Course of Study Process Engineering (Study Cohort w24)

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

Sample course plan B Master Process Engineering (VTMS) Dual study program

Specialisation Chemical Process Engineering

LP			
1	**Particle Technology and Solid Matter Process Technology**	**Advanced Chemical Reaction Engineering**	**Process Design Project**
2	Advanced Particle Technology II VL 2	Chemical Reaction Engineering VL 2	Process Design Project PK 6
3	Advanced Particle Technology II PBL 1	Chemical Reaction Engineering HÜ 2	
4	Experimental Course Particle Technology PR 3	Experimental Course Chemical Engineering PR 2	
5			
6			
7	**Transport Processes**	**Bioprocess and Biosystems Engineering**	**Practical module 3 (dual study program, Master's degree)**
8	Heat & Mass Transfer in Process Engineering VL 2	Bioreactor Design and Operation VL 2	Practical term 3 0
9	Multiphase Flows VL 2	Biosystems Engineering VL 2	
10	Reactor design under consideration of local transport processes PBL 2	Bioreactors and Biosystems Engineering PBL 1	
11			
12			
13	**Fluid Mechanics in Process Engineering**	**Practical module 2 (dual study program, Master's degree)**	
14	Fluid Mechanics II VL 2	Practical term 2 0	
15	Applications of Fluid Mechanics in Process Engineering HÜ 2		
16			
17			**Applied Thermodynamics: Thermodynamic Properties for Industrial Applications**
18			Applied Thermodynamics: Thermodynamic Properties for Industrial Applications VL 4
19	**Practical module 1 (dual study program, Master's degree)**		Applied Thermodynamics: Thermodynamic Properties for Industrial Applications GÜ 2
20	Practical term 1 0		
21			
22			
23		**Heterogeneous Catalysis**	**Synthesis and Design of Industrial Processes**
24		Analysis and Design of Heterogeneous Catalytic Reactors VL 2	Synthesis and Design of Industrial Facilities VL 1
25		Modern Methods in Heterogeneous Catalysis VL 2	Industrial Plant Design and Economics PBL 3
26		Modern Methods in Heterogeneous Catalysis PBL 2	
27			
28			
29	**Process modeling and control**	**Process Simulation and Process Safety**	**Examples in Solid Process Engineering**
30	Process modeling and control VL 2	CAPE with Computer Exercises IV 3	Fluidization Technology VL 2
31	Process modeling and control GÜ 3	Methods of Process Safety and Dangerous Substances VL 2	Technical Applications of Particle Technology VL 2
32			Practical Course Fluidization Technology PR 1
33			Exercises in Fluidization Technology GÜ 1
34			
35			**Research Project Process Engineering**
36			Research Project in Process Engineering PBL 6
37			
38			
39			
40			

Master thesis (dual study program)

Business & Management (from catalogue) - 6LP

Linking theory and practice (dual study program, Master's degree) (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.