

Environmental Engineering

Study Year 1 (Mandatory Courses)

Course Code	Credits	Cycle	S.Ex. stud.	Language	Course Name	Footnote	Links	15/16 sp1					15/16 sp2					15/16 sp3					15/16 sp4				
								F	O	L	H	S	F	O	L	H	S	F	O	L	H	S	F	O	L	H	S
EMAA05	15	G1	-	S	Calculus in One Variable		KS KE U W T	42	24	0	0	147	42	24	0	0	121										
VVR111	15	G1	X	E	Hydrology and Aquatic Ecology		KS KE U W T	40	42	0	0	112	26	23	0	0	76										
FAFA20	10	G1	-	S	Energy and Environmental Physics	X	KS KE U W T											52	28	18	2	166					
KOOA01	5	G1	-	S	Introductory Chemistry		KS KE U W T											40	16	0	0	80					
VTGA05	5	G1	-	S	Engineering Geology		KS KE U W T																32	16	16	0	80
EXTA01	10	G1	X	E	Terrestrial Ecology		KS KE U W T																36	32	56	0	100

[FAFA20](#) Energy and Environmental Physics: *Anmälan till laborationsgrupp vid introduktionsföreläsningen är obligatorisk.*

Study Year 2 (Mandatory Courses)

Course Code	Credits	Cycle	S.Ex. stud.	Language	Course Name	Footnote	Links	15/16 sp1					15/16 sp2					15/16 sp3					15/16 sp4				
								F	O	L	H	S	F	O	L	H	S	F	O	L	H	S	F	O	L	H	S
FMA420	6	G1	-	S	Linear Algebra		KS KE U W T	36	16	0	0	108															
KFKA01	10	G1	-	S	Thermodynamics and Surface Chemistry		KS KE U W T	40	40	20	0	80															
FHL055	7.5	G1	-	S	Engineering Mechanics		KS KE U W T						42	42	0	0	120										
KOKA10	7	G1	-	S	Organic Chemistry		KS KE U W T						42	14	16	0	100										
FMA430	6	G1	-	S	Calculus in Several Variables		KS KE U W T											36	16	2	0	108					
KMBF01	15	G2	X	E	Molecular Cell Biology		KS KE U W T											38	6	50	0	180	12	14	0	0	100
KOOF01	5	G2	X	E	Applied Aquatic Chemistry		KS KE U W T																19	28	10	0	76
FKFF01	4	G2	X	E	Atmospheric Chemistry and Physics		KS KE U W T																20	12	0	4	75

Study Year 3 (Mandatory Courses)

Course Code	Credits	Cycle	S.Ex. stud.	Language	Course Name	Footnote	Links	15/16 sp1					15/16 sp2					15/16 sp3					15/16 sp4				
								F	O	L	H	S	F	O	L	H	S	F	O	L	H	S	F	O	L	H	S
VVR120	7.5	G2	X	E	Fluid Mechanics		KS KE U W T	40	28	0	0	132															
FMS140	7.5	G2	-	S	Mathematical Statistics, Basic Course		KS KE U W T	20	20	24	1	120															
MIO012	6	G1	-	S	Managerial Economics, Basic Course	X	KS KE U W T						50	12	3	0	95										
KTE170	15	G2	X	E	Mass Transfer Processes in Environmental Engineering		KS KE U W T						34	48	2	1	155	18	44	27	1	70					
FMIF05	12	G2	-	S	Environmental Management		KS KE U W T											44	0	8	5	187	0	0	2	1	73
FRT110	6	G2	-	E	Systems Engineering		KS KE U W T																22	22	8	0	70

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

Study Year 3 (Elective Mandatory Courses)

