Curriculum Bachelor Computing Science 2015-2016

Students can take the regular Computing Science Bachelor's programme (Table 1), or the specialization (track) in Business Computing (Table 2). The Biomedical Computing track (Table 3) is only available for students who started in 2013–2014 or earlier. Each of the tracks consist of 180 ECTS.

All course units have a student workload of 5 ECTS, unless indicated otherwise. In Tables 2 and 3, courses printed in bold indicate the track-specific courses. These are different from the regular Computing Science programme.

Table 1: **Regular Bachelor programme**

Year	Semester	Course	Course code
1	Ia	Imperative Programming	INBIMP-09
1	Ia	Introduction to Computing Science	INBOI-08
1	Ia	Introduction to Logic (CS & MA)	WPAI14002
1	Ib	Calculus for Computing Science	WPMA14001
1	Ib	Discrete Structures	INBDS-08
1	Ib	Computer Architecture	WBCS14002
1	IIa	Algorithms and Data structures in C	INBADC-09
1	IIa	Introduction to Scientific Computing	WBCS14003
1	IIa	Program Correctness	INBPC-08
1	IIb	Artificial Intelligence 1	KIB.KI103
1	IIb	Linear Algebra & Multivariable Calculus for AI&CS	WPMA14005
1	IIb	Object-Oriented Programming	INBOGP-08
2	Ia	Advanced Object Oriented Programming	INBGOP-09
2	Ia	Functional Programming	INBFP-08
2	Ia	Statistics for AI and CS	WISTAKI-07
2	Ib	Introduction to Information Systems	INBIIS-08
2	Ib	Signals and Systems	KIB.SENS12
2	Ib	Software Analysis and Design	INBSASO-09
2	IIa	Advanced Algorithms and Data Structures	INBGAD-10
2	IIa	Computing Science: Ethical and Professional Issues	WBCS14001
2	IIa	Software Engineering I	INBSE1-08
2	IIb	Languages and Machines	INBTA-08
2	IIb	Parallel Computing	INBPAR-08
2	IIb	Software Engineering II	INBSE2-08
3	*Ia and Ib*	*Broadening minor in another field of study (30 EC), or Computing Science minor (30 EC) with the following courses:*	
3	Ia	Information Security	INBSEC-08
3	Ia	Introduction to Intelligent Systems	INBINTS-08
3	Ia	Requirements Engineering and Software Startups	WBCS15001
3	Ib	Compiler Construction	INBVB-08
3	Ib	Software Quality Assurance & Testing	INBSQT-08
3	Ib	Short programming project	WBCS15002
3	IIa	Operating Systems	INBOS-08
3	IIa	Computer Graphics	INBCG-08
3	IIa	Net Computing	INBNC-08
3	IIb	Bachelor's project (15 ECTS)	WBCS13000

Table 2: **Business Computing track**

(Year 1 identical to regular Bachelor programme)

Year	Semester	Course	Course code
2	Ia	Advanced Object Oriented Programming	INBGOP-09
2	Ia	Functional Programming	INBFP-08
2	Ia	Statistics for AI and CS	WISTAKI-07
2	Ib	Introduction to Information Systems	KIB.SENS12
2	Ib	Signals and Systems	INBIIS-08
2	Ib	Software Analysis and Design	INBSASO-09
2	IIa	Advanced Algorithms and Data Structures	INBGAD-10
2	IIa	**Marketing for E&BE**	**EBP033A05**
2	IIa	Software Engineering I	INBSE1-08
2	IIb	**Management of Product Innovation**	**EBB652B05**
2	IIb	Parallel Computing	INBPAR-08
2	IIb	Software Engineering II	INBSE2-08
3	*Ia and Ib*	*Broadening minor in another field of study (30 EC), or* *Computing Science minor (30 EC) with the following courses:*	
3	Ia	Information Security	INBSEC-08
3	Ia	Introduction to Intelligent Systems	INBINTS-08
3	Ia	Requirements Engineering and Software Startups	WBCS15001
3	Ib	Compiler Construction	INBVB-08
3	Ib	Software Quality Assurance & Testing	INBSQT-08
3	Ib	Short programming project	WBCS15002
3	IIa	Operating Systems	INBVB-08
3	IIa	**International Business & Supply Chain Marketing**	**EBB609B05**
3	IIa	Net Computing	INBNC-08
3	IIb	**Bachelor's project in Business Computing (15 ECTS)**	**WBCS13000**

Table 3: **Biomedical Computing track**

Only for students started in 2013-2014 or earlier!

(Year 1 identical to regular Bachelor programme)

Year	Semester	Course	Course code
2	Ia	Advanced Object Oriented Programming	INBGOP-09
2	Ia	Functional Programming	INBFP-08
2	Ia	Statistics for AI and CS	WISTAKI-07
2	Ib	Introduction to Information Systems	INBIIS-08
2	Ib	Signals and Systems	KIB.SENS12
2	Ib	Software Analysis and Design	INBSASO-09
2	IIa	Advanced Algorithms and Data Structures	INBGAD-10
2	IIa	Computing Science: Ethical and Professional Issues	WBCS14001
2	IIa	Software Engineering I	INBSE1-08
2	IIb	**Imaging Techniques**	**WLB07050**
2	IIb	Parallel Computing	INBPAR-08
2	IIb	Software Engineering II	INBSE2-08
3	Ia and Ib	*Broadening minor in another field of study (25 or 30 EC)* *with* **Neurobiology** *(semester Ia), or*	***WLB07086***
		Computing Science minor (30 EC) with **Neurobiology** *(semester Ia)* *and two of the three following courses in semester Ia:*	***WLB07086***
3	Ia	Information Security	INBSEC-08
3	Ia	Introduction to Intelligent Systems	INBINTS-08
3	Ia	Requirements Engineering and Software Startups	WBCS15001
3	Ib	Compiler Construction	INBVB-08
3	Ib	Software Quality Assurance & Testing	INBSQT-08
3	Ib	Short programming project	WBCS15002
3	IIa	Operating Systems	INBOS-08
3	IIa	Computer Graphics	INBCG-08
3	IIa	Net Computing	INBNC-08
3	IIb	**Bachelor's project in Biomedical Computing (15 ECTS)**	**WBCS13000**