

Mechanical Engineering

Study Year 1 (Mandatory Courses)

Course Code	Credits	Cycle	S.Ex. stud.	Language	Course Name	Footnote	Links	17/18 sp1					17/18 sp2					17/18 sp3					17/18 sp4				
								F	O	L	H	S	F	O	L	H	S	F	O	L	H	S	F	O	L	H	S
MMKA25	6	G1	-	S	Manual and Computer Aided Drafting		KS KE U W T	28	36	0	0	85															
MMTA02	6	G1	-	S	Introduction to Mechanical Engineering		KS KE U W T	14	0	16	0	10	8	14	0	10	60										
FMAA01	15	G1	-	S	Calculus in One Variable		KS KE U W T	30	20	0	0	83	36	20	0	0	77	36	20	0	0	77					
FMAB20	6	G1	-	S	Linear Algebra		KS KE U W T						40	16	0	0	106										
EDAA65	6	G1	-	S	Programming, First Course	X	KS KE U W T						4	0	0	0	15	18	7	8	0	30	14	0	24	0	40
MIOA01	9	G1	-	S	Managerial Economics, Basic Course		KS KE U W T											60	12	3	1	164					
FAFA80	6	G1	-	S	Applied Optics and Waves		KS KE U W T																42	14	12	0	92
FMAB30	6	G1	-	S	Calculus in Several Variables		KS KE U W T																44	16	2	0	100

[EDAA65](#) Programming, First Course: *The course begins with a few lectures at the end of period 2, but the majority of the course is given in period 3 and 4.*

Study Year 2 (Mandatory Courses)

Course Code	Credits	Cycle	S.Ex. stud.	Language	Course Name	Footnote	Links	17/18 sp1					17/18 sp2					17/18 sp3					17/18 sp4				
								F	O	L	H	S	F	O	L	H	S	F	O	L	H	S	F	O	L	H	S
FMEA30	15	G1	-	S	Engineering Mechanics		KS KE U W T	54	28	12	0	146	42	24	8	4	82										
MMVF01	11	G2	-	S	Thermodynamics and Fluid Mechanics		KS KE U W T	30	38	0	0	88	26	46	6	0	60										
MTTF01	5	G2	-	S	Logistics		KS KE U W T						24	8	2	0	86										
FKMA01	7.5	G1	X	E1	Materials Engineering, Basic Course		KS KE U W T											56	14	12	0	120					
FHLE15	15	G2	-	E1	Solid Mechanics, Basic Course		KS KE U W T											42	35	2	0	137	42	35	1	0	124
MMTF20	7.5	G2	-	S	Production and Manufacturing Methods		KS KE U W T																42	28	10	0	110

Study Year 3 (Mandatory Courses)

Course Code	Credits	Cycle	S.Ex. stud.	Language	Course Name	Footnote	Links	17/18 sp1					17/18 sp2					17/18 sp3					17/18 sp4				
								F	O	L	H	S	F	O	L	H	S	F	O	L	H	S	F	O	L	H	S
MMEF05	7.5	G2	-	S	Transmissions		KS KE U W T	42	28	0	0	70															
EIEF35	9	G2	-	S	Electrical Engineering, Basic Course		KS KE U W T	32	18	8	0	40	32	20	8	1	80										
MVKF01	6	G2	X	S	Energy and the Environment in Sustainable Development		KS KE U W T	10	2	0	2	66	8	4	0	2	66										
FRTF05	7.5	G2	-	S	Automatic Control, Basic Course		KS KE U W T						30	30	12	0	128										
MMKF01	5	G2	-	E	Product Development and Design Methodology	X	KS KE U W T											25	26	0	0	90					
MMEF01	5	G2	-	S	Tribology		KS KE U W T											28	14	0	0	56					
EMSF55	7.5	G2	-	S	Mathematical Statistics, Basic Course		KS KE U W T																26	16	8	0	140

[MMKF01](#) Product Development and Design Methodology: *The date and time of the exam is announced by the course lecturer.*

Study Year 3 (Elective Mandatory Courses)

Course Code	Credits	Cycle	S.Ex. stud.	Language	Course Name	Footnote	Links	17/18 sp1					17/18 sp2					17/18 sp3					17/18 sp4				
								F	O	L	H	S	F	O	L	H	S	F	O	L	H	S	F	O	L	H	S
MMVF05	7.5	G2	X	E	Heat Transfer		KS KE U W T											42	38	0	14	106					
MIOF25	6	G2	-	S	Managerial Economics, Advanced Course		KS KE U W T											36	14	8	1	101					
EDAA01	7.5	G1	-	S	Programming - Second Course		KS KE U W T											26	0	14	0	160					
MAMF15	6	G2	-	S	Work Organization and Management		KS KE U W T											30	14	0	14	120					
MMTF25	7.5	G2	-	S	Computer Aided Design/Computer Aided Manufacturing		KS KE U W T																28	48	0	2	120
FHLF20	7.5	G2	X	E	Finite Element Method		KS KE U W T																32	28	2	0	140
MIOF20	6	G2	-	S	Management Organization		KS KE U W T																42	0	14	1	104

