

# Engineering Nanoscience

## Study Year 1 (Mandatory Courses)

Course Code	Credits	Cycle	S.Ex. stud.	Language	Course Name	Footnote	Links	14/15	14/15	14/15	14/15
								sp1	sp2	sp3	sp4
<a href="#">FFFA01</a>	7	G1	-	S	Nanoscience and Nanotechnology – an Introduction		<a href="#">KS KE U W T</a>	1	2		
<a href="#">FAFA05</a>	12	G1	-	S	Physics - Waves, Thermodynamics and Atomic Physics		<a href="#">KS KE U W T</a>	1	2		
<a href="#">EMAA01</a>	15	G1	-	S	Calculus in One Variable		<a href="#">KS KE U W T</a>	1	-	3	4
<a href="#">EMA420</a>	6	G1	-	S	Linear Algebra		<a href="#">KS KE U W T</a>		2		
<a href="#">KOKA01</a>	7.5	G1	-	S	General and Inorganic Chemistry		<a href="#">KS KE U W T</a>			3	
<a href="#">EDA011</a>	7.5	G1	-	S	Programming, First Course		<a href="#">KS KE U W T</a>			3	4
<a href="#">KOKA05</a>	5	G1	-	S	Organic Chemistry		<a href="#">KS KE U W T</a>				4

## Study Year 2 (Mandatory Courses)

Course Code	Credits	Cycle	S.Ex. stud.	Language	Course Name	Footnote	Links	14/15	14/15	14/15	14/15
								sp1	sp2	sp3	sp4
<a href="#">TEK295</a>	7.5	G1	-	S	Biology of the Cell		<a href="#">KS KE U W T</a>	1			
<a href="#">EMA430</a>	6	G1	-	S	Calculus in Several Variables		<a href="#">KS KE U W T</a>	1			
<a href="#">TEK015</a>	7.5	G2	-	S	Human Physiology		<a href="#">KS KE U W T</a>		2		
<a href="#">FAFA10</a>	9	G1	-	S	Physics - Quantum Phenomena and Nanotechnology		<a href="#">KS KE U W T</a>		2		
<a href="#">FFFF01</a>	7.5	G2	-	S	Electronic Materials		<a href="#">KS KE U W T</a>			3	
<a href="#">EMFF20</a>	7.5	G2	-	S	Mathematical Methods of Nanotechnology	X	<a href="#">KS KE U W T</a>			3	
<a href="#">ETE115</a>	7.5	G2	-	S	Electromagnetics and Electronics		<a href="#">KS KE U W T</a>				4

Course Code	Credits	Cycle	S.Ex. stud.	Language	Course Name	Footnote	Links								
							14/15 sp1	14/15 sp2	14/15 sp3	14/15 sp4					
<a href="#">KOO095</a>	7.5	G2	-	S	Functional Materials		<a href="#">KS</a>	<a href="#">KE</a>	<a href="#">U</a>	<a href="#">W</a>	<a href="#">T</a>				4

[EMFF20](#) Mathematical Methods of Nanotechnology: *Oral examination may take place outside the regular examination period.*

### Study Year 3 (Mandatory Courses)

Course Code	Credits	Cycle	S.Ex. stud.	Language	Course Name	Footnote	Links	14/15	14/15	14/15	14/15
								sp1	sp2	sp3	sp4
<a href="#">EMS086</a>	7.5	G2	-	S	Mathematical Statistics		<a href="#">KS KE U W T</a>	1			
<a href="#">FFF110</a>	7.5	G2	X	E	Processing and Device Technology		<a href="#">KS KE U W T</a>	1			
<a href="#">ERT010</a>	7.5	G2	-	S	Automatic Control, Basic Course		<a href="#">KS KE U W T</a>		2		
<a href="#">KOO105</a>	7.5	G2	X	E	Materials Analysis at the Nanoscale		<a href="#">KS KE U W T</a>		2		
<a href="#">EEM045</a>	7.5	G2	-	S	Sensors		<a href="#">KS KE U W T</a>			3	
<a href="#">FAFF05</a>	15	G2	-	S	Project Engineering at the Nanoscale		<a href="#">KS KE U W T</a>			3	4
<a href="#">FAFF15</a>	7.5	G2	-	S	Sustainable Development in Nano-perspectives		<a href="#">KS KE U W T</a>				4

