Course of Study General Engineering Science (German program) (Study Cohort w15)

Sample course plan B Bachelor General Engineering Science (German program) (AIWBS)
Specialisation Process Engineering

Legend:

Core qualification Compulsory	Specialisation Compulsory	Focus Compulsory	Thesis Compulsory
Core qualification Elective Compulsory	Specialisation Elective Compulsory	Focus Elective Compulsory	Interdisciplinary complement

Semester 1

Physics for Engineers (part 1)

Course	Form	Hrs/wk
Physics for Engineers	VL	2
Physics for Engineers	UE	1

Chemistry

Course	Form	Hrs/wk
Chemistry I	VL	2
Chemistry II	VL	2
Chemistry I	HÜ	1
Chemistry II	HÜ	1

Electrical Engineering I: Direct Current Networks and Electromagnetic Fields

Course	Form	Hrs/wk
Electrical Engineering I: Direct Current Networks and Electromagnetic Fields	VL	3
Electrical Engineering I: Direct Current Networks and Electromagnetic Fields	UE	2

Mathematics I

Course	Form	Hrs/wk
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

Mechanics I (Statics)

Course	Form	Hrs/wk
Mechanics I	VL	2
Mechanics I	UE	2
Mechanics I	HÜ	1

Semester 2

Electrical Engineering II: Alternating Current Networks and Basic Devices

Course	Form	Hrs/wk
Electrical Engineering II: Alternating Current Networks and Basic Devices	VL	3
Electrical Engineering II: Alternating Current Networks and Basic Devices	UE	2

Fundamentals of Mechanical Engineering Design

Course	Form	Hrs/wk
Fundamentals of Mechanical Engineering Design	VL	2
Fundamentals of Mechanical Engineering Design	HÜ	2

Technical Thermodynamics I

Course	Form	Hrs/wk
Technical Thermodynamics I	VL	2
Technical Thermodynamics I	HÜ	1
Technical Thermodynamics I	UE	1

Mechanics II: Mechanics of Materials

Course	Form	Hrs/wk
Mechanics II	VL	2
Mechanics II	UE	2
Mechanics II	HÜ	2

Mathematics II

Course	Form	Hrs/wk
Linear Algebra II	VL	2
Linear Algebra II	UE	1
Linear Algebra II	HÜ	1
Analysis II	VL	2
Analysis II	HÜ	1
Analysis II	UE	1

Semester 3

Technical Thermodynamics II

Course	Form	Hrs/wk
Technical Thermodynamics II	VL	2
Technical Thermodynamics II	HÜ	1
Technical Thermodynamics II	UE	1

Computer Engineering

Course	Form	Hrs/wk
Computer Engineering	VL	3
Computer Engineering	UE	1

Mathematics III

Course	Form	Hrs/wk
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

Mechanics III (Hydrostatics, Kinematics, Kinetics I)

Course	Form	Hrs/wk
Mechanics III	VL	3
Mechanics III	UE	2
Mechanics III	HÜ	1

Fundamentals of Process Engineering

Course	Form	Hrs/wk
Introduction into Process Engineering/Bioprocess Engineering	VL	2
Fundamentals of material engineering	VL	2

Physical Chemistry

Course	Form	Hrs/wk
Physical Chemistry	VL	2
Physical Chemistry	PR	2

Semester 4

Fundamentals of Fluid Mechanics

Course	Form	Hrs/wk
Fundamentals of Fluid Mechanics	VL	2
Fluid Mechanics for Process Engineering	HÜ	2

Phase Equilibria Thermodynamics

Course	Form	Hrs/wk
Thermodynamics III	VL	2
Thermodynamics III	UE	1
Thermodynamics III	HÜ	1

Signals and Systems

Course	Form	Hrs/wk
Signals and Systems	VL	3
Signals and Systems	HÜ	1

Bioprocess Engineering - Fundamentals

Course	Form	Hrs/wk
Bioprocess Engineering - Fundamentals	VL	2
Bioprocess Engineering- Fundamentals	HÜ	2
Bioprocess Engineering - Fundamental Practical Course	PR	2

Environmental Technology

Course	Form	Hrs/wk
Environmental Assessment	VL	2
Environmental Assessment	UE	1

Semester 5

Introduction to Control Systems

Course	Form	Hrs/wk
Introduction to Control Systems	VL	2
Introduction to Control Systems	UE	2

Heat and Mass Transfer

Course	Form	Hrs/wk
Heat and Mass Transfer	VL	2
Heat and Mass Transfer	UE	1
Heat and Mass Transfer	HÜ	1

Thermal Separation Processes (part 1)

Course	Form	Hrs/wk
Thermal Separation Processes	VL	2
Thermal Separation Processes	UE	2
Thermal Separation Processes	HÜ	1

Chemical Reaction Engineering (part 1)

Course	Form	Hrs/wk
Chemical Reaction Engineering	VL	2
Chemical Reaction Engineering	HÜ	2

Measurement Technology for Mechanical and Process Engineers

Course	Form	Hrs/wk
Measurement Technology for Mechanical and Process Engineers	VL	2
Measurement Technology for Mechanical and Process Engineers	HÜ	1
Practical Course: Measurement and Control Systems	PR	2

Environmental Technology (part 1)

Course	Form	Hrs/wk
Environmental Technologie	VL	2

Semester 6

Foundations of Management

Course	Form	Hrs/wk
Introduction to Management	VL	3
Project Entrepreneurship	POL	2

Thermal Separation Processes (part 2)

Course	Form	Hrs/wk
Separation Processes	PR	1

Chemical Reaction Engineering (part 2)

Course	Form	Hrs/wk
Experimental Course Chemical Engineering	PR	2

Process and Plant Engineering I

Course	Form	Hrs/wk
Process and Plant Engineering I	VL	2
Process and Plant Engineering I	HÜ	1
Process and Plant Engineering I	UE	1

Particle Technology and Solids Process Engineering

Course	Form	Hrs/wk
Particle Technology I	VL	2
Particle Technology I	UE	1
Particle Technology I	PR	2

Environmental Technology (part 2)

Course	Form	Hrs/wk
Practical Exercise Environmental Technology	PR	1

Bachelor Thesis

(LP column on the left runs from 1 to 32.)

33	**Programming in C**
34	Programming in C VL 1
	Programming in C PR 1
35	**Physics for Engineers (part 2)**
36	Physics-Lab for ET/ AIW/ GES PR 1

Nontechnical Complementary 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.