

Study Handbook**Syllabus**

Curriculum
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TMS Courses**Abbreviations**[Previous academic year \(04/05\)](#)[Next academic year \(06/07\)](#)

Biotechnology

Biotechnology BIO1

Code Name	Credits	Level	Lec	Tut	Le	Lab	Periods				Other
							1	2	3	4	
Compulsory Courses											
3A1501 <u>Introduction to Biotechnology</u>	4	A	36	8	-	4	1	2			
3A1512 <u>Cellbiology</u>	4	B	36	-	-	-			3		
3B1700 <u>Introductory Chemistry</u>	4	A	24	18	-	22	1				
3B1711 <u>Chemical Equilibria</u>	4	B	12	22	-	25			3	4	
3B1750 <u>Organic Chemistry 1</u>	5	B	20	14	-	42		2			
5A1225 <u>Electromagnetism and Waves</u> <i>Under bearbetning</i>	5	B	36	20	-	16				4	
5B1115 <u>Mathematics I</u>	6	A	60	30	-	-	1				
5B1116 <u>Mathematics II</u>	6	A	60	30	-	-		2	3		
5C1102 <u>Mechanics, Smaller Course</u>	4	A	30	15	-	-				4	
Elective Courses											
3B1705 <u>Introductory Course in Chemistry</u>	1	A	-	-	-	-					
5B1120 <u>Introductory Course in Mathematics I</u>	1	A	-	-	-	-					

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Biotechnology

Biotechnology BIO2

Code Name	Credits	Level	Lec	Tut	Le	Lab	Periods				Other
							1	2	3	4	
Compulsory Courses											
2D1212 Numerical Methods and Basic Programming	6	A	34	30	-	28	1	2			
3A1109 Biochemistry	8	C	34	-	-	-				4	
3A1307 Microbiology	6	C	30	24	-	48		2	3		
3B1725 Chemical Thermodynamics	4	B	28	30	-	-	1				
3B1730 Molecular Structure	5	B	36	22	-	20		2	3		
3B1740 Chemical Dynamics	4	B	20	20	-	15			3		
3B1760 Organic Chemistry 2	5	B	14	10	-	42				4	6 h Computer6 h Computer
5B1210 Mathematics IV	6	A	60	30	-	-	1				

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Biotechnology

Biotechnology BIO3

Code Name	Credits	Level	Lec	Tut	Le	Lab	Periods				Other
							1	2	3	4	
Compulsory Courses											
2D1210 Numerical Methods, Basic Course I	4	A	20	18	-	18	1	2			
3A1109 Biochemistry	8	C	-	-	-	96	1	2			
3A1503 Molecular Biotechnology	5	C	36	-	-	15		2	3		
3B1770 Chemical Measuring Techniques	5	B	22	4	-	12	1				
4D1023 Industrial Economy and Management, Basic Course	4	A	26	16	-	-		2			4 h Seminars4 h Seminars

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Biomolecular chemistry BIO3

Code Name	Credits	Level	Lec	Tut	Le	Lab	Periods				Other
							1	2	3	4	
Compulsory Courses											
2D1396 Bioinformatics	4	D	32	-	-	16			3		
3B1521 Organic Chemistry, Theory, Advanced Course 1	5	C	12	6	-	-				4	
Recommended Courses											
3A1314 Technical Microbiology, Theory	5	D	44	-	-	-			3		
3A1504 Structure Biology	4	C	32	-	-	20				4	

Biomolecular chemistry BIO4

Code Name	Credits	Level	Lec	Tut	Le	Lab	Periods				Other
							1	2	3	4	
Compulsory Courses											
3A1110 <u>Molecular Enzymology</u>	5	D	24	6	-	10		2			4 h Seminars4 h Seminars
3A1111 <u>Enzymatic Synthesis</u>	5	D	20	12	-	20				4	6 h Seminars6 h Seminars
3A1506 <u>Drug Development</u>	4	C	36	-	-	-			3		8 h Study visit8 h Study visit
Recommended Courses											
1N1109 <u>Ethics of Biotechnology</u>	5	C	20	-	-	-	1	2			Seminars 10h, individual essay-tutorials
3A1112 <u>Biochemical Analyses and Separation Techniques</u>	5	D	32	-	-	30				4	
3A1507 <u>Functional Genomics</u>	4	D	36	-	-	15	1				
3B1531 <u>Organic Chemistry, Advanced Course</u>	4	D	-	-	-	54	1				
3B1544 <u>Applied Organic Molecular Spectroscopy</u>	4	D	-	-	-	-	1				

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Environmental biotechnology BIO3

3C1345 or 3C1347

Code Name	Credits	Level	Lec	Tut	Le	Lab	Periods				Other	
							1	2	3	4		
Compulsory Courses												
2D1396 <u>Bioinformatics</u>	4	D	32	-	-	16			3			
3A1313 <u>Technical Microbiology</u>	8	D	44	12	-	-			3	4	12 h Seminars	12 h Seminars
3C1345 <u>Environmental Technology and Environmental Impact Studies</u>	4	D	32	4	-	-			3		8 h Projektuppgift	8 h Projektuppgift
Recommended Courses												
3C1347 <u>Env. Technology and Env. Impact Studies, Larger Course</u>	8	D	32	16	-	24			3	4		
3C1355 <u>Ecology, Advanced Course</u>	4	C	21	4	-	-			3	4		

Environmental biotechnology BIO4

3C1345 or 3C1347

Code Name	Credits	Level	Lec	Tut	Le	Lab	Periods				Other
							1	2	3	4	
Compulsory Courses											
3A1104 <u>Environmental Toxicology</u>	6	C	36	14	-	-	1	2			
Recommended Courses											
3A1205 <u>Biochemical Technology</u>	7	D	40	-	-	60			3	4	
3A1312 <u>Microbiology of Wastewater Treatment</u>	5	D	30	-	-	20				4	
3B1443 <u>Atmosphere, Aquatic and Terrestrial Chemistry</u>	5	C	12	10	-	24				4	
Elective Courses											
1N1109 <u>Ethics of Biotechnology</u>	5	C	20	-	-	-	1	2			Seminars 10h, individual essay-tutorials

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Molecular biotechnology BIO3

Code Name	Credits	Level	Lec	Tut	Le	Lab	Periods				Other
							1	2	3	4	
Compulsory Courses											
2D1396 Bioinformatics	4	D	32	-	-	16			3		
3A1112 Biochemical Analyses and Separation Techniques	5	D	32	-	-	30				4	
Recommended Courses											
3A1314 Technical Microbiology, Theory	5	D	44	-	-	-			3		
3A1504 Structure Biology	4	C	32	-	-	20				4	

Molecular biotechnology BIO4

Code Name	Credits	Level	Lec	Tut	Le	Lab	Periods				Other
							1	2	3	4	
Compulsory Courses											
3A1506 Drug Development	4	C	36	-	-	-			3		8 h Study visit8 h Study visit
3A1507 Functional Genomics	4	D	36	-	-	15	1				
Recommended Courses											
1N1109 Ethics of Biotechnology	5	C	20	-	-	-	1	2			Seminars 10h, individual essay-tutorials
3A1104 Environmental Toxicology	6	C	36	14	-	-	1	2			
3A1110 Molecular Enzymology	5	D	24	6	-	10		2			4 h Seminars4 h Seminars
3A1205 Biochemical Technology	7	D	40	-	-	60			3	4	
Elective Courses											
2D1220 Applied Numerical Methods I	4	C	36	-	-	18			3	4	

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Process biotechnology BIO3

Code Name	Credits	Level	Lec	Tut	Le	Lab	Periods				Other
							1	2	3	4	
Compulsory Courses											
2D1396 <u>Bioinformatics</u>	4	D	32	-	-	16			3		
3A1313 <u>Technical Microbiology</u>	8	D	44	12	-	-			3	4	12 h Seminars12 h Seminars
Recommended Courses											
3A1112 <u>Biochemical Analyses and Separation Techniques</u>	5	D	32	-	-	30				4	

Process biotechnology BIO4

Code Name	Credits	Level	Lec	Tut	Le	Lab	Periods				Other
							1	2	3	4	
Compulsory Courses											
3A1205 Biochemical Technology	7	D	40	-	-	60			3	4	
Recommended Courses											
1N1109 Ethics of Biotechnology	5	C	20	-	-	-	1	2			Seminars 10h, individual essay-tutorials
3A1111 Enzymatic Synthesis	5	D	20	12	-	20				4	6 h Seminars6 h Seminars
3A1507 Functional Genomics	4	D	36	-	-	15	1				
3A1513 Enzyme Technology	5	D	34	-	-	-			3		6 h Seminars6 h Seminars

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Wood biotechnology BIO4

Code Name	Credits	Level	Lec	Tut	Le	Lab	Periods				Other
							1	2	3	4	
Compulsory Courses											
3A1110 Molecular Enzymology	5	D	24	6	-	10		2			4 h Seminars4 h Seminars
Recommended Courses											
3A1205 Biochemical Technology	7	D	40	-	-	60			3	4	
3A1513 Enzyme Technology	5	D	34	-	-	-			3		6 h Seminars6 h Seminars

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Master of Science in Engineering and of Education, Degree Programme in Mathematics and Physics CLMFY1

Code Name	Credits	Level	Lec	Tut	Le	Lab	Periods				Other
							1	2	3	4	
Compulsory Courses											
2A1500 Engineering Science	5	B	24	12	8	-	1				
2D1310 Programming Technique	4	A	20	12	-	24			3	4	
5B1123 Mathematics 2	8	A	74	-	36	-			3	4	
5B1143 Mathematics I	10	A	60	30	60	-	1	2	3		
7F1201 Science, Technology and Learning I <i>The course is given by Tom Tits, Södertälje.</i>	5	A	8	-	12	25				4	
KTAU1N Basic Course in Teacher Commission and Prof. Teacherhood	5	A	-	-	-	-		2			
KTD110 Educational Perspective on Mathematics	10	A	-	-	-	-	1	2	3		
Elective Courses											
5B1120 Introductory Course in Mathematics I	1	A	-	-	-	-					

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Master of Science in Engineering and of Education, Degree Programme in Mathematics and Physics

Master of Science in Engineering and of Education, Degree Programme in Mathematics and Physics CLMFY2

Code Name	Credits	Level	Lec	Tut	Le	Lab	Periods				Other
							1	2	3	4	
Compulsory Courses											
2D1210 Numerical Methods, Basic Course I	4	A	20	18	-	18			3	4	
2D1601 Communication and Media	5	C	36	-	-	-			3	4	
5A1203 Physics, Basic Course I <i>Under bearbetning</i>	6	B	44	30	-	10	1	2			Project work
5A1204 Physics, Basic Course II <i>Under bearbetning</i>	6	B	26	32	-	40			3	4	
5B1212 Differential Equations and Transforms III	4	C	40	20	-	-		2			
5C1103 Mechanics, Basic Course	6	A	48	27	-	-			3	4	
UCK01N Curriculum Studies and Communication	10	B	-	-	-	-	1	2			

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Master of Science in Engineering and of Education, Degree Programme in Mathematics and Physics CLMFY3

