

# curriculum.

	Semester Credit Units   ECTS-Credits			
	1	2	3	4
<b>PROCESS ENGINEERING</b>				
Process Control	2   2			
Reaction Engineering	2   3			
Heat and Mass Transfer	3   4			
Matlab in Engineering	1   1			
Revision Course in Process Technology	4   10			
Conceptual Process Design & Simulation		2   4		
Plantwide Control		2   3		
Apparatus Engineering		2   3		
Solid Process Engineering - Particle Technology		2   3		
Advanced Thermal Process Technology		2   2		
Plant Safety			2   2	
Plant Engineering			2   3	
Computational Fluid Dynamics – Theory			1   2	
Computational Fluid Dynamics – Simulation			2   3	
Interdisciplinary Project			3   10	
<b>BEYOND ENGINEERING</b>				
Regulations and Standards in Process Engineering	1   1			
Legal Aspects of Engineering	1   1			
Business Economics	2   3			
Academic Writing		1   1		
Design of Experiments		1   2		
Ethics		1   1		
Literature Seminar		1   1		
<b>ELECTIVES</b>				
<b>Plant Engineering and Operations</b>				
Strength of Materials	2   2,5			
Process Integration		1   1		
Plant Automation		1   3		
Materials Handling and Logistics		2   1		
Plant Design Project			4   5	
<b>Chemical Engineering</b>				
Polymer Chemistry	2   2,5			
Advanced Industrial Chemistry		2   2,5		
Advanced Catalysis		2   2,5		
Chemical Technology Seminar			1   1	
Chemical Product Design and Development			1   1	
Industrial Scale-Up			1   2	
Field Trip			1   1	
<b>Energy Engineering</b>				
Energy Storage	1   1,25			
Electrochemical Energy Storage and Conversion	1   1,25			
Power and Smart Grids		2   2,5		
Energy Conversion Technologies and Synthetic Bio-Fuels		2   2,5		
Renewable Energy Systems			2   2,5	
Heating and Cooling Technology			2   2,5	
<b>Environmental Engineering</b>				
Waste Engineering	1   1,25			
Noise Control	1   1,25			
Groundwater, Advanced Water Engineering and Reuse		3   4		
Life Cycle Assessment		1   1		
Membrane Technology			2   2,5	
Flow and Transport in Environmental Engineering			2   2,5	
<b>MASTER THESIS</b>				
Master Seminar				2   5
Master Thesis				1   25
<b>SEMESTER CREDIT UNITS   ECTS-CREDITS</b>	<b>20   30</b>	<b>22   30</b>	<b>18   30</b>	<b>2   30</b>