

Chemical Engineering

Study Year 1 (Mandatory Courses)

Course Code	Credits	Cycle	S.Ex. stud.	Language	Course Name	Footnote	Links	13/14 sp1					13/14 sp2					13/14 sp3					13/14 sp4				
								F	O	L	H	S	F	O	L	H	S	F	O	L	H	S	F	O	L	H	S
KOO101	9	G1	-	S	Fundamental Chemistry		KS KE U W T	28	14	15	0	50	32	16	10	0	56										
FMAA01	15	G1	-	S	Calculus in One Variable		KS KE U W T	30	20	0	0	83	0	0	0	0	0	36	18	0	0	79	36	18	0	0	79
KETA01	21	G1	-	S	Chemical Engineering		KS KE U W T	15	13	4	6	50	24	6	10	0	40	36	40	12	0	60	14	12	0	7	50
FMA420	6	G1	-	S	Linear Algebra		KS KE U W T						40	24	0	0	96										
KOK012	9	G1	-	S	Organic Chemistry, Basic Course		KS KE U W T											20	10	0	0	20	26	4	36	0	30

Study Year 2 (Mandatory Courses)

Course Code	Credits	Cycle	S.Ex. stud.	Language	Course Name	Footnote	Links	13/14 sp1					13/14 sp2					13/14 sp3					13/14 sp4				
								F	O	L	H	S	F	O	L	H	S	F	O	L	H	S	F	O	L	H	S
FMA430	6	G1	-	S	Calculus in Several Variables		KS KE U W T	42	28	2	0	90															
KFK080	7.5	G1	-	S	Thermodynamics		KS KE U W T	28	28	20	0	60															
KBKA05	7.5	G1	-	S	Technical Biology		KS KE U W T						28	6	32	0	100										
KETF01	9	G2	-	S	Transport Phenomena, Basic Course		KS KE U W T						36	36	24	12	90										
FHL055	7.5	G1	-	S	Engineering Mechanics		KS KE U W T											42	42	0	0	120					
KOO022	7.5	G1	-	S	Inorganic Chemistry		KS KE U W T											28	28	25	0	70					
KFK090	7.5	G2	-	S	Molecular Interactions and Dynamics		KS KE U W T																28	28	20	0	60
KETF10	7.5	G2	-	S	Separation Processes, Basic Course		KS KE U W T																24	36	18	24	90

Study Year 3 (Mandatory Courses)

Course Code	Credits	Cycle	Language		Course Name	Footnote	Links	13/14		13/14		13/14		13/14													
			S.Ex. stud.					sp1	sp2	sp3	sp4																
								F	O	L	H	S	F	O	L	H	S	F	O	L	H	S	F	O	L	H	S
KAKF01	9	G2	-	S	Analytical Chemistry		KS KE U W T	32	14	24	1	150															
EMS086	7.5	G2	-	S	Mathematical Statistics		KS KE U W T	28	22	18	1	120															
MIO012	6	G1	-	S	Managerial Economics, Basic Course		KS KE U W T						50	12	4	1	94										
KETF25	7.5	G2	-	S	Reaction Engineering		KS KE U T						40	40	10	0	110										
KET030	7.5	G2	-	S	Heat Engineering		KS KE U W T											18	36	18	24	90					
KETF05	7.5	G2	X	E1	Chemical Engineering, Project Laboratory		KS KE U W T											0	0	12	0	35	0	0	86	0	30
KOO052	7.5	G2	-	S	Materials and Polymer Technology		KS KE U W T																56	0	0	14	80

Study Year 3 (Elective Mandatory Courses)

Course Code	Credits	Cycle	Language		Course Name	Footnote	Links	13/14		13/14		13/14		13/14													
			S.Ex. stud.					sp1	sp2	sp3	sp4																
								F	O	L	H	S	F	O	L	H	S	F	O	L	H	S	F	O	L	H	S
KOK032	7.5	G2	X	E1	Environmental Chemistry		KS KE U W T						54	28	0	0	80										
KTE131	7.5	G2	-	S	Loss Prevention		KS KE U W T						16	56	0	0	70										