Code Name	Credits	Level	Lec	Tut	Le	Lab	Periods				Other
							1	2	3	4	
Compulsory Courses											
2A1860 <u>Electromagnetic Theory, Introductory Course</u>	4	C	36	36	-	-	1	2			
2D1601 <u>Communication and Media</u>	5	C	36	-	-	-			3	4	
2D1605 <u>Science, Technology and Learning II</u>	3	AB	4	-	-	-			3		
5A1246 <u>Modern Physics</u> <i>Under bearbetning</i>	6	B	30	14	-	20		2	3	4	
5B1118 <u>Discrete Mathematics</u>	5	A	50	25	-	-			3	4	
5B1505 <u>Probability Theory and Statistics, Basic Course</u>	4	C	24	36	-	-				4	
5C1140 <u>Mechanics II</u>	4	B	30	15	-	-	1				
SCK01N <u>Social and Cultural Studies in Education</u>	10	B	-	-	-	-	1	2			
Elective Courses											
2A1865 <u>Electromagnetic Theory CL, Optional Course</u>	2	C	16	16	-	-	1	2			

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Master of Science in Engineering and of Education, Degree Programme in Mathematics and Physics CLMFY4

Code Name	Credits	Level	Lec	Tut	Le	Lab	Periods				Other
							1	2	3	4	
Compulsory Courses											
4A1611 Renewable Energy Technology	4	D	-	-	52	-	1				Study visit 8h
5A1305 Mathematical Methods in Physics <i>Under bearbetning</i>	5	C	-	-	-	-	1	2			
5A1320 Introduction to Quantum Mechanics <i>The teaching is given together with the quantum mechanics part of 5A1324.</i>	4	C	30	24	-	-	1	2			
5A1440 Astrophysics <i>Given by the Department of Astronomy at Stockholm University.</i> <i>Under bearbetning</i>	4	D	18	-	-	-			3		
5B1493 Mathematics, Advanced Course	5	C	54	-	-	-		2	3		
KTD110 Educational Perspective on Mathematics	10	A	-	-	-	-	1				
KTD120 No translation <i>Under bearbetning</i>	10		-	-	-	-				4	
Conditionally Elective Courses											
1H1601 Mathematics and Reality	5	C	20	10	-	-				4	
1H1602 Good and Bad Science	5	C	32	-	-	-			3	4	
1H1603 Technology and Ethics	5	C	18	-	-	-	1				Seminars 8h
1H1603 Technology and Ethics	5	C	18	-	-	-			3		Seminars 8h
1H1604 Philosophy of Risk	5	C	20	-	-	-		2			10h seminars
1N1107 Information Analysis	5	C	14	14	-	-				4	
1N1108 Computer- and Information Ethics	5	C	20	10	-	-			3		
1N1113 Aesthetics and Technology	5	C	20	10	-	-		2			
1N1114 Ethics for Engineers	5	B	18	-	-	-			3		8h Seminars
1N1116 Political Philosophy	5	C	14	-	-	-		2			Seminars 16h
1N1117 Decision Theory	5	C	16	14	-	-	1				
1N1118 Gender, Philosophy and Technology	5	C	20	-	-	-			3		Seminars 10h
1N1119 Management Ethics	5	C	18	-	-	-	1				Seminars 10h
1N1123 Philosophy of the Natural Sciences	5	C	20	-	-	10		2			Seminars 10h

2C1522 Business Development and Quality Management	5	C	36	10	-	-	2			
2D1624 Human-Computer Interaction - a Didactive Perspective	5	C	20	10	-	2		3	4	
2D2013 Creation and Design for Bachelors, Undergraduate Course	5	B	20	2	-	-		3	4	

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Code Name	Credits	Level	Lec	Tut	Le	Lab	Periods				Other
							1	2	3	4	
Conditionally Elective Courses											
1H1601 Mathematics and Reality	5	C	20	10	-	-				4	
1H1602 Good and Bad Science	5	C	32	-	-	-			3	4	
1H1603 Technology and Ethics	5	C	18	-	-	-	1				Seminars 8h
1H1603 Technology and Ethics	5	C	18	-	-	-			3		Seminars 8h
1H1604 Philosophy of Risk	5	C	20	-	-	-		2			10h seminars
1N1107 Information Analysis	5	C	14	14	-	-				4	
1N1108 Computer- and Information Ethics	5	C	20	10	-	-			3		
1N1113 Aesthetics and Technology	5	C	20	10	-	-		2			
1N1114 Ethics for Engineers	5	B	18	-	-	-			3		8h Seminars
1N1116 Political Philosophy	5	C	14	-	-	-		2			Seminars 16h
1N1117 Decision Theory	5	C	16	14	-	-	1				
1N1118 Gender, Philosophy and Technology	5	C	20	-	-	-			3		Seminars 10h
1N1119 Management Ethics	5	C	18	-	-	-	1				Seminars 10h
1N1123 Philosophy of the Natural Sciences	5	C	20	-	-	10		2			Seminars 10h
2C1522 Business Development and Quality Management	5	C	36	10	-	-		2			
2D1624 Human-Computer Interaction - a Didactive Perspective	5	C	20	10	-	2			3	4	
2D2013 Creation and Design for Bachelors, Undergraduate Course	5	B	20	2	-	-			3	4	

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Code Name	Credits	Level	Lec	Tut	Le	Lab	Periods				Other
							1	2	3	4	
Compulsory Courses											
2A1500 <u>Engineering Science</u>	5	B	24	12	8	-	1				
2D1310 <u>Programming Technique</u>	4	A	20	12	-	24			3	4	
5B1123 <u>Mathematics 2</u>	8	A	74	-	36	-			3	4	
5B1143 <u>Mathematics I</u>	10	A	60	30	60	-	1	2	3		
7F1201 <u>Science, Technology and Learning I</u> <i>The course is given by Tom Tits, Södertälje.</i>	5	A	8	-	12	25				4	
KTAU1N <u>Basic Course in Teacher Commission and Prof. Teacherhood</u>	5	A	-	-	-	-		2			
KTD110 <u>Educational Perspective on Mathematics</u>	10	A	-	-	-	-	1	2	3		
Elective Courses											
5B1120 <u>Introductory Course in Mathematics I</u>	1	A	-	-	-	-					

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Code Name	Credits	Level	Lec	Tut	Le	Lab	Periods				Other
							1	2	3	4	
Compulsory Courses											
2D1210 Numerical Methods, Basic Course I	4	A	20	18	-	18			3	4	
2D1320 Applied Computer Science	4	A	28	14	-	20	1	2			
2D1385 Software Engineering	4	C	24	12	-	18				4	
2D1601 Communication and Media	5	C	36	-	-	-			3	4	
2D1602 Learning and Information and Communication Technology	12	C	-	50	-	-	1	2	3	4	
4F1224 Electrical Engineering, Basic Course Media	4	A	12	21	-	13				4	
5B1212 Differential Equations and Transforms III	4	C	40	20	-	-		2			
UCK01N Curriculum Studies and Communication	10	B	-	-	-	-	1	2			

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Code Name	Credits	Level	Lec	Tut	Le	Lab	Periods				Other
							1	2	3	4	
Compulsory Courses											
2D1334 Database Technology	4	C	24	20	-	12			3		
2D1602 Learning and Information and Communication Technology	12	C	-	50	-	-	1	2	3	4	
2D1624 Human-Computer Interaction - a Didactive Perspective	5	C	20	10	-	2			3	4	
2G1518 Computer Hardware Engineering	5	B	20	20	-	12	1	2			
5B1118 Discrete Mathematics	5	A	50	25	-	-			3	4	
5B1505 Probability Theory and Statistics, Basic Course	4	C	24	36	-	-				4	
SCK01N Social and Cultural Studies in Education	10	B	-	-	-	-	1	2			
Conditionally Elective Courses											
5A1232 Optical Communication and Imaging	4	A	24	18	-	10		2			
5A1242 Physics of Microcosmos	4	A	24	18	-	-		2			

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Master of Science in Engineering and of Education, Degree Programme in Mathematics and Information Technology and Computer Science

Master of Science in Engineering and of Education, Degree Programme in Mathematics and Information Technology and Computer Science CLMDA4

Code Name	Credits	Level	Lec	Tut	Le	Lab	Periods				Other
							1	2	3	4	
Compulsory Courses											
2D1602 Learning and Information and Communication Technology	12	C	-	50	-	-	1	2	3	4	
3C1330 Technology and Ecosystems	4	B	24	3	-	-	1				
5B1493 Mathematics, Advanced Course	5	C	54	-	-	-		2	3		
KTD110 Educational Perspective on Mathematics	10	A	-	-	-	-	1				
Conditionally Elective Courses											
2D1220 Applied Numerical Methods I	4	C	36	-	-	18			3	4	
2D1225 Numerical Solutions of Differential Equations	4	C	24	4	-	16	1	2			
2D1323 Computer Graphics and Interaction <i>Allowed for all programmes except D.</i>	4	C	42	-	-	12				4	
2D1354 Algorithms and Complexity	4	C	30	18	-	-	1	2			
2D1361 Programming Paradigms	5	C	42	-	-	24	1	2			
2D1380 Artificial Intelligence	4	C	24	4	-	30	1				
2D1387 Program System Construction Using C++	4	C	18	6	-	32	1	2			
2D1390 Internet Programming	4	C	28	-	-	26		2			
2D1410 User Centered Program Development	6	D	26	-	-	22			3	4	
2D1413 Advanced Graphics and Interaction	6	D	46	-	-	12	1	2			
2D1418 Language Engineering	4	D	40	-	-	12	1				
2D1426 Robotics and Autonomous Systems*	5	D	16	-	-	60				4	
2D1431 Machine Learning	4	C	26	-	-	20		2			
2D1432 Artificial Neural Networks and Other Learning Systems	4	D	26	-	-	16			3		
2D1440 Advanced Algorithms	4	D	30	-	-	-		2			
2D1449 Foundations of Cryptography	4	D	30	-	-	-			3		

2D1469 Database Theory	4	D	31	17	-	-	1				
2D1482 Programming of Web Server Applications*	4	D	16	-	-	30		3			
2D1486 Systems Programming and Operating Systems	5	D	24	-	-	24	2				
2D1622 Human-Computer Interaction, Advanced Course	4	C	18	5	-	8	2				
5B1305 Applied Combinatorics <i>Not given 05/06.</i>	4	C	-	-	42	-					

*The course has limited participation

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Master of Science in Engineering and of Education, Degree Programme in Mathematics and Information Technology and Computer Science CLMDA5

Code Name	Credits	Level	Lec	Tut	Le	Lab	Periods				Other
							1	2	3	4	
Conditionally Elective Courses											
2D1323 Computer Graphics and Interaction <i>Allowed for all programmes except D.</i>	4	C	42	-	-	12				4	
2D1354 Algorithms and Complexity	4	C	30	18	-	-	1	2			
2D1361 Programming Paradigms	5	C	42	-	-	24	1	2			
2D1387 Program System Construction Using C++	4	C	18	6	-	32	1	2			
2D1410 User Centered Program Development	6	D	26	-	-	22			3	4	
2D1413 Advanced Graphics and Interaction	6	D	46	-	-	12	1	2			
2D1418 Language Engineering	4	D	40	-	-	12	1				
2D1426 Robotics and Autonomous Systems*	5	D	16	-	-	60				4	
2D1440 Advanced Algorithms	4	D	30	-	-	-		2			
2D1469 Database Theory	4	D	31	17	-	-	1				
2D1482 Programming of Web Server Applications*	4	D	16	-	-	30			3		
2D1622 Human-Computer Interaction, Advanced Course	4	C	18	5	-	8		2			

*The course has limited participation

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Master of Science in Engineering and of Education, Degree Programme in Mathematics and Chemistry CLMKE1

