

# Course of Study Computational Science and Engineering (Study Cohort w19)

Sample course plan I Bachelor Computational Science and Engineering (IIWBS)

Specialisation I. Computer Science, Specialisation II. Mathematics & Engineering Science, Specialisation III. Subject Specific Focus

Legend			
Core qualification Compulsory	Specialisation Compulsory	Focus Compulsory	Thesis Compulsory
Core qualification Elective Compulsory	Specialisation Elective Compulsory	Focus Elective Compulsory	Interdisciplinary complement

LP	Semester 1	FormHrs/wk	Semester 2	FormHrs/wk	Semester 3	FormHrs/wk	Semester 4	FormHrs/wk	Semester 5	FormHrs/wk	Semester 6	FormHrs/wk					
1	<b>Discrete Algebraic Structures</b>	VL 2	<b>Electrical Engineering II: Alternating Current Networks and Basic Devices</b>	VL 3	<b>Numerical Mathematics I</b>	VL 2	<b>Signals and Systems</b>	VL 3	<b>Introduction to Communications and Random Processes</b>	VL 3	<b>Operating Systems</b>	VL 2					
2													Discrete Algebraic Structures	Numerical Mathematics I	Signals and Systems	Introduction to Communications and Random Processes	Operating Systems
3													Discrete Algebraic Structures	Numerical Mathematics I	Signals and Systems	Introduction to Communications and Random Processes	Operating Systems
4													Discrete Algebraic Structures	Numerical Mathematics I	Signals and Systems	Introduction to Communications and Random Processes	Operating Systems
5													Discrete Algebraic Structures	Numerical Mathematics I	Signals and Systems	Introduction to Communications and Random Processes	Operating Systems
6													Discrete Algebraic Structures	Numerical Mathematics I	Signals and Systems	Introduction to Communications and Random Processes	Operating Systems
7	<b>Procedural Programming</b>	VL 1	<b>Automata Theory and Formal Languages</b>	VL 2	<b>Computer Engineering</b>	VL 3	<b>Stochastics</b>	VL 2	<b>Introduction to Control Systems</b>	VL 2	<b>Software Development</b>	VL 1					
8													Procedural Programming	Computer Engineering	Stochastics	Introduction to Control Systems	Software Development
9													Procedural Programming	Computer Engineering	Stochastics	Introduction to Control Systems	Software Development
10													Procedural Programming	Computer Engineering	Stochastics	Introduction to Control Systems	Software Development
11													Procedural Programming	Computer Engineering	Stochastics	Introduction to Control Systems	Software Development
12	Procedural Programming	Computer Engineering	Stochastics	Introduction to Control Systems	Software Development												
13	<b>Electrical Engineering I: Direct Current Networks and Electromagnetic Fields</b>	VL 3	<b>Foundations of Management</b>	VL 3	<b>Computernetworks and Internet Security</b>	VL 3	<b>Embedded Systems</b>	VL 3	<b>Practical Course IIW</b>	PR 4	<b>Bachelor Thesis</b>						
14													Electrical Engineering I: Direct Current Networks and Electromagnetic Fields	Foundations of Management	Computernetworks and Internet Security	Embedded Systems	Practical Course IIW
15													Electrical Engineering I: Direct Current Networks and Electromagnetic Fields	Foundations of Management	Computernetworks and Internet Security	Embedded Systems	Practical Course IIW
16													Electrical Engineering I: Direct Current Networks and Electromagnetic Fields	Foundations of Management	Computernetworks and Internet Security	Embedded Systems	Practical Course IIW
17													Electrical Engineering I: Direct Current Networks and Electromagnetic Fields	Foundations of Management	Computernetworks and Internet Security	Embedded Systems	Practical Course IIW
18													Electrical Engineering I: Direct Current Networks and Electromagnetic Fields	Foundations of Management	Computernetworks and Internet Security	Embedded Systems	Practical Course IIW
19	<b>Mathematics I</b>	VL 2	<b>Mathematics II</b>	VL 2	<b>Mathematics III</b>	VL 2	<b>Seminars Computer Science and Mathematics</b>	SE 2	<b>Electrical Power Systems I: Introduction to Electrical Power Systems</b>	VL 3	<b>Bachelor Thesis</b>						
20													Linear Algebra I	Mathematics II	Mathematics III	Seminars Computer Science and Mathematics	Electrical Power Systems I: Introduction to Electrical Power Systems
21													Linear Algebra I	Mathematics II	Mathematics III	Seminar Computer Science und Mathematics 1	Electrical Power Systems I: Introduction to Electrical Power Systems
22													Linear Algebra I	Mathematics II	Mathematics III	Seminar Computer Science und Mathematics 2	Electrical Power Systems I: Introduction to Electrical Power Systems
23													Linear Algebra I	Mathematics II	Mathematics III	Seminar Computer Science und Mathematics 3	Electrical Power Systems I: Introduction to Electrical Power Systems
24													Analysis I	Mathematics II	Mathematics III	Seminar Computer Science und Mathematics 3	Electrical Power Systems I: Introduction to Electrical Power Systems
25													Analysis I	Mathematics II	Mathematics III	Seminar Computer Science und Mathematics 3	Electrical Power Systems I: Introduction to Electrical Power Systems
26	Analysis I	Mathematics II	Mathematics III	Seminar Computer Science und Mathematics 3	Electrical Power Systems I: Introduction to Electrical Power Systems												
27			<b>Objectoriented Programming</b>	VL 2	<b>Algorithms and Data Structures</b>	VL 4					<b>Bachelor Thesis</b>						
28													Objectoriented Programming	Algorithms and Data Structures			
29													Objectoriented Programming	Algorithms and Data Structures			
30													Objectoriented Programming	Algorithms and Data Structures			
31													Objectoriented Programming	Algorithms and Data Structures			
32	Objectoriented Programming	Algorithms and Data Structures															

Technical Complementary Course for Computational Science and Engineering Bachelor - 12LP

The choice of courses from the catalogue is flexible (depends on the semestral work load), provided the necessary number of required credits is reached.