Northwestern | McCORMICK SCHOOL OF ENGINEERING

Computer Scien

Academic

Course Listin

Please view the following document with last year's courses:

2018-19 Course Listing
2019-20-Course-Listing

As of Fall 2019, EECS have been separated into two departments - ECE & CS. Here is the ECE Course Listing (https://www.mccormick.northwestern.edu/electrical-computer/courses/) or CAESAR catalogue (https://caesar.northwestern.edu/) .

To request permission number email – CS course Permission (mailto:permissions@cs.northwestern.edu) or ECE course Permission. (mailto:eecspermissions@northwestern.edu)

FILTER I

SEARCH

Course	Course Title	Fall 2020	Winter 2021	Spring 2021	Summer 2021
COMP_SCI 110	Intro to Computer	10:20-11:10	10-10:50 MWF	9:30 -10:50 TuTh	

Course	Course Title	Fall 2020	Winter 2021	Spring 2021	Summer 2021
(descriptions/110.html)	Programming (descriptions/110.html)	MWF Van Wart	Van Wart	Kuzmanovic	
COMP_SCI 111 (descriptions/111.html)	Fundamentals of Computer Programming I (descriptions/111.html)	1:50-2:40 MWF Horswill	11-11:50 MWF Sood	1-1:50 MWF Sood	
COMP_SCI 130 (descriptions/130.html)	Tools and Technology of the World Wide Web (descriptions/130.html)			4-4:50 MWF Van Wart	
COMP_SCI 150 (descriptions/150.html)	Fundamentals of Computer Programming 1.5 (descriptions/150.html)	11:30-12:20 MWF Sood & Compton	11-11:50 MWF Compton	11-11:50 MWF Compton	
COMP_ENG 203 (descriptions/203.html)	Intro to Computer Engineering (descriptions/203.html)	MTuWF 11:30-12:20 Joseph	MTuWF 11-11:50 C.H. Wu	MTuWF 11-11:50 Zhou	
COMP_ENG 205 (descriptions/205.html)	Fundamentals of Computer System Software (descriptions/205.html)		MTuWF 2-2:50 Joseph		
COMP_SCI 211 (descriptions/211.html)	Fundamentals of Computer Programming II (descriptions/211.html)	9:40-11 TuTh Tov	2-3:20 TuTh Tov & Ghena	2-3:20 TuTh Tov	

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COMP_SCI 212 (descriptions/212.html)	Mathematical Foundations of Computer Science (descriptions/212.html)	4:10-5 MWF Rao	4-4:50 MWF Vijayaraghavan	3-3:50 MWF Rao	
COMP_SCI 213 (descriptions/213-20.html)	Intro to Computer Systems (descriptions/213-20.html)	2:40-4 TuTh Dinda & Ghena	12:30-1:50 TuTh St-Amour	2-3:20 TuTh Ghena	
COMP_SCI 214 (descriptions/214.html)	Data Structures and Data Management (descriptions/214.html)	4:20-5:40 TuTh St-Amour	9:30-10:50 TuTh Tov	3:30-4:50 TuTh St-Amour	3:30-4:50 TuTh Rasmussen
COMP_SCI 217 (descriptions/217.html)	Data Management and Information Processing (descriptions/217.html)	9:40-11 TuTh Hu		9:30-10:50 TuTh Hu	
COMP_SCI 230 (descriptions/230.html)	Programming for Engineers (descriptions/230.html)		2 -3:20 TuTh Hu		
COMP_SCI 295 (descriptions/295-1.html)	Intensive Program Design (descriptions/295-1.html)	9:10- 11:10 MW Tov / Findler			
COMP_SCI 295 (descriptions/295-2.html)	Introduction to Law and Digital Technologies (descriptions/295-2.html)			5:30 - 8:20 W Linna & Villasenor	