Code Name	Credits	Level	Lec	Tut	Le	Lab	Periods				Other
							1	2	3	4	
Compulsory Courses											
2A1500 <u>Engineering Science</u>	5	B	24	12	8	-	1				
2D1310 <u>Programming Technique</u>	4	A	20	12	-	24			3	4	
5B1123 <u>Mathematics 2</u>	8	A	74	-	36	-			3	4	
5B1143 <u>Mathematics I</u>	10	A	60	30	60	-	1	2	3		
7F1201 <u>Science, Technology and Learning I</u> <i>The course is given by Tom Tits, Södertälje.</i>	5	A	8	-	12	25				4	
KTAU1N <u>Basic Course in Teacher Commission and Prof. Teacherhood</u>	5	A	-	-	-	-		2			
KTD110 <u>Educational Perspective on Mathematics</u>	10	A	-	-	-	-	1	2	3		
Elective Courses											
5B1120 <u>Introductory Course in Mathematics I</u>	1	A	-	-	-	-					

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Master of Science in Engineering and of Education, Degree Programme in Mathematics and Chemistry

Master of Science in Engineering and of Education, Degree Programme in Mathematics and Chemistry CLMKE2

Code Name	Credits	Level	Lec	Tut	Le	Lab	Periods				Other
							1	2	3	4	
Compulsory Courses											
2D1210 Numerical Methods, Basic Course I	4	A	20	18	-	18			3	4	
2D1601 Communication and Media	5	C	36	-	-	-			3	4	
3B1700 Introductory Chemistry	4	A	24	18	-	22	1				
3B1711 Chemical Equilibria	4	B	12	22	-	25			3	4	
3C1451 Introduction to Chemical Engineering	7	B	39	26	-	-		2	3		Plant Trip 1 day
5B1212 Differential Equations and Transforms III	4	C	40	20	-	-		2			
KTD140 Educational Perspective on Chemistry <i>Under bearbetning</i>	10	B	-	-	-	-	1				
UCK01N Curriculum Studies and Communication	10	B	-	-	-	-	1	2			
Elective Courses											
3B1705 Introductory Course in Chemistry	1	A	-	-	-	-					

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Master of Science in Engineering and of Education, Degree Programme in Mathematics and Chemistry CLMKE3

Code Name	Credits	Level	Lec	Tut	Le	Lab	Periods				Other
							1	2	3	4	
Compulsory Courses											
2D1605 Science, Technology and Learning II	3	AB	4	-	-	-			3		
3B1720 Chemical Thermodynamics	5	B	28	30	-	15	1				
3B1731 Molecular Structure	4	B	36	22	-	20		2	3		
3B1750 Organic Chemistry 1	5	B	20	14	-	42		2			
3E1700 Polymer Technology	4	C	-	-	-	-				4	
5B1118 Discrete Mathematics	5	A	50	25	-	-			3	4	
5B1505 Probability Theory and Statistics, Basic Course	4	C	24	36	-	-				4	
KTD140 Educational Perspective on Chemistry <i>Under bearbetning</i>	10	B	-	-	-	-		2	3		
SCK01N Social and Cultural Studies in Education	10	B	-	-	-	-	1	2			

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Master of Science in Engineering and of Education, Degree Programme in Mathematics and Chemistry CLMKE4

Code Name	Credits	Level	Lec	Tut	Le	Lab	Periods				Other
							1	2	3	4	
Compulsory Courses											
3A1108 Biotechnology	4	B	36	-	-	-		2			
3B1740 Chemical Dynamics	4	B	20	20	-	15			3		
3B1775 Analytical Chemistry	4	C	20	-	-	16	1		3		
3B1781 Inorganic Chemistry	4	D	20	6	-	16				4	
5B1493 Mathematics, Advanced Course	5	C	54	-	-	-		2	3		
KTD110 Educational Perspective on Mathematics	10	A	-	-	-	-	1				
KTD140 Educational Perspective on Chemistry	10	B	-	-	-	-			3		
<i>Under bearbetning</i>											
Conditionally Elective Courses											
1H1601 Mathematics and Reality	5	C	20	10	-	-				4	
1H1602 Good and Bad Science	5	C	32	-	-	-			3	4	
1H1603 Technology and Ethics	5	C	18	-	-	-	1				Seminars 8h
1H1603 Technology and Ethics	5	C	18	-	-	-			3		Seminars 8h
1H1604 Philosophy of Risk	5	C	20	-	-	-		2			10h seminars
1N1107 Information Analysis	5	C	14	14	-	-				4	
1N1108 Computer- and Information Ethics	5	C	20	10	-	-			3		
1N1113 Aesthetics and Technology	5	C	20	10	-	-		2			
1N1114 Ethics for Engineers	5	B	18	-	-	-			3		8h Seminars
1N1116 Political Philosophy	5	C	14	-	-	-		2			Seminars 16h
1N1117 Decision Theory	5	C	16	14	-	-	1				
1N1118 Gender, Philosophy and Technology	5	C	20	-	-	-			3		Seminars 10h
1N1119 Management Ethics	5	C	18	-	-	-	1				Seminars 10h
1N1123 Philosophy of the Natural Sciences	5	C	20	-	-	10		2			Seminars 10h
2C1522 Business Development and Quality Management	5	C	36	10	-	-		2			
2D1624 Human-Computer Interaction - a Didactive Perspective	5	C	20	10	-	2			3	4	



2D2013 Creation and Design for Bachelors, Undergraduate Course	5	B	20	2	-	-			3	4	

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Master of Science in Engineering and of Education, Degree Programme in Mathematics and Chemistry

Master of Science in Engineering and of Education, Degree Programme in Mathematics and Chemistry CLMKE5

Code Name	Credits	Level	Lec	Tut	Le	Lab	Periods				Other
							1	2	3	4	
Conditionally Elective Courses											
1H1601 Mathematics and Reality	5	C	20	10	-	-				4	
1H1602 Good and Bad Science	5	C	32	-	-	-			3	4	
1H1603 Technology and Ethics	5	C	18	-	-	-	1				Seminars 8h
1H1603 Technology and Ethics	5	C	18	-	-	-			3		Seminars 8h
1H1604 Philosophy of Risk	5	C	20	-	-	-		2			10h seminars
1N1107 Information Analysis	5	C	14	14	-	-				4	
1N1108 Computer- and Information Ethics	5	C	20	10	-	-			3		
1N1113 Aesthetics and Technology	5	C	20	10	-	-		2			
1N1114 Ethics for Engineers	5	B	18	-	-	-			3		8h Seminars
1N1116 Political Philosophy	5	C	14	-	-	-		2			Seminars 16h
1N1117 Decision Theory	5	C	16	14	-	-	1				
1N1118 Gender, Philosophy and Technology	5	C	20	-	-	-			3		Seminars 10h
1N1119 Management Ethics	5	C	18	-	-	-	1				Seminars 10h
1N1123 Philosophy of the Natural Sciences	5	C	20	-	-	10		2			Seminars 10h
2C1522 Business Development and Quality Management	5	C	36	10	-	-		2			
2D1624 Human-Computer Interaction - a Didactive Perspective	5	C	20	10	-	2			3	4	
2D2013 Creation and Design for Bachelors, Undergraduate Course	5	B	20	2	-	-			3	4	

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Computer Science

Computer Science D1

Code Name	Credits	Level	Lec	Tut	Le	Lab	Periods				Other
							1	2	3	4	
Compulsory Courses											
2A1805 Electrical Circuits	5	B	32	24	-	4			3	4	
2D1345 Introduction to Computer Science	11	A	48	48	-	48	1	2	3	4	
2D1600 Communication in Engineering Sciences	5	A	8	30	-	10	1	2			
2E1215 Introductory Matlab Course	1	A	4	-	-	-			3		8 h Computer 8 h Computer
5B1104 Calculus I, part 1	5	A	50	25	-	-		2	3		
5B1109 Linear Algebra II	5	A	60	30	-	-	1	2			
5B1121 Mathematic, Basic Course	4	A	16	16	32	-	1				
5B1928 Logic	4	A	40	20	-	-				4	
Elective Courses											
5B1111 Complementary Course in Calculus	2	A	-	-	-	-					
5B1120 Introductory Course in Mathematics I	1	A	-	-	-	-					

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Computer Science

Computer Science D2

Code Name	Credits	Level	Lec	Tut	Le	Lab	Periods				Other
							1	2	3	4	
Compulsory Courses											
2D1241 Numerical Methods, Basic Course III	5	B	24	14	-	22	1	2			
2D1352 Algorithms, Data Structures and Complexity	6	C	44	24	-	18			3	4	
2D1361 Programming Paradigms	5	C	42	-	-	24	1	2			
2G1518 Computer Hardware Engineering	5	B	-	-	-	-		2	3		
4D1097 Organization and Knowledge-Intensive Work	4	A	28	4	-	10				4	
5B1105 Calculus I, part 2	5	A	50	25	-	-	1	2			
5B1204 Discrete Mathematics	8	A	60	30	-	-			3	4	
Conditionally Elective Courses											
5A1232 Optical Communication and Imaging	4	A	24	18	-	10		2			
5A1242 Physics of Microcosmos	4	A	24	18	-	-		2			
Elective Courses											
2I1288 3D Game Development with Shockwave & 3ds Max	5	B	-	-	-	-					

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Computer Science

Computer Science D3

Code Name	Credits	Level	Lec	Tut	Le	Lab	Periods				Other
							1	2	3	4	
Compulsory Courses											
2D1363 Software Engineering	8	D	40	-	-	-		2	3	4	
2G1518 Computer Hardware Engineering	5	B	20	20	-	12	1	2			
2I1100 Information Systems and Database Technology	6	C	12	12	-	80	1	2			
3C1330 Technology and Ecosystems	4	B	24	3	-	-		2			
4D1097 Organization and Knowledge-Intensive Work	4	A	28	4	-	10	1				
Elective Courses											
2E1623 Data Links and Local Area Networks*_	5	C	24	14	-	12			3		

*The course has limited participation

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Computer Science

Computer Science D4

Code Name	Credits	Level	Lec	Tut	Le	Lab	Periods				Other
							1	2	3	4	
Elective Courses											
2C1224 Management of Technology	5	D	32	20	-	-	1				
2D1220 Applied Numerical Methods I	4	C	36	-	-	18			3	4	
2D1250 Applied Numerical Methods II	6	C	60	-	-	36			3	4	
2D1257 Visualization	4	C	16	-	-	14			3		
2D1258 Introduction to High Performance Computing* <i>Please note that the course starts in August. Will not be on the central schedule.</i>	5	C	40	-	-	40	1				
2D1266 Mathematical Models, Analysis and Simulation Part I	5	C	48	-	-	12	1	2			
2D1373 Artificial Languages and Syntax Analysis	4	C	24	-	-	16			3		
2D1375 Implementation of Programming Languages <i>Self-study course.</i>	4	D	2	-	-	-	1	2			
2D1380 Artificial Intelligence	4	C	24	4	-	30	1				
2D1381 Industrial Applications of Artificial Intelligence	4	C	36	-	-	-	1	2			
2D1387 Program System Construction Using C++	4	C	18	6	-	32	1	2			
2D1390 Internet Programming	4	C	28	-	-	26		2			
2D1408 Evaluation Methods in Human-Computer Interaction*	4	D	10	14	-	-			3	4	
2D1410 User Centered Program Development	6	D	26	-	-	22			3	4	
2D1413 Advanced Graphics and Interaction	6	D	46	-	-	12	1	2			
2D1416 Computer Support for Cooperative Work	6	D	30	-	-	15			3	4	
2D1418 Language Engineering	4	D	40	-	-	12	1				
2D1421 Image Analysis and Computer Vision	5	D	36	4	-	8			3		
2D1425 Computer Vision, Advanced Course	5	D	46	6	-	12				4	
2D1426 Robotics and Autonomous Systems*	5	D	16	-	-	60				4	

