Computer Science and Engineering

Study Year 1 (Mandatory Courses)

Course Code	Credits	Cycle	Language S.Ex. stud.	Language	Course Name	Footnote	Links	18/19 sp1	18/19 sp2	18/19 sp3	18/19 sp4
EDAA60	3	G1	-	S	Computer Introduction		KS KE U W T	1			
FMAA05	15	G1	-	S	Calculus in One Variable		KS KE U W T	1	2		
EDAA45	7.5	G1	-	S	Introduction to Programming		KS KE U W T	1	2		
EXTA65	4.5	G1	-	S	Cognition		KS KE U W T		2		
FAFA60	5	G1	-	S	Photonics		KS KE U W T			3	
EDAA01	7.5	G1	-	S	Programming - Second Course		KS KE U W T			3	
EDAA35	7	G1	-	S	Evaluation of Software Systems		KS KE U T			3	4

Course Code	Credits	Cycle	Language S.Ex.	Language stud.	Course Name	Footnote	Links	18/19 sp1	18/19 sp2	18/19 sp3	18/19 sp4
EDAA40	5	G1	X	E	Discrete Structures in Computer Science		KS KE U W T				4
FMAB20	6	G1	-	S	Linear Algebra		KS KE U W T				4

Study Year 2 (Mandatory Courses)

Course Code	Credits	Cycle	Language S.Ex. stud.	Language	Course Name	Footnote	Links	18/19 sp1	18/19 sp2	18/19 sp3	18/19 sp4
FMAB30	6	G1	-	S	Calculus in Several Variables		KS KE U W T	1			
EDAF60	4.5	G2	-	S	Object-oriented Modelling and Design		KS KE U W T	1			
EITF65	9	G2	-	S	Design of Digital Circuits - A Systems Approach		KS KE U W T	1	2		
EITF45	7.5	G2	-	S	Computer Communication		KS KE U W T		2		
EDAF45	7.5	G2	-	S	Software Development in Teams - Project		KS KE U W T		2	3	
FMAF10	5	G2	-	S	Applied Mathematics - Linear systems	X	KS KE U W T			3	
EITF70	6	G2	-	S	Computer Organization		KS KE U W T			3	

Course Code	Credits	Cycle	Language S.Ex. stud.		Course Name	Footnote	Links	18/19 sp1	18/19 sp2	18/19 sp3	18/19 sp4
EDAF05	5	G2	X	E1	Algorithms, Data Structures and Complexity		KS KE U W T				4
EITA10	5	G1	-	S	Electronics		KS KE U W T				4
EDAF40	5	G2	-	E	Functional Programming	X	KS KE U W T				4

FMAF10 Applied Mathematics - Linear systems: *Can be replaced by FMAF01 and FMAF05 together. Only one of the courses FMAF10 and FMAF05 may be included in a degree.*
EDAF40 Functional Programming: *Can be replaced by EDAN40.*

Study Year 2 (Elective Mandatory Courses)

Course Code	Credits	Cycle	Language S.Ex. stud.		Course Name	Footnote	Links		18/19 sp1	18/19 sp2	18/19 sp3	18/19 sp4
FMAF01	7	G2	-	E1	Mathematics - Analytic Functions	X	KS KE U W T				3	
EDAN40	7.5	A	X	E	Functional Programming	X	KS KE U W T					4
FMAF05	7	G2	-	E1	Mathematics - Systems and Transforms	X	KS KE U W T					4

FMAF01 Mathematics - Analytic Functions: *Can together with FMAF05 replace FMAF10. Can also be taken as an elective course in the 4th or 5th year.*
EDAN40 Functional Programming: *Part of the specialisation pv for students admitted autumn 2014 and earlier. Alternate compulsory with EDAF40 for students admitted autumn 2015 and later.*
FMAF05 Mathematics - Systems and Transforms: *Can together with FMAF01 replace FMAF10. Only one of the courses FMAF05 and FMAF10 may be included in a degree.*

Study Year 3 (Mandatory Courses)

