Course of Study Computer Science (Study Cohort w21)

Sample course plan S Bachelor Computer Science (CSBS) Thesis Compulsory Specialisation I. Computer and Software Engineering, Specialisation II. Mathematics and Engineering Science, Core Qualification Elective Compulsory Specialisation Elective Compulsory Focus Elective Compulsory Interdisciplinary complement Specialisation III. Subject Specific Focus Discrete Algebraic Structures **Automata Theory and Formal Languages Computer Engineering** Computability and Complexity Theory Software Industrial Internship **Compiler Construction** Discrete Algebraic Structures Automata Theory and Formal Languages Computer Engineering Computability and Complexity Theory VL 2 Compiler Construction VL 2 2 GÜ 2 GÜ 2 GÜ 1 GÜ 2 Compiler Construction GÜ 2 Discrete Algebraic Structures Automata Theory and Formal Languages Computer Engineering Computability and Complexity Theory 3 4 5 7 **Functional Programming** Foundations of Management Computernetworks and Internet Security Stochastics **Seminars Computer Science** Algebra and Control VI 2 SF 2 Algebra and Control Functional Programming VI 2 Introduction to Management Computer Networks and Internet Security Stochastics Introductory Seminar Computer Science II Functional Programming HÜ 2 Management Tutorial GÜ 2 Computer Networks and Internet Security GÜ 1 Stochastics GÜ 2 Introductory Seminar Computer Science I Algebra and Control GÜ 2 Functional Programming 10 11 12 13 **Procedural Programming for Computer Engineers Programming Paradigms** Algorithms and Data Structures Software Engineering Introduction to Information Security Solvers for Sparse Linear Systems VI 2 Introduction to Information Security Solvers for Sparse Linear Systems Procedural Programming for Computer Engineers VL 1 Programming Paradigms VI 2 Algorithms and Data Structures VI 4 Software Engineering VI 2 VI 2 14 Procedular Programming for Computer Engineers HÜ 1 HÜ 1 Algorithms and Data Structures GÜ 1 Software Engineering GÜ 2 Introduction to Information Security GÜ 2 Solvers for Sparse Linear Systems GÜ 2 Programming Paradigms 15 Procedural Programming for Computer Engineers PR 2 Programming Paradigms 16 17 18 19 Mathematics I (EN) Mathematics II (EN) Mathematics III (EN) **Graph Theory and Optimization** Combinatorial Structures and Algorithms Bachelor Thesis Analysis I VI 2 Analysis II Analysis III VI 2 Graph Theory and Optimization VI 2 Combinatorial Structures and Algorithms 20 Analysis I HÜ 1 Analysis II HÜ 1 Analysis III HÜ 1 Graph Theory and Optimization Combinatorial Structures and Algorithms 21 Analysis I GÜ 1 Analysis II Analysis III GŪ 1 22 HÜ 1 Linear Algebra II HÜ 1 Differential Equations 1 HÜ 1 23 GÜ 1 GÜ 1 Linear Algebra I Linear Algebra II Differential Equations 1 24 25 26 28 29 Non-technical Courses for Bachelors (from catalogue) - 6LP Technical Complementary Course I 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.

Technical Complementary Course II for CSBS - 6LP