## Specialisation hn - High-frequency and Nanoelectronics

Course Code	Credits	Cycle	Mand./ Elect.	Year	From year	S.Ex. stud.	Language	Course Name	Footnote	Links				
											sp1	sp2	sp3	sp4
<a href="#">FFF160</a>	7.5	A	O	4	4	X	E1	Nanoelectronics		<a href="#">KS</a> <a href="#">KE</a> <a href="#">U</a> <a href="#">W</a> <a href="#">T</a>				4
<a href="#">ETIF05</a>	7.5	G2	V	4	4	X	E	Basic Wireless Communication Technique		<a href="#">KS</a> <a href="#">KE</a> <a href="#">U</a> <a href="#">W</a> <a href="#">T</a>	1			
<a href="#">ETIN20</a>	7.5	A	V	4	4	X	E	Digital IC-design		<a href="#">KS</a> <a href="#">KE</a> <a href="#">U</a> <a href="#">W</a> <a href="#">T</a>	1			
<a href="#">ETIN70</a>	7.5	A	V	4	4	X	E1	Modern Electronics		<a href="#">KS</a> <a href="#">KE</a> <a href="#">U</a> <a href="#">W</a> <a href="#">T</a>	1			
<a href="#">FFF021</a>	7.5	A	V	4	4	X	E1	Semiconductor Physics		<a href="#">KS</a> <a href="#">KE</a> <a href="#">U</a> <a href="#">W</a> <a href="#">T</a>	1			
<a href="#">FFFN01</a>	7.5	A	V	4	4	-	E	Advanced Processing of Nanostructures		<a href="#">KS</a> <a href="#">KE</a> <a href="#">U</a> <a href="#">W</a> <a href="#">T</a>	1	2		
<a href="#">ETIN25</a>	7.5	A	V	4	4	X	E	Analogue IC-design		<a href="#">KS</a> <a href="#">KE</a> <a href="#">U</a> <a href="#">W</a> <a href="#">T</a>		2		



Course Code	Credits	Cycle	Mand./ Elect.	Year	From year	S.Ex. stud.	Language	Course Name	Footnote	Links				
											sp1	sp2	sp3	sp4
<a href="#">ETEN10</a>	7.5	A	V	4	4	X	E	Antenna Technology		<a href="#">KS</a> <a href="#">KE</a> <a href="#">U</a> <a href="#">W</a> <a href="#">T</a>		2		
<a href="#">ETIN50</a>	7.5	A	V	4	4	X	E	RF Amplifier Design		<a href="#">KS</a> <a href="#">KE</a> <a href="#">U</a> <a href="#">W</a> <a href="#">T</a>		2		
<a href="#">ETIN30</a>	7.5	A	V	4	4	X	E	Integrated Radio Electronics	X	<a href="#">KS</a> <a href="#">KE</a> <a href="#">U</a> <a href="#">W</a> <a href="#">T</a>			3	
<a href="#">FFFN25</a>	7.5	A	V	4	4	X	E	Optoelectronics and Optical Communication		<a href="#">KS</a> <a href="#">KE</a> <a href="#">U</a> <a href="#">W</a> <a href="#">T</a>			3	
<a href="#">FFFN01</a>	7.5	A	V	4	4	-	E	Advanced Processing of Nanostructures		<a href="#">KS</a> <a href="#">KE</a> <a href="#">U</a> <a href="#">W</a> <a href="#">T</a>			3	4
<a href="#">EMFF15</a>	7.5	G2	V	5	4	-	E1	Quantum Mechanics and Mathematical Methods		<a href="#">KS</a> <a href="#">KE</a> <a href="#">U</a> <a href="#">W</a> <a href="#">T</a>	1			
<a href="#">FFF042</a>	7.5	A	V	5	4	X	E	The Physics of Low-dimensional Structures and Quantum Devices		<a href="#">KS</a> <a href="#">KE</a> <a href="#">U</a> <a href="#">W</a> <a href="#">T</a>		2		
<a href="#">FFF115</a>	7.5	A	V	4	4	X	E1	High Speed Devices	X	<a href="#">KS</a> <a href="#">KE</a> <a href="#">U</a> <a href="#">W</a> <a href="#">T</a>	Course on hold			

[ETIN30](#) Integrated Radio Electronics: *The course is offered every other academic year and will be given in 2014/15, 2016/17.*

[FFF115](#) High Speed Devices: *The course is offered every other academic year and will next be offered in 2015/16.*

## **Specialisation m - Materials**

Course Code	Credits	Cycle	Mand./ Elect.	Year	From year	S.Ex. stud.	Language	Course Name	Footnote	Links				
											sp1	sp2	sp3	sp4
<a href="#">KOO045</a>	7.5	A	O	4	4	X	E1	Materials Chemistry		<a href="#">KS</a> <a href="#">KE</a> <a href="#">U</a> <a href="#">W</a> <a href="#">T</a>	1			
<a href="#">KTE080</a>	7.5	A	V	4	4	X	E1	Polymer Chemistry		<a href="#">KS</a> <a href="#">KE</a> <a href="#">U</a> <a href="#">W</a> <a href="#">T</a>	1			
<a href="#">FFFN01</a>	7.5	A	V	4	4	-	E	Advanced Processing of Nanostructures		<a href="#">KS</a> <a href="#">KE</a> <a href="#">U</a> <a href="#">W</a> <a href="#">T</a>	1	2		
<a href="#">MAM242</a>	7.5	G2	V	4	4	X	E1	Aerosol Technology		<a href="#">KS</a> <a href="#">KE</a> <a href="#">U</a> <a href="#">W</a> <a href="#">T</a>		2		
<a href="#">FFFN05</a>	7.5	A	V	4	4	X	E	Nanomaterials - Thermodynamics and Kinetics		<a href="#">KS</a> <a href="#">KE</a> <a href="#">U</a> <a href="#">W</a> <a href="#">T</a>		2		
<a href="#">FAFN15</a>	7.5	A	V	4	4	X	E	Crystal Growth and Semiconductor Epitaxy		<a href="#">KS</a> <a href="#">KE</a> <a href="#">U</a> <a href="#">W</a> <a href="#">T</a>			3	
<a href="#">KPO010</a>	7.5	A	V	4	4	X	E	Polymer Physics		<a href="#">KS</a> <a href="#">KE</a> <a href="#">U</a> <a href="#">W</a> <a href="#">T</a>			3	