Course Code	Credits	Cycle	Language S.Ex. stud.	Language	Course Name	Footnote	Links	18/19 sp1	18/19 sp2	18/19 sp3	18/19 sp4
FRTF05	7.5	G2	-	S	Automatic Control, Basic Course		KS KE U W T	1			
EDAF55	6	G2	X	E1	Concurrent Programming		KS KE U W T	1	2		
FMSF45	9	G2	-	S	Mathematical Statistics, Basic Course		KS KE U W T	1	2		
ETSF25	7.5	G2	-	S	The Business of Software		KS KE U W T		2		
EITA25	7.5	G1	X	S	Computer Security		KS KE U W T			3	
FMNF05	6	G2	X	E1	Numerical Analysis		KS KE U W T			3	
FMIF45	4	G2	-	S	Sustainability and Resource Use with Perspectives on Information and Communication Technology		KS KE U W T			3	4

Course Code	Credits	Cycle	Language S.Ex. stud.		Course Name	Footnote	Links		18/19 sp1	18/19 sp2	18/19 sp3	18/19 sp4
EITF95	4.5	G2	X	S	Queuing System		KS KE U W T					4
EITA50	7.5	G1	X	S	Signal Processing in Multimedia	X	KS KE U W T					4

EITA50 Signal Processing in Multimedia: *Students admitted to the China specialisation takes this course in the autumn of year three, in China.*

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	4	X	E	Computer Graphics		KS KE U W T	1			
FMAN20	7.5	A	V	4	4	X	E1	Image Analysis		KS KE U W T	1			
MAMN25	7.5	A	V	4	4	-	S	Interaction Design		KS KE U W T	1			
FMSF10	7.5	G2	V	4	4	X	E	Stationary Stochastic Processes		KS KE U W T	1			
FMAN70	6	A	V	4	4	X	E1	Matrix Theory		KS KE U W T	1	2		
EDAN95	7.5	A	V	4	4	X	E	Applied Machine Learning		KS KE U W T		2		
EXTQ40	7.5	A	V	4	4	X	E1	Introduction to Artificial Neural Networks and Deep Learning		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
FMAN40	3	A	V	4	4	X	E1	Project in Applied Mathematics		KS KE U W T			2		
FMAN85	6	A	V	4	4	X	E1	Computer Vision		KS KE U W T				3	
MAMF45	7.5	G2	V	4	4	-	S	Virtual Reality in Theory and Practice		KS KE U W T				3	4
MAMN01	7.5	A	V	4	4	-	S	Advanced Interaction Design		KS KE U T					4
FMAN45	7.5	A	V	4	4	-	E	Machine Learning		KS KE U W T					4
FMAN40	3	A	V	4	4	X	E1	Project in Applied Mathematics		KS KE U W T					4
ETIF10	7.5	G2	V	4	4	X	E1	Signal Processing - Design and Implementation		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
FMSN20	7.5	A	V	5	4	X	E	Spatial Statistics with Image Analysis		KS KE U W T		2		
EDAN35	7.5	A	V	4	4	X	E	High Performance Computer Graphics	X	KS KE U W T	Course on hold			

EDAN35 High Performance Computer Graphics: *The course will next be offered in 2019/20.*

Specialisation dpd - Design of Processors and Digital Systems

Course Code	Credits	Cycle	Mand./ Elect.	Year	From year	S.Ex. stud.	Language	Course Name	Footnote	Links	sp1	sp2	sp3	sp4
ETIN20	7.5	A	V	4	4	X	E	Digital IC-design		KS KE U W T	1			
EITF35	7.5	G2	V	4	4	X	E	Introduction to Structured VLSI Design		KS KE U W T	1			
ETIN70	7.5	A	V	4	4	X	E1	Modern Electronics		KS KE U W T	1			
EITF80	9	G2	V	4	4	X	E	Electromagnetic Fields		KS KE U W T	1	2		
EITF20	7.5	G2	V	4	4	X	E1	Computer Architecture		KS KE U W T		2		
EITF40	7.5	G2	V	4	4	X	E1	Digital and Analogue Projects		KS KE U W T			3	
ETIN45	7.5	A	V	4	4	X	E	DSP-design		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
ESSF10	5	G2	V	4	4	-	S	Electrical Measurements		KS KE U W T				3	
ETIN35	7.5	A	V	4	4	X	E	IC-project 1		KS KE U W T				3	4
EDAN15	7.5	A	V	4	4	X	E	Design of Embedded Systems		KS KE U W T					4
ETIN40	7.5	A	V	5	4	X	E	IC-project 2		KS KE U W T		1	2		
ETIN55	7.5	A	V	5	4	X	E	Integrated A/D and D/A Converters		KS KE U W T			2		

