	2G				
101-0515-00 G	Projektmanagement			2 hrs	Fri	14-16	HIL E1	C. G. C. Marxt
▶▶▶ Additi	onal Compulsory Courses							
Number	Title	Туре	ECTS	Hours				Lecturers
102-0515-01L	Environmental Engineering Seminars	0	3 credits	3S		46.4-	=-	<b>F.O.</b> 11.3.5.7
102-0515-01 S	Seminar Umweltingenieurwissenschaften			3 hrs	Thu	16-19	HIL E9	E. Secchi, P. Burlando, I. Hajnsek, M. Maurer,
	Permission from lecturers required for all su For the training courses in presentation tec approx. 12 students are taught in separate	hniques,	groups of					P. Molnar, E. Morgenroth, S. Pfister, S. Sinclair, R. Stocker, J. Wang
►► Elective	Blocks							
►►► Electiv	ve Block: Environmental Plann	ing						
Number	Title	Туре	ECTS	Hours				Lecturers
102-0535-00L	Noise Abatement	W	5 credits	4G				
102-0535-00 G	Lärmbekämpfung			4 hrs	Mon Wed	08-10 08-10	HIL E10.1 HIL E10.1	<b>K. Eggenschwiler</b> , J. M. Wunderli
►►► Electiv	ve Block: Soil Protection							
Number	Title	Туре	ECTS	Hours				Lecturers
701-0501-00L	Pedosphere	w	3 credits	2V				
701-0501-00 V	Pedosphäre			2 hrs	Thu	10-12	HG G3	R. Kretzschmar
<b>701-0533-00L</b> 701-0533-00 G	<b>Soil and Water Chemistry</b> Boden- und Wasserchemie	W	3 credits	<b>2G</b> 2 hrs	Wed	14-16	CHN F46	R. Kretzschmar, D. I. Christl, L. Winkel
►►► Electiv	ve Block: Civil Engineering							
Number	Title	Туре	ECTS	Hours				Lecturers
101-0339-00L	Environmental Geotechnics	W	3 credits	2G				
101-0339-00 G	Umweltgeotechnik			2 hrs	Tue	08-10	HIL E1	M. Plötze
101-0113-10L	Theory of Structures (for Environmental Engineering) Only for Environmental Engineering BSc.	W	3 credits	2.5G				
101-0113-10 G	Baustatik (für Umweltingenieurwissenschaf Vorlesung: jeweils dienstags in Semesterw		-8	2.5 hrs	Mon	16-18	HIL C10.2 HIL E5	B. Sudret
	Übungen (Kolloquium): jeweils montags in				Tue/1	13-16	HIL E1	
	ve Block: Energy							
	t 10KP must be achieved for the elective blo							• .
Number	Title	Type	ECTS 4 gradita	Hours				Lecturers
227-1635-00L	Electric Circuits Students without a background in Electrica Engineering must take "Electric Circuits" before taking "Introduction to Electric Powe Transmission: System & Technology"		4 credits	3G				
227-1635-00 G	Electric Circuits Online course: This course takes place onli is meant for those students who want to fol			3 hrs	Mon	14-17	ETZ E6	M. Zima, D. Shchetinin
	the campus.							
151-1633-00L	the campus.  Energy Conversion This course is intended for students outside of D-MAVT.	W	4 credits	3G				

# ► Electives

The entire course programs of ETH Zurich and the University of Zurich are open to the students to individual selection.

#### **▶▶** Electives ETH Zurich

Course Catalogue of ETH Zurich

#### ► GESS Science in Perspective

see GESS Science in Perspective: Language Courses ETH/UZH

see GESS Science in Perspective: Type A: Enhancement of Reflection Capability

Recommended GESS Science in Perspective (Type B) for D-BAUG.

#### ► Bachelor's Thesis

Number	Title	Type	ECTS	Hours	Lecturers
102-0006-00L	Bachelor's Thesis	0	10 credits	21D	
102-0006-00 D	Bachelor-Arbeit ■			300s hrs by appt.	Lecturers

Environmen	ntal Engineering Bachelor - Key for Type		
0	Compulsory	E-	Recommended, not eligible for credits
W+	Eligible for credits and recommended	Z	Courses outside the curriculum
W	Eligible for credits	Dr	Suitable for doctorate

Key for Ho	urs		
V	lecture	P	practical/laboratory course
G	lecture with exercise	A	independent project
U	exercise	D	diploma thesis
S	seminar	R	revision course / private study
K	colloquium		

ECTS European Credit Transfer and Accumulation System

Special students and auditors need special permission from the lecturers.

# **Environmental Engineering Master**

#### ► Majors

#### **▶▶** Major Urban Water Management

#### ▶▶▶ Ecological System Design

Number	Title	Type	ECTS	Hours				Lecturers
102-0307-01L	Advanced Environmental, Social and Economic Assessments The combined course unit is only for Maste students in Environmental Engineering. All other students enrol for one or both out of the single courses.		5 credits	4G				
102-0317-00 G	Advanced Environmental Assessments			2 hrs	Thu	10-12	HIL E9	S. Pfister, R. Frischknecht
102-0327-01 G	Implementation of Environmental and Othe Remark: No course on 26.10.2021. The co 02.11.2021 (room will be announced later	urse will			Tue/2w	09-12	HIL E9	A. E. Braunschweig
102-0317-03L	Advanced Environmental Assessment (Computer Lab I)	0	1 credit	1U				
102-0317-03 U	Advanced Environmental Assessment (Co Takes place on Tuesday 8-9.45 at ETH Ho (7 times; starting in the second week of the to be confirmed).	inggerbe	erg <sup>′</sup>	1 hrs				S. Pfister

#### ▶▶▶ Process Engineering in Urban Water Management

No courses in autumn semester (HS), only in spring semester (FS).

#### ▶▶▶ System Analysis in Urban Water Management

Number	Title	Type	ECTS	Hours				Lecturers
102-0227-00L	Systems Analysis and Mathematical Modeling in Urban Water Management Number of participants limited to 50.	0	6 credits	4G				
102-0227-00 G	Systems Analysis and Mathematical Modeli Management	ng in Uı	ban Water	4 hrs	Fri	08-10 10-12	HIL E9 HIL E15.2	E. Morgenroth, M. Maurer
102-0217-00L	Process Engineering la	0	3 credits	2G				
102-0217-00 G	Process Engineering la More information can be found at http://www.sww.ifu.ethz.ch/education/lecture engineering-ia.html Voluntary questions and support for excerci room: HCI D4 or Tuesdays 13-14, room HC	ises on l		2 hrs 0,	Wed	08-10	HIL E9	E. Morgenroth

#### ▶▶▶ Water Infrastructure Planning and Stormwater Management

Number	Title	Туре	ECTS	Hours				Lecturers
102-0250-00L	Urban Drainage Planning and Modelling Number of participants limited to 36.	0	6 credits	4G				
	Only for Environmental Engineers Msc in the module Water Infrastructure Planning and Stormwater Management.							
102-0250-00 G	Urban Drainage Planning and Modelling			4 hrs	Mon	14-18	HCP E47.1 HCP E47.4	M. Maurer, D. Gregorio, U. Karaus.
					21.09.	13-14	HIL E6	J. P. Leitão Correia , J. Rieckermann

# **▶▶** Major Environmental Technologies

#### ▶▶▶ Air Quality Control

Number	Title	Туре	ECTS	Hours				Lecturers
102-0377-00L	Air Pollution Modeling and Chemistry	0	3 credits	2G				
102-0377-00 G	Air Pollution Modeling and Chemistry			2 hrs	Thu	08-10	HIL E6	<b>S. Henne</b> , S. Reimann Bhend, X. Zhang

#### ▶▶▶ Process Engineering in Urban Water Management

No courses in autumn semester (HS), only in spring semester (FS).

# ▶▶▶ System Analysis in Urban Water Management

Number	Title	Type	ECTS	Hours				Lecturers
102-0227-00L	Systems Analysis and Mathematical Modeling in Urban Water Management Number of participants limited to 50.	0	6 credits	4G				
102-0227-00 G	Systems Analysis and Mathematical Model Management	ling in Ur	ban Water	4 hrs	Fri	08-10 10-12	HIL E9 HIL E15.2	E. Morgenroth, M. Maurer
102-0217-001	Process Engineering Ia	0	3 credits	2G				

102-0217-00 G Process Engineering la 2 hrs Wed 08-10 HIL E9 E. Morgenroth

More information can be found at

http://www.sww.ifu.ethz.ch/education/lectures/process-

engineering-ia.html

Voluntary questions and support for excercises on Mondays 9-10,

room: HCl D4 or Tuesdays 13-14, room HCl D4.

#### **▶▶▶** Waste Management

Remark: 102-0337-00 Landfilling, Contaminated Sites and Radioactive Waste Repositories only for those students also taking module "System Analysis in Urban Water Management" as replacement of 102-0217-00 Process Engineering Ia in module "Waste Management".

Number	Title	Type	ECTS	Hours				Lecturers
102-0357-00L	Waste Recycling Technologies	0	3 credits	2G				
102-0357-00 G	Waste Recycling Technologies			2 hrs	Tue/2	14-18	HIL E9	R. Bunge
102-0337-00L	Landfilling, Contaminated Sites and Radioactive Waste Repositories Only for Environmental Engineering MSc.	0	3 credits	2G				
102-0337-00 G	Landfilling, Contaminated Sites and Radio Repositories Permission from lecturers required for all s		aste	2 hrs	Wed	14-16	HIL E6	M. Plötze, W. Hummel
102-0217-00L	Process Engineering la	0	3 credits	2G				
102-0217-00 G	Process Engineering la More information can be found at http://www.sww.ifu.ethz.ch/education/lectu engineering-ia.html Voluntary questions and support for excer room: HCI D4 or Tuesdays 13-14, room H	cises on		2 hrs 0,	Wed	08-10	HIL E9	E. Morgenroth

#### **▶▶** Major Resource Management

#### ▶▶▶ Ecological System Design

Number	Title	Туре	ECTS	Hours				Lecturers
102-0307-01L	Advanced Environmental, Social and Economic Assessments The combined course unit is only for Master students in Environmental Engineering. All other students enrol for one or both out of the single courses.	0	5 credits	4G				
02-0317-00 G	Advanced Environmental Assessments			2 hrs	Thu	10-12	HIL E9	S. Pfister, R. Frischknecht
02-0327-01 G	Implementation of Environmental and Other S Remark: No course on 26.10.2021. The course 02.11.2021 (room will be announced later on,	se will			Tue/2w	09-12	HIL E9	A. E. Braunschweig
102-0317-03L	Advanced Environmental Assessment (Computer Lab I)	0	1 credit	1U				
02-0317-03 U	Advanced Environmental Assessment (Comp Takes place on Tuesday 8-9.45 at ETH Höng (7 times; starting in the second week of the se to be confirmed).	ggerbe	rg <sup>′</sup>	1 hrs				S. Pfister

#### ▶▶▶ Groundwater

Module is offered in Spring Semester.

#### **▶▶▶** Waste Management

Remark: 102-0337-00 Landfilling, Contaminated Sites and Radioactive Waste Repositories only for those students also taking module "System Analysis in Urban Water Management" as replacement of 102-0217-00 Process Engineering Ia in module "Waste Management".

Number	Title	Type	ECTS	Hours				Lecturers
102-0357-00L	Waste Recycling Technologies	0	3 credits	2G				
102-0357-00 G	Waste Recycling Technologies			2 hrs	Tue/2	14-18	HIL E9	R. Bunge
102-0337-00L	Landfilling, Contaminated Sites and Radioactive Waste Repositories Only for Environmental Engineering MSc.	0	3 credits	2G				
102-0337-00 G	Landfilling, Contaminated Sites and Radioa Repositories Permission from lecturers required for all s		aste	2 hrs	Wed	14-16	HIL E6	M. Plötze, W. Hummel
102-0217-00L	Process Engineering la	0	3 credits	2G				
102-0217-00 G	Process Engineering la More information can be found at http://www.sww.ifu.ethz.ch/education/lectul engineering-ia.html Voluntary questions and support for excert room: HCl D4 or Tuesdays 13-14, room HC	ises on		2 hrs	Wed	08-10	HIL E9	E. Morgenroth

#### ▶▶▶ Water Resources Management

Number	Title	Туре	ECTS	Hours				Lecturers
102-0468-10L	Watershed Modelling	0	6 credits	4G				
102-0468-10 G	Watershed Modelling Remark: New course replacing 102-0237-0 HS19) and 102-0468-00 Watershed Model			4 hrs	Mon Wed	16-18 12-14	HIL E8 HIL E8	P. Molnar

#### ▶▶ Major Water Resources Management

#### ▶▶▶ Flow and Transport

Number	Title	Туре	ECTS	Hours				Lecturers
101-0267-01L	Numerical Hydraulics	0	3 credits	2G				
101-0267-01 G	Numerical Hydraulics			2 hrs	Mon	14-16	HIL E6	M. Holzner
102-0259-00L	Ecohydraulics and Habitat Modelling	0	3 credits	2G				
102-0259-00 G	Ecohydraulics and Habitat Modelling			2 hrs	Tue	10-12	HIL C10.2	R. Stocker, KD. Jorde,
	Remark: 8.00-12.00 on 4 course dates (02.	.11., 09.	11., 23.11. an	d	21.09.	08-12	HIL D10.2	L. G. Martins da Silva,
	30.11.2021), room will be announced later	on.			05.10.	10-12	HIL C10.2	A. Siviglia
	No class on 28.09., 12.10., 16.11. and 21.1	12.2021.			02.11.	08-12	n /a	· ·
					09.11.	08-10	n /a	
					23.11.	08-10	n /a	
					30.11.	08-10	n /a	

#### **▶▶▶** Groundwater

Module is offered in Spring Semester.

#### ▶▶▶ Landscape

Number	Title	Type	ECTS	Hours				Lecturers
103-0347-00L	Landscape Planning and Environmental Systems	0	3 credits	2V				
103-0347-00 V	Landscape Planning and Environmental Sy	stems ■		2 hrs	Fri	08-10	HIL E8	A. Grêt-Regamey
102-0287-00L	River Basin Erosion	w	3 credits	2G				
102-0287-00 G	River Basin Erosion Remark: Title until HS20: Fluvial Systems.			2 hrs	Thu	14-16	HIL E6	P. Molnar

#### **▶▶▶** Water Resources Management

Number	Title	Туре	ECTS	Hours				Lecturers
102-0468-10L	Watershed Modelling	0	6 credits	4G				
102-0468-10 G	Watershed Modelling			4 hrs	Mon	16-18	HIL E8	P. Molnar
	Remark: New course replacing 102-0237-0	0 Hydro	logy II (until		Wed	12-14	HIL E8	
	HS19) and 102-0468-00 Watershed Model	ing (until	FS20).					

# ▶▶ Major River and Hydraulic Engineering

#### **▶▶▶** Flow and Transport

Number	Title	Type	ECTS	Hours				Lecturers
101-0267-01L	Numerical Hydraulics	0	3 credits	2G				
101-0267-01 G	Numerical Hydraulics			2 hrs	Mon	14-16	HIL E6	M. Holzner
102-0259-00L	Ecohydraulics and Habitat Modelling	0	3 credits	2G				
102-0259-00 G	Ecohydraulics and Habitat Modelling			2 hrs	Tue	10-12	HIL C10.2	R. Stocker, KD. Jorde
	Remark: 8.00-12.00 on 4 course dates (02	2.11., 09.	11., 23.11. ar	nd	21.09.	08-12	HIL D10.2	L. G. Martins da Silva,
	30.11.2021), room will be announced late	r on.			05.10.	10-12	HIL C10.2	A. Siviglia
	No class on 28.09., 12.10., 16.11. and 21.	.12.2021.			02.11.	08-12	n /a	-
					09.11.	08-10	n /a	
					23.11.	08-10	n /a	
					30.11.	08-10	n /a	

#### **▶▶▶** Hydraulic Engineering

Number	Title	Туре	ECTS	Hours				Lecturers
101-0247-01L	Hydraulic structures II Information: Enrolment of Hydraulic Engineering II is not recommended without having attended Hydraulic Engineering (101-0206-00L) previously since Hydraulic Engineering II is strongly based on Hydraulic Engineering (101-0206-00L).	0	6 credits	4G				
101-0247-01 G	Wasserbau II Lehrsprache vorrangig Deutsch, ausgewählte Englisch.	e Verai	nstaltungen in	4 hrs	Mon Thu	10-12 08-10	HIL E1 HIL E9	R. Boes

#### ▶▶▶ River Systems

Remark: partly in German.

Note: Students taking both of the modules LAND and RIVER must take the course 101-1250-00 Wildbach- und Hangverbau as replacment for for Fluival Systems that is listed in both modules.

Number	Title	Type	ECTS	Hours				Lecturers
101-0258-00L	River Engineering	0	3 credits	2G				
101-0258-00 G	River Engineering			2 hrs	Wed	16-18	HIL E8	V. Weitbrecht, I. Schalko, K. Sperger
102-0287-00L	River Basin Erosion	0	3 credits	2G				
102-0287-00 G	River Basin Erosion Remark: Title until HS20: Fluvial Systems.			2 hrs	Thu	14-16	HIL E6	P. Molnar

#### ▶▶▶ Water Resources Management

Number	Title	Туре	ECTS	Hours	Lecturers
102-0468-10L	Watershed Modelling	0	6 credits	4G	

4 hrs Mon Wed

16-18 12-14 HIL E8

P. Molnar

# ► Project Work (for all Majors)

Number	Title	Туре	ECTS	Hours	Lecturers
102-0999-00L	Project Work	0	12 credits	26A	
102-0999-00 A	Project Work			360s hrs	Supervisors

#### **► Elective Modules**

For all majors.

#### ▶▶ EM: Air Quality Control

Elective Module for Majors "Resource Management", "River and Hydraulic Engineering" "Urban Water Management" and "Water Resources Management"

Number	Title	Туре	ECTS	Hours				Lecturers
102-0377-00L	Air Pollution Modeling and Chemistry	W	3 credits	2G				
102-0377-00 G	Air Pollution Modeling and Chemistry			2 hrs	Thu	08-10	HIL E6	<b>S. Henne</b> , S. Reimann Bhend, X. Zhana

#### ▶▶ EM: Ecological System Design

Elective Module for Majors "Environmental Technologies", "River and Hydraulic Engineering" and "Water Resources Management".

	•	-	-	-	•			•
Number	Title	Туре	ECTS	Hours				Lecturers
102-0307-01L	Advanced Environmental, Social and Economic Assessments The combined course unit is only for Master students in Environmental Engineering. All other students enrol for one or both out of the single courses.	W r	5 credits	4G				
102-0317-00 G	Advanced Environmental Assessments			2 hrs	Thu	10-12	HIL E9	S. Pfister, R. Frischknech
102-0327-01 G	Implementation of Environmental and Other Remark: No course on 26.10.2021. The course on 21.11.2021 (room will be announced later of	ırse will			Tue/2w	09-12	HIL E9	A. E. Braunschweig
102-0317-03L	Advanced Environmental Assessment (Computer Lab I)	W	1 credit	1U				
102-0317-03 U	Advanced Environmental Assessment (Com Takes place on Tuesday 8-9.45 at ETH Hör (7 times; starting in the second week of the to be confirmed).	nggerbe.	rg <sup>′</sup>	1 hrs				S. Pfister

#### ▶▶ EM: Flow and Transport

Elective Module for Majors "Environmental Technologies", "Resource Management" and "Urban Water Management".

Number	Title	Type	ECTS	Hours				Lecturers
101-0267-01L	Numerical Hydraulics	W	3 credits	2G				
101-0267-01 G	Numerical Hydraulics			2 hrs	Mon	14-16	HIL E6	M. Holzner
102-0259-00L	Ecohydraulics and Habitat Modelling	W	3 credits	2G				
102-0259-00 G	Ecohydraulics and Habitat Modelling			2 hrs	Tue	10-12	HIL C10.2	R. Stocker, KD. Jorde,
	Remark: 8.00-12.00 on 4 course dates (02	.11., 09.	11., 23.11. an	nd	21.09.	08-12	HIL D10.2	L. G. Martins da Silva,
	30.11.2021), room will be announced later	on.			05.10.	10-12	HIL C10.2	A. Siviglia
	No class on 28.09., 12.10., 16.11. and 21.1	12.2021.			02.11.	08-12	n /a	· ·
					09.11.	08-10	n /a	
					23.11.	08-10	n /a	
					30.11.	08-10	n /a	

#### ▶▶ EM: Groundwater

Elective Module for Majors "Environmental Technologies", "River and Hydraulic Engineering" and "Urban Water Management". Module is offered in FS.

#### ▶▶ EM: Hydraulic Engineering

Elective Module for Majors "Environmental Technologies", "Resource Management", "Urban Water Management" and "Water Resources Management".

Number	Title	Туре	ECTS	Hours				Lecturers
101-0247-01L	Hydraulic structures II Information: Enrolment of Hydraulic Engineering II is not recommended without having attended Hydraulic Engineering (101-0206-00L) previously since Hydraulic Engineering II is strongly based on Hydraulic Engineering (101-0206-00L).	W	6 credits	4G				
101-0247-01 G	Wasserbau II Lehrsprache vorrangig Deutsch, ausgewählte Englisch.	e Verai	nstaltungen in	4 hrs	Mon Thu	10-12 08-10	HIL E1 HIL E9	R. Boes

#### ▶▶ EM: Landscape

Elective Module for Majors "Environmental Technologies", "Resource Management", "River and Hydraulic Engineering" and "Urban Water Management".

103-0347-00L	Landscape Planning and Environmental Systems	W	3 credits	2V				
103-0347-00 V	Landscape Planning and Environmental Sys	stems <b>=</b>	1	2 hrs	Fri	08-10	HIL E8	A. Grêt-Regamey
102-0287-00L	River Basin Erosion	W	3 credits	2G				
102-0287-00 G	River Basin Erosion			2 hrs	Thu	14-16	HIL E6	P. Molnar
	Remark: Title until HS20: Fluvial Systems.							

#### ▶▶ EM: Process Engineering in Urban Water Management

Elective Module for Majors "Resource Management", "River and Hydraulic Engineering" and "Water Resources Management".

No courses in autumn semester (HS), only in spring semester (FS).

#### ▶▶ EM: Remote Sensing and Earth Observation

Elective Module for Majors "Environmental Technologies", "Resource Management", "River and Hydraulic Engineering", "Urban Water Management" and "Water Resources Management".

Remark: Students also taking module "Remote Sensing and Earth Observation" as replacement of 102-0617-01L Methodologies for Image Processing of Remote Sensing Data in module "Landscape" have to chose one out following list:

- 1. 701-0104-00L Statistical Modelling of Spatial Data (FS) oder 2. 701-1674-00L Spatial Analysis, Modelling and Optimisation (FS) oder
- 3. 701-1644-00L Mountain Forest Hydrology (HS).

Number	Title	Туре	ECTS	Hours				Lecturers
102-0617-00L	Basics and Principles of Radar Remote Sensing for Environmental Applications	W	3 credits	2G				
102-0617-00 G	Basics and Principles of Radar Remote Sens Environmental Applications	sing for		2 hrs	Wed	10-12	HIL E9	I. Hajnsek
102-0627-00L	Applied Radar Remote Sensing	W	3 credits	2G				
102-0627-00 G	Applied Radar Remote Sensing			2 hrs	Wed	14-16	HIL E15.2	O. Frey

#### ▶▶ EM: River Systems

Elective Module for Majors "Environmental Technologies", "Resource Management", "Urban Water Management" and "Water Resources Management".

Remark: partly in German.

Note: Students taking both of the modules LAND and RIVER must take the course 101-1250-00 Wildbach- und Hangverbau as replacment for for Fluival Systems that is listed in both modules.

Number	Title	Туре	ECTS	Hours				Lecturers
101-0258-00L	River Engineering	W	3 credits	2G				
101-0258-00 G	River Engineering			2 hrs	Wed	16-18	HIL E8	V. Weitbrecht, I. Schalko, K. Sperger
102-0287-00L	River Basin Erosion	W	3 credits	2G				
102-0287-00 G	River Basin Erosion Remark: Title until HS20: Fluvial Systems.			2 hrs	Thu	14-16	HIL E6	P. Molnar

#### ▶▶ EM: Soil

Elective Module for Majors "Environmental Technologies", "Resource Management", "River and Hydraulic Engineering", "Urban Water Management" and "Water Resources Management".

Number	Title	Туре	ECTS	Hours				Lecturers
701-0535-00L	Environmental Soil Physics/Vadose Zone Hydrology	W	3 credits	2V+1U				
701-0535-00 V	Environmental Soil Physics/Vadose Zone	Hydrolog	у	2 hrs	Wed	16-18	CHN E46	A. Carminati, P. U. Lehmann Grunder
701-0535-00 U	Environmental Soil Physics/Vadose Zone	Hydrolog	y	1 hrs	Wed	18-19	CHN E46	<b>A. Carminati</b> , P. U. Lehmann Grunder
701-1343-00L	Soil-Plant Water Relations	w	3 credits	2V				
701-1343-00 V	Soil-Plant Water Relations			2 hrs	Fri	10-12	ML H41.1	A. Carminati

#### ▶▶ EM: System Analysis in Urban Water Management

Elective Module for Majors "Resource Management", "River and Hydraulic Engineering" and "Water Resources Management".

Number	Title	Туре	ECTS	Hours				Lecturers
102-0227-00L	Systems Analysis and Mathematical Modeling in Urban Water Management Number of participants limited to 50.	W	6 credits	4G				
102-0227-00 G	Systems Analysis and Mathematical Modeli Management	ng in Ur	ban Water	4 hrs	Fri	08-10 10-12	HIL E9 HIL E15.2	E. Morgenroth, M. Maurer
102-0217-00L	Process Engineering la	W	3 credits	2G				
102-0217-00 G	Process Engineering la More information can be found at http://www.sww.ifu.ethz.ch/education/lectur engineering-ia.html Voluntary questions and support for excerc room: HCl D4 or Tuesdays 13-14, room HC	ises on l		2 hrs <i>0</i> ,	Wed	08-10	HIL E9	E. Morgenroth

#### **▶▶** EM: Waste Management

Elective Module for Majors "River and Hydraulic Engineering" "Urban Water Management" and "Water Resources Management".