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COMP_SCI 295, 396 (descriptions/295-396.html)	AI and Experimental Narrative (descriptions/295-396.html)			3:30 -4:50 TuTh Horswill	
COMP_SCI 301 (descriptions/301.html)	Introduction to Robotics Laboratory (descriptions/301.html)			2-3:20 TuTh Argall	
COMP_ENG 303 (descriptions/303.html)	Advanced Digital Design (descriptions/303.html)	TuTh 4:20-5:40 S. Memik		TuTh 3:30-4:50 Gu	
COMP_SCI 310 (descriptions/310.html)	Scalable Software Architectures (descriptions/310.html)		10-10:50 MWF Tarzia		
COMP_SCI 313, 413 (descriptions/313-413.html)	Tangible Interaction Design and Learning (descriptions/313-413.html)			3:30-4:50 MW Horn	
COMP_SCI 314 (descriptions/314.html)	Technology & Human Interaction (descriptions/314.html)		9:30-10:50 TuTh Gergle		
COMP_SCI 315, 497 (descriptions/315-497.html)	Design, Technology, and Research (descriptions/315-497.html)	12:40-3:50 F Zhang	12-3 F Zhang	12-2:50 F Zhang	

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COMP_SCI 321 (descriptions/321.html)	Programming Languages (descriptions/321.html)	11:20-12:40 TuTh St-Amour		11-12:20 TuTh St-Amour	
COMP_SCI 322 (descriptions/322.html)	Compiler Construction (descriptions/322.html)		5 -6:20 TuTh Campanoni		
COMP_SCI 323 (descriptions/323.html)	Code Analysis and Transformation (descriptions/323.html)	6-7:20 TuTh Campanoni			
COMP_SCI 325-1 (descriptions/325.html)	Artificial Intelligence Programming (descriptions/325.html)	11:30-12:20 MWF Riesbeck			
COMP_ENG 329 (descriptions/329.html)	The Art of Multicore Concurrent Programming (descriptions/329.html)			TuTh 2:00-3:20 Zhou	
COMP_SCI 330 (descriptions/330.html)	Human Computer Interaction (descriptions/330.html)	11:30-12:20 MWF Worsley			
COMP_SCI 331 (descriptions/331.html)	Introduction to Computational Photography (descriptions/331.html)	1-2:20 TuTh Cossairt & Willomitzer			9-10:30 MW Schiffers

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COMP_SCI 335 (descriptions/335.html)	Intro to the Theory of Computation (descriptions/335.html)	2:40-4 TuTh Hartline & Vijayaraghavan			
COMP_SCI 336 (descriptions/336.html)	Design & Analysis of Algorithms (descriptions/336.html)	1-2:20 TuTh Khuller	9:30-10:50 TuTh Makarychev	9:30-10:50 TuTh Hartline	
COMP_SCI 337 (descriptions/337.html)	Intro to Natural Language Processing (descriptions/337.html)		3:30-4:50 MW Birnbaum		
COMP_SCI 338 (descriptions/338-1.html)	Practicum in Intelligent Information Systems (descriptions/338-1.html)	6-7:20 TuTh Hammond	5-6:20 MW Hammond	5-6:20 TuTh Hammond	
COMP_SCI 338 (descriptions/338-2.html)	Practicum in Intelligent Information Systems (descriptions/338-2.html)			M 6-8:50 Birnbaum	
COMP_SCI 339 (descriptions/339.html)	Intro to Databases (descriptions/339.html)		3:30-4:50 TuTh Rogers	3:30-4:50 TuTh Rogers	
COMP_SCI 340 (descriptions/340.html)	Introduction to Computer Networking (descriptions/340.html)	1:50-2:40 MWF Tarzia	12:30-1:50 TuTh Kuzmanovic		

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COMP_SCI 343 (descriptions/343.html)	Operating Systems (descriptions/343.html)	11:20-12:40 TuTh Ghena	11-12:20 TuTh Dinda		
COMP_SCI 344 (descriptions/344.html)	Design of Problem Solvers (descriptions/344.html)		1-2:20 TuTh Forbus		
COMP_SCI 345 (descriptions/345.html)	Distributed Systems (descriptions/345.html)			9-10:20 TuTh Bustamante	
COMP_ENG 346 (descriptions/346.html)	Microprocessor System Design (descriptions/346.html)			MTWF 10-10:50 Ghena	
COMP_SCI 348 (descriptions/348.html)	Intro to Artificial Intelligence (descriptions/348.html)	4:20-5:40 MW Birnbaum	2-3:20 MW Alam	12:30-1:50 TuTh Rubenstein	
COMP_SCI 349 (descriptions/349.html)	Machine Learning (descriptions/349.html)	9:10-10 MWF Alam	11-12:20 MW Demeter	3:30-4:50 MW Cossairt	2-3:20 TuTh Alam
COMP_SCI 351-1 (descriptions/351-1.html)	Intro to Computer Graphics (descriptions/351-1.html)	10:20-11:10 MWF Tumblin			