Course Code	Credits	Cycle	S.Ex. stud.	Language	Course Name	Footnote	Links	15/16 sp1					15/16 sp2					15/16 sp3					15/16 sp4									
								F	O	L	H	S	F	O	L	H	S	F	O	L	H	S	F	O	L	H	S					
EDA016	7.5	G1	-	S	Programming, First Course		KS KE U W T	18	14	8	0	30	28	12	12	0	80															
EDA501	6	G1	-	S	Programming, First Course	X	KS KE U W T						4	0	0	0	15	18	9	6	0	30	14	0	24	0	40					
FMS072	7.5	G2	X	E1	Design of Experiments		KS KE U W T																14	14	14	1	150					
ETE115	7.5	G2	-	S	Electromagnetics and Electronics		KS KE U W T																34	28	4	0	134					
MVKN15	7.5	A	-	S	Energy Supply Systems		KS KE U W T																20	54	0	2	124					

[EDA501](#) 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.*

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
FMI050	7.5	A	V	4	4	-	S	Energy Systems Analysis: Energy, Environment and Natural Resources		KS KE U W T	18	6	0	0	76	18	6	0	0	76										
FMI110	7.5	A	V	4	4	-	S	Environmental Management Systems	X	KS KE U W T	14	9	0	0	77	12	7	3	1	77										
FMI055	7.5	A	V	4	4	-	S	Environmental Systems Studies: Life Cycle Analysis		KS KE U W T	12	6	0	1	81	10	6	0	1	83										
FMI090	15	G2	V	4	4	-	S	Solid Waste Management		KS KE U W T	28	7	2	2	161	28	6	1	3	162										
FMAN01	7.5	A	V	4	3	X	E1	Biomathematics	X	KS KE U W T											12	6	0	1	81	12	6	0	1	81
FMIN05	7.5	A	V	4	4	-	S	Environmental System Studies: Climate, Science and Politics		KS KE U W T											14	6	0	0	80	16	4	0	0	80
FMI085	15	A	V	4	4	-	S	Environmental Systems Studies: Environmental Impact Assessment		KS KE U W T											40	20	0	1	139	8	18	0	3	171
FKF100	7.5	A	V	4	3	X	E1	Methods for Environmental Monitoring		KS KE U W T											10	0	10	2	80	8	0	4	4	80
FMI070	7.5	A	V	4	4	X	E	Environmental Issues, Thematic Course		KS KE U W T																4	12	0	5	179

[FMI110](#) Environmental Management Systems: *The course is offered every other academic year and will next be offered in 2015/16.*

[FMAN01](#) Biomathematics: *The course is offered every other academic year and will be given in 2015/16, 2017/18.*

Specialisation p - Process Design

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		
KTE071	7.5	A	V	4	4	X	E1	Biochemical Reaction Engineering		KS KE U W T	30	26	0	24	80																						
KBT115	7.5	G2	V	4	3	X	E1	Bioprocess Technology	X	KS KE U W T	36	8	45	0	90																						
KETF20	7.5	G2	V	4	4	X	E1	Chemical Engineering Processes		KS KE U W T	56	0	0	20	164																						
KETN05	7.5	A	V	4	3	-	S	Industrial Separation Processes		KS KE U W T	28	20	50	0	100																						
FMI055	7.5	A	V	4	4	-	S	Environmental Systems Studies: Life Cycle Analysis		KS KE U W T	12	6	0	1	81	10	6	0	1	83																	
KETN10	7.5	A	V	4	4	X	E	Applied Transport Phenomena		KS KE U T						24	36	0	25	84																	
KET010	7.5	A	V	4	4	X	E	Energy and Environment		KS KE U W T						32	22	42	0	100																	
KBT080	7.5	G2	V	4	3	X	E	Environmental Biotechnology		KS KE U W T						24	0	35	0	50																	
KETN15	7.5	A	V	4	4	X	E1	Resource Efficient Process Design		KS KE U W T						14	14	32	0	150																	
KTE131	7.5	G2	V	4	3	-	S	Loss Prevention		KS KE U W T										16	56	0	0	70													
KETN01	7.5	A	V	4	3	X	E1	Process Simulation		KS KE U W T										21	21	42	20	10													
FMI040	7.5	A	V	4	4	-	S	Energy Systems Analysis: Renewable Sources of Energy		KS KE U W T										30	12	0	1	90	10	4	0	1	52								
KET050	15	A	V	4	4	X	E1	Feasibility Studies on Industrial Plants		KS KE U W T										18	68	0	0	100	0	56	0	0	100								