Specialisation is - Embedded Systems

Course Code	Credits	Cycle	Mand./ Elect.	Year	From year	S.Ex. stud.	Language	Course Name	Footnote	Links	sp1	sp2	sp3	sp4
EDAN65	7.5	A	V	4	4	X	E1	Compilers		KS KE U W T	1			
EITF35	7.5	G2	V	4	4	X	E	Introduction to Structured VLSI Design		KS KE U W T	1			
EIEF01	10	G2	V	4	4	X	E1	Applied Mechatronics		KS KE U W T	1	2		
EITF20	7.5	G2	V	4	4	X	E1	Computer Architecture		KS KE U W T		2		
FRTN40	7.5	A	V	4	4	X	E1	Project in Automatic Control		KS KE U W T		2		
ETIN80	7.5	A	V	4	4	X	E1	Algorithms in Signal Processors - Project Course		KS KE U W T			3	
EITN30	7.5	A	V	4	4	-	S	Internet Inside		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
FRTN01	10	A	V	4	4	X	E	Real-Time Systems		KS KE U W T			3	4
EDAF15	5	G2	V	4	4	-	S	Algorithm Implementation		KS KE U W T				4
EDAA25	3	G1	V	4	4	X	S	C Programming		KS KE U W T				4
EDAN15	7.5	A	V	4	4	X	E	Design of Embedded Systems		KS KE U W T				4
EDAF35	7.5	G2	V	4	4	X	E1	Operating Systems		KS KE U W T				4
EDAN75	7.5	A	V	5	4	X	S	Optimising Compilers	X	KS KE U W T	1			
EDAN26	7.5	A	V	5	4	-	S	Multicore Programming	X	KS KE U W T	Course on hold			

EDAN75 Optimising Compilers: *The course is offered every other academic year and will be given in 2018/19, 2020/21.*
EDAN26 Multicore Programming: *The course is offered every other academic year and will next be offered in 2019/20.*

Specialisation ks - Communication Systems

Course Code	Credits	Cycle	Mand./ Elect.	Year	From year	S.Ex. stud.	Language	Course Name	Footnote	Links	sp1	sp2	sp3	sp4
EITN50	7.5	A	V	4	4	X	E	Advanced Computer Security		KS KE U W T	1			
EITG05	7.5	G2	V	4	4	X	E	Digital Communications		KS KE U W T	1			
FMSF15	7.5	G2	V	4	4	X	E	Markov Processes		KS KE U W T	1			
EITF05	4	G2	V	4	4	-	S	Web Security		KS KE U W T	1			
EITN41	7.5	A	V	4	4	-	S	Advanced Web Security		KS KE U W T		2		
EDIN01	7.5	A	V	4	4	X	E1	Cryptography		KS KE U W T		2		
ETTN01	7.5	A	V	4	4	X	E	Digital Communications, Advanced Course		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
EITP10	7.5	A	V	4	4	X	E	High Performance Fiber Networks		KS KE U T			2		
ETSF10	7.5	G2	V	4	4	X	E1	Internet Protocols		KS KE U W T			2		
FMAN10	7.5	A	V	4	4	X	E1	Algebraic Structures		KS KE U W T				3	
EITN30	7.5	A	V	4	4	-	S	Internet Inside		KS KE U W T				3	
ETSN10	7.5	A	V	4	4	X	E	Network Architecture and Performance		KS KE U W T				3	
EITN45	7.5	A	V	4	4	X	E	Information Theory		KS KE U W T					4
EITN95	7.5	A	V	4	4	X	E1	Simulation		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
EITN70	7.5	A	V	5	4	X	E	Channel Coding for Reliable Communication		KS KE U W T			2		

FMAN10 Algebraic Structures:

