

Biotechnology

Study Year 1 (Mandatory Courses)

Course Code	Credits	Cycle	S.Ex. stud.	Language	Course Name	Footnote	Links	08/09					
								sp4					
								F	O	L	H	S	
KBKA01	6	G1	-	S	Introduction to Biochemistry		KS KE U W						
KOO101	9	G1	-	S	Fundamental Chemistry		KS KE U W						
KKKA05	15	G1	-	S	Biotechnology		KS KE U W	14	12	0	10	30	
FMAA01	15	G1	-	S	Calculus in One Variable		KS KE U W	42	28	0	0	81	
FMA420	6	G1	-	S	Linear Algebra		KS KE U W						
KOK012	9	G1	-	S	Organic Chemistry, Basic Course		KS KE U W	26	4	36	0	30	

Study Year 2 (Mandatory Courses)

Course Code	Credits	Cycle	S.Ex. stud.	Language	Course Name	Footnote	Links	08/09				
								sp4				
								F	O	L	H	S
FMA430	6	G1	-	S	Calculus in Several Variables		KS KE U W					
KFK080	7.5	G1	-	S	Thermodynamics		KS KE U W					
KMB060	7.5	G1	-	E2	Microbiology		KS KE U W					
KETF01	9	G2	-	S	Transport Phenomena, Basic Course		KS KE U W					
KBK011	7.5	G1	-	S	Biochemistry		KS KE U W					
KFK090	7.5	G2	-	S	Molecular Interactions and Dynamics		KS KE U W	28	28	20	0	60
KETF10	7.5	G2	-	S	Separation Processes, Basic Course		KS KE U W	24	36	18	24	90

Study Year 2 (Elective Mandatory Courses)

Course Code	Credits	Cycle	S.Ex. stud.	Language	Course Name	Footnote	Links	08/09					
								sp4					
								F	O	L	H	S	
KOK032	7.5	G2	X	E1	Environmental Chemistry		KS KE U W						
KOO022	7.5	G1	-	S	Inorganic Chemistry		KS KE U W						
FMA062	7.5	G2	-	S	Applied Mathematics		KS KE U W	28	14	0	0	58	

Study Year 3 (Mandatory Courses)

Course Code	Credits	Cycle	S.Ex. stud.	Language	Course Name	Footnote	Links	08/09				
								sp4				
								F	O	L	H	S
KAK016	7.5	G2	-	S	Analytical Chemistry		KS KE U W					
FMS086	7.5	G2	-	S	Mathematical Statistics		KS KE U W					
KET045	7.5	G2	-	S	Chemical Reaction Engineering		KS KE U W					
BLT015	7.5	G2	-	E2	Unit Operations in the Biotech and Food Industry		KS KE U W					
KBT115	7.5	G2	X	S	Bioprocess Technology	X	KS KE U W	36	8	45	0	90
KBK041	7.5	G2	X	E2	Gene Technology		KS KE U W	26	10	40	0	120

[KBT115](#) Bioprocess Technology: *Kursen ges på svenska i VT2 i årskurs 3*

Study Year 3 (Elective Mandatory Courses)

Course Code	Credits	Cycle	S.Ex. stud.	Language		Footnote	Links		08/09 sp4
FRT081	7.5	G2	-	S	Automatic Process Control		KS KE U W		
KBK070	7.5	G2	-	S	Cell biology		KS KE U W		
FMN130	7.5	A	X	E1	Numerical Methods for Differential Equations		KS KE U W		
KFK025	7.5	G2	-	E2	Surface and Colloid Chemistry		KS KE U W		
FMS210	7.5	G2	-	S	Chemometrics		KS KE U		
KNL026	7.5	G2	X	E2	Physiology		KS KE U W		

F O L H S

Specialisation I - Pharma

Course Code	Credits	Cycle	Mand./ Elect.		Year	From year	S.Ex. stud.	Language		Footnote	Links		sp4			
KLG027	7.5	A	O		4	4	X	E1	Drug Formulation		KS KE U W					
KOK085	7.5	G2	O		4	4	X	E1	Medicinal Chemistry		KS KE U W					
MAM242	7.5	G2	V		4	3	X	E1	Aerosol Technology		KS KE U W					
KFK032	7.5	A	V		4	3	X	E1	Biophysical Chemistry		KS KE U W					
KOK095	7.5	G2	V		4	3	X	E1	Computational Chemistry and Structure Analysis		KS KE U W					
KOK090	7.5	A	V		4	3	X	E1	Drug Synthesis		KS KE U W					
KMB031	7.5	G2	V		4	4	X	E1	Quality and Product Safety		KS KE U W					
KFK025	7.5	G2	V		4	3	-	E2	Surface and Colloid Chemistry		KS KE U W					
FMS210	7.5	G2	V		4	3	-	S	Chemometrics		KS KE U					
KAK050	7.5	A	V		4	3	X	E1	Chromatographic Analysis		KS KE U W					
KPO010	7.5	A	V		4	3	X	E	Polymer Physics		KS KE U W					
KLG031	15	A	V		4	4	X	E1	Drug Formulation, Project		KS KE U W	6	14	60	0	100
KOK100	15	A	V		4	4	X	E1	Project in Medicinal Chemistry		KS KE U	10	20	80	10	100
KAK070	7.5	A	V		4	3	X	E1	Chromatographic Bio Analysis		KS KE U W	25	3	25	0	147
KAT080	7.5	A	V		4	3	X	E2	Particle Technology		KS KE U W	30	12	10	30	90