Specialisation bem - Computational Mechanics

Course Code	Credits	Cycle	Mand./ Elect.	Year	From year	S.Ex. stud.	Language	Course Name	Footnote	Links	sp1				sp2				sp3				sp4						
											F	O	L	H	S	F	O	L	H	S	F	O	L	H	S	F	O	L	H
FHLN05	7.5	A	V	4	3	-	S	Computational Inelasticity		KS KE U W T	38	28	4	0	130														
FMEN21	7.5	A	V	4	3	X	E	Continuum Mechanics		KS KE U W T	42	14	0	2	142														
FMEN30	7.5	A	V	4	3	X	E1	Fatigue		KS KE U W T	42	0	8	0	150														
FKMN20	7.5	A	V	4	3	X	E1	Advanced Materials Technology		KS KE U W T						42	14	8	10	70									
FHLN20	7.5	A	V	4	3	X	S	Finite Element Method for Non-linear Systems		KS KE U W T						28	0	28	0	144									
FMEN11	7.5	A	V	4	3	X	E	Mechanical Vibrations		KS KE U W T						42	14	0	0	144									
FHLN10	7.5	A	V	4	3	X	E	Modern Experimental Mechanics		KS KE U W T						28	0	28	0	100									
MVKN90	7.5	A	V	4	3	X	E	Turbulence - Theory and Modelling		KS KE U W T						24	34	4	0	120									
MMVN01	7.5	A	V	4	3	-	S	Aerodynamics and Compressible Flow		KS KE U W T											24	16	10	50	100				
FMEN02	7.5	A	V	4	3	X	E	Multibody Dynamics		KS KE U W T											42	14	0	0	144				
FHLN01	7.5	A	V	4	3	X	E	Structural Optimization		KS KE U W T											28	26	2	0	100				
FHLN25	7.5	A	V	4	3	X	E	Fracture Mechanics, Advanced Course		KS KE U W T															28	28	0	0	144
MMVN05	7.5	A	V	4	4	X	E1	Numerical Fluid Dynamics and Heat Transfer		KS KE U T															28	24	10	4	120
MVKN70	7.5	A	V	5	4	X	E	Advanced Methods within Numerical Fluid Mechanics and Heat Transfer		KS KE U T	28	24	10	4	134														

Specialisation en - Energy Technology

Course Code	Credits	Cycle	Mand./ Elect.	Year	From year	S.Ex. stud.	Language	Course Name	Footnote	Links	sp1				sp2				sp3				sp4					
											F	O	L	H	S	F	O	L	H	S	F	O	L	H	S	F	O	L
EIEN15	7.5	A	V	4	3	X	E1	Electric Power Systems		KS KE U W T	16	22	8	7	110													
MVKN25	3	A	V	4	4	X	E1	Environmentally Friendly Power Generation		KS KE U W T	14	0	0	14	52													
MVKN50	7.5	A	V	4	3	X	E1	Introduction to Combustion Engines		KS KE U W T	30	28	20	10	100													
MVKN65	7.5	A	V	4	3	X	E1	Power Plant Technology		KS KE U W T						28	28	0	0	144								
EIEN10	7.5	A	V	4	4	X	E1	Wind Power Systems		KS KE U W T						28	10	8	16	110								
MMVN01	7.5	A	V	4	3	-	S	Aerodynamics and Compressible Flow		KS KE U W T										24	16	10	50	100				
MVKN20	7.5	A	V	4	4	-	S	Energy Utilization		KS KE U W T										4	24	0	2	170				
MVKN60	7.5	A	V	4	3	X	E1	Theory of Turbo Machinery		KS KE U W T										28	28	2	0	142				
MVKN15	7.5	A	V	4	4	-	S	Energy Supply Systems		KS KE U W T														4	24	0	2	170
MVKN75	7.5	A	V	4	3	X	E1	Steam and Gas Turbine Engineering		KS KE U W T														28	28	0	0	144
MVKN40	5	A	V	5	4	X	S	District Heating and Cooling		KS KE U W T	10	10	0	0	110													
MVKN30	7.5	A	V	5	5	-	S	Advanced Efficient Energy Systems		KS KE U W T	2	9	0	3	88	0	9	0	1	88								
MVKN01	7.5	A	V	5	4	-	E1	Projecting Thermal Power Plants		KS KE U W T	14	35	0	0	40	14	35	0	0	40								
MVKN35	6	A	V	5	4	-	S	Energy Markets		KS KE U W T						4	24	0	2	130								

