Engineering Mathematics

Study Year 1, Academic Year 2014/15 (Mandatory Courses)

Course Code	Credits	Cycle	Language S.Ex. stud.	Language	Course Name	Footnote	Links	14/15 sp1	14/15 sp2	14/15 sp3	14/15 sp4
FMA420	6	G1	-	S	Linear Algebra		KS KE U W T	1			
FMAA05	15	G1	-	S	Calculus in One Variable		KS KE U W T	1	2		
FMA085	4.5	G1	-	S	Mathematical Communication		KS KE U W T	1	2	3	4
FMAA10	3	G1	-	S	Mathematical Modelling	X	KS KE U W T		2		
EDA017	9	G1	-	S	Programming, First Course		KS KE U W T		2	3	
FMA435	7.5	G1	-	S	Calculus in Several Variables		KS KE U W T			3	4
FMEA15	7.5	G1	-	S	Mechanics - Statics and Dynamics		KS KE U W T			3	4

Course Code	Credits	Cycle	Language S.Ex. stud.		Course Name	Footnote	Links		14/15 sp1	14/15 sp2	14/15 sp3	14/15 sp4
FAF220	7.5	G1	-	S	Physics		KS KE U W T					4

FMAA10 Mathematical Modelling: *All the projects must be approved during the current academic year. Thus one may not save results on single projects till a later year.*

Study Year 2, Academic Year 2015/16 (Mandatory Courses)

Course Code	Credits	Cycle	Language S.Ex. stud.	Language	Course Name	Footnote	Links	15/16 sp1	15/16 sp2	15/16 sp3	15/16 sp4
EXTA40	6	G1	-	S	Introduction to Microeconomic Theory		KS KE U W T	1			
FMAF01	7	G2	-	S	Mathematics - Analytic Functions		KS KE U W T	1			
EDAA01	7.5	G1	-	S	Programming - Second Course		KS KE U W T	1	2		
FMAF05	7	G2	-	S	Mathematics - Systems and Transforms		KS KE U W T		2		
FMS012	9	G2	-	S	Mathematical Statistics, Basic Course		KS KE U W T		2	3	
FRT010	7.5	G2	-	S	Automatic Control, Basic Course		KS KE U W T			3	
FMA021	7.5	A	-	S	Applied Mathematics		KS KE U W T			3	4

Course Code	Credits	Cycle	Language S.Ex. stud.		Course Name	Footnote	Links					
								15/16 sp1	15/16 sp2	15/16 sp3	15/16 sp4	
FMAF25	3	G2	-	S	Mathematical Modelling with Statistical Applications, Project		KS KE U W T				4	
EITF15	6	G2	-	S	Signal Processing - Theory and Applications		KS KE U W T				4	

Study Year 3, Academic Year 2016/17 (Mandatory Courses)

Course Code	Credits	Cycle	Language S.Ex. stud.	Language	Course Name	Footnote	Links	16/17 sp1	16/17 sp2	16/17 sp3	16/17 sp4
ETEF01	7	G2	-	S	Electromagnetic Field Theory		KS KE U W T	1			
FMSF10	7.5	G2	X	E1	Stationary Stochastic Processes		KS KE U W T	1			
FMA120	6	A	X	E1	Matrix Theory		KS KE U W T	1	2		
FMNN10	8	A	X	E1	Numerical Methods for Differential Equations		KS KE U W T		2		
FMIF10	6	G2	-	S	Environmental Systems Studies and Sustainable Development		KS KE U W T		2	3	
FRT095	4.5	A	-	S	Mathematical Modelling, Advanced Course		KS KE U W T			3	
FMA111	6	A	-	S	Mathematical Structures		KS KE U W T			3	

Course Code	Credits	Cycle	Language S.Ex. stud.		Course Name	Footnote	Links	16/17 sp1	16/17 sp2	16/17 sp3	16/17 sp4
EDAF15	5	G2	-	S	Algorithm Implementation		KS KE U W T				4
FHLF10	7.5	G2	-	E1	Finite Element Method and Introduction to Strength of Materials		KS KE U W T				4

Study Year 3, Academic Year 2016/17 (Elective Mandatory Courses)

Course Code	Credits	Cycle	Language S.Ex. stud.		Course Name	Footnote	Links	16/17 sp1	16/17 sp2	16/17 sp3	16/17 sp4
EXTG11	4	G2	X	E1	Biological Modelling		KS KE U W T			3	4
EXTG15	7.5	G2	X	E1	Biology, Introductory Course		KS KE U W T			3	4

