

Information and Communication Engineering

Study Year 1 (Mandatory Courses)

Course Code	Credits	Cycle	S.Ex. stud.	Language	Course Name	Footnote	Links	20/21	20/21	20/21	20/21
								sp1	sp2	sp3	sp4
EMAB65	7.5	G1	-	S	Calculus in One Variable B1		KS KE U W T	1			
EITA55	7.5	G1	-	S	Communication Systems		KS KE U W T	1			
EMAB70	7.5	G1	-	S	Calculus in One Variable B2		KS KE U W T		2		
EXTA65	4.5	G1	-	S	Cognition		KS KE U W T		2		
EDAA55	9	G1	-	S	Programming, First Course		KS KE U W T		2	3	
EMAB20	6	G1	-	S	Linear Algebra		KS KE U W T			3	
FAFA60	5	G1	-	S	Photonics		KS KE U W T			3	

Course Code	Credits	Cycle	S.Ex. stud.	Language	Course Name	Footnote	Links					
							20/21 sp1	20/21 sp2	20/21 sp3	20/21 sp4		
EITA30	7.5	G1	-	S	Information Transmission		KS	KE	U	W	T	4
ETSA03	6	G1	-	S	Software Engineering - Methodology		KS	KE	U	W	T	4

Study Year 2 (Mandatory Courses)

Course Code	Credits	Cycle	S.Ex. stud.	Language	Course Name	Footnote	Links	20/21	20/21	20/21	20/21
								sp1	sp2	sp3	sp4
EMAB30	6	G1	-	S	Calculus in Several Variables		KS KE U W T	1			
ETSF05	9	G2	-	E1	Internet Protocols	X	KS KE U W T	1	2		
EDAA01	7.5	G1	-	S	Programming - Second Course		KS KE U W T	1	2		
MAMA15	7.5	G1	-	S	Interaction Design, Basic Course		KS KE U W T		2		
EITA25	7.5	G1	X	S	Computer Security		KS KE U W T			3	
EDAF75	7.5	G2	X	S	Database Technology		KS KE U W T			3	4
EMSF55	7.5	G2	-	S	Mathematical Statistics, Basic Course		KS KE U W T				4

Course Code	Credits	Cycle	S.Ex. stud.	Language	Course Name	Footnote	Links								
							20/21 sp1	20/21 sp2	20/21 sp3	20/21 sp4					
EITA50	7.5	G1	X	S	Signal Processing in Multimedia	X	KS	KE	U	W	T				4

[ETSF05](#) Internet Protocols: *Only one of the courses [ETSF05](#) and [ETSF10](#) may be included in a degree.*

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

Study Year 3 (Mandatory Courses)

Course Code	Credits	Cycle	S.Ex. stud.	Language	Course Name	Footnote	Links	20/21	20/21	20/21	20/21
								sp1	sp2	sp3	sp4
EITG05	7.5	G2	X	E	Digital Communications		KS KE U W T	1			
EDAF60	4.5	G2	-	S	Object-oriented Modelling and Design		KS KE U W T	1			
EITF05	4	G2	-	S	Web Security		KS KE U W T	1			
ERTF05	7.5	G2	-	S	Automatic Control, Basic Course		KS KE U W T		2		
ETSF25	7.5	G2	-	S	The Business of Software		KS KE U W T		2		
EITF70	6	G2	-	S	Computer Organization		KS KE U W T			3	
EDAF90	7.5	G2	X	S	Web Programming		KS KE U T			3	

Course Code	Credits	Cycle	S.Ex. stud.	Language	Course Name	Footnote	Links			
							20/21 sp1	20/21 sp2	20/21 sp3	20/21 sp4
EMIF45	4	G2	-	S	Sustainability and Resource Use with Perspectives on Information and Communication Technology	KS KE U W T			3	4
MAMN01	7.5	A	-	S	Advanced Interaction Design	KS KE U T				4
EITF95	4.5	G2	X	S	Queuing System	KS KE U W T				4

