

No.	Module name	Teaching unit	SWS (semester hours)				Total ECTS credits	Distribution of workload per semester in						Type and scope of the examination		
			ECTS credits						1. sem.	2. sem.	3. sem.	4. sem.	5. sem.		6. sem.	
			L	T	P	S										
B1	Mathematics I (GOP)		4	2			7.5	7.5							EA (WE, 90 min)	
B2	Foundations of chemical reaction engineering (GOP)		2	2			5	5							EA (WE, 90 min)	
B3	Physics I (GOP)		3	1			5	5							EA (WE, 90 min)	
B4	Renewable energies (GOP)		2	2			5	5							EA (WE, 90 min)	
B5	Elective module I, see Section 45		(2-3)	(1-2)			5			5					EA <sup>1</sup>	
B6	Mathematics II (GOP)		4	2			7.5		7.5						EA (WE, 90 min)	
B7	Introduction to interface engineering (GOP)		2	3			5		5						EA (WE, 90 min)	
B8	Electrochemistry (GOP)		2	3			5		5						EA (WE, 90 min)	
B9	Physics II		3	1			5		5						EA (WE, 90 min)	
B10	Materials and structure		1	1		2	5		5						EA (WE, 90 min)	
B11	Fundamentals of electrical engineering		2	2			5		5						EA (WE, 90 min)	
B12	Mathematics III		4	2			7.5			7.5					EA (WE, 90 min)	

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			L	T	P	S										
B13	Thermodynamics and heat and mass transfer		4	2			7.5			7.5				EA (WE, 90 min)		
B14	Microeconomics		2	2			5	5						EA (WE, 90 min)		
B15	Measurement systems		2	1		2	5			5				EA (WE, 90 min)		
B16	Active project	Active project	1	1		3	5			5				EA (SA)		
		Advanced seminar														
B17	Chemical thermodynamics		2	2			5				5			EA (WE, 90 min)		
B18	Data science for engineers		2	2			5				5			EA (WE, 90 min)		
B19	Chemical reaction engineering		2	2			5				5			EA (WE, 90 min)		
B20	Decentralized energy supply		2	2			5				5			EA (WE, 90 min)		
B21	Scientific computing in engineering		2			4	5				5			EA (WE, 90 min)		
B22	Fundamentals of energy resources		2	2			5				5			EA (WE, 90 min)		
B23	Electrocatalysis		2	2			5					5		EA (WE, 90 min)		
B24	Fluid dynamics		2	2			5					5		EA (WE, 90 min)		
B25	Process systems dynamics 1		2	2			5					5		EA (WE, 90 min)		

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			L	T	P	S		1. sem.	2. sem.	3. sem.	4. sem.	5. sem.	6. sem.	
			B26	Energy economics		2		2						
B27	Storage technologies		2	2							5		EA (WE, 90 min)	
B28	Introduction to sustainability management		2	2							5		EA (WE, 90 min)	
B29	Elective module II, see § 45		(2-3)	(1-2)								5	EA <sup>1</sup>	
B30	Laboratory course process engineering				10							10	CA (LA)	
B31	Bachelor's thesis	Thesis										12	EA BT and seminar achievement (80 % + 20 %)	
		Advanced seminar				2						3		
<b>Total SWS and ECTS credits:</b>			<b>66 - 68</b>	<b>51 - 53</b>	<b>14</b>	<b>9</b>	<b>180</b>	<b>27.5</b>	<b>32.5</b>	<b>30</b>	<b>30</b>	<b>30</b>	<b>30</b>	
			<b>140-144</b>											