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

Sample course plan A Bachelor General Engineering Science (German program, 7 semester) (AIWBS(7)) Specialisation Mechanical Engineering, Focus Mechatronics

Legenc:

Core qualification Compulsory

Specialisation Compulsory

Focus Compulsory

Thesis Compulsory

Core qualification Elective

Specialisation Elective

Compulsory

Focus Elective Compulsory

Interdisciplinary complement

Compulsory

LP	Semester 1 Formers	s/wSwemester 2 Formers	/wSwemester 3 Former's	/w‰lemester4 FormHr	s/wSkemester 5 Forkelrs	s/w&mester 6 Formings	/w&wemester7 Formirs/v
1 2 3 4 5	Chemistry Chemistry I VL 2 Chemistry II VL 2 Chemistry I HÜ 1 Chemistry II HÜ 1	Electrical Engineering II: Alternating Current Networks and Basic Devices Electrical Engineering II: VL 3 Alternating Current Networks and Basic Devices Electrical Engineering II: UE 2 Alternating Current Networks and Basic Devices	Technical Thermodynamics II Technical VL 2 Thermodynamics II Technical HÜ 1 Thermodynamics II Technical UE 1 Thermodynamics II	Mechanical Engineering: Design (part 2) Team Project Design PBL2 Methodology Mechanical Design TT 3 Project II Fundamentals of Materials Science (part 2) Fundamentals of VL 2 Materials Science II	Computer Engineering Computer Engineering VL 3 Computer Engineering UE 1	Foundations of Management Introduction to VL 3 Management Management Tutorial HÜ 2	Advanced Internship GES
7 8 9 10 11 12	Electrical Engineering I: Direct Current Networks and Electromagnetic Fields Electrical Engineering I: VL 3 Direct Current Networks and Electromagnetic Fields Electrical Engineering I: UE 2 Direct Current Networks and Electromagnetic Fields	Fundamentals of Mechanical Engineering Design Fundamentals of VL 2 Mechanical Engineering Design Fundamentals of HÜ 2 Mechanical Engineering Design	Mathematics III Analysis III VL 2 Analysis III UE 1 Analysis III HÜ 1 Differential Equations 1 VL 2 Differential Equations 1 UE 1 Differential Equations 1 HÜ 1	Advanced Mechanical Engineering Design (part 2) Advanced Mechanical Engineering Design II Advanced Mechanical Engineering Design II Fluid Dynamics Fluid Mechanics VL 3 Fluid Mechanics HÜ 2	Introduction to Control Systems Introduction to Control VL 2 Systems Introduction to Control UE 2 Systems	Semiconductor Circuit Design Semiconductor Circuit VL 3 Design Semiconductor Circuit UE 1 Design	
13 14 15 16 17 18	Mathematics I Linear Algebra I VL 2 Linear Algebra I UE 1 Linear Algebra I HÜ 1 Analysis I VL 2 Analysis I UE 1 Analysis I HÜ 1	Technical Thermodynamics I Technical VL 2 Thermodynamics I Technical HÜ 1 Thermodynamics I Technical UE 1 Thermodynamics I	Mechanics III (Hydrostatics, Kinematics, Kinetics I) Mechanics III VL 3 Mechanics III UE 2 Mechanics III HÜ 1	Mechanics IV (Kinetics II, Oscillations, Analytical Mechanics, Multibody Systems) Mechanics IV VL 3 Mechanics IV UE 2 Mechanics IV HÜ 1	Measurement Technology for Mechanical and Process Engineers Measurement VL 2 Technology for Mechanical and Process Engineers Measurement HÜ 1 Technology for Mechanical and Process Engineers Practical Course: PR 2 Measurement and Control Systems	Mathematics IV Complex Functions VL 2 Complex Functions UE 1 Complex Functions HÜ 1 Differential Equations 2 VL 2 Differential Equations 2 UE 1 Differential Equations 2 HÜ 1	
19 20 21 22 23	Mechanics I (Statics) Mechanics I VL 2 Mechanics I UE 2 Mechanics I HÜ 1	Mechanics II: Mechanics of Materials Mechanics II VL 2 Mechanics II UE 2 Mechanics II HÜ 2	Mechanical Engineering: Design (part 1) Embodiment Design and VL 2 3D-CAD	Signals and Systems Signals and Systems VL 3 Signals and Systems HÜ 1	Electrical Engineering III: Circuit Theory and Transients Circuit Theory VL 3 Circuit Theory UE 2	Electrical Machines Electrical Machines VL 3 Electrical Machines HÜ 2	Bachelor Thesis

			Mechanical Design TT 3 Project I
242526		Mathematics II	Fundamentals of Materials Science (part 1) Fundamentals of VL 2
27	Programming in C Programming in C VL 1 Programming in C PR 1	Linear Algebra II VL 2 Linear Algebra II UE 1 Linear Algebra II HÜ 1 Analysis II VL 2	Materials Science I Physical and Chemical VL 2 Basics of Materials
28 29 30	Physics for Engineers (AIW)	Analysis II HÜ 1 Analysis II UE 1	Advanced Mechanical Engineering Design (part 1)
50	Physics for Engineers VL 2 Physics for Engineers UE 1		Advanced Mechanical VL 2 Engineering Design I Advanced Mechanical HÜ 2 Engineering Design I
31 32			

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

Nontechnical Complementary Courses for Bachelors (from catalogue) - 6LP