2D1431 Machine Learning	4	C	26	-	-	20	2			
2D1432 Artificial Neural Networks and Other Learning Systems	4	D	26	-	-	16		3		
2D1433 Artificial Neural Networks, Advanced Course	4	D	16	-	-	8			4	4 h Seminars 4 h Seminars
2D1435 Mathematical Modelling of Biological Systems	6	D	26	-	-	20	1	2		
2D1436 Modelling of Processes in Cell Biology	4	D	16	-	-	16	1			
2D1440 Advanced Algorithms	4	D	30	-	-	-		2		
2D1441 Seminars on Theoretical Computer Science <i>The course is given every second year and will not be given in 05/06.</i>	4	D	30	-	-	-				
2D1446 Complexity Theory <i>The course is given every second year and will be given in 05/06.</i>	4	D	30	-	-	-			4	
2D1449 Foundations of Cryptography	4	D	30	-	-	-		3		
2D1450 Algorithmic Bioinformatics	4	D	36	-	-	-			4	
2D1455 Theoretical Foundations of Object-Oriented	5	D	36	-	-	4			4	
2D1456 Advanced Functional Programming	4	D	28	-	-	14			4	
2D1458 Problem Solving and Programming under Pressure*	6	C	26	-	-	52	1	2		
2D1464 Bigger Advanced, Individual Course in Computer Science <i>The course can be studied any time during the semesters.</i>	6	D	-	-	-	-				
2D1465 Advanced, Individual Course in Computer Science <i>The course can be studied any time during the semesters.</i>	4	D	-	-	-	-				
2D1469 Database Theory	4	D	31	17	-	-	1			
2D1471 Modern Database Systems and Their Applications	5	D	26	8	-	-			4	
2D1482 Programming of Web Server Applications*	4	D	16	-	-	30		3		
2D1482 Programming of Web Server Applications*	4	D	16	-	-	30	1			
2D1490 IP Routing in Simple Computer Networks*	5	D	32	8	-	32			3	
2D1491 IP Routing in Internet and Other Complex Networks*	5	D	24	8	-	32			4	
2D1492 Net Design, Project Course* <i>The course is given every second year. Given 05/06.</i>	6	D	12	4	-	8	1	2		
2D1493 Seminars on Grid Computing and Internetworking <i>The course is given every second year. Not given 05/06.</i>	4	D	24	-	-	16				
2D1518 Audio, Video and Multimedia Production*	5	C	30	-	-	40		2	3	8 h Study visit 8 h Study visit
2D1520 Graphic Arts Technology, Minor Course	4	C	24	8	-	16		2		
2D1523 Digital Video Production*	5	B	22	6	-	24			3	
2D1600 Communication in Engineering Sciences	5	A	8	30	-	10	1	2		

2D1603 Technologies that change time, space and reality	5	B	34	27	-	-	1	2			
2D1620 Human-Computer Interaction, Introductory Course	4	C	20	10	-	2	1				
2D1622 Human-Computer Interaction, Advanced Course	4	C	18	5	-	8		2			
2D1640 Graphics and Interaction Programming	6	C	36	14	-	42			3	4	
2D1650 Computer Game Design* <i>Limited number of participants.</i>	4	D	24	6	-	4		2			
2E1245 Hybrid and Embedded Control Systems	5	D	28	28	-	-			3		
2E1252 Control Theory and Practice, Advanced Course	5	D	28	26	-	8			3		
2E1262 Nonlinear Control	5	D	28	28	-	8		2			
2E1282 Modelling of Dynamical Systems	4	C	24	24	-	12				4	
2E1340 Digital Signal Processing	5	D	26	24	-	3		2			
2E1390 Sound Perception <i>Replaces 2F1300.</i>	5	D	24	12	-	4	1				20 h Projektuppgift20 h Projektuppgift
2E1423 Signal Theory	5	C	24	24	-	10			3		
2E1618 Queuing Theory and Teletraffic Systems <i>The course replaces 2G1318.</i>	4	D	24	24	-	-		2			
2E1624 Performance Analysis of Communication Networks <i>The course replaces 2G1324.</i> <i>Under bearbetning</i>	5	D	-	-	24	-			3		30 h Projektuppgift30 h Projektuppgift
2E1632 Management of Networks and Networked Systems <i>The course replaces 2G1332.</i>	5	D	18	-	-	-				4	Project
2E1633 Network Services and Internet-based Applications* <i>The course replaces 2G1333.</i>	5	D	8	-	-	-				4	120 h Projektuppgift120 h Projektuppgift
2F1111 Speech Technology	4	D	36	14	-	6			3		
2F1212 Music Acoustics	4	D	-	-	48	8				4	
2F1213 Musical Communication and Music Technology	5	D	28	8	-	12				4	Project assignment 30h
2G1117 Semantics for Programming Languages	4	D	20	10	-	-			3		
2G1305 Internetworking <i>Given at Campus Valhallavägen</i>	4	C	20	18	-	10	1				Assignments
2G1305 Internetworking <i>Given in Kista</i>	4	C	14	14	-	-				4	
2G1316 Datacommunication and Computer Networks <i>Given at Campus Valhallavägen</i>	4	A	24	18	-	12			3		
2G1319 Communication System Design <i>Also given as 2G1711, 12 credits; 2G1712, 16 credits and 2G1713, 20 credits</i>	10	D	-	-	-	-			3	4	Project work
2G1325 Practical Voice Over IP (VoIP)	5	D	10	-	-	-				4	Assigned paper 50h
2G1330 Wireless and Mobile Network Architectures	5	D	10	-	-	-			3		Assigned paper 50h
2G1505 Theory of Automata	4	D	20	10	-	-				4	
2G1508 Compilers and Virtual Machines	4	C	24	8	-	4		2			
2G1509 Distributed Systems, Basic Course	5	D	24	-	-	-	1				Project work 10 hours

2G1510 Computer Architecture Fundamentals, Intermediate Course <i>Under bearbetning</i>	5	C	14	12	-	4	2		Seminar 4h
2G1511 Computer Architecture	6	D	42	-	-	12		3 4	Individual project guidance: 2-5 h/ student Home study time: 180 h
2G1513 Distributed Systems, Advanced Course	5	D	24	-	-	-		3	
2G1516 Formal Methods	5	D	24	20	-	12	2		
2G1520 Operating Systems <i>Given at Campus Valhallavägen</i>	5	C	28	12	-	-		4	
2G1520 Operating Systems <i>Given in Kista</i>	5	C	28	10	-	-	2		
2G1522 Modern Methods in Software Engineering	5	D	20	10	-	-	1		
2G1523 Programming Web-Services	5	D	20	10	-	-		3	
2G1524 Distributed Artificial Intelligence and Intelligent Agents <i>The course is not elective if the student has already taken 2I1235</i>	5	D	24	10	-	-	2		
2G1529 Network Programming with Java <i>The course replaces 2G1118 The course is given in Kista in period 2</i>	5	D	22	10	-	10	2		
2G1529 Network Programming with Java <i>The course replaces 2G1118 The course is given in Campus Valhallavägen in period 4</i>	5	D	22	10	-	10		4	
2G1530 Logic Programming <i>replaces 2G1121</i>	5	D	16	12	-	-	1		Individual work on project and group presentation 4h
2G1531 System Modelling and Simulation <i>This course is replaces 2G1503</i>	5	C	24	-	-	-	1		Projectwork 12 h
2G1704 Internet Security and Privacy	5	D	30	10	-	-	2		assigned paper
2G1711 Communication System Design <i>Under bearbetning</i>	12	D	-	-	-	-		3 4	project
2G1712 Communication System Design <i>Under bearbetning</i>	16	D	-	-	-	-		3 4	Project
2G1713 Communication System Design <i>Under bearbetning</i>	20	D	-	-	-	-		3 4	Project
2G1722 Developing Mobile Applications	5	D	20	-	-	10	1		
2G1723 GSM Network and Services	5	D	24	-	-	-		4	Laboratory 5 sessions
2G1915 Concurrent Programming <i>In period 1, the course is given at Campus Valhallavägen.</i>	5	C	36	-	-	24	1		
2G1915 Concurrent Programming <i>In period 3, the course is given in Kista</i>	5	C	36	-	-	24		3	
2I1040 Knowledge and Software Reuse <i>Under bearbetning</i>	4	C	18	18	-	40		3 4	
2I1041 Software Evolution and Maintenance <i>This course is a part-time course (75%), meaning that you accomplish 4 credits within 6 weeks.</i> <i>Under bearbetning</i>	4	C	21	16	-	9	1		group counselling 1h
2I1050 Security Management <i>The course cannot be included in an exam together with course 2I1506</i> <i>Under bearbetning</i>	5	D	27	-	-	-		4	
2I1053 Internet and ERP Systems	5	C	12	-	-	-	1		Project work 80 h
2I1056 Relational Database Design - Logical and Physical	4	C	12	12	-	60	2		Computer tutorials and hand in assignments 80h

211068 Internet Search and Monitoring Techniques <i>The course replaces 211413</i>	5	C	-	-	16	-	2		6 assignments
211095 Cognitive Science <i>Under bearbetning</i>	4	C	25	-	-	-		3	Course assignment work 120
211130 Cognitive Psychology <i>Under bearbetning</i>	4	B	30	12	-	-	1		
211224 Data Warehousing <i>Under bearbetning</i>	4	D	15	10	-	30		4	
211228 Enterprise Computing and ERP Systems	5	D	14	12	-	60	1		80h
211229 Knowledge Management	4	D	28	-	-	18		3	70h
211234 Machine Learning <i>Under bearbetning</i>	4	D	36	-	-	-		4	
211235 Agent Programming <i>The course are not electiv if students already had read 2G1524</i> <i>Under bearbetning</i>	4	D	18	-	-	3		3 4	Other 80 hours
211242 Models and Languages for Object, Relational and Web Databases	5	D	20	40	-	75		3 4	Studying/Practice 60h
211258 Large-Scale Software Engineering	5	C	21	-	-	-		4	laboration 120+60h
211263 Internet Application Protocols and Standards <i>Under bearbetning</i>	4	A	24	-	-	20		3	120h
211272 Security Architecture for Open Distributed Systems <i>Under bearbetning</i>	4	D	24	-	-	-		4	Research Assignment 24h, Extra Reading Materials 36h
211273 Principles of Computer Security <i>The course cannot be included in an exam that already includes one of the courses 211030, 211501, 211502, 211278, 214075.</i> <i>Under bearbetning</i>	4	D	24	-	-	12		3	Seminar paper 24 hours
211273 Principles of Computer Security <i>The course cannot be included in an exam that already includes one of the courses 211030, 211501, 211502, 211278, 214075.</i> <i>Under bearbetning</i>	4	D	24	-	-	12	1		Seminar paper 24 hours
211276 Security for Java Environment and Electronic Commerce <i>Under bearbetning</i>	4	D	21	8	3	-		3	Extra Reading Materials 36h, Research Project 24h
211279 Security in Mobile and Wireless Networks <i>Under bearbetning</i>	4	D	24	-	-	10		3	
211283 Formal Methods in Software Engineering <i>Under bearbetning</i>	5	C	20	16	-	-		4	Varies, total workload is 200 hours
211284 Dynamic Programming Languages <i>Under bearbetning</i>	5	C	30	-	-	-		4	
211404 Model-driven Development of Components	5	D	20	35	-	110		4	
211406 Mobile Business <i>Under bearbetning</i>	5	D	18	12	-	-		3 4	Project work 80 h
211408 Projects and Powergames	4	D	24	-	-	-		4	Seminars 15 hours
211503 Network Security <i>Replaces 211274 from 04/05</i> <i>Under bearbetning</i>	5	D	18	-	-	18	2		
211504 Software Engineering and Security Architecture <i>Under bearbetning</i>	5	D	18	-	-	18		3	

