

Course of Study Computer Science in Engineering (Study Cohort w22)

Sample course plan C Bachelor Computer Science in Engineering (IIWBS) Dual study program
 Specialisation I. Computer Science, Specialisation II. Mathematics & Engineering Science, Specialisation III.

Legend:

Core Qualification Compulsory	Specialisation Compulsory	Focus Compulsory	Thesis Compulsory
Core Qualification Elective Compulsory	Specialisation Elective Compulsory	Focus Elective Compulsory	Interdisciplinary complement

Subject Specific Focus	Form Hrs/wk	Semester 2	Form Hrs/wk	Semester 3	Form Hrs/wk	Semester 4	Form Hrs/wk	Semester 5	Form Hrs/wk	Semester 6	Form Hrs/wk		
1		Discrete Algebraic Structures Discrete Algebraic Structures VL 2 Discrete Algebraic Structures GÜ 2	Electrical Engineering II: Alternating Current Networks and Basic Devices Electrical Engineering II: Alternating Current Networks and Basic Devices VL 3 Electrical Engineering II: Alternating Current Networks and Basic Devices GÜ 2	Numerical Mathematics I Numerical Mathematics I VL 2 Numerical Mathematics I GÜ 2	Signals and Systems Signals and Systems VL 3 Signals and Systems GÜ 2	Introduction to Communications and Random Processes Introduction to Communications and Random Processes VL 3 Introduction to Communications and Random Processes HÜ 1 Introduction to Communications and Random Processes GÜ 1		Computability and Complexity Theory Computability and Complexity Theory VL 2 Computability and Complexity Theory GÜ 2					
2													
3													
4													
5													
6													
7		Electrical Engineering I: Direct Current Networks and Electromagnetic Fields Electrical Engineering I: Direct Current Networks and Electromagnetic Fields VL 3 Electrical Engineering I: Direct Current Networks and Electromagnetic Fields GÜ 2	Automata Theory and Formal Languages Automata Theory and Formal Languages VL 2 Automata Theory and Formal Languages GÜ 2	Computer Engineering Computer Engineering VL 3 Computer Engineering GÜ 1	Stochastics Stochastics VL 2 Stochastics GÜ 2	Introduction to Control Systems Introduction to Control Systems VL 2 Introduction to Control Systems GÜ 2		Bachelor thesis (dual study program)					
8													
9													
10													
11													
12													
13		Mathematics I Mathematics I VL 4 Mathematics I HÜ 2 Mathematics I GÜ 2	Foundations of Management Introduction to Management VL 3 Management Tutorial GÜ 2	Computernetworks and Internet Security Computer Networks and Internet Security VL 3 Computer Networks and Internet Security GÜ 1	Embedded Systems Embedded Systems VL 3 Embedded Systems GÜ 1 Embedded Systems PBL 1	Practical Course IIW Practical Course IIW PBL 8							
14													
15													
16													
17													
18													
19		Mathematics II Mathematics II VL 4 Mathematics II HÜ 2 Mathematics II GÜ 2	Mathematics III Analysis III VL 2 Analysis III GÜ 1 Analysis III HÜ 1 Differential Equations 1 VL 2 Differential Equations 1 GÜ 1 Differential Equations 1 HÜ 1	Seminars Computer Science Introductory Seminar Computer Science II SE 2 Introductory Seminar Computer Science I SE 2	Practical module 5 (dual study program, Bachelor's degree) Practical term 5 0								
20													
21								Procedural Programming for Computer Engineers Procedural Programming for Computer Engineers VL 1 Procedural Programming for Computer Engineers HÜ 1 Procedural Programming for Computer Engineers PR 2	Programming Paradigms Programming Paradigms VL 2 Programming Paradigms HÜ 1 Programming Paradigms PR 2	Algorithms and Data Structures Algorithms and Data Structures VL 4 Algorithms and Data Structures GÜ 1	Practical module 4 (dual study program, Bachelor's degree) Practical term 4 0	Functional Programming Functional Programming VL 2 Functional Programming HÜ 2 Functional Programming GÜ 2	
22													
23													
24													
25													
26													
27		Practical module 1 (dual study program, Bachelor's degree) Practical term 1 0	Practical module 2 (dual study program, Bachelor's degree) Practical term 2 0	Practical module 3 (dual study program, Bachelor's degree) Practical term 3 0	Combinatorial Structures and Algorithms Combinatorial Structures and Algorithms VL 3 Combinatorial Structures and Algorithms GÜ 1								
28													
29													
30													
31													
32													
33		Practical module 2 (dual study program, Bachelor's degree) Practical term 2 0	Practical module 3 (dual study program, Bachelor's degree) Practical term 3 0	Combinatorial Structures and Algorithms Combinatorial Structures and Algorithms VL 3 Combinatorial Structures and Algorithms GÜ 1									
34													
35													
36													
37													
38													

Linking theory and practice (dual study program, Bachelor's degree) - 6LP
 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.