Remark: 102-0337-00 Landfilling, Contaminated Sites and Radioactive Waste Repositories only for those students also taking module "System Analysis in Urban Water Management" as replacement of 102-0217-00 Process Engineering Ia in module "Waste Management".

Number	Title	Type	ECTS	Hours				Lecturers
102-0217-00L	Process Engineering la	W	3 credits	2G				
102-0217-00 G	Process Engineering la More information can be found at http://www.sww.ifu.ethz.ch/education/lectur engineering-ia.html Voluntary questions and support for excerc room: HCl D4 or Tuesdays 13-14, room HCl	ises on l		2 hrs	Wed	08-10	HIL E9	E. Morgenroth
102-0337-00L	Landfilling, Contaminated Sites and Radioactive Waste Repositories Only for Environmental Engineering MSc.	W	3 credits	2G				
102-0337-00 G	Landfilling, Contaminated Sites and Radioa Repositories Permission from lecturers required for all st		aste	2 hrs	Wed	14-16	HIL E6	M. Plötze, W. Hummel
102-0357-00L	Waste Recycling Technologies	W	3 credits	2G				
102-0357-00 G	Waste Recycling Technologies			2 hrs	Tue/2	14-18	HIL E9	R. Bunge

#### ▶▶ EM: Water Infrastructure Planning and Stormwater Management

Elective Module for Majors "Environmental Technologies", "Resource Management", "River and Hydraulic Engineering" and "Water Resources Management".

Number	Title	Туре	ECTS	Hours				Lecturers
102-0250-00L	Urban Drainage Planning and Modelling Number of participants limited to 36.	W	6 credits	4G				
	Only for Environmental Engineers Msc in the module Water Infrastructure Planning and Stormwater Management.							
102-0250-00 G	Urban Drainage Planning and Modelling			4 hrs	Mon	14-18	HCP E47.1 HCP E47.4	M. Maurer, D. Gregorio, U. Karaus.
					21.09.	13-14	HIL E6	J. P. Leitão Correia , J. Rieckermann

#### ▶▶ EM: Water Resources Management

Elective Module for Majors "Environmental Technologies", and "Urban Water Management".

		-						
Number	Title	Type	ECTS	Hours				Lecturers
102-0468-10L	Watershed Modelling	W	6 credits	4G				
102-0468-10 G	Watershed Modelling			4 hrs	Mon	16-18	HIL E8	P. Molnar
	Remark: New course replacing 102-0237-0	0 Hydro	logy II (until		Wed	12-14	HIL E8	
	HS19) and 102-0468-00 Watershed Model	ina (until	FS20).					

#### ► Specialized Computer Laboratory

Number	Title	Type	ECTS	Hours				Lecturers
102-0527-00L	Experimental and Computer Laboratory (Year Course)	10	0 credits	6P				
102-0527-00 P	Experimental and Computer Laboratory I  Semester performance as year course toge  0528-00L Experimental and Computer Lab	ether wit		6 hrs	Tue/1 Thu Thu/2 Fri 30.09. 05.10.	14-18 14-18 14-18 14-18 14-16 14-18	HIF C33.1 HIF C33.1 HIL B18.2 HIF C33.1 HIL E10.1 HIT F12	D. Braun, F. Evers, M. Floriancic, N. Klein, P. U. Lehmann Grunder, B. Lüthi, S. Pfister, F. Rüsch, D. A. Silva Conde, D. F. Vetsch, L. von Känel

1U

1 credit

#### 103-0347-70L Supplementary Course to Project LAND W within Experimental and Computer Lab. I

Only for Environmental Sciences MSc.

This is a supplementary course for students in the Laboratory Courses in Environmental Engineering who wish to complete all the exercises in Landscape planning and environmental system, as in the 3CP course 103-0347-01L Landscape Planning and Environmental Systems (GIS

Exercises).

103-0347-70 U Supplementary Course to Project LAND within Experimental and 1 hrs

by appt.

D. Braun, N. Klein

#### **▶** Elctives

The entire course programs of ETH Zurich and the University of Zurich are open to the students to individual selection.

Course Catalogue of ETH Zurich

#### ► Master's Thesis

r Waster s	Master's Triesis										
Number	Title	Туре	ECTS	Hours	Lecturers						
102-0010-01L	Master's Thesis Only students who fulfill the following criteria are allowed to begin with their master thesis: a. successful completion of the bachelor	W	30 credits	64D							

programme; b. fulfilling of any additional requirements necessary to gain admission to the master programme.

102-0010-01 D Master's Thesis 900s hrs Supervisors

#### ► GESS Science in Perspective

see GESS Science in Perspective: Language Courses ETH/UZH

see GESS Science in Perspective: Type A: Enhancement of Reflection Capability

Recommended GESS Science in Perspective (Type B) for D-BAUG.

#### ► Course Units for Additional Admission Requirements

The courses below are only available for MSc students with additional admission requirements.

Number	Title	Type	ECTS	Hours	Lecturers
01-0203-AAL	Hydraulics I Enrolment ONLY for MSc students with a decree declaring this course unit as an additional admission requirement.	E-	5 credits	11R	
	Any other students (e.g. incoming exchange students, doctoral students) CANNOT enrol for this course unit.				
101-0203-AA R	Hydraulics I Self-study course. No presence required.			150s hrs	R. Stocker
02-0214-AAL	Introduction to Urban Water Management Enrolment ONLY for MSc students with a decree declaring this course unit as an additional admission requirement.	E-	6 credits	13R	
	Any other students (e.g. incoming exchange students, doctoral students) CANNOT enrol for this course unit.				
102-0214-AA R	Introduction to Urban Water Management Self-study course. No presence required. Details must be arranged in the beginning	of the co	urse.	180s hrs	E. Morgenroth, M. Maurer
102-0324-AAL	Ecological Systems Analysis Enrolment ONLY for MSc students with a decree declaring this course unit as an additional admission requirement.	E-	6 credits	13R	
	Any other students (e.g. incoming exchange students, doctoral students) CANNOT enrol for this course unit.				
102-0324-AA R	Ecological Systems Analysis Self-study course. No presence required.			180s hrs	S. Pfister
102-0325-AAL	Waste Management Enrolment ONLY for MSc students with a decree declaring this course unit as an additional admission requirement.	E-	4 credits	9R	
	Any other students (e.g. incoming exchange students, doctoral students) CANNOT enrol for this course unit.				
102-0325-AA R	Waste Management Self-study course. No presence required.			120s hrs	C. Leitzinger
102-0455-AAL	Groundwater I Enrolment ONLY for MSc students with a decree declaring this course unit as an additional admission requirement.	E-	4 credits	9R	
	Any other students (e.g. incoming exchange students, doctoral students) CANNOT enrol for this course unit.				
102-0455-AA R	Groundwater I Self-study course. No presence required.			120s hrs	<b>J. Jimenez-Martinez</b> , M. Willmann
02-0635-AAL	Air Pollution Control Enrolment ONLY for MSc students with a decree declaring this course unit as an additional admission requirement.	E-	6 credits	13R	
	Any other students (e.g. incoming exchange students, doctoral students) CANNOT enrol for this course unit.				
102-0635-AA R	Air Pollution Control Self-study course. No presence required.			180s hrs	J. Wang, B. Buchmann
102-0474-AAL	Introduction to Water Resources	E-	4 credits	4R	

#### Management

Enrolment ONLY for MSc students with a decree declaring this course unit as an additional admission requirement.

Any other students (e.g. incoming exchange students, doctoral students) CANNOT enrol for this course unit.

102-0474-AA R Introduction to Water Resources Management 56s hrs Self-study course. No presence required.

E-

E-

#### 252-0846-AAL **Computer Science II**

Enrolment ONLY for MSc students with a decree declaring this course unit as an additional admission requirement.

Any other students (e.g. incoming exchange students, doctoral students) CANNOT enrol for this course unit.

252-0846-AA R Computer Science II Self-study course. No presence required.

4 credits 9R

120s hrs F. O. Friedrich Wicker.

529-2001-AAL Chemistry I and II Enrolment ONLY for MSc students with a decree declaring this course unit as an

> Any other students (e.g. incoming exchange students, doctoral students)
> CANNOT enrol for this course unit.

9 credits 19R R. Sasse

P. Burlando

additional admission requirement.

529-2001-AA R Chemistry I and II

270s hrs

J. Cvengros

#### Self-study course. No presence required. 529-2002-AAL Chemistry II

Enrolment ONLY for MSc students with a decree declaring this course unit as an additional admission requirement.

Any other students (e.g. incoming exchange students, doctoral students) CANNOT enrol for this course unit.

5 credits 11R

2 credits

#### 529-2002-AA R Chemistry II

Self-study course. No presence required.

150s hrs

60s hrs

4R

4R

H. Grützmacher, J. Cvengros

#### 752-0100-AAL Biochemistry

Enrolment ONLY for MSc students with a decree declaring this course unit as an additional admission requirement.

Any other students (e.g. incoming exchange students, doctoral students) CANNOT enrol for this course unit.

C. Frei

#### Microbiology 752-4001-AAL

752-0100-AA R Biochemistry

Enrolment ONLY for MSc students with a

Self-study course. No presence required.

decree declaring this course unit as an additional admission requirement.

Any other students (e.g. incoming exchange students, doctoral students)

2 credits F-

CANNOT enrol for this course unit.

752-4001-AA R Microbiology Self-study course. No presence required.

60s hrs

6R

M. Ackermann

#### 102-0293-AAL Hydrology

Enrolment ONLY for MSc students with a decree declaring this course unit as an additional admission requirement.

E-3 credits

Any other students (e.g. incoming exchange students, doctoral students) CANNOT enrol for this course unit.

102-0293-AA R Hydrology Self-study course. No presence required. 90s hrs

15R

P. Burlando

#### 406-0023-AAL **Physics**

Enrolment ONLY for MSc students with a decree declaring this course unit as an additional admission requirement.

Any other students (e.g. incoming exchange students, doctoral students) 7 credits

CANNOT enrol for this course unit. 406-0023-AAR Physics

Self-study course. No presence required.

210s hrs

9R

S. Johnson

406-0603-AAL Stochastics (Probability and Statistics) Enrolment ONLY for MSc students with a

4 credits

decree declaring this course unit as an additional admission requirement. Any other students (e.g. incoming exchange students, doctoral students) CANNOT enrol for this course unit. 406-0603-AA R Stochastics (Probability and Statistics)
Self-study course. No presence required. M. Kalisch 120s hrs 406-0141-AAL Linear Algebra 5 credits 11R Enrolment Algebra
Enrolment ONLY for MSc students with a
decree declaring this course unit as an additional admission requirement. Any other students (e.g. incoming exchange students, doctoral students) CANNOT enrol for this course unit. 406-0141-AA R Linear Algebra M. Akka Ginosar 150s hrs Self-study course. No presence required. 406-0242-AAL Analysis II 7 credits 15R E-Enrolment ONLY for MSc students with a decree declaring this course unit as an additional admission requirement. Any other students (e.g. incoming exchange students, doctoral students) CANNOT enrol for this course unit. 406-0242-AA R Analysis II 210s hrs M. Akveld Self-study course. No presence required. 406-0243-AAL Analysis I and II 14 credits 30R Enrolment ONLY for MSc students with a decree declaring this course unit as an additional admission requirement. Any other students (e.g. incoming exchange students, doctoral students) CANNOT enrol for this course unit. 406-0243-AA R Analysis I and II 420s hrs M. Akveld Self-study course. No presence required.

0	Compulsory	E-	Recommended, not eligible for credits	
W+	Eligible for credits and recommended	Z	Courses outside the curriculum	
W	Eligible for credits	Dr	Suitable for doctorate	

V	lecture	P	practical/laboratory course	
G	lecture with exercise	A	independent project	
U	exercise	D	diploma thesis	
S	seminar	R	revision course / private study	
K	colloquium			

ECTS European Credit Transfer and Accumulation System

Special students and auditors need special permission from the lecturers.

# **Environmental Studies TC**

Detailed information on the programme at: https://www.ethz.ch/en/studies/teacher-training.html

#### ► Educational Science

Number	Title	Туре	ECTS	Hours				Lecturers
851-0240-00L	Human Learning (EW1) This lecture is only apt for students who intend to enrol in the programs "Teaching Diploma" or "Teaching Certificate". It is about learning in childhood and adolescence.	O	2 credits	2V				
851-0240-00 V	Menschliches Lernen (EW1)			2 hrs	Tue	18-20	HG F1	E. Stern
851-0242-06L	Cognitively Activating Instructions in MINT Subjects Enrolment only possible with matriculation in Teaching Diploma or Teaching Certificate (excluding Teaching Diploma Sport).  This course unit can only be enrolled after successful participation in, or during	W	2 credits	2\$				
	enrollment in the course "Human Learning (EW 1)".							
851-0242-06 S	Kognitiv aktivierender Unterricht in den MIN Unregelmässige Lehrveranstaltung; für eine Semesterplanung wird um frühe Anmeldung Erscheinen zum ersten Lehrveranstaltungs	e reibung g und pe	gslose ersönliches	2 hrs	Wed	18-20	ML H41.1	R. Schumacher
851-0242-07L	Human Intelligence Enrolment only possible with matriculation in Teaching Diploma or Teaching Certificate (excluding Teaching Diploma Sport). Number of participants limited to 30. This course unit can only be enrolled after successful participation in, or during enrollment in the course "Human Learning (EW 1)".	W	1 credit	15				
851-0242-07 S	Menschliche Intelligenz Unregelmässige Lehrveranstaltung. An zwei Terminen findet die Lehrveranstaltu TeilnehmerInnen statt und an den übrigen inem Teil der Studierenden (Kleingruppen, gemeinsam vereinbart.	Termine	n nur mit	14s hrs	Wed	16-18	ML F40	E. Stern
851-0242-08L	Research Methods in Educational Science Number of participants limited to 30 This course unit can only be enrolled after successful participation in, or during enrollment in the course "Human Learning (EW 1)".	W	1 credit	2\$				
851-0242-08 S	Forschungsmethoden der empirischen Bilde Unregelmässige Lehrveranstaltung. Zwei obligatorische Präsenztermine: 29.09. An den übrigen Terminen nur mit einem Te	und 17.	.11.	21s hrs	Wed	12-15	LFW C1	P. Edelsbrunner, T. Braas, C. M. Thurn
	(jeweils mit 1-2 Kleingruppen).							
851-0240-22L	Coping with Psychosocial Demands of Teaching (EW4 DZ)  Number of participants limited to 20.  The successful participation in EW1 ("Human Learning") and EW2 ("Designing Learning Environments for School") is recommended, but not a mandatory prerequisite.	W	2 credits	3S				
851-0240-22 S	Bewältigung psychosozialer Anforderungen DZ) ■	im Lehi	beruf (EW4	3 hrs	Tue	09-12	HG E33.1 HG F26.5 HG G26.1	<b>U. Markwalder</b> , S. Maurer, S. Peteranderl
851-0242-11L	<b>Gender Issues In Education and STEM</b> <i>Number of participants limited to 30.</i>	W	2 credits	28				
	Enrolment only possible with matriculation in Teaching Diploma or Teaching Certificate (excluding Teaching Diploma Sport).							
	Prerequisite: students should be taking the course 851-0240-00L Human Learning (EW1) in parallel, or to have successfully							
	completed it.							

# ► Subject Didactics and Professional Training Important: You can only enrol in the courses of this category.

Number	Title	Type	ECTS	Hours				Lecturers
701-0823-00L	Environmental Education Didactics I Enrolment to Master's degree studies required. Recognition either for Master's degree studies or for Teaching Certificate.	0	4 credits	3G				
701-0823-00 G	Fachdidaktik Umweltlehre I			3 hrs	Wed	10-13	CHN D42	C. Colberg, F. Keller
701-0827-00L	Teaching Internship Including Examination Lessons Environmental Studies Target group: Teaching Certificate: Environment Studies.  Prerequisite: successful participation in Mentored Assignment (701-0822-00L).  Repetition of the Teaching Internship is excluded even if Examination Lessons are	0	6 credits	13P				
701-0827-00 P	to be repeated.  Unterrichtspraktikum mit Prüfungslektionen	Umwelt	lehre DZ ■	180s hrs	by app	t.		C. Colberg, F. Keller
	to be repeated.	Umwelt	lehre DZ ■	180s hrs	by app	ıt.		C. Colberg, F. Keller
Environmenta	to be repeated. Unterrichtspraktikum mit Prüfungslektionen	Umwelt	lehre DZ ■	180s hrs			ded, not eligibl	
Environmenta	to be repeated. Unterrichtspraktikum mit Prüfungslektionen al Studies TC - Key for Type	Umwelt	lehre DZ ■		R	ecommen	ded, not eligibl	e for credits
<b>Environmenta</b> O W+	to be repeated. Unterrichtspraktikum mit Prüfungslektionen  al Studies TC - Key for Type  Compulsory	Umwelt	lehre DZ ■	E-	R	ecommen		e for credits
<b>Environmenta</b> O W+	to be repeated. Unterrichtspraktikum mit Prüfungslektionen  al Studies TC - Key for Type  Compulsory  Eligible for credits and recommended  Eligible for credits	Umwelt	lehre DZ ■	E- Z	R	ecommen	tside the curric	e for credits
Environmenta O W+ W	to be repeated. Unterrichtspraktikum mit Prüfungslektionen  al Studies TC - Key for Type  Compulsory  Eligible for credits and recommended  Eligible for credits	Umwelt	lehre DZ ■	E- Z	R C S	ecommen ourses ou uitable for	tside the curric	e for credits ulum
Environmenta O W+ W  Key for Hours	to be repeated. Unterrichtspraktikum mit Prüfungslektionen  al Studies TC - Key for Type  Compulsory  Eligible for credits and recommended  Eligible for credits	Umwelt	lehre DZ ■	E- Z Dr	R C S	ecommen ourses ou uitable for	tside the curric doctorate	e for credits ulum
Environmenta O W+ W  Key for Hours V G	to be repeated. Unterrichtspraktikum mit Prüfungslektionen  al Studies TC - Key for Type  Compulsory Eligible for credits and recommended Eligible for credits	Umwelt	lehre DZ ■	E- Z Dr	R C S	ecommen ourses ou uitable for ractical/lak	tside the curric doctorate	e for credits ulum
Environmenta O W+ W  Key for Hours V G U S	to be repeated. Unterrichtspraktikum mit Prüfungslektionen  al Studies TC - Key for Type  Compulsory Eligible for credits and recommended Eligible for credits	Umwelt	lehre DZ ■	E- Z Dr	R C C S	ecommen ourses ou uitable for ractical/lab ractical/lab idependen iploma the	tside the curric doctorate	e for credits ulum

<sup>■</sup> Special students and auditors need special permission from the lecturers.

# **Environmental Sciences Bachelor**

#### ► Basic Courses I

#### **▶▶** First Year Examinations

Number	Title	Туре	ECTS	Hours				Lecturers
701-0007-00L	Tackling Environmental Problems I Only for Environmental Sciences BSc.	0	5 credits	4G				
701-0007-00 G	Umweltproblemlösen I ■ zusätzliche obligatorische Termine: Exkursion findet ganztägig voraussichtlich November statt.		ler 13.	4 hrs	Thu	10-12	CHN C14 CHN E42 CHN E46 CHN G42	C. E. Pohl, M. Mader, B. B. Pearce
	Seminarwoche: 37. Januar 2022 (ganztä	gig).				14-16	CHN K77 CHN E42 CHN E46 CHN G42	
					30.09.	12-13 14-16	CHN K77 CHN D44 LEE C114	
					07.10.		LEE D101 CHN D44	
						13-14 08-09	CHN C14 CHN C14	
						08-18	CHN E42	
							CHN E46 CHN F42 CHN F46	
					07.01.	10-17	CHN G42 CHN K77 CHN C14	
<b>701-0027-00L</b> 701-0027-00 V	Environmental Systems I Umweltsysteme I	0	2 credits	<b>2V</b> 2 hrs	Tue	10-12	HG F7	C. Schär, N. Dubois, G. Velice
701-0029-00L	Environmental Systems II	0	3 credits	2V				
	Umweltsysteme II	J	o oround	2 hrs	Tue	14-16	ML H44	<b>A. Patt</b> , H. Bugmann, N. Gruber
701-0243-01L	Biology III: Essentials of Ecology	0	3 credits	2V				
701-0243-01 V	Biologie III: Ökologie Vorlesung im HG F 1 mit Videoübertragun	g ins HG	F 3.	2 hrs	Mon	10-12	HG F1 HG F3	C. Buser Moser
401-0251-00L	Mathematics I	0	6 credits	4V+2U				
401-0251-00 V	Mathematik I: Analysis I und Lineare Algel	ora		4 hrs	Mon Wed Thu	09-10 12-14 09-10	HG E7 HG E7 HG E7	F. Da Lio
401-0251-00 U	Mathematik I: Analysis I und Lineare Algel Groups are selected in myStudies. Die Übungen beginnen in der zweiten Ser Mo 14-16 für Studiengänge Erd- und Klim- Umweltnaturwissenschaften. Di 14-16 für Studiengänge Agrarwissensch Lebensmittelwissenschaften.	nesterwo awissens	chaften bzw.	2 hrs	Mon	14-16	CHN D44 CHN F42 ETZ E9 ETZ G91 ETZ H91 ETZ K91 HG F26.5 LFW C4	F. Da Lio
	Zusätzlich wird das Mathe-Lab (Präsenzst 16-18 in CAB G 51 und Di 12-14 in HG E		ngeboten: Mo	)	Tue	14-16	CAB G56 CLA E4 LFO C13 LFW C5 RZ F21	
529-2001-02L	Chemistry I	0	4 credits	2V+2U				
529-2001-02 V	Vorlesung im HG F1 mit Videoübertragung	g ins HG	F3.	2 hrs	Tue	08-10	HG F1 HG F3	J. Cvengros
529-2001-02 U	Übungen:	<b>V</b> =		2 hrs	Wed Thu	14-16 10-12	CHN C14 ETZ E8 ETZ H91	J. Cvengros, J. E. E. Buschmann, P. Funck, E. C. Meister, R. Verel
	Mi 14-16 für Umweltingenieurwissenschaf Do 10-12 für Agrar-, Lebensmittel-, Erdwis Fr 8-10 für Umweltnaturwissenschaften		ften		Fri	08-10	HG G26.3 IFW A34 IFW B42 ETZ J91 IFW A36	
551-0001-00L	General Biology I	0	3 credits	3V				
551-0001-00 V	Biologie I: Allgemeine Biologie I			3 hrs	Wed Fri	09-10 10-12	ML D28 ETF C1	<b>U. Sauer</b> , O. Y. Martin, A. Widmer
►► Additio	nal First Year Compulsory Cou	ırses						
Number	Title	Туре	ECTS	Hours				Lecturers
252-0839-00L	Informatics	0	2 credits	2G				

252-0839-00 G	Einsatz von Informatikmitteln Vorlesung: Fr 14-16 Uhr	diaha Zaitan alla 2	2 hrs	Mon	18-19	HG E19 HG E26.3	L. E. Fässler, M. Dahinden
	Individuelle Präsentation Projektaufgaben: rest Wochen nach Voranmeldung	nicne Zeiten alle Z		Thu	18-19	HG E27 HG E19 HG E26.1 HG E26.3	
				Fri	14-16 16-18	HG E27 HG F7 HG E19 HG E26.1 HG E26.3 HG E27	
529-0030-00L	Laboratory Course: Elementary O Chemical Techniques	3 credits	6P				
529-0030-00 P	Praktikum Chemie Vorwiegend BSc UWIS: Kurs 1 Vorwiegend BSc ERD, AGR, LM: Kurs 2		6 hrs	17.01. 17.01 04.02.		CHN E46 CHN D42 CHN D44	N. Kobert, A. de Mello, M. H. Schroth
						CHN D44 CHN D46 CHN G22	
					13-15	CHN D42 CHN D44	
						CHN D46 CHN G22	
				19.01.	09-14	CHN E46	
				21.01.		CHN E46	
				24.01.		CHN E46	
				26.01.		CHN E46	
				28.01. 31.01.		CHN E46 CHN E46	
				02.02.	09-14	CHN E46	
				04.02.	13-17	CHN E46	
751-0801-00L	Fundamentals of Microscopy and Plant O Biology	1 credit	1V+2G				
751-0801-00 V	Grundlagen der Mikroskopie und Pflanzenbiolo Die genauen Unterrichtszeiten von ONLINE - V werden von den Dozierenden kommuniziert.		1 hrs	Fri	13-14	ON LINE	E. B. Truernit
751-0801-00 G	Grundlagen der Mikroskopie und Pflanzenbiolo Groups are selected in myStudies.		2 hrs	Mon/2w	/ 12-14	LFW E11 LFW E11	E. B. Truernit
	Beginn der Lehveranstaltung in der zweiten Se	emesterwoche			16-18	LFW E11	
				Tuo/2w	10 11	LFW E11	
				Tue/2w	12-14	LFW E11 LFW E11	
				Wed/2v	v 14-16	LFW E11	
						LFW E11	
					16-18	LFW E11	
						LFW E11	
				Thu/2w	12-14	LFW E11	
					44.40	LFW E11	
					14-16	LFW E11	
					16-18	LFW E11 LFW E11	
					10-10	LFW E11	

# ► Basic Courses II

# **▶▶** Examination Blocks

#### ▶▶▶ Examination Block 1

Number	Title	Type	ECTS	Hours				Lecturers
401-0624-00L	Mathematics IV: Statistics	0	4 credits	2V+1U				
401-0624-00 V	Mathematik IV: Statistik			2 hrs	Thu	08-10	ML D28	J. Ernest
401-0624-00 U	Mathematik IV: Statistik Groups are selected in myStudies. Do 10-11 für Studiengang Lebensmittelwis Do 13-14 für Studiengang Agrarwissensch Do 16-17 für Studiengang Erd- und Klimaw Fr 9-10 für Studiengang Umweltnaturwisse Do 18-19 als Online-Übung ausschliesslich welche nicht an den regulären Übungen in können.	naften. vissensch enschafte n für Stud	haften. en. dierende,	1 hrs	Thu Fri	10-11 13-14 16-17 18-19 09-10	ML F34 ML J34.1 HG E33.1 NO C44 ON LINE CAB G59 LFW E13 ML F40	J. Ernest
402-0063-00L	Physics II	0	5 credits	3V+1U				
402-0063-00 V	Physik II			3 hrs	Mon Wed	13-14 13-15	ML D28 HPH G2	A. Vaterlaus