Course	Course Title	Fall 2020	Winter 2021	Spring 2021	Summer 2021
COMP_SCI 351-2 (descriptions/351-2.html)	Intermediate Computer Graphics (descriptions/351-2.html)		9:30-10:50 TuTh Tumblin		
COMP_SCI 352 (descriptions/352.html)	Machine Perception of Music & Audio (descriptions/352.html)		6:30-7:50 TuTh Pardo		
COMP_SCI 354 (descriptions/354.html)	Computer System Security (descriptions/354.html)		9:30-10:50 TuTh Chen		
COMP_SCI 355 (descriptions/355.html)	Digital Forensics and Incident Response (descriptions/355.html)			9:30-10:50 MW Chen	
COMP_ENG 358 (descriptions/358.html)	Intro to Parallel Computing (descriptions/358.html)				
COMP_ENG 361 (descriptions/361.html)	Computer Architecture I (descriptions/361.html)	TuTh 1:00-2:20 G. Memik			
COMP_ENG 362 (descriptions/362.html)	Computer Architecture Project (descriptions/362.html)		TuTh 11-12:20 G. Memik		

Course	Course Title	Fall 2020	Winter 2021	Spring 2021	Summer 2021
COMP_ENG 365, 465 (descriptions/365-465.html)	Internet-of-Things Sensors, Systems, and Applications (descriptions/365-465.html)	TuTh 1-2:20 Hester			
COMP_ENG 368, 468 (descriptions/368-468.html)	Programming Massively Parallel Processors with CUDA (descriptions/368-468.html)	TuTh 2:40-4:00 Hardavellas			
COMP_SCI 371 (descriptions/371.html)	Knowledge Representation and Reasoning (descriptions/371.html)		2-3:20 TuTh Alam		
COMP_SCI 372, 472 (descriptions/372-472.html)	Designing and Constructing Models with Multi-Agent Languages (descriptions/372-472.html)			2-3:20 MW Wilensky	
COMP_SCI 376 (descriptions/376.html)	Game Design and Development (descriptions/376.html)	4:10-5 MWF Horswill & Compton			
COMP_SCI 377 (descriptions/377.html)	Game Development Studio (descriptions/377.html)		6-7:20 MW Zubek		
COMP_SCI 393 (descriptions/393.html)	Software Construction (descriptions/393.html)			10-10:50 MWF Dimoulas OR	

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				11-11:50 MWF Findler	
COMP_SCI 394 (descriptions/394.html)	Agile Software Development (descriptions/394.html)		11-12:20 TuTh Riesbeck	11-12:20 TuTh Riesbeck	
COMP_SCI 396 (descriptions/396-1.html)	Introduction to Cryptography (descriptions/396-1.html)	9:40-11 TuTh Wang			
COMP_SCI 396, 295 (descriptions/396-295.html)	AI and Experimental Narrative (descriptions/396-295.html)			3:30 -4:50 TuTh Horswill	
COMP_SCI 396 (descriptions/396-3.html)	Introduction to the Data Science Pipeline (descriptions/396-3.html)		9:30 - 10:50 TuTh Hu		10 -11:40 TuTh Eight-week format Hu
COMP_SCI 396 (descriptions/396-4.html)	Computing, Ethics, and Society (descriptions/396-4.html)	1-2:20 TuTh Van Wart & Vakil	2-3:20 TuTh Van Wart		
COMP_SCI 396, 496 (descriptions/396-496-10.html)	Programming Languages Seminar (descriptions/396-496-10.html)	1-2:20 TuTh Dimoulas			

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COMP_SCI 396, 496 (descriptions/396-496-14.html)	Human-Centered Machine Learning (descriptions/396-496-14.html)	2:40-4 TuTh Chancellor			
COMP_SCI 396, 496 (descriptions/396-496-15.html)	Dynamics of Programming Languages (descriptions/396-496-15.html)		2 -3:20 TuTh Dimoulas		
COMP_SCI 396, 496 (descriptions/396-496-16.html)	Advanced Topics in Modern Cryptography (descriptions/396-496-16.html)		9:30-10:50 TuTh Wang		
COMP_SCI 396, 496 (descriptions/396-496-17.html)	Statistical Machine Learning (descriptions/396-496-17.html)		6 -8:50 Tu Liu		
COMP_SCI 396, 496 (descriptions/396-496-18.html)	Topics in Software Engineering (descriptions/396-496-18.html)		3:30-4:50 TuTh St-Amour		
COMP_SCI 396, 496 (descriptions/396-496-2.html)	Interactive Information Visualization (descriptions/396-496-2.html)		12-1:20 MW Hullman		
COMP_SCI 396, 496 (descriptions/396-496-21.html)	Approximation Algorithms (descriptions/396-496-21.html)		11-12:20 TuTh Makarychev		