[KBT115](#) Bioprocess Technology: *The course is given in English in study period 1 for the W programme*

Specialisation vr - Water Resources Engineering

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				
VVRF01	7.5	G2	V	4	3	X	E	Integrated Water Resources Management: International Aspects		KS KE U W T	22	4	0	1	173																			
VVA030	15	A	V	4	4	X	E	Urban Waters		KS KE U W T	46	38	0	1	115	22	20	24	0	134														
VTG021	7.5	G2	V	4	4	X	E	Groundwater Engineering		KS KE U W T						46	32	0	0	122														
VTGN05	7.5	A	V	4	4	X	E	Groundwater Modelling and Contaminant Transport		KS KE U W T											20	34	0	12	134									
VVAN01	7.5	A	V	4	4	X	E	Decentralized Water and Wastewater Treatment		KS KE U W T											40	12	8	0	40	0	6	0	2	92				
VVR090	7.5	A	V	4	3	X	E	Hydromechanics		KS KE U W T											16	8	0	0	76	16	8	0	0	76				
EXTF01	7.5	G2	V	4	4	X	E1	Geographical Information Systems for Landscape Studies	X	KS KE U W T																16	2	34	0	148				
VVRN20	7.5	A	V	4	4	X	E	Water, Society and Climate Change		KS KE U W T																32	0	0	1	167				
VVR176	7.5	A	V	5	4	X	E	Environmental Hydraulics		KS KE U W T	32	16	0	0	152																			
VVRN10	7.5	A	V	5	4	X	E	Rainfall Runoff Modelling		KS KE U W T	28	4	12	1	155																			
VSMN25	7.5	A	V	5	4	X	E1	The Finite Element Method - Flow Analysis		KS KE U W T	32	32	0	0	136																			
VVR040	7.5	A	V	5	4	X	E	Coastal Hydraulics		KS KE U W T						28	26	0	0	146														
VVRN25	7.5	A	V	5	4	X	E	Pipe System Engineering and Hydraulics		KS KE U W T						26	12	0	2	160														

[EXTF01](#) Geographical Information Systems for Landscape Studies: *The date and time of the exam is announced by the course lecturer.*

Elective Courses - W

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.*

[VVRF05](#) International Summer Water Resources Research School: *Most of the course is taught outside normal semester time.*

[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.*

[GEMA55](#) Medicine for Engineers: *The course is offered every other academic year and will be given in 2015/16, 2017/18 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.*

[VTGN01](#) Field Investigation Methodology: *The course is offered every other academic year and will be given in 2016/17, 2018/19.*

Bachelor's Projects - W

The list contains the bachelor's projects that are included in the W programme. The list is not necessarily complete before the academic year 2016/17.

Links

Course Code	Credits	Course Name	Links
MAML10	15	Bachelor Project in Aerosol Technology	KS KE U W
EXTL02	15	Bachelor Project in Ecology	KS KE U
VTGL01	15	Bachelor Project in Engineering Geology	KS KE U
FMIL01	15	Bachelor Project in Environmental Studies	KS KE U
VVRL01	15	Bachelor Project in Water Resources Engineering	KS KE U

Degree Projects - W

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

Links

Course Code	Credits	Course Name	Links
MAM720	30	Degree Project in Aerosol Technology	KS KE U W
KBT820	30	Degree Project in Biotechnology for Engineers	KS KE U W
KET920	30	Degree Project in Chemical Engineering	KS KE U W
TEK920	30	Degree Project in Ecology	KS KE U W
AEB820	30	Degree Project in Energy and Building Design	KS KE U
MVK920	30	Degree Project in Energy Sciences	KS KE U W
VTG820	30	Degree Project in Engineering Geology for Engineers	KS KE U
FMI820	30	Degree Project in Environmental Studies	KS KE U W
MAM920	30	Degree Project in Ergonomics for Engineers	KS KE U W
PHYM01	30	Degree Project in Physics	KS KE U W
VVA820	30	Degree Project in Water and Environmental Engineering	KS KE U W
VVR820	30	Degree Project in Water Resources Engineering	KS KE U W