Specialisation pv - Software

Course Code	Credits	Cycle	Mand./ Elect.	Year	From year	S.Ex. stud.	Language	Course Name	Footnote	Links	sp1	sp2	sp3	sp4
FMAN10	7.5	A	V	2 - 15/16	2	X	E1	Algebraic Structures	X	KS KE U W T			3	
FMA240	6	G2	V	3 - 16/17	3	X	E1	Linear and Combinatorial Optimization		KS KE U W T			3	
EDAF55	6	G2	O	4 - 17/18	4	X	E1	Concurrent Programming		KS KE U W T	1	2		
EDAF05	5	G2	O	4 - 17/18	4	X	E1	Algorithms, Data Structures and Complexity		KS KE U W T				4
EDAN55	7.5	A	V	4 - 17/18	4	X	E	Advanced Algorithms		KS KE U W T	1			
EDAN20	7.5	A	V	4 - 17/18	4	X	E	Language Technology		KS KE U W T	1			
EDAN26	7.5	A	V	4 - 17/18	4	-	S	Multicore Programming	X	KS KE U W T	1			

Course Code	Credits	Cycle	Mand./ Elect.	Year	From year	S.Ex. stud.	Language	Course Name	Footnote	Links		sp1	sp2	sp3	sp4
EDAN10	7.5	A	V	4 - 17/18	4	X	E1	Configuration Management		KS KE U W T			2		
EDAN01	7.5	A	V	4 - 17/18	4	X	E	Constraint Programming		KS KE U W T			2		
EDIN01	7.5	A	V	4 - 17/18	4	X	E1	Cryptography		KS KE U W T			2		
FMNN05	7.5	A	V	4 - 17/18	4	X	E1	Simulation Tools		KS KE U W T				3	
EDAF50	7.5	G2	V	4 - 17/18	4	X	S	C++ Programming		KS KE U W T				3	4
EDAF75	7.5	G2	V	4 - 17/18	4	X	S	Database Technology		KS KE U W T				3	4
FRTN01	10	A	V	4 - 17/18	4	X	E	Real-Time Systems		KS KE U W T				3	4

Course Code	Credits	Cycle	Mand./ Elect.	Year	From year	S.Ex. stud.	Language	Course Name	Footnote	Links	sp1	sp2	sp3	sp4
EDAN40	7.5	A	V	4 - 17/18	3	X	E	Functional Programming		KS KE U W T				4

FMAN10 Algebraic Structures: *The date and time of the exam is announced by the course lecturer. The course is to be studied together with MATM11, which is given by the division for Mathematics of the Faculty of Science.*
EDAN26 Multicore Programming: *The course is offered every other academic year and will be given in 2017/18, 2019/20.*

Specialisation bs - Computation and Simulation

Course Code	Credits	Cycle	Mand./ Elect.	Year	From year	S.Ex. stud.	Language	Course Name	Footnote	Links	sp1	sp2	sp3	sp4
FMA051	6	A	V	3 - 16/17	3	X	E1	Optimization	X	KS KE U W T		2		
EDAN55	7.5	A	V	4 - 17/18	4	X	E	Advanced Algorithms		KS KE U W T	1			
FMNN25	7.5	A	V	4 - 17/18	4	X	E1	Advanced Course in Numerical Algorithms with Python/SciPy		KS KE U W T	1			
FMNN01	7.5	A	V	4 - 17/18	4	X	E	Numerical Linear Algebra		KS KE U W T	1			
FMAN80	7.5	A	V	4 - 17/18	4	X	E1	Functional Analysis and Harmonic Analysis		KS KE U W T	1	2		
FMAN15	7.5	A	V	4 - 17/18	4	X	E	Nonlinear Dynamical Systems		KS KE U W T	1	2		
FHLN20	7.5	A	V	4 - 17/18	4	X	S	Finite Element Method for Non-linear Systems		KS KE U W T		2		

Course Code	Credits	Cycle	Mand./ Elect.	Year	From year	S.Ex. stud.	Language	Course Name	Footnote	Links		sp1	sp2	sp3	sp4
FMSN50	7.5	A	V	4 - 17/18	4	X	E1	Monte Carlo and Empirical Methods for Stochastic Inference		KS KE U W T				3	
EITN90	7.5	A	V	4 - 17/18	4	X	E	Radar and Remote Sensing		KS KE U W T				3	
FMNN05	7.5	A	V	4 - 17/18	4	X	E1	Simulation Tools		KS KE U W T				3	
FMAN25	7.5	A	V	4 - 17/18	4	X	E1	Calculus of Variations		KS KE U W T				3	4
FMNN30	7.5	A	V	4 - 17/18	4	X	E	Iterative Solution of Large Scale Systems in Scientific Computing	X	KS KE U W T					4
VSMN20	7.5	A	V	4 - 17/18	4	X	E1	Software Development for Technical Applications		KS KE U W T					4
FMAN75	7.5	A	V	4 - 17/18	4	X	E1	Partial Differential Equations with Distribution Theory	X	KS KE U W	Course on hold				

FMA051 Optimization: *Written examination before Christmas so that exchange students may participate.*
FMNN30 Iterative Solution of Large Scale Systems in Scientific Computing: *The course is offered every other academic year and will be given in 2017/18, 2019/20.*