Specialisation Ip - Logistics and Production Management

Course Code	Credits	Cycle	Mand./ Elect.	Year	From year	S.Ex. stud.	Language	Course Name	Footnote	Links	sp1				sp2				sp3				sp4				
											F	O	L	H	S	F	O	L	H	S	F	O	L	H	S	F	O
MTTN40	7.5	A	V	4	3	X	E	Packaging Technology and Development		KS KE U W T	40	28	20	0	112												
MTTN25	7.5	A	V	4	3	X	E	Warehousing and Materials Handling		KS KE U W T	50	28	16	10	96												
MTTN75	7.5	A	V	4	4	X	E	Industrial Purchasing		KS KE U W T			48	10	4	4	130										
MTTN35	7.5	A	V	4	3	X	E	Packaging Logistics		KS KE U W T			50	100	0	0	50										
MIOF10	7.5	G2	V	4	3	X	E	Production and Inventory Control		KS KE U W T			36	12	10	0	142										
MTTN70	7.5	A	V	4	3	X	E	International Physical Distribution		KS KE U W T									50	24	16	10	100				
MION01	7.5	A	V	4	4	X	E	Management of Production and Inventory Systems		KS KE U W T									40	0	10	0	150				
MTTN60	7.5	A	V	4	3	X	E	Business Process Management		KS KE U W T													34	16	0	4	146
MION45	7.5	A	V	4	3	X	E	Operations Strategy		KS KE U W T													26	0	10	1	163
MTTN80	7.5	A	V	4	4	X	E	Supply Chain Management		KS KE U W T													38	12	0	50	100
MION40	7.5	A	V	5	4	X	E1	Simulation of Industrial Processes and Logistic Systems		KS KE U W T	18	0	14	0	168												
MTTN20	7.5	A	V	5	4	X	E	Supply Chain Information Systems		KS KE U W T	20	0	20	10	150												
MION50	7.5	A	V	5	3	X	E	Quality Management		KS KE U W T									20	2	8	0	170				

Specialisation me - Mechatronics

Course Code	Credits	Cycle	Mand./ Elect.	Year	From year	S.Ex. stud.	Language	Course Name	Footnote	Links	sp1				sp2				sp3				sp4															
											F	O	L	H	S	F	O	L	H	S	F	O	L	H	S	F	O	L	H	S	F	O	L	H	S			
MMKF15	7.5	G2	V	4	3	X	E	Applied Robotics		KS KE U W T	28	22	8	20	100																							
MMKN46	7.5	A	V	4	3	X	E1	Computer Based Engineering, Design Analysis 1		KS KE U W T	20	50	0	0	130																							
EIEF01	10	G2	V	4	4	X	E1	Applied Mechatronics		KS KE U W T	22	0	12	8	90	14	4	12	14	90																		
EDAF55	6	G2	V	4	3	X	E1	Concurrent Programming		KS KE U W T	14	14	6	0	40	4	6	0	6	70																		
MMKN55	7.5	A	V	4	3	-	S	Engineering Design Techniques		KS KE U W T						28	49	8	12	100																		
FRTN05	7.5	A	V	4	3	X	E1	Non-Linear Control and Servo Systems		KS KE U W T						28	28	12	0	112																		
FRTN40	7.5	A	V	4	3	X	E1	Project in Automatic Control		KS KE U W T						0	0	0	50	150																		
MMKN30	7.5	A	V	4	3	X	E1	Service Robotics		KS KE U W T						12	6	15	15	150																		
EIEN01	10	A	V	4	4	X	E1	Mechatronics, Industrial Product Design		KS KE U W T											0	0	0	14	120	0	0	0	14	120								
EIEN25	15	A	V	4	4	X	E1	Power Electronics - Devices, Converters, Control and Applications	X	KS KE U W T											28	32	12	7	100	28	28	12	10	100								
FRTN01	10	A	V	4	3	X	E	Real-Time Systems		KS KE U W T											28	18	4	0	70	6	4	8	8	70								
EDAN15	7.5	A	V	4	3	X	E	Design of Embedded Systems		KS KE U W T																24	4	14	0	150								
EIEF40	9	G2	V	4	4	X	E1	Measurement Systems for Control	X	KS KE U W T	Course on hold																											

