

Course of Study General Engineering Science (German program, 7 semester) (Study Cohort w19)

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

Specialisation Mechanical Engineering, Focus Materials in Engineering Sciences

1	Chemistry Chemistry I Chemistry II Chemistry I Chemistry II	VL 2 VL 2 HÜ 1 HÜ 1	Electrical Engineering II: Alternating Current Networks and Basic Devices Electrical Engineering II: Alternating Current Networks and Basic Devices Electrical Engineering II: Alternating Current Networks and Basic Devices	VL 2 HÜ 1 GÜ 2	Technical Thermodynamics II Technical Thermodynamics II Technical Thermodynamics II Technical Thermodynamics II	VL 2 HÜ 1 GÜ 1	Signals and Systems Signals and Systems Signals and Systems	VL 3 GÜ 2	Introduction to Control Systems Introduction to Control Systems Introduction to Control Systems	VL 2 GÜ 2	Foundations of Management Introduction to Management Management Tutorial	VL 3 GÜ 2	Advanced Internship AIW/ ES Advanced Internship AIW/ ES: Preparation Advanced Intership AIW/ ES: Internship-accompanying Seminar	SE 1 SE 1
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7	Electrical Engineering I: Direct Current Networks and Electromagnetic Fields Electrical Engineering I: Direct Current Networks and Electromagnetic Fields Electrical Engineering I: Direct Current Networks and Electromagnetic Fields	VL 3 GÜ 2	Fundamentals of Mechanical Engineering Design Fundamentals of Mechanical Engineering Design Fundamentals of Mechanical Engineering Design	VL 2 HÜ 2	Mathematics III Analysis III Analysis III Analysis III Differential Equations 1 Differential Equations 1 Differential Equations 1	VL 2 GÜ 1 HÜ 1 VL 2 GÜ 1 HÜ 1	Fluid Dynamics Fluid Mechanics Fluid Mechanics	VL 3 HÜ 2	Computer Engineering Computer Engineering Computer Engineering	VL 3 GÜ 1	Advanced Materials Advanced Materials Characterization Advanced Materials Design Advanced Materials Design	VL 2 VL 2 HÜ 2		
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13	Mathematics I Linear Algebra I Linear Algebra I Linear Algebra I Analysis I Analysis I Analysis I	VL 2 GÜ 1 HÜ 1 VL 2 GÜ 1 HÜ 1	Technical Thermodynamics I Technical Thermodynamics I Technical Thermodynamics I Technical Thermodynamics I	VL 2 HÜ 1 GÜ 1	Mechanics III (Dynamics) Mechanics III Mechanics III Mechanics III	VL 3 GÜ 2 HÜ 1	Mechanics IV (Oscillations, Analytical Mechanics, Multibody Systems, Numerical Mechanics) Mechanics IV Mechanics IV Mechanics IV	VL 3 GÜ 2 HÜ 1	Measurement Technology for Mechanical Engineers Measurement Technology for Mechanical Engineering Measurement Technology for Mechanical Engineering Practical Course: Measurement and Control Systems	VL 2 HÜ 1 PR 2	Enhanced Fundamentals of Materials Science Enhanced Fundamentals: Metals Enhanced Fundamentals: Ceramics and Polymers Enhanced Fundamentals: Ceramics and Polymers	VL 2 VL 2 HÜ 1		
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19	Mechanics I (Statics) Mechanics I Mechanics I Mechanics I	VL 2 GÜ 2 HÜ 1	Mechanics II: Mechanics of Materials Mechanics II Mechanics II Mechanics II	VL 2 GÜ 2 HÜ 2	Mechanical Engineering: Design (part 1) Embodiment Design and 3D-CAD Mechanical Design Project I	VL 2 PBL 3	Mechanical Engineering: Design (part 2) Team Project Design Methodology Mechanical Design Project II	PBL 2 PBL 3	Numerical Mathematics I Numerical Mathematics I Numerical Mathematics I	VL 2 GÜ 2	Structural Materials (part 2) Fundamentals of Mechanical Properties of Materials	VL 2	Bachelor Thesis	
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25	Programming in C Programming in C Programming in C	VL 1 PR 1	Mathematics II Linear Algebra II Linear Algebra II Linear Algebra II Analysis II Analysis II Analysis II	VL 2 GÜ 1 HÜ 1 VL 2 HÜ 1 GÜ 1	Fundamentals of Materials Science (part 1) Fundamentals of Materials Science I Physical and Chemical Basics of Materials Science	VL 2 VL 2	Advanced Mechanical Engineering Design (part 1) Advanced Mechanical Engineering Design I Advanced Mechanical Engineering Design I	VL 2 HÜ 2	Advanced Mechanical Engineering Design (part 2) Advanced Mechanical Engineering Design II Advanced Mechanical Engineering Design II		Structural Materials (part 1) Welding Technology	VL 3		
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31	Physics for Engineers (AIW) Physics for Engineers Physics for Engineers	VL 2 GÜ 1									Material Science Laboratory Companion Lecture for Materials Science Laboratory Material Science Laboratory	VL 2 PR 4		
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37											Materials Engineering: Materials Selection, Processing and Modelling Materials Selection and Processing Materials and Process Modeling	VL 3 VL 3		
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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.