FMAN75 Partial Differential Equations with Distribution Theory: *The course is offered every other academic year and will next be offered in 2018/19.*

Specialisation fm - Financial Modelling

Course Code	Credits	Cycle	Mand./ Elect.	Year	From year	S.Ex. stud.	Language	Course Name	Footnote	Links	sp1	sp2	sp3	sp4
FMA051	6	A	V	3 - 16/17	3	X	E1	Optimization	X	KS KE U W T		2		
EXTF45	6	G2	O	4 - 17/18	4	-	S	Financial Management		KS KE U W T		2		
EXTP50	7.5	A	V	4 - 17/18	3	-	E	Advanced Microeconomic Analysis		KS KE U W T	1			
EXTQ30	7.5	A	V	4 - 17/18	4	X	E	Economics, Empirical Finance	X	KS KE U W T		2		
FMSN60	7.5	A	V	4 - 17/18	4	X	E1	Financial Statistics		KS KE U W T		2		
FMSN45	7.5	A	V	4 - 17/18	4	X	E1	Mathematical Statistics, Time Series Analysis		KS KE U W T		2		
EXTQ35	7.5	A	V	4 - 17/18	4	X	E	Financial Valuation and Risk Management	X	KS KE U W T			3	

Course Code	Credits	Cycle	Mand./ Elect.	Year	From year	S.Ex. stud.	Language	Course Name	Footnote	Links		sp1	sp2	sp3	sp4
FMSN50	7.5	A	V	4 - 17/18	3	X	E1	Monte Carlo and Empirical Methods for Stochastic Inference		KS KE U W T				3	
FMSF05	7.5	G2	V	4 - 17/18	4	X	E1	Probability Theory		KS KE U W T				3	
FMAN25	7.5	A	V	4 - 17/18	4	X	E1	Calculus of Variations		KS KE U W T				3	4
FRTN20	7.5	A	V	4 - 17/18	4	X	E1	Market-driven Systems		KS KE U W T				3	4
FMSN55	7.5	A	V	4 - 17/18	4	X	E1	Statistical Modelling of Extreme Values		KS KE U W T					4
EXTQ25	7.5	A	V	5 - 18/19	4	X	E	Financial Economics, Advanced Course	X	KS KE U W T		1			
FMSN25	7.5	A	V	5 - 18/19	4	X	E	Valuation of Derivative Assets		KS KE U W T		1			

FMA051 Optimization: *Written examination before Christmas so that exchange students may participate.*
EXTQ30 Economics, Empirical Finance: *The course is to be studied together with NEKN82, which is given by the Department of Economics. Does not follow the study period structure.*
EXTQ35 Financial Valuation and Risk Management: *The course is to be studied together with NEKN83, which is given by the Department of Economics. Does not follow the study period structure.*
EXTQ25 Financial Economics, Advanced Course: *The course is to be studied together with NEKN81, which is given by the Department of Economics. Does not follow the study period structure.*

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
FHLN05	7.5	A	V	4 - 17/18	4	-	S	Computational Inelasticity		KS KE U W T	1			
FMEN21	7.5	A	V	4 - 17/18	4	X	E	Continuum Mechanics		KS KE U W T	1			
FHLN20	7.5	A	V	4 - 17/18	4	X	S	Finite Element Method for Non-linear Systems		KS KE U W T		2		
FMEN11	7.5	A	V	4 - 17/18	4	X	E	Mechanical Vibrations		KS KE U W T		2		
FMAN60	6	A	V	4 - 17/18	4	X	E1	Optimization	X	KS KE U W T		2		
MVKN90	7.5	A	V	4 - 17/18	4	X	E	Turbulence - Theory and Modelling		KS KE U W T		2		
MMVF10	7.5	G2	V	4 - 17/18	4	X	E1	Fluid Mechanics		KS KE U W T			3	

Course Code	Credits	Cycle	Mand./ Elect.	Year	From year	S.Ex. stud.	Language	Course Name	Footnote	Links		sp1	sp2	sp3	sp4
MMVF05	7.5	G2	V	4 - 17/18	4	X	E	Heat Transfer		KS KE U W T				3	
FMEN02	7.5	A	V	4 - 17/18	4	X	E	Multibody Dynamics		KS KE U W T				3	
VSMN10	7.5	A	V	4 - 17/18	4	X	E1	Structural Dynamic Computing		KS KE U W T				3	
FHLN01	7.5	A	V	4 - 17/18	4	X	E	Structural Optimization		KS KE U W T				3	
FMAN25	7.5	A	V	4 - 17/18	4	X	E1	Calculus of Variations		KS KE U W T				3	4
MMVN05	7.5	A	V	4 - 17/18	4	X	E1	Numerical Fluid Dynamics and Heat Transfer		KS KE U T					4
MVKN70	7.5	A	V	5 - 18/19	4	X	E	Advanced Methods within Numerical Fluid Mechanics and Heat Transfer		KS KE U T		1			