Specialisation pv - Software

Course Code	Credits	Cycle	Mand./ Elect.	Year	From year	S.Ex. stud.	Language	Course Name	Footnote	Links	sp1	sp2	sp3	sp4
EDAN65	7.5	A	V	4	4	X	E1	Compilers		KS KE U W T	1			
EDAN20	7.5	A	V	4	4	X	E	Language Technology		KS KE U W T	1			
EDAN95	7.5	A	V	4	4	X	E	Applied Machine Learning		KS KE U W T		2		
EDAN01	7.5	A	V	4	4	X	E	Constraint Programming		KS KE U W T		2		
FMAA25	7.5	G1	V	4	4	X	E1	Discrete Mathematics		KS KE U W T		2		
EDAN70	7.5	A	V	4	4	X	E1	Project in Computer Science		KS KE U W T		2		
EDAF70	7.5	G2	V	4	4	X	E	Applied Artificial Intelligence		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
FMAF35	6	G2	V	4	4	X	E1	Linear and Combinatorial Optimization		KS KE U W T					3	
EDAF50	7.5	G2	V	4	4	X	S	C++ Programming		KS KE U W T					3	4
EDAF75	7.5	G2	V	4	4	X	S	Database Technology		KS KE U W T					3	4
EDAF15	5	G2	V	4	4	-	S	Algorithm Implementation		KS KE U W T						4
EDAA25	3	G1	V	4	4	X	S	C Programming		KS KE U W T						4
FMAA25	7.5	G1	V	4	4	X	E1	Discrete Mathematics		KS KE U W T						4
FMAN45	7.5	A	V	4	4	-	E	Machine Learning		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
EDAN70	7.5	A	V	4	4	X	E1	Project in Computer Science		KS KE U W T				4
EDAN75	7.5	A	V	5	4	X	S	Optimising Compilers	X	KS KE U W T	1			
EDAN26	7.5	A	V	5	4	-	S	Multicore Programming	X	KS KE U W T	Course on hold			

EDAN75 Optimising Compilers: *The course is offered every other academic year and will be given in 2018/19, 2020/21.*
EDAN26 Multicore Programming: *The course is offered every other academic year and will next be offered in 2019/20.*

Specialisation se - Software Engineering

Course Code	Credits	Cycle	Mand./ Elect.	Year	From year	S.Ex. stud.	Language	Course Name	Footnote	Links	sp1	sp2	sp3	sp4
EITN50	7.5	A	V	4	4	X	E	Advanced Computer Security		KS KE U W T	1			
MAMN25	7.5	A	V	4	4	-	S	Interaction Design		KS KE U W T	1			
MIOA12	6	G1	V	4	4	-	S	Managerial Economics, Basic Course	X	KS KE U W T	1			
ETSN05	7.5	A	V	4	4	-	S	Software Development for Large Systems		KS KE U W T	1			
EDAN10	7.5	A	V	4	4	X	E	Configuration Management		KS KE U W T		2		
EDAN01	7.5	A	V	4	4	X	E	Constraint Programming		KS KE U W T		2		
MIOA12	6	G1	V	4	4	-	S	Managerial Economics, Basic Course	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
ETSN20	7.5	A	V	4	4	X	E	Software Testing		KS KE U W T			2		
EDAN80	9	A	V	4	4	-	S	Coaching of Programming Teams		KS KE U W T			2	3	
ETSN15	7.5	A	V	4	4	X	S	Requirements Engineering		KS KE U W T				3	
EDAF50	7.5	G2	V	4	4	X	S	C++ Programming		KS KE U W T				3	4
EDAF75	7.5	G2	V	4	4	X	S	Database Technology		KS KE U W T				3	4
FRTN01	10	A	V	4	4	X	E	Real-Time Systems		KS KE U W T				3	4
MIOF20	6	G2	V	4	4	-	S	Management Organization		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
MAMF50	7.5	G2	V	5	4	-	S	Usability Evaluation		KS KE U W T	1			

MIOA12 Managerial Economics, Basic Course: *Only one of the courses MIO012, MIOA12 and MIOA01 may be included in a degree.*

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	4	X	E	Digital Communications		KS KE U W T	1			
FRTN10	7.5	A	V	4	4	X	E1	Multivariable Control		KS KE U W T	1			
EITN55	7.5	A	V	4	4	X	E1	Signal Separation - Independent Components		KS KE U W T	1			
FMSF10	7.5	G2	V	4	4	X	E	Stationary Stochastic Processes		KS KE U W T	1			
FMAN70	6	A	V	4	4	X	E1	Matrix Theory		KS KE U W T	1	2		
ETTN01	7.5	A	V	4	4	X	E	Digital Communications, Advanced Course		KS KE U W T		2		
FMSN45	7.5	A	V	4	4	X	E	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
EITN60	7.5	A	V	4	4	X	E	Optimum and Adaptive Signal Processing		KS KE U W T		2		
FRTN40	7.5	A	V	4	4	X	E1	Project in Automatic Control		KS KE U W T		2		
ETIN80	7.5	A	V	4	4	X	E1	Algorithms in Signal Processors - Project Course		KS KE U W T			3	
FRTN15	7.5	A	V	4	4	X	E1	Predictive Control		KS KE U W T			3	4
FRTN01	10	A	V	4	4	X	E	Real-Time Systems		KS KE U W T			3	4
ETIF10	7.5	G2	V	4	4	X	E1	Signal Processing - Design and Implementation		KS KE U W T				4
FRTN35	7.5	A	V	5	4	X	E1	System Identification		KS KE U W T	1	2		