Course Code	Credits	Cycle	Mand./ Elect.		Year	From year	S.Ex. stud.	Language	Course Name	Footnote	Links				
												sp1	sp2	sp3	sp4
<a href="#">FFFN01</a>	7.5	A	V		4	4	-	E	Advanced Processing of Nanostructures		<a href="#">KS</a> <a href="#">KE</a> <a href="#">U</a> <a href="#">W</a> <a href="#">T</a>			3	4
<a href="#">KOO065</a>	7.5	A	V		4	4	-	E1	Microscopic Characterization of Materials		<a href="#">KS</a> <a href="#">KE</a> <a href="#">U</a> <a href="#">W</a> <a href="#">T</a>				4
<a href="#">KFKF01</a>	7.5	G2	V		4	4	-	S	Molecular Driving Forces 2: Interactions and Dynamics		<a href="#">KS</a> <a href="#">KE</a> <a href="#">U</a> <a href="#">W</a> <a href="#">T</a>				4
<a href="#">KFKN05</a>	7.5	A	V		4	4	X	E1	Surface and Colloid Chemistry		<a href="#">KS</a> <a href="#">KE</a> <a href="#">U</a> <a href="#">W</a> <a href="#">T</a>				4
<a href="#">FAF080</a>	7.5	A	V		5	4	X	E	Atomic and Molecular Spectroscopy		<a href="#">KS</a> <a href="#">KE</a> <a href="#">U</a> <a href="#">W</a> <a href="#">T</a>	1			
<a href="#">FKM070</a>	7.5	A	V		5	4	X	E1	Advanced Materials Technology		<a href="#">KS</a> <a href="#">KE</a> <a href="#">U</a> <a href="#">W</a> <a href="#">T</a>		2		
<a href="#">KFKN01</a>	7.5	A	V		5	4	X	E	Magnetic Resonance - Spectroscopy and Imaging		<a href="#">KS</a> <a href="#">KE</a> <a href="#">U</a> <a href="#">W</a> <a href="#">T</a>			3	

Course Code	Credits	Cycle	Mand./ Elect.	Year	From year	S.Ex. stud.	Language	Course Name	Footnote	Links					
										sp1	sp2	sp3	sp4		
<a href="#">TEK177</a>	7.5	A	V	5	4	X	E1	The Physics of Surfaces	X	<a href="#">KS</a>	<a href="#">KE</a>	<a href="#">U</a>	<a href="#">W</a>	<a href="#">T</a>	4

[TEK177](#) The Physics of Surfaces: *The course is given by the Faculty of Science and does not follow the study period structure.*

### Specialisation nbm - Nanobiomedicine

Course Code	Credits	Cycle	Mand./ Elect.		Year	From year	S.Ex. stud.	Language	Course Name	Footnote	Links					
												sp1	sp2	sp3	sp4	
<a href="#">KBTN01</a>	7.5	A	V		4	4	X	E	Bio Analytical Chemistry		<a href="#">KS</a> <a href="#">KE</a> <a href="#">U</a> <a href="#">W</a> <a href="#">T</a>	1				
<a href="#">EXTF15</a>	15	G2	V		4	4	-	S	Human Physiology	X	<a href="#">KS</a> <a href="#">KE</a> <a href="#">U</a> <a href="#">W</a> <a href="#">T</a>	1				
<a href="#">EEMN20</a>	7.5	A	V		4	4	X	E	Introduction to Lab-on-a-chip Systems		<a href="#">KS</a> <a href="#">KE</a> <a href="#">U</a> <a href="#">W</a> <a href="#">T</a>	1				
<a href="#">KOKN01</a>	7.5	A	V		4	4	X	E1	Medicinal Chemistry		<a href="#">KS</a> <a href="#">KE</a> <a href="#">U</a> <a href="#">W</a> <a href="#">T</a>	1				
<a href="#">TEK287</a>	15	G2	V		4	4	-	S	Biochemistry	X	<a href="#">KS</a> <a href="#">KE</a> <a href="#">U</a> <a href="#">W</a> <a href="#">T</a>		2			
<a href="#">EITN65</a>	7.5	A	V		4	4	X	E1	Measurement and Modeling of the Central Nervous System Function		<a href="#">KS</a> <a href="#">KE</a> <a href="#">U</a> <a href="#">T</a>				3	
<a href="#">EXTN50</a>	15	A	V		4	4	-	E	Toxicology	X	<a href="#">KS</a> <a href="#">KE</a> <a href="#">U</a> <a href="#">W</a> <a href="#">T</a>				3	