FMAN60 Optimization: *Written examination before Christmas so that exchange students may participate.*

Specialisation bg - Images and Computer Graphics

Course Code	Credits	Cycle	Mand./ Elect.	Year	From year	S.Ex. stud.	Language	Course Name	Footnote	Links	sp1	sp2	sp3	sp4
EDAF80	7.5	G2	V	4 - 17/18	4	X	E	Computer Graphics		KS KE U W T	1			
FMAN20	7.5	A	V	4 - 17/18	4	X	E1	Image Analysis		KS KE U W T	1			
FMSF15	7.5	G2	V	4 - 17/18	4	X	E1	Markov Processes		KS KE U W T	1			
FMNN01	7.5	A	V	4 - 17/18	4	X	E	Numerical Linear Algebra		KS KE U W T	1			
EDAN35	7.5	A	V	4 - 17/18	4	X	E	High Performance Computer Graphics		KS KE U W T		2		
FMAN45	7.5	A	V	4 - 17/18	4	-	E	Machine Learning		KS KE U W T		2		
FMSN45	7.5	A	V	4 - 17/18	4	X	E1	Mathematical Statistics, Time Series Analysis		KS KE U W T		2		

Course Code	Credits	Cycle	Mand./ Elect.	Year	From year	S.Ex. stud.	Language	Course Name	Footnote	Links		sp1	sp2	sp3	sp4
FMAN30	7.5	A	V	4 - 17/18	4	X	E1	Medical Image Analysis		KS KE U W T			2		
FMAN60	6	A	V	4 - 17/18	4	X	E1	Optimization	X	KS KE U W T			2		
FMSN20	7.5	A	V	4 - 17/18	4	X	E1	Spatial Statistics with Image Analysis		KS KE U W T			2		
FMAN85	6	A	V	4 - 17/18	4	X	E1	Computer Vision		KS KE U W T				3	
FMAF35	6	G2	V	4 - 17/18	4	X	E1	Linear and Combinatorial Optimization		KS KE U W T				3	
FMSN50	7.5	A	V	4 - 17/18	4	X	E1	Monte Carlo and Empirical Methods for Stochastic Inference		KS KE U W T				3	
FMAN25	7.5	A	V	4 - 17/18	4	X	E1	Calculus of Variations		KS KE U W T				3	4

Course Code	Credits	Cycle	Mand./ Elect.	Year	From year	S.Ex. stud.	Language	Course Name	Footnote	Links	sp1	sp2	sp3	sp4
FRTN30	7.5	A	V	4 - 17/18	4	X	E	Network Dynamics		KS KE U T				4

FMAN60 Optimization: *Written examination before Christmas so that exchange students may participate.*

Specialisation biek - Biological, Ecological and Medical Modelling

Course Code	Credits	Cycle	Mand./ Elect.	Year	From year	S.Ex. stud.	Language	Course Name	Footnote	Links	sp1	sp2	sp3	sp4
EXTQ20	7.5	A	V	4 - 17/18	4	-	E1	Biological Systems		KS KE U W T	1			
BMEN05	7.5	A	V	4 - 17/18	4	X	E	Biomechanics		KS KE U W T	1			
FMAN20	7.5	A	V	4 - 17/18	4	X	E1	Image Analysis		KS KE U W T	1			
FMAN15	7.5	A	V	4 - 17/18	4	X	E	Nonlinear Dynamical Systems		KS KE U W T	1	2		
FMSN45	7.5	A	V	4 - 17/18	4	X	E1	Mathematical Statistics, Time Series Analysis		KS KE U W T		2		
FMAN30	7.5	A	V	4 - 17/18	4	X	E1	Medical Image Analysis		KS KE U W T		2		
FMSN20	7.5	A	V	4 - 17/18	4	X	E1	Spatial Statistics with Image Analysis		KS KE U W T		2		

Course Code	Credits	Cycle	Mand./ Elect.	Year	From year	S.Ex. stud.	Language	Course Name	Footnote	Links		sp1	sp2	sp3	sp4
BMEN10	7.5	A	V	4 - 17/18	4	X	E	Tissue Biomechanics		KS KE U W T			2		
FMSN35	7.5	A	V	4 - 17/18	4	X	E	Stationary and Non-stationary Spectral Analysis	X	KS KE U W T				3	
FMAN01	7.5	A	V	4 - 17/18	4	X	E1	Biomathematics	X	KS KE U W T				3	4
BMEN01	7.5	A	V	4 - 17/18	4	X	E1	Biomedical Signal Processing		KS KE U W T					4
FMSF65	7.5	G2	V	4 - 17/18	4	X	E1	Design of Experiments		KS KE U W T					4
FMSN30	7.5	A	V	4 - 17/18	4	X	E1	Linear and Logistic Regression		KS KE U W T					4
FMSN55	7.5	A	V	4 - 17/18	4	X	E1	Statistical Modelling of Extreme Values		KS KE U W T					4

