

Fundamental Subjects

Beginn Sommersemester

Modul	1. SS	2.WS	3.SS	4.WS	Credit Points
Fundamental Subjects (compulsory)				M	50
Chemistry	5			A	5
Advanced Fluid Dynamics	5			S	5
Advanced Heat and Mass Transfer	5			T	5
Mechanical Process Engineering	5			E	5
Chemical Reaction Engineering	5			R	5
Thermal Process Engineering		5		T	5
Process System Engineering		5		H	5
Combustion Engineering		5		E	5
Plant Design		5		S	5
Laboratory work and Excursion (1)	3	2		I S	5
Selective Subjects from list:	3	7	30		40
Chemical Engineering					
Energy Engineering					
Environmental Engineering					
Safety Engineering					
Master Thesis					30
Sum CP	31	29	30	30	120

Beginn Wintersemester

Modul	1. WS	2.SS	3.WS	4.SS	Credit Points
Fundamental Subjects (compulsory)				M	50
Chemistry		5		A	5
Advanced Fluid Dynamics		5		S	5
Advanced Heat and Mass Transfer		5		T	5
Mechanical Process Engineering		5		E	5
Chemical Reaction Engineering		5		R	5
Thermal Process Engineering	5			T	5
Process System Engineering	5			H	5
Combustion Engineering	5			E	5
Plant Design	5			S	5
Laboratory work and Excursion (1)	2	3		I S	5
Selective Subjects from list:	7	3	30		40
Chemical Engineering					
Energy Engineering					
Environmental Engineering					
Safety Engineering					
Master Thesis					30
Sum CP	29	31	30	30	120

Selective Subjects (01.10.2019)

Process Engineering Subjects	Lecturer	Hours		Credit Points
		WS	SS	
Advanced Process Systems Engineering	Prof. Sundmacher	4		5
Analysis and Design of Experiments	Dr.-Ing. Wenzel		3	4
Dispersed Phase Systems in Chemical Engineering	Dr.-Ing. Borchert		2	3
Drying Technology	Dr. Kharaghani	3		4
Internship (work title)	B. Gopalkrishna			10
Micro Process Engineering (exposed)	N.N.	2		3
Modern Organic Synthesis	Prof. Schinzer		2	3
Molecular Modelling / Computational Biology and Chemistry	Dr. Stein	3		4
Multiphase flow fundamentals	Prof. Sommerfeld		2	4
Nanoparticle Technology	Dr. Hintz	3		4
Plant and apparatus engineering in solid-state process engineering: design, implementation and problem-solving	HP Dr. Peglow		3	4
Process Control	Prof. Kienle		3	4
Process Engineering of Metals and Ceramics (letztmalige im SoSe 2020)	Prof. Specht		3	4
Product Quality in the Chemical Industry	Prof. Tsotsas / Dr. Kharaghani		3	4
Simulation of Mechanical Processes	Prof. van Wachem	3	3	5
Transport Phenomena in Granular, Particulate and Porous Media	Prof. Tsotsas		3	5
		18	27	
Summe:		45		70

Energy Engineering Subjects	Lecturer	Hours WS / SS		Credit Points
Computational Fluid Dynamics	PD Dr. Janiga	3	3	4
Fuel Cells	Dr.-Ing. Vidakovic-Koch	3		5
Renewable Energies: Materials, Components, Function	Prof. M. Scheffler		3	5
Sustainability Assessment for Biofuels	Dr. Rihko-Struckmann		3	4
Thermal Power Plants	Jun.-Prof. Fond		3	4
		6	12	
	Summe:		18	22

Environmental Engineering Subjects	Lecturer	Hours WS / SS		Credit Points
Environmental Biotechnology	Dr. Benndorf	2		3
Control of Toxic Trace Elements	Prof. Köser		3	4
Waste Water and Sludge Treatment	Prof. Köser	3		5
		5	3	
	Summe:		8	12

Safety Engineering Subjects	Lecturer	Hours WS / SS		Credit Points
Consequences of Accidents in Industries	Dr. Hecht	3		4
Dispersion of Hazardous Materials	Dr. Zinke	3		4
Numerical simulation in explosion protection	Dr. Grosshans	2		3
		8	0	
	Summe:		8	11