211505 Legal Aspects of Information Security <i>Under bearbetning</i>	5	D	24	-	-	12		3		
211506 Security Management <i>Cannot be included in an exam together with course 211050</i> <i>Under bearbetning</i>	10	D	24	-	-	6		4		Seminars 18 hours
211511 Value Based Risk Management <i>Under bearbetning</i>	5	D	12	12	-	-	1			
211705 Artificial Intelligence: Principles and Techniques <i>Under bearbetning</i>	4	C	-	-	-	-	1			
211710 Ubiquitous Computing <i>Replaces course 211237 start in P3, end in P4</i> <i>Under bearbetning</i>	4	D	29	-	50	-		3	4	tutorials 6 h, seminars 5 h
211801 Internet Programming I <i>Replaces 211264 from HT04.</i>	5	D	6	-	-	160	1			
211802 Internet Programming II <i>Replaces 211265 from HT04.</i>	5	D	6	-	-	160	2			
211803 Internet Programming III <i>Replaces 211266 from VT04</i>	5	D	6	-	-	160		3		
211901 Introduction to Software Engineering <i>Under bearbetning</i>	5	C	15	-	-	-		3		Seminars 6 hours, project 120 hours
3C1355 Ecology, Advanced Course	4	C	21	4	-	-		3	4	
3C1395 Technology and Sustainable Development	4	C	2	6	-	-	2			
5A1414 Radiation Detectors and Medical Imaging Systems	5	D	24	-	-	15		3	4	6 h Seminars, 20 h Study visit 6 h Seminars, 20 h Study visit
5B1303 Analysis, Basic Course	6	C	-	-	66	-		3	4	
5B1305 Applied Combinatorics <i>Not given 05/06.</i>	4	C	-	-	42	-				
5B1306 Financial Mathematics, Basic Course	5	A	-	-	54	-			4	
5B1308 Wavelets <i>Given 05/06.</i>	4	C	24	-	-	-	1	2		
5B1309 Algebra, Basic Course	4	C	42	-	-	-		3		
5B1458 Seminar Course in Mathematics III <i>Given 05/06.</i> <i>Under bearbetning</i>	5	D	36	-	-	-	1	2		
5B1459 Seminar Course in Mathematics IV <i>Not given 04/05.</i> <i>Under bearbetning</i>	5	D	36	-	-	-		3	4	
5B1750 Optimization for E and D	4	A	28	14	-	9			4	
7E1101 Medical Engineering, Basic Course	4	C	24	-	-	-	1			
7E1110 Quality and Regulatory Aspects on Medical Devices	2	D	20	-	-	-		3	4	
7E1112 Implants and Biomaterials*	4	D	25	-	-	-		3	4	
7E1113 Medical Instrumentation and Signal Processing*	4	D	30	-	-	6		3	4	
7E1114 Radiation Physics and Biology	4	D	36	-	-	-			4	
7E1115 Engineering in Intensive Care and Anesthesia*	4	D	12	-	-	-		3	4	30 + 10h (field work with oral and written report)
7E1121 Medical Radiation Physics	1	C	6	-	-	-	1			

9E1140 Information Searching for D, E	1	B	-	-	-	-	2		Three laborations on all together 9 hours. The course is given regularly throughout the academic year. Please refer to
9E1140 Information Searching for D, E	1	B	-	-	-	-		3	Three laborations on all together 9 hours. The course is given regularly throughout the academic year. Please refer to
9E1140 Information Searching for D, E	1	B	-	-	-	-		4	Three laborations on all together 9 hours. The course is given regularly throughout the academic year. Please refer to
9E1140 Information Searching for D, E	1	B	-	-	-	-	1		Three laborations on all together 9 hours. The course is given regularly throughout the academic year. Please refer to

*The course has limited participation

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Uppdaterad: 2004-11-10

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Computer Science D5

Code Name	Credits	Level	Lec	Tut	Le	Lab	Periods				Other	
							1	2	3	4		
Elective Courses												
2D1020 Master's Project in Numerical Analysis	20	D	-	-	-	-						
2D1021 Master's Project in Computer Science	20	D	-	-	-	-						
2D1024 Master's Project in Human - Computer Interaction	20	D	-	-	-	-						
2D1025 Master's Project in Biomedical Engineering	20	D	-	-	-	-						

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Autonomous Systems D3

At least 25 cr of the elective courses have to be studied and at least 10 cr of the *-marked courses.

Code Name	Credits	Level	Lec	Tut	Le	Lab	Periods				Other
							1	2	3	4	
Elective Courses											
2D1421 Image Analysis and Computer Vision *	5	D	36	4	-	8			3		
2D1425 Computer Vision, Advanced Course *	5	D	46	6	-	12				4	
2E1423 Signal Theory	5	C	24	24	-	10			3		
5B1750 Optimization for E and D	4	A	28	14	-	9				4	

Autonomous Systems D4

At least 25 cr of the elective courses have to be studied and at least 10 cr of the *-marked courses.

Code Name	Credits	Level	Lec	Tut	Le	Lab	Periods				Other
							1	2	3	4	
Elective Courses											
2D1220 Applied Numerical Methods I	4	C	36	-	-	18			3	4	
2D1250 Applied Numerical Methods II	6	C	60	-	-	36			3	4	
2D1380 Artificial Intelligence	4	C	24	4	-	30	1				
2D1381 Industrial Applications of Artificial Intelligence	4	C	36	-	-	-	1	2			
2D1421 Image Analysis and Computer Vision *	5	D	36	4	-	8			3		
2D1425 Computer Vision, Advanced Course *	5	D	46	6	-	12				4	
2D1426 Robotics and Autonomous Systems * *	5	D	16	-	-	60				4	
2D1431 Machine Learning	4	C	26	-	-	20		2			
2D1432 Artificial Neural Networks and Other Learning Systems *	4	D	26	-	-	16			3		
2D1433 Artificial Neural Networks, Advanced Course *	4	D	16	-	-	8				4	4 h Seminars 4 h Seminars
2D1435 Mathematical Modelling of Biological Systems	6	D	26	-	-	20	1	2			

2D1436 Modelling of Processes in Cell Biology	4	D	16	-	-	16	1				
2D1620 Human-Computer Interaction, Introductory Course	4	C	20	10	-	2	1				
2E1423 Signal Theory	5	C	24	24	-	10			3		
2G1915 Concurrent Programming <i>In period 3, the course is given in Kista</i>	5	C	36	-	-	24			3		
2G1915 Concurrent Programming <i>In period 1, the course is given at Campus Valhallavägen.</i>	5	C	36	-	-	24	1				
2I1130 Cognitive Psychology <i>Under bearbetning</i>	4	B	30	12	-	-	1				
2I1235 Agent Programming <i>The course are not electiv if students already had read 2G1524</i> <i>Under bearbetning</i>	4	D	18	-	-	3			3	4	Other 80 hours
5B1750 Optimization for E and D	4	A	28	14	-	9				4	

*The course has limited participation

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Biomedical Engineering D3

At least 16 cr of the elective courses have to be studied, and of those at most one of the two alternatives 2D1266 or 7E1101+7E1121 may be included.

7E1201 + 7E1211 may be included:											
Code Name	Credits	Level	Lec	Tut	Le	Lab	Periods				Other
							1	2	3	4	
Compulsory Courses											
7E1200 Cellular and Molecular Biology*_	10	C	67	-	-	18			3	4	3 h Seminars3 h Seminars
7E1201 Neuroscience*_	5	C	50	-	-	20				4	

*The course has limited participation

Biomedical Engineering D4

At least 16 cr of the elective courses have to be studied, and of those at most one of the two alternatives 2D1266 or 7E1101+7E1121 may be included.

Code Name	Credits	Level	Lec	Tut	Le	Lab	Periods				Other
							1	2	3	4	
Compulsory Courses											
7E1202 Systems Biology*_	5	C	32	-	-	25		2			24 h Seminars24 h Seminars
Elective Courses											
2D1266 Mathematical Models, Analysis and Simulation Part I	5	C	48	-	-	12	1	2			
2D1421 Image Analysis and Computer Vision	5	D	36	4	-	8			3		
2D1431 Machine Learning	4	C	26	-	-	20		2			
2D1432 Artificial Neural Networks and Other Learning Systems	4	D	26	-	-	16			3		
2D1433 Artificial Neural Networks, Advanced Course	4	D	16	-	-	8				4	4 h Seminars4 h Seminars
2D1435 Mathematical Modelling of Biological Systems	6	D	26	-	-	20	1	2			
2D1436 Modelling of Processes in Cell Biology	4	D	16	-	-	16	1				
2D1450 Algorithmic Bioinformatics	4	D	36	-	-	-				4	
2E1390 Sound Perception <i>Replaces 2F1300.</i>	5	D	24	12	-	4	1				20 h Projektuppgift20 h Projektuppgift
2E1395 Pattern Recognition <i>Replaces 2F1510.</i>	4	D	24	24	-	-	1				24 h Projektuppgift24 h Projektuppgift
5A1352 Complex Systems <i>Under bearbetning</i>	4	D	24	-	-	-	1				
7E1101 Medical Engineering, Basic Course	4	C	24	-	-	-	1				
7E1121 Medical Radiation Physics	1	C	6	-	-	-	1				

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Computer Security D3

One of two compulsory courses has to be studied + at least 16 cr of the recommended courses marked with *. Only one of the courses 2I1050 or 2I1506 can be studied.

the courses 2I1030 or 2I1030 can be studied:

Code Name	Credits	Level	Lec	Tut	Le	Lab	Periods				Other
							1	2	3	4	
Compulsory Courses											
2I1030 Introduction to Computer Security <i>Under bearbetning</i>	4	A	-	-	-	15			3		Other 100 hours
2I1273 Principles of Computer Security <i>The course cannot be included in an exam that already includes one of the courses 2I1030, 2I1501, 2I1502, 2I1278, 2I4075.</i> <i>Under bearbetning</i>	4	D	24	-	-	12			3		Seminar paper 24 hours

Computer Security D4

One of two compulsory courses has to be studied + at least 16 cr of the recommended courses marked with *. Only one of the courses 2I1050 or 2I1506 can be studied.