F O L H S

Specialisation Im - Food

Course Code	Credits	Cycle	Mand./ Elect.		Year	From year	S.Ex. stud.	Language	Course Name	Footnote	Links	sp4				
												F	O	L	H	S
KLG060	7.5	A	V		4	4	X	E	Food Chemistry for Product Formulation		KS KE U W					
KMB023	7.5	G2	V		4	4	X	E1	Food Microbiology		KS KE U W					
FRT081	7.5	G2	V		4	3	-	S	Automatic Process Control		KS KE U W					
KLG080	7.5	A	V		4	4	X	E	Integrated Food Science		KS KE U W					
KLG01	7.5	A	V		4	4	X	E	Probiotics		KS KE U W					
KFK025	7.5	G2	V		4	3	-	E2	Surface and Colloid Chemistry		KS KE U W					
KLG085	7.5	A	V		4	4	X	E1	Integrated Food Science: Production System		KS KE U W					
KLT031	15	A	V		4	4	X	E1	Integrated Food Project		KS KE U W	0	0	100	10	80
KLT051	7.5	G2	V		4	4	-	E2	Dairy Technology		KS KE U W	60	0	40	0	100
KNL031	7.5	A	V		4	4	X	E	Human Nutrition & Functional Foods		KS KE U W	40	20	0	0	140
KLT065	7.5	G2	V		5	5	-	E2	Dairy Processing		KS KE U W					

Specialisation mb - Molecular Biotechnology

Course Code	Credits	Cycle	Mand./ Elect.		Language			Course Name	Footnote	Links	sp4					
			Year	From year	S.Ex.	stud.	F					O	L	H	S	
KBT050	7.5	G2	V	4	3	X	E	Bio Analytical Chemistry		KS KE U W						
KBK050	7.5	A	V	4	4	X	E1	Protein Engineering		KS KE U W						
KFK032	7.5	A	V	4	3	X	E1	Biophysical Chemistry		KS KE U W						
KBK070	7.5	G2	V	4	3	-	S	Cell biology		KS KE U W						
KBK031	7.5	A	V	4	4	X	E1	Enzyme Technology		KS KE U W						
KBT060	7.5	G2	V	4	3	X	E	Separations in Biotechnology		KS KE U W						
KAK050	7.5	A	V	4	3	X	E1	Chromatographic Analysis		KS KE U W						
KMB040	7.5	A	V	4	4	X	E	Metabolic engineering		KS KE U W						
KFK095	7.5	G2	V	4	3	-	S	Molecular Spectroscopy		KS KE U W						
KBK075	7.5	A	V	4	4	X	E1	Bioinformatics		KS KE U W	24	28	0	0	128	
KAK070	7.5	A	V	4	3	X	E1	Chromatographic Bio Analysis		KS KE U W	25	3	25	0	147	
KIM015	7.5	A	V	4	4	X	E2	Immunotechnology		KS KE U W	32	18	45	0	105	

Specialisation pt - Bioprocess Technology

Course Code	Credits	Cycle	Mand./ Elect.	Year	From year	S.Ex. stud.	Language	Course Name	Footnote	Links	sp4				
											F	O	L	H	S
KTE071	7.5	A	O	4	4	X	E1	Biochemical Reaction Engineering		KS KE U W					
KBT060	7.5	G2	O	4	4	X	E	Separations in Biotechnology		KS KE U W					
KBT050	7.5	G2	V	4	3	X	E	Bio Analytical Chemistry		KS KE U W					
KBK050	7.5	A	V	4	4	X	E1	Protein Engineering		KS KE U W					
FRT081	7.5	G2	V	4	3	-	S	Automatic Process Control		KS KE U W					
KFK032	7.5	A	V	4	3	X	E1	Biophysical Chemistry		KS KE U W					
KBK031	7.5	A	V	4	4	X	E1	Enzyme Technology		KS KE U W					
KBT080	7.5	G2	V	4	3	X	E	Environmental Biotechnology		KS KE U W					
KMB040	7.5	A	V	4	4	X	E	Metabolic engineering		KS KE U W					
KETN01	7.5	A	V	4	3	X	E1	Process Simulation		KS KE U W					
KBT042	15	A	V	4	4	X	E2	Biotechnology, Process and Plant Design		KS KE U W	0	52	0	0	100
KBK075	7.5	A	V	4	4	X	E1	Bioinformatics		KS KE U W	24	28	0	0	128
KIM015	7.5	A	V	4	4	X	E2	Immunotechnology		KS KE U W	32	18	45	0	105