Elective Courses - D

Course Code	Credits	Cycle	Year	From year	S.Ex. stud.	Language	Course Name	Footnote	Links	sp1	sp2	sp3	sp4
FMAA60	7.5	G1	1	1	-	S	Introduction to Real Analysis		KS KE U W T	1			
FMNN25	7.5	A	4	4	X	E1	Advanced Course in Numerical Algorithms with Python/SciPy		KS KE U W T	1			
EITF50	7.5	G2	4	4	X	E	An Introduction to Wireless Systems		KS KE U W T	1			
MMKF15	7.5	G2	4	4	X	E	Applied Robotics		KS KE U W T	1			
IYT000	15	G2	4	3	-	S	Engineering Training Course		KS KE U W	1			
FMIN25	7.5	A	4	4	-	S	Energy Systems Analysis: Energy, Environment and Natural Resources		KS KE U W T	1	2		
FMAN15	7.5	A	4	4	X	E	Nonlinear Dynamical Systems		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
EIEN30	7.5	A	4	4	X	E1	Project in Industrial Electrical Engineering and Automation		KS KE U W T		1	2		
TNSF05	7.5	G2	4	4	-	S	Rehabilitation Engineering		KS KE U W T		1	2		
MAMN40	7.5	A	4	4	-	S	Working Environment, Project		KS KE U W T		1	2		
EDAN90	7.5	A	4	4	X	E1	Advanced Project in Computer Science		KS KE U W T			2		
IYT000	15	G2	4	3	-	S	Engineering Training Course		KS KE U W			2		
FMAN30	7.5	A	4	4	X	E1	Medical Image Analysis		KS KE U W T			2		
FRTN05	7.5	A	4	4	X	E1	Non-Linear Control and Servo Systems		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
FMAN60	6	A	4	4	X	E1	Optimization	X	KS KE U W T			2		
FMAN35	3	A	4	4	X	E1	Project in Mathematics		KS KE U W T			2		
MMKN30	7.5	A	4	4	X	E1	Service Robotics		KS KE U W T			2		
EIEF45	7.5	G2	4	4	X	E1	Automation		KS KE U W T				3	
FRTF15	3	G2	4	4	-	S	Control Theory		KS KE U W T				3	
IYT000	15	G2	4	3	-	S	Engineering Training Course		KS KE U W				3	
MIOF25	6	G2	4	4	-	S	Managerial Economics, Advanced Course		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
MIOA01	9	G1	4	4	-	S	Managerial Economics, Basic Course	X	KS KE U W T			3	
FMAN65	6	A	4	4	-	S	Mathematical Structures		KS KE U W T			3	
FMSN50	7.5	A	4	4	X	E	Monte Carlo and Empirical Methods for Stochastic Inference		KS KE U W T			3	
ETIA10	7.5	G1	4	4	X	E	Patent and Intellectual Property Rights		KS KE U W T			3	
FMNN05	7.5	A	4	4	X	E1	Simulation Tools		KS KE U W T			3	
EXTG45	7.5	G2	4	4	-	S	Technology Supported Communication		KS KE U W T			3	
EDAF90	7.5	G2	4	4	X	S	Web Programming		KS KE U T			3	

Course Code	Credits	Cycle	Year	From year	S.Ex. stud.	Language	Course Name	Footnote	Links			sp1	sp2	sp3	sp4
EITN85	7.5	A	4	4	X	E	Wireless Communication Channels		KS KE U W T					3	
FMAN55	7.5	A	4	4	-	S	Applied Mathematics		KS KE U W T					3	4
FMAN25	7.5	A	4	4	X	E1	Calculus of Variations		KS KE U W T					3	4
FMIN20	7.5	A	4	4	-	S	Energy Systems Analysis: Renewable Sources of Energy		KS KE U W T					3	4
EITA05	4.5	G1	4	1	-	S	History of Technology		KS KE U W T					3	4
EIEN01	10	A	4	4	X	E1	Mechatronics, Industrial Product Design		KS KE U W T					3	4
EIEN30	7.5	A	4	4	X	E1	Project in Industrial Electrical Engineering and Automation		KS KE U W T					3	4