[EIEN25](#) Power Electronics - Devices, Converters, Control and Applications: *may not be included in a degree together with [ETEF10](#)*

[EIEF40](#) Measurement Systems for Control: *Exam date to be set by agreement. The course is offered every other academic year and will next be offered in 2018/19.*

Specialisation prr - Product Realization

Course Code	Credits	Cycle	Mand./ Elect.	Year	From year	S.Ex. stud.	Language	Course Name	Footnote	Links	sp1				sp2				sp3				sp4												
											F	O	L	H	S	F	O	L	H	S	F	O	L	H	S	F	O	L	H	S					
MMKF15	7.5	G2	V	4	3	X	E	Applied Robotics		KS KE U W T	28	22	8	20	100																				
MMKN11	7.5	A	V	4	3	X	E	Design for X		KS KE U W T	28	35	0	21	100																				
MMTN20	7.5	A	V	4	4	-	S	Material and Process Selection		KS KE U W T	12	18	8	24	80																				
MMTN25	7.5	A	V	4	3	-	S	Production Technology		KS KE U W T	22	14	20	34	120																				
MMTF15	7.5	G2	V	4	3	-	S	Workshop Practice		KS KE U T	6	0	36	4	40	6	0	36	4	40															
FKMN20	7.5	A	V	4	3	X	E1	Advanced Materials Technology		KS KE U W T						42	14	8	10	70															
EIEF45	7.5	G2	V	4	3	X	E1	Automation		KS KE U W T														42	10	12	8	135							
MMTN30	7.5	A	V	4	3	-	S	Flexible Manufacturing Systems		KS KE U W T														38	18	12	0	130							
MMTF15	7.5	G2	V	4	3	-	S	Workshop Practice		KS KE U T														6	0	36	4	40							
EIEN35	7.5	A	V	4	3	X	E1	Automation for Complex Systems		KS KE U W T																		42	0	60	20	70			
MMTN05	7.5	A	V	4	4	-	S	Flexible Manufacturing Systems, Advanced Course		KS KE U W T																		14	14	40	5	160			
MION40	7.5	A	V	5	4	X	E1	Simulation of Industrial Processes and Logistic Systems		KS KE U W T	18	0	14	0	168																				
MTTN75	7.5	A	V	5	4	X	E	Industrial Purchasing		KS KE U W T														48	10	4	4	130							
MMTN10	7.5	A	V	5	4	-	S	International Product Realisation		KS KE U T														28	12	40	6	140							

Specialisation pu - Product Development

Course Code	Credits	Cycle	Mand./ Elect.	Year	From year	S.Ex. stud.	Language	Course Name	Footnote	Links	sp1				sp2				sp3				sp4											
											F	O	L	H	S	F	O	L	H	S	F	O	L	H	S	F	O	L	H	S	F	O	L	H
MMKN46	7.5	A	V	4	3	X	E1	Computer Based Engineering, Design Analysis 1		KS KE U W T	20	50	0	0	130																			
MMKN11	7.5	A	V	4	4	X	E	Design for X		KS KE U W T	28	35	0	21	100																			
FMEN30	7.5	A	V	4	3	X	E1	Fatigue		KS KE U W T	42	0	8	0	150																			
MTTN40	7.5	A	V	4	3	X	E	Packaging Technology and Development		KS KE U W T	40	28	20	0	112																			
MMKN35	7.5	A	V	4	4	X	E1	Product Innovation		KS KE U W T	21	32	0	0	150																			
FKMN20	7.5	A	V	4	3	X	E1	Advanced Materials Technology		KS KE U W T					42	14	8	10	70															
MMKN51	7.5	A	V	4	3	X	E1	Computer Based Engineering, Design Analysis 2		KS KE U W T					20	50	0	0	130															
MMKN55	7.5	A	V	4	3	-	S	Engineering Design Techniques		KS KE U W T					28	49	8	12	100															
MMKN21	7.5	A	V	4	3	X	E1	Design in Thermoplastic Materials		KS KE U W T									30	24	8	8	130											
MMKF30	7.5	G2	V	4	3	-	S	Hydraulics and Pneumatics		KS KE U W T									32	16	6	6	140											
FHLN01	7.5	A	V	4	3	X	E	Structural Optimization		KS KE U W T									28	26	2	0	100											
MMKN41	7.5	A	V	4	4	X	E	Design in Polymer Composite Materials		KS KE U W T													42	28	8	16	90							
MMKF25	7.5	G2	V	4	3	X	E1	Surface Modelling, Rendering and 3D		KS KE U W T													15	70	0	0	100							
MMEN05	7.5	A	V	4	3	X	S	Transmissions, Dynamics	X	KS KE U W T	Course on hold																							