402-0063-00 U	Physik II Fr 8-9 Uhr im Zentrum für UMNW Studierer	nde		1 hrs	Wed	15-16	HCI D4 HCI D6	A. Vaterlaus
	TT 0-9 OII III Zeniran Tar Ownvv Stadieler	ide					HCI E8 HCI F2 HCI F8 HCI J8 HIL C10.2 HIL E5 HIT H42 HIT J51 HPK D24.2	
					Fri	08-09	HG E21	
<b>752-4001-00L</b> 752-4001-00 V	<b>Microbiology</b> Mikrobiologie	0	2 credits	<b>2V</b> 2 hrs	Mon	08-10	ML D28	M. Ackermann, M. Schuppler, J. Vorholt-Zambelli
▶▶▶ Exami	ination Block 2							
Number	Title	Туре	ECTS	Hours				Lecturers
701-0071-00L	Mathematics III: Systems Analysis	0	4 credits	2V+1U				
701-0071-00 V	Mathematik III: Systemanalyse			2 hrs	Fri	10-12	ML D28	R. Knutti, S. Schemm, H. Wernli
	Mathematik III: Systemanalyse			1 hrs	Mon	11-12	CAB G57 CHN F46 HG E33.3 HG F26.5 HG G26.3 LEE D101 LEE D105 LEE E101 ML E12 ML F34 NO E11 NO E39	L. Brunner, S. Schemm, P. Zschenderlein
<b>701-0023-00L</b> 701-0023-00 V	Atmosphere	0	3 credits	<b>2V</b> 2 hrs	Tue	10-12	HG E3	E. M. Fischer, T. Peter
<b>701-0501-00L</b> 701-0501-00 V	Pedosphere	0	3 credits	2V 2 hrs	Thu	10-12	HG G3	R. Kretzschmar
	nal Compulsory Courses			21113	TITO	10 12	110 00	T. T. C. E. Solima
Number	Title	Туре	ECTS	Hours				Lecturers
701-0033-00L	Laboratory Course in Physics for	О	2 credits	4P				Lecturers
	Students of Environmental Sciences Enrollment is only possible under https://www.lehrbetrieb.ethz.ch/laborpraktik a. No registration required via myStudies. For further information visit: https://ap.phys.ethz.ch  Only students from 3th Semester BSc Environmental Sciences on are admitted to this lecture.							
701-0033-00 P	Praktikum Physik für Studierende in Umwel Die LV findet in den Praktikumsräumen im Stockwerken J- und K-statt.				Thu 23.09. 07.10.	13-18 14-16 13-15	HPP ETF C1 HG E3	<b>M. Münnich</b> , A. Biland, N. Gruber
► Social So	ciences and Humanities							
<b>▶▶</b> Compu	Isory							
Number	Title	Туре	ECTS	Hours				Lecturers
701-0707-00L	Analysing Arguments in Science and Ethics Number of Participants is limited to 160. Waiting list will be deleted October 1st 2021.	0	2 credits	2G				
	This lecture was offered until spring semester 17 under the title: "Analysing Texts". Students who completed this lecture already are not allowed to earn credits for this lecture again.	e						
701-0707-00 G	Methoden des Argumentierens in Wissenso	haft und	I Ethik ■	2 hrs	Tue	14-16	CHN C14	C. J. Baumberger
701-0747-00L	Environmental Policy of Switzerland Number of participants limited to 130. Priority is given to the target group: Bachelor Study programme Environmental	0	3 credits	2G				
	Sciences until September 27th,2021. Waiting list will be deleted October 1st, 2021.							
701-0747-00 G	Sciences until September 27th,2021. Waiting list will be deleted October 1st,			2 hrs	Mon	12-14	HG E1.1	E. Lieberherr

351-1158-00 G	Ökonomie In classroom, online via livestreaming or zo (Einführungsvorlesung 22.9. sowie Gastvor In classroom, online via livestreaming or zo groups); 6 Präsenzveranstaltungen. Online via livestreaming or zoom and recor zoom, this will be recorded).	rlesung oom, not	10.11.). recorded (4	2 hrs	Wed	10-12	HG E41 LEE C104 LEE C114 LEE D101 LEE D105 ML D28 ML E12	<b>U. Renold</b> , T. Bolli, P. McDonald, M. E. Oswald- Egg, F. Pusterla
851-0738-04L	Environmental Law	W	2 credits	2V				
	Only for Environmental Sciences BSc.  Number of participants limited to 75							
	Students who have attended and passed the course unit 851-0741-00L in the spring semester may not attend this course unit (851-0738-04L) again and can't credited it.							
851-0738-04 V	Umweltrecht			2 hrs	Tue	16-18	HG D3.2	B. Schibli
►► Elective	<b>2</b> S							
▶▶▶ Modul	e Economics							
Number	Title	Туре	ECTS	Hours				Lecturers
151-0757-00L	Environmental Management	W	2 credits	2G				
151-0757-00 G	Umwelt-Management Online-Veranstaltung: Diese Lehrveranstalt grundsätzlich online statt. Die reservierten i Studierenden auf dem Campus bestehen, u Lehrveranstaltung dort zu hören.	Räume l		2 hrs	Wed	18-20	ML D28	R. Züst
351-0778-00L	Discovering Management Entry level course in management for BSc, MSc and PHD students at all levels not belonging to D-MTEC. This course can be complemented with Discovering Management (Excercises) 351-0778-01.	W	3 credits	3 <b>G</b>				
351-0778-00 G	Discovering Management Diese Lehrveranstaltung wird ab dem HS 2 angeboten. The lecture takes place in classroom, online zoom and recorded.	-		3 hrs	Fri	08-11	HG E1.1	B. Clarysse, S. Brusoni, E. Fleisch, G. Grote, V. Hoffmann, T. Netland, Y. R. Shrestha, P. Tinguely, L. P. T. Vandeweghe
351-0778-01L	Discovering Management (Exercises) Complementary exercises for the module Discovering Management.  Prerequisite: Participation and successful	W	1 credit	1U				
351-0778-01 U	completion of the module Discovering Management (351-0778-00L) is mandatory Discovering Management (Exercises)	<u>'</u> .		1 hrs	Fri	11-12	HG E1.1	B. Clarysse,
000 0007 001	Open and a Containability	147	0					L. P. T. Vandeweghe
<b>363-0387-00L</b> 363-0387-00 G	Corporate Sustainability Corporate Sustainability The course combines online learning elements on the work of which are recorded. Several course attendance. Details are provided on the most	e sessic	ons require live		Wed/2 Wed/2	16-18	HG E21 HG E22 HG F3 ML E12	V. Hoffmann, C. Bening-Bach N. U. Blum, J. Meuer
363-0537-00L	Resource and Environmental Economics	W	3 credits	2G				
363-0537-00 G	Resource and Environmental Economics The lecture takes place in classroom, online recorded.	e via live	estreaming and	2 hrs	Wed	10-12	HG G3	L. Bretschger
363-1109-00L	Introduction to Microeconomics GESS (Science in Perspective): This course is only for students enrolled in a Bachelor's degree programme.	W	3 credits	2G				
	Students enrolled in a Master's degree programme may attend "Principles of Microeconomics" (LE 363-0503-00L) instead.							
	Note for D-MAVT students: If you have already successfully completed "Principles of Microeconomics" (LE 363-0503-00L), then you will not be permitted to attend it again.							
363-1109-00 G	Einführung in die Mikroökonomie Zusätzliche (freiwillige) Termine für Übunge werden zu Beginn der Vorlesung bekanntge			2 hrs	Tue	10-12	HG E5	M. Wörter, M. Beck
851-0626-01L	International Aid and Development Number of participants limited to 60	W	2 credits	2V				
	Prerequisites: Basic knowledge of economics							
851-0626-01 V	International Aid and Development			2 hrs	Tue	12-14	IFW A32.1	K. Harttgen, I. Günther

▶▶▶ Modul	le Political and Social Sciences							
Number	Title	Туре	ECTS	Hours				Lecturers
701-0985-00L	Social Intercourse with Current Environmental Risks	W	1 credit	1V				
701-0985-00 V	Gesellschaftlicher Umgang mit aktuellen Um Does not take place this semester.	weltrisi	ken	1 hrs				B. Nowack
851-0577-00L	Principles of Political Science	W	4 credits	2V+1U				
	Politikwissenschaft: Grundlagen			2 hrs	Fri	14-16	ETZ E8	T. Bernauer
	Politikwissenschaft: Grundlagen	147	0	1 hrs	Fri	16-17	ETZ E8	T. Bernauer
860-0023-00L	International Environmental Politics Particularly suitable for students of D-ITET, D-USYS	W	3 credits	2V				
360-0023-00 V	International Environmental Politics			2 hrs	Mon	16-18	HG F3	T. Bernauer
►►► Modul	le Individual Sciences							
Number	Title	Туре	ECTS	Hours				Lecturers
701-0721-00L	Psychology	W	3 credits	2V	_	4440	110 P7 0	<b>5.</b> 11
701-0721-00 V	Psychologie Online-Veranstaltung: Diese Lehrveranstaltu grundsätzlich online statt. Die reservierten F Studierenden auf dem Campus bestehen, u Lehrveranstaltung dort zu hören.	Räume k		2 hrs	Tue	14-16	HG D7.2	R. Hansmann, A. Bearth, M. Siegrist
701-0785-00L	Introduction to Science Communication (Universitiy of Zurich) No enrolment to this course at ETH Zurich. Book the corresponding module directly at UZH as an incoming student. UZH Module Code: 251403 Mind the enrolment deadlines at UZH:	W	4 credits	2V				
701-0785-00 V	https://www.uzh.ch/cmsssl/en/studies/application/deadlines.html Einführung in die Wissenschaftskommunikat Zürich) Does not take place this semester.	tion (Un	iversität	2 hrs				M. Schäfer
	**gemeinsam mit der Universität Zürich**							
701-0903-00L	The Sustainable Development Goals Book Club	W	2 credits					
701-0903-00 K	The Sustainable Development Goals Book Conline lecture: This lecture will take place or will remain reserved on campus for students from there.	nline. R		2s hrs	Thu	18-20	CHN E46	B. B. Pearce, J. Ghazoul
<b>752-2120-00L</b> 752-2120-00 V	Consumer Behaviour I Consumer Behaviour I Online-Veranstaltung: Diese Lehrveranstaltu grundsätzlich online statt. Die reservierten F Studierenden auf dem Campus bestehen, u Lehrveranstaltung dort zu hören.	Räume k		2V 2 hrs	Fri	14-16	HG G3	M. Siegrist, A. Bearth, A. Berthold
▶▶▶ Modul	le Humanities							
Number	Title	Туре	ECTS	Hours				Lecturers
701-0703-00L	Environmental Ethics	w	2 credits	2V				
701-0703-00 V	Ethik und Umwelt			2 hrs	Fri	12-14	HG F7	A. Deplazes Zemp
►►► Credit	able Language Courses							
Of the	listed English language courses, a maximum	of 2 CF	can be credit	ed.				
Number	Title	Туре	ECTS	Hours				Lecturers
851-0832-10L	Advanced English for Academic Purposes (C1-C2) No enrolment to this course at ETH Zurich. Book the corresponding course directly at "Language Center of UZH and ETH Zürich".	W	2 credits	2G				
	Course fees: https://www.sprachenzentrum.uzh.ch/en/Sp rachkurse/Kursgebuehren1.html							
	Registration dates: https://www.sprachenzentrum.uzh.ch/en/an gebot.html							
851-0832-10 G	Advanced English for Academic Purposes ((Sprachenzentrum) **Kurs vom Sprachenzentrum der UZH und		H Zürich**	2 hrs				University lecturers
	Die Lehrveranstaltung wird in 2 Parallelkurs	en ange	eboten.					

# ► Highly recommended Natural Science and Technical Electives

Number	Title 1	Гуре	ECTS	Hours				Lecturers
701-0225-00L	Organic Chemistry	N	2 credits	2V+1U				
701-0225-00 V	Organic Chemistry Vorlesung/lecture Mi/We 8-10 starts in the firs semester;	st wee	k of the	2 hrs	Wed	08-10	CHN C14	K. McNeill
701-0225-00 U	Organic Chemistry Exercises start in the second week of the sen Students choose one of three exercises.	nester.		1 hrs	Mon Wed Fri	16-17 12-13 13-14	CHN G22 CHN G22 CHN D42	K. McNeill
752-0100-00L	Biochemistry	N	2 credits	2V				
752-0100-00 V	Biochemie			2 hrs	Mon	14-16	HG E1.1	C. Frei
▶▶ For the	Specialization in Environmental	Biol	ogy					
Number	Title 1	Гуре	ECTS	Hours				Lecturers
227-0399-10L	Physiology and Anatomy for Biomedical V Engineers I	V	3 credits	2G				
227-0399-10 G	Physiology and Anatomy for Biomedical Engir	neers	I	2 hrs	Tue	08-10	ETZ E8	M. Wyss
▶▶ For the	Specialization in Forest and Lan	dsca	аре					
Number	Title 1	Гуре	ECTS	Hours				Lecturers
701-0266-00L	Introduction to Dendrology	N	3 credits	3P				
701-0266-00 P	Einführung in die Dendrologie Unterricht rund zur Hälfte in Form von Exkurs im Wald (ETH Hönggerberg). Ausserdem 4 h Exkursionen an Fr Nachmittagen oder Woche Absprache (in der Umgebung von Zürich und	albtäg enende	ige en, nach	3 hrs	Wed	15-17	HPT C103	A. Rudow, M. Ibrahim
701-0951-00L	GIS - Introduction into Geoinformation Science and Technology Number of participants limited to 50. Waiting list will be deleted October 8th, 2021.	N	5 credits	2V+3P				
701-0951-00 V	GIST - Einführung in die räumlichen Informati und -technologien Online-Veranstaltung: Diese Lehrveranstaltur grundsätzlich per ZOOM statt. Die reservierte die Studierenden auf dem Campus bestehen, Lehrveranstaltung dort zu hören.	ng find en Räu	et Ime bleiben für		Fri	10-12	CHN E46	M. A. M. Niederhuber
701-0951-01 P	9	uf vers stehen 10 - 1 durchg	schiedene n: Dienstag 12 2. Eine	3 hrs	Mon Tue Fri	10-12 12-14 14-16	NO D39 NO D39 NO D39	M. A. M. Niederhuber

# **▶▶** Agroecology

Number	Title	Type	ECTS	Hours				Lecturers
751-0013-00L	World Food System	w	4 credits	4V				
751-0013-00 V	Welternährungssystem (World Food Syste	em)		4 hrs	Mon Fri	14-16 08-10	CAB G61 CAB G61	A. K. Gilgen, J. Baumgartner A. Bearth, R. Finger, M. Loessner, R. Mezzenga, B. Studer
751-1311-00L	Introduction to Agricultural Manageme	nt W	2 credits	2V				
751-1311-00 V	Einführung in das Agrarmanagement			2 hrs	Wed	08-10	CAB G61	R. Finger
751-3401-00L	Plant Nutrition I	w	2 credits	2V				
751-3401-00 V	Pflanzenernährung I			2 hrs	Tue	08-10	ML F36	E. Frossard
751-3700-00L	Plant Ecophysiology	w	2 credits	2V				
751-3700-00 V	Ökophysiologie Teile der Lehrveranstaltung wird in Englis	ch gehalte	en.	2 hrs	Thu	16-18	LFW C5	<b>M. Gharun</b> , M. Lehmann, A. Walter
751-5003-00L	Sustainable Agroecosystems II	w	2 credits	2V				
751-5003-00 V	Sustainable Agroecosystems II			2 hrs	Thu/2w	14-18	LFW B1	K. Benabderrazik, M. Hartmann
751-5005-00L	Agroecology and the Transition to Sustainable Food Systems	W	2 credits	2G				
751-5005-00 G	Agroecology and the Transition to Sustain Online lecture: This lecture will primarily to Reserved rooms will remain blocked on co follow the course from there.	ake place	online.	2 hrs	Tue	18-19 19-20	CHN C14 CHN E42 CHN E46	M. Sonnevelt, M. Grant, S. E. Ulbrich, B. Wehrli
751-7501-00L	Animal Housing and Behaviour	w	1 credit	1V				
751-7501-00 V	Animal Housing and Behaviour			1 hrs	Thu/1	14-16	LFO C13	J. Müller, S. Goumon
▶▶ Biomed	licine							
Number	Title	Type	ECTS	Hours				Lecturers

227-0399-10L	Physiology and Anatomy for Biomedical Engineers I	ı w	3 credits	2G				
227-0399-10 G	Physiology and Anatomy for Biomedical En	gineers	I	2 hrs	Tue	08-10	ETZ E8	M. Wyss
<b>551-0317-00L</b> 551-0317-00 V	Immunology I Immunology I	W	3 credits	<b>2V</b> 2 hrs	Tue	08-10	HG G3	M. Kopf, A. Oxenius
<b>752-6001-00L</b> 752-6001-00 V	Introduction to Nutritional Science Introduction to Nutritional Science Course is taught in English (M. Zimmermar Wolfrum)	<b>W</b> nn) and 0	3 credits German (Ch.	<b>2V</b> 2 hrs	Fri	08-10	HG F7	M. B. Zimmermann, C. Wolfrum
▶▶ Soil Sci	iences							
Number	Title	Туре	ECTS	Hours				Lecturers
<b>701-0533-00L</b> 701-0533-00 G	Soil and Water Chemistry Boden- und Wasserchemie	W	3 credits	<b>2G</b> 2 hrs	Wed	14-16	CHN F46	R. Kretzschmar, D. I. Christl,
701-0535-00L	Environmental Soil Physics/Vadose	w	3 credits	2V+1U				L. Winkel
701-0535-00 V	Zone Hydrology Environmental Soil Physics/Vadose Zone H	lydrology	/	2 hrs	Wed	16-18	CHN E46	A. Carminati,
701-0535-00 U	Environmental Soil Physics/Vadose Zone H	lydrology	/	1 hrs	Wed	18-19	CHN E46	P. U. Lehmann Grunder  A. Carminati,  B. L. Lehmann Grunder
651-0032-00L	Geology and Petrography	w	4 credits	2V+1U				P. U. Lehmann Grunder
651-0032-00 V	Geologie und Petrographie Geologie und Petrographie Groups are selected in myStudies. In Gruppen  Introduction to Engineering Geology Ingenieurgeologie	w	4 credits	2V+1U 2 hrs 1 hrs	Fri Fri/2w	10-12 12-14 14-16 12-13 13-14	HPH G2 HIL B18.2 HIL B21 HIL B21 HIL D10.2 HIL D53 HIL D53 HIL D53 HIL E10.1 HIL E10.1 HIL E5 HIL B21 HIL B21 HIL B21 HIL B21 HIL B21 HIL B21 HIL B21 HIL B21 HIL D10.2 HIL D53 HIL D53 HIL D53 HIL D53 HIL E50.1 HIL E5 HIL E5 NO C6 NO D11 NO D11	M. O. Saar, K. Rauchenstein K. Rauchenstein  S. Löw, M. Ziegler S. Löw, L. de Palézieux dit Falconnet, M. Ziegler
751-3401-00L	(12-13 oder 13-14).	W	2 credits	2V				Liogioi
	Pflanzenernährung I			2 hrs	Tue	08-10	ML F36	E. Frossard
►► Method	es of Statistical Data Analysis							
Number	Title	Туре	ECTS	Hours				Lecturers
401-0625-01L	Applied Analysis of Variance and Experimental Design	W	5 credits	2V+1U				
401-0625-01 V 401-0625-01 U	Applied Analysis of Variance and Experime		•	2 hrs 1 hrs	Mon Mon/2w	14-16 16-18	HG G5 HG E1.1	L. Meier L. Meier
	Applied Analysis of Variance and Experime	iliai Des	3					
		W	5 credits	2V+1U				
<b>401-0649-00L</b> 401-0649-00 V	Applied Statistical Regression Applied Statistical Regression	<b>W</b> rogramn her slots	5 credits  nes where this (tentatively	2 hrs 1 hrs	Mon Mon/2w	08-10 10-12	HG E1.2 HG E1.2	M. Dettling M. Dettling
<b>401-0649-00</b> L 401-0649-00 V 401-0649-00 U <b>401-6215-00</b> L	Applied Statistical Regression Applied Statistical Regression Applied Statistical Regression Applied Statistical Regression Mon 10-12 might not work for all different p course is offered. On sufficient demand, oth Mon 15-17 or Fri 10-12) for the exercise se Using R for Data Analysis and Graphics (Part I)	W rogramm her slots ssions ca W	5 credits  nes where this (tentatively	2 hrs 1 hrs				<u> </u>
<b>401-0649-00</b> L 401-0649-00 V 401-0649-00 U <b>401-6215-00</b> L 401-6215-00 G	Applied Statistical Regression Applied Statistical Regression Applied Statistical Regression Mon 10-12 might not work for all different p course is offered. On sufficient demand, oth Mon 15-17 or Fri 10-12) for the exercise se  Using R for Data Analysis and Graphics (Part I) Using R for Data Analysis and Graphics (Part I)	w programm her slots ssions ca W art I)	5 credits  nes where this (tentatively an be offered.  1.5 credits	2 hrs 1 hrs 1 <b>IG</b> 14s hrs				
<b>401-0649-00L</b> 401-0649-00 V 401-0649-00 U <b>401-6215-00L</b> 401-6215-00 G <b>401-6217-00L</b>	Applied Statistical Regression Applied Statistical Regression Applied Statistical Regression Applied Statistical Regression Mon 10-12 might not work for all different p course is offered. On sufficient demand, oth Mon 15-17 or Fri 10-12) for the exercise se Using R for Data Analysis and Graphics (Part I)	warrogrammher slots ssions co	5 credits  nes where this (tentatively an be offered.	2 hrs 1 hrs	Mon/2w	10-12	HG E1.2	M. Dettling

Number	Title	Туре	ECTS	Hours				Lecturers
701-0305-00L	Vertebrate Ecology	W	2 credits	2G				
701-0305-00 G	Ökologie der Wirbeltiere			2 hrs	Mon	16-18	CHN F46	J. Senn, K. Bollmann
701-0405-00L	Fresh Water: Concepts and Methods for Sustainable Management	W	3 credits	2G				
701-0405-00 G	Binnengewässer: Konzepte und Methoden Management	für ein na	achhaltiges	2 hrs	Mon	08-10	CHN G42	<b>C. Scheidegger</b> , S. Fink, C. Weber, V. Weitbrecht
551-0421-00L	<b>Biology and Ecology of Fungi in Forests</b> <i>Number of participants limited to 10.</i>	W	6 credits	7P				
	The enrolment is done by the D-BIOL study administration.							
	General safety regulations for all block courses:							
	The COVID certificate is mandatory at ETH Zurich. Only students who have a Covid certificate,							
	i.e. who have been vaccinated, have recovered or have been -Whenever possible the distance rules have	)						
	to be respected -All students have to wear masks throughout the course. Please keep reserve masks ready. Surgical masks (IIR) or	)						
	medical grade masks (FFP2) without a valve are permitted. Community masks (fabric masks) are not allowed.  -The installation and activation of the Swiss							
	Covid-App is highly encouraged -Any additional rules for individual courses have to be respected -Students showing any COVID-19							
	symptoms are not allowed to enter ETH buildings and have to inform the course responsible.							
551-0421-00 P	Biologie und Ökologie der Pilze im Wald Permission from lecturers required for all sti Blockkurs im 2. Viertel des Herbstsemester			100s hrs	Tue/1 Wed/1 Thu/1 Fri/1	13-17 08-17 08-17 08-17	WSL LGE5 WSL LGE5 WSL LGE5 WSL LGE5	S. Prospero, I. L. Brunner, M. Peter Baltensweiler
751-3700-00L	Plant Ecophysiology	W	2 credits	2V				
751-3700-00 V	Ökophysiologie Teile der Lehrveranstaltung wird in Englisch	gehalte	en.	2 hrs	Thu	16-18	LFW C5	<b>M. Gharun</b> , M. Lehmann, A. Walter
751-4801-00L	System-Oriented Management of Herbivore Insects	W	2 credits	2G				
751-4801-00 G	Systembezogene Bekämpfung herbivorer Ir Does not take place this semester.	nsekten		2 hrs				to be announced
►► Environ	mental Chemistry/Ecotocxicolo	ogy						
lumber	Title	Туре	ECTS	Hours				Lecturers
01-0201-00L	Introduction to Environmental Organic Chemistry	W	3 credits	2G				
'01-0201-00 G	Introduction to Environmental Organic Cher	nistry		2 hrs	Tue	10-12	CHN F46	M. Sander, K. McNeill
701-0225-00L	Organic Chemistry	w	2 credits	2V+1U				
701-0225-00 V	Organic Chemistry Vorlesung/lecture Mi/We 8-10 starts in the f semester;	irst weel	k of the	2 hrs	Wed	08-10	CHN C14	K. McNeill
701-0225-00 U	Organic Chemistry Exercises start in the second week of the se Students choose one of three exercises.	emester.		1 hrs	Mon Wed Fri	16-17 12-13 13-14	CHN G22 CHN G22 CHN D42	K. McNeill
	Analytical Chemistry I Analytische Chemie I	W	3 credits	<b>3G</b> 3 hrs	Wed Thu	08-10 08-09	HCI G3 HPH G2	D. Günther, MO. Ebert, G. Schwarz, R. Zenobi
	mental Physics							
►► Environ		_		Центо				Lecturers
	Title	Type	ECTS	Hours				Leotarers
Number	Title Environmental Fluid Dynamics	Type W	3 credits	2G				Leotarers
Number 701-0479-00L					Fri	14-16	ML F38	H. Wernli, M. Röthlisberge

	Übungen Mi 08-09 oder 09-10 Uhr für Baui Umweltnaturwissenschaften Übungen Mi 12-13 oder 13-14 Uhr für Umweltingenieurwissenschaften	ng und				09-10	HIL D60.1 HIL E5 HIL F10.3 HIL B18.2	
						12-13 13-14	HIL D60.1 HIL E5 HIL F10.3 HIL E9 HIL B21 HIL E9	
					29.09.	08-10	HCI D8	
<b>102-0455-01L</b> 102-0455-01 G		<b>W</b> days.	4 credits	<b>3G</b> 3 hrs	Wed/2w Fri	16-18 10-12	CHN F46 HIL E8	J. Jimenez-Martinez, M. Willmann
651-3561-00L	Cryosphere	w	3 credits	2V				
651-3561-00 V	Kryosphäre			2 hrs	Tue	16-18	CAB G11	<b>M. Huss</b> , A. Bauder, D. Farinotti
	mental Planning							
Number	Title	Type	ECTS	Hours				Lecturers
<b>701-0009-00L</b> 701-0009-00 U	Tackling Environmental Problems III Umweltproblemlösen III ■ Die Lehrveranstaltung findet nach Vereinba	<b>W</b> arung sta	3 credits	<b>4U</b> 4 hrs				C. E. Pohl, M. Mader, B. B. Pearce
701-0901-00L	ETH Week 2021: Health for Tomorrow All ETH Bachelor's, Master's and exchange students can take part in the ETH week. No prior knowledge is required	W	1 credit	3S				
701-0901-00 S	ETH Week 2021: Health for Tomorrow  The ETH Week 2021 takes place from Sep is open to Bachelor and Master students from Departments. All students must apply through application process at www.ethz.ch/ethwee subject to successful selection through this	om all E` igh a coi ek. Partic	TH mpetitive ipation is	45s hrs				C. Bratrich, S. Brusoni, A. Burden, A. Cabello Llamas, R. Knutti, I. Mansuy, F. Rittiner, A. Vaterlaus, C. Wolfrum
701-0951-00L	GIS - Introduction into Geoinformation Science and Technology Number of participants limited to 50. Waiting list will be deleted October 8th, 2021.	W	5 credits	2V+3P				
701-0951-00 V	GIST - Einführung in die räumlichen Inform und -technologien Online-Veranstaltung: Diese Lehrveranstalt grundsätzlich per ZOOM statt. Die reservie die Studierenden auf dem Campus bestehe Lehrveranstaltung dort zu hören.	tung find rten Räu	let ıme bleiben fül		Fri	10-12	CHN E46	M. A. M. Niederhuber
701-0951-01 P	GIST - Einführung in die räumlichen Inform und -technologien Für die Übungen müssen die Studierenden Zeitfenster aufgeteilt werden. Zur Verfügun - 14 und Fr 14 - 16 Uhr. Bei Bedarf auch M Zuteilung wird in der ersten Semesterwoch Übungsbetreuung im NO D39 wie auch ON	auf vers g steher 10 10 - 1 e durchg	schiedene n: Dienstag 12 2. Eine	3 hrs	Mon Tue Fri	10-12 12-14 14-16	NO D39 NO D39 NO D39	M. A. M. Niederhuber
701-0967-00L	Project Development in Renewable Energies Number of participants limited to 30. Waiting list will be deleted October 6th, 2021.	W	2 credits	2G				
701-0967-00 G	Projektentwicklung im Bereich erneuerbare	r Energi	en	2 hrs	Thu/2w	14-18	CHN F46	R. Rechsteiner, A. Appenzeller
101-0415-01L		W	3 credits	2G			=-	
101-0/15-01 G	Public Transport and Railways			2 hrs	Fri	12-14	HIL E1	A. Nash, H. Orth, S. Schranil

Wed 08-09

1 hrs

HIL B18.2

HIL D60.1

R. Stocker

#### ► Specialization in an Environmental System

101-0203-01 U Hydraulik I (in G) Übungen Mi 08-09 oder 09-10 Uhr für Bauing und

#### ▶▶ Atmosphere and Climate

The following courses are highly recommended as preparation for the Specialization in Atmosphere and Climate:

701-0106-00L Mathematik V: Angewandte Vertiefung von Mathematik I - III (Spring semester) 402-0048-00L Fortgeschrittene Physik für Umwelt- und ErdwissenschaftlerInnen (Spring semester)

These courses should be successfully completed during the second year.