Specialisation da - Usability

Course Code	Credits	Mand./ Elect.		Year	From year	S.Ex. stud.	Language	Course Name	Footnote	Links				
		Cycle									sp1	sp2	sp3	sp4
EITN50	7.5	A	V	4	4	X	E	Advanced Computer Security		KS KE U W T	1			
MAMN10	7.5	A	V	4	4	-	S	Interaction 1: Neuro Modelling, Cognitive Robotics and Agents	X	KS KE U W T	1			
MAMN45	7.5	A	V	4	4	-	S	People, Technology, Organization and Risk Management		KS KE U W T	1			
MAMF50	7.5	G2	V	4	4	-	S	Usability Evaluation		KS KE U W T	1			
TNSF05	7.5	G2	V	4	4	-	S	Rehabilitation Engineering		KS KE U W T	1	2		
MAMN40	7.5	A	V	4	4	-	S	Working Environment, Project		KS KE U W T	1	2		
EITN41	7.5	A	V	4	4	-	S	Advanced Web Security		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
EDAN10	7.5	A	V		4	4	X	E	Configuration Management		KS KE U W T		2		
MAMN15	7.5	A	V		4	4	-	S	Interaction 2: Virtuality and Cognitive Modelling	X	KS KE U W T		2		
ETSN20	7.5	A	V		4	4	X	E	Software Testing		KS KE U W T		2		
ETSN15	7.5	A	V		4	4	-	S	Requirements Engineering		KS KE U W T			3	
EXTG45	7.5	G2	V		4	4	-	S	Technology Supported Communication		KS KE U W T			3	
TNSF10	7.5	G2	V		4	4	X	E1	Universal Design, Theory and Project		KS KE U W T			3	4
MAMF45	7.5	G2	V		4	4	-	S	Virtual Reality in Theory and Practice		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						
MAMN40	7.5	A	V	4	4	-	S	Working Environment, Project		KS	KE	U	W	T				3	4

[MAMN10](#) Interaction 1: Neuro Modelling, Cognitive Robotics and Agents: *The course is offered every other academic year and will be given in 2020/21, 2022/23.*

[MAMN15](#) Interaction 2: Virtuality and Cognitive Modelling: *The course is offered every other academic year and will be offered in 2020/21, 2022/23.*

Specialisation ks - Communication Systems

Course Code	Credits	Cycle	Mand./ Elect.		Language			Course Name	Footnote	Links				
			Year	From year	S.Ex.	stud.	sp1				sp2	sp3	sp4	
EMSE10	7.5	G2	V	4	4	X	E	Stationary Stochastic Processes	X	KS KE U W T	1			
EDIN01	7.5	A	V	4	4	X	E1	Cryptography		KS KE U W T		2		
ETTNO1	7.5	A	V	4	4	X	E	Digital Communications, Advanced Course		KS KE U W T		2		
EITP10	7.5	A	V	4	4	X	E	High Performance Fiber Networks		KS KE U T		2		
EMAN10	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	

Course Code	Credits	Cycle	Mand./ Elect.		Language			Course Name	Footnote	Links					
			Year	From year	S.Ex.	stud.	sp1			sp2	sp3	sp4			
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
EITN75	7.5	A	V	4	4	X	E	Wireless System Design Principles		KS	KE	U	W	T	4
EITP30	7.5	A	V	5	4	X	E	Modern Wireless Systems - 5G and Beyond		KS	KE	U	W	T	1
EITN10	7.5	A	V	5	4	X	E	Multiple Antenna Systems		KS	KE	U	W	T	1
EITN70	7.5	A	V	5	4	X	E	Channel Coding for Reliable Communication		KS	KE	U	W	T	2
EDAP25	7.5	A	V	4	4	X	E	Distributed Systems	X	KS	KE	U	T	Course on hold	

[FMSE10](#) Stationary Stochastic Processes: *The course is to be studied together with MASC04*

[EDAP25](#) Distributed Systems: *The course is cancelled in the academic year 2020/21 but is planned to be given in 2021/22.*