[MMEN05](#) Transmissions, Dynamics: *The course is offered every other academic year and will next be offered in 2018/19.*

Specialisation tt - Transport Technology

Course Code	Credits	Cycle	Mand./ Elect.	Year	From year	S.Ex. stud.	Language	Course Name	Footnote	Links	sp1				sp2				sp3				sp4								
											F	O	L	H	S	F	O	L	H	S	F	O	L	H	S	F	O	L	H	S	
MVKN70	7.5	A	V	4	4	X	E	Advanced Methods within Numerical Fluid Mechanics and Heat Transfer		KS KE U T	28	24	10	4	134																
FHLN05	7.5	A	V	4	3	-	S	Computational Inelasticity		KS KE U W T	38	28	4	0	130																
MVKN50	7.5	A	V	4	3	X	E1	Introduction to Combustion Engines		KS KE U W T	30	28	20	10	100																
MVKF15	7.5	G2	V	4	3	X	E1	Introduction to Vehicle Systems		KS KE U W T	34	24	20	0	122																
MVKN55	7.5	A	V	4	3	X	E1	Advanced Combustion Engine Concepts		KS KE U W T						32	28	20	10	110											
MAMF55	7.5	G2	V	4	4	X	E1	Aerosol Technology		KS KE U W T						38	12	14	0	125											
FHLN01	7.5	A	V	4	3	X	E	Structural Optimization		KS KE U W T										28	26	2	0	100							
EMIN20	7.5	A	V	4	4	-	S	Energy Systems Analysis: Renewable Sources of Energy		KS KE U W T										28	12	0	1	92	14	4	0	1	48		
FRTN01	10	A	V	4	3	X	E	Real-Time Systems		KS KE U W T										28	18	4	0	70	6	4	8	8	70		
MMKF25	7.5	G2	V	4	3	X	E1	Surface Modelling, Rendering and 3D		KS KE U W T														15	70	0	0	100			
EIEN40	7.5	A	V	5	3	X	E1	Hybrid Vehicle Drive Systems		KS KE U W T	28	6	0	24	142																
MMEN01	7.5	A	V	4	3	X	S	Transmissions, Dimensioning	X	KS KE U W T	Course on hold																				
FKMN15	7.5	A	V	4	3	-	E1	Light Materials	X	KS KE U W T	Course on hold																				

[MMEN01](#) Transmissions, Dimensioning: *The course is offered every other academic year and will next be offered in 2018/19.*

[FKMN15](#) Light Materials: *The course is offered every other academic year and will next be offered in 2018/19.*