Code Name	Credits	Level	Lec	Tut	Le	Lab	Periods				Other
							1	2	3	4	
Compulsory Courses											
2I1030 <u>Introduction to Computer Security</u> <i>Under bearbetning</i>	4	A	-	-	-	15			3		Other 100 hours
2I1273 <u>Principles of Computer Security</u> <i>The course cannot be included in an exam that already includes one of the courses 2I1030, 2I1501, 2I1502, 2I1278, 2I4075.</i> <i>Under bearbetning</i>	4	D	24	-	-	12	1				Seminar paper 24 hours
2I1273 <u>Principles of Computer Security</u> <i>The course cannot be included in an exam that already includes one of the courses 2I1030, 2I1501, 2I1502, 2I1278, 2I4075.</i> <i>Under bearbetning</i>	4	D	24	-	-	12			3		Seminar paper 24 hours
Recommended Courses											
2D1440 <u>Advanced Algorithms</u>	4	D	30	-	-	-		2			
2G1516 <u>Formal Methods</u>	5	D	24	20	-	12		2			
2I1050 <u>Security Management</u> <i>The course cannot be included in an exam together with course 2I1506 *</i> <i>Under bearbetning</i>	5	D	27	-	-	-				4	
2I1263 <u>Internet Application Protocols and Standards</u> <i>Under bearbetning</i>	4	A	24	-	-	20			3		120h

211272 <u>Security Architecture for Open Distributed Systems</u> * <i>Under bearbetning</i>	4	D	24	-	-	-			4	Research Assignment 24h, Extra Reading Materials 36h
211276 <u>Security for Java Environment and Electronic Commerce</u> * <i>Under bearbetning</i>	4	D	21	8	3	-			3	Extra Reading Materials 36h, Research Project 24h
211279 <u>Security in Mobile and Wireless Networks</u> * <i>Under bearbetning</i>	4	D	24	-	-	10			3	
211503 <u>Network Security</u> Replaces 211274 from 04/05 * <i>Under bearbetning</i>	5	D	18	-	-	18		2		
211504 <u>Software Engineering and Security Architecture</u> * <i>Under bearbetning</i>	5	D	18	-	-	18			3	
211505 <u>Legal Aspects of Information Security</u> * <i>Under bearbetning</i>	5	D	24	-	-	12			3	
211506 <u>Security Management</u> Cannot be included in an exam together with course 211050 * <i>Under bearbetning</i>	10	D	24	-	-	6			4	Seminars 18 hours

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Computer Systems Engineering D3

At least one of the courses 2B1463, 2G1114 and 2G1511 have to be studied. At least 30 cr have to be studied and of these 15 cr have to be of the *-marked courses.

Computer Systems Engineering D4

At least one of the courses 2B1463, 2G1114 and 2G1511 have to be studied. At least 30 cr have to be studied and of these 15 cr have to be of the *-marked courses.

Code Name	Credits	Level	Lec	Tut	Le	Lab	Periods				Other
							1	2	3	4	
Elective Courses											
2B1423 ASIC-design Methodology with High-level Languages *	5	D	20	4	-	16				4	Project 12 hours
2B1435 DSP-Construction with HDL *	5	D	24	12	-	24			3		
2B1446 Embedded Systems <i>The course replaces 2B1445 The course is given in Kista</i>	5	C	24	6	-	16	1				
2B1448 System-On-Chip Architectures <i>The course replaces 2B1447 The course is given in Kista</i> *	5	D	24	6	-	12		2			
2B1463 Embedded Software <i>The course is given in Kista</i> *	5	D	20	6	-	12			3		
2B1513 Digital Design with HDL *	5	D	20	4	-	40	1				
2D1258 Introduction to High Performance Computing* <i>Please note that the course starts in August. Will not be on the central schedule.</i>	5	C	40	-	-	40	1				
2D1263 Program Construction for Scientific Computing	4	C	24	-	-	12			3	4	
2D1375 Implementation of Programming Languages <i>Self-study course.</i> *	4	D	2	-	-	-	1	2			

2G1114 Parallel Computer Systems *	5	D	-	-	24	-	2		Individual project guidance: 2-5 h/ student. Home study time: 150 h
2G1508 Compilers and Virtual Machines	4	C	24	8	-	4	2		
2G1510 Computer Architecture Fundamentals, Intermediate Course <i>Under bearbetning</i>	5	C	14	12	-	4	2		Seminar 4h
2G1511 Computer Architecture *	6	D	42	-	-	12		3 4	Individual project guidance: 2-5 h/ student Home study time: 180 h
2G1531 System Modelling and Simulation <i>This course is replaces 2G1503</i>	5	C	24	-	-	-	1		Projectwork 12 h

*The course has limited participation

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Distributed Systems D3

At least 10 cr of the elective courses have to be studied.

Code Name	Credits	Level	Lec	Tut	Le	Lab	Periods				Other
							1	2	3	4	
Elective Courses											
2G1117 Semantics for Programming Languages	4	D	20	10	-	-			3		
2G1515 Constraint Programming	5	D	24	-	-	-			3		Project work 10 hours
2G1523 Programming Web-Services	5	D	20	10	-	-			3		
2G1529 Network Programming with Java <i>The course replaces 2G1118 The course is given in Campus Valhallavägen in period 4</i>	5	D	22	10	-	10				4	

Distributed Systems D4

At least 10 cr of the elective courses have to be studied.

Code Name	Credits	Level	Lec	Tut	Le	Lab	Periods				Other
							1	2	3	4	
Compulsory Courses											
2G1509 Distributed Systems, Basic Course	5	D	24	-	-	-	1				Project work 10 hours
2G1513 Distributed Systems, Advanced Course	5	D	24	-	-	-			3		
Elective Courses											
2G1117 Semantics for Programming Languages	4	D	20	10	-	-			3		
2G1515 Constraint Programming	5	D	24	-	-	-			3		Project work 10 hours
2G1522 Modern Methods in Software Engineering	5	D	20	10	-	-	1				
2G1523 Programming Web-Services	5	D	20	10	-	-			3		
2G1524 Distributed Artificial Intelligence and Intelligent Agents <i>The course is not elective if the student has already taken 2I1235</i>	5	D	24	10	-	-		2			
2G1526 Distributed Computing, Peer-to-Peer and GRIDS	5	D	-	-	12	-				4	Assignment presentations 1 h per group
2G1529 Network Programming with Java <i>The course replaces 2G1118 The course is given in Campus Valhallavägen in period 4</i>	5	D	22	10	-	10				4	
2G1529 Network Programming with Java <i>The course replaces 2G1118 The course is given in Kista in period 2</i>	5	D	22	10	-	10		2			
2G1531 System Modelling and Simulation <i>This course is replaces 2G1503</i>	5	C	24	-	-	-	1				Projectwork 12 h

2G1704 Internet Security and Privacy	5	D	30	10	-	-	2		assigned paper
2G1915 Concurrent Programming <i>In period 3, the course is given in Kista</i>	5	C	36	-	-	24		3	
2G1915 Concurrent Programming <i>In period 1, the course is given at Campus Valhallavägen.</i>	5	C	36	-	-	24	1		

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Formal Design Techniques D3

At least 20 cr of the elective courses have to be studied. Only one of the courses 2D1373 och 2G1505 can be studied depending on similar content.

Code Name	Credits	Level	Lec	Tut	Le	Lab	Periods				Other
							1	2	3	4	
Elective Courses											
2D1373 <u>Artificial Languages and Syntax Analysis</u>	4	C	24	-	-	16			3		
2G1505 <u>Theory of Automata</u>	4	D	20	10	-	-				4	
2I1273 <u>Principles of Computer Security</u> <i>The course cannot be included in an exam that already includes one of the courses 2I1030, 2I1501, 2I1502, 2I1278, 2I4075.</i> <i>Under bearbetning</i>	4	D	24	-	-	12			3		Seminar paper 24 hours
5B1305 <u>Applied Combinatorics</u> <i>Not given 05/06.</i>	4	C	-	-	42	-					
5B1750 <u>Optimization for E and D</u>	4	A	28	14	-	9				4	

Formal Design Techniques D4

At least 20 cr of the elective courses have to be studied. Only one of the courses 2D1373 och 2G1505 can be studied depending on similar content.

Code Name	Credits	Level	Lec	Tut	Le	Lab	Periods				Other
							1	2	3	4	
Compulsory Courses											
2G1117 <u>Semantics for Programming Languages</u>	4	D	20	10	-	-			3		
2G1516 <u>Formal Methods</u>	5	D	24	20	-	12		2			
2G1517 <u>Advanced Formal Methods</u>	5	D	12	-	-	-				4	Seminars 6 hours
Elective Courses											
2D1440 <u>Advanced Algorithms</u>	4	D	30	-	-	-		2			
2D1446 <u>Complexity Theory</u> <i>The course is given every second year and will be given in 05/06.</i>	4	D	30	-	-	-				4	
2D1449 <u>Foundations of Cryptography</u>	4	D	30	-	-	-			3		
2G1505 <u>Theory of Automata</u>	4	D	20	10	-	-				4	
2G1508 <u>Compilers and Virtual Machines</u>	4	C	24	8	-	4		2			
2G1515 <u>Constraint Programming</u>	5	D	24	-	-	-			3		Project work 10 hours
2G1530 <u>Logic Programming</u> <i>replaces 2G1121</i>	5	D	16	12	-	-	1				Individual work on project and group presentation 4h

<u>2G1915 Concurrent Programming</u> <i>In period 3, the course is given in Kista</i>	5	C	36	-	-	24			3	
<u>2G1915 Concurrent Programming</u> <i>In period 1, the course is given at Campus Valhallavägen.</i>	5	C	36	-	-	24	1			
<u>2I1273 Principles of Computer Security</u> <i>The course cannot be included in an exam that already includes one of the courses 2I1030, 2I1501, 2I1502, 2I1278, 2I4075.</i> <i>Under bearbetning</i>	4	D	24	-	-	12			3	Seminar paper 24 hours
<u>2I1273 Principles of Computer Security</u> <i>The course cannot be included in an exam that already includes one of the courses 2I1030, 2I1501, 2I1502, 2I1278, 2I4075.</i> <i>Under bearbetning</i>	4	D	24	-	-	12	1			Seminar paper 24 hours

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IT Project Management and Organisation D3

For more detailed information, see the brochure about specializations for D (in Swedish).

Code Name	Credits	Level	Lec	Tut	Le	Lab	Periods				Other	
							1	2	3	4		
Compulsory Courses												
4D1024 Industrial Economy and Management, Basic Course	4	A	20	16	-	-			3		4 h Seminars4 h Seminars	
4D1061 Strategic Management	4	B	20	-	-	-				4		
Recommended Courses												
4D1028 Industrial Economics and Management, Advanced Course	4	B	26	20	-	-				4	8 h SeminarsSeminars 4 H 8 h Seminars	
4D1051 Commercial Law	4	B	14	18	-	-			3			
4D1062 Industrial Marketing <i>Replaces 4D1065 Industrial Marketing and 4D1151 Marketing</i>	4	B	36	12	-	-			3			
4D1096 Human Resource Management	4	B	28	12	-	-			3			

IT Project Management and Organisation D4

For more detailed information, see the brochure about specializations for D (in Swedish).

Code Name	Credits	Level	Lec	Tut	Le	Lab	Periods				Other
							1	2	3	4	
Compulsory Courses											
4D1071 Industrial Project Management, Basic Course	4	B	40	8	-	-	1				
4D1072 Industrial Project Management, Advanced Course	4	C	36	12	-	-			3		
4D1174 Management and Analysis of Innovations and Technology	4	C	38	-	-	-		2			10 h Seminars10 h Seminars
4D1308 Knowledge Management	4	D	18	12	-	-				4	12 h Seminars12 h Seminars
Recommended Courses											
4D1041 Business Negotiations*	4	C	24	8	-	-			3	4	
4D1052 Intellectual Property Law	4	C	18	8	-	-				4	6 h SeminarsSeminars 6h 6 h Seminars
4D1057 Advanced Patent Law	4	C	4	14	-	-	1				14 h SeminarsSeminars 14h 14 h Seminars
4D1064 Management of Software Development Projects*	4	C	28	-	-	-			3		
4D1076 Leadership in Cross-Cultural Context*	4	C	22	12	-	-		2			12 h Seminars12 h Seminars
The course is maximized to 60 students.											

