Course of Study General Engineering Science (English program) (Study Cohort w14)

Sample course plan B Bachelor General Engineering Science (English program) (GESBS) Specialisation Mechanical Engineering, Focus Materials in Engineering Sciences

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Core qualification Elective Specialisation Elective Focus Elective Compulsory Interdisciplinary complement Compulsory Compulsory FormHrs/wk Semester 2 IΡ Semester 1 FormHrs/wk Semester 3 FormHrs/wk Semester 4 FormHrs/wk Semester 5 FormHrs/wk Semester 6 FormHrs/wk 1 Chemistry (GES) Physics for Engineers (GES) (part 2) Technical Thermodynamics II Mechanical Engineering: Design (part 2) Introduction to Control Systems Foundations of Management Physics-Lab for ET/IIW-Engineers Team Project Design Methodology POL 2 Chemistry VL 2 PR 1 Technical Thermodynamics II VL 2 Introduction to Control Systems VL 2 Introduction to Management VL 4 2 HÜ 1 Mechanical Design Project II Chemistry II VL 2 Technical Thermodynamics II тт з Introduction to Control Systems UE 2 Project Entrepreneurship POL 2 3 Fundamentals of Mechanical Engineering Chemistry I HÜ 1 Technical Thermodynamics II UE 1 Design 4 Chemistry II HÜ 1 Fundamentals of Materials Science (part 2) Fundamentals of Mechanical VL 2 Fundamentals of Materials Science II VL 2 5 Engineering Design HÜ 2 Fundamentals of Mechanical 6 Advanced Mechanical Engineering Design Engineering Design (part 2) 7 Linear Algebra Computer Engineering Measurement Technology for Mechanical and Structural Materials (part 2) Advanced Mechanical Engineering VL 2 Process Engineers Linear Algebra VL 4 Computer Engineering VL 3 Fundamentals of Mechanical VL 2 8 Design II Properties of Materials Linear Algebra HÜ 2 Computer Engineering UE 1 Measurement Technology for VL 2 Advanced Mechanical Engineering HÜ 2 Mechanical and Process Engineers Linear Algebra UE 2 Design II Measurement Technology for HÜ 1 9 **Technical Thermodynamics I** Signals and Systems Mechanical and Process Engineers Technical Thermodynamics I VL 2 Signals and Systems VL 3 Practical Course: Measurement and PR 2 10 Enhanced Fundamentals of Materials Science Technical Thermodynamics I HÜ 1 Signals and Systems HÜ 1 Control Systems Fundamentals of Metallic Materials VL 2 11 Technical Thermodynamics I UE 1 Fundamentals of Ceramic and VL 2 12 Polymer Materials Fundamentals of Ceramic and HÜ 1 13 Mathematics III Numerical Mathematics I Polymer Materials Analysis III VL 2 Numerical Mathematics I VL 2 14 Analysis III UE 1 Numerical Mathematics I UE 2 15 Electrical Engineering I Mathematical Analysis Fluid Dynamics ΗÜ Analysis III Fluid Mechanics VL 3 Electrical Engineering I VL 3 Mathematical Analysis VL 4 16 Differential Equations 1 VL 2 **Bachelor Thesis** HÜ 1 Electrical Engineering I UE 2 Mathematical Analysis HÜ 2 Fluid Mechanics Differential Equations 1 UE 17 Mathematical Analysis UE 2 Differential Equations 1 ΗÜ 18 19 Structural Materials (part 1) Welding Technology VL 3 20 21 Mechanics I (GES) Mechanics III (GES) Mechanics IV (Kinetics II. Oscillations. Analytical Mechanics, Multibody Systems) Mechanics I VL 2 Mechanics III HÜ 1 22 Material Science Laboratory HÜ 3 UE 2 Mechanics IV VL 3 Mechanics III Mechanics I Companion Lecture for Materials VI 2 23 Electrical Engineering II Mechanics III VI 3 Mechanics IV LIE 2 Science Laboratory Electrical Engineering II VL 3 HÜ 1 Mechanics IV 24 Material Science Laboratory PR 4 Electrical Engineering II UE 2 25 26 27 Physics for Engineers (GES) (part 1) Mechanical Engineering: Design (part 1) Fundamentals of Production and Quality Management VL 2 Embodiment Design and 3D-CAD VL 2 Physics for Engineers 28 Production Process Organization VL 2 Physics for Engineers UE 1 Mechanical Design Project I TT 3 29 Mechanics II (GES) Quality Management VL 2 Mechanics II VL 2 30 Fundamentals of Materials Science (part 1) Mechanics II HÜ 2 Fundamentals of Materials Science I VL 2 31 Physical and Chemical Basics of VL 2 32

Materials Science

Leaend:

Core qualification Compulsory

Specialisation Compulsory

Focus Compulsory

Thesis Compulsory

34				Advanced Mechanical Engineering Design
35		Programming in C		(part 1) Advanced Mechanical Engineering VL 2 Design I
36		Programming in C	VL 1	
		Programming in C	PR 1	Advanced Mechanical Engineering HÜ 2
				Design I
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The choice of courses from the catalogue is flexible (depends on the semestral work load), provided the necessary number of required credits is reached.