Number	Title	Type	ECTS	Hours				Lecturers
701-0459-00L	Seminar for Bachelor Students: Atmosphere and Climate	W	3 credits	2\$				
701-0459-00 S	Seminar für Bachelor-Studierende: Atmosp	häre un	d Klima	2 hrs	Thu	10-12	CHN F46	R. Knutti, H. Joos, O. Stebler
701-0461-00L	Numerical Methods in Environmental Sciences	W	3 credits	2G				
701-0461-00 G	Numerische Methoden in der Umweltphysik			2 hrs	Thu	08-10	CHN E46	C. Schär
701-0471-01L	Atmospheric Chemistry	w	3 credits	2G				

701-0471-01 G	Atmosphärenchemie			2 hrs	Wed	08-10	CHN F46	M. Ammann, T. Peter
701-0473-00L	Weather Systems	w	3 credits	2G				
701-0473-00 G	Wettersysteme			2 hrs	Wed	14-16	CHN E46	<b>M. A. Sprenger</b> , F. Scholder-Aemisegger
701-0475-00L	Atmospheric Physics	W	3 credits	2G				
701-0475-00 G	Atmosphärenphysik			2 hrs	Wed	10-12	CHN F46	U. Lohmann
	Im Anschluss an die LV findet ein	n freiwilliges, ein	stündiges					
	Tutorial im gleichen Raum (CHN)	F46) statt						

#### **▶▶** Biogeochemistry

The following courses are highly recommended as preparation for the Specialization in Biogeochemistry:

701-0225-00L Organic Chemistry (Autumn semester)

752-0100-00L Biochemie (Autumn semester)

752-1300-00L Introduction to Toxicology (Spring semester)

These courses should be successfully completed during the second year.

Number	Title	Type	ECTS	Hours				Lecturers
701-0201-00L	Introduction to Environmental Organic Chemistry	W	3 credits	2G				
701-0201-00 G	Introduction to Environmental Organic Che	mistry		2 hrs	Tue	10-12	CHN F46	M. Sander, K. McNeill
701-0419-01L	Seminar for Bachelor Students: Biogeochemistry	W	3 credits	28				
701-0419-01 S	Seminar für Bachelor-Studierende: Biogeo	chemie		2 hrs	Wed	10-12	CHN F42	<b>D. I. ChristI</b> , A. N'Guyen van Chinh
701-0533-00L	Soil and Water Chemistry	w	3 credits	2G				
701-0533-00 G	Boden- und Wasserchemie			2 hrs	Wed	14-16	CHN F46	<b>R. Kretzschmar</b> , D. I. Christl L. Winkel
701-0535-00L	Environmental Soil Physics/Vadose Zone Hydrology	W	3 credits	2V+1U				
701-0535-00 V	Environmental Soil Physics/Vadose Zone H	Hydrolog	у	2 hrs	Wed	16-18	CHN E46	<b>A. Carminati</b> , P. U. Lehmann Grunder
701-0535-00 U	Environmental Soil Physics/Vadose Zone H	lydrolog	у	1 hrs	Wed	18-19	CHN E46	<b>A. Carminati</b> , P. U. Lehmann Grunder

#### **▶▶** Human-Environment Systems

There are no highly recommended courses for the Specialization in Human-Environment Systems.

Number	Title	Type	ECTS	Hours				Lecturers
701-0658-00L	Seminar for Bachelor Students: Human Environment Systems	0	3 credits	28				
701-0658-00 S	Seminar für Bachelor-Studierende: Mensch-	Umwelt	Systeme	2 hrs	Tue	10-12	HG E22	<b>A. Müller</b> , D. N. Bresch, R. Garrett, M. Siegrist
701-0659-00L	Tropical Forests, Agroforestry and Complex Socio-Ecological Systems	W	3 credits	2G				
701-0659-00 G	Tropical Forests, Agroforestry and Complex Systems	Socio-E	Ecological	2 hrs	Wed	14-16	CHN F42	<b>C. Garcia</b> , A. Giger Dray, P. Waeber
701-0661-00L	Environmental Decision-Making	W	3 credits	2V				
701-0661-00 V	Umweltentscheidungen ■			2 hrs	Thu	10-12	CHN F42	A. Müller
363-0537-00L	Resource and Environmental Economics	W	3 credits	2G				
363-0537-00 G	Resource and Environmental Economics The lecture takes place in classroom, online recorded.	via live	streaming ar	2 hrs	Wed	10-12	HG G3	L. Bretschger
851-0577-00L	Principles of Political Science	W	4 credits	2V+1U				
851-0577-00 V	Politikwissenschaft: Grundlagen			2 hrs	Fri	14-16	ETZ E8	T. Bernauer
851-0577-00 U	Politikwissenschaft: Grundlagen			1 hrs	Fri	16-17	ETZ E8	T. Bernauer

#### **▶▶** Environmental Biology

The following courses are highly recommended as preparation for the Specialization in Environmental Biology:

227-0399-10L Physiology and Anatomy for Biomedical Engineers I (Autumn semester) 551-0435-00L Systematische Biologie: Zoologie (Spring semester)

701-0360-00L Systematische Biologie: Pflanzen (Spring semester)
227-0398-10L Physiology and Anatomy for Biomedical Engineers II (Spring semester)

These courses should be successfully completed during the second year.

Number	Title	Туре	ECTS	Hours				Lecturers
701-0301-00L	Applied Systems Ecology Number of participants limited to 35. Waiting list will be deleted October 3rd, 2021.	W	3 credits	2V				
701-0301-00 V	Angewandte Systemökologie Lehrsprache Englisch oder Deutsch, wird z Studierenden entschieden.	zu Begini	n mit den	2 hrs	Tue	16-18	HG G26.5	A. Gessler, C. Grossiord
701-0320-00L	Seminar for Bachelor Students:	W	3 credits	2S				

<b>Environmental Biology</b>
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701-0320-00 S	Seminar für Bachelor-Studierende: Umwel	tbiologi	e ■	2 hrs	Wed	10-12	CHN G22	D. Ramseier
701-1413-00L	Population and Quantitative Genetics	W	3 credits	2V				
701-1413-00 V	Population and Quantitative Genetics			2 hrs	Mon	14-16	HG D7.2	T. Städler, J. Stapley
701-1413-01L	Ecological Genetics	W	3 credits	2V				
701-1413-01 V	Ecological Genetics			2 hrs	Mon	10-12	ML F36	<b>A. Widmer</b> , S. Fior, M. C. Fischer

#### **▶▶** Forest and Landscape

The following courses are highly recommended as preparation for the Specialization in Forest and Landscape:

701-0266-00L Einführung in die Dendrologie (Autumn semester) 551-0435-00L Systematische Biologie: Zoologie (Spring semester) 701-0360-00L Systematische Biologie: Pflanzen (Spring semester)

These courses should be successfully completed during the second year.

Number	Title	Type	ECTS	Hours				Lecturers
701-0535-00L	Environmental Soil Physics/Vadose Zone Hydrology	W	3 credits	2V+1U				
701-0535-00 V	Environmental Soil Physics/Vadose Zone H	Hydrolog	у	2 hrs	Wed	16-18	CHN E46	<b>A. Carminati</b> , P. U. Lehmann Grunder
701-0535-00 U	Environmental Soil Physics/Vadose Zone H	Hydrolog	у	1 hrs	Wed	18-19	CHN E46	<b>A. Carminati</b> , P. U. Lehmann Grunder
701-0553-00L	Landscape Ecology	w	3 credits	2G				
701-0553-00 G	Landschaftsökologie			2 hrs	Mon	14-16	CHN F46	F. Kienast, L. Pellissier
701-0559-00L	Seminar for Bachelor Students: Forest and Landscape	W	3 credits	<b>2</b> S				
701-0559-00 S	Seminar für Bachelor-Studierende: Wald u	nd Lands	schaft	2 hrs	Thu	10-12	LFV E41	M. Lévesque, E. Lieberherr
	Beginn 23.09.2021 Bekanntgabe des weiteren Ablaufs zu eine (hängt ab von der Anzahl eingeschriebene	•	,					
701-0561-00L	Bekanntgabe des weiteren Ablaufs zu eine	•	,	2V				
	Bekanntgabe des weiteren Ablaufs zu eine (hängt ab von der Anzahl eingeschriebene Forest Ecology	r Studier	ender).	<b>2V</b> 2 hrs	Wed	10-12	CHN G42	C. Bigler
701-0561-00 V	Bekanntgabe des weiteren Ablaufs zu eine (hängt ab von der Anzahl eingeschriebene Forest Ecology	r Studier	ender).		Wed	10-12	CHN G42	C. Bigler
701-0561-00 V 701-0565-00L	Bekanntgabe des weiteren Ablaufs zu eine (hängt ab von der Anzahl eingeschriebene Forest Ecology Waldökologie Fundamentals of Natural Hazards Management	w W mts	3 credits 3 credits	2 hrs	Wed	10-12	CHN G42	-
701-0561-00 V <b>701-0565-00L</b> 701-0565-00 G	Bekanntgabe des weiteren Ablaufs zu eine (hängt ab von der Anzahl eingeschriebene Forest Ecology Waldökologie Fundamentals of Natural Hazards Management Grundzüge des Naturgefahrenmanagemen Does not take place this semester.	w W mts	3 credits 3 credits	2 hrs	Wed	10-12	CHN G42	V. Griess, B. Krummenacher
<b>701-0561-00L</b> 701-0561-00 V <b>701-0565-00L</b> 701-0565-00 G <b>701-0567-00L</b> 701-0567-00 V	Bekanntgabe des weiteren Ablaufs zu eine (hängt ab von der Anzahl eingeschriebene Forest Ecology Waldökologie Fundamentals of Natural Hazards Management Grundzüge des Naturgefahrenmanagemer Does not take place this semester. Zusätzlich zwei obligatorische, ganztägige Forest Health: Entomology and	w  W  nts  Exkursio	3 credits 3 credits	2 hrs  3G  3 hrs	Wed	10-12	CHN G42 CHN F42	V. Griess, B. Krummenacher

#### ► Bachelor's Thesis

Students can choose between one Bachelor thesis of 10 KP or two Bachelor theses of 5 KP each.

Number	Title	Туре	ECTS	Hours	Lecturers
701-0010-02L	Short Bachelor's Thesis in Social Sciences and Humanities	W	5 credits	11D	
701-0010-02 D	Kleine Bachelor-Arbeit in Sozial- und Geistes	wisser	nschaften <b>=</b>	150s hrs by appt.	Lecturers
701-0010-03L	Short Bachelor's Thesis in Natural Sciences and Engineering	w	5 credits	11D	
701-0010-03 D	Kleine Bachelor-Arbeit in Naturwissenschafte	en und	Technik ■	150s hrs by appt.	Lecturers
701-0010-10L	Bachelor's Thesis	w	10 credits	21D	
701-0010-10 D	Bachelor-Arbeit ■			300s hrs by appt.	Lecturers

Environmen	Environmental Sciences Bachelor - Key for Type									
0	Compulsory	E-	Recommended, not eligible for credits							
W+	Eligible for credits and recommended	Z	Courses outside the curriculum							
W	Eligible for credits	Dr	Suitable for doctorate							

<b>Key for Ho</b>	urs		
V	lecture	P	practical/laboratory course
G	lecture with exercise	A	independent project
U	exercise	D	diploma thesis
S	seminar	R	revision course / private study
K	colloquium		

ECTS European Credit Transfer and Accumulation System

Special students and auditors need special permission from the lecturers.

#### **Environmental Sciences Master**

# ► Major in Atmosphere and Climate

# **▶▶** Prerequisites

Number	Title	Type	ECTS	Hours				Lecturers
701-0471-01L	Atmospheric Chemistry	W	3 credits	2G				
701-0471-01 G	Atmosphärenchemie			2 hrs	Wed	08-10	CHN F46	M. Ammann, T. Peter
701-0473-00L	Weather Systems	W	3 credits	2G				
701-0473-00 G	Wettersysteme			2 hrs	Wed	14-16	CHN E46	M. A. Sprenger, F. Scholder- Aemisegger
701-0475-00L	Atmospheric Physics	W	3 credits	2G				
701-0475-00 G	Atmosphärenphysik Im Anschluss an die LV findet ein freiwillige Tutorial im gleichen Raum (CHN F46) statt.		tündiges	2 hrs	Wed	10-12	CHN F46	U. Lohmann
701-0461-00L	Numerical Methods in Environmental Sciences	W	3 credits	2G				
701-0461-00 G	Numerische Methoden in der Umweltphysik	(		2 hrs	Thu	08-10	CHN E46	C. Schär

#### **▶▶▶** Introduction Course

Number	Title	Туре	ECTS	Hours				Lecturers
701-1213-00L	Introduction Course to Master Studies Atmosphere and Climate		2 credits	2G				
701-1213-00 G	Introduction Course to Master Studies Atm 3 day block course in the week before sem September 2021.			30s hrs	16.09. 17.09.	08-17 08-17	CHN C14 CHN C14	H. Joos, T. Peter
	More information at http://www.iac.ethz.ch/edu/courses/master.courses/introduction-course.html.	/obligato	ry-					

# ▶▶▶ Colloquia

Number	Title	Type	ECTS	Hours				Lecturers
651-4095-01L	Colloquium Atmosphere and Climate 1	0	1 credit	1K				
651-4095-00 K	Colloquium Atmosphere and Climate Contact person: Dr. Hanna Joos (IAC) han	nna.joos (	@env.ethz.ch	1 hrs	Mon	16-18	CAB G11	H. Joos, H. Wernli, D. N. Bresch, D. Domeisen, N. Gruber, R. Knutti, U. Lohmann, T. Peter, C. Schär, S. Schemm, S. I. Seneviratne, M. Wild
651-4095-02L	Colloquium Atmosphere and Climate 2	0	1 credit	1K				
651-4095-00 K	Colloquium Atmosphere and Climate Contact person: Dr. Hanna Joos (IAC) han	nna.joos (	@env.ethz.ch	1 hrs	Mon	16-18	CAB G11	H. Joos, H. Wernli, D. N. Bresch, D. Domeisen, N. Gruber, R. Knutti, U. Lohmann, T. Peter, C. Schär, S. Schemm, S. I. Seneviratne, M. Wild
651-4095-03L	Colloquium Atmosphere and Climate 3	0	1 credit	1K				
651-4095-00 K	Colloquium Atmosphere and Climate Contact person: Dr. Hanna Joos (IAC) han	na.joos (	@env.ethz.ch	1 hrs	Mon	16-18	CAB G11	H. Joos, H. Wernli, D. N. Bresch, D. Domeisen, N. Gruber, R. Knutti, U. Lohmann, T. Peter, C. Schär, S. Schemm, S. I. Seneviratne, M. Wild

#### **▶▶▶** Seminars

Number	Title Ty	ype	ECTS	Hours				Lecturers
701-1211-01L	Master's Seminar: Atmosphere and Climate 1 Target groups only: Master Environmental Science Master Atmospheric and Climate Science	)	3 credits	2\$				
701-1211-01 S	Master's Seminar: Atmosphere and Climate ■ Permission from lecturers required for all stude	ents		2 hrs	Mon	08-10	ML F40	<b>H. Joos</b> , R. Knutti, A. Merrifield Könz, M. A. Wües
701-1211-02L	Master's Seminar: Atmosphere and Climate 2 Target groups only: Master Environmental Science Master Atmospheric and Climate Science	1	3 credits	2\$				
701-1211-01 S	Master's Seminar: Atmosphere and Climate  Permission from lecturers required for all stude	ents		2 hrs	Mon	08-10	ML F40	<b>H. Joos</b> , R. Knutti, A. Merrifield Könz, M. A. Wües

#### **▶▶** Weather Systems and Atmospheric Dynamics

Number	Title	Type ECTS	Hours	Lecturers							

	Dynamics of Large-Scale Atmospheric Flow	w	4 credits	2V+1U				
	Dynamics of Large-Scale Atmospheric Flow Dynamics of Large-Scale Atmospheric Flow			2 hrs 1 hrs	Wed Wed	09-11 11-12	CHN E42 CHN E42	H. Wernli, L. Papritz H. Wernli, L. Papritz
	<b>Boundary Layer Meteorology</b> Boundary Layer Meteorology	W	4 credits	<b>3G</b> 3 hrs	Fri	08-10 12-13	CAB G51 CAB G61	M. Rotach, P. Calanca
▶▶ Climate	Processes and Feedbacks							
Number	Title	Туре	ECTS	Hours				Lecturers
701-1235-00L	Cloud Microphysics Number of participants limited to 16.	W	4 credits	2V+1U				
	Priority is given to PhD students majoring in Atmospheric and Climate Sciences, and remaining open spaces will be offered to the following groups:  - PhD student Environmental sciences  - MSc in Atmospheric and climate science  - MSc in Environmental sciences							
	All participants will be on the waiting list at first. Enrollment is possible until September 22nd, 2021. The waiting list is active until October 1st, 2021. All students will be informed on September 16th, if they can participate in the lecture.  The lecture takes place if a minimum of 5 students register for it.							
	Cloud Microphysics			2 hrs	Tue	10-12	CHN G22	U. Lohmann, N. Shardt
701-1235-00 U 701-1251-00L	Cloud Microphysics  Land-Climate Dynamics	w	3 credits	1 hrs 2G	Tue	12-13	CHN G22	U. Lohmann, N. Shardt
	Number of participants limited to 36. Priority is given to the target groups: - Master Environmental Science, - Master Atmospheric and Climate Science and - PhD D-USYS until September 20th,2021. Waiting list will be deleted September 27th, 2021.							
701-1251-00 G	Land-Climate Dynamics			2 hrs	Tue 05.10.	14-16 14-16	CHN E42 HG E19	<b>S. I. Seneviratne</b> , R. Padrón Flasher
►► Atmosp	pheric Composition and Cycles							
Number	Title	Туре	ECTS	Hours				Lecturers
	-	W	4 credits	2V+1U	There	4440	OUN 540	T Batan O Objects
	Stratospheric Chemistry Stratospheric Chemistry Exercises start in the second week of the se	mester		2 hrs 1 hrs	Thu Thu	14-16 13-14	CHN F42 CHN F42	T. Peter, G. Chiodo T. Peter, G. Chiodo
701-1239-00L	Aerosols I: Physical and Chemical	W	4 credits	2V+1U				
701-1239-00 V	Principles Aerosols I: Physical and Chemical Principles	3		2 hrs	Mon	14-16	CAB G52	M. Gysel Beer, D. Bell, E. Weingartner
701-1239-00 U	Aerosols I: Physical and Chemical Principles	S		1 hrs	Mon	13-14	CAB G52	M. Gysel Beer, D. Bell, E. Weingartner
►► Climate	History and Paleoclimatology							
Number	Title	Туре	ECTS	Hours				Lecturers
<b>651-4057-00L</b> 651-4057-00 G	Climate History and Palaeoclimatology Climate History and Palaeoclimatology	W	3 credits	<b>2G</b> 2 hrs	Fri	10-12	ML F39	H. Stoll, I. Hernández Almeida H. Zhang
►► Hydrolo	ogy and Water Cycle							
Number	Title	Туре	ECTS	Hours				Lecturers
701-1251-00L	Land-Climate Dynamics Number of participants limited to 36. Priority is given to the target groups: - Master Environmental Science, - Master Atmospheric and Climate Science	W	3 credits	2G				
	and - PhD D-USYS until September 20th,2021. Waiting list will be deleted September 27th, 2021							
701-1251-00 G	- PhD D-USYS until September 20th,2021.			2 hrs	Tue 05.10.	14-16 14-16	CHN E42 HG E19	<b>S. I. Seneviratne</b> , R. Padrón Flasher

701-1253-00 G	Analysis of Climate and Weather Data Does not take place this semester.			2 hrs				C. Frei
	Watershed Modelling Watershed Modelling Remark: New course replacing 102-0237-0 HS19) and 102-0468-00 Watershed Modeli			<b>4G</b> 4 hrs	Mon Wed	16-18 12-14	HIL E8 HIL E8	P. Molnar
	<b>Boundary Layer Meteorology</b> Boundary Layer Meteorology	Z	4 credits	<b>3G</b> 3 hrs	Fri	08-10 12-13	CAB G51 CAB G61	M. Rotach, P. Calanca
►► Elective	-							
▶▶▶ Weath	er Systems and Atmospheric D							
Number	Title		ECTS	Hours				Lecturers
701-1281-00L	Self-Learning Course on Advanced Topics in Atmospheric and Climate Science (HS)  Please contact one of the professors listed under prerequisites/notice if you plan to take this course.	w	3 credits	6A				
	Students are allowed to enroll in both courses 701-1280-00L & 701-1281-00L Self-learning Course on Advanced Topics in Atmospheric and Climate Science but have to choose different supervisors.							
701-1281-00 A	Self-Learning Course on Advanced Topics Climate Science ■	in Atmos	spheric and	90s hrs	by appt			Supervisors
▶▶▶ Climat	te Processes and Feedbacks							
Number	Title	Type	ECTS	Hours				Lecturers
701-1221-00L	Dynamics of Large-Scale Atmospheric Flow	W	4 credits	2V+1U				
	Dynamics of Large-Scale Atmospheric Flow Dynamics of Large-Scale Atmospheric Flow			2 hrs 1 hrs	Wed Wed	09-11 11-12	CHN E42 CHN E42	H. Wernli, L. Papritz H. Wernli, L. Papritz
	European Climate Change	W	3 credits	2G				
701-1257-00 G	European Climate Change			2 hrs	Mon	10-12	LFO C13	C. Schär, J. Rajczak, S. C. Scherrer
701-1281-00L	Self-Learning Course on Advanced Topics in Atmospheric and Climate Science (HS)  Please contact one of the professors listed under prerequisites/notice if you plan to take this course.	w	3 credits	6A				
701-1281-00 A	Students are allowed to enroll in both courses 701-1280-00L & 701-1281-00L Self-learning Course on Advanced Topics in Atmospheric and Climate Science but have to choose different supervisors.  Self-Learning Course on Advanced Topics	in Atmos	spheric and	90s hrs	by appt	:.		Supervisors
CE4 40E7 00I	Climate Science	18/	2	20				
	Climate History and Palaeoclimatology Climate History and Palaeoclimatology	W	3 credits	<b>2G</b> 2 hrs	Fri	10-12	ML F39	H. Stoll, I. Hernández Almeida H. Zhang
▶▶▶ Atmos	spheric Composition and Cycle	s						
Number	Title	Туре	ECTS	Hours				Lecturers
701-1235-00L	Cloud Microphysics Number of participants limited to 16.	W	4 credits	2V+1U				
	Priority is given to PhD students majoring in Atmospheric and Climate Sciences, and remaining open spaces will be offered to the following groups:  - PhD student Environmental sciences  - MSc in Atmospheric and climate science  - MSc in Environmental sciences	1						
	All participants will be on the waiting list at first. Enrollment is possible until September 22nd, 2021. The waiting list is active until October 1st, 2021. All students will be informed on September 16th, if they can participate in the lecture.  The lecture takes place if a minimum of 5							
701-1235-00 V	students register for it. Cloud Microphysics			2 hrs	Tue	10-12	CHN G22	U. Lohmann, N. Shardt
	Cloud Microphysics			1 hrs	Tue	12-13	CHN G22	U. Lohmann, N. Shardt
701-1281-00L	Self-Learning Course on Advanced	W	3 credits	6A				

#### **Topics in Atmospheric and Climate** Science (HS)

Please contact one of the professors listed under prerequisites/notice if you plan to take this course.