Specialisation pv - Software

Course Code	Credits	Cycle	Mand./ Elect.		Year	From year	S.Ex. stud.	Language	Course Name	Footnote	Links					
												sp1	sp2	sp3	sp4	
EDAP10	7.5	A	V		4	4	-	S	Concurrent Programming	X	KS KE U W T	1				
EDAN20	7.5	A	V		4	4	X	E	Language Technology		KS KE U W T	1				
EDAN70	7.5	A	V		4	4	X	E1	Project in Computer Science	X	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	E1	Constraint Programming		KS KE U W T		2			
EMAB75	7.5	G1	V		4	4	X	E1	Discrete Mathematics		KS KE U W T		2			
EDAG01	7.5	G2	V		4	4	X	S	Efficient C	X	KS KE U W T		2			

Course Code	Credits	Cycle	Mand./ Elect.		Language			Course Name	Footnote	Links				
			Year	From year	S.Ex.	stud.	sp1			sp2	sp3	sp4		
EDAP15	7.5	A	V	4	4	X	E	Program Analysis	X	KS KE U W T		2		
EDAN70	7.5	A	V	4	4	X	E1	Project in Computer Science	X	KS KE U W T		2		
EDAP01	7.5	A	V	4	4	X	E	Artificial Intelligence	X	KS KE U W T			3	
EDAN70	7.5	A	V	4	4	X	E1	Project in Computer Science	X	KS KE U W T			3	
EDAF50	7.5	G2	V	4	4	X	S	C++ Programming		KS KE U W T			3	4
EDAF05	5	G2	V	4	4	X	S	Algorithms, Data Structures and Complexity		KS KE U W T				4
EMAB75	7.5	G1	V	4	4	X	E1	Discrete Mathematics		KS KE U W T				4

Course Code	Credits	Cycle	Mand./ Elect.		Language			Course Name	Footnote	Links					
			Year	From year	S.Ex.	stud.	sp1			sp2	sp3	sp4			
EDAN40	7.5	A	V	4	4	X	E	Functional Programming		KS	KE	U	W	T	4
EDAN70	7.5	A	V	4	4	X	E1	Project in Computer Science	X	KS	KE	U	W	T	4
EDAN75	7.5	A	V	5	4	X	S	Optimising Compilers	X	KS	KE	U	W	T	1
EDAP05	7.5	A	V	4	4	X	E	Concepts of Programming Languages	X	KS	KE	U	W	T	Course on hold
EDAN26	7.5	A	V	5	4	-	S	Multicore Programming	X	KS	KE	U	W	T	Course on hold

[EDAP10](#) Concurrent Programming: Replaces [EDAF55](#)

[EDAN70](#) Project in Computer Science: The course is given once per study period and is open for zero or more project areas each course instance. The prerequisites depend on the project area.

[EDAG01](#) Efficient C: [EDAA25](#) and [EDAF15](#) can not be included in the degree at the same time as [EDAG01](#).

[EDAP15](#) Program Analysis: The course is offered every other academic year and will be given in 2020/21, 2022/23.

[EDAP01](#) Artificial Intelligence: Replaces [EDAF70](#)

[EDAN75](#) Optimising Compilers: The course is offered every other academic year and will be given in 2020/21, 2022/23.

[EDAP05](#) Concepts of Programming Languages: The course is offered every other academic year and will next be offered in 2021/22.

[EDAN26](#) Multicore Programming: The course is offered every other academic year and will next be offered in 2021/22.

Specialisation sec - Security

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			
MAMN45	7.5	A	V		4	4	-	S	People, Technology, Organization and Risk Management		KS KE U W T	1			
EITF65	9	G2	V		4	4	-	S	Design of Digital Circuits - A Systems Approach		KS KE U W T	1	2		
EITN41	7.5	A	V		4	4	-	S	Advanced Web Security		KS KE U W T		2		
EITF20	7.5	G2	V		4	4	X	E	Computer Architecture		KS KE U W T		2		
EDIN01	7.5	A	V		4	4	X	E1	Cryptography		KS KE U W T		2		
EDAP15	7.5	A	V		4	4	X	E	Program Analysis	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
EMSF60	7.5	G2	V		4	4	-	E1	Statistical Methods for Safety Analysis		KS KE U W T		2		
EMAN10	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	
EITP20	7.5	A	V		4	4	X	E	Secure Systems Engineering		KS KE U T			3	
EITN45	7.5	A	V		4	4	X	E	Information Theory		KS KE U W T				4
EDAE35	7.5	G2	V		4	4	X	E1	Operating Systems		KS KE U W T				4
EITN70	7.5	A	V		5	4	X	E	Channel Coding for Reliable Communication		KS KE U W T		2		

