

Curriculum MSE (FT)		HPW	Type						Examination form		CP	HPW						
			V	SL	S	Ü	Pra	Pro	Attestation	graded		WS1	SS2	WS3	SS4	WS5	SS6	WS7
1st Semester																		
SE 1 2000	Introductory Mathematics	8	5			3				x	8	8						
SE 1 2008	Statics and Strength of Materials	4	2			2				x	5	4						
SE 1 2011	Programming	4	2				2			x	5	4						
SE 1 2013	Business Economics & Project Management	4	3			1		1		x	5	4						
SE 1 2305	Fundamentals of Electrical Engineering	4	2			1	1			x	5	4						
SE 1 2800	Introduction to Engineering	3	2		1					x	3	3						
2nd Semester																		
SE 2 2001	Applied Mathematics	8	5			3				x	7	8						
SE 2 2009	Advanced Strength of Materials	4	2			2				x	5	4						
SE 2 2012	Advanced Programming	4	2				2			x	5	4						
SE 2 2304	Analog Electronics	4	2			1	1			x	5	4						
SE 2 2701	Engineering Drawing and Design	4	2			1	1			x	5	4						
SE 2 2706	Manufacturing Technology	4	3			1				x	5	4						
3rd Semester																		
SE 3 2010	Dynamics	4	2			2				x	5		4					
SE 3 2108	Materials and Testing	4	2			1	1			x	5		4					
SE 3 2306	Microcontrollers	4	2				2			x	5		4					
SE 3 2705	Engineering Design	4	2			2				x	5		4					
SE 3 2708	Thermodynamics	4	2			1	1			x	5		4					
SE 3 2901	Drives & Power Electronics	4	2			2				x	5		4					
4th Semester																		
SE 4 2002	Numerical Mathematics	4	3			1				x	5			4				
SE 4 2311	Embedded Systems	4	2				2			x	5			4				
SE 4 2902	System Theory and Controls	4	2			1	1			x	5			4				
SE 4 2904	Modelling and Simulation	4	2			2				x	5			4				
Focus Field (see: Catalogue Individual Subjects: Focus Field Subjects)																		
Focus Field Subject 1		4									5			4				
Focus Field Subject 2		4									5			4				
5th Semester																		
SE 5 2014	Cross-Cultural Management and Creativity	4	2			2				x	5				4			
SE 5 2015	Group Project	1						1		x	5				1			
SE 5 2903	Controls	4	2			1	1			x	5			4				
SE 5 2907	Sensors and Actuator Networks	4	2			1	1			x	5			4				
Focus Field (see: Catalogue of Individual Subjects: Focus Field Subjects)																		
Focus Field Subject 3		4									5				4			
Focus Field Subject 4		4									5				4			
6th Semester																		
SE 6 2016	Internship / Semester abroad									x	30							
7th Semester																		
SE 7 2017	Thesis									x	12							
SE 7 2018	Colloquium									x	3							
SE 7 2510	Technology and Innovation Management	4	2				2			x	5					4		
SE 7 2512	Entrepreneurship	2						2		x	2					2		
Elective (see: Catalogue of Individual Subjects: Electives)		3									5					3		
Overview		133	V	SL	S	Ü	Pra	Pro	Attestation	graded	210	27	28	24	24	17	9	
		HPW	Type						Examination form		CP	WS1	SS2	WS3	SS4	WS5	SS6	WS7

Catalogue Individual Subjects MSE		HPW	Type						Examination form		CP	HPW						
			V	SL	S	Ü	Pra	Pro	Attestation	graded		WS1	SS2	WS3	SS4	WS5	SS6	WS7
Focus Field Subjects */**/*/*/*/*/*																		
Focus Field Simulation in Mechatronics		16	8			5	3				20				8	8		
SE 4 2710	Fluid Mechanics	4	2			1	1			x	5			4				
SE 4 2908	Multibody Dynamics	4	2			2				x	5			4				
SE 5 2309	Object-oriented Programming	4	2				2			x	5				4			
SE 5 2905	Finite Element Method	4	2			2				x	5				4			
Focus Field Applied Mechatronics (ME Focus)		16	8			5	3				20			8	8			
SE 4 2710	Fluid Mechanics	4	2			1	1			x	5			4				
SE 4 2909	Vehicle Technology	4	2			1	1			x	5			4				
SE 5 2717	Mobile Hydraulics	4	2			1	1			x	5				4			
SE 5 2910	Robotics	4	2			2				x	5				4			
Focus Field Applied Mechatronics (EL Focus)		15	7			2	6				20			7	8			
SE 4 2310	Signal Processing & Measurement Technology	4	1			1	2			x	5			4				
SE 4 2317	Opto-Electronics	3	2			1				x	5			3				
SE 5 2309	Object-Oriented Programming	4	2				2			x	5				4			
SE 5 2314	Practical Electronics	4	2			2	2			x	5				4			
Electives																		
SE 7 2020	Foreign Language									x	5							
SE 7 2021	Module from any other bachelor's degree programme HSRW									x	5							
SE 7 2911	Introduction to Scientific Methods in Mechatronics	2	1					1		x	5					2		

Explanations / Conditions

- * The faculty reserves the right to determine a minimum number of participants for offering a subject in the focus fields / electives, as well as a maximum number of participants. The possibility of obtaining the required number of credit points remains unaffected.
- ** A maximum of 5 credits may be earned via an elective from the catalogue of any bachelor's degree programme at Rhine-Waal University of Applied Sciences with the approval of the Examination Board of the Faculty of Technology and Bionics.
- *** The Faculty of Technology and Bionics reserves the right to amend its catalogue of electives.
- **** Due to time tabling constraints, subjects from different focus fields and electives may be offered concurrently.

Abbreviations

- HPW Hours per week (also: Semesterwochenstunden / SWS)
- CP Credit points