Course of Study Computer Science (Study Cohort w22)

Sample course plan R Bachelor Computer Science (CSBS) Dual study program
Specialisation I. Computer and Software Engineering, Specialisation II. Mathematics and 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						
1	**Discrete Algebraic Structures** Discrete Algebraic Structures VL 2 Discrete Algebraic Structures GÜ 2	**Automata Theory and Formal Languages** Automata Theory and Formal Languages VL 2 Automata Theory and Formal Languages GÜ 2	**Databases** Databases VL 3 Databases - Exercise GÜ 2	**Computability and Complexity Theory** Computability and Complexity Theory VL 2 Computability and Complexity Theory GÜ 2	**Software Industrial Internship**	**Embedded Systems** Embedded Systems VL 3 Embedded Systems GÜ 1 Embedded Systems PBL 1
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7	**Functional Programming** Functional Programming VL 2 Functional Programming HÜ 2 Functional Programming GÜ 2	**Foundations of Management** Introduction to Management VL 3 Management Tutorial GÜ 2	**Computer Engineering** Computer Engineering VL 3 Computer Engineering GÜ 1	**Stochastics** Stochastics VL 2 Stochastics GÜ 2	**Seminars Computer Science** Introductory Seminar Computer Science II SE 2 Introductory Seminar Computer Science I SE 2	**Introduction into Medical Technology and Systems** Introduction into Medical Technology and Systems VL 2 Introduction into Medical Technology and Systems PS 2 Introduction into Medical Technology and Systems HÜ 1
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13	**Procedural Programming for Computer Engineers** Procedural Programming for Computer Engineers VL 2 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	**Computernetworks and Internet Security** Computer Networks and Internet Security VL 3 Computer Networks and Internet Security GÜ 1	**Software Engineering** Software Engineering VL 2 Software Engineering GÜ 2	**Practical module 5 (dual study program, Bachelor's degree)** Practical term 5 0	**Signals and Systems** Signals and Systems VL 3 Signals and Systems GÜ 2
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19	**Mathematics I (EN)** Mathematics I VL 4 Mathematics I HÜ 2 Mathematics I GÜ 2	**Mathematics II (EN)** Mathematics II VL 4 Mathematics II HÜ 2 Mathematics II GÜ 2	**Algorithms and Data Structures** Algorithms and Data Structures VL 4 Algorithms and Data Structures GÜ 1	**Graph Theory and Optimization** Graph Theory and Optimization VL 2 Graph Theory and Optimization GÜ 2	**Computer Architecture** Computer Architecture VL 2 Computer Architecture PBL 2 Computer Architecture GÜ 1	**Bachelor thesis (dual study program)**
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25			**Mathematics III (EN)** Analysis III VL 2 Analysis III HÜ 1 Analysis III GÜ 1 Differential Equations 1 VL 2 Differential Equations 1 HÜ 1 Differential Equations 1 GÜ 1	**Practical module 4 (dual study program, Bachelor's degree)** Practical term 4 0	**Introduction to Quantum Computing** Introduction to Quantum Computing VL 2 Introduction to Quantum Computing HÜ 2	
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				
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33			**Practical module 3 (dual study program, Bachelor's degree)** Practical term 3 0			
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Linking theory and practice (dual study program, Bachelor's degree) (from catalogue) - 6LP

Technical Complementary Course I for CSBS - 6LP

Technical Complementary Course II for CSBS - 6LP

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