Course Code	Credits	Cycle	Year	From year	S.Ex. stud.	Language	Course Name	Footnote	Links		sp1	sp2	sp3	sp4
TNSF10	7.5	G2	4	4	X	E1	Universal Design, Theory and Project		KS KE U W T				3	4
MAMF21	7.5	G2	4	4	-	S	Working Environment, Occupational Health and Safety		KS KE U W T				3	4
MAMN40	7.5	A	4	4	-	S	Working Environment, Project		KS KE U W T				3	4
FMAN90	7.5	A	4	4	X	E1	Advanced Course in a Selected Area of Mathematics		KS KE U W T					4
EDAN90	7.5	A	4	4	X	E1	Advanced Project in Computer Science		KS KE U W T					4
EIEN35	7.5	A	4	4	X	E1	Automation for Complex Systems		KS KE U W T					4
BMEN01	7.5	A	4	4	X	E1	Biomedical Signal Processing		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
FMSF65	7.5	G2	4	4	X	E	Design of Experiments		KS KE U W T							4
IYT000	15	G2	4	3	-	S	Engineering Training Course		KS KE U W							4
KIIF01	7.5	G2	4	4	X	E1	Industrial Environmental Management		KS KE U W T							4
FMSN30	7.5	A	4	4	X	E	Linear and Logistic Regression		KS KE U W T							4
MAMN30	7.5	A	4	4	-	S	Management, Work Organisation and Project Management		KS KE U W T							4
MIOF25	6	G2	4	4	-	S	Managerial Economics, Advanced Course		KS KE U W T							4
EEMN01	7.5	A	4	4	X	E1	Micro Sensors	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
FRTN30	7.5	A	4	4	X	E	Network Dynamics		KS KE U W T					4
ESSF20	4.5	G2	4	4	-	S	Physics of Devices		KS KE U W T					4
FMAN35	3	A	4	4	X	E1	Project in Mathematics		KS KE U W T					4
FMSN55	7.5	A	4	4	X	E	Statistical Modelling of Extreme Values		KS KE U W T					4
EITN75	7.5	A	4	4	X	E	Wireless System Design Principles		KS KE U W T					4
EITN35	7.5	A	5	4	X	E1	Advanced Course in Electrical and Information Technology	X	KS KE U W T		1			
MAMN10	7.5	A	5	4	-	S	Interaction 1: Neuro Modelling, Cognitive Robotics and Agents	X	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
ETTN15	7.5	A	5	4	X	E	Modern Wireless Systems - LTE and Beyond		KS KE U W T	1			
EITN10	7.5	A	5	4	X	E	Multiple Antenna Systems		KS KE U W T	1			
MION25	7.5	A	5	4	-	S	Technology Strategy		KS KE U W T	1			
BMEF10	7.5	G2	5	4	-	S	Transducer Technology		KS KE U W T	1			
EITN21	7.5	A	5	4	X	E	Project in Wireless Communication		KS KE U W T	1	2		
EITN35	7.5	A	5	4	X	E1	Advanced Course in Electrical and Information Technology	X	KS KE U W T		2		
EEMF05	7.5	G2	5	4	X	E1	Biomedical Measurements	X	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
EEMN10	7.5	A	5	4	X	E1	Computerised Measurement Systems		KS KE U W T			2		
EEMN05	7.5	A	5	4	X	E1	EMC, Noise and Noise Reduction		KS KE U W T			2		
MAMN15	7.5	A	5	4	-	S	Interaction 2: Virtuality and Cognitive Modelling	X	KS KE U W T			2		
MIOF15	7.5	G2	5	4	-	S	Marketing		KS KE U W T			2		
EITN35	7.5	A	5	4	X	E1	Advanced Course in Electrical and Information Technology	X	KS KE U W T				3	
EEMN15	7.5	A	5	4	X	E1	Ultrasound Physics and Technology	X	KS KE U W T				3	
EITN35	7.5	A	5	4	X	E1	Advanced Course in Electrical and Information Technology	X	KS KE U W T					4
FMSN35	7.5	A	4	4	X	E	Stationary and Non-stationary Spectral Analysis	X	KS KE U W T		Course on hold			

