

Course of Study Computational Science and Engineering (Study Cohort w17)

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

Specialisation Engineering Sciences

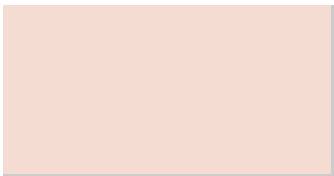
Legend:

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|--|------------------------------------|---------------------------|------------------------------|
| Core qualification Compulsory | Specialisation Compulsory | Focus Compulsory | Thesis Compulsory |
| Core qualification Elective Compulsory | Specialisation Elective Compulsory | Focus Elective Compulsory | Interdisciplinary complement |

| LP | Semester 1 | Form/VL | Semester 2 | Form/VL | Semester 3 | Form/VL | Semester 4 | Form/VL | Semester 5 | Form/VL | Semester 6 | Form/VL | | | | | | |
|----|---|-----------------------|--|---|---|-------------------|--------------------------------------|---|---|---------|---|-------------------------------|--|--|-------------------------------|--|-------------------------------------|--|
| 1 | Discrete Algebraic Structures | VL 2 | Electrical Engineering II: Alternating Current Networks and Basic Devices | VL 3 | Engineering Mechanics I | VL 3 | Engineering Mechanics II | VL 3 | Seminars Computer Science and Mathematics | SE 2 | Stochastics | VL 2 | | | | | | |
| 2 | | | | | | | | | | | | | Discrete Algebraic Structures | Engineering Mechanics I | Engineering Mechanics II | Seminar Computational Engineering Science | Stochastics | |
| 3 | | UE 2 | | Electrical Engineering II: Alternating Current Networks and Basic Devices | | UE 2 | | Engineering Mechanics I | | UE 2 | | Engineering Mechanics II | UE 2 | Seminar Computational Mathematics/Computer Science | SE 2 | Stochastics | UE 2 | |
| 4 | | | | | | | | | | | | | | | | | | Discrete Algebraic Structures |
| 5 | | | | | | | | | | | | | | | | | | Electrical Engineering II: Alternating Current Networks and Basic Devices |
| 6 | | | | | | | | | | | | | | | | | | Electrical Engineering II: Alternating Current Networks and Basic Devices |
| 7 | Procedural Programming | VL 1 | Objectoriented Programming, Algorithms and Data Structures | VL 4 | Numerical Mathematics I | VL 2 | Signals and Systems | VL 3 | Introduction to Control Systems | VL 2 | Electrical Engineering IV: Transmission Lines and Research Seminar | VL 2 | | | | | | |
| 8 | | | | | | | | | | | | | Procedural Programming | Numerical Mathematics I | Signals and Systems | Introduction to Control Systems | Transmission Line Theory | |
| 9 | | HÜ 1 | | Objectoriented Programming, Algorithms and Data Structures | | UE 2 | | Numerical Mathematics I | | UE 2 | | Signals and Systems | UE 2 | Introduction to Control Systems | UE 2 | Research Seminar | SE 2 | |
| 10 | | | | | | | | | | | | | | | | | | Procedural Programming |
| 11 | | | | | | | | | | | | | | | | | | Objectoriented Programming, Algorithms and Data Structures |
| 12 | | | | | | | | | | | | | | | | | | Objectoriented Programming, Algorithms and Data Structures |
| 13 | Electrical Engineering I: Direct Current Networks and Electromagnetic Fields | VL 3 | Automata Theory and Formal Languages | UE 2 | Computer Engineering | VL 3 | Embedded Systems | VL 3 | Electrical Engineering III: Circuit Theory and Transients | VL 3 | Materials in Electrical Engineering | VL 2 | | | | | | |
| 14 | | | | | | | | | | | | | Electrical Engineering I: Direct Current Networks and Electromagnetic Fields | Computer Engineering | Embedded Systems | Circuit Theory | Materials in Electrical Engineering | |
| 15 | | UE 2 | | Automata Theory and Formal Languages | | UE 2 | | Computer Engineering | | UE 1 | | Embedded Systems | UE 1 | Circuit Theory | UE 2 | Materials in Electrical Engineering | UE 2 | |
| 16 | | | | | | | | | | | | | | | | | | Electrical Engineering I: Direct Current Networks and Electromagnetic Fields |
| 17 | | | | | | | | | | | | | | | | | | Electrical Engineering I: Direct Current Networks and Electromagnetic Fields |
| 18 | | | | | | | | | | | | | | | | | | Electrical Engineering I: Direct Current Networks and Electromagnetic Fields |
| 19 | Mathematics I | VL 2 | Foundations of Management | VL 3 | Computernetworks and Internet Security | VL 3 | Graph Theory and Optimization | VL 2 | Electrical Power Systems I: Introduction to Electrical Power Systems | VL 3 | Bachelor Thesis | | | | | | | |
| 20 | | | | | | | | | | | | | Linear Algebra I | Computer Networks and Internet Security | Graph Theory and Optimization | Electrical Power Systems I: Introduction to Electrical Power Systems | | |
| 21 | | HÜ 1 | | Project Entrepreneurship | | PBL 2 | | Computer Networks and Internet Security | | UE 1 | | Graph Theory and Optimization | UE 2 | Electrical Power Systems I: Introduction to Electrical Power Systems | HÜ 2 | | | |
| 22 | | | | | | | | | | | | | | | | Linear Algebra I | | |
| 23 | | | | | | | | | | | | | | | | Analysis I | | |
| 24 | | | | | | | | | | | | | | | | Analysis I | | |
| 25 | | Mathematics II | Mathematics III | Mathematics IV | | | | | | | | | | | | | | |
| 26 | | | | | | Linear Algebra II | Analysis III | Complex Functions | | | | | | | | | | |
| 27 | | | | | | Linear Algebra II | Analysis III | Complex Functions | | | | | | | | | | |

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| 28 |
| 29 |
| 30 |
| 31 |
| 32 |

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|-------------------|------|--------------------------|------|--------------------------|------|
| Linear Algebra II | UE 1 | Analysis III | UE 1 | Complex Functions | UE 1 |
| Linear Algebra II | HÜ 1 | Analysis III | HÜ 1 | Complex Functions | HÜ 1 |
| Analysis II | VL 2 | Differential Equations 1 | VL 2 | Differential Equations 2 | VL 2 |
| Analysis II | HÜ 1 | Differential Equations 1 | UE 1 | Differential Equations 2 | UE 1 |
| Analysis II | UE 1 | Differential Equations 1 | HÜ 1 | Differential Equations 2 | HÜ 1 |



Nontechnical Complementary Courses for Bachelors (from catalogue) - 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.