FMSN35 Stationary and Non-stationary Spectral Analysis: *The course is offered every other academic year and will be given in 2017/18, 2019/20.*
FMAN01 Biomathematics: *The course is offered every other academic year and will be given in 2017/18, 2019/20.*

Specialisation ssr - Systems, Signals and Control

Course Code	Credits	Cycle	Mand./ Elect.	Year	From year	S.Ex. stud.	Language	Course Name	Footnote	Links	sp1	sp2	sp3	sp4
EITG05	7.5	G2	V	4 - 17/18	4	X	E	Digital Communications		KS KE U W T	1			
FMSF15	7.5	G2	V	4 - 17/18	4	X	E1	Markov Processes		KS KE U W T	1			
FRTN10	7.5	A	V	4 - 17/18	4	X	E1	Multivariable Control		KS KE U W T	1			
FMAN80	7.5	A	V	4 - 17/18	4	X	E1	Functional Analysis and Harmonic Analysis		KS KE U W T	1	2		
FMAN15	7.5	A	V	4 - 17/18	4	X	E	Nonlinear Dynamical Systems		KS KE U W T	1	2		
FRTN35	7.5	A	V	4 - 17/18	4	X	E1	System Identification		KS KE U W T	1	2		
EXTQ40	7.5	A	V	4 - 17/18	4	X	E1	Introduction to Artificial Neural Networks and Deep Learning	X	KS KE U W T		2		

Course Code	Credits	Cycle	Mand./ Elect.	Year	From year	S.Ex. stud.	Language	Course Name	Footnote	Links		sp1	sp2	sp3	sp4
FMSN45	7.5	A	V	4 - 17/18	4	X	E1	Mathematical Statistics, Time Series Analysis		KS KE U W T			2		
FRTN05	7.5	A	V	4 - 17/18	4	X	E1	Non-Linear Control and Servo Systems		KS KE U W T			2		
EITN60	7.5	A	V	4 - 17/18	4	X	E	Optimum and Adaptive Signal Processing		KS KE U W T			2		
FMSN20	7.5	A	V	4 - 17/18	4	X	E1	Spatial Statistics with Image Analysis		KS KE U W T			2		
FMSN35	7.5	A	V	4 - 17/18	4	X	E	Stationary and Non-stationary Spectral Analysis	X	KS KE U W T				3	
FRTN15	7.5	A	V	4 - 17/18	4	X	E1	Predictive Control		KS KE U W T				3	4
EITN45	7.5	A	V	4 - 17/18	4	X	E	Information Theory		KS KE U W T					4

Course Code	Credits	Cycle	Mand./ Elect.	Year	From year	S.Ex. stud.	Language	Course Name	Footnote	Links	sp1	sp2	sp3	sp4
ETIF10	7.5	G2	V	4 - 17/18	4	X	E1	Signal Processing - Design and Implementation		KS KE U W T				4

EXTQ40 Introduction to Artificial Neural Networks and Deep Learning: *The course is offered every other academic year and will be given in 2017/18, 2019/20.*
FMSN35 Stationary and Non-stationary Spectral Analysis: *The course is offered every other academic year and will be given in 2017/18, 2019/20.*

Elective Courses - Pi

Course Code	Credits	Cycle	Year	From year	S.Ex. stud.	Language	Course Name	Footnote	Links		sp1	sp2	sp3	sp4
FMA135	6	G1	**1** - 14/15	1	-	E1	Geometry		KS KE U W T			2	3	
FMAA15	7.5	G1	**1** - 14/15	1	-	S	Discrete Mathematics		KS KE U W T					4
FRT130	3	G2	**2** - 15/16	2	-	S	Control Theory		KS KE U W T				3	
FMF061	4.5	G2	**2** - 15/16	2	-	S	Theory of Relativity		KS KE U W T				3	
FMIF20	7.5	G2	**3** - 16/17	3	X	E	Environmental Issues		KS KE U W T		1	2		
FMSN05	3	A	**3** - 16/17	3	X	E	International Project Course-Mathematical Modelling	X	KS KE U W T					4
MMKF15	7.5	G2	**4** - 17/18	4	X	E	Applied Robotics		KS KE U W T		1			