FMAN60 Optimization: *Written examination before Christmas so that exchange students may participate.*
MIOA01 Managerial Economics, Basic Course: *Only one of the courses MIO012, MIOA12 and MIOA01 may be included in a degree.*
EEMN01 Micro Sensors: *Re-examination set by agreement*
EITN35 Advanced Course in Electrical and Information Technology: *The course starts only after agreement with the department. The course is not linked to any specific study period. The information on hours depends on the course running over a study period. Individual study plans are to be set up and approved.*
MAMN10 Interaction 1: Neuro Modelling, Cognitive Robotics and Agents: *The course is offered every other academic year and will be given in 2018/19, 2020/21.*
EEMF05 Biomedical Measurements: *Reexam date to be set by agreement.*
MAMN15 Interaction 2: Virtuality and Cognitive Modelling: *The course is offered every other academic year and will be given in 2018/19, 2020/21.*
EEMN15 Ultrasound Physics and Technology: *Re-examination set by agreement.*
FMSN35 Stationary and Non-stationary Spectral Analysis: *The course is offered every other academic year and will next be offered in 2019/20.*

Externally Elective Courses - D

Course Code	Credits	Cycle	Year	From year	S.Ex. stud.	Language	Course Name	Footnote	Links	sp1	sp2	sp3	sp4
EXTA10	3	G1	2	2	-	S	Introduction to Chinese Society, Culture and Language	X	KS KE U W T	1	2		
EXTA35	15	G1	2	2	-	S	Introductory Course in Chinese for Engineers	X	KS KE U W T			3	4
EXTF60	15	G2	3	3	-	E	Introductory Course in Chinese for Engineers, Part 2	X	KS KE U W T	1	2		
GEMA20	7.5	G1	4	1	-	E	English for Engineers	X	KS KE U W T	1	2		
GEMA25	7.5	G1	4	1	-	S	German for Engineers	X	KS KE U W T	1	2		
GEMA60	7.5	G1	4	1	-	S	Law for Engineers, Introductory Course in Business Law	X	KS KE U W T	1	2		
GEMA70	15	G1	4	1	-	S	Japanese for Engineers	X	KS KE U W T	1	2	3	

Course Code	Credits	Cycle	Year	From year	S.Ex. stud.	Language	Course Name	Footnote	Links			sp1	sp2	sp3	sp4
GEMA65	7.5	G1	4	1	-	S	Chinese for Engineers	X	KS KE U W T					3	4
GEMA20	7.5	G1	4	1	-	E	English for Engineers	X	KS KE U W T					3	4
GEMA01	7.5	G1	4	1	-	S	French for Engineers: Language, Culture and Society, First Course	X	KS KE U W T					3	4

EXTA10 Introduction to Chinese Society, Culture and Language: *EXTA10 counts as an external elective course in the degree requirements for students admitted autumn 2011 and later.*
EXTA35 Introductory Course in Chinese for Engineers: *EXTA35 counts as an external elective course in the degree requirements for students admitted autumn 2011 and later.*
EXTF60 Introductory Course in Chinese for Engineers, Part 2: *EXTF60 counts as an external elective course in the degree requirements for students admitted autumn 2011 and later.*
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 - D

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

Course Code	Credits	Course Name	Links
FRTL01	15	Bachelor Project in Automatic Control	KS KE U
EDAL01	15	Bachelor Project in Computer Science	KS KE U W
EITL01	15	Bachelor Project in Electrical and Information Technology	KS KE U W
MAML15	15	Bachelor Project in Interaction Design	KS KE U
FMSL01	15	Bachelor Project in Mathematical Statistics	KS KE U W
FMAL01	15	Bachelor Project in Mathematics	KS KE U
FMNL01	15	Bachelor Project in Numerical Analysis	KS KE U W

Degree Projects - D

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

Course Code	Credits	Course Name	Links
FRTM01	30	Degree Project in Automatic Control	KS KE U W
EDAM05	30	Degree Project in Computer Sciences for Engineers	KS KE U W
EITM01	30	Degree Project in Electrical and Information Technology	KS KE U W
BMEM05	30	Degree Project in Electrical Measurements	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
FMSM01	30	Degree Project in Mathematical Statistics for Engineers	KS KE U W
FMAM05	30	Degree Project in Mathematics for Engineers	KS KE U
FMNM01	30	Degree Project in Numerical Analysis	KS KE U W
PHYM01	30	Degree Project in Physics	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