## Course of Study General Engineering Science (English program) (Study Cohort w14)

Sample course plan - Bachelor General Engineering Science (English program) (GESBS) Specialisation Bioprocess Engineering

Core qualification Elective Specialisation Elective Focus Elective Compulsory Interdisciplinary complement Compulsory Compulsory IΡ Semester 1 FormHrs/wk Semester 2 FormHrs/wk Semester 3 FormHrs/wk Semester 4 FormHrs/wk Semester 5 FormHrs/wk Semester 6 FormHrs/wk 1 Chemistry (GES) Physics for Engineers (GES) (part 2) Technical Thermodynamics II Foundations of Management Introduction to Control Systems Thermal Separation Processes (part 2) Physics-Lab for ET/IIW-Engineers PR 1 Chemistry I VL 2 PR 1 Technical Thermodynamics II VL 2 Introduction to Management VL 4 Introduction to Control Systems VL 2 Separation Processes ΗÜ Chemistry II VL 2 Technical Thermodynamics II Project Entrepreneurship POL 2 Introduction to Control Systems UE 2 2 Chemical Reaction Engineering (part 2) Chemistry I HÜ 1 Technical Thermodynamics II UE 1 Experimental Course Chemical PR 2 3 Fundamentals of Mechanical Engineering HÜ 1 Chemistry II Engineering Desian 4 Process and Plant Engineering I Fundamentals of Mechanical VL 2 Process and Plant Engineering I VL 2 Engineering Design 5 Fundamentals of Mechanical HÜ 2 Process and Plant Engineering I HÜ 1 6 Engineering Design Process and Plant Engineering I UE 1 7 Fundamentals of Fluid Mechanics Heat and Mass Transfer Linear Algebra Computer Engineering Linear Algebra VL 4 Computer Engineering VL 3 Fundamentals of Fluid Mechanics VL 2 Heat and Mass Transfer VL 2 8 Linear Algebra HÜ 2 Computer Engineering UE 1 Exercises in Fluid Mechanics for HÜ 1 Heat and Mass Transfer UE 1 9 **Technical Thermodynamics I** UE 2 Process Engineering Linear Algebra VL 2 Technical Thermodynamics I 10 Particle Technology and Solids Process Technical Thermodynamics I HÜ 1 Engineering 11 Technical Thermodynamics I UE 1 Particle Technology I VL 2 12 Particle Technology I UE 1 PR 2 13 Mathematics III Phase Equilibria Thermodynamics Particle Technology I Thermal Separation Processes (part 1) Thermodynamics III VL 2 VL 2 Thermal Separation Processes VL 3 Analysis III 14 UE UE 2 Analysis III Thermodynamics III LIE 1 Thermal Separation Processes 15 Electrical Engineering I Mathematical Analysis HÜ 1 HÜ 1 Analysis III Thermodynamics III HÜ 1 Thermal Separation Processes Electrical Engineering I VL 3 Mathematical Analysis VL 4 Differential Equations 1 VL 2 16 **Bachelor Thesis** Electrical Engineering I UE 2 Mathematical Analysis HÜ 2 Differential Equations 1 UE 1 17 Mathematical Analysis UE 2 Differential Equations 1 HÜ 1 18 Chemical Reaction Engineering (part 1) Chemical Reaction Engineering VL 2 19 Signals and Systems HÜ 2 Chemical Reaction Engineering Signals and Systems VL 3 20 HÜ 1 Signals and Systems 21 Mechanics I (GES) Mechanics III (GES) VL 2 Mechanics III HÜ 1 Mechanics I 22 **Bioprocess Engineering - Advanced** Mechanics I HÜ 3 Mechanics III UE 2 Bioprocess Engineering - Advanced VL 2 23 Electrical Engineering II Mechanics III VL 3 Bioprocess Engineering - Advanced UE 2 Electrical Engineering II VL 3 24 Electrical Engineering II UE 2 25 **Biochemistry and Microbiology** Biochemistry VL 2 26 Biochemistry POL 1 27 Physics for Engineers (GES) (part 1) Fundamentals of Process Engineering Microbiology VL 2 Physics for Engineers VL 2 Environmental Technologie VL 2 28 Microbiology POL 1 Physics for Engineers UE 1 Introduction into Process VL 2 29 Mechanics II (GES) Engineering/Bioprocess Engineering Mechanics II VL 2 Fundamentals of Technical Drawing VL 1 30 HÜ 2 Mechanics II and Materials 31 **Bioprocess Engineering - Fundamentals** Fundamentals of Technical Drawing HÜ 1 Bioprocess Engineering VL 2 32 and Materials **Fundamentals** 33 Bioprocess Engineering-HÜ 2

Leaend:

Core qualification Compulsory

Specialisation Compulsory

Focus Compulsory

Thesis Compulsory

34			
35	Programming in C		
36	Programming in C	VL	1
	Programming in C	PR	1

Fundamentals		
Bioprocess Engineering -	PR 2	
Fundamental Practical Course		

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.