

Course of Study Engineering Science (Study Cohort w20)

Sample course plan A Bachelor Engineering Science (ESBS)

Specialisation Electrical Engineering																									
1	Chemistry (GES) Chemistry I+II VL 4 Chemistry I+II HÜ 2		Mathematical Analysis Mathematical Analysis VL 4 Mathematical Analysis HÜ 2 Mathematical Analysis GÜ 2		Mechanical Engineering: Design (part 1) Embodiment Design and 3D-CAD VL 2 Mechanical Design Project I PBL 3		Mechanical Engineering: Design (part 2) Team Project Design Methodology PBL 2 Mechanical Design Project II PBL 3		Numerical Mathematics I Numerical Mathematics I VL 2 Numerical Mathematics I GÜ 2		Fundamentals of Production and Quality Management Production Process Organization VL 2 Quality Management VL 2		Advanced Internship AIW/ ES Advanced Internship AIW/ ES: SE 1 Preparation Advanced Intership AIW/ ES: Internship-accompanying Seminar SE 1												
2					Engineering Mechanics III (EN) Mechanics III HÜ 1 Mechanics III GÜ 2 Mechanics III VL 3		Fundamentals of Materials Science (EN) (part 2) Fundamentals of Materials Science II VL 2 Electromagnetics for Engineers I: Time-Independent Fields Electromagnetics for Engineers I: Time-Independent Fields VL 3 Electromagnetics for Engineers I: Time-Independent Fields GÜ 2		Fluid Mechanics (EN) Fluid Mechanics VL 3 Fluid Mechanics HÜ 2																
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7	Linear Algebra Linear Algebra VL 4 Linear Algebra HÜ 2 Linear Algebra GÜ 2		Electrical Engineering II (GES) Electrical Engineering II VL 3 Electrical Engineering II GÜ 2		Fundamentals of Materials Science (EN) (part 1) Fundamentals of Materials Science I VL 2 Physical and Chemical Basics of Materials Science VL 2 Computer Science for Engineers (EN) **** Computer Science for Engineers VL 0 **** Computer Science for Engineers GÜ 3		Computational Mechanics (EN) Computational Mechanics IV 4 Computational Mechanics GÜ 2		Introduction to Control Systems (EN) Introduction to Control Systems VL 2 Introduction to Control Systems GÜ 2		Foundations of Management (EN) *** Introduction to Management VL 3 *** Introduction to Management GÜ 3														
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13	Electrical Engineering I (GES) Electrical Engineering I VL 3 Electrical Engineering I GÜ 2		Engineering Mechanics II (GES) Mechanics II VL 2 Mechanics II HÜ 2		Signals and Systems (EN) Signals and Systems GÜ 2 Signals and Systems VL 3		Theoretical Electrical Engineering II: Time-Dependent Fields Theoretical Electrical Engineering II: Time-Dependent Fields VL 3 Theoretical Electrical Engineering II: Time-Dependent Fields GÜ 2		Semiconductor Circuit Design Semiconductor Circuit Design VL 3 Semiconductor Circuit Design GÜ 1		Bachelor Thesis														
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19	Engineering Mechanics I (GES) Mechanics I VL 2 Mechanics I HÜ 3		Fundamentals of Mechanical Engineering Design (GES) Fundamentals of Mechanical Engineering VL 2 Fundamentals of Mechanical Engineering GÜ 2		Mathematics III (EN) Analysis III VL 2 Analysis III HÜ 1 Analysis III GÜ 1 Differential Equations 1 VL 2 Differential Equations 1 HÜ 1 Differential Equations 1 GÜ 1		Electronic Devices Electronic Devices VL 3 Electronic Devices PBL 2		Mathematics IV (EN) Differential Equations 2 VL 2 Differential Equations 2 HÜ 1 Differential Equations 2 GÜ 1 Complex Functions VL 2 Complex Functions HÜ 1 Complex Functions GÜ 1																
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25	Physics for Engineers (GES) Physics for Engineers VL 2 Physics for Engineers GÜ 1		Technical Thermodynamics I (GES) *** Technical Thermodynamics I IV 3 *** Technical Thermodynamics I GÜ 1																						
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31	GES 101 GES 101 SE 2																								
32																									
Non-technical 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.