Course Code	Credits	Cycle	Year	From year	S.Ex. stud.	Language	Course Name	Footnote	Links	sp1	sp2	sp3	sp4
EDAA25	3	G1	4 - 17/18	4	X	S	C Programming		KS KE U W T	1			
KLGN10	7.5	A	4 - 17/18	4	-	S	Chemometrics - Design of Experiments and Multivariate Analysis		KS KE U W T	1			
EDAN65	7.5	A	4 - 17/18	4	X	E1	Compilers		KS KE U W T	1			
ETIN20	7.5	A	4 - 17/18	4	X	E	Digital IC-design		KS KE U W T	1			
IYT000	15	G2	4 - 17/18	3	-	S	Engineering Training Course		KS KE U W	1			
MTTF01	5	G2	4 - 17/18	4	-	S	Logistics		KS KE U W T	1			
MIOA12	6	G1	4 - 17/18	4	-	S	Managerial Economics, Basic Course		KS KE U W T	1			

Course Code	Credits	Cycle	Year	From year	S.Ex. stud.	Language	Course Name	Footnote	Links	sp1	sp2	sp3	sp4
KFKA05	7.5	G1	4 - 17/18	4	-	S	Molecular Driving Forces 1: Thermodynamics		KS KE U W T	1			
FMNN35	6	A	4 - 17/18	4	X	E1	Numerical Methods in CAGD	X	KS KE U W T	1			
VVRN10	7.5	A	4 - 17/18	4	X	E	Rainfall Runoff Modelling		KS KE U W T	1			
EITN55	7.5	A	4 - 17/18	3	X	E1	Signal Separation - Independent Components		KS KE U W T	1			
ETSN05	7.5	A	4 - 17/18	4	-	S	Software Development for Large Systems		KS KE U W T	1			
FMSF60	7.5	G2	4 - 17/18	4	-	E1	Statistical Methods for Safety Analysis		KS KE U W T	1			
EIEF01	10	G2	4 - 17/18	4	X	E1	Applied Mechatronics		KS KE U W T	1	2		

Course Code	Credits	Cycle	Year	From year	S.Ex. stud.	Language	Course Name	Footnote	Links	sp1	sp2	sp3	sp4
EITF65	9	G2	4 - 17/18	4	-	S	Design of Digital Circuits – A Systems Approach		KS KE U W T	1	2		
FMIN25	7.5	A	4 - 17/18	4	-	S	Energy Systems Analysis: Energy, Environment and Natural Resources		KS KE U W T	1	2		
MVKN05	7.5	A	4 - 17/18	4	-	S	Project - Formula Student		KS KE U W T	1	2	3	4
ETEN10	7.5	A	4 - 17/18	4	X	E	Antenna Technology		KS KE U W T		2		
EEMF05	7.5	G2	4 - 17/18	4	X	E1	Biomedical Measurements	X	KS KE U W T		2		
EITN70	7.5	A	4 - 17/18	4	X	E	Channel Coding for Reliable Communication		KS KE U W T		2		
EXTA65	4.5	G1	4 - 17/18	4	-	S	Cognition		KS KE U W T		2		

Course Code	Credits	Cycle	Year	From year	S.Ex. stud.	Language	Course Name	Footnote	Links		sp1	sp2	sp3	sp4
EXTN80	7.5	A	4 - 17/18	4	X	E	Economic and Financial Decision-making	X	KS KE U W T			2		
IYT000	15	G2	4 - 17/18	3	-	S	Engineering Training Course		KS KE U W			2		
EITF25	6	G2	4 - 17/18	4	-	S	Internet - Techniques and Applications		KS KE U W T			2		
MIOA12	6	G1	4 - 17/18	4	-	S	Managerial Economics, Basic Course		KS KE U W T			2		
EXTP15	7.5	A	4 - 17/18	4	-	E	Microeconomics - Individual Choice	X	KS KE U T			2		
FHLN10	7.5	A	4 - 17/18	3	X	E	Modern Experimental Mechanics		KS KE U W T			2		
FAFF20	7.5	G2	4 - 17/18	4	X	E	Multi-spectral Imaging		KS KE U W T			2		

Course Code	Credits	Cycle	Year	From year	S.Ex. stud.	Language	Course Name	Footnote	Links		sp1	sp2	sp3	sp4
FRTF01	5	G2	4 - 17/18	4	X	E	Physiological Models and Computations		KS KE U W T			2		
FMAN40	3	A	4 - 17/18	4	X	E1	Project in Applied Mathematics		KS KE U W T			2		
FRTN40	7.5	A	4 - 17/18	4	X	E1	Project in Automatic Control		KS KE U W T			2		
EDAN70	7.5	A	4 - 17/18	4	X	E1	Project in Computer Science		KS KE U W T			2		
FMAN35	3	A	4 - 17/18	2	X	E1	Project in Mathematics		KS KE U W T			2		
EXTP85	7.5	A	4 - 17/18	4	-	S	Quantitative Human Physiology		KS KE U W T			2		
VRSN25	7.5	A	4 - 17/18	4	-	S	Risk Assessment in the Safety Area		KS KE U T			2		