Elective Courses - M

Course Code	Credits	Cycle	Year	From year	Language		S.Ex. stud.	Course Name	Footnote	Links				sp1	sp2	sp3	sp4												
										F	O	L	H					S	F	O	L	H	S	F	O	L	H	S	
EMSF25	2.5	G2	3	1	-	S	Mathematical Statistics - Complementary Project	X	KS KE U W T			0	0	8	1	50													
EMSF25								X										0	0	8	1	50							
MAMN20	7.5	A	4	4	X	E1	Aerosol Technology Project		KS KE U W T	0	0	0	15	75															
MMTN35	7.5	A	4	3	-	S	Applied FEM - Project		KS KE U W T	10	24	0	24	140															
BMEN05	7.5	A	4	3	X	E	Biomechanics	X	KS KE U W T	32	8	0	10	110															
EDAA25	3	G1	4	3	X	S	C Programming		KS KE U W T	14	0	0	0	70															
EITG05	7.5	G2	4	4	X	E	Digital Communications		KS KE U W T	24	28	4	0	144															
IYT000	15	G2	4	3	-	S	Engineering Training Course		KS KE U W	0	0	0	0	400															
MION30	7.5	A	4	4	-	S	Industrial Management		KS KE U W T	50	0	0	6	144															
EMSF15	7.5	G2	4	4	X	E1	Markov Processes		KS KE U W T	26	16	6	0	140															
FMAF01	7	G2	4	2	-	E1	Mathematics - Analytic Functions		KS KE U W T	42	24	0	1	128															
MIOF30	6	G2	4	3	-	S	Operations Research – Basic Course		KS KE U W T	36	14	12	0	98															
MMKN65	7.5	A	4	3	X	E1	Project - Machine Design	X	KS KE U W T	0	0	0	60	100															
MTEN01	7.5	A	4	4	-	S	Project - Mechanical Engineering		KS KE U W T	0	0	0	60	140															
AEBF25	7.5	G2	4	4	X	E	Solar Heating Technology, Basic Course		KS KE U W T	24	10	15	6	145															
FMSF10	7.5	G2	4	4	X	E1	Stationary Stochastic Processes		KS KE U W T	22	16	6	0	145															
MION25	7.5	A	4	3	-	S	Technology Strategy		KS KE U W T	36	8	0	3	153															
MTTN55	7.5	A	4	3	X	E	Applied Logistics Simulation		KS KE U W T	28	21	0	0	64	7	21	0	0	12										
EIEN30	7.5	A	4	3	X	E1	Project in Industrial Electrical Engineering and Automation		KS KE U W T	0	0	0	21	88	0	0	0	21	88										
TNSF05	7.5	G2	4	4	-	S	Rehabilitation Engineering		KS KE U W T	16	0	6	2	96	0	4	0	12	64										
MVKN05	7.5	A	4	3	-	S	Project - Formula Student		KS KE U W T	0	0	0	13	40	0	0	0	13	40	0	0	0	12	35	0	0	0	12	35
MAMN20	7.5	A	4	4	X	E1	Aerosol Technology Project		KS KE U W T						0	0	0	15	75										
MION05	7.5	A	4	3	-	S	Business Marketing		KS KE U W T						36	16	0	1	147										
IYT000	15	G2	4	3	-	S	Engineering Training Course		KS KE U W						0	0	0	0	400										
MTTN45	7.5	A	4	4	X	E	Humanitarian Logistics - disaster relief and logistics in developing countries		KS KE U W T						38	12	0	50	100										
MIOF15	7.5	G2	4	2	-	S	Marketing		KS KE U W T						34	6	0	6	154										
FMAF05	7	G2	4	2	-	E1	Mathematics - Systems and Transforms		KS KE U W T						40	16	0	1	130										
FMAN60	6	A	4	4	X	E1	Optimization	X	KS KE U W T						32	14	4	1	109										
MMKN65	7.5	A	4	3	X	E1	Project - Machine Design	X	KS KE U W T						0	0	0	60	100										
MION20	7.5	A	4	4	-	S	Applied Business Analysis		KS KE U W T										54	2	0	1	143						
FMAF10	5	G2	4	3	-	S	Applied Mathematics - Linear systems		KS KE U W T										26	10	4	0	93						

Course Code	Credits	Cycle	Year	From year	S.Ex. stud.	Language	Course Name	Footnote	Links	sp1				sp2				sp3				sp4			
										F	O	L	H	S	F	O	L	H	S	F	O	L	H	S	F
IYT000	15	G2	4	3	-	S	Engineering Training Course		KS KE U W			0	0	0	0	400									
FMAF01	7	G2	4	2	-	E1	Mathematics - Analytic Functions		KS KE U W T			42	24	0	1	128									
ETIA10	7.5	G1	4	3	X	E	Patent and Intellectual Property Rights		KS KE U W T			28	6	3	0	160									
AEBF30	7.5	G2	4	4	X	E	Photovoltaic Systems, Basic Course		KS KE U W T			24	10	10	6	150									
MVKN80	7.5	A	4	3	X	E1	Project - Energy Technology	X	KS KE U W T			0	0	0	0	200									
MMKN65	7.5	A	4	3	X	E1	Project - Machine Design	X	KS KE U W T			0	0	0	60	100									
MVKN85	7.5	A	4	3	X	E	Turbulent Combustion	X	KS KE U W T			20	10	0	8	65									
MAMN20	7.5	A	4	4	X	E1	Aerosol Technology Project		KS KE U W T			0	0	0	15	75	0	0	0	15	75				
EMAN55	7.5	A	4	3	-	S	Applied Mathematics		KS KE U W T			24	12	2	0	62	22	14	2	0	62				
EDAF50	7.5	G2	4	4	X	S	C++ Programming		KS KE U W T			24	0	8	0	100	0	0	0	0	60				
EIEN20	7.5	A	4	3	X	E1	Design of Electrical Machines	X	KS KE U W T			28	0	0	21	30	0	0	0	21	60				
MMKF35	7.5	G2	4	3	X	E	Industrial Design		KS KE U W T			14	28	0	0	60	14	28	0	0	60				
FRTN20	7.5	A	4	4	X	E1	Market-driven Systems		KS KE U W T			28	28	8	0	30	0	0	0	0	40				
EIEN30	7.5	A	4	3	X	E1	Project in Industrial Electrical Engineering and Automation		KS KE U W T			0	0	0	21	88	0	0	0	21	88				
MMKF40	7.5	G2	4	3	X	E	Rapid Prototyping in the Product Development Process		KS KE U W T			10	40	0	0	70	0	0	0	0	80				
TNSF10	7.5	G2	4	4	X	E1	Universal Design, Theory and Project		KS KE U W T			10	8	4	8	128	0	8	0	4	30				
MAMF21	7.5	G2	4	4	-	S	Working Environment, Occupational Health and Safety		KS KE U W T			10	0	0	30	65	0	0	0	30	65				
IYT000	15	G2	4	3	-	S	Engineering Training Course		KS KE U W												0	0	0	0	400
FBRF01	7.5	G2	4	3	X	E	Fundamental Combustion		KS KE U W T											28	8	4	60	100	
FKMN10	7.5	A	4	3	X	E1	High Temperature Materials	X	KS KE U W T											42	14	20	10	70	
MVKF25	7.5	G2	4	3	X	E1	Hydrogen, Batteries and Fuel Cells		KS KE U T											21	14	0	20	145	
FMSN30	7.5	A	4	4	X	E1	Linear and Logistic Regression		KS KE U W T											24	0	26	2	120	
FMAF05	7	G2	4	2	-	E1	Mathematics - Systems and Transforms		KS KE U W T											40	16	0	1	130	
MMTN40	7.5	A	4	3	-	S	Metal Cutting, Advanced Course		KS KE U W T											28	28	0	12	100	
EMEN25	7.5	A	4	3	X	E1	Nano Mechanics and Multiscale Modelling	X	KS KE U W T											42	28	0	1	140	
FMNF10	6	G2	4	4	X	E1	Numerical Analysis		KS KE U W T											48	10	0	3	100	
MMKN65	7.5	A	4	3	X	E1	Project - Machine Design	X	KS KE U W T											0	0	0	60	100	
MIOF05	2	G2	4	3	-	S	Project in Managerial Economics, Advanced Course		KS KE U W T											2	0	16	1	34	
EITN95	7.5	A	4	4	X	E1	Simulation		KS KE U W T											18	6	0	4	172	