Course Code	Credits	Cycle	Mand./ Elect.		Year	From year	S.Ex. stud.	Language	Course Name	Footnote	Links								
											sp1	sp2	sp3	sp4					
<a href="#">FFFN20</a>	15	A	V		4	4	X	E1	Experimental Biophysics		<a href="#">KS</a>	<a href="#">KE</a>	<a href="#">U</a>	<a href="#">W</a>	<a href="#">T</a>			3	4
<a href="#">TEK287</a>	15	G2	V		4	4	-	S	Biochemistry	X	<a href="#">KS</a>	<a href="#">KE</a>	<a href="#">U</a>	<a href="#">W</a>	<a href="#">T</a>				4
<a href="#">KIM015</a>	7.5	A	V		4	4	X	E1	Immunotechnology	X	<a href="#">KS</a>	<a href="#">KE</a>	<a href="#">U</a>	<a href="#">W</a>	<a href="#">T</a>				4
<a href="#">EEMN25</a>	7.5	A	V		4	4	X	E1	Lab-on-a-chip in Biomedical Applications		<a href="#">KS</a>	<a href="#">KE</a>	<a href="#">U</a>	<a href="#">W</a>	<a href="#">T</a>				4
<a href="#">KFKF01</a>	7.5	G2	V		4	4	-	S	Molecular Driving Forces 2: Interactions and Dynamics		<a href="#">KS</a>	<a href="#">KE</a>	<a href="#">U</a>	<a href="#">W</a>	<a href="#">T</a>				4
<a href="#">KLG027</a>	7.5	A	V		5	4	X	E	Drug Formulation		<a href="#">KS</a>	<a href="#">KE</a>	<a href="#">U</a>	<a href="#">W</a>	<a href="#">T</a>		1		
<a href="#">EXTN65</a>	15	A	V		5	4	-	E	Neurobiology	X	<a href="#">KS</a>	<a href="#">KE</a>	<a href="#">U</a>	<a href="#">W</a>	<a href="#">T</a>		1		

[EXTF15](#) Human Physiology: *The course is to be studied together with BIOC01, which is given by the Department of Biology. Does not follow the study period structure.*

[TEK287](#) Biochemistry: *The course is given in English during the autumn semester and in Swedish during the spring semester.*

[EXTN50](#) Toxicology: *The course is to be studied together with BIOR21, which is given by the Department of Biology. Does not follow the study period structure.*

[KIM015](#) Immunotechnology: *Only one of the courses [KIM015](#) and [EXTN40](#) may be included in a degree.*

[EXTN65](#) Neurobiology: *The course is to be studied together with BIOR58, which is given by the Department of Biology. Does not follow the study period structure.*

## **Specialisation nf - Nanophysics**



Course Code	Credits	Cycle	Mand./ Elect.	Year	From year	S.Ex. stud.	Language	Course Name	Footnote	Links				
											sp1	sp2	sp3	sp4
<a href="#">EMEF15</a>	7.5	G2	O	4	4	-	E1	Quantum Mechanics and Mathematical Methods		<a href="#">KS</a> <a href="#">KE</a> <a href="#">U</a> <a href="#">W</a> <a href="#">T</a>	1			
<a href="#">FFF042</a>	7.5	A	O	4	4	X	E	The Physics of Low-dimensional Structures and Quantum Devices		<a href="#">KS</a> <a href="#">KE</a> <a href="#">U</a> <a href="#">W</a> <a href="#">T</a>		2		
<a href="#">EMEN01</a>	7.5	A	V	4	4	X	E1	Quantum Mechanics, Advanced Course 1		<a href="#">KS</a> <a href="#">KE</a> <a href="#">U</a> <a href="#">W</a> <a href="#">T</a>	1			
<a href="#">FFF021</a>	7.5	A	V	4	4	X	E1	Semiconductor Physics		<a href="#">KS</a> <a href="#">KE</a> <a href="#">U</a> <a href="#">W</a> <a href="#">T</a>	1			
<a href="#">FFFN01</a>	7.5	A	V	4	4	-	E	Advanced Processing of Nanostructures		<a href="#">KS</a> <a href="#">KE</a> <a href="#">U</a> <a href="#">W</a> <a href="#">T</a>	1	2		
<a href="#">EAFN15</a>	7.5	A	V	4	4	X	E	Crystal Growth and Semiconductor Epitaxy		<a href="#">KS</a> <a href="#">KE</a> <a href="#">U</a> <a href="#">W</a> <a href="#">T</a>			3	
<a href="#">FHL055</a>	7.5	G1	V	4	4	-	S	Engineering Mechanics		<a href="#">KS</a> <a href="#">KE</a> <a href="#">U</a> <a href="#">W</a> <a href="#">T</a>			3	

