

Curriculum ME (FT)		HPW	Type						Examination form		CP	HPW									
			V	SL	S	Ü	Pra	Pro	Attestation	graded		WS1	SS2	WS3	SS4	WS5	SS6	WS7			
<b>1<sup>st</sup> Semester</b>																					
ME 1 2000	Introductory Mathematics	8	5			3				x		8	8								
ME 1 2007	Chemistry of Materials	4	2			2				x		5	4								
ME 1 2008	Statics and Strength of Materials	4	2			2				x		5	4								
ME 1 2011	Programming	4	2					2		x		3	4								
ME 1 2013	Business Economics and Project Management	4	3					1		x		5	4								
ME 1 2700	Introduction to Mechanical Engineering	3	2		1					x		5	3								
<b>2<sup>nd</sup> Semester</b>																					
ME 2 2001	Applied Mathematics	8	5			3				x		7		8							
ME 2 2003	Physics	4	2			1	1			x		5		4							
ME 2 2009	Advanced Strength of Materials	4	2			2				x		5		4							
ME 2 2014	Cross-Cultural Management and Creativity	4	2			2				x		5		4							
ME 2 2106	Metallic Materials and Testing	4	2					2		x		5		4							
ME 2 2701	Engineering Drawing and Design	4	2			1	1			x		5		4							
<b>3<sup>rd</sup> Semester</b>																					
ME 3 2010	Dynamics	4	2			2				x		5			4						
ME 3 2107	Non-metallic Materials	4	2			1	1			x		5		4							
ME 3 2305	Fundamentals of Electrical Engineering	4	2			1	1			x		5		4							
ME 3 2702	Advanced Engineering Design	4	2			1		1		x		5		4							
ME 3 2708	Thermodynamics	4	2			1	1			x		5		4							
ME 3 2711	Drive Systems	4	2			2				x		5		4							
<b>4<sup>th</sup> Semester</b>																					
ME 4 2002	Numerical Mathematics	4	3			1				x		5			4						
ME 4 2703	Product Design	4	2			1		1		x		5		4							
ME 4 2706	Manufacturing Technology	4	3			1				x		5		4							
ME 4 2902	System Theory and Controls	4	2			1	1			x		5		4							
<b>Focus Field (see: Catalogue Individual Subjects: Focus Field Subjects)</b>																					
Focus Field Subject 1											4						5			4	
Focus Field Subject 2											4						5			4	
<b>5<sup>th</sup> Semester</b>																					
ME 5 2015	Group Project	1						1	1	x		5				1					
ME 5 2511	Quality and Production Management	4	3					1		x		5			4						
ME 5 2903	Controls	4	2			1	1			x		5		4							
ME 5 2904	Modelling and Simulation	4	2			2				x		5		4							
<b>Focus Field (see: Catalogue of Individual Subjects: Focus Field Subjects)</b>																					
Focus Field Subject 3											4						5			4	
Focus Field Subject 4											4						5			4	
<b>6<sup>th</sup> Semester</b>																					
ME 6 2016	Internship / Semester abroad									x		30									
<b>7<sup>th</sup> Semester</b>																					
ME 7 2017	Thesis									x		12									
ME 7 2018	Colloquium									x		3									
ME 7 2510	Technology and Innovation Management	4	2					2		x		5				4					
ME 7 2512	Entrepreneurship	2							2	x		2				2					
	Elective (see: Catalogue of Individual Subjects: Electives)	3										5				3					
<b>Overview</b>		133	V	SL	S	Ü	Pra	Pro	Attestation	graded	210	27	28	24	16	17	9				
		HPW				Type			Examination form		CP	WS1	SS2	WS3	SS4	WS5	SS6	WS7			

Catalogue Individual Subjects ME		HPW	Type						Examination form		CP	HPW						
			V	SL	S	Ü	Pra	Pro	Attestation	graded		WS1	SS2	WS3	SS4	WS5	SS6	WS7
<b>Focus Field Subjects *j**j****j*****</b>																		
<b>Focus Field Design</b>		16	8			5	3					20			8	8		
ME 4 2121	Material Testing and Failure Analysis	4	2				2			x		5			4			
ME 4 2714	Virtual Production Development	4	2			1	1			x		5			4			
ME 5 2704	Advanced Product Design	4	2			2				x		5			4			
ME 5 2905	Finite Element Method	4	2			2				x		5			4			
<b>Focus Field Process Engineering</b>		16	8			3	5					20			8	8		
ME 4 2709	Fundamentals of Process Engineering	4	2			1	1			x		5			4			
ME 4 2710	Fluid Mechanics	4	2			1	1			x		5			4			
ME 5 2712	Design of Plants	4	2			2				x		5			4			
ME 5 2713	Control of Plants in Process Engineering	4	2			1	1			x		5			4			
<b>Focus Field Machinery and Systems</b>		16	8			7	1					20			8	8		
ME 4 2715	Material Handling Systems	4	2			2				x		5			4			
ME 4 2716	Agricultural Engineering	4	2			2				x		5			4			
ME 5 2717	Mobile Hydraulics	4	2			1	1			x		5			4			
ME 5 2718	Cylindrical Gears	4	2			2				x		5			4			
<b>Focus Field Simulation and Validation</b>		16	8			7	1					20			8	8		
ME 4 2719	Applied Strength of Materials	4	2			2				x		5			4			
ME 4 2908	Multibody Dynamics	4	2			2				x		5			4			
ME 5 2720	Machine Dynamics	4	2			1	1			x		5			4			
ME 5 2905	Finite Element Method	4	2			2				x		5			4			
<b>Focus Field Technical Sales</b>		16	7			4	2	3				20			8	8		
ME 4 2513	Global Economy and Trade	4	2			2				x		5			4			
ME 4 2514	Technical Investment Planning and Purchasing	4	1					3		x		5			4			
ME 5 2505	Production and Logistics	4	2				2			x		5			4			
ME 5 2509	Fundamentals of Law, Investment and Financing	4	2			2				x		5			4			
<b>Focus Field Bionics</b>		16	8			4	2	2				20			8	8		
ME 4 2723	Biomimetic Science	4	2			2				x		5			4			
ME 4 2724	Zoological Physics	4	2				2			x		5			4			
ME 5 2725	Bioinspiration	4	2			2				x		5			4			
ME 5 2726	Bionic Design	4	2					2		x		5			4			
<b>Electives</b>																		
ME 7 2019	Scientific Methods (Block or Online)	4	2			2				x		5					4	
ME 7 2020	Foreign Language									x		5						
ME 7 2021	Module from any other bachelor's degree programme HSRW									x		5						
ME 7 2721	Design of Membrane Plants	4	2					2		x		5				4		
ME 7 2722	Leadership	3			3					x		5				3		

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