Students are allowed to enroll in both courses 701-1280-00L & 701-1281-00L Self-learning Course on Advanced Topics in Atmospheric and Climate Science but have to choose different supervisors.

701-1281-00 A	Self-Learning Course on Advanced To Climate Science ■	90s hrs	by app	ot.		Supervisors		
	Air Pollution Control Luftreinhaltung	W	6 credits	4G 4 hrs	Wed	10-12	HIL E6	J. Wang, B. Buchmann
054 4050 051	Daniel and Matanalani	147	4		Fri	08-10	HIL E6	
651-4053-05L	Boundary Layer Meteorology	W	4 credits	3G				
651-4053-05 G	Boundary Layer Meteorology			3 hrs	Fri	08-10 12-13	CAB G51 CAB G61	M. Rotach, P. Calanca

#### ▶▶▶ Climate History and Palaeoclimatology

Number	Title	Type	ECTS	Hours				Lecturers
701-1281-00L	Self-Learning Course on Advanced Topics in Atmospheric and Climate Science (HS)  Please contact one of the professors listed under prerequisites/notice if you plan to take this course.	W	3 credits	6A				
	Students are allowed to enroll in both courses 701-1280-00L & 701-1281-00L Self-learning Course on Advanced Topics in Atmospheric and Climate Science but have to choose different supervisors.							
701-1281-00 A	Self-Learning Course on Advanced Topics Climate Science ■	in Atmos	spheric and	90s hrs by appt.		Supervisors		
651-4041-00L	Sedimentology I: Physical Processes and Sedimentary Systems	W	3 credits	2G				
651-4041-00 G	Sedimentology I: Physical Processes and S	Sediment	tary Systems	28s hrs	Tue/1 Wed/1	14-16 10-12	NO D11 NO D11	V. Picotti
651-4043-00L	Sedimentology II: Biological and Chemical Processes in Lacustrine and Marine Systems Prerequisite: Successful completion of the MSc-course "Sedimentology I" (651- 4041-00L).	W	3 credits	2G				
651-4043-00 G	Sedimentology II: Biological and Chemical Lacustrine and Marine Systems	Processe	es in	28s hrs	Tue/2 Wed/2	14-16 10-12	NO D11 NO D11	V. Picotti, A. Gilli, I. Hernández Almeida, H. Stoll
651-4901-00L	Quaternary Dating Methods	W	3 credits	2G				
651-4901-00 G	Quaternary Dating Methods			2 hrs	Tue 12.10.	08-10 08-10	NO E11 HPK D24.2	I. Hajdas, M. Christl, S. Ivy Ochs

# ►►► Hydrology and Water Cycle

651-2915-00L Seminar in Hydrology

Number	Title	Type	ECTS	Hours				Lecturers
701-0535-00L	Environmental Soil Physics/Vadose Zone Hydrology	W	3 credits	2V+1U				
701-0535-00 V	Environmental Soil Physics/Vadose Zone H	ydrology	/	2 hrs	Wed	16-18	CHN E46	<b>A. Carminati</b> , P. U. Lehmann Grunder
701-0535-00 U	Environmental Soil Physics/Vadose Zone H	ydrology	/	1 hrs	Wed	18-19	CHN E46	<b>A. Carminati</b> , P. U. Lehmann Grunder
701-1281-00L	Self-Learning Course on Advanced Topics in Atmospheric and Climate Science (HS) Please contact one of the professors listed under prerequisites/notice if you plan to take this course.	W	3 credits	6A				
	Students are allowed to enroll in both courses 701-1280-00L & 701-1281-00L Self-learning Course on Advanced Topics in Atmospheric and Climate Science but have to choose different supervisors.							
701-1281-00 A	Self-Learning Course on Advanced Topics in Climate Science ■	n Atmos	spheric and	90s hrs	by appt	<b>.</b>		Supervisors
<b>102-0287-00L</b> 102-0287-00 G	River Basin Erosion River Basin Erosion Remark: Title until HS20: Fluvial Systems.	W	3 credits	<b>2G</b> 2 hrs	Thu	14-16	HIL E6	P. Molnar

18

0 credits

Z

P. Burlando, J. W. Kirchner, S. Löw, C. Schär, M. Schirmer, S. I. Seneviratne, M. Stähli, C. H. Stamm, University lecturers

								lecturers
651-4023-00L	Groundwater	W	4 credits	4G				
651-4023-00 G	Groundwater			4 hrs	Mon Thu	16-18 08-10	NO E39 NO C44	XZ. Kong, B. Marti
860-0012-00L	Cooperation and Conflict Over International Water Resources Number of participants limited to 40. Priority for Science, Technology, and Policy MSc.	w	3 credits	2\$				
	This is a research seminar at the Master level. PhD students are also welcome.							
860-0012-00 S	Cooperation and Conflict Over International	Water I	Resources	2 hrs	Tue	12-14	LEE D105	<b>B. Wehrli</b> , T. Bernauer, E. Calamita, T. U. Siegfried
▶▶▶ Additi	onal Elective Courses							L. Galanika, T. O. Sieginieu
Number	Title	Туре	ECTS	Hours				Lecturers
<b>701-1237-00L</b> 701-1237-00 V	Solar Ultraviolet Radiation Solar Ultraviolet Radiation Unregelmässige Lehrveranstaltung	W	1 credit	<b>1V</b> 1 hrs	Wed/2w 10.11.		HG D3.1 HG D3.1	J. Gröbner, S. Kazantzis
701-1271-00L	Statistical Learning for Atmospheric and Climate Science Number of participants limited to 30. Enrollment starts on September 20th, 2021 Priority is given to the target groups: Master Environmental Science and Master Atmospheric and Climate Science until September 27th,2021. Waiting list will be deleted October 4th, 2021.		3 credits	2G				
701-1271-00 G	Statistical Learning for Atmospheric and Clir	mate Sc	ience	2 hrs	Tue	08-10	CHN G42	L. Gudmundsson, S. Sippel
	Environmental Systems Data Science Environmental Systems Data Science	W	3 credits	<b>2G</b> 2 hrs	Tue	08-10	CHN D44 CHN D46 CHN F42 CHN G22	<b>L. Pellissier</b> , J. Payne, B. Stocker
					21.09.	08-10	HG D1.1	
651-4273-00L	Numerical Modelling in Fortran	W	3 credits	2V	M	40.40	NO OO	D. Taaldan
651-4273-01L	Numerical Modelling in Fortran (Project) Prerequisite: 651-4273-00L Numerical Modelling in Fortran	w	1 credit	2 hrs	Mon	16-18	NO C6	P. Tackley
651-4273-01 U	Numerical Modelling in Fortran (Project)			1 hrs	by appt			P. Tackley
► Major in	Biogeochemistry and Pollutant	Dyna	mics					
-	chemical Processes	•						
Number	Title	Туре	ECTS	Hours				Lecturers
701-1313-00L	Isotopes and Biomarkers in Biogeochemistry	W	3 credits	2G				
701-1313-00 G	Isotopes and Biomarkers in Biogeochemistr	у		2 hrs	Tue	14-16	CHN F42	C. Schubert, R. Kipfer
<b>701-1315-00L</b> 701-1315-00 G	Biogeochemistry of Trace Elements Biogeochemistry of Trace Elements	W	3 credits	<b>2G</b> 2 hrs	Tue	10-12	LFV E41	A. Voegelin, S. Bouchet, L. Winkel
701-1316-00L	Physical Transport Processes in the Natural Environment	W	3 credits	2G				
701-1316-00 G	Physical Transport Processes in the Natural	Enviro	nment	2 hrs	Mon	16-18	ML H34.3	J. W. Kirchner
▶▶ Applica	tions							
Number	Title	Туре	ECTS	Hours				Lecturers
<b>701-1341-00L</b> 701-1341-00 G	Water Resources and Drinking Water Water Resources and Drinking Water Online event: Will primarily take place online remain blocked on campus for students to fo there.				Fri	08-10	CAB G11	S. Hug, M. Berg, F. Hammes, U. von Gunten
<b>701-1346-00L</b>	Carbon Mitigation Number of participants limited to 90. Priority is given to the target groups: Bachelor and Master Environmental Sciences and PHD Environmental Sciences until September 21st,2021. Waiting list will be deleted October 1st, 2021. Carbon Mitigation	w	3 credits	<b>2G</b> 2 hrs	Mon	10-12	CHN C14	N. Gruber
. 51 10 <del>1</del> 0-00 G	Salson minganon			- 1113	141011	10 12	0.114 0 14	0.0001

701-1351-00L	Nanomaterials in the Environment	W	3 credits	2G			01111	
701-1351-00 G	Nanomaterials in the Environment			2 hrs	Mon	14-16	CHN D46	<b>B. Nowack</b> , T. Bucheli, D. Mitrano
860-0012-00L	Cooperation and Conflict Over International Water Resources Number of participants limited to 40. Priority for Science, Technology, and Policy MSc.	W	3 credits	2\$				
	This is a research seminar at the Master level. PhD students are also welcome.							
860-0012-00 S	Cooperation and Conflict Over International	Water	Resources	2 hrs	Tue	12-14	LEE D105	<b>B. Wehrli</b> , T. Bernauer, E. Calamita, T. U. Siegfried
►► Method	s and Tools: Lab Courses							
Number	Title	Туре	ECTS	Hours				Lecturers
701-1331-00L	Biogeochemistry of Trace Elements Laboratory Number of participants limited to 16. Priority is given to the target groups: Master Environmental Science until October 15th,2021. Waiting list will be deleted October 22nd, 2021.	W	3 credits	4P				
701-1331-00 P	Biogeochemistry of Trace Elements Laborat The course starts at 8:30 in the morning.	ory		4 hrs	Thu/2	08-18	CHN D51	L. K. Thomas Arrigo, K. Barmettler
701-1333-00L	Isotopes and Biomarkers in Biogeochemistry Laboratory Number of participants limited to 14. Waiting list will be deleted September 20th, 2021. No enrollment possible after September 21st, 2021.	W	3 credits	4P				
701-1333-00 P	Isotopes and Biomarkers in Biogeochemistry 1st half of the semester. Sampling takes place at Rotsee near Luzern takes place at EAWAG Kastanienbaum/Due appointment)	n. Pract	tical Lab work	4 hrs	Thu/1	08-18	EAW -EAWA	G <b>C. Schubert</b> , R. Kipfer
<b>701-1337-00L</b> 701-1337-00 P	Forest Soils in a Changing Environment Forest Soils in a Changing Environment Zeit: jeweils am Donnerstag in der zweiten H Ort: WSL in Birmensdorf		3 credits les HS	<b>6P</b> 6 hrs				F. Hagedorn, P. F. Schleppi
701-1339-00L	Soil Solids Laboratory Number of participants limited to 12. Priority is given to the target groups: Master Environmental Science until October 15th,2021. Waiting list will be deleted September 23rd, 2021.	W	3 credits	4G				
701-1339-00 G	Soil Solids Laboratory Permission from lecturers required for all stu Die Vorlesung/Einweisung in die Laborexpe von 8-10 im HIL E5 statt. Die Laborexperimente werden anschliessen im HIF D13 – D21 ausgeführt.	rimente		4 hrs	Thu/1	08-10 10-17	HIL E5 HIF D13	M. Plötze
701-1673-00L	<b>Environmental Measurement Laboratory</b> <i>Number of participants limited to 24.</i>	W	5 credits	4G				
701-1673-00 G	Waiting list will be deleted September 24th, 2021. Environmental Measurement Laboratory First lecture will be on September 21,2021.			4 hrs	Tue 21.09. 05.10.	14-18 14-16	CHN E46 HCI J3 HIL D10.2	P. U. Lehmann Grunder, A. Carminati
▶▶ Semest	er Paper and Seminar				03.10.	14-10	TIIL D10.2	
Number	Title	Туре	ECTS	Hours				Lecturers
701-1302-00L	Term Paper 2: Seminar Prerequisite: Term Paper 1: Writing (701-1303-00L).	0	2 credits	1\$				· · · · · · ·
701-1302-00 S	Only for Environmental Sciences MSc and Science, Technology and Policy MSc.  Term Paper: Seminar ■			1 hrs	Fri	14-16	CHN E42	L. Winkel, M. Ackermann, N. Casacuberta Arola, K. Deiner, N. Gruber, J. Hering R. Kipfer, R. Kretzschmar, K. McNeill, D. Mitrano, A. N'Guyen van Chinh, M. Sander, M. H. Schroth, C. Schubert

701-1303-00L Term Paper 1: Writing O 5 credits 6A

Only for Environmental Sciences MSc and Science, Technology and Policy MSc.

701-1303-00 A Term Paper 1: Writing ■

Unregelmässige Lehrveranstaltung

6 hrs Fri 14-16 CHN E42

L. Winkel, M. Ackermann, N. Casacuberta Arola, K. Deiner, N. Gruber, J. Hering, R. Kipfer, R. Kretzschmar, M. Lever, K. McNeill, D. Mitrano, A. N'Guyen van Chinh, M. Sander, M. H. Schroth,

C. Schubert

#### **▶▶** Electives

Number	Title	Туре	ECTS	Hours				Lecturers
701-3001-00L	Environmental Systems Data Science	W	3 credits	2G				
701-3001-00 G	Environmental Systems Data Science			2 hrs	Tue	08-10	CHN D44 CHN D46 CHN F42 CHN G22	L. Pellissier, J. Payne, B. Stocker
					21.09.	08-10	HG D1.1	

#### ► Major in Ecology and Evolution

#### ▶▶ A. Fundamentals

Number	Title	Type	ECTS	Hours				Lecturers
701-0328-00L	For students of the following study programmes only: Biology Master Teaching certificate Biology Environmental Sciences Master UZH MNF Biology UZH MNF Geography /Earth Sciences	W	4 credits	2V		40.44	OUNE	
701-0328-00 V	Advanced Ecological Processes			2 hrs	Mon	12-14	CHN F42	J. Hille Ris Lambers
701-1427-00L	Experimental Evolution Semester change. This lecture will be offered in Spring Semester 2022 for the next time.	W	4 credits	2\$				
701-1427-00 S	Experimental Evolution Does not take place this semester. Diese Lehrveranstaltung wird im HS21 nic das nächste Mal im FS22 angeboten.	cht angeb	oten. Sie wird	2 hrs				G. Velicer, A. Hall

#### **▶▶** B. Concept Courses and Applications

#### ▶▶▶ Advanced Concept Classes

Number	Title	Type	ECTS	Hours				Lecturers
701-0263-01L	Seminar in Evolutionary Ecology of Infectious Diseases	W	3 credits	2G				
701-0263-01 G	Seminar in Evolutionary Ecology of Infectiou	s Disea	ises	2 hrs	Tue	16-18	CHN F42	R. R. Regös, S. Bonhoeffer
701-1409-00L	Research Seminar: Ecological Genetics Minimum number of participants is 5.	W	2 credits	18				
701-1409-00 S	Research Seminar: Ecological Genetics or by arrangement			1 hrs	Wed	11-12	CHN D46	S. Fior
701-1471-00L	Ecological Parasitology Number of participants limited to 20. A minimum of 6 students is required that the course will take place.	W	3 credits	1V+1P				
	Waiting list will be deleted on October 1st, 2021.							
701-1471-00 V	Ecological Parasitology ■  The lecture takes place irregularly.			14s hrs	Tue	08-10	CHN G46	J. Jokela, C. Vorburger
701-1471-00 P	Ecological Parasitology ■ Daten der Veranstaltung: 05.10.; 19.10.; 09. Zeit: 8:15 - 12:00 Ort der Veranstaltung: EAWAG Dübendorf	11		12s hrs	05.10. 19.10. 09.11.	08-12 08-12 08-12	EAW -EAWAG EAW -EAWAG EAW -EAWAG	<b>J. Jokela</b> , C. Vorburger
701-1676-01L	Genomics of Environmental Adaptation Number of participants limited to 14.	W	2 credits	3G				
	Waiting list will be deleted January 20th, 2022.							
	Prerequisites: good knowledge in population genetics and some experience in using GIS and R is required.							
701-1676-01 G	Genomics of Environmental Adaptation Blockkurs: 07. bis 11.02.2022 Ort der Veranstaltung: EP D01/LG E05 WS	SL Birm	ensdorf	40s hrs				R. Holderegger, F. Gugerli, C. Rellstab
701-1703-00L	Evolutionary Medicine for Infectious	w	3 credits	2G				

#### Diseases

Number of participants limited to 35.

Waiting list will be deleted October 3rd,

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701-1703-00 G	Evolutionary Medicine for Infectious Disea	ases		2 hrs	Fri	10-12	HG E41	A. Hall
636-0017-00L	Computational Biology	w	6 credits	3G+2A				
636-0017-00 G	Computational Biology The lecture will be held each Monday (16 Basel and will be transmitted via videocol			3 hrs <i>r</i>	Mon	16-18 18-19	BSA E46 HG D16.2 HG D16.2	T. Vaughan
	location. Tutorials will happen in both location. Tutorials in Zürich: Monday 18-19h (HG L Tutorials in Basel: Thursday 12-13h (BSA Lecture on Monday and the Tutorial on Tavailable for participation via Zoom.  ATTENTION: Lecture starts on Monday, 2 Basel on Thursday 30.09	0 16.2) LE 46) hursday			Thu	12-13	BSA E46	
636-0017-00 A	Computational Biology Project Work (compulsory continuous per no fixed presence required.	formanc	e assessments	2 hrs ),				T. Vaughan
751-5101-00L	Biogeochemistry and Sustainable Management	W	2 credits	2G				
751-5101-00 G	Biogeochemistry and Sustainable Manag Does not take place this semester.	ement		2 hrs				W. Eugster, V. Klaus

#### ▶▶▶ Applications

Number	Title	Type	ECTS	Hours				Lecturers
701-1453-00L	<b>Ecological Assessment and Evaluation</b>	w	3 credits	3G				
701-1453-00 G	Ecological Assessment and Evaluation			3 hrs	Mon	16-19	CHN E46	F. Knaus
701-1613-01L	Advanced Landscape Research	W	5 credits	3G				
701-1613-01 G	Advanced Landscape Research Online event: Will primarily take place onlin remain blocked on campus for students to there.				Mon	09-12	HG D3.1	<b>J. Bolliger</b> , M. Bürgi, U. Gimmi, M. Hunziker
701-1631-00L	Foundations of Ecosystem Management	t W	5 credits	3G				
701-1631-00 G	Foundations of Ecosystem Management			3 hrs	Thu	10-13	CHN G46 HG E41	<b>J. Ghazoul</b> , C. Garcia, J. Garcia Ulloa, A. Giger Dray
					23.09.	10-13	HG E33.1	

#### ▶▶ C. Scientific Skills

# ▶▶▶ Quantitative and Computational Expertise

Number	Title	Type	ECTS	Hours				Lecturers
701-1677-00L	Quantitative Vegetation Dynamics: Models from Tree to Globe	W	3 credits	3G				
701-1677-00 G	Quantitative Vegetation Dynamics: Models Online event: Will primarily take place onlin rooms will remain blocked on campus for scourse from there.	e (Zoom	n). Reserved	3 hrs	Fri	14-17	CHN G22	H. Lischke, U. Hiltner, B. Rohner
701-1679-00L	Landscape Modelling of Biodiversity: From Global Changes to Conservation	W	5 credits	3G				
701-1679-00 G	Landscape Modelling of Biodiversity: From Conservation	Global (	Changes to	3 hrs	Fri	09-12	CHN F46	L. Pellissier, N. Zimmermann

	Conservation						
▶▶▶ Labor	atory and Field Expertise						
Number	Title	Туре	ECTS	Hours			Lecturers
701-1425-01L	Genetic Diversity: Techniques Number of participants limited to 8.	W	2 credits	4P			
	Waiting list will be deleted November 1st, 2021.						
	No enrollment possible after October 18th, 2021.						
701-1425-01 P	Genetic Diversity: Techniques Language of the course: English			60s hrs			A. M. Minder Pfyl
	Start of the course: Wednesday, 3.11.21 at the course: Wednesday, 24.11.21 at 13:15-in between (about one whole day per week Wednesday).  Course room for the introduction and final cannounced, lab work has to be done at the	17:00, ii preferal liscussio	ndividual work bly Monday to				
701-1437-00L	Aquatic Ecology I	W	3 credits	3V			
701-1437-00 V	Aquatic Ecology I Unregelmässige Lehrveranstaltung			40s hrs	Wed/1 Thu/1	08-12 08-12	EAW -EAWAG <b>P. Spaak</b> , F. Altermatt, EAW -EAWAG C. T. Robinson
701-1437-03L	Aquatic Ecology II  Number of participants is limited. The maximal participating number of students is	W	5 credits	6U			

8 from D-USYS and 14 from D-BIOL (ETH & UZH).

Target groups only: Bachelor Biology, Master Environmental Sciences and UZH MNF Biology.

Registration for the course until September 5th, 2021, free places will be distributed later. Students registrating later cannot be guaranteed a place in the course. Waiting list will be deleted September 17th, 2021. Students have to enroll together with the lecture Aquatic Ecology I (701-1437-00V) and the Identification Courses Macroinvertebrates (701-1437-01L) and Freshwater Algae and aquatic Microinvertebrates (701-1437-02L).

701-1437-03 U Aquatic Ecology II

First half of the semester; at EAWAG, BU G 03. Includes 3-day field trip from 29.09-01.10.2021.

90s hrs Wed/1 13-17 EAW -EAWAG **P. Spaak**, F. Altermatt, Thu/1 13-17 EAW -EAWAG **C.** T. Robinson Fri/1 08-12 EAW -EAWAG

**▶▶▶** Expertise in Biological Diversity

Number	Title	Type	ECTS	Hours			Lecturers
701-1437-01L	Practical Course Macroinvertebrates	W	2 credits	2P			
701-1437-01 P	Bestimmungskurs aquatische Makroinvert The maximal participating number of stud and 14 from D-BIOL. In case of too many simultaneously participate in the courses Ecology I" and "701-1437-02 Bestimmung und aquatische Mikroinvertebraten" are gi 26.08.2021, free places will be distributed registrating later cannot be guaranteed a Takes place at Eawag Dübendorf (BU G C	ents is 8 i students, "701-143] iskurs Sü iven priori after that olace in tl	those that 7-00 Aquatic sswasseralgen ity. Sign in until 5. Students		Tue/1	13-17	EAW -EAWAG <b>J. Jokela</b>
701-1437-02L	Identification Course Freshwater Algae and Aquatic Microinvertebrates	W	2 credits	2P			
701-1437-02 P	Bestimmungskurs Süsswasseralgen und a Mikroinvertebraten The maximal participating number of stud and 14 from D-BIOL. In case of too many simultaneously participate in the courses Ecology I" and "701-1437-01 Bestimmung Makroinvertebraten" are given priority. Sig free places will be distributed after that. Scannot be guaranteed a place in the course	ents is 8 i students, "701-143 iskurs aqi gn in until tudents re	from D-USYS those that 7-00 Aquatic uatischer 26.08.2021,	28s hrs	Fri/1 21.10.	13-17 13-17	EAW -EAWAG <b>J. Jokela</b> EAW -EAWAG
	Takes place at Eawag Dübendorf (BU G (	03)					

#### ▶▶▶ Term Paper and Seminar

Number	Title	Type	ECTS	Hours	Lecturers
701-1460-00L	Ecology and Evolution: Term Paper	0	5 credits	11A	
701-1460-00 A	Ecology and Evolution: Term Paper  The date, time and place for the kick-off me communicated later (most likely to be held week).			150s hrs	T. Städler, J. Alexander, S. Bonhoeffer, T. Crowther, A. Hall, J. Hille Ris Lambers, J. Jokela, J. Payne, G. Velicer, A. Widmer

#### **▶▶** Electives

Number	Title	Type	ECTS	Hours				Lecturers
701-0290-00L	Seminar in Microbial Evolution and Ecology (HS)	Z	0 credits	2S				
701-0290-00 S	Seminar in Microbial Evolution and Ecology			2 hrs	Wed	16-18	CHN C14	S. Bonhoeffer
701-3001-00L	Environmental Systems Data Science	W	3 credits	2G				
701-3001-00 G	Environmental Systems Data Science			2 hrs	Tue	08-10	CHN D44 CHN D46 CHN F42 CHN G22	L. Pellissier, J. Payne, B. Stocker
					21.09.	08-10	HG D1.1	
551-0205-00L	Challenges in Plant Sciences Number of participants limited to 40.	W	2 credits	2K				
551-0205-00 K	**together with University of Zurich and Univ	,	of Basel**	2 hrs	29.09. 10.11.	14-18 08-18	ML F39 LEE E101	S. C. Zeeman, G. Dow, M. Paschke, B. Pfister, further lecturers
	29 September 2021, 14.15–17.45h, ML F39 10 November 2021, 08.30–17:45h, LEE E1							
751-4504-00L	Plant Pathology I	W	2 credits	2G				
751-4504-00 G	Plant Pathology I			2 hrs	Wed	14-16	LFW C5	B. McDonald