4D1093 Psychology for Engineers	4	B	24	3	-	4	2			
4D1142 Leadership	4	B	16	12	-	-	1			12 h Seminars12 h Seminars
4D1152 Industrial Marketing, Advanced Course	4	C	36	-	-	-	1			12 h Seminars12 h Seminars
4D1162 Management Control: Strategic and Behavioural Perspectives	4	B	34	-	-	-	2			4 h Seminars4 h Seminars
4D1166 Finance	4	B	30	18	-	-	2			
4D1177 Digital Media Management	4	C	30	12	-	-			4	
4D1182 Knowledge Perspectives: Images of Organization*	4	D	28	-	-	-	1			
4D1306 Art, Science and Skill	4	C	14	-	-	-	2			9 h Seminars9 h Seminars
4D1311 Intercultural Understanding	4	D	28	-	-	-			4	4 h Seminars4 h Seminars

*The course has limited participation

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The Philosophy of Information D4

At least 2 of the compulsory courses have to be studied + additionally 2 of the compulsory or recommended courses.

Code Name	Credits	Level	Lec	Tut	Le	Lab	Periods				Other
							1	2	3	4	
Compulsory Courses											
1N1001 Master's Project in Philosophy	20	D	-	-	-	-					
1N1107 Information Analysis	5	C	14	14	-	-				4	
1N1108 Computer- and Information Ethics	5	C	20	10	-	-			3		
1N1113 Aesthetics and Technology	5	C	20	10	-	-		2			
1N1117 Decision Theory	5	C	16	14	-	-	1				
Recommended Courses											
1H1601 Mathematics and Reality	5	C	20	10	-	-				4	
1H1604 Philosophy of Risk	5	C	20	-	-	-		2			10h seminars
1N1106 Philosophy of Science	5	D	20	-	-	10	1				Seminars 4h
1N1111 The Epistemology of Technology	5	D	20	-	-	-				4	10 h Seminars
Elective Courses											
1N1106 Philosophy of Science *	5	D	20	-	-	6			3		Seminars 4h
2D1400 Interactive Media for Computer Scientists <i>Probably not given 05/06.</i>	5	D	-	-	-	-	1				
2D1410 User Centered Program Development	6	D	26	-	-	22			3	4	
2D1418 Language Engineering	4	D	40	-	-	12	1				
2D1432 Artificial Neural Networks and Other Learning Systems	4	D	26	-	-	16			3		
2D1441 Seminars on Theoretical Computer Science <i>The course is given every second year and will not be given in 05/06.</i>	4	D	30	-	-	-					
2D1620 Human-Computer Interaction, Introductory Course	4	C	20	10	-	2	1				
2D1622 Human-Computer Interaction, Advanced Course	4	C	18	5	-	8		2			
2I1224 Data Warehousing <i>Under bearbetning</i>	4	D	15	10	-	30				4	
2I1229 Knowledge Management	4	D	28	-	-	18			3		70h
2I1234 Machine Learning <i>Under bearbetning</i>	4	D	36	-	-	-				4	

<u>211710 Ubiquitous Computing</u> <i>Replaces course 211237 start in P3, end in P4</i> <i>Under bearbetning</i>	4	D	29	-	50	-			3	4	tutorials 6 h, seminars 5 h

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Information Systems and Computer Base Technology D3

At least 20 cr of the compulsory courses have to be studied.

Code Name	Credits	Level	Lec	Tut	Le	Lab	Periods				Other
							1	2	3	4	
Compulsory Courses											
211040 Knowledge and Software Reuse <i>Under bearbetning</i>	4	C	18	18	-	40			3	4	
211224 Data Warehousing <i>Under bearbetning</i>	4	D	15	10	-	30				4	
211229 Knowledge Management	4	D	28	-	-	18			3		70h
211242 Models and Languages for Object, Relational and Web Databases	5	D	20	40	-	75			3	4	Studying/Practice 60h
Recommended Courses											
211406 Mobile Business <i>Under bearbetning</i>	5	D	18	12	-	-			3	4	Project work 80 h

Information Systems and Computer Base Technology D4

At least 20 cr of the compulsory courses have to be studied.

Code Name	Credits	Level	Lec	Tut	Le	Lab	Periods				Other
							1	2	3	4	
Compulsory Courses											
211040 Knowledge and Software Reuse <i>Under bearbetning</i>	4	C	18	18	-	40			3	4	
211053 Internet and ERP Systems	5	C	12	-	-	-	1				Project work 80 h
211224 Data Warehousing <i>Under bearbetning</i>	4	D	15	10	-	30				4	
211228 Enterprise Computing and ERP Systems	5	D	14	12	-	60	1				80h
211229 Knowledge Management	4	D	28	-	-	18			3		70h
211242 Models and Languages for Object, Relational and Web Databases	5	D	20	40	-	75			3	4	Studying/Practice 60h
Recommended Courses											
211041 Software Evolution and Maintenance <i>This course is a part-time course (75%), meaning that you accomplish 4 credits within 6 weeks.</i> <i>Under bearbetning</i>	4	C	21	16	-	9	1				group counselling 1h
211056 Relational Database Design - Logical and Physical	4	C	12	12	-	60		2			Computer tutorials and hand in assignments 80h

211068 <u>Internet Search and Monitoring Techniques</u> <i>The course replaces 211413</i>	5	C	-	-	16	-	2		6 assignments
211404 <u>Model-driven Development of Components</u>	5	D	20	35	-	110		4	
211406 <u>Mobile Business</u> <i>Under bearbetning</i>	5	D	18	12	-	-	3	4	Project work 80 h
211408 <u>Projects and Powergames</u>	4	D	24	-	-	-		4	Seminars 15 hours

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Intelligent Interactive Systems D3

At least 20 cr of the compulsory courses have to be studied.

Code Name	Credits	Level	Lec	Tut	Le	Lab	Periods				Other
							1	2	3	4	
Compulsory Courses											
211234 Machine Learning <i>Under bearbetning</i>	4	D	36	-	-	-				4	
211235 Agent Programming <i>The course are not electiv if students already had read 2G1524</i> <i>Under bearbetning</i>	4	D	18	-	-	3			3	4	Other 80 hours
211710 Ubiquitous Computing <i>Replaces course 211237 start in P3, end in P4</i> <i>Under bearbetning</i>	4	D	29	-	50	-			3	4	tutorials 6 h, seminars 5 h
Recommended Courses											
211263 Internet Application Protocols and Standards <i>Under bearbetning</i>	4	A	24	-	-	20			3		120h

Intelligent Interactive Systems D4

At least 20 cr of the compulsory courses have to be studied.

Code Name	Credits	Level	Lec	Tut	Le	Lab	Periods				Other	
							1	2	3	4		
Compulsory Courses												
211095 Cognitive Science <i>Under bearbetning</i>	4	C	25	-	-	-			3		Course assignment work 120	
211705 Artificial Intelligence: Principles and Techniques <i>Under bearbetning</i>	4	C	-	-	-	-	1					
211710 Ubiquitous Computing <i>Replaces course 211237 start in P3, end in P4</i> <i>Under bearbetning</i>	4	D	29	-	50	-			3	4	tutorials 6 h, seminars 5 h	
Recommended Courses												
211042 Design and Construction of Interactive Systems <i>Under bearbetning</i>	5	C	-	-	-	-		2				
211059 Methods for the Design of Multimedia & Interactive Systems <i>Under bearbetning</i>	6	D	25	-	-	64				4		
211130 Cognitive Psychology <i>Under bearbetning</i>	4	B	30	12	-	-	1					
211140 Artificial Intelligence <i>Under bearbetning</i>	6	D	39	10	-	80			3			

211263 Internet Application Protocols and Standards <i>Under bearbetning</i>	4	A	24	-	-	20		3	120h
211703 Affective interaction <i>Under bearbetning</i>	4	D	18	-	-	-		4	project 120 hours
211709 Collaborative computing <i>Under bearbetning</i>	4	D	20	-	-	30		3	
211801 Internet Programming I <i>Replaces 211264 from HT04.</i>	5	D	6	-	-	160	1		
211802 Internet Programming II <i>Replaces 211265 from HT04.</i>	5	D	6	-	-	160	2		

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Internet Working Technology D3

At least 2 of the compulsory courses have to be studied and totally at least 25 cr of the compulsory + recommended courses.

Code Name	Credits	Level	Lec	Tut	Le	Lab	Periods				Other
							1	2	3	4	
Compulsory Courses											
2D1490 IP Routing in Simple Computer Networks*_	5	D	32	8	-	32			3		
2G1316 Datacommunication and Computer Networks <i>Given at Campus Valhallavägen</i>	4	A	24	18	-	12			3		
Recommended Courses											
2G1520 Operating Systems <i>Given at Campus Valhallavägen</i>	5	C	28	12	-	-				4	

*The course has limited participation

Internet Working Technology D4

At least 2 of the compulsory courses have to be studied and totally at least 25 cr of the compulsory + recommended courses.

Code Name	Credits	Level	Lec	Tut	Le	Lab	Periods				Other
							1	2	3	4	
Compulsory Courses											
2D1392 <u>Protocols and Principles of the Internet*</u>	5	C	35	21	-	32	1				
2D1490 <u>IP Routing in Simple Computer Networks*</u>	5	D	32	8	-	32			3		
2G1316 <u>Datacommunication and Computer Networks</u> <i>Given at Campus Valhallavägen</i>	4	A	24	18	-	12			3		
Recommended Courses											
2D1390 <u>Internet Programming</u>	4	C	28	-	-	26		2			
2D1491 <u>IP Routing in Internet and Other Complex Networks*</u>	5	D	24	8	-	32				4	
2D1492 <u>Net Design, Project Course*</u> <i>The course is given every second year. Given 05/06.</i>	6	D	12	4	-	8	1	2			
2D1493 <u>Seminars on Grid Computing and Internetworking</u> <i>The course is given every second year. Not given 05/06.</i>	4	D	24	-	-	16					
2E1618 <u>Queuing Theory and Teletraffic Systems</u> <i>The course replaces 2G1318.</i>	4	D	24	24	-	-		2			

2E1623 Data Links and Local Area Networks*	5	C	24	14	-	12			3	
2E1624 Performance Analysis of Communication Networks <i>The course replaces 2G1324.</i> <i>Under bearbetning</i>	5	D	-	-	24	-			3	30 h Projektuppgift30 h Projektuppgift
2G1305 Internetworking <i>Given at Campus Valhallavägen</i>	4	C	20	18	-	10	1			Assignments
2G1325 Practical Voice Over IP (VoIP)	5	D	10	-	-	-			4	Assigned paper 50h
2G1330 Wireless and Mobile Network Architectures	5	D	10	-	-	-			3	Assigned paper 50h
2G1520 Operating Systems <i>Given in Kista</i>	5	C	28	10	-	-		2		
2G1520 Operating Systems <i>Given at Campus Valhallavägen</i>	5	C	28	12	-	-			4	
2G1526 Distributed Computing, Peer-to-Peer and GRIDS	5	D	-	-	12	-			4	Assignment presentations 1 h per group

*The course has limited participation

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Communication Systems D3

At least 2 of the recommended courses have to be studied. One of the courses 2G1319, 2G1711, 2G1712 or 2G1713 has to be studied during the fourth year.

Code Name	Credits	Level	Lec	Tut	Le	Lab	Periods				Other
							1	2	3	4	
Compulsory Courses											
2G1316 Datacommunication and Computer Networks <i>Given at Campus Valhallavägen</i>	4	A	24	18	-	12			3		
2G1520 Operating Systems <i>Given at Campus Valhallavägen</i>	5	C	28	12	-	-				4	

Communication Systems D4

At least 2 of the recommended courses have to be studied. One of the courses 2G1319, 2G1711, 2G1712 or 2G1713 has to be studied during the fourth year.

