# Course of Study General Engineering Science (German program, 7 semester) (Study Cohort w16)

Sample course plan B Bachelor General Engineering Science (German program, 7 semester) (AIWBS(7))
Specialisation Civil Engineering

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 | 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 | Semester 7 | Form | Hrs/wk |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | **Chemistry** | | | **Electrical Engineering II: Alternating Current Networks and Basic Devices** | | | **Technical Thermodynamics II** | | | **Building Materials and Building Chemistry** | | | **Computer Engineering** | | | **Foundations of Management** | | | **Advanced Internship GES** | | |
| 2 | Chemistry I | VL | 2 | Electrical Engineering II: Alternating Current Networks and Basic Devices | VL | 3 | Technical Thermodynamics II | VL | 2 | Building Materials and Building Chemistry | VL | 4 | Computer Engineering | VL | 3 | Introduction to Management | VL | 3 | | | |
| 3 | Chemistry II | VL | 2 | | | | Technical Thermodynamics II | HÜ | 1 | | | | Computer Engineering | UE | 1 | Management Tutorial | HÜ | 2 | | | |
| 4 | Chemistry I | HÜ | 1 | | | | | | | | | | | | | | | | | | |
| 5 | Chemistry II | HÜ | 1 | | | | | | | | | | | | | | | | | | |
| 6 | | | | Electrical Engineering II: Alternating Current Networks and Basic Devices | UE | 2 | Technical Thermodynamics II | UE | 1 | Building Materials and Building Chemistry | UE | 1 | | | | | | | | | |
| 7 | **Electrical Engineering I: Direct Current Networks and Electromagnetic Fields** | | | **Fundamentals of Mechanical Engineering Design** | | | **Mathematics III** | | | **Reinforced Concrete I** | | | **Introduction to Control Systems** | | | **Structural Design** | | | | | |
| 8 | Electrical Engineering I: Direct Current Networks and Electromagnetic Fields | VL | 3 | Fundamentals of Mechanical Engineering Design | VL | 2 | Analysis III | VL | 2 | Reinforced Concrete Design I | VL | 2 | Introduction to Control Systems | VL | 2 | Basics of Structural Design | VL | 2 | | | |
| 9 | | | | | | | Analysis III | UE | 1 | | | | | | | | | | | | |
| 10 | | | | | | | Analysis III | HÜ | 1 | Reinforced Concrete Design I | HÜ | 2 | | | | Exercises in Structural Design | HÜ | 1 | | | |
| 11 | | | | | | | Differential Equations 1 | VL | 2 | | | | | | | | | | | | |
| 12 | Electrical Engineering I: Direct Current Networks and Electromagnetic Fields | UE | 2 | Fundamentals of Mechanical Engineering Design | HÜ | 2 | Differential Equations 1 | UE | 1 | Project Seminar Concrete I | SE | 1 | Introduction to Control Systems | UE | 2 | Seminar in Structural Design | PBL | 2 | | | |
| 13 | **Mathematics I** | | | **Technical Thermodynamics I** | | | Differential Equations 1 | HÜ | 1 | **Geotechnics I** | | | **Steel Structures I** | | | **Hydraulic Engineering II** | | | | | |
| 14 | Linear Algebra I | VL | 2 | Technical Thermodynamics I | VL | 2 | | | | Soil Mechanics | VL | 2 | Steel Structures I | VL | 2 | Hydraulics | VL | 1 | | | |
| 15 | Linear Algebra I | UE | 1 | | | | **Mechanics III (Hydrostatics, Kinematics, Kinetics I)** | | | | | | | | | | | | | | |
| 16 | Linear Algebra I | HÜ | 1 | Technical Thermodynamics I | HÜ | 1 | Mechanics III | VL | 3 | Soil Mechanics | HÜ | 2 | Steel Structures I | HÜ | 2 | Hydraulics | HÜ | 1 | | | |
| 17 | Analysis I | VL | 2 | | | | Mechanics III | UE | 2 | | | | | | | Hydraulic Engineering | VL | 2 | | | |
| 18 | Analysis I | UE | 1 | Technical Thermodynamics I | UE | 1 | Mechanics III | HÜ | 1 | Soil Mechanics | UE | 2 | | | | Hydraulic Engineering | HÜ | 1 | | | |
| 19 | Analysis I | HÜ | 1 | **Mechanics II: Mechanics of Materials** | | | | | | **Structural Analysis II** | | | **Hydraulic Engineering I** | | | **Applications in Civil and Environmental Engineering (part 2)** | | | **Bachelor Thesis** | | |
| 20 | | | | Mechanics II | VL | 2 | | | | Structural Analysis II | VL | 2 | Hydromechanics | VL | 2 | Selection from a catalog | | | | | |
| 21 | **Mechanics I (Statics)** | | | Mechanics II | UE | 2 | **Principles of Building Materials and Building Physics** | | | Structural Analysis II | HÜ | 2 | Hydromechanics | HÜ | 1 | | | | | | |
| 22 | Mechanics I | VL | 2 | Mechanics II | HÜ | 2 | Principles of Building Materials | VL | 2 | | | | Hydrology | VL | 1 | | | | | | |
| 23 | Mechanics I | UE | 2 | | | | Building Physics | VL | 2 | | | | Hydrology | PBL | 1 | | | | | | |
| 24 | Mechanics I | HÜ | 1 | **Mathematics II** | | | Building Physics | HÜ | 1 | | | | | | | | | | | | |
| 25 | | | | Linear Algebra II | VL | 2 | Building Physics | UE | 1 | | | | | | | | | | | | |
| 26 | | | | Linear Algebra II | UE | 1 | | | | | | | **Concrete Structures II** | | | | | | | | |
| 27 | **Programming in C** | | | Linear Algebra II | HÜ | 1 | **Structural Analysis I** | | | | | | Concrete Structures II | VL | 2 | | | | | | |
| 28 | Programming in C | VL | 1 | Analysis II | VL | 2 | Structural Analysis I | VL | 2 | | | | Concrete Structures II | HÜ | 2 | | | | | | |
| | | | | | | | | | | | | | Project Concrete | PS | 1 | | | | | | |
| | | | | | | | | | | | | | Structures II | | | | | | | | |

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| | Programming in C PR 1 | Analysis II HÜ 1<br>Analysis II UE 1 | Structural Analysis I HÜ 2 | | |
| 29 | **Physics for Engineers (AIW)** | | | | |
| 30 | Physics for Engineers VL 2 | | | | |
| 31 | Physics for Engineers UE 1 | | | | |
| 32 | | | | **Applications in Civil and Environmental Engineering (part 1)** | |
| 33 | | | | Selection from a catalog | |

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.