Specialisation I - Pharma

Course Code	Credits	Cycle	Mand./ Elect.	Year	From year	S.Ex. stud.	Language	Course Name	Footnote	Links	sp																			
											sp1	sp2	sp3	sp4																
											F	O	L	H	S	F	O	L	H	S	F	O	L	H	S					
KLG027	7.5	A	O	4	4	X	E	Drug Formulation		KS KE U WT	28	20	25	0	150															
KOKN01	7.5	A	O	4	4	X	E1	Medicinal Chemistry		KS KE U WT	56	10	0	0	100															
KFK032	7.5	A	V	4	4	X	E1	Biophysical Chemistry		KS KE U WT						38	14	15	0	60										
KAK050	7.5	A	V	4	4	X	E1	Chromatographic Analysis		KS KE U WT						36	10	20	1	135										
KOKN05	7.5	A	V	4	4	X	E1	Organic Chemistry - Theory		KS KE U WT						38	22	0	0	100										
KNL026	7.5	G2	V	4	4	X	E	Physiology		KS KE U WT						24	10	4	0	150										
FMS210	7.5	G2	V	4	4	-	S	Chemometrics		KS KE U T										14	0	21	0	120						
KFKN01	7.5	A	V	4	4	X	E	Magnetic Resonance - Spectroscopy and Imaging		KS KE U WT											28	28	20	0	50					
KMB031	7.5	G2	V	4	4	X	E1	Quality and Product Safety		KS KE U WT											56	0	0	16	68					
KASN01	15	A	V	4	4	X	E1	Project in Chemistry		KS KE U T											0	0	80	40	100	0	0	80	40	100
FRTN25	7.5	A	V	4	4	-	S	Automatic Process Control		KS KE U WT															26	28	12	8	90	
KFKN05	7.5	A	V	4	4	X	E1	Surface and Colloid Chemistry		KS KE U WT															26	8	12	60	100	
KLG05	15	A	V	5	5	X	E1	Integrated Project on Food or Pharamaceutical Technology		KS KE U WT	16	20	60	14	100	4	8	80	14	100										
KFKN01	7.5	A	V	5	4	X	E	Magnetic Resonance - Spectroscopy and Imaging		KS KE U WT											28	28	20	0	50					

Specialisation m - Materials

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					
KOO045	7.5	A	O	4	4	X	E1	Materials Chemistry		KS KE U W T	42	28	0	0	100																									
KPO010	7.5	A	O	4	4	X	E	Polymer Physics		KS KE U W T									20	8	42	2	120																	
KTE055	7.5	A	V	4	4	-	S	Catalysis, Extended Course		KS KE U W T	36	0	17	12	140																									
KETE20	7.5	G2	V	4	4	X	E1	Chemical Engineering Processes		KS KE U T	56	0	0	20	164																									
KTE080	7.5	A	V	4	4	X	E1	Polymer Chemistry		KS KE U W T	26	10	34	0	120																									
FKM070	7.5	A	V	4	4	X	E1	Advanced Materials Technology		KS KE U W T						42	14	8	10	70																				
KOO105	7.5	G2	V	4	4	X	E	Materials Analysis at the Nanoscale		KS KE U W T						56	10	0	0	100																				
FFFN05	7.5	A	V	4	4	X	E	Nanomaterials - Thermodynamics and Kinetics		KS KE U W T						28	14	0	0	172																				
KOKN05	7.5	A	V	4	4	X	E1	Organic Chemistry - Theory		KS KE U W T						38	22	0	0	100																				
FAFN15	7.5	A	V	4	4	X	E	Crystal Growth and Semiconductor Epitaxy		KS KE U W T									18	8	0	0	150																	
KFKN01	7.5	A	V	4	4	X	E	Magnetic Resonance - Spectroscopy and Imaging		KS KE U W T									28	28	20	0	50																	
KASN01	15	A	V	4	4	X	E1	Project in Chemistry		KS KE U T									0	0	80	40	100	0	0	80	40	100												
KOO065	7.5	A	V	4	4	-	E1	Microscopic Characterization of Materials		KS KE U W T																		14	0	70	0	80								
KFKN05	7.5	A	V	4	4	X	E1	Surface and Colloid Chemistry		KS KE U W T																		26	8	12	60	100								
KFKN01	7.5	A	V	5	4	X	E	Magnetic Resonance - Spectroscopy and Imaging		KS KE U W T									28	28	20	0	50																	

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
KET050	15	A	O	4	4	-	S	Feasibility Studies on Industrial Plants		KS KE U W T									18	68	0	0	100	0	56	0	0	100
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	4	X	E1	Bioprocess Technology	X	KS KE U W T	36	8	45	0	90													
KTE055	7.5	A	V	4	4	-	S	Catalysis, Extended Course		KS KE U W T	36	0	17	12	140													
KETF20	7.5	G2	V	4	4	X	E1	Chemical Engineering Processes		KS KE U T	56	0	0	20	164													
KETN05	7.5	A	V	4	4	-	S	Industrial Separation Processes		KS KE U W T	28	20	50	0	100													
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									
KBT060	7.5	G2	V	4	4	X	E	Separations in Biotechnology		KS KE U W T					25	5	40	0	80									
FMS210	7.5	G2	V	4	4	-	S	Chemometrics		KS KE U T									14	0	21	0	120					
KETN01	7.5	A	V	4	4	X	E1	Process Simulation		KS KE U W T									21	21	42	20	10					
FRTN25	7.5	A	V	4	4	-	S	Automatic Process Control		KS KE U W T														26	28	12	8	90
KET010	7.5	A	V	5	4	X	E	Energy and Environment		KS KE U W T					32	22	42	0	100									

[KBT115](#) Bioprocess Technology: *The course is given in Swedish in study period 4 for the K program, year 3.*