#### ► Major in Environmental Systems Policy

#### ▶▶ Theoretical Foundations for Environmental Policy

Number	Title	Type ECTS	Hours	Lecturers

	Climate Policy	W	6 credits	3 <b>G</b>		00.40	01111 044	<b>4. D</b> # 0.11
701-1563-00 G	Climate Policy			3 hrs	Mon Wed Fri	09-10 09-10 09-10	CHN C14 CAB G51 HG F5	A. Patt, S. Hanger-Kopp
701-1651-00L	Environmental Governance Environmental Governance	0	6 credits	<b>3G</b> 3 hrs	Tue	10-13	CHN E46	E. Lieberherr
	Governing the Energy Transition	w	2 credits	2V	Tue	10-13	CHIN E40	E. Liebernen
851-0609-06 V	Primarily suited for Master and PhD level. Governing the Energy Transition			2 hrs	Thu	16-18	NO C60	T. Schmidt, N. Schmid, S. Sewerin
860-0023-00L	International Environmental Politics Particularly suitable for students of D-ITET, D-USYS	W	3 credits	2V				
860-0023-00 V	International Environmental Politics			2 hrs	Mon	16-18	HG F3	T. Bernauer
►► Modelir	ng and Statistical Analysis							
Number	Title	Туре	ECTS	Hours				Lecturers
701-1453-00L	Ecological Assessment and Evaluation	W	3 credits	3G	NA	40.40	OUN E 40	F 1/2-2-2
	Ecological Assessment and Evaluation	0	6 credits	3 hrs 4 <b>G</b>	Mon	16-19	CHN E46	F. Knaus
701-1565-00L	Quantitative Policy Analysis and Modeling	U	o credits	46				
	Quantitative Policy Analysis and Modeling			4 hrs	Wed Fri	14-16 14-16	NO C44 NO C44	A. Patt, R. Garrett, B. Pickering, T. Tröndle
<b>101-0491-00L</b> 101-0491-00 G	Agent Based Modeling in Transportation Agent Based Modeling in Transportation	W	6 credits	<b>4G</b> 4 hrs	Mon	10-12	HPK D24.2	M. Balac
.51 5451-00 6	go. it bassa insucing in Transportation				Tue	14-16	HPK D24.2	54145
363-0541-00L	Systems Dynamics and Complexity	W	3 credits	3 <b>G</b>	T	10.40	HC D4 0	E Cobusitant
363-0541-00 G	Systems Dynamics and Complexity Lecture: Thursday, 08-10 h Exercises: Tuesday, 12-13 h The lecture takes place in classroom, online	via live	estreaming or	3 hrs	Tue Thu	12-13 08-10	HG D1.2 HG D1.2	F. Schweitzer
N. Dallau F	zoom and recorded.							
	Engagement							
Number	Title	Type W		Hours 2G				Lecturers
701-1551-00L	Sustainability Assessment Number of participants limited to 35.  Waiting list will be deleted October 1st,	VV	3 credits	26				
	2021.  No enrollment possible after October 1st,							
	2021.							
	Sustainability Assessment			2 hrs	Fri	10-12	CHN G42	P. Krütli, D. Nef
<b>701-1563-00L</b> 701-1563-00 G	Climate Policy Climate Policy	W	6 credits	<b>3G</b> 3 hrs	Mon	09-10 09-10	CHN C14 CAB G51	A. Patt, S. Hanger-Kopp
					Wed Fri	09-10	HG F5	
860-0012-00L	Cooperation and Conflict Over International Water Resources Number of participants limited to 40. Priority for Science, Technology, and Policy MSc.	W	3 credits	2\$			HG F5	
860-0012-00 S	International Water Resources Number of participants limited to 40. Priority for Science, Technology, and Policy MSc.  This is a research seminar at the Master level. PhD students are also welcome. Cooperation and Conflict Over International			2 <b>S</b> 2 hrs			HG F5	<b>B. Wehrli</b> , T. Bernauer, E. Calamita, T. U. Siegfried
860-0012-00 S	International Water Resources Number of participants limited to 40. Priority for Science, Technology, and Policy MSc.  This is a research seminar at the Master level. PhD students are also welcome. Cooperation and Conflict Over International		Resources		Fri	09-10		
860-0012-00 S ▶▶ Elective Number	International Water Resources Number of participants limited to 40. Priority for Science, Technology, and Policy MSc.  This is a research seminar at the Master level. PhD students are also welcome. Cooperation and Conflict Over International	Water F	Resources	2 hrs	Fri	09-10		
860-0012-00 S ►► Elective Number 701-3001-00L	International Water Resources Number of participants limited to 40. Priority for Science, Technology, and Policy MSc.  This is a research seminar at the Master level. PhD students are also welcome. Cooperation and Conflict Over International	Water F	Resources	2 hrs	Fri	09-10		E. Calamita, T. U. Siegfried
860-0012-00 S ►► Elective Number 701-3001-00L	International Water Resources Number of participants limited to 40. Priority for Science, Technology, and Policy MSc.  This is a research seminar at the Master level. PhD students are also welcome. Cooperation and Conflict Over International  ES  Title Environmental Systems Data Science	Water F	Resources	2 hrs  Hours 2G	Tue	12-14	CHN D44 CHN D46 CHN F42	E. Calamita, T. U. Siegfried  Lecturers  L. Pellissier, J. Payne,
860-0012-00 S  ► ► Elective Number 701-3001-00 G  ► Major in	International Water Resources Number of participants limited to 40. Priority for Science, Technology, and Policy MSc.  This is a research seminar at the Master level. PhD students are also welcome. Cooperation and Conflict Over International  ES  Title Environmental Systems Data Science Environmental Systems Data Science Forest and Landscape Manager	Water F Type W	Resources	2 hrs  Hours 2G	Tue	09-10	CHN D44 CHN D46 CHN F42 CHN G22	E. Calamita, T. U. Siegfried  Lecturers  L. Pellissier, J. Payne,
860-0012-00 S  ► Elective Number 701-3001-00 G  ► Major in I  ► Natural	International Water Resources Number of participants limited to 40. Priority for Science, Technology, and Policy MSc.  This is a research seminar at the Master level. PhD students are also welcome. Cooperation and Conflict Over International  SS  Title Environmental Systems Data Science Environmental Systems Data Science Forest and Landscape Manager Science Foundations	Type W	Resources  ECTS 3 credits	2 hrs  Hours 2G 2 hrs	Tue	09-10	CHN D44 CHN D46 CHN F42 CHN G22	Lecturers  L. Pellissier, J. Payne, B. Stocker
860-0012-00 S  ► ► Elective  Number  701-3001-00 G  ► Major in	International Water Resources Number of participants limited to 40. Priority for Science, Technology, and Policy MSc.  This is a research seminar at the Master level. PhD students are also welcome. Cooperation and Conflict Over International  ES  Title Environmental Systems Data Science Environmental Systems Data Science Forest and Landscape Manager	Water F Type W	Resources	2 hrs  Hours 2G	Tue	09-10	CHN D44 CHN D46 CHN F42 CHN G22	E. Calamita, T. U. Siegfried  Lecturers  L. Pellissier, J. Payne,

704 4045 001	Advanced Ferrest Dathelessy	14/	2	2G				
	Advanced Forest Pathology Advanced Forest Pathology	W	3 credits	2G 2 hrs	Thu	16-18	CHN F42	S. Prospero
	Lehrsprache Deutsch möglich auf Wunsch Lehrveranstaltung wird im HS21 zum letzte							
701-1644-00L	Mountain Forest Hydrology	W	5 credits	3G				
701-1644-00 G	Mountain Forest Hydrology In addition two field trips with data collection	า		3 hrs	Wed	09-12	ETZ E7	J. W. Kirchner
►► Ecosys	tem Management							
Number	Title	Туре	ECTS	Hours				Lecturers
		W	5 credits	3 <b>G</b>		10.10	01111 0 40	1.00
701-1631-00 G	Foundations of Ecosystem Management			3 hrs	Thu 23.09.	10-13 10-13	CHN G46 HG E41 HG E33.1	J. Ghazoul, C. Garcia, J. Garcia Ulloa, A. Giger Dray
701-1635-00L	Multifunctional Forest Management	W	5 credits	2G				
701-1635-00 G	Multifunctional Forest Management In addition to the lecture, 4 full-day excursion attend in order to obtain the credits.	ons are c	obligatory to	2 hrs	Thu	14-16	HG G26.1	M. Lévesque, S. Zimmermann
	During the autumn semester 2021, the except the following days: Saturday 9 October, Tue Friday 5 November, and Saturday 20 November.	esday 19	,					
▶► Decisio	n Making, Policy and Planning							
Number	Title	Туре	ECTS	Hours				Lecturers
701-1651-00L	Environmental Governance	W	6 credits	3G	_		0.0.5	
	Environmental Governance			3 hrs	Tue	10-13	CHN E46	E. Lieberherr
	s and Tools							
Number	Title	Туре	ECTS	Hours				Lecturers
701-1673-00L	Environmental Measurement Laboratory Number of participants limited to 24.	W	5 credits	4G				
	Waiting list will be deleted September 24th, 2021.							
701-1673-00 G	Environmental Measurement Laboratory First lecture will be on September 21,2021.			4 hrs	Tue 21.09. 05.10.	14-18 14-16 14-16	CHN E46 HCI J3 HIL D10.2	P. U. Lehmann Grunder, A. Carminati
701-1679-00L	Landscape Modelling of Biodiversity: From Global Changes to Conservation	W	5 credits	3G				
701-1679-00 G	Landscape Modelling of Biodiversity: From Conservation	Global C	Changes to	3 hrs	Fri	09-12	CHN F46	L. Pellissier, N. Zimmermann
▶▶ Elective	9S							
▶▶▶ Natura	al Science Foundations							
Number	Title	Туре	ECTS	Hours				Lecturers
701-1620-00L	Tree Genetics – Concepts and	W	3 credits	2G				
701-1620-00 G	Applications Tree Genetics – Concepts and Applications There will be 2 full day excursions on week lecture (Tuesdays 8 to 10).		ditionally to the	2 hrs	Tue	08-10	CHN F46	A. Rudow, P. Brang, F. Gugerli, C. Sperisen
751-5125-00L	Stable Isotope Ecology of Terrestrial Ecosystems  Number of participants limited to 20.	W	2 credits	2G				
751-5125-00 G	Stable Isotope Ecology of Terrestrial Ecosy This block course takes place on 14 Januar 2022.			2 hrs	14.01 21.01.	08-18	LFW B2	R. A. Werner, N. Buchmann, A. Gessler, M. Lehmann
▶▶► Ecosy	stem Management							
Number	Title	Туре	ECTS	Hours				Lecturers
<b>701-1453-00L</b> 701-1453-00 G	<b>Ecological Assessment and Evaluation</b> Ecological Assessment and Evaluation	W	3 credits	<b>3G</b> 3 hrs	Mon	16-19	CHN E46	F. Knaus
<b>701-1645-00L</b> 701-1645-00 G	Forest Operations Forest Operations	W	3 credits	<b>2G</b> 2 hrs	Mon	14-16	ML H34.3	H. Griess, J. Schweier
	ion Making, Policy and Planning	g						
	ion Making, Policy and Planning	g Type	ECTS	Hours				Lecturers

103-0468-00 G	Participatory Modeling in Integrated Lands	cana Day	velonment	2 hrs	Thu	14-16	HIL H35.1	E. Celio, N. Salliou
103-0400-00 0	Please consult the lecture's website for de						HIL H40.4	L. Jeno, IV. Jamou
	rooms and program. https://irl.ethz.ch/education/courses/msc/p	articinato	ury modelling h	,		14-16 14-16	HIL E10.1	
	tml	аныраю	ry_modelling.r	ı		14-16	n /a n /a	
	B ' ( ' ' ( ) ( ) 0740 4440		100 10 000 1		09.12.	14-16	n /a	
	Room information of dates 07.10., 14.10., will be published later on.	11.11. a	na 09.12.2021					
►►► Metho	ods and Tools							
Number	Title	Type	ECTS	Hours				Lecturers
701-1316-00L	Physical Transport Processes in the Natural Environment	W	3 credits	2G				
701-1316-00 G	Physical Transport Processes in the Natur	al Enviro	nment	2 hrs	Mon	16-18	ML H34.3	J. W. Kirchner
701-1677-00L	Quantitative Vegetation Dynamics: Models from Tree to Globe	W	3 credits	3G				
701-1677-00 G		from Tre	e to Globe	3 hrs	Fri	14-17	CHN G22	H. Lischke, U. Hiltner,
701 1077 00 0	Online event: Will primarily take place onlin	Online event: Will primarily take place online (Zoom). Reserved rooms will remain blocked on campus for students to follow the				14 17	0111V 022	B. Rohner
701-1682-00L	63	w	3 credits	3 <b>G</b>				
701-1682-00 G	Dendroecology  Zusätzlich zur Lehrveranstaltung wird eine angeboten	ganztäg	ige Exkursion	3 hrs	Fri	12-14	CHN G46	C. Bigler, K. Treydte, G. von Arx
701-1776-00L	Geographic Data Processing with	W	1 credit	2U				
	Python and ArcGIS  Number of participants limited to 30.							
	Waiting list will be deleted September 14th	1,						
701-1776-00	2021.  Geographic Data Processing with Python a	and ArcG	IS	30s hrs	15.09.	09-17	NO D39	A. Baltensweiler
. 51 1110-00 0	3-day block course.			000 1110	16.09.	09-17	NO D39	Baltollowollel
704 000 : 00'	<u> </u>	14/	• •••		17.09.	09-17	NO D39	
	Environmental Systems Data Science Environmental Systems Data Science	W	3 credits	<b>2G</b> 2 hrs	Tue	08-10	CHN D44	L. Pellissier, J. Payne,
701-3001-00 G	Environmental Systems Data Science			21115	rue	06-10	CHN D44 CHN D46	B. Stocker
							CHN F42	
					21.09.	08-10	CHN G22 HG D1.1	
401-0627-00L	Smoothing and Nonparametric	W	4 credits	2G				
401-0627-00 €	Regression with Examples Smoothing and Nonparametric Regression	with Ev	amplee	2 hrs	Fri	14-16	ETZ F91	S. Beran-Ghosh
401-0027-00 G	Online course: This course takes place on is meant for those students who want to fo Zentrum campus. Online-Veranstaltung: Diese Lehrveransta Der reservierte Raum bleibt für die Studier	line. The ollow the o ltung fina renden au	reserved room course from let online statt. If dem		111	14-10	212131	o. Berair-Gilosii
	Campus Zentrum bestehen, um die Lehrve hören.	eranstaltu	ing dort zu					
►► Colloqu	ıium							
Number	Title	Туре	ECTS	Hours				Lecturers
701-1691-00L	Colloquium Forest and Landscape Management	Z	0 credits	1.5K				
701-1691-00 K	Kolloquium Wald- und Landschaftsmanage	ement		1.5 hrs	10.01.	13-18	CHN C14	H. Bugmann
	Programm: http://www.ites.ethz.ch/events/	/mokoll.ht	tml		17.01.	13-18	CHN C14	· ·
						13-18 13-18	CHN C14 CHN C14	
► Maior in	Human Health, Nutrition and E	nviron	ment					
▶▶ Public I	Health			an II- 111	Model	and F		
	odule Public Health is compulsory for all stu		•		, Nutrition	ana Env	ronment.	• .
Number	Title	Туре	ECTS	Hours				Lecturers
<b>401-0629-00L</b> 401-0629-00 G	Applied Biostatistics Applied Biostatistics	W	4 credits	<b>3G</b> 3 hrs	Tue	13-16	CAB G51	M. Tanadini
+01-0029-00 G	Online lecture: This lecture will take place will remain reserved on campus for studen from there.				rue	13-10	CAB G31	w. ranaum
<b>752-6105-00L</b> 752-6105-00 V	Epidemiology and Prevention Epidemiology and Prevention	W	3 credits	<b>2V</b> 2 hrs	Wed	12-14	CHN C14	M. Puhan, R. Heusser
752-6151-00L	Public Health Concepts	W	3 credits	2V				
752-6151-00 V	Public Health Concepts			2 hrs	Mon 27.09.	14-16 14-16	HG D1.1 CHN G42	R. Heusser

Hours

2V

Lecturers

Type ECTS

2 credits

**▶▶** Nutrition and Health

Title

752-2122-00L Food and Consumer Behaviour

Number

	More details and locations are announced s	eparate	ly.					
701-1701-00 A	Human Health, Nutrition and Environment: <sup>1</sup> Permission from lecturers required for all sti The introduction of the term paper course te Sept 2021 from 16:15 to 18:00 h. An additional compulsory input lecture takes 2021 from 16:15 to 18:00 h. Dates for oral presentation are 17th and 18th	udents akes plac s place d	ce on 30th on 25th Nov	180s hrs				J. Nuessli Guth, T. Julian, K. McNeill, M. B. Zimmermanr
704 4704 00 1	Environment: Term Paper Only for students of the Major Human Health, Nutrition and Environment.	F 5		400 '				I November of Table
701-1701-00L	Human Health, Nutrition and	0	6 credits	13A				
Number	Title	Туре	ECTS	Hours				Lecturers
	aper and Seminar mpulsory course 701-1701-00L Human Heal	th, Nutri	tion and Envi	ronment: To	erm Pape	er is offere	ed in the autumn	semester only.
						- ·-		M. Schuppler, E. Wetter Slack
	Pathogens  Molecular Biology of Foodborne Pathogens			2 hrs	Thu	10-12	HG E1.2	M. Loessner, M. Schmelcher,
752-4009-00L	Molecular Biology of Foodborne	w	3 credits	2V				E. Wetter Slack
551-0223-00 V				2 hrs	Mon	10-12	HCI H8.1	M. Kopf, S. B. Freigang, J. Kisielow, S. R. Leibundgut, A. Oxenius, C. Schneider, R. Spörri, L. Tortola,
551-0223-00L	Evolutionary Medicine for Infectious Disease Immunology III	W	4 credits	2 nrs	1 11	10-12	110 E41	o. Hall
701 1702 00 C	Waiting list will be deleted October 3rd, 2021.	20		2 hrs	Fri	10-12	HG E41	A. Hall
	<b>Diseases</b> Number of participants limited to 35.		0 0.000					
701-1703-00L	Ort der Veranstaltung: EAWAG Dübendorf  Evolutionary Medicine for Infectious	W	3 credits	2G				
701-1471-00 F	Daten der Veranstaltung: 05.10.; 19.10.; 09. Zeit: 8:15 - 12:00	.11		1251115	19.10.	08-12 08-12 08-12	EAW -EAWAG EAW -EAWAG	
701-1471-00 V 701-1471-00 P	Ecological Parasitology ■  The lecture takes place irregularly.  Ecological Parasitology ■			14s hrs 12s hrs	Tue 05.10.	08-10 08-12	CHN G46	J. Jokela, C. Vorburger  G. J. Jokela, C. Vorburger
701 1471 00 V	Waiting list will be deleted on October 1st, 2021.			14a bro	Tuo	09.10	CHN C46	L Jokola C Verburger
701-1471-00L	Ecological Parasitology Number of participants limited to 20. A minimum of 6 students is required that the course will take place.	VV	3 credits	1V+1P				
	Seminar in Evolutionary Ecology of Infection	us Disea <b>W</b>		2 hrs	Tue	16-18	CHN F42	R. R. Regös, S. Bonhoeffer
701-0263-01L	Seminar in Evolutionary Ecology of Infectious Diseases	W	3 credits	2G				
Number	Title	Туре	ECTS	Hours				Lecturers
	us Diseases							
<b>376-1353-00L</b> 376-1353-00 V	Nanostructured Materials Safety Nanostructured Materials Safety	W	2 credits	<b>1V</b> 1 hrs	Fri/1	12-14	CHN F46	P. Wick
	Water Resources and Drinking Water Online event: Will primarily take place online remain blocked on campus for students to futnere.	e. Reser	ved rooms w	2 hrs	Fri	08-10	CAB G11	S. Hug, M. Berg, F. Hammes, U. von Gunten
Number 701-1341-00L	Title Water Resources and Drinking Water	Type W	ECTS 3 credits	Hours 2G				Lecturers
	ment and Health							
<b>752-6101-00L</b> 752-6101-00 V	Dietary Etiologies of Chronic Disease Dietary Etiologies of Chronic Disease	W	3 credits	<b>2V</b> 2 hrs	Thu	08-10	CAB G11	M. B. Zimmermann
702 0100 00 0	Online event: Will primarily take place online remain blocked on campus for students to futhere.			ill	***************************************		110 21.1	A. Greppi
	Functional Microorganisms in Foods Functional Microorganisms in Foods ■	W	3 credits	<b>2G</b> 2 hrs	Wed	14-16	HG D7.1	C. Lacroix, A. Geirnaert,
752-2122-00 V	Food and Consumer Behaviour Online lecture: This lecture will primarily tak Reserved rooms will remain blocked on can follow the course from there.			2 hrs	Mon	10-12	LFW B1	M. Siegrist, C. Hartmann

Hours

Lecturers

Type ECTS

Number

Title

701-3001-00L Environmental Systems Data Science W 3 credits

701-3001-00 G Environmental Systems Data Science 2 hrs Tue 08-10 CHN D44 L. Pellissier, J. Payne, CHN D46 B. Stocker

2G

CHN F42 CHN G22 21.09. 08-10 HG D1.1

#### **►** Minors

#### ▶▶ Minor in Sustainable Energy Use

Number	Title	Type	ECTS	Hours				Lecturers
701-0967-00L	Project Development in Renewable Energies Number of participants limited to 30. Waiting list will be deleted October 6th, 2021.	W	2 credits	2G				
701-0967-00 G	Projektentwicklung im Bereich erneuerbarer	Energie	en	2 hrs	Thu/2w	14-18	CHN F46	R. Rechsteiner, A. Appenzeller
701-1346-00L	Carbon Mitigation Number of participants limited to 90. Priority is given to the target groups: Bachelor and Master Environmental Sciences and PHD Environmental Sciences until September 21st,2021. Waiting list will be deleted October 1st, 2021.	W	3 credits	2G				
701-1346-00 G	Carbon Mitigation			2 hrs	Mon	10-12	CHN C14	N. Gruber
052-0609-00L	Energy- and Climate Systems I	W	2 credits	2G				
052-0609-00 G	Energie- und Klimasysteme I Keine Lehrveranstaltung am 29.10. (Semina 17/24.12. (vor Schlussabgaben).	arwoche	e) sowie am	2 hrs	Fri	10-12	HIL E3	A. Schlüter
227-0731-00L	Power Market I - Portfolio and Risk Management	W	6 credits	4G				
227-0731-00 G	Power Market I - Portfolio and Risk Manage	ment		4 hrs	Tue	08-12	HG D7.1	D. Reichelt, G. A. Koeppe

### ▶▶ Minor in Global Change and Sustainability

This minor will only be offered in the academic year 21/22. As of the academic year 22/23, the minor can no longer be chosen. The course units offered in the minor can still be taken as electives.

Number	Title	Type	ECTS	Hours				Lecturers
701-0019-00L	Readings in Environmental Thinking	W	3 credits	2S				
701-0019-00 S	Readings in Environmental Thinking			2 hrs	Fri	16-18	CHN G42 CHN G46	J. Ghazoul
701-1551-00L	Sustainability Assessment Number of participants limited to 35.	W	3 credits	2G				
	Waiting list will be deleted October 1st, 2021.							
	No enrollment possible after October 1st, 2021.							
701-1551-00 G	Sustainability Assessment			2 hrs	Fri	10-12	CHN G42	P. Krütli, D. Nef
551-0209-00L	Sustainable Plant Systems (Seminar)	W	2 credits	28				
551-0209-00 S	Sustainable Plant Systems (Seminar) **together with University of Zurich and Universence days: 7. october & 3. december 2			2 hrs	07.10.	14-18	LFW B2	<b>M. Paschke</b> , F. Liebisch, further lecturers
860-0012-00L	Cooperation and Conflict Over International Water Resources Number of participants limited to 40. Priority for Science, Technology, and Policy MSc.	<b>w</b>	3 credits	2\$				
	This is a research seminar at the Master level. PhD students are also welcome.							
860-0012-00 S	Cooperation and Conflict Over International	Water	Resources	2 hrs	Tue	12-14	LEE D105	<b>B. Wehrli</b> , T. Bernauer, E. Calamita, T. U. Siegfried
860-0023-00L	International Environmental Politics Particularly suitable for students of D-ITET, D-USYS	W	3 credits	2V				
				2 hrs		16-18	HG F3	T. Bernauer

#### ▶▶ Minor in Transdisciplinarity for Sustainable Development

This minor will only be offered in the academic year 21/22. As of the academic year 22/23, the minor can no longer be chosen. The course units offered in the minor can still be taken as electives.

Number	Title	Туре	ECTS	Hours	Lecturers
701-1551-00L	Sustainability Assessment Number of participants limited to 35.	W	3 credits	2G	
	Waiting list will be deleted October 1st,				

701-1551-00 G Sustainability Assessment 2 hrs Fri 10-12 CHN G42 **P. Krütli**, D. Nef

### **▶▶** Minor in Life Cycle Assessment

This minor will only be offered in the academic year 21/22. As of the academic year 22/23, the minor can no longer be chosen. The course units offered in the minor can still be taken as electives.

