Studienplan

Semesterwochenstunden | **ECTS-Credits**

	1	2	3	4
VERFAHRENSTECHNIK				
Regelungstechnik	2 | **2**			
Reaktionstechnik	2 | **3**			
Stoff- & Energietransport	3 | **4**			
Matlab für Ingenieure	1 | **1**			
Repetitorium zur Verfahrenstechnik	4 | **10**			
Conceptual Process Design & Simulation		2 | **4**		
Plantwide Control		2 | **3**		
Apparatebau		2 | **3**		
Feststoffverfahrenstechnik		2 | **3**		
Vertiefende Thermische Verfahrenstechnik		2 | **2**		
Anlagensicherheit			2 | **2**	
Anlagendesign			2 | **3**	
Computational Fluid Dynamics – Theory			1 | **2**	
Computational Fluid Dynamics – Simulation			2 | **3**	
Interdisziplinäres Projekt			3 | **10**	
BEYOND ENGINEERING				
Richtlinien & Normen in der Verfahrenstechnik	1 | **1**			
Rechtliche Aspekte des Ingenieurwesens	1 | **1**			
Management-orientierte Betriebswirtschaftslehre	2 | **3**			
Wissenschaftliches Schreiben		1 | **1**		
Design of Experiments		1 | **2**		
Ethik		1 | **1**		
Literaturseminar		1 | **1**		
ANLAGENBAU				
Festigkeitslehre	2 | **2,5**			
Prozessintegration		1 | **1**		
Anlagenautomatisierung		1 | **1**		
Logistik im Anlagenbau		2 | **3**		
Projekt Anlagenplanung			4 | **5**	
CHEMIEINGENIEURWESEN				
Polymerchemie	2 | **2,5**			
Angewandte Technische Chemie		2 | **2,5**		
Katalyse		2 | **2,5**		
Seminar Chemische Technologie			1 | **1**	
Chemisches Produktdesign			1 | **1**	
Industrial Scale-Up			1 | **2**	
Exkursion			1 | **1**	
ENERGIETECHNIK				
Energiespeicherung	1 | **1,25**			
Elektrochemische Energiespeicherung & Umwandlung	1 | **1,25**			
Stromnetze & Smart Grids		2 | **2,5**		
Chemische Umwandlung von Energieträgern		2 | **2,5**		
Erneuerbare Energiesysteme			2 | **2,5**	
Heizungs- & Klimatechnik			2 | **2,5**	
UMWELTTECHNIK				
Abfalltechnik	1 | **1,25**			
Lärmschutz & Lärmvermeidung	1 | **1,25**			
Technologien in der Wasserversorgung		3 | **4**		
Life Cycle Assessment		1 | **1**		
Membrantechnik			2 | **2,5**	
Transportphänomene in der Umwelttechnik			2 | **2,5**	
MASTERARBEIT				
Masterseminar				2 | **5**
Masterarbeit				| **23**
Masterprüfung				| **2**
SEMESTERWOCHENSTUNDEN | **ECTS-CREDITS**	20 | **30**	22 | **30**	18 | **30**	2 | **30**

Curriculum

Semester Credit Units | **ECTS-Credits**

	1	2	3	4
PROCESS ENGEERING				
Process Control	2 | **2**			
Reaction Engineering	2 | **3**			
Heat & 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**	
BEYOND ENGINEERING				
Regulations & 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**		
PLANT ENGINEERING & OPERATIONS				
Strength of Materials	2 | **2.5**			
Process Integration		1 | **1**		
Plant Automation		1 | **1**		
Materials Handling & Logistics		2 | **3**		
Plant Design Project			4 | **5**	
CHEMICAL ENGINEERING				
Polymer Chemistry	2 | **2.5**			
Advanced Industrial Chemistry		2 | **2.5**		
Advanced Catalysis		2 | **2.5**		
Chemical Technology Seminar			1 | **1**	
Chemical Product Design & Development			1 | **1**	
Industrial Scale-Up			1 | **2**	
Field Trip			1 | **1**	
ENERGY ENGINEERING				
Energy Storage	1 | **1.25**			
Electrochemical Energy Storage & Conversion	1 | **1.25**			
Power & Smart Grids		2 | **2.5**		
Energy Conversion Technologies & Synthetic Bio-Fuels		2 | **2.5**		
Renewable Energy Systems			2 | **2.5**	
Heating & Cooling Technology			2 | **2.5**	
ENVIRONMENTAL ENGINEERING				
Waste Engineering	1 | **1.25**			
Noise Control	1 | **1.25**			
Groundwater, Advanced Water Engineering & Reuse		3 | **4**		
Life Cycle Assessment		1 | **1**		
Membrane Technology			2 | **2.5**	
Flow & Transport in Environmental Engineering			2 | **2.5**	
MASTER'S THESIS				
Master's Seminar				2 | **5**
Master's Thesis				| **23**
Master's Exam				| **2**
SEMESTER CREDIT UNITS | **ECTS-CREDITS**	20 | **30**	22 | **30**	18 | **30**	2 | **30**