Course Code	Credits	Cycle	Year	Language			Course Name	Footnote	Links	sp1	sp2	sp3	sp4
				From year	S.Ex. stud.								
MMTN15	7.5	A	5	4	X	E1	Project - Production and Materials Engineering	X	KS KE U W T	0 0 0 40 160			
MTTN65	7.5	A	5	5	X	E	Project and Research Methodologies in Supply Chain Management		KS KE U T	20 0 0 10 70	10 0 0 20 70		
MMTN15	7.5	A	5	4	X	E1	Project - Production and Materials Engineering	X	KS KE U W T		0 0 0 40 160		
MMTN15								X				0 0 0 40 160	
MMTN15								X					0 0 0 40 160
MMKN60	15	A	4	3	X	E1	Product Development Project	X	KS KE U W T	Course on hold			
FKMN05	7.5	A	4	3	X	E1	Powder Technology	X	KS KE U W T	Course on hold			

[FMSF25](#) Mathematical Statistics - Complementary Project: *Only one of the courses [FMSF25](#) and [FMS035](#) may be included in a degree.*

[BMEN05](#) Biomechanics: *Replaces the course [FHLF05](#).*

[MMKN65](#) Project - Machine Design: *The course is not linked to any specific study period. The information on hours depends on the course running over one study period.*

[FMAN60](#) Optimization: *Written examination before Christmas so that exchange students may participate.*

[MVKN80](#) Project - Energy Technology: *The course start is decided by the department.*

[MVKN85](#) Turbulent Combustion: *The course is offered every other academic year and will be given in 2017/18, 2019/20.*

[EIEN20](#) Design of Electrical Machines: *The course is offered every other academic year and will be given in 2017/18, 2019/20.*

[FKMN10](#) High Temperature Materials: *The course is offered every other academic year and will be given in 2017/18, 2019/20.*

[FMEN25](#) Nano Mechanics and Multiscale Modelling: *The course is offered every other academic year and will be given in 2017/18, 2019/20.*

[MMTN15](#) Project - Production and Materials Engineering: *The course start is decided by the department.*

[MMKN60](#) Product Development Project: *The course is offered every other academic year and will next be offered in 2018/19.*

[FKMN05](#) Powder Technology: *The course is offered every other academic year and will next be offered in 2018/19.*