[EDAP15](#) Program Analysis: *The course is offered every other academic year and will be given in 2020/21, 2022/23.*

Elective Courses - C

Course Code	Credits	Cycle	Year	From year	S.Ex. stud.	Language	Course Name	Footnote	Links				
										sp1	sp2	sp3	sp4
EMAA60	7.5	G1	1	1	-	S	Introduction to Real Analysis		KS KE U W T	1			
EDAN90	7.5	A	4	4	X	E1	Advanced Project in Computer Science	X	KS KE U W T	1			
ERTN55	7.5	A	4	4	X	E	Automatic Control, Advanced Course	X	KS KE U W T	1			
EDAN65	7.5	A	4	4	X	E1	Compilers		KS KE U W T	1			
EDAF80	7.5	G2	4	4	X	E	Computer Graphics		KS KE U W T	1			
IYT000	15	G2	4	3	-	S	Engineering Training Course		KS KE U W	1			
EDAP20	7.5	A	4	4	X	E	Intelligent Autonomous Systems		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
MIOA12	6	G1	4	4	-	S	Managerial Economics, Basic Course	X	KS KE U W T	1			
EMSF15	7.5	G2	4	4	X	E	Markov Processes	X	KS KE U W T	1			
EITN60	7.5	A	4	4	X	E	Optimum and Adaptive Signal Processing		KS KE U W T	1			
ETSN05	7.5	A	4	4	-	S	Software Development for Large Systems		KS KE U W T	1			
EMIN25	7.5	A	4	4	-	S	Energy Systems Analysis: Energy, Environment and Natural Resources		KS KE U W T	1	2		
EMAN70	6	A	4	4	X	E1	Matrix Theory		KS KE U W T	1	2		
MVKP05	7.5	A	4	4	X	E1	Project - Formula Student		KS KE U W T	1	2		

Course Code	Credits	Cycle	Language			S.Ex. stud.	Course Name	Footnote	Links							
			Year	From year					sp1	sp2	sp3	sp4				
EDAN90	7.5	A	4	4	X	E1	Advanced Project in Computer Science	X	KS	KE	U	W	T	2		
EDAG05	7.5	G2	4	4	-	E1	Agile Software Development - Project	X	KS	KE	U	W	T	2		
IYT000	15	G2	4	3	-	S	Engineering Training Course		KS	KE	U	W	T	2		
EDAN35	7.5	A	4	4	X	E	High Performance Computer Graphics		KS	KE	U	W	T	2		
EXTQ40	7.5	A	4	4	-	E1	Introduction to Artificial Neural Networks and Deep Learning		KS	KE	U	W	T	2		
MIOA12	6	G1	4	4	-	S	Managerial Economics, Basic Course	X	KS	KE	U	W	T	2		
EMSN45	7.5	A	4	4	X	E	Mathematical Statistics, Time Series Analysis	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					
EMAN40	3	A	4	4	X	E1	Project in Applied Mathematics		KS	KE	U	W	T	2			
ERTN40	7.5	A	4	4	X	E	Project in Automatic Control		KS	KE	U	W	T	2			
TNSN01	7.5	A	4	4	X	E1	Service Robotics		KS	KE	U	W	T	2			
BMEN15	7.5	A	4	4	X	E	Signal Separation - Independent Components		KS	KE	U	W	T	2			
FMSN20	7.5	A	4	4	X	E	Spatial Statistics with Image Analysis	X	KS	KE	U	W	T	2			
EDAF45	7.5	G2	4	4	-	S	Software Development in Teams - Project	X	KS	KE	U	W	T	2	3		
EDAN90	7.5	A	4	4	X	E1	Advanced Project in Computer Science	X	KS	KE	U	W	T		3		