Course Code	Credits	Cycle	Mand./ Elect.	Year	From year	S.Ex. stud.	Language	Course Name	Footnote	Links				
											sp1	sp2	sp3	sp4
<a href="#">FFFN25</a>	7.5	A	V	4	4	X	E	Optoelectronics and Optical Communication		<a href="#">KS</a> <a href="#">KE</a> <a href="#">U</a> <a href="#">W</a> <a href="#">T</a>			3	
<a href="#">EMFN01</a>	7.5	A	V	4	4	X	E1	Quantum Mechanics, Advanced Course 1		<a href="#">KS</a> <a href="#">KE</a> <a href="#">U</a> <a href="#">W</a> <a href="#">T</a>			3	
<a href="#">FFFN01</a>	7.5	A	V	4	4	-	E	Advanced Processing of Nanostructures		<a href="#">KS</a> <a href="#">KE</a> <a href="#">U</a> <a href="#">W</a> <a href="#">T</a>			3	4
<a href="#">FFFN20</a>	15	A	V	4	4	X	E1	Experimental Biophysics		<a href="#">KS</a> <a href="#">KE</a> <a href="#">U</a> <a href="#">W</a> <a href="#">T</a>			3	4
<a href="#">EEMN01</a>	7.5	A	V	4	4	X	E1	Micro Sensors	X	<a href="#">KS</a> <a href="#">KE</a> <a href="#">U</a> <a href="#">W</a> <a href="#">T</a>				4
<a href="#">FFF051</a>	7.5	A	V	4	4	X	E	Solid State Theory		<a href="#">KS</a> <a href="#">KE</a> <a href="#">U</a> <a href="#">W</a> <a href="#">T</a>				4
<a href="#">TEK177</a>	7.5	A	V	4	4	X	E1	The Physics of Surfaces	X	<a href="#">KS</a> <a href="#">KE</a> <a href="#">U</a> <a href="#">W</a> <a href="#">T</a>				4
<a href="#">FAF085</a>	7.5	A	V	4	4	X	E	Scanning Probe Microscopy	X	<a href="#">KS</a> <a href="#">KE</a> <a href="#">U</a> <a href="#">W</a> <a href="#">T</a>	Course on hold			

[EEMN01](#) Micro Sensors: *Re-examination set by agreement*

[TEK177](#) The Physics of Surfaces: *The course is given by the Faculty of Science and does not follow the study period structure.*

[FAF085](#) Scanning Probe Microscopy: *The course is offered every other academic year and will next be offered in 2015/16.*

## **Elective Courses - N**

Course Code	Credits	Cycle	Year	From year	S.Ex. stud.	Language	Course Name	Footnote	Links				
										sp1	sp2	sp3	sp4
<a href="#">EDAA25</a>	3	G1	2	2	X	S	C Programming		<a href="#">KS KE U W T</a>	1			
<a href="#">ETI125</a>	4.5	G1	2	2	-	S	Consumer Electronics		<a href="#">KS KE U W T</a>	1	2		
<a href="#">GEMA20</a>	7.5	G1	2	1	-	E	English for Engineers	X	<a href="#">KS KE U W T</a>	1	2		
<a href="#">GEMA25</a>	7.5	G1	2	1	-	S	German for Engineers	X	<a href="#">KS KE U W T</a>	1	2		
<a href="#">EITA05</a>	4.5	G1	2	1	-	S	History of Technology		<a href="#">KS KE U W T</a>	1	2		
<a href="#">EDAA01</a>	7.5	G1	2	2	-	S	Programming - Second Course		<a href="#">KS KE U W T</a>	1	2		
<a href="#">GEMA70</a>	15	G1	2	1	-	S	Japanese for Engineers	X	<a href="#">KS KE U W T</a>	1	2	3	

Course Code	Credits	Cycle	Year	From year	S.Ex. stud.	Language	Course Name	Footnote	Links						
									sp1	sp2	sp3	sp4			
<a href="#">GEMA65</a>	7.5	G1	2	1	-	S	Chinese for Engineers	X	<a href="#">KS</a>	<a href="#">KE</a>	<a href="#">U</a>	<a href="#">T</a>	3	4	
<a href="#">GEMA20</a>	7.5	G1	2	1	-	E	English for Engineers	X	<a href="#">KS</a>	<a href="#">KE</a>	<a href="#">U</a>	<a href="#">W</a>	<a href="#">T</a>	3	4
<a href="#">GEMA01</a>	7.5	G1	2	1	-	S	French for Engineers: Language, Culture and Society, First Course	X	<a href="#">KS</a>	<a href="#">KE</a>	<a href="#">U</a>	<a href="#">W</a>	<a href="#">T</a>	3	4
<a href="#">MIO012</a>	6	G1	3	3	-	S	Managerial Economics, Basic Course		<a href="#">KS</a>	<a href="#">KE</a>	<a href="#">U</a>	<a href="#">W</a>	<a href="#">T</a>	1	
<a href="#">FMAF01</a>	7	G2	3	3	-	S	Mathematics - Analytic Functions		<a href="#">KS</a>	<a href="#">KE</a>	<a href="#">U</a>	<a href="#">W</a>	<a href="#">T</a>	1	
<a href="#">GEMA60</a>	7.5	G1	3	1	-	S	Law for Engineers, Introductory Course in Business Law	X	<a href="#">KS</a>	<a href="#">KE</a>	<a href="#">U</a>	<a href="#">W</a>	<a href="#">T</a>	1	2
<a href="#">MIO012</a>	6	G1	3	3	-	S	Managerial Economics, Basic Course		<a href="#">KS</a>	<a href="#">KE</a>	<a href="#">U</a>	<a href="#">W</a>	<a href="#">T</a>	2	