Course	Course Title	Fall 2020	Winter 2021	Spring 2021	Summer 2021
COMP_SCI 396, 496 (descriptions/396-496-22.html)	Analysis of Boolean Functions (descriptions/396-496-22.html)		2-3:20 TuTh Rao		
COMP_SCI 396, 496 (descriptions/396-496-4.html)	Deep Learning (descriptions/396-496-4.html)	4:20 - 5:40 TuTh Pardo			
COMP_SCI 396, 496 (descriptions/396-496-6.html)	Data Science Seminar (descriptions/396-496-6.html)	4:20-5:40 TuTh Rogers			
COMP_SCI 396, 496 (descriptions/396-496-9.html)	Systems Programming in Rust (descriptions/396-496-9.html)			11-12:20 TuTh Tov	
COMP_SCI 396 (descriptions/396-5.html)	Generative Methods (descriptions/396-5.html)		1-1:50 MWF Compton	1-1:50 MWF Compton	
COMP_SCI 396 (descriptions/396-6.html)	Intro to Web Development (descriptions/396-6.html)			2-2:50 MWF Van Wart	
COMP_SCI 396 (descriptions/396-7.html)	The Economics of Networks (descriptions/396-7.html)			2-3:20 TuTh Golub	
COMP_SCI 397 (descriptions/397-1.html)	Seminar in Statistical Language Modeling (descriptions/397-1.html)			11-12:20 TuTh Demeter	

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COMP_SCI 397 (descriptions/397-2.html)	Computer Science Education (descriptions/397-2.html)		6-9 M Horn		
COMP_SCI 397 (descriptions/397-3.html)	HCI Studio (descriptions/397-3.html)		1-3 M Zhang		
COMP_SCI 397 (descriptions/397-4.html)	HCI Studio (descriptions/397-4.html)			3:30 - 4:50 TuTh O'Rourke	
COMP_SCI 397, 497 (descriptions/397-497-11.html)	Internet-scale Experimentation (descriptions/397-497-11.html)		9:30-10:50 MW Bustamante		
COMP_SCI 397, 497 (descriptions/397-497-12.html)	Selected Topics in Computer Networks (descriptions/397-497-12.html)			11-12:20 TuTh Kuzmanovic	
COMP_SCI 397, 497 (descriptions/397-497-14.html)	Wireless and Mobile Health (mHealth) (descriptions/397-497-14.html)		5-6:20 TuTh Alshurafa & Alharbi		
COMP_SCI 397, 497 (descriptions/397-497-15.html)	Innovation Lab: Building Technologies for the Law (descriptions/397-497-15.html)		Tu 2:30-5:30 Hammond & Linna Jr.		

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COMP_SCI 397, 497 (descriptions/397-497-2.html)	Advanced Topics in Compilers (descriptions/397-497-2.html)			5-6:20 TuTh Campanoni	
COMP_SCI 397, 497 (descriptions/397-497-20.html)	Wireless Protocols for the Internet of Things (descriptions/397-497-20.html)		1:1:50 MWF Ghena		
COMP_SCI 397, 497 (descriptions/397-497-21.html)	Advanced Graphics Seminar (descriptions/397-497-21.html)			MF 11 - 12:20 Tumblin	
COMP_SCI 397, 497 (descriptions/397-497-3.html)	Sports, Technology and Learning (descriptions/397-497-3.html)	9:40-11 TuTh Worsley			
COMP_SCI 397, 497 (descriptions/397-497-4.html)	(Special Topics) Innovation in Journalism & Technology (descriptions/397-497-4.html)	2:40-4 TuTh Hammond & Wise	2-3:50 TuTh Wise	2-3:50 TuTh Hammond & Wise	
COMP_SCI 397, 497 (descriptions/397-497-5.html)	Rapid Prototyping for Software Innovation (descriptions/397-497-5.html)	1:50-2:40 MWF Riesbeck			
COMP_SCI 397, 497 (descriptions/397-497-9.html)	Inclusive Making (descriptions/397-497-9.html)		9:30-12:20 Tu Worsley		