Course Code	Credits	Cycle	Language				Course Name	Footnote	Links								
			Year	From year	S.Ex. stud.					sp1	sp2	sp3	sp4				
EMAE10	5	G2	4	4	-	S	Applied Mathematics - Linear systems	X	KS	KE	U	W	T			3	
EMAN95	7.5	A	4	4	X	E1	Computer Vision		KS	KE	U	W	T			3	
IYT000	15	G2	4	3	-	S	Engineering Training Course		KS	KE	U	W	T			3	
EMAE35	6	G2	4	4	X	E1	Linear and Combinatorial Optimization		KS	KE	U	W	T			3	
MIOA01	9	G1	4	4	-	S	Managerial Economics, Basic Course	X	KS	KE	U	W	T			3	
EMAE01	7	G2	4	4	-	E1	Mathematics - Analytic Functions		KS	KE	U	W	T			3	
EMNF05	6	G2	4	4	X	E1	Numerical Analysis		KS	KE	U	W	T			3	

Course Code	Credits	Cycle	Language				Course Name	Footnote	Links					
			Year	From year	S.Ex. stud.				sp1	sp2	sp3	sp4		
ETIA10	7.5	G1	4	4	X	E	Patent and Intellectual Property Rights	KS	KE	U	W	T	3	
BMEN20	7.5	A	4	4	X	E1	Project Course in Signal Processing – from Idea to App	KS	KE	U	W	T	3	
EMIN20	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	4	-	S	History of Technology	KS	KE	U	W	T	3	4
MVKP05	7.5	A	4	4	X	E1	Project - Formula Student	KS	KE	U	W	T	3	4
FRTN01	10	A	4	4	X	E	Real-Time Systems	KS	KE	U	W	T	3	4
MAME21	7.5	G2	4	4	-	S	Working Environment, Occupational Health and Safety	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		
EDAN90	7.5	A	4	4	X	E1	Advanced Project in Computer Science	X	KS	KE	U	W	T	4
BMEN01	7.5	A	4	4	X	E1	Biomedical Signal Processing		KS	KE	U	W	T	4
IYT000	15	G2	4	3	-	S	Engineering Training Course		KS	KE	U	W	T	4
KIIF01	7.5	G2	4	4	X	E1	Industrial Environmental Management		KS	KE	U	W	T	4
MIOF20	6	G2	4	4	-	S	Management Organization		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

Course Code	Credits	Cycle	Year	From year	S.Ex. stud.	Language	Course Name	Footnote	Links					
									sp1	sp2	sp3	sp4		
EMAF05	7	G2	4	4	-	E1	Mathematics - Systems and Transforms	X	KS	KE	U	W	T	4
EMAN40	3	A	4	4	X	E1	Project in Applied Mathematics		KS	KE	U	W	T	4
ERTN70	7.5	A	4	4	X	E	Project in Systems, Control and Learning		KS	KE	U	W	T	4
ETIF10	7.5	G2	4	4	X	E1	Signal Processing - Design and Implementation		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
EMAN20	7.5	A	5	4	X	E1	Image Analysis		KS	KE	U	W	T	1
MION25	7.5	A	5	4	-	S	Technology Strategy		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
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		
INNA01	7.5	G1	5	5	X	E	Entrepreneurship - how to Build a Scalable Start-up		KS KE U W T		2		
MIOE15	7.5	G2	5	4	-	S	Marketing		KS KE U W T		2		
EMAN30	7.5	A	5	4	X	E1	Medical Image Analysis		KS KE U W T		2		
VFTN75	7.5	A	5	4	X	E	Smart City Governance: AI Ethics in a Spatial Context		KS KE U W T		2		
EDAN80	9	A	5	4	-	S	Coaching of Programming Teams		KS KE U W T		2	3	