Elective Courses - K

Course Code	Credits	Cycle	Year	From year	S.Ex. stud.	Language	Course Name	Footnote	Links	S																								
										sp1	sp2				sp3				sp4															
										F	O	L	H	S	F	O	L	H	S	F	O	L	H	S	F	O	L	H	S					
KKK000	15	A	4	4	X	E1	Advanced course in one or more subjects	X	KS KE U W	0	0	0	0	400																				
MTTN40	7.5	A	4	3	X	E	Packaging Technology and Development		KS KE U W T	40	28	20	0	112																				
EDAA20	7.5	G1	4	3	-	S	Programming and Databases		KS KE U W T	32	18	32	0	118																				
GEMA20	7.5	G1	4	1	-	E	English for Engineers		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		KS KE U W T	0	40	0	0	60	0	40	0	0	60															
GEMA50	4.5	G1	4	1	-	S	History of Technology		KS KE U W T	14	0	0	0	40	14	7	0	0	40															
GEMA60	7.5	G1	4	1	-	S	Law for Engineers, Introductory Course in Business Law		KS KE U W T	25	0	0	0	75	25	0	0	0	75															
GEMA70	15	G1	4	1	-	S	Japanese for Engineers		KS KE U W T	0	20	0	0	90	0	20	0	0	90	0	20	0	0	90										
KKK000	15	A	4	4	X	E1	Advanced course in one or more subjects	X	KS KE U W						0	0	0	0	400															
EDA501	6	G1	4	3	-	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					
KKK000	15	A	4	4	X	E1	Advanced course in one or more subjects	X	KS KE U W											0	0	0	0	400										
FMAF10	5	G2	4	4	-	S	Applied Mathematics - Linear systems		KS KE U W T											26	12	4	0	91										
MIO040	6	G2	4	4	-	S	Managerial Economics, Advanced Course		KS KE U W T											40	14	10	1	95										
ETIA10	7.5	G1	4	4	X	E	Patent and Intellectual Property Rights		KS KE U W T											30	10	2	0	158										
BLT015	7.5	G2	4	4	X	E1	Unit Operations in the Biotech and Food Industry		KS KE U W T											10	14	40	7	90										
GEMA65	7.5	G1	4	1	-	S	Chinese for Engineers		KS KE U T											0	20	0	0	80	0	20	0	0	80					
GEMA20	7.5	G1	4	1	-	E	English for Engineers		KS KE U W T											30	0	0	0	30	20	0	0	0	30					
GEMA40	7.5	G1	4	1	-	S	Entrepreneurship and Business Development		KS KE U W T											23	0	0	5	75	23	0	0	5	75					
GEMA01	7.5	G1	4	1	-	S	French for Engineers: Language, Culture and Society, First Course		KS KE U W T											0	26	0	0	60	0	26	0	0	60					
GEMA60	7.5	G1	4	1	-	S	Law for Engineers, Introductory Course in Business Law		KS KE U W T											25	0	0	0	75	25	0	0	0	75					
GEMA55	6	G1	4	1	-	S	Medicine for Engineers		KS KE U W T											36	0	0	0	40	36	0	0	0	40					
GEMA45	3	G1	4	1	-	S	Teaching and Learning		KS KE U W T											0	22	0	0	10	0	2	0	2	40					
KKK000	15	A	4	4	X	E1	Advanced course in one or more subjects	X	KS KE U W																0	0	0	0	400					
FBR012	7.5	G2	4	4	X	E	Fundamental Combustion		KS KE U W T																28	8	4	60	100					
MIO040	6	G2	4	4	-	S	Managerial Economics, Advanced Course		KS KE U W T																40	14	10	1	95					

[KKK000](#) Advanced course in one or more subjects: *The course is not linked to a specific study period. The data on hours (time table) implies that the course is over one study period. An individual plan should be drawn up and approved.*

[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.*

Bachelor's Projects - K

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

Links

Course Code	Credits	Course Name	Links
KFKL01	15	Bachelor Project in Biophysical Chemistry	KS KE U
KETL01	15	Bachelor Project in Chemical Engineering	KS KE U
KOOL01	15	Bachelor Project in Materials Chemistry	KS KE U
KOKL01	15	Bachelor Project in Organic Chemistry	KS KE U
KPOL01	15	Bachelor Project in Polymer Technology	KS KE U
KAKL01	15	Bachelor Project in Technical Analytical Chemistry	KS KE U

Degree Projects - K

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

Links

Course Code	Credits	Course Name	Links
MAM720	30	Degree Project in Aerosol Technology	KS KE U W
KMB820	30	Degree Project in Applied Microbiology for Engineers	KS KE U
FRT820	30	Degree Project in Automatic Control for Engineers	KS KE U W
KFK920	30	Degree Project in Biophysical Chemistry	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
KLT920	30	Degree Project in Food Engineering	KS KE U W
KOO920	30	Degree Project in Materials Chemistry for Engineers	KS KE U
KOK820	30	Degree Project in Organic Chemistry for Engineers	KS KE U W
KLK920	30	Degree Project in Pharmaceutical Technology	KS KE U W
KTE720	30	Degree project in Polymer Technology	KS KE U
MIO920	30	Degree Project in Production Management	KS KE U W
KAK820	30	Degree Project in Technical Analytical Chemistry	KS KE U
VVA820	30	Degree Project in Water and Environmental Engineering	KS KE U W

[MAM720](#) Degree Project in Aerosol Technology: *Only for students admitted to the programme of 270 credits*