Externally Elective Courses - M

Course Code	Credits	Cycle	Year	From year	S.Ex. stud.	Language	Course Name	Footnote	Links	Links																			
										sp1	sp2				sp3				sp4										
										F	O	L	H	S	F	O	L	H	S	F	O	L	H	S	F	O	L	H	S
GEMA20	7.5	G1	4	1	-	E	English for Engineers	X	KS KE U W T	30	0	0	0	30	20	0	0	0	30										
GEMA25	7.5	G1	4	1	-	S	German for Engineers	X	KS KE U W T	0	40	0	0	60	0	40	0	0	60										
GEMA60	7.5	G1	4	1	-	S	Law for Engineers, Introductory Course in Business Law	X	KS KE U W T	25	0	0	0	75	25	0	0	0	75										
GEMA70	15	G1	4	1	-	S	Japanese for Engineers	X	KS KE U W T	0	20	0	0	90	0	20	0	0	90	0	20	0	0	90					
GEMA65	7.5	G1	4	1	-	S	Chinese for Engineers	X	KS KE U W T											0	20	0	0	80	0	20	0	0	80
GEMA20	7.5	G1	4	1	-	E	English for Engineers	X	KS KE U W T											30	0	0	0	30	20	0	0	0	30
GEMA01	7.5	G1	4	1	-	S	French for Engineers: Language, Culture and Society, First Course	X	KS KE U W T											0	26	0	0	60	0	26	0	0	60

[GEMA20](#) English for Engineers: *LTH common courses (courses where the course code begins with GEM) counts as external elective courses in the degree requirements for students admitted autumn 2011 and later.*

[GEMA25](#) German for Engineers: *LTH common courses (courses where the course code begins with GEM) counts as external elective courses in the degree requirements for students admitted autumn 2011 and later.*

[GEMA60](#) Law for Engineers, Introductory Course in Business Law: *LTH common courses (courses where the course code begins with GEM) counts as external elective courses in the degree requirements for students admitted autumn 2011 and later.*

[GEMA70](#) Japanese for Engineers: *LTH common courses (courses where the course code begins with GEM) counts as external elective courses in the degree requirements for students admitted autumn 2011 and later.*

[GEMA65](#) Chinese for Engineers: *LTH common courses (courses where the course code begins with GEM) counts as external elective courses in the degree requirements for students admitted autumn 2011 and later.*

[GEMA01](#) French for Engineers: Language, Culture and Society, First Course: *LTH common courses (courses where the course code begins with GEM) counts as external elective courses in the degree requirements for students admitted autumn 2011 and later.*

Bachelor's Projects - M

The list contains the bachelor's projects that are included in the M programme.

Links

Course Code	Credits	Course Name	Links
MVKL01	15	Bachelor Project in Energy Sciences	KS KE U W
FKML01	15	Bachelor Project in Engineering Materials	KS KE U
FMEL01	15	Bachelor Project in Mechanics	KS KE U
MTTL05	15	Bachelor Project in Packaging Logistics	KS KE U W
MMTL02	15	Bachelor Project in Production and Materials Engineering	KS KE U W
FHLL01	15	Bachelor Project in Solid Mechanics	KS KE U

Degree Projects - M

The list contains the degree project courses that are included in the M programme.

Links

Course Code	Credits	Course Name	Links
MAMM05	30	Degree Project in Aerosol Technology	KS KE U W
FRTM01	30	Degree Project in Automatic Control	KS KE U W
EDAM05	30	Degree Project in Computer Sciences for Engineers	KS KE U W
MVKM01	30	Degree Project in Energy Sciences	KS KE U W
MTTM05	30	Degree Project in Engineering Logistics	KS KE U W
FKMM01	30	Degree Project in Engineering Materials	KS KE U W
FMIM01	30	Degree Project in Environmental Studies	KS KE U W
MAMM10	30	Degree Project in Ergonomics	KS KE U W
EIEM01	30	Degree Project in Industrial Electrical Engineering and Automation	KS KE U W
MAMM01	30	Degree Project in Interaction Design	KS KE U W
MMEM01	30	Degree Project in Machine Elements	KS KE U
FMAM05	30	Degree Project in Mathematics for Engineers	KS KE U
FMEM01	30	Degree Project in Mechanics for Engineers	KS KE U W
MTTM10	30	Degree Project in Packaging Logistics	KS KE U W
MMKM05	30	Degree Project in Product Development	KS KE U W
MMTM01	30	Degree Project in Production and Materials Engineering	KS KE U W
MIOM05	30	Degree Project in Production Management	KS KE U W
TNSM01	30	Degree Project in Rehabilitation Engineering	KS KE U W
FHLM01	30	Degree Project in Solid Mechanics for Engineers	KS KE U W
VSMM05	30	Degree Project in Structural Mechanics	KS KE U