Course Code	Credits	Cycle	Year	From year	S.Ex. stud.	Language	Course Name	Footnote	Links	Links			
										sp1	sp2	sp3	sp4
<a href="#">EMAF05</a>	7	G2	3	3	-	S	Mathematics - Systems and Transforms		<a href="#">KS</a> <a href="#">KE</a> <a href="#">U</a> <a href="#">W</a> <a href="#">T</a>		2		
<a href="#">ESSF01</a>	8	G2	3	3	-	S	Analogue Circuits		<a href="#">KS</a> <a href="#">KE</a> <a href="#">U</a> <a href="#">W</a> <a href="#">T</a>		2	3	4
<a href="#">GEMA60</a>	7.5	G1	3	1	-	S	Law for Engineers, Introductory Course in Business Law	X	<a href="#">KS</a> <a href="#">KE</a> <a href="#">U</a> <a href="#">W</a> <a href="#">T</a>			3	4
<a href="#">FHLE05</a>	7.5	G2	4	4	X	E	Biomechanics		<a href="#">KS</a> <a href="#">KE</a> <a href="#">U</a> <a href="#">W</a> <a href="#">T</a>	1			
<a href="#">ETIN70</a>	7.5	A	4	4	X	E1	Modern Electronics		<a href="#">KS</a> <a href="#">KE</a> <a href="#">U</a> <a href="#">W</a> <a href="#">T</a>	1			
<a href="#">FAFF01</a>	7.5	G2	4	4	X	E	Optics and Optical Design		<a href="#">KS</a> <a href="#">KE</a> <a href="#">U</a> <a href="#">W</a> <a href="#">T</a>	1			
<a href="#">TEK267</a>	7.5	A	4	4	X	E	Theoretical Biophysics	X	<a href="#">KS</a> <a href="#">KE</a> <a href="#">U</a> <a href="#">W</a> <a href="#">T</a>	1			

Course Code	Credits	Cycle	Year	From year	S.Ex. stud.	Language	Course Name	Footnote	Links					
										sp1	sp2	sp3	sp4	
<a href="#">EXTG05</a>	5	G2	4	4	-	E1	Biomaterials - Interaction between Living Tissue and Synthetic Materials		<a href="#">KS</a> <a href="#">KE</a> <a href="#">U</a> <a href="#">T</a>			2		
<a href="#">FHLN15</a>	7.5	A	4	4	X	E	Biomechanics, Advanced Course		<a href="#">KS</a> <a href="#">KE</a> <a href="#">U</a> <a href="#">T</a>			2		
<a href="#">EEMF05</a>	7.5	G2	4	4	-	S	Biomedical Measurements	X	<a href="#">KS</a> <a href="#">KE</a> <a href="#">U</a> <a href="#">W</a> <a href="#">T</a>			2		
<a href="#">EEMN10</a>	7.5	A	4	4	X	S	Computerised Measurement Systems		<a href="#">KS</a> <a href="#">KE</a> <a href="#">U</a> <a href="#">W</a> <a href="#">T</a>			2		
<a href="#">FAFN01</a>	7.5	A	4	4	X	E	Lasers		<a href="#">KS</a> <a href="#">KE</a> <a href="#">U</a> <a href="#">W</a> <a href="#">T</a>			2		
<a href="#">EXTN45</a>	15	A	4	4	-	E1	Pharmacology	X	<a href="#">KS</a> <a href="#">KE</a> <a href="#">U</a> <a href="#">W</a> <a href="#">T</a>			2		
<a href="#">MAMN20</a>	7.5	A	4	4	X	E1	Aerosol Technology Project		<a href="#">KS</a> <a href="#">KE</a> <a href="#">U</a> <a href="#">W</a> <a href="#">T</a>				3	

Course Code	Credits	Cycle	Language				Course Name	Footnote	Links						
			Year	From year	S.Ex. stud.	sp1			sp2	sp3	sp4				
<a href="#">ETIA10</a>	7.5	G1	4	4	X	E	Patent and Intellectual Property Rights		<a href="#">KS</a>	<a href="#">KE</a>	<a href="#">U</a>	<a href="#">W</a>	<a href="#">T</a>	3	
<a href="#">GEMA40</a>	7.5	G1	4	1	-	S	Entrepreneurship and Business Development	X	<a href="#">KS</a>	<a href="#">KE</a>	<a href="#">U</a>	<a href="#">W</a>	<a href="#">T</a>	3	4
<a href="#">KASN01</a>	15	A	4	4	X	E1	Project in Chemistry		<a href="#">KS</a>	<a href="#">KE</a>	<a href="#">U</a>	<a href="#">T</a>	3	4	
<a href="#">MAMN20</a>	7.5	A	4	4	X	E1	Aerosol Technology Project		<a href="#">KS</a>	<a href="#">KE</a>	<a href="#">U</a>	<a href="#">W</a>	<a href="#">T</a>		4
<a href="#">FMFN05</a>	7.5	A	4	4	X	E1	Chaos		<a href="#">KS</a>	<a href="#">KE</a>	<a href="#">U</a>	<a href="#">W</a>	<a href="#">T</a>		4
<a href="#">FMS072</a>	7.5	G2	4	4	X	E1	Design of Experiments		<a href="#">KS</a>	<a href="#">KE</a>	<a href="#">U</a>	<a href="#">W</a>	<a href="#">T</a>		4
<a href="#">FHL064</a>	7.5	G2	4	4	X	S	Finite Element Method		<a href="#">KS</a>	<a href="#">KE</a>	<a href="#">U</a>	<a href="#">W</a>	<a href="#">T</a>		4



