Course of Study General Engineering Science (German program, 7 semester) (Study Cohort w20)

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

Specialisation Electrical Engineering

Semester 1

Course	Form	Hrs/wk
Chemistry		
Chemistry I+II	VL	4
Chemistry I+II	HÜ	2
Electrical Engineering I: Direct Current Networks and Electromagnetic Fields		
Electrical Engineering I: Direct Current Networks and Electromagnetic Fields	VL	3
Electrical Engineering I: Direct Current Networks and Electromagnetic Fields	GÜ	2
Mathematics I		
Linear Algebra I	VL	2
Linear Algebra I	GÜ	1
Linear Algebra I	HÜ	1
Analysis I	VL	2
Analysis I	GÜ	1
Analysis I	HÜ	1
Mechanics I (Statics)		
Mechanics I	VL	2
Mechanics I	GÜ	1
Mechanics I	HÜ	1
Programming in C		
Programming in C	VL	1
Programming in C	PR	1
Physics for Engineers (AIW)		
Physics for Engineers	VL	2
Physics for Engineers	GÜ	1

Semester 2

Course	Form	Hrs/wk
Electrical Engineering II: Alternating Current Networks and Basic Devices		
Electrical Engineering II: Alternating Current Networks and Basic Devices	VL	3
Electrical Engineering II: Alternating Current Networks and Basic Devices	GÜ	2
Fundamentals of Mechanical Engineering Design		
Fundamentals of Mechanical Engineering Design	VL	3
Fundamentals of Mechanical Engineering Design	HÜ	2
Technical Thermodynamics I		
Technical Thermodynamics I	VL	2
Technical Thermodynamics I	HÜ	1
Technical Thermodynamics I	GÜ	1
Mechanics II: Mechanics of Materials		
Mechanics II	VL	2
Mechanics II	GÜ	2
Mechanics II	HÜ	2
Mathematics II		
Linear Algebra II	VL	2
Linear Algebra II	GÜ	1
Linear Algebra II	HÜ	1
Analysis II	VL	2
Analysis II	HÜ	1
Analysis II	GÜ	1

Semester 3

Course	Form	Hrs/wk
Technical Thermodynamics II		
Technical Thermodynamics II	VL	2
Technical Thermodynamics II	HÜ	1
Technical Thermodynamics II	GÜ	1
Mathematics III		
Analysis III	VL	2
Analysis III	GÜ	1
Analysis III	HÜ	1
Differential Equations 1	VL	2
Differential Equations 1	GÜ	1
Differential Equations 1	HÜ	1
Mechanics III (Dynamics)		
Mechanics III	VL	3
Mechanics III	GÜ	2
Mechanics III	HÜ	1
Electrical Engineering III: Circuit Theory and Transients		
Circuit Theory	VL	3
Circuit Theory	GÜ	2
Computer Engineering		
Computer Engineering	VL	3
Computer Engineering	GÜ	1

Semester 4

Course	Form	Hrs/wk
Signals and Systems		
Signals and Systems	VL	3
Signals and Systems	GÜ	2
Theoretical Electrical Engineering I: Time-Independent Fields		
Theoretical Electrical Engineering I: Time-Independent Fields	VL	3
Theoretical Electrical Engineering I: Time-Independent Fields	GÜ	2
Materials in Electrical Engineering		
Materials in Electrical Engineering	VL	2
Materials in Electrical Engineering	GÜ	2
Electrotechnical Experiments	VL	1
Mathematics IV		
Complex Functions	VL	2
Complex Functions	GÜ	1
Complex Functions	HÜ	1
Differential Equations 2	VL	2
Differential Equations 2	GÜ	1
Differential Equations 2	HÜ	1
Introduction to Waveguides, Antennas, and Electromagnetic Compatibility		
Introduction to Waveguides, Antennas, and Electromagnetic Compatibility	VL	3
Introduction to Waveguides, Antennas, and Electromagnetic Compatibility	GÜ	2

Semester 5

Course	Form	Hrs/wk
Introduction to Control Systems		
Introduction to Control Systems	VL	2
Introduction to Control Systems	GÜ	2
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
Introduction to Communications and Random Processes		
Introduction to Communications and Random Processes	VL	3
Introduction to Communications and Random Processes	HÜ	1
Introduction to Communications and Random Processes	GÜ	1
Electronic Devices		
Electronic Devices	VL	3
Electronic Devices	PBL	2
Measurements: Methods and Data Processing		
Measurements: Methods and Data Processing	VL	2
Measurements: Methods and Data Processing	GÜ	1
EE Experimental Lab	PR	2

Semester 6

Course	Form	Hrs/wk
Foundations of Management		
Introduction to Management	VL	3
Management Tutorial	GÜ	2
Electrical Engineering Project Laboratory		
Electrical Engineering Project Laboratory	PBL	8
Semiconductor Circuit Design		
Semiconductor Circuit Design	VL	3
Semiconductor Circuit Design	GÜ	1

Semester 7

Course	Form	Hrs/wk
Advanced Internship AIW/ ES		
Advanced Internship AIW/ ES: Preparation	SE	1
Advanced Internship AIW/ ES: Internship-accompanying Seminar	SE	1
Bachelor Thesis		

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.