Course Code	Credits	Cycle		From year	S.Ex. stud.	Language	Course Name	Footnote	Links					
		Year							sp1	sp2	sp3	sp4		
EITN35	7.5	A	5	4	X	E1	Advanced Course in Electrical and Information Technology	X	KS	KE	U	W	T	3
EITN35								X						4
FMSN35	7.5	A	4	4	X	E	Stationary and Non-stationary Spectral Analysis	X	KS	KE	U	W	T	Course on hold
FRTN15	7.5	A	4	4	X	E	Predictive Control	X	KS	KE	U	W	T	Course on hold
FRTN35	7.5	A	5	4	X	E	System Identification	X	KS	KE	U	W	T	Course on hold

[EDAN90](#) Advanced Project in Computer Science: *The course is given once per study period and is open for zero or more project areas each course instance. The prerequisites depend on the project area.*

[FRTN55](#) Automatic Control, Advanced Course: *Replaces [FRTN10](#) Multivariable Control*

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

[FMSF15](#) Markov Processes: *The course is to be studied together with MASC03.*

[EDAG05](#) Agile Software Development - Project: *Only one of the courses [EDAF45](#) and [EDAG05](#) may be included in a degree. Please note that the contents of the course are also partly (3 credits) the same as in [ETSA03](#).*

[FMSN45](#) Mathematical Statistics, Time Series Analysis: *The course is to be studied together with MASM17.*

[FMSN20](#) Spatial Statistics with Image Analysis: *The course is to be studied together with MASM25*

[EDAF45](#) Software Development in Teams - Project: *Only one of the courses [EDAF45](#) and [EDAG05](#) may be included in a degree. Please note that the contents of the course are also partly (3 credits) the same as in [ETSA03](#).*

[EMAF10](#) Applied Mathematics - Linear systems: *Only one of the courses [EMAF05](#) and [EMAF10](#) may be included in a degree.*

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

[EMAF05](#) Mathematics - Systems and Transforms: *Only one of the courses [EMAF05](#) and [EMAF10](#) may be included in a degree.*

[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.*

[FMSN35](#) Stationary and Non-stationary Spectral Analysis: *The course is offered every other academic year and will next be offered in 2021/22.*

[FRTN15](#) Predictive Control: *The course is cancelled in the academic year 2020/21 but is planned to be given in 2021/22.*

[FRTN35](#) System Identification: *The course is cancelled in the academic year 2020/21 but is planned to be given in 2021/22.*

Externally Elective Courses - C

Course Code	Credits	Cycle	Language				Course Name	Footnote	Links	Links			
			Year	From year	S.Ex. stud.					sp1	sp2	sp3	sp4
EXTA10	3	G1	2	2	-	S	Introduction to Chinese Society, Culture and Language	KS KE U W T	1	2			
EXTA35	15	G1	2	2	-	S	Introductory Course in Chinese for Engineers	KS KE U W T			3	4	
EXTF60	15	G2	3	3	-	E	Introductory Course in Chinese for Engineers, Part 2	KS KE U W T	1	2			
GEMA20	7.5	G1	4	1	-	E	English for Engineers	KS KE U W T	1	2			
GEMA25	7.5	G1	4	1	-	S	German for Engineers	KS KE U W T	1	2			
GEMA65	7.5	G1	4	1	-	S	Chinese for Engineers	KS KE U W T			3	4	
GEMA20	7.5	G1	4	1	-	E	English for Engineers	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	
GEMA01	7.5	G1	4	1	-	S	French for Engineers: Language, Culture and Society, First Course	KS KE U W T				3	4
GEMA70	15	G1	4	1	-	S	Japanese for Engineers	KS KE U W T				3	4

Bachelor's Projects - C

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

Links

Course Code	Credits	Course Name	Links
FRTL01	15	Bachelor Project in Automatic Control	KS KE U
EXTL03	15	Bachelor Project in Cognition Science	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

Degree Projects - C

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

Links

Course Code	Credits	Course Name	Links
FRTM01	30	Degree Project in Automatic Control	KS KE U W
EXTM15	30	Degree Project in Cognition Science	KS KE U
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
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
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