Elective Courses - B

Course Code	Credits	Cycle	Year	From year	S.Ex. stud.	Language	Course Name	Footnote	Links	sp4				
										F	O	L	H	S
GEMA30	4.5	G1	2	1	-	S	Swedish for Engineers		KS KE U W					
GEMA20	7.5	G1	2	1	-	E	English for Engineers	X	KS KE U W					
GEMF01	7.5	G2	2	2	-	S	Environmental Science		KS KE U W					
GEMA05	7.5	G1	2	1	-	S	French for Engineers: Language, Culture and Society, Second Course		KS KE U W					
GEMF05	7.5	G2	2	1	X	E	Gender in Science and Engineering		KS KE U W					
GEMA25	7.5	G1	2	1	-	S	German for Engineers		KS KE U					
GEMA50	4.5	G1	2	1	-	S	History of Technology		KS KE U W					
GEMA60	7.5	G1	2	1	-	S	Law for Engineers, Introductory Course in Business Law	X	KS KE U W					
GEMA10	7.5	G1	2	1	-	S	Spanish for Engineers: Language, Culture and Society, First Course		KS KE U W					
ETI280	6	G1	2	2	X	S	Intellectual Property Right Management (IPR)		KS KE U W					
GEMA65	7.5	G1	2	1	-	S	Chinese for Engineers		KS KE U	0	20	0	0	80
GEMA20	7.5	G1	2	1	-	E	English for Engineers	X	KS KE U W	20	0	0	0	30
GEMA40	7.5	G1	2	1	-	S	Entrepreneurship and Business Development		KS KE U W	23	0	0	5	75
GEMA01	7.5	G1	2	1	-	S	French for Engineers: Language, Culture and Society, First Course		KS KE U W	0	26	0	0	60
GEMA60	7.5	G1	2	1	-	S	Law for Engineers, Introductory Course in Business Law	X	KS KE U W	25	0	0	0	75
GEMA55	6	G1	2	1	-	S	Medicine for Engineers		KS KE U W	36	0	0	0	40
GEMA15	7.5	G1	2	1	-	S	Spanish for Engineers: Language, Culture and Society, Second Course		KS KE U	0	26	0	0	60
GEMA45	3	G1	2	1	-	S	Teaching and Learning		KS KE U W	0	2	0	2	40
MIO040	6	G2	3	2	-	S	Managerial Economics, Advanced Course	X	KS KE U W					
MIO012	6	G1	3	2	-	S	Managerial Economics, Basic Course		KS KE U W					
FKFF01	4	G2	3	3	-	E2	Atmospheric Chemistry and Physics		KS KE U W	14	12	0	4	75
MIO040	6	G2	3	2	-	S	Managerial Economics, Advanced Course	X	KS KE U W	40	14	10	0	96
KKK000	15	A	4	4	X	E2	Advanced course in one or more subjects	X	KS KE U W					
EEM055	7.5	A	4	4	X	E2	Microfluidics		KS KE U W					
MTTF15	5	G2	4	4	X	E2	Packaging Technology and Development		KS KE U W					
KKK000	15	A	4	4	X	E2	Advanced course in one or more subjects	X	KS KE U W					
KMB031	7.5	G2	4	4	X	E1	Quality and Product Safety		KS KE U W					

Course Code	Credits	Cycle	Year	From year	S.Ex. stud.	Language	Course Name	Footnote	Links	sp4				
										F	O	L	H	S
KKK000	15	A	4	4	X	E2	Advanced course in one or more subjects	X	KS KE U W					
KKK000								X		0	0	0	0	400

[GEMA20](#) English for Engineers: *Kursen ges två gånger per läsår.*

[GEMA60](#) Law for Engineers, Introductory Course in Business Law: *Kursen ges två gånger per läsår.*

[MIO040](#) Managerial Economics, Advanced Course: *Kursen ges två gånger per läsår.*

[KKK000](#) Advanced course in one or more subjects: *Kursen är inte knuten till någon specifik läsperiod. Uppgifterna om timmar förutsätter att kursen går över en läsperiod. Individuell studieplan ska upprättas och godkännas.*

Degree Projects - B

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

Links

Course Code	Credits	Course Name	Links
MAM720	30	Degree Project in Aerosol Technology	U
KBK820	30	Degree Project in Applied Biochemistry for Engineers	U
KMB820	30	Degree Project in Applied Microbiology for Engineers	U
KNL820	30	Degree Project in Applied Nutrition and Food Chemistry	U
FRT820	30	Degree Project in Automatic Control for Engineers	U
KFK920	30	Degree Project in Biophysical Chemistry	U
KBT820	30	Degree Project in Biotechnology for Engineers	U
KET920	30	Degree Project in Chemical Engineering	U
KLT920	30	Degree Project in Food Engineering	U
KLK820	30	Degree Project in Food Technology	U
KIM820	30	Degree Project in Immunotechnology	U
KOO920	30	Degree Project in Materials Chemistry for Engineers	U
KOK820	30	Degree Project in Organic Chemistry for Engineers	U
KLK920	30	Degree Project in Pharmaceutical Technology	U
KTE720	30	Degree project in Polymer Technology	U
MIO920	30	Degree Project in Production Management	U
KAK820	30	Degree Project in Technical Analytical Chemistry	U
TMA820	30	Degree Project in Technology Management	U
VVA820	30	Degree Project in Water and Environmental Engineering	U