Course Code	Credits	Cycle	Year	From year	S.Ex. stud.	Language	Course Name	Footnote	Links		sp1	sp2	sp3	sp4
MMKN30	7.5	A	4 - 17/18	3	X	E1	Service Robotics		KS KE U W T			2		
FMFN20	7.5	A	4 - 17/18	4	X	E1	Thermodynamics and Statistical Physics		KS KE U W T			2		
EDAF45	7.5	G2	4 - 17/18	4	-	S	Software Development in Teams - Project		KS KE U W T			2	3	
ETIN80	7.5	A	4 - 17/18	4	X	E1	Algorithms in Signal Processors – Project Course		KS KE U W T				3	
EDAF70	7.5	G2	4 - 17/18	4	X	E	Applied Artificial Intelligence		KS KE U W T				3	
FMFF35	7.5	G2	4 - 17/18	4	X	E	Complex Economy	X	KS KE U W T				3	
EITF70	6	G2	4 - 17/18	4	-	S	Computer Organization		KS KE U W T				3	

Course Code	Credits	Cycle	Year	From year	S.Ex. stud.	Language	Course Name	Footnote	Links			sp1	sp2	sp3	sp4
FFFF01	7.5	G2	4 - 17/18	4	-	S	Electronic Materials		KS KE U W T					3	
IYT000	15	G2	4 - 17/18	3	-	S	Engineering Training Course		KS KE U W					3	
MIOF25	6	G2	4 - 17/18	4	-	S	Managerial Economics, Advanced Course		KS KE U W T					3	
EITN65	7.5	A	4 - 17/18	3	X	E1	Measurement and Modeling of the Central Nervous System Function		KS KE U T					3	
EXTP10	7.5	A	4 - 17/18	4	-	E	Microeconomics - Strategic Interaction	X	KS KE U T					3	
ETIA10	7.5	G1	4 - 17/18	4	X	E	Patent and Intellectual Property Rights		KS KE U W T					3	
MAMN35	7.5	A	4 - 17/18	4	-	S	Risk Analysis Methods for Health and Environment		KS KE U T					3	

Course Code	Credits	Cycle	Year	From year	S.Ex. stud.	Language	Course Name	Footnote	Links			sp1	sp2	sp3	sp4
ETSN20	7.5	A	4 - 17/18	4	X	E	Software Testing		KS KE U W T					3	
EXTQ01	7.5	A	4 - 17/18	4	X	E	Theoretical Biophysics	X	KS KE U W T					3	
FMIN20	7.5	A	4 - 17/18	4	-	S	Energy Systems Analysis: Renewable Sources of Energy		KS KE U W T					3	4
FMIN05	7.5	A	4 - 17/18	4	X	E1	Environmental System Studies: Climate, Science and Politics		KS KE U W T					3	4
EITA05	4.5	G1	4 - 17/18	1	-	S	History of Technology		KS KE U W T					3	4
EITF90	7.5	G2	4 - 17/18	3	-	S	Electromagnetics and Electronics		KS KE U W T						4
IYT000	15	G2	4 - 17/18	3	-	S	Engineering Training Course		KS KE U W						4

Course Code	Credits	Cycle	Year	From year	S.Ex. stud.	Language	Course Name	Footnote	Links					
										sp1	sp2	sp3	sp4	
FMIN35	7.5	A	4 - 17/18	4	X	E	Environmental Issues, Thematic Course		KS KE U W T					4
FHLN25	7.5	A	4 - 17/18	4	X	E	Fracture Mechanics, Advanced Course		KS KE U W T					4
FMNN30	7.5	A	4 - 17/18	4	X	E	Iterative Solution of Large Scale Systems in Scientific Computing	X	KS KE U W T					4
MIOF25	6	G2	4 - 17/18	4	-	S	Managerial Economics, Advanced Course		KS KE U W T					4
FAFN35	7.5	A	4 - 17/18	4	X	E	Medical Optics	X	KS KE U W T					4
KFKF01	7.5	G2	4 - 17/18	4	-	S	Molecular Driving Forces 2: Interactions and Dynamics		KS KE U W T					4
FMEN25	7.5	A	4 - 17/18	4	X	E1	Nano Mechanics and Multiscale Modelling	X	KS KE U W T					4

Course Code	Credits	Cycle	Year	From year	S.Ex. stud.	Language	Course Name	Footnote	Links	sp1	sp2	sp3	sp4
EDAF35	7.5	G2	4 - 17/18	4	X	S	Operating Systems		KS KE U W T				4
FMAN40	3	A	4 - 17/18	4	X	E1	Project in Applied Mathematics		KS KE U W T				4
EDAN70	7.5	A	4 - 17/18	4	X	E1	Project in Computer Science		KS KE U W T				4
FMAN35	3	A	4 - 17/18	2	X	E1	Project in Mathematics		KS KE U W T				4
EITN95	7.5	A	4 - 17/18	4	X	E1	Simulation		KS KE U W T				4
MAMN10	7.5	A	4 - 17/18	4	-	S	Interaction 1: Neuro modelling, Cognitive Robotics and Agents	X	KS KE U W T	Course on hold			
EDAN75	7.5	A	4 - 17/18	4	X	S	Optimising Compilers	X	KS KE U W T	Course on hold			
MAMN15	7.5	A	4 - 17/18	4	-	S	Interaction 2: Virtuality and Cognitive Modelling	X	KS KE U W T	Course on hold			
EDAN75	7.5	A	5 - 18/19	4	X	S	Optimising Compilers	X	KS KE U W T	1			
FMSN15	7.5	A	5 - 18/19	5	X	E	Statistical Modelling of Multivariate Extreme Values	X	KS KE U W T	Course on hold			