Number	Title	Type	ECTS	Hours				Lecturers
101-0577-00L	An Introduction to Sustainable Development in the Built Environment	W	3 credits	2G				
101-0577-00 G	An Introduction to Sustainable Development Environment	t in the I	Built	2 hrs	Tue	16-18	HIL E4	G. Habert, D. Kaushal
101-0608-00L	Design-Integrated Life Cycle Assessment	W	3 credits	2G				
101-0608-00 G	Design-Integrated Life Cycle Assessment Former title: Building Materials and Sustaina	ability		2 hrs	Tue	14-16	HPT C103	G. Habert
102-0317-00L	Advanced Environmental Assessments Master students in Environmental Engineering choosing module Ecological Systems Design are not allowed to enrol 102-0317-00 Advanced Environmental Assessments (3KP) as already included in 102-0307-01 Advanced Environmental, Social and Economic Assessments (5KP).	W	3 credits	2G				
102-0317-00 G	Advanced Environmental Assessments			2 hrs	Thu	10-12	HIL E9	S. Pfister, R. Frischknecht
102-0317-03L	Advanced Environmental Assessment (Computer Lab I)	W	1 credit	1U				
102-0317-03 U	Advanced Environmental Assessment (Com Takes place on Tuesday 8-9.45 at ETH Hör (7 times; starting in the second week of the to be confirmed).	nggerbe	rg <sup>°</sup>	1 hrs				S. Pfister
102-0317-04L	Advanced Environmental Assessment (Computer Lab II)  Not for master students in Environmental Engineering choosing module Ecological System Design as already included in Environment and Computer Laboratory I (Year Course): 102-0527-00 and 102-0528-00.	W	2 credits	2P				
102-0317-04 P	Advanced Environmental Assessment (Com Takes place on Tuesday 8-9.45 at ETH Hör (8 times; starting in the second week of the to be confirmed)	nggerbe	rg	2 hrs				S. Pfister

# **▶▶** Minor in Biogeochemistry

This minor will only be offered in the academic year 21/22. As of the academic year 22/23, the minor can no longer be chosen. The course units offered in the minor can still be taken as electives

Number	Title	Type	ECTS	Hours				Lecturers
701-1313-00L	Isotopes and Biomarkers in Biogeochemistry	W	3 credits	2G				
701-1313-00 G	Isotopes and Biomarkers in Biogeochemistry	/		2 hrs	Tue	14-16	CHN F42	C. Schubert, R. Kipfer
701-1315-00L	Biogeochemistry of Trace Elements	W	3 credits	2G				
701-1315-00 G	Biogeochemistry of Trace Elements			2 hrs	Tue	10-12	LFV E41	<b>A. Voegelin</b> , S. Bouchet, L. Winkel
701-1341-00L	Water Resources and Drinking Water	w	3 credits	2G				
701-1341-00 G	Water Resources and Drinking Water Online event: Will primarily take place online remain blocked on campus for students to for there.				Fri	08-10	CAB G11	S. Hug, M. Berg, F. Hammes, U. von Gunten
701-1346-00L	Carbon Mitigation Number of participants limited to 90. Priority is given to the target groups: Bachelor and Master Environmental Sciences and PHD Environmental Sciences until September 21st,2021. Waiting list will be deleted October 1st, 2021.	W	3 credits	2G				
701-1346-00 G	Carbon Mitigation			2 hrs	Mon	10-12	CHN C14	N. Gruber
▶▶ Minor ir	n Physical Glaciology							
Number	Title	Туре	ECTS	Hours				Lecturers
101-0289-00L	Applied Glaciology	W	4 credits	2G				
101-0289-00 G	Applied Glaciology			2 hrs	Wed	08-10	HIL E8	<b>D. Farinotti</b> , A. Bauder, M. Werder
651-1581-00L	Seminar in Glaciology	w	3 credits	2S				

651-1581-00 S	Seminar in Glaciology Format and topics will be introduced in the September 2021. Attendence is required.	first sess	sion on 22	2 hrs	Wed	16-18	HPK D3	A. Bauder
651-4077-00L	Quantification and Modeling of the Cryosphere: Dynamic Processes (University of Zurich) No enrolment to this course at ETH Zurich. Book the corresponding module directly at UZH as an incoming student. UZH Module Code: GEO815		3 credits	1V				
	Mind the enrolment deadlines at UZH: https://www.uzh.ch/cmsssl/en/studies/appli cation/deadlines.html	i						
651-4077-00 V	Quantification and Modeling of the Cryosph Processes (University of Zurich) **Course at University of Zurich**	nere: Dyr	namic	1 hrs				University lecturers
651-4101-00L	Physics of Glaciers	w	3 credits	3G				
651-4101-00 G	Physics of Glaciers			3 hrs	Mon	12-15	ML E12	<b>M. Lüthi</b> , F. T. Walter, M. Werder
▶► Minor i	n Catchment Management and	Natura						
Number	Title	Туре	ECTS	Hours				Lecturers
701-0565-00L	Fundamentals of Natural Hazards Management	W	3 credits	3G				
701-0565-00 G	Grundzüge des Naturgefahrenmanagemen Does not take place this semester. Zusätzlich zwei obligatorische, ganztägige		nnen.	3 hrs				V. Griess, B. Krummenacher, S. Löw
101-1250-00L	Management of Hillslope and Channel Processes	W	3 credits	2V				
101-1250-00 V	Wildbach- und Hangverbau			2 hrs	Tue	14-16	HIL E8	D. Rickenmann
102-0293-00L	Hydrology	w	3 credits	2G				
102-0293-00 G	Hydrology Online event: This lecture will primarily take Reserved rooms will remain blocked on car follow the course from there.			2 hrs	Tue	14-16	HIL E4	P. Burlando
651-3525-00L	Introduction to Engineering Geology	w	4 credits	2V+1U				
651-3525-00 V	Ingenieurgeologie			2 hrs	Mon	14-16	NO C6	S. Löw, M. Ziegler
651-3525-00 U	Ingenieurgeologie Groups are selected in myStudies. Die Übungen finden in zwei Gruppen statt, (12-13 oder 13-14).	jeweils e	eine Stunde	1 hrs	Tue	12-13 13-14	NO D11 NO D11	S. Löw, L. de Palézieux dit Falconnet, M. Ziegler
651-4088-03L	Phyisical Geography III (Geomorphology and Glaciology) (University of Zürich) No enrolment to this course at ETH Zurich. Book the corresponding module directly at UZH as an incoming student. UZH Module Code: GEO231		5 credits	1V+1U				
	Mind the enrolment deadlines at UZH: https://www.uzh.ch/cmsssl/en/studies/appli cation/deadlines.html	i						
651-4088-03 V	Physische Geographie III: Geomorphologie (Universität Zürich) **Kurs an der Universität Zürich**	und Gla	aziologie	14s hrs				University lecturers
CE4 4000 00 II	Dhuaisaha Caassanhia III. Ühumasa su Dhu	! !	N I-! - !	44-1				Lite Street and Street Land Community

## **▶▶** Minor in Forest Engineering and Wood Products

Gruppen (Universität Zürich)
\*\*Kurs an der Universität Zürich\*\*

To successfully complete this minor, KPs must be earned for the two required courses:

- 701-1645-00 Forest Operations (autumn semester) and
- 701-1544-00 Forest Access and Transportation (spring semester)

651-4088-03 U Physische Geographie III: Übungen zu Physische Geographie in 14s hrs

Number	Title	Type	ECTS	Hours				Lecturers
701-1645-00L	Forest Operations	0	3 credits	2G				
701-1645-00 G	Forest Operations			2 hrs	Mon	14-16	ML H34.3	H. Griess, J. Schweier
101-0637-10L	Wood Structure and Function Number of participants limited to 15.	W	3 credits	2G				
101-0637-10 G	Wood Structure and Function			2 hrs	Wed	16-18	HIT J52	I. Burgert, G. von Arx
101-0637-20L	Fundamentals of Wood Elaboration and Woodmachining	W	3 credits	2G				
101-0637-20 G	Holzbearbeitung und -verarbeitung			2 hrs	Wed	14-16	HIT J52	I. Burgert, M. Schubert

#### ▶▶ Minor in Soil-Plant Relations and Land Use

This minor will only be offered in the academic year 21/22. As of the academic year 22/23, the minor can no longer be chosen. The course units offered in the minor can still be taken as electives.

University lecturers

Number	Title	Type ECTS	Hours	Lecturers

103-0317-00L	Introduction to Spatial Development and Transformation Only for master students, otherwise a special permisson by the lecturer is required.		3 credits	2G	Total	40.40		M Nellest D Keeferees
103-0317-00 G	Introduction to Spatial Development and Ti	anstorm	ation	2 hrs	Tue	10-12	HIL E6	M. Nollert, D. Kaufmann
751-3405-00L	Chemical Nature of Nutrients and their Availability to Plants: The Case of Phosphorus Number of participants limited to 15. Priority will be given to students in Agricultural Sciences	W	4 credits	4G				
751-3405-00 G	Chemical Nature of Nutrients and their Ava Case of Phosphorus The lectures will spread over 13 Friday mo semester. The lecture will be organized in of Plant Nutrition at the Experimental static Eschikon-Lindau. The location of the experimental station Es http://www.ias.ethz.ch/researchstation/esc	rnings in Eschikoi In Eschik Ichikon is	the autumn n, in the Group kon, 8315					E. Frossard, L. P. Schönholzer, M. Wiggenhauser
751-5101-00L	Biogeochemistry and Sustainable Management	W	2 credits	2G				
751-5101-00 G	Biogeochemistry and Sustainable Manager Does not take place this semester.	ment		2 hrs				W. Eugster, V. Klaus
<b>701-1695-00L</b> 701-1695-00 S	Soil Science Seminar Soil Science Seminar	Z	0 credits	<b>1S</b> 1 hrs	Tue	17-19	CHN P12	R. Kretzschmar, A. Carminati S. Dötterl, E. Frossard, M. Hartmann
<b>701-1343-00L</b> 701-1343-00 V	Soil-Plant Water Relations Soil-Plant Water Relations	W	3 credits	<b>2V</b> 2 hrs	Fri	10-12	ML H41.1	A. Carminati
751-5201-10L	Tropical Cropping Systems, Soils and Livelihoods This course has been restructured due to Covid-19 restrictions, part I (2 CP) takes place in Autumn 2021, part II (3 CP) in Spring 2022, with an excursion/fieldwork. For more information, please contact the lecturer: kenza.benabderrazik@usys.ethz.ch	W	2 credits	2G				
751-5201-10 G	Tropical Cropping Systems, Soils and Live This has been restructured due to Covid-1: excursion/field work will take place in sprin information, please contact the lecturer: kenza.benabderrazik@usys.ethz.ch	9 restrict		2 hrs	Thu 23.09.	08-10 08-10	CHN G22 CHN E42	J. Six, K. Benabderrazik
	n Agricultural Plant Production							
Number	Title		ECTS	Hours				Lecturers
<b>701-1343-00L</b> 701-1343-00 V	Soil-Plant Water Relations Soil-Plant Water Relations	W	3 credits	<b>2V</b> 2 hrs	Fri	10-12	ML H41.1	A. Carminati
<b>751-3700-00L</b> 751-3700-00 V	Plant Ecophysiology Ökophysiologie Teile der Lehrveranstaltung wird in Englisc	<b>W</b> h gehalt	2 credits	<b>2V</b> 2 hrs	Thu	16-18	LFW C5	<b>M. Gharun</b> , M. Lehmann, A. Walter
751-4003-01L		W	2 credits	28				
751-4003-01 S	Current Topics in Grassland Sciences Online lecture: This lecture will take place will remain reserved on campus for studen from there.				Mon	16-18	LFW C1	A. K. Gilgen
<b>751-4104-00L</b> 751-4104-00 V	Alternative Crops Alternative Crops	W	2 credits	<b>2V</b> 2 hrs	Wed	16-18	LFW C5	A. Walter, K. Berger Büter
751-4704-00L	Weed Science	W	3 credits	2G				
751-4704-00 G 751-5003-00L	Weed Science  Sustainable Agroecosystems II	W	2 credits	2 hrs	Thu	14-16	LFW B3	B. Streit, U. J. Haas
	Sustainable Agroecosystems II	**	2 Credits	2 hrs	Thu/2w	14-18	LFW B1	K. Benabderrazik, M. Hartmann
►► Minor ir	n Environmental, Resource and	l Food	l Econom	ics				
Number	Title	Type	ECTS	Hours				Lecturers
363-0537-00L	Resource and Environmental Economics	W	3 credits	2G				
363-0537-00 G	Resource and Environmental Economics The lecture takes place in classroom, online recorded.	e via live	estreaming an	2 hrs	Wed	10-12	HG G3	L. Bretschger
751-0423-00L	Risk Analysis and Risk Management in Agriculture		3 credits	2G				
751-0423-00 G	Risk Analysis and Risk Management in Ag	riculture		2 hrs	Thu	14-16	ML J34.3	R. Finger

751-0903-00L	Microeconomics of the Agriculture and Food Sector	W	3 credits	2V				
751-0903-00 V	Mikroökonomie des Agrar- und Lebensmitte	Isektors		2 hrs	Thu	08-10	LFW C1	S. Wimmer
751-1311-00L	Introduction to Agricultural Management	w	2 credits	2V				
	Einführung in das Agrarmanagement	••		2 hrs	Wed	08-10	CAB G61	R. Finger
751-1573-00L	Dynamic Simulation in Agricultural and Regional Economics	W	2 credits	2V				
751-1573-00 V	Dynamic Simulation in Agricultural and Regi	ional Ec	onomics	2 hrs	Fri/1	08-12	HG D3.1	B. Kopainsky
751-2103-00L	Socioeconomics of Agriculture	w	2 credits	2V				
	Socioeconomics of Agriculture			2 hrs	Tue	08-10	LFW B3	S. Mann
751-2903-001	Evaluation of Agricultural Policies	w	3 credits	2G				
	Evaluation of Agricultural Policies	••	o creunts	2 hrs	Thu	16-18	ML J34.3	R. Huber, R. Finger, C. Schader
► Electives	<b>i</b>							
▶▶ Other								
Number	Title	Туре	ECTS	Hours				Lecturers
701-0019-00L	Readings in Environmental Thinking	W	3 credits	2S				
701-0019-00 S	Readings in Environmental Thinking			2 hrs	Fri	16-18	CHN G42 CHN G46	J. Ghazoul
701-3001-00L	Environmental Systems Data Science	w	3 credits	2G				
701-3001-00 G	Environmental Systems Data Science			2 hrs	Tue 21.09.	08-10	CHN D44 CHN D46 CHN F42 CHN G22 HG D1.1	<b>L. Pellissier</b> , J. Payne, B. Stocker
363-1065-00L	Design Thinking: Human-Centred Solutions to Real World Challenges	W	5 credits	5G				
363-1065-00 G	Design Thinking: Human-Centred Solutions Challenges Does not take place this semester. From FS22 in the spring semester.	to Real	World	5 hrs				S. Brusoni
▶► Course	Catalogue of ETH Zurich							
	Course Catalogue of ETH Zurich							
► Profession	onal Internship							
Number	Title	Туре	ECTS	Hours				Lecturers
701-1001-00L	Professional Internship Only for Environmental Sciences MSc. Completion and enrollment for the course «Professional Internship" is only possible after admission requirements and all additional requirements are fulfilled.  Registration and recognition of professional internship via https://www.lehrbetrieb.ethz.ch/praxis No registration in myStudies required. For more information:	0	30 credits					
701-1001-00 P	www.usys.ethz.ch/internship-envsc							A. Funk

Number	Title	Type	ECTS	Hours	Lecturers
701-1001-00L	Professional Internship Only for Environmental Sciences MSc. Completion and enrollment for the course «Professional Internship" is only possible after admission requirements and all additional requirements are fulfilled.	0	30 credits		
	Registration and recognition of professional internship via https://www.lehrbetrieb.ethz.ch/praxis No registration in myStudies required. For more information: www.usys.ethz.ch/internship-envsc				
701-1001-00 P	Berufspraxis Permission from lecturers required for all stu	dents			A. Funk

Number	Title	Туре	ECTS	Hours		Lecturers
701-1002-00L	Master's Thesis Only students who fulfill the following criteria are allowed to begin with their Master's thesis: a) The signed request for the Bachelor's Degree Certicicate has been submitted or processed. b) At least 32 CP of coursework related to the major have been acquired. c) All additional requirements (as stated in the admissions decision), including any assessment repetitions, are fulfilled. Additional information is posted on the following webpage: https://www.usys.ethz.ch/en/studies/environ mental-sciences/master/thesis.html	0	30 credits	64D		
701-1002-00 D	Master's Thesis ■ Permission from lecturers required for all students	dents		900s hrs	by appt.	Lecturers

# ► Course Units for Additional Admission Requirements

The courses below are only available for Master students with additional admission requirements.

Number	Title		ECTS	Hours	Lecturers
351-1158-AAL	Principles of Economics Enrolment ONLY for MSc students with a decree declaring this course unit as an additional admission requirement.	E-	3 credits	6R	
	Any other students (e.g. incoming exchange students, doctoral students) CANNOT enrol for this course unit.				
351-1158-AA R	Principles of Economics Self-study course. No presence required.			90s hrs	<b>U. Renold</b> , T. Bolli, P. McDonald, M. E. Oswald- Egg, F. Pusterla
406-0062-AAL	Physics I Enrolment ONLY for MSc students with a decree declaring this course unit as an additional admission requirement.	E-	5 credits	11R	
406 0062 AA D	Any other students (e.g. incoming exchange students, doctoral students) CANNOT enrol for this course unit.			150a hra	A. Voterlaue
406-0062-AA R	Self-study course. No presence required.			150s hrs	A. Vaterlaus
406-0063-AAL	Physics II Enrolment ONLY for MSc students with a decree declaring this course unit as an additional admission requirement.	E-	5 credits	11R	
	Any other students (e.g. incoming exchange students, doctoral students) CANNOT enrol for this course unit.				
406-0063-AA R	Physics II Self-study course. No presence required.			150s hrs	A. Vaterlaus
406-0064-AAL	Physics I and II Enrolment ONLY for MSc students with a decree declaring this course unit as an additional admission requirement.	E-	10 credits	21R	
	Any other students (e.g. incoming exchange students, doctoral students) CANNOT enrol for this course unit.				
406-0064-AA R	Physics I and II Self-study course. No presence required.			300s hrs	A. Vaterlaus
406-0251-AAL	Mathematics I Enrolment ONLY for MSc students with a decree declaring this course unit as an additional admission requirement.	E-	6 credits	13R	
	Any other students (e.g. incoming exchange students, doctoral students) CANNOT enrol for this course unit.				
406-0251-AA R	Mathematics I Self-study course. No presence required.			180s hrs	F. Da Lio
406-0252-AAL	Mathematics II Enrolment ONLY for MSc students with a decree declaring this course unit as an additional admission requirement.	E-	7 credits	15R	
	Any other students (e.g. incoming exchange students, doctoral students) CANNOT enrol for this course unit.				
406-0252-AA R	Mathematics II Self-study course. No presence required.			210s hrs	L. Halbeisen
406-0253-AAL	Mathematics I & II  Enrolment ONLY for MSc students with a decree declaring this course unit as an additional admission requirement.	E-	13 credits	28R	
	Any other students (e.g. incoming exchange students, doctoral students) CANNOT enrol for this course unit.				
406-0253-AA R	Mathematics I & II Self-study course. No presence required.			390s hrs	L. Halbeisen
406-0603-AAL	Stochastics (Probability and Statistics) Enrolment ONLY for MSc students with a decree declaring this course unit as an additional admission requirement.	E-	4 credits	9R	
	Any other students (e.g. incoming exchange students, doctoral students) CANNOT enrol for this course unit.				
406-0603-AA R	Stochastics (Probability and Statistics) Self-study course. No presence required.			120s hrs	M. Kalisch