Course Code	Credits	Cycle	Year	From year	S.Ex. stud.	Language	Course Name	Footnote	Links					
									sp1	sp2	sp3	sp4		
<a href="#">EAF150</a>	7.5	A	4	4	X	E	Medical Optics	X	<a href="#">KS</a>	<a href="#">KE</a>	<a href="#">U</a>	<a href="#">W</a>	<a href="#">T</a>	4
<a href="#">EMEN25</a>	7.5	A	4	4	X	E1	Nano Mechanics and Multiscale Modelling		<a href="#">KS</a>	<a href="#">KE</a>	<a href="#">U</a>	<a href="#">W</a>	<a href="#">T</a>	4
<a href="#">EXTN85</a>	7.5	A	4	4	X	E	Scattering Methods	X	<a href="#">KS</a>	<a href="#">KE</a>	<a href="#">U</a>	<a href="#">W</a>	<a href="#">T</a>	4
<a href="#">EITN35</a>	7.5	A	5	4	X	E1	Advanced Course in Electrical and Information Technology	X	<a href="#">KS</a>	<a href="#">KE</a>	<a href="#">U</a>	<a href="#">W</a>	<a href="#">T</a>	1
<a href="#">EXTF90</a>	7.5	G2	5	5	X	E1	Photon and Neutron Production for Science	X	<a href="#">KS</a>	<a href="#">KE</a>	<a href="#">U</a>	<a href="#">W</a>	<a href="#">T</a>	1
<a href="#">EITN35</a>	7.5	A	5	4	X	E1	Advanced Course in Electrical and Information Technology	X	<a href="#">KS</a>	<a href="#">KE</a>	<a href="#">U</a>	<a href="#">W</a>	<a href="#">T</a>	2
<a href="#">EXTN90</a>	7.5	A	5	5	X	E	Experimental Methods and Instrumentation for Synchrotron Radiation Research	X	<a href="#">KS</a>	<a href="#">KE</a>	<a href="#">U</a>	<a href="#">W</a>	<a href="#">T</a>	2

Course Code	Credits	Cycle		Language			Course Name	Footnote	Links				
		Year	From year	S.Ex. stud.	sp1	sp2			sp3	sp4			
<a href="#">EXTN30</a>	15	A	5	4	-	E	Sensory Biology	X	<a href="#">KS</a> <a href="#">KE</a> <a href="#">U</a> <a href="#">W</a> <a href="#">T</a>		2		
<a href="#">EITN35</a>	7.5	A	5	4	X	E1	Advanced Course in Electrical and Information Technology	X	<a href="#">KS</a> <a href="#">KE</a> <a href="#">U</a> <a href="#">W</a> <a href="#">T</a>			3	
<a href="#">EITN35</a>								X					4
<a href="#">FKMN05</a>	7.5	A	5	4	X	E1	Powder Technology	X	<a href="#">KS</a> <a href="#">KE</a> <a href="#">U</a> <a href="#">W</a> <a href="#">T</a>				4
<a href="#">GEMA55</a>	6	G1	2	1	-	S	Medicine for Engineers	X	<a href="#">KS</a> <a href="#">KE</a> <a href="#">U</a> <a href="#">W</a> <a href="#">T</a>	Course on hold			
<a href="#">KLG10</a>	7.5	A	4	4	-	S	Chemometrics - Design of Experiments and Multivariate Analysis	X	<a href="#">KS</a> <a href="#">KE</a> <a href="#">U</a> <a href="#">W</a> <a href="#">T</a>	Course on hold			
<a href="#">GEMA45</a>	3	G1	4	1	-	S	Teaching and Learning	X	<a href="#">KS</a> <a href="#">KE</a> <a href="#">U</a> <a href="#">W</a> <a href="#">T</a>	Course on hold			
<a href="#">FKMN10</a>	7.5	A	5	4	X	E1	High Temperature Materials	X	<a href="#">KS</a> <a href="#">KE</a> <a href="#">U</a> <a href="#">W</a> <a href="#">T</a>	Course on hold			

[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.*

[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.*

[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.*

[TEK267](#) Theoretical Biophysics: *The course is given by the Faculty of Science and does not follow the study period structure.*

