# Course of Study General Engineering Science (German program, 7 semester) (Study Cohort w17)

Sample course plan T  Bachelor General Engineering Science (German program, 7 semester) (AIWBS(7))

Specialisation: Computer Science

| | Semester 1 | FormHrs/wk | Semester 2 | FormHrs/wk | Semester 3 | FormHrs/wk | Semester 4 | FormHrs/wk | Semester 5 | FormHrs/wk | Semester 6 | FormHrs/wk | Semester 7 | FormHrs/wk |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | **Chemistry** | | **Electrical Engineering II: Alternating Current Networks and Basic Devices** | | **Technical Thermodynamics II** | | **Objectoriented Programming, Algorithms and Data Structures** | | **Introduction to Control Systems** | | **Foundations of Management** | | **Advanced Internship AIW/ GES** | |
| 2 | Chemistry I | VL 2 | | | Technical Thermodynamics II | VL 2 | | | Introduction to Control Systems | VL 2 | Introduction to Management | VL 3 | | |
| 3 | Chemistry II | VL 2 | Electrical Engineering II: Alternating | VL 3 | Technical Thermodynamics II | HÜ 1 | Objectoriented Programming, Algorithms | VL 4 | Introduction to Control Systems | GÜ 2 | Management Tutorial | HÜ 2 | | |
| 4 | Chemistry I | HÜ 1 | Current Networks and Basic Devices | | Technical Thermodynamics II | GÜ 1 | and Data Structures | | | | | | | |
| 5 | Chemistry II | HÜ 1 | Electrical Engineering II: Alternating | GÜ 2 | | | Objectoriented Programming, Algorithms | GÜ 1 | | | | | | |
| 6 | | | Current Networks and Basic Devices | | | | and Data Structures | | | | | | | |
| 7 | **Electrical Engineering I: Direct Current Networks and Electromagnetic Fields** | | **Fundamentals of Mechanical Engineering Design** | | **Mathematics III** | | **Signals and Systems** | | **Numerical Mathematics I** | | **Operating Systems** | | | |
| 8 | | | | | Analysis III | VL 2 | Signals and Systems | VL 3 | Numerical Mathematics I | VL 2 | Operating Systems | VL 2 | | |
| 9 | Electrical Engineering I: Direct Current | VL 3 | Fundamentals of Mechanical Engineering | VL 2 | Analysis III | GÜ 1 | Signals and Systems | GÜ 2 | Numerical Mathematics I | GÜ 2 | Operating Systems | GÜ 2 | | |
| 10 | Networks and Electromagnetic Fields | | Design | | Analysis III | HÜ 1 | | | | | | | | |
| 11 | Electrical Engineering I: Direct Current | GÜ 2 | Fundamentals of Mechanical Engineering | HÜ 1 | Differential Equations 1 | VL 2 | | | | | | | | |
| 12 | Networks and Electromagnetic Fields | | Design | | Differential Equations 1 | GÜ 1 | | | | | | | | |
| 13 | **Mathematics I** | | **Technical Thermodynamics I** | | Differential Equations 1 | HÜ 1 | **Stochastics** | | **Seminars Computer Science and Mathematics** | | **Lab Cyber-Physical Systems** | | | |
| 14 | Linear Algebra I | VL 2 | Technical Thermodynamics I | VL 2 | | | Stochastics | VL 2 | Seminar Computational Engineering | SE 2 | Lab Cyber-Physical Systems | PBL 4 | | |
| 15 | Linear Algebra I | GÜ 1 | Technical Thermodynamics I | HÜ 1 | | | Stochastics | GÜ 2 | Science | | | | | |
| 16 | Linear Algebra I | HÜ 1 | Technical Thermodynamics I | GÜ 1 | **Mechanics III (Hydrostatics, Kinematics, Kinetics I)** | | | | Seminar Computational | SE 2 | | | | |
| 17 | Analysis I | VL 2 | | | | | | | Mathematics/Computer Science | | | | | |
| 18 | Analysis I | GÜ 1 | | | Mechanics III | VL 3 | | | Seminar Engineering | SE 2 | | | | |
| 19 | Analysis I | HÜ 1 | **Mechanics II: Mechanics of Materials** | | Mechanics III | GÜ 2 | **Graph Theory and Optimization** | | Mathematics/Computer Science | | | | **Bachelor Thesis** | |
| 20 | | | Mechanics II | VL 2 | Mechanics III | HÜ 1 | Graph Theory and Optimization | VL 2 | **Computer Architecture** | | | | | |
| 21 | **Mechanics I (Statics)** | | Mechanics II | GÜ 2 | | | Graph Theory and Optimization | GÜ 2 | Computer Architecture | VL 2 | | | | |
| 22 | Mechanics I | VL 2 | Mechanics II | HÜ 2 | **Computer Engineering** | | | | Computer Architecture | PBL 2 | | | | |
| 23 | Mechanics I | GÜ 2 | | | Computer Engineering | VL 3 | | | Computer Architecture | GÜ 1 | | | | |
| 24 | Mechanics I | HÜ 1 | | | Computer Engineering | GÜ 1 | | | | | | | | |
| 25 | | | **Mathematics II** | | | | **Embedded Systems** | | **Computernetworks and Internet Security** | | | | | |
| 26 | | | Linear Algebra II | VL 2 | | | Embedded Systems | VL 3 | Computer Networks and Internet Security | VL 3 | | | | |
| 27 | **Programming in C** | | Linear Algebra II | GÜ 1 | **Discrete Algebraic Structures** | | Embedded Systems | GÜ 1 | Computer Networks and Internet Security | GÜ 1 | | | | |
| 28 | Programming in C | VL 1 | Linear Algebra II | HÜ 1 | Discrete Algebraic Structures | VL 2 | | | | | | | | |
| 29 | Programming in C | PR 1 | Analysis II | VL 2 | Discrete Algebraic Structures | GÜ 2 | | | | | | | | |
| 30 | **Physics for Engineers (AIW)** | | Analysis II | HÜ 1 | | | | | | | | | | |
| 31 | Physics for Engineers | VL 2 | Analysis II | GÜ 1 | | | | | | | | | | |
| 32 | Physics for Engineers | GÜ 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.