Second						
exchange students, doctoral students) 525-2011AA R Chemistry II and II 525-2012AA R Chemistry II and II 529-2022AA C Chemistry II with My for MSc students with a doctoral students) Any office students (e.g. ir izoning exchange students, ductoral students) Any office students (e.g. ir izoning exchange students, ductoral students) Any office students (e.g. ir izoning exchange students, ductoral students) Any office students (e.g. ir izoning exchange students, ductoral students) Any office students (e.g. izoning exchange students, ductoral students) Any office students (e.g. izoning exchange students, ductoral students) Any office students (e.g. izoning exchange	529-2001-AAL	Enrolment ONLY for MSc students with a decree declaring this course unit as an	E-	9 credits	19R	
Self-study outner. No presence required.  529-2002-AIA. Chemistry II Enrichment ONLY for MSc students with a decree declaiming his course unit as an an additional admission requirement.  Any other students (a, priconning exchange students, obstantially students) course unit as an an additional admission requirement.  Any other students (a, priconning exchange students) course unit as an additional admission requirement.  Any other students (a, priconning exchange students) course unit as an additional admission requirement.  Any other students (a, priconning exchange students) course unit as an additional admission requirement.  Any other students (a, priconning exchange students) course unit as an additional admission requirement.  Any other students (a, priconning exchange students) course unit as an additional admission requirement.  Any other students (a, priconning exchange students) course unit as an additional admission requirement.  Any other students (a, priconning exchange students) course unit as an additional admission requirement.  Any other students (a, priconning exchange students) course unit as an additional admission requirement.  Any other students (a, priconning exchange students, octorial students) course unit as an additional admission requirement.  Any other students (a, priconning exchange students, octorial students) course unit as an additional admission requirement.  Any other students (a, priconning exchange students, octorial students) course unit as an additional admission requirement.  Any other students (a, priconning exchange students, octorial students) course unit as an additional admission requirement.  Any other students (a, priconning exchange students, octorial students) course unit as an additional admission requirement.  Any other students (a, priconning exchange students, octorial students) course unit as an additional admission requirement.  Any other students (a, priconning exchange students) course unit as an additional admission requirement.  Any other students (a,		exchange students, doctoral students)				
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exchange students, doctoral students) 529-2002-AA R Chemistry II 529-2002-AA R Chemistry II 529-2002-AA R Chemistry II 529-2002-AA R Chemistry II 551-0001-AAL 6 Ceneral Biology I 6 Chemistry II 701-001-AA L Chemistry II 701-002-AA R Chemistry II 701-002-AA R Chemistry II 701-002-AA R Chemistry II 701-002-AA R R Almosphere Frommen Chil Y for MSC students with an additional administra not requirement. Any other students (e.g. incoming exchange students, Chemistry III 701-002-AA R R Almosphere Frommen Chil Y for MSC students with an additional administra nequirement. Any other students (e.g. incoming exchange students, Chemistry III 701-002-AA R Mathematics III Systems Analysis Errorment Chil Y for MSC students with a made in the curse unit.  Frommen Chil Y for MSC students with a new property of the curse unit.  Frommen Chil Y for MSC students with a new property of the curse unit.  Frommen Chil Y for MSC students with a new property of the curse unit.  Frommen Chil Y for MSC students with a new property of the curse unit.  Frommen Chil Y for MSC students with a new property of the curse unit.  Frommen Chil Y for MSC students with a new property of the curse unit.  Frommen Chil Y for MSC students with a new property of the curse unit.  Frommen Chil Y for MSC students with a new property of the curse unit.  Frommen Chil Y for MSC students with a new property of the curse unit.  Frommen Chil Y for MSC students with a new property of the curse unit.  Frommen Chil Y for MSC students with a new property of the curse unit.  Frommen Chil Y for MSC students with a new property of the curse unit.  Frommen Chil Y for MSC students with a new property of the curse unit.  Frommen Chil Y for MSC students with a new property of the curse unit.  Frommen Chil Y for MSC students with a new property of the curse unit.  Frommen Chil Y for MSC students with a new property of the curse unit.  Frommen Chil Y for MSC students with a new property of the curse unit.  Frommen Chil Y for MSC students with a new property of the curse unit.	529-2002-AAL	Enrolment ONLY for MSc students with a decree declaring this course unit as an	E-	5 credits	11R	
Self-study course. No presence required.  551-0001-AA. General Biology I Environment ONLY for MS students with a an additional admission requirement.  Any other students is e.g. incoming exchange students, doctoral student		exchange students, doctoral students)				
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exidange students, doctoral students) CANNOT error for this course unit search 551-0001-AR R General Biology I Servand CONNOT error for this course unit as an additional admission requirement.  551-0003-AL Mathematics III Systems Analysis Any other students (e.g. incoming exchange students, doctoral students) CANNOT error for this course unit as an additional admission requirement.  Any other students (e.g. incoming exchange students) CANNOT error for this course unit as an additional admission requirement.  Any other students (e.g. incoming exchange students) CANNOT error for this course unit as an additional admission requirement.  Any other students (e.g. incoming exchange students) CANNOT error for this course unit as an additional admission requirement.  Any other students (e.g. incoming exchange students) CANNOT error for this course unit as an additional admission requirement.  Any other students (e.g. incoming exchange students) CANNOT error for this course unit as an additional admission requirement.  Any other students (e.g. incoming exchange students) CANNOT error for this course unit as an additional admission requirement.  Any other students (e.g. incoming exchange students) CANNOT error for this course unit as an additional admission requirement.  Any other students (e.g. incoming exchange students) CANNOT error for this course unit as an additional admission requirement.  Any other students (e.g. incoming exchange students) CANNOT error for this course unit as an additional admission requirement.  Any other students (e.g. incoming exchange students) CANNOT error for this course unit as an additional admission requirement.  Any other students (e.g. incoming exchange students) CANNOT error for this course unit.  701-004-AA R Mathematics II. Suddents with a decree declaring this course unit as an additional admission requirement.  Any other students (e.g. incoming exchange students) CANNOT error for this course unit.  701-0106-AA R Mathematics II. Suddents with a decree declaring this course unit as	551-0001-AAL	Enrolment ONLY for MSc students with a decree declaring this course unit as an	E-	3 credits	6R	
Self-study course. No presence required. Pelase contact Prof. Use Sauer for further information.  551-0003-AAL General Biology I+II Formment ONLY for MSc students with a decree declaring this course unit as an additional admission requirement.  Any other students (e.g. incoming exchange students, doctoral students) contact Prof. Use Sauer for further information.  551-0003-AA R General Biology I+II Sease contact Prof. Use Sauer for further information.  701-0023-AAL Almosphere Enrolment ONLY for MSc students with a additional admission requirement.  Any other students (e.g. incoming exchange students) contact Prof. Use Sauer for further information.  701-0023-AAL Almosphere Enrolment ONLY for MSc students with a decree declaring this course unit as an additional admission requirement.  Any other students (e.g. incoming exchange students) control information.  701-0023-AAR Almosphere Reference required. Pelase contact Dr. Elich Fischer for further information.  701-0023-AAR Almosphere Reference required. Pelase contact Dr. Elich Fischer for further information.  701-0023-AAR Almosphere Reference required. Pelase contact Dr. Elich Fischer for further information.  701-0071-AAL Mathematics III: Systems Analysis Enrolment ONLY for MSc students with a decree declaring this course unit as an additional admission requirement.  Any other students (e.g. incoming exchange students) counted from the fine further information.  701-0071-AAR Reference Refe		exchange students, doctoral students)				
Enrolment ONLY for MSc students with a decree declaring this course unit as an additional admission requirement.  Any other students (e.g. incoming exchange students) CANNOT enrol for this course unit.  551-0003-AR General Biology HII Solf-study course. No presence required sole decree declaring this course unit as an additional admission requirement.  Any other students, decroral students with a decree declaring this course unit.  701-0023-AAL Amosphere Enrolment ONLY for MSc students with a decree declaring this course unit as an additional admission requirement.  Any other students, decroral students enrolment.  Any other students, decroral students enrolment.  701-0023-AA R Atmosphere Self-study course. No presence required Please contact Dr. Erich Fischer for further information.  701-0023-AA R Atmosphere Self-study course. No presence required Please contact Dr. Erich Fischer for further information.  701-0071-AAL Mathematical III Systems Analysis Enrolment ONLY for MSc students with a decree declaring this course unit as an additional admission requirement.  701-0071-AA R Mathematical III Systems Analysis Self-study course. No presence required self-students, doctoral students) CARNOT enrol for this course unit as an additional admission requirement in formation.  701-0106-AA Mathematical Prof. Reto Kinution for further information.  701-0106-AA Mathematical Prof. Reto Kinution in as an additional admission requirement in as an additional admission requirement of the solure with a series additional admission requirement of the solures with a decree declaring this course unit as an additional admission requirement of the solures with a decree declaring this course unit as an additional admission requirement.  Any other students (e.g. incoming exchanges tudents) colored in the surface of the surface of the surface of the surface of the surface of the surface of the surface of the surface of the surface of the surface of the surface of the surface of the surface of the surface of the surface of the surface	551-0001-AA R	Self-study course. No presence required.	r informa	tion.	90s hrs	·
exchange students, doctoral students) CANNOT error for this course unit.  551-0003-AA R General Biology I+II Self-study course. No presence required. Please contact Prof. Uwe Sauer for further information.  701-0023-AAL Amosphere Enrolment ONLY for MSc students with a decree declaring this course unit as an additional admission requirement.  Any other students (e.g. incoming exchange students, doctoral students) coloral students (e.g. incoming exchange students, doctoral students) exchange students, doctoral students of Please contact Dr. Erich Fischer for further information.  701-0023-AA R Atmosphere Self-study course. No presence required. Please contact Dr. Erich Fischer for further information.  701-0071-AA Mathematics III: Systems Analysis Enrolment ONLY for MSc students with a decree declaring flis course unit as an additional admission requirement.  Any other students (e.g. incoming exchange students, obctoral students) exchange students, doctoral students) exchange students, doctoral students of Please contact Prof. Relo Knunti for further information.  701-0106-AA Mathematics II: Systems Analysis engineers of the Students with a decree declaring this course unit as an additional admission requirement.  Any other students (e.g. incoming exchange students, octoral students) exchange students, doctoral students of the Students with a decree declaring this course unit as an additional admission requirement.  Any other students (e.g. incoming exchange students, octoral students) exchange students, doctoral students present or turther information.  701-0106-AA R Mathematics V- Applied Deepening of Nuthernational environal en	551-0003-AAL	Enrolment ONLY for MSc students with a decree declaring this course unit as an	E-	7 credits	13R	
Self-study course. No presence required. Please contact Prof. Uwe Sauer for further information.  701-0023-AAL Atmosphere Enrolment ONLY for MSc students with a decree declaring this course unit as an additional admission requirement.  Any other students (e.g. incoming exchange students) CAINNOT enrol for this course unit.  701-0023-AAR Atmosphere Please contact Dr. Erich Fischer for further information.  701-0023-AAR Atmosphere Please contact Dr. Erich Fischer for further information.  701-0071-AAL Mathematics III: Systems Analysis Enrolment ONLY for MSc students with a decree declaring this course unit as an additional admission requirement.  Any other students (e.g. incoming exchange students, doctoral students) CAINNOT enrol for this course unit.  701-0071-AAR Mathematics III: Systems Analysis Enrolment ONLY for MSc students with a decree declaring this course unit as an additional admission requirement.  Any other students (e.g. incoming exchange students) CAINNOT enrol for this course unit as an additional admission requirement.  Any other students (e.g. incoming exchange students) CAINNOT enrol for this course unit as an additional admission requirement.  Any other students (e.g. incoming exchange students, doctoral students) CAINNOT enrol for this course unit as an additional admission requirement.  Any other students (e.g. incoming exchange students, doctoral students) CAINNOT enrol for this course unit as an additional admission requirement.  Please contact Or. Michael Sprenger for further information.  701-0106-AAR Mathematics V: Applied Deepening of Mathematics I - III enrolment ONLY for MSc students with a decree declaring this course unit as an additional admission requirement.  Any other students (e.g. incoming exchange students) CAINNOT enrol for this course unit as an additional admission requirement.  Any other students (e.g. incoming		exchange students, doctoral students)				
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exchange students, doctoral students) CANNOT enrol for this course unit.  701-0023-AA R Atmosphere Self-study course. No presence required. Please contact Dr. Erich Fischer for further information.  701-0071-AAL Mathematics III: Systems Analysis Enrolment ONLY for MSc students with a decree declaring this course unit as an additional admission requirement.  Any other students (e.g. incoming exchange students) CANNOT enrol for this course unit.  701-0071-AA R Mathematics III: Systems Analysis Self-study course. No presence required. Please contact Prof. Reto Knuntti for further information.  701-0106-AA L Mathematics V: Applied Deepening of Mathematics I III Enrolment ONLY for MSc students with a decree declaring this course unit as an additional admission requirement.  Any other students (e.g. incoming exchange students, doctoral students) CANNOT enrol for this course unit.  701-0106-AA R Mathematics V: Applied Deepening of Mathematics I - III Enrolment ONLY for MSc students with a decree declaring this course unit.  701-0108-AB R Mathematics V: Applied Deepening of Mathematics I - III Self-study course. No presence required. Please contact Dr. Michael Sprenger for further information.  701-0106-AA R Mathematics V: Applied Deepening of Mathematics I - III Self-study course. No presence required. Please contact Dr. Michael Sprenger for further information.  701-0243-AAL Biology III: Essentials of Ecology Enrolment ONLY for MSc students with a decree declaring this course unit as an additional admission requirement.  Any other students (e.g. incoming	701-0023-AAL	Enrolment ONLY for MSc students with a decree declaring this course unit as an	E-	3 credits	6R	
Self-study course. No presence required. Please contact Dr. Erich Fischer for further information.  701-0071-AAL Mathematics III: Systems Analysis Enrolment ONLY for MSc students with a decree declaring this course unit as an additional admission requirement.  Any other students (e.g. incoming exchange students, doctoral students) CANNOT enrol for this course unit.  701-0071-AA R Mathematics III: Systems Analysis Self-study course. No presence required. Please contact Prof. Reto Knutti for further information.  701-0106-AAL Mathematics V: Applied Deepening of Mathematics I- III Enrolment ONLY for MSc students with a decree declaring this course unit.  Any other students (e.g. incoming exchange students, doctoral students) CANNOT enrol for this course unit.  701-0106-AA R Mathematics V: Applied Deepening of Mathematics I - III 90s hrs  M.A. Sprenger  M.A. Sprenger  M.A. Sprenger  Tol-0106-AA R Mathematics V: Applied Deepening of Mathematics I - III 90s hrs  M.A. Sprenger  M.A. Sprenger  Tol-0243-AAL Biology III: Essentials of Ecology Enrolment ONLY for MSc students with a decree declaring this course unit as an additional admission requirement.  Any other students (e.g. incoming		exchange students, doctoral students)				
Enrolment ONLY for MSc students with a decree declaring this course unit as an additional admission requirement.  Any other students (e.g. incoming exchange students, doctoral students) CANNOT enrol for this course unit.  701-0071-AA R Mathematics II: Systems Analysis Self-study course. No presence required. Please contact Prof. Reto Knuntti for further information.  701-0106-AAL Mathematics V: Applied Deepening of Mathematics V: III Enrolment ONLY for MSc students with a decree declaring this course unit as an additional admission requirement.  Any other students (e.g. incoming exchange students, doctoral students) CANNOT enrol for this course unit.  701-0106-AA R Mathematics V: Applied Deepening of Mathematics I - III 90s hrs  M. A. Sprenger Self-study course. No presence required. Please contact Dr. Michael Sprenger for further information.  701-0243-AAL Biology III: Essentials of Ecology Enrolment ONLY for MSc students with a decree declaring this course unit as an additional admission requirement.  Any other students (e.g. incoming	701-0023-AA R	Self-study course. No presence required.	r informa	tion.	90s hrs	E. M. Fischer, T. Peter
exchange students, doctoral students) CANNOT enrol for this course unit.  701-0071-AA R Mathematics III: Systems Analysis Self-study course. No presence required. Please contact Prof. Reto Knuntti for further information.  701-0106-AAL Mathematics V: Applied Deepening of Mathematics I - III Enrolment ONLY for MSc students with a decree declaring this course unit as an additional admission requirement.  Any other students (e.g. incoming exchange students, doctoral students) CANNOT enrol for this course unit.  701-0106-AA R Mathematics V: Applied Deepening of Mathematics I - III Self-study course. No presence required. Please contact Dr. Michael Sprenger for further information.  701-0243-AAL Biology III: Essentials of Ecology Enrolment ONLY for MSc students with a decree declaring this course unit as an additional admission requirement.  Any other students (e.g. incoming	701-0071-AAL	Enrolment ONLY for MSc students with a decree declaring this course unit as an	E-	4 credits	9R	
Self-study course. No presence required. Please contact Prof. Reto Knuntti for further information.  701-0106-AAL Mathematics V: Applied Deepening of Mathematics I - III Enrolment ONLY for MSc students with a decree declaring this course unit as an additional admission requirement.  Any other students (e.g. incoming exchange students, doctoral students) CANNOT enrol for this course unit.  701-0106-AA R Mathematics V: Applied Deepening of Mathematics I - III 90s hrs M. A. Sprenger Self-study course. No presence required. Please contact Dr. Michael Sprenger for further information.  701-0243-AAL Biology III: Essentials of Ecology Enrolment ONLY for MSc students with a decree declaring this course unit as an additional admission requirement.  Any other students (e.g. incoming		exchange students, doctoral students)				
Mathematics I - III  Enrolment ONLY for MSc students with a decree declaring this course unit as an additional admission requirement.  Any other students (e.g. incoming exchange students, doctoral students) CANNOT enrol for this course unit.  701-0106-AA R Mathematics V: Applied Deepening of Mathematics I - III 90s hrs  M. A. Sprenger Self-study course. No presence required. Please contact Dr. Michael Sprenger for further information.  701-0243-AAL Biology III: Essentials of Ecology E- 3 credits Enrolment ONLY for MSc students with a decree declaring this course unit as an additional admission requirement.  Any other students (e.g. incoming	701-0071-AA R	Self-study course. No presence required.	er inform	ation.	120s hrs	R. Knutti, H. Wernli
exchange students, doctoral students) CANNOT enrol for this course unit.  701-0106-AA R Mathematics V: Applied Deepening of Mathematics I - III 90s hrs M. A. Sprenger Self-study course. No presence required. Please contact Dr. Michael Sprenger for further information.  701-0243-AAL Biology III: Essentials of Ecology E- 3 credits Enrolment ONLY for MSc students with a decree declaring this course unit as an additional admission requirement.  Any other students (e.g. incoming	701-0106-AAL	Mathematics I - III  Enrolment ONLY for MSc students with a decree declaring this course unit as an	E-	3 credits	6R	
Self-study course. No presence required. Please contact Dr. Michael Sprenger for further information.  701-0243-AAL Biology III: Essentials of Ecology Enrolment ONLY for MSc students with a decree declaring this course unit as an additional admission requirement.  Any other students (e.g. incoming	701-0106-AA R	exchange students, doctoral students) CANNOT enrol for this course unit.	hematics	s I - III	90s hrs	M. A. Sprenger
Enrolment ONLY for MSc students with a decree declaring this course unit as an additional admission requirement.  Any other students (e.g. incoming		Self-study course. No presence required.				
	701-0243-AAL	Enrolment ONLY for MSc students with a decree declaring this course unit as an	E-	3 credits	6R	

#### CANNOT enrol for this course unit. 701-0243-AA R Biology III: Essentials of Ecology J. Hille Ris Lambers 90s hrs Self-study course. No presence required. Please contact Prof. Janneke Hille RIs Lambers for further information 701-0401-AAL Hydrosphere 3 credits 6R Enrolment ONLY for MSc students with a decree declaring this course unit as an additional admission requirement. Any other students (e.g. incoming exchange students, doctoral students) CANNOT enrol for this course unit. 701-0401-AA R Hydrosphere 90s hrs R. Kipfer, M. H. Schroth Self-study course. No presence required. Please contact Prof. Rolf Kipfer or Prof. Martin Schroth for further information. 701-0473-AAL Weather Systems 3 credits Enrolment ONLY for MSc students with a decree declaring this course unit as an additional admission requirement. Any other students (e.g. incoming exchange students, doctoral students) CANNOT enrol for this course unit. 701-0473-AA R Weather Systems 90s hrs M. A. Sprenger, F. Scholder-Self-study course. No presence required. Aemisegger Please contact Dr. Michael Sprenger for further information. 701-0475-AAL Atmospheric Physics 3 credits 6R Enrolment ONLY for MSc students with a decree declaring this course unit as an additional admission requirement. Any other students (e.g. incoming exchange students, doctoral students) CANNOT enrol for this course unit. 701-0475-AA R Atmospheric Physics 90s hrs U. Lohmann Self-study course. No presence required. Please contact Prof. Ulrike Lohmann for further information. 701-0501-AAL Pedosphere 3 credits 6R Enrolment ONLY for MSc students with a decree declaring this course unit as an additional admission requirement. Any other students (e.g. incoming exchange students, doctoral students) CANNOT enrol for this course unit. 701-0501-AA R Pedosphere 90s hrs R. Kretzschmar

Self-study course. No presence required. Please contact Prof. Ruben Kretzschmar for further information.					
701-0721-AAL	Psychology Enrolment ONLY for MSc students with a decree declaring this course unit as an additional admission requirement.	E-	3 credits	6R	

Any other students (e.g. incoming exchange students, doctoral students)

CANNOT enrol for this course unit.

701-0721-AA R Psychology

90s hrs

M. Siegrist

Self-study course. No presence required.
Please contact Prof. Michael Siegrist for further information.

752-4001-AAL Microbiology E- 2 credits 4R
Enrolment ONLY for MSc students with a

decree declaring this course unit as an additional admission requirement.

Any other students (e.g. incoming exchange students, doctoral students)

CANNOT enrol for this course unit.

752-4001-AA R Microbiology 60s hrs **M. Ackermann** Self-study course. No presence required.

Environmental Sciences Master - Key for Type

W+ Eligible for credits and recommended
W Eligible for credits
Dr Suitable for doctorate
E- Recommended, not eligible for credits
O Compulsory

Key for	Hours		
V	lecture	P	practical/laboratory course
G	lecture with exercise	A	independent project
U	exercise	D	diploma thesis
S	seminar	R	revision course / private study
K	colloquium		

**ECTS** 

European Credit Transfer and Accumulation System
Special students and auditors need special permission from the lecturers.

# **Process Engineering Master**

# **▶** Core Courses

Number	Title	Type	ECTS	Hours				Lecturers
151-0107-20L	High Performance Computing for Science and Engineering (HPCSE) I	W	4 credits	4G				
51-0107-20 G	High Performance Computing for Science a (HPCSE) I Lecture: 12-14h Exercises: 14-16h	and Engi	neering	4 hrs	Fri	12-14 14-16	ML H44 ML H44	P. Koumoutsakos, S. M. Martin
151-0125-00L	Hydrodynamics and Cavitation	W	4 credits	3G				
151-0125-00 G	Hydrodynamics and Cavitation			3 hrs	Mon	10-13	HG E21	<b>C. Bourquard</b> , L. Biasiori- Poulanges
151-0185-00L	Radiation Heat Transfer	W	4 credits	2V+1U				
151-0185-00 V	Radiation Heat Transfer Online lecture: This lecture will primarily tal Reserved rooms will remain blocked on car follow the course from there.			2 hrs	Thu	10-12	ML F39	A. Steinfeld, P. Pozivil
151-0185-00 U	Radiation Heat Transfer Online event: Will primarily take place onlin remain blocked on campus for students to there.			1 hrs	Thu	12-13	ML F39	A. Steinfeld, P. Pozivil
151-0209-00L	Renewable Energy Technologies	W	4 credits	3G				
151-0209-00 G	Renewable Energy Technologies Online event: Will primarily take place online remain blocked on campus for students to there.				Tue	14-17	HG G5	A. Steinfeld, E. I. M. Casati
151-0213-00L	Fluid Dynamics with the Lattice Boltzmann Method	W	4 credits	3G				
151-0213-00 G	Fluid Dynamics with the Lattice Boltzmann This course will be taught in a hybrid of onl classroom formats; students will be informed class on campus or should join the live stree	ine and f ed who ca	an attend the	3 hrs	Wed	10-13	IFW B42	I. Karlin
151-0293-00L	Combustion and Reactive Processes in Energy and Materials Technology	W	4 credits	2V+1U+2	2 <b>A</b>			
151-0293-00 V	Combustion and Reactive Processes in En	ergy and	Materials	2 hrs	Thu	10-12	CAB G61	N. Noiray, F. Ernst, C. E. Frouzakis
151-0293-00 U	Technology Combustion and Reactive Processes in En	ergy and	Materials	1 hrs	Mon	17-18	ML F36	N. Noiray, F. Ernst, C. E. Frouzakis
151-0293-00 A	Technology Combustion and Reactive Processes in En Technology	ergy and	Materials	30s hrs	by appt			N. Noiray, F. Ernst, C. E. Frouzakis
151-0509-00L	Microscale Acoustofluidics	W	4 credits	3G				
151-0509-00 G	Microscale Acoustofluidics The course will take place on 29.09.21 in N	1L F 36.		3 hrs	Wed 29.09.	13-16 13-16	LFO C13 ML F36	J. Dual
151-0902-00L	Micro- and Nanoparticle Technology Number of participants is limited to 20. Additional ones could be enrolled by permission of the lecturer.	W	6 credits	2V+2U				
151-0902-00 V	Micro- and Nanoparticle Technology  Permission from lecturers required for all si	tudents		2 hrs	Fri	10-12	ML F40	<b>S. E. Pratsinis</b> , G. Kelesidis, K. Wegner
151-0902-00 U	Micro- and Nanoparticle Technology  Permission from lecturers required for all si			2 hrs	Wed	14-16	ML F40	<b>S. E. Pratsinis</b> , G. Kelesidis, V. Mavrantzas
151-0905-00L	Medical Technology Innovation - From Concept to Clinics	W	4 credits	3P				
151-0905-00 P	Medical Technology Innovation - From Con	cept to C	Clinics	3 hrs	Tue	08-11	LFW C4	I. Herrmann
<b>151-0911-00L</b> 151-0911-00 V	Introduction to Plasmonics Introduction to Plasmonics Does not take place this semester. Will be offered again in HS22.	W	4 credits	<b>2V+1U</b> 2 hrs				D. J. Norris
151-0911-00 U	Introduction to Plasmonics Does not take place this semester. Will be offered again in HS22.			1 hrs				D. J. Norris
151-0913-00L	Introduction to Photonics	w	4 credits	2V+2U				
	Introduction to Photonics Introduction to Photonics			2 hrs 2 hrs	Thu Thu	10-12 14-16	HG E22 HG E22	R. Quidant, J. Ortega Arroyo R. Quidant, J. Ortega Arroyo
151-0917-00L	Mass Transfer	w	4 credits	2V+2U				
151-0917-00 V				2 hrs	Wed	10-12	ML H44	S. E. Pratsinis, V. Mavrantzas, CJ. Shih
151-0917-00 U	Mass Transfer The exercise will start in the 2nd week of the	ne Semes	ster.	2 hrs	Tue	14-16	HG E1.1	S. E. Pratsinis, V. Mavrantzas, CJ. Shih

	Rate-Controlled Separations in Fine Chemis The class will be in a hybrid mode. The exa discussed and agreed upon with the student week of the semester.	ct moda	lity will be g the first	3 hrs	Thu	11-14	ML F34	M. Mazzotti, V. Becattini
151-0927-00 U	Rate-Controlled Separations in Fine Chemis The class will be in a hybrid mode. The exa discussed and agreed upon with the studen week of the semester.	ct moda		1 hrs	Thu	14-15	ML F34	M. Mazzotti, V. Becattini
151-0951-00L	Process Design and Safety	w	4 credits	2V+1U				
151-0951-00 V	Process Design and Safety			2 hrs	Tue	08-10	ML F34	F. Trachsel, C. Hutter
151-0951-00 U	Process Design and Safety			1 hrs	Tue	13-14	ML F34	F. Trachsel, C. Hutter
	Practica in Process Engineering I  Prerequisites: "Einführung in  Verfahrenstechnik" (151-0973-00L) and further process engineering courses.  Practica in Process Engineering I ■	W	2 credits	<b>2P</b> 32s hrs				S. A. Meyer, M. Tibbitt
	4 times Monday afternoon			323 1113				3. A. Meyer, W. Hobitt
529-0613-01L	Process Simulation and Flowsheeting	W	6 credits	3G				
	Process Simulation and Flowsheeting The module combines theory-based lecture practical lectures based on Aspen (Wednes		days) with	3 hrs	Mon Wed	10-13 14-18	HCI J4 HCI G174	G. Guillén Gosálbez
► Multidisci	iplinary Courses							
The stu (https://	dents are free to choose individually from th /www.uzh.ch/cmsssl/en/studies/application/c				ch, ETH I	Lausanne	and the Unive	rsities of Zurich
	Course Catalogue of ETH Zurich							
► Semester	<u> </u>							
Number	Title	Туре	ECTS	Hours				Lecturers
151-1008-00L	Semester Project Process Engineering Only for Process Engineering MSc.	0	8 credits	17A				
	The subject of the Master Thesis and the choice of the supervisor (ETH-professor) are to be approved in advance by the tutor.							
151-1008-00 A	Semester Project Process Engineering			240s hrs	by appt	:-		Professors
▶ Industrial	Internship							
Number	Title	Туре	ECTS	Hours				Lecturers
	Industrial Internship Access to the company list and request for recognition under www.mavt.ethz.ch/praxis.	0	8 credits					
	No registration required via myStudies. Industrial Internship							external organisers
151-1090-00 P	. ,							external organisers
151-1090-00 P ▶ GESS Sci	Industrial Internship							external organisers
151-1090-00 P ▶ GESS Sci	Industrial Internship ience in Perspective see GESS Science in Perspective: Language Courses ETH/UZH see GESS Science in Perspective: Type A: Enhancement of Reflection Capability							external organisers
151-1090-00 P ▶ GESS Sci	Industrial Internship ience in Perspective see GESS Science in Perspective: Language Courses ETH/UZH see GESS Science in Perspective: Type A: Enhancement of Reflection Capability Recommended GESS Science in Perspective (Type B) for D-MAVT.							external organisers
151-1090-00 P ▶ GESS Sci	Industrial Internship ience in Perspective see GESS Science in Perspective: Language Courses ETH/UZH see GESS Science in Perspective: Type A: Enhancement of Reflection Capability Recommended GESS Science in Perspective (Type B) for D-MAVT.							external organisers
151-1090-00 P ► GESS Sci ► Master's	Industrial Internship ience in Perspective see GESS Science in Perspective: Language Courses ETH/UZH see GESS Science in Perspective: Type A: Enhancement of Reflection Capability Recommended GESS Science in Perspective (Type B) for D-MAVT.	Туре	ECTS	Hours				external organisers  Lecturers
151-1090-00 P ► GESS Sci ► Master's Thumber 151-1005-00L	Industrial Internship  ience in Perspective  see GESS Science in Perspective: Language Courses ETH/UZH  see GESS Science in Perspective: Type A: Enhancement of Reflection Capability  Recommended GESS Science in Perspective (Type B) for D-MAVT.  Thesis  Title  Master's Thesis Process Engineering Students who fulfill the following criteria are allowed to begin with their Master's Thesis: a. successful completion of the bachelor program; b. fulfilling of any additional requirements	Type O	ECTS 30 credits	Hours 64D				
151-1090-00 P ► GESS Sci ► Master's T Number 151-1005-00L	Industrial Internship  ience in Perspective  see GESS Science in Perspective: Language Courses ETH/UZH  see GESS Science in Perspective: Type A: Enhancement of Reflection Capability  Recommended GESS Science in Perspective (Type B) for D-MAVT.  Thesis  Title  Master's Thesis Process Engineering Students who fulfill the following criteria are allowed to begin with their Master's Thesis: a. successful completion of the bachelor program;							
151-1090-00 P ► GESS Sci  ► Master's Thumber 151-1005-00L	Industrial Internship  ience in Perspective  see GESS Science in Perspective: Language Courses ETH/UZH  see GESS Science in Perspective: Type A: Enhancement of Reflection Capability  Recommended GESS Science in Perspective (Type B) for D-MAVT.  Thesis  Title  Master's Thesis Process Engineering Students who fulfill the following criteria are allowed to begin with their Master's Thesis: a. successful completion of the bachelor program; b. fulfilling of any additional requirements necessary to gain admission to the master programme; c. successful completion of the semester project and industrial internship; d. achievement of 28 ECTS in the category	0						

Number	Title	Type	ECTS	Hours				Lecturers
151-0931-00L	Seminar on Particle Technology	E-	0 credits	3S				
151-0931-00 S	Seminar on Particle Technology			3 hrs	Fri	14-17	ML F40	S. E. Pratsinis
227-0920-00L	Seminar in Systems and Control	E-	0 credits	1S				
227-0920-00 S	Seminar in Systems and Control Detailed information on the seminars upon Several seminars will take place during the the available slots may remain unoccupie Seminars will be announced individually, received detailed information for each one	e semest d. enrolled s	er, but some o tudents will	1 hrs	Mon 21.09.	16-17 16-17	ML F38 ON LINE	<b>F. Dörfler</b> , R. D'Andrea, E. Frazzoli, M. H. Khammash J. Lygeros, R. Smith
	Online lecture: This lecture will take place Reserved room will remain reserved on a follow the course from there. From 01.11.21 in presence. Course website: https://nccr- automation.ch/news/2021/nccr-automatio	ampus for	students to					
227-0970-00L	Research Topics in Biomedical Engineering	E-	0 credits	1K				
227-0970-00 K	Research Topics in Biomedical Engineering	ng		1 hrs	Tue	18-19	ETZ E6	K. P. Prüssmann, S. Kozerk M. Stampanoni, K. Stephan, J. Vörös
Process Engi	neering Master - Key for Type							
)	Compulsory			E-	Re	ecommen	ded, not eligible	for credits
N+	Eligible for credits and recommended			Z	Co	ourses out	side the curricu	lum
W	Eligible for credits			Dr	Sı	uitable for	doctorate	
Key for Hours	S							
/	lecture			Р	pr	actical/lab	oratory course	
3	lecture with exercise			Α	in	dependen	t project	
J	exercise			D	di	ploma the	sis	
S	seminar			R	re	vision cou	rse / private stu	dy
K	colloquium							
	European Credit Transfer and Accumulatio	•		cturers.				