[EEMF05](#) Biomedical Measurements: *Reexam date to be set by agreement.*

[EXTN45](#) Pharmacology: *The course is to be studied together with BIOR14, which is given by the Department of Biology. Does not follow the study period structure.*

[GEMA40](#) Entrepreneurship and Business Development: *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.*

[FAF150](#) Medical Optics: *Examination for higher grade after agreement with the course coordinator.*

[EXTN85](#) Scattering Methods: *The course is given by the Faculty of Science and does not follow the study period structure.*

[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.*

[EXTF90](#) Photon and Neutron Production for Science: *The course is given by the Faculty of Science and does not follow the study period structure.*

[EXTN90](#) Experimental Methods and Instrumentation for Synchrotron Radiation Research: *The course is given by the Faculty of Science and does not follow the study period structure.*

[EXTN30](#) Sensory Biology: *The course is to be studied together with BIOR20, which is given by the Department of Biology. Does not follow the study period structure.*

[FKMN05](#) Powder Technology: *The course is offered every other academic year and will be given in 2014/15, 2016/17.*

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

[KLG10](#) Chemometrics - Design of Experiments and Multivariate Analysis: *The course is offered every other academic year and will next be offered in 2015/16.*

[GEMA45](#) Teaching and Learning: *The course is offered every other academic year and will next be offered in 2015/16. 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.*

[FKMN10](#) High Temperature Materials: *The course is offered every other academic year and will next be offered in 2015/16.*

## Degree Projects - N

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

### Links

Course Code	Credits	Course Name	Links
MAM720	30	Degree Project in Aerosol Technology	<a href="#">KS</a> <a href="#">KE</a> <a href="#">U</a> <a href="#">W</a>
KBK820	30	Degree Project in Applied Biochemistry for Engineers	<a href="#">KS</a> <a href="#">KE</a> <a href="#">U</a> <a href="#">W</a>
KMB820	30	Degree Project in Applied Microbiology for Engineers	<a href="#">KS</a> <a href="#">KE</a> <a href="#">U</a>
KNL820	30	Degree Project in Applied Nutrition and Food Chemistry	<a href="#">KS</a> <a href="#">KE</a> <a href="#">U</a> <a href="#">W</a>
BMEM01	30	Degree Project in Biomedical Engineering	<a href="#">KS</a> <a href="#">KE</a> <a href="#">U</a>
KFK920	30	Degree Project in Biophysical Chemistry	<a href="#">KS</a> <a href="#">KE</a> <a href="#">U</a> <a href="#">W</a>
KBT820	30	Degree Project in Biotechnology for Engineers	<a href="#">KS</a> <a href="#">KE</a> <a href="#">U</a> <a href="#">W</a>
KET920	30	Degree Project in Chemical Engineering	<a href="#">KS</a> <a href="#">KE</a> <a href="#">U</a> <a href="#">W</a>
EITM01	30	Degree Project in Electrical and Information Technology	<a href="#">KS</a> <a href="#">KE</a> <a href="#">U</a> <a href="#">W</a>
EEM820	30	Degree Project in Electrical Measurements	<a href="#">KS</a> <a href="#">KE</a> <a href="#">U</a> <a href="#">W</a>
MVK920	30	Degree Project in Energy Sciences	<a href="#">KS</a> <a href="#">KE</a> <a href="#">U</a> <a href="#">W</a>
FKM820	30	Degree Project in Engineering Materials	<a href="#">KS</a> <a href="#">KE</a> <a href="#">U</a> <a href="#">W</a>
KLT920	30	Degree Project in Food Engineering	<a href="#">KS</a> <a href="#">KE</a> <a href="#">U</a> <a href="#">W</a>
KLK820	30	Degree Project in Food Technology	<a href="#">KS</a> <a href="#">KE</a> <a href="#">U</a> <a href="#">W</a>
KIM820	30	Degree Project in Immunotechnology	<a href="#">KS</a> <a href="#">KE</a> <a href="#">U</a> <a href="#">W</a>
KOO920	30	Degree Project in Materials Chemistry for Engineers	<a href="#">KS</a> <a href="#">KE</a> <a href="#">U</a>
KOK820	30	Degree Project in Organic Chemistry for Engineers	<a href="#">KS</a> <a href="#">KE</a> <a href="#">U</a> <a href="#">W</a>
KLK920	30	Degree Project in Pharmaceutical Technology	<a href="#">KS</a> <a href="#">KE</a> <a href="#">U</a> <a href="#">W</a>
PHYM01	30	Degree Project in Physics	<a href="#">KS</a> <a href="#">KE</a> <a href="#">U</a> <a href="#">W</a>
KTE720	30	Degree project in Polymer Technology	<a href="#">KS</a> <a href="#">KE</a> <a href="#">U</a>
FHL820	30	Degree Project in Solid Mechanics for Engineers	<a href="#">KS</a> <a href="#">KE</a> <a href="#">U</a> <a href="#">W</a>
KAK820	30	Degree Project in Technical Analytical Chemistry	<a href="#">KS</a> <a href="#">KE</a> <a href="#">U</a>