FMSN05 International Project Course-Mathematical Modelling: *Limited number of participants. Specific application procedure. The course is given in August.*
FMNN35 Numerical Methods in CAGD: *Please note that the contents of the course are partly (3 credits) the same as in FMA135 Geometry.*
EEMF05 Biomedical Measurements: *Retake date to be set by agreement.*
EXTN80 Economic and Financial Decision-making: *The course is to be studied together with NEKN22, which is given by the Department of Economics. Does not follow the study period structure.*
EXTP15 Microeconomics - Individual Choice: *The course is to be studied together with NEKP21, which is given by the Department of Economics. Does not follow the study period structure.*
FMFF35 Complex Economy: *The course is offered every other academic year and will be given in 2017/18, 2019/20.*
EXTP10 Microeconomics - Strategic Interaction: *The course is offered every other academic year and will be given in 2017/18, 2019/20.*
EXTQ01 Theoretical Biophysics: *The course is given by the Faculty of Science and does not follow the study period structure.*
FMNN30 Iterative Solution of Large Scale Systems in Scientific Computing: *The course is offered every other academic year and will be given in 2017/18, 2019/20.*
FAFN35 Medical Optics: *Examination for higher grade after agreement with the course coordinator.*
FMEN25 Nano Mechanics and Multiscale Modelling: *The course is offered every other academic year and will be given in 2017/18, 2019/20.*
MAMN10 Interaction 1: Neuro modelling, Cognitive Robotics and Agents: *The course is offered every other academic year and will next be offered in 2018/19.*
EDAN75 Optimising Compilers: *The course is offered every other academic year and will be given in 2018/19, 2020/21.*
MAMN15 Interaction 2: Virtuality and Cognitive Modelling: *The course is offered every other academic year and will next be offered in 2018/19.*
FMSN15 Statistical Modelling of Multivariate Extreme Values: *The course will next be offered in 2019/20.*

Externally Elective Courses - Pi

Course Code	Credits	Cycle	Year	From year	S.Ex. stud.	Language	Course Name	Footnote	Links	sp1	sp2	sp3	sp4
GEMA20	7.5	G1	4 - 17/18	1	-	E	English for Engineers	X	KS KE U W T	1	2		
GEMA25	7.5	G1	4 - 17/18	1	-	S	German for Engineers	X	KS KE U W T	1	2		
GEMA60	7.5	G1	4 - 17/18	1	-	S	Law for Engineers, Introductory Course in Business Law	X	KS KE U W T	1	2		
GEMA70	15	G1	4 - 17/18	1	-	S	Japanese for Engineers	X	KS KE U W T	1	2	3	
GEMA65	7.5	G1	4 - 17/18	1	-	S	Chinese for Engineers	X	KS KE U W T			3	4
GEMA20	7.5	G1	4 - 17/18	1	-	E	English for Engineers	X	KS KE U W T			3	4
GEMA01	7.5	G1	4 - 17/18	1	-	S	French for Engineers: Language, Culture and Society, First Course	X	KS KE U W T			3	4

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 - Pi

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

Course Code	Credits	Course Name	Links
FMSL01	15	Bachelor Project in Mathematical Statistics	KS KE U W
FMAL01	15	Bachelor Project in Mathematics	KS KE U
MTTL05	15	Bachelor Project in Packaging Logistics	KS KE U W

Degree Projects - Pi

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

Course Code	Credits	Course Name	Links
FRTM01	30	Degree Project in Automatic Control	KS KE U W
BMEM01	30	Degree Project in Biomedical Engineering	KS KE U W
EDAM05	30	Degree Project in Computer Sciences for Engineers	KS KE U W
EXTM20	30	Degree Project in Ecology	KS KE U
EITM01	30	Degree Project in Electrical and Information Technology	KS KE U W
FMSM01	30	Degree Project in Mathematical Statistics for Engineers	KS KE U W
FMAM05	30	Degree Project in Mathematics for Engineers	KS KE U
FMEM01	30	Degree Project in Mechanics for Engineers	KS KE U W
FMNM01	30	Degree Project in Numerical Analysis	KS KE U W
PHYM01	30	Degree Project in Physics	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