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COMP_SCI 409 (descriptions/409.html)	Swarms and Multi-Robot Systems (descriptions/409.html)	2:40-4 TuTh Rubenstein			
COMP_SCI 446 (descriptions/446.html)	Kernel and Other Low-level Software Development (descriptions/446.html)			11-12:20 MW Dinda	
COMP_SCI 450 (descriptions/450.html)	Internet Security (descriptions/450.html)		2-3:20 TuTh Chen		
COMP_ENG 452 (descriptions/452.html)	Advanced Computer Architecture I (descriptions/452.html)		MW 12:30-1:50 G. Memik		
COMP_ENG 453 (descriptions/453.html)	Parallel Architectures (descriptions/453.html)			MW 3:30-4:50 Joseph	
COMP_ENG 456 (descriptions/456.html)	Modern Topics in Computer Architecture (descriptions/456.html)				
COMP_ENG 459 (descriptions/459.html)	VLSI Algorithmics (descriptions/459.html)		MW 2-3:20 S. Memik		

Course	Course Title	Fall 2020	Winter 2021	Spring 2021	Summer 2021
COMP_SCI 473-1 (descriptions/473-1.html)	NUvention: Web + Media (ENTREP 473) (descriptions/473-1.html)		1:30 - 4:30 Tu Riesbeck/Warren		
COMP_SCI 473-2 (descriptions/473-2.html)	NUvention: Web + Media (ENTREP 473) (descriptions/473-2.html)			1:30-4:30 Tu Riesbeck/Gordon /Warren	
COMP_SCI 496 (descriptions/496-14.html)	Interactive Systems for Health Behavior Change (descriptions/496-14.html)			2-4:50 M Jacobs	
COMP_SCI 496 (descriptions/496-15.html)	Introduction to Graduate Studies in Computer Science (descriptions/496-15.html)	10:20-11:10 MWF Bustamante			
COMP_SCI 496 (descriptions/496-17.html)	Programming Languages Seminar (descriptions/496-17.html)		12:30-1:50 TuTh Findler		
COMP_SCI 496 (descriptions/496-19.html)	Theoretical Foundations of Data Science (descriptions/496-19.html)			9:30-10:50 MW Vijayaraghavan	
COMP_SCI 496 (descriptions/496-2.html)	Graduate Algorithms (descriptions/496-2.html)	11:20-12:40 TuTh			

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		Makarychev			
COMP_SCI 496 (descriptions/496-20.html)	Engineering Modern Cryptographic Protocols (descriptions/496-20.html)			2-4:50 F Wang	
COMP_SCI 496 (descriptions/496-21.html)	Qualitative Reasoning Seminar (descriptions/496-21.html)			2-3:20 TuTh Forbus	
COMP_SCI 496 (descriptions/496-23.html)	AI Perspectives: Symbolic Reasoning to Deep Learning (descriptions/496-23.html)			2-3:20 MW Alam	
COMP_SCI 496 (descriptions/496-24.html)	Visualization for Scientific Communication (descriptions/496-24.html)		2 -4:50 T Kay		
COMP_SCI 496 (descriptions/496-25.html)	Generative Deep Models (descriptions/496-25.html)			4-6:50 W Pardo	
COMP_SCI 496 (descriptions/496-4.html)	Learning, Information, and Data (descriptions/496-4.html)			5-6:20 MW Liang	
COMP_SCI 496 (descriptions/496-7.html)	The Design of Technological Tools for Thinking and Learning (descriptions/496-7.html)		2-4:50 W Wilensky		

Course	Course Title	Fall 2020	Winter 2021	Spring 2021	Summer 2021
COMP_SCI 496 (descriptions/496-8.html)	Advanced Topics on Deep Learning (descriptions/496-8.html)		6 - 9 M Liu		
COMP_SCI 497 (descriptions/497-3.html)	Digital Musical Instrument Design (descriptions/497-3.html)			3-6:50 F Pardo & Moore	
COMP_SCI 497 (descriptions/497-4.html)	The Design of Tools and Technologies for Computer Science Education (descriptions/497-4.html)	2-4:50 F O'Rourke			
COMP_SCI 497 (descriptions/497-5.html)	The Science of Law and Computation (descriptions/497-5.html)			3:30 -6:20 Th Hartline & Linna	