Code Name	Credits	Level	Lec	Tut	Le	Lab	Periods				Other
							1	2	3	4	
Compulsory Courses											
2G1305 Internetworking <i>Given at Campus Valhallavägen</i>	4	C	20	18	-	10	1				Assignments
2G1305 Internetworking <i>Given in Kista</i>	4	C	14	14	-	-				4	
2G1319 Communication System Design <i>Also given as 2G1711, 12 credits; 2G1712, 16 credits and 2G1713, 20 credits</i>	10	D	-	-	-	-			3	4	Project work
2G1711 Communication System Design <i>Under bearbetning</i>	12	D	-	-	-	-			3	4	project
2G1712 Communication System Design <i>Under bearbetning</i>	16	D	-	-	-	-			3	4	Project
2G1713 Communication System Design <i>Under bearbetning</i>	20	D	-	-	-	-			3	4	Project
Recommended Courses											
2E1618 Queuing Theory and Teletraffic Systems <i>The course replaces 2G1318.</i>	4	D	24	24	-	-		2			
2E1623 Data Links and Local Area Networks* <i>Under bearbetning</i>	5	C	24	14	-	12			3		
2E1624 Performance Analysis of Communication Networks <i>The course replaces 2G1324.</i> <i>Under bearbetning</i>	5	D	-	-	24	-			3		30 h Projektuppgift30 h Projektuppgift
2E1632 Management of Networks and Networked Systems <i>The course replaces 2G1332.</i>	5	D	18	-	-	-				4	Project

2E1633 Network Services and Internet-based Applications* <i>The course replaces 2G1333.</i>	5	D	8	-	-	-				4	120 h Projektuppgift120 h Projektuppgift
2G1325 Practical Voice Over IP (VoIP)	5	D	10	-	-	-				4	Assigned paper 50h
2G1330 Wireless and Mobile Network Architectures	5	D	10	-	-	-				3	Assigned paper 50h
2G1510 Computer Architecture Fundamentals, Intermediate Course <i>Under bearbetning</i>	5	C	14	12	-	4		2			Seminar 4h
2G1516 Formal Methods	5	D	24	20	-	12		2			
2G1704 Internet Security and Privacy	5	D	30	10	-	-		2			assigned paper
2G1722 Developing Mobile Applications	5	D	20	-	-	10	1				
2G1723 GSM Network and Services	5	D	24	-	-	-				4	Laboratory 5 sessions
2G1915 Concurrent Programming <i>In period 1, the course is given at Campus Valhallavägen.</i>	5	C	36	-	-	24	1				
2G1915 Concurrent Programming <i>In period 3, the course is given in Kista</i>	5	C	36	-	-	24			3		

*The course has limited participation

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Human-Computer Interaction D3

At least 1 of the advanced courses have to be studied.

Code Name	Credits	Level	Lec	Tut	Le	Lab	Periods				Other
							1	2	3	4	
Compulsory Courses											
2D1640 Graphics and Interaction Programming	6	C	36	14	-	42			3	4	
Recommended Courses											
2D1625 IT-design for the Disabled	4	A	18	-	-	8				4	Seminars 8 h
4D1208 History of Technology and Science	5	B	16	-	-	-			3		16 h Seminars16 h Seminars

Human-Computer Interaction D4

At least 1 of the advanced courses have to be studied.

Code Name	Credits	Level	Lec	Tut	Le	Lab	Periods				Other
							1	2	3	4	
Compulsory Courses											
2D1620 Human-Computer Interaction, Introductory Course	4	C	20	10	-	2	1				
2D1622 Human-Computer Interaction, Advanced Course	4	C	18	5	-	8		2			
Recommended Courses											
2D1378 Text and Image Processing <i>Not given 05/06.</i>	4	B	28	18	-	-					
2D1381 Industrial Applications of Artificial Intelligence	4	C	36	-	-	-	1	2			
2D1400 Interactive Media for Computer Scientists <i>Probably not given 05/06.</i>	5	D	-	-	-	-	1				
2D1408 Evaluation Methods in Human-Computer Interaction* <i>Advanced course</i>	4	D	10	14	-	-			3	4	
2D1410 User Centered Program Development <i>Advanced course</i>	6	D	26	-	-	22			3	4	
2D1413 Advanced Graphics and Interaction	6	D	46	-	-	12	1	2			
2D1416 Computer Support for Cooperative Work <i>Advanced course</i>	6	D	30	-	-	15			3	4	
2D1418 Language Engineering	4	D	40	-	-	12	1				

2D1421 Image Analysis and Computer Vision	5	D	36	4	-	8			3	
2D1518 Audio, Video and Multimedia Production*	5	C	30	-	-	40		2	3	8 h Study visit8 h Study visit
2D1521 Communication and Information*	5	C	16	12	-	-			3	
2D1603 Technologies that change time, space and reality	5	B	34	27	-	-	1	2		
2D1630 Methods in Behavioural Science	4	C	26	8	-	-	1			
2D1631 Software Support for Prototyping	4	C	18	6	-	28	1	2		
2D1650 Computer Game Design* <i>Limited number of participants.</i>	4	D	24	6	-	4		2		
2D1651 Computer Game Design with Advanced Graphics* <i>Limited number of participants.</i>	6	D	48	6	-	10	1	2		
2E1395 Pattern Recognition <i>Replaces 2F1510.</i>	4	D	24	24	-	-	1			24 h Projektuppgift24 h Projektuppgift
2F1111 Speech Technology	4	D	36	14	-	6			3	
2F1213 Musical Communication and Music Technology	5	D	28	8	-	12			4	Project assignment 30h
2I1130 Cognitive Psychology <i>Under bearbetning</i>	4	B	30	12	-	-	1			
4D1093 Psychology for Engineers	4	B	24	3	-	4		2		

*The course has limited participation

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Computer Science

Software Systems Technology D3

At least 25 credits of the courses have to be studied. 1 = at least 3 of the courses have to be studied.

Code Name	Credits	Level	Lec	Tut	Le	Lab	Periods				Other
							1	2	3	4	
Elective Courses											
2D1373 Artificial Languages and Syntax Analysis 1	4	C	24	-	-	16			3		
2D1450 Algorithmic Bioinformatics	4	D	36	-	-	-				4	
2D1455 Theoretical Foundations of Object-Oriented	5	D	36	-	-	4				4	
2D1456 Advanced Functional Programming	4	D	28	-	-	14				4	
2D1471 Modern Database Systems and Their Applications	5	D	26	8	-	-				4	
2D1482 Programming of Web Server Applications*	4	D	16	-	-	30			3		
2G1520 Operating Systems <i>Given at Campus Valhallavägen</i>	5	C	28	12	-	-				4	
2I1705 Artificial Intelligence: Principles and Techniques <i>Under bearbetning</i>	4	C	-	-	-	-	1				
5B1305 Applied Combinatorics <i>Not given 05/06.</i>	4	C	-	-	42	-					

*The course has limited participation

Software Systems Technology D4

At least 25 credits of the courses have to be studied. 1 = at least 3 of the courses have to be studied.

Code Name	Credits	Level	Lec	Tut	Le	Lab	Periods				Other
							1	2	3	4	
Elective Courses											
2D1373 Artificial Languages and Syntax Analysis 1	4	C	24	-	-	16			3		
2D1375 Implementation of Programming Languages Self-study course. 1	4	D	2	-	-	-	1	2			
2D1380 Artificial Intelligence	4	C	24	4	-	30	1				
2D1381 Industrial Applications of Artificial Intelligence	4	C	36	-	-	-	1	2			
2D1387 Program System Construction Using C++	4	C	18	6	-	32	1	2			

2D1390 Internet Programming	4	C	28	-	-	26	2			
2D1410 User Centered Program Development	6	D	26	-	-	22		3	4	
2D1418 Language Engineering 1	4	D	40	-	-	12	1			
2D1431 Machine Learning	4	C	26	-	-	20	2			
2D1440 Advanced Algorithms 1	4	D	30	-	-	-	2			
2D1450 Algorithmic Bioinformatics	4	D	36	-	-	-			4	
2D1455 Theoretical Foundations of Object-Oriented Orientation	5	D	36	-	-	4			4	
2D1456 Advanced Functional Programming	4	D	28	-	-	14			4	
2D1458 Problem Solving and Programming under Pressure*	6	C	26	-	-	52	1	2		
2D1469 Database Theory	4	D	31	17	-	-	1			
2D1471 Modern Database Systems and Their Applications	5	D	26	8	-	-			4	
2D1482 Programming of Web Server Applications*	4	D	16	-	-	30	1			
2D1482 Programming of Web Server Applications*	4	D	16	-	-	30			3	
2D1486 Systems Programming and Operating Systems	5	D	24	-	-	24	2			
2G1117 Semantics for Programming Languages 1	4	D	20	10	-	-			3	
2G1516 Formal Methods	5	D	24	20	-	12	2			
2G1520 Operating Systems Given in Kista	5	C	28	10	-	-	2			
2G1520 Operating Systems Given at Campus Valhallavägen	5	C	28	12	-	-			4	
2G1915 Concurrent Programming In period 1, the course is given at Campus Valhallavägen.	5	C	36	-	-	24	1			
2G1915 Concurrent Programming In period 3, the course is given in Kista	5	C	36	-	-	24			3	
2I1705 Artificial Intelligence: Principles and Techniques Under bearbetning	4	C	-	-	-	-	1			
5B1305 Applied Combinatorics Not given 05/06.	4	C	-	-	42	-				

*The course has limited participation

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Computer Science

Software Technology D3

Code Name	Credits	Level	Lec	Tut	Le	Lab	Periods				Other
							1	2	3	4	
Compulsory Courses											
2I1281 Agile Software Construction <i>Under bearbetning</i>	6	C	40	-	40	120				4	
2I1282 Software Testing and Metrics <i>Under bearbetning</i>	5	D	40	-	120	-			3		
2I1901 Introduction to Software Engineering <i>Under bearbetning</i>	5	C	15	-	-	-			3		Seminars 6 hours, project 120 hours
Recommended Courses											
2D1410 User Centered Program Development	6	D	26	-	-	22			3	4	
2G1117 Semantics for Programming Languages	4	D	20	10	-	-			3		
2I1273 Principles of Computer Security <i>The course cannot be included in an exam that already includes one of the courses 2I1030, 2I1501, 2I1502, 2I1278, 2I4075.</i> <i>Under bearbetning</i>	4	D	24	-	-	12			3		Seminar paper 24 hours

Software Technology D4

Code Name	Credits	Level	Lec	Tut	Le	Lab	Periods				Other
							1	2	3	4	
Compulsory Courses											
2I1256 <u>Current Problems in Software Engineering</u> <i>Under bearbetning</i>	4	D	-	-	-	-	1	2	3	4	160h
2I1281 <u>Agile Software Construction</u> <i>Under bearbetning</i>	6	C	40	-	40	120				4	
2I1282 <u>Software Testing and Metrics</u> <i>Under bearbetning</i>	5	D	40	-	120	-			3		
2I1901 <u>Introduction to Software Engineering</u> <i>Under bearbetning</i>	5	C	15	-	-	-			3		Seminars 6 hours, project 120 hours
Recommended Courses											
2D1410 <u>User Centered Program Development</u>	6	D	26	-	-	22			3	4	
2G1117 <u>Semantics for Programming Languages</u>	4	D	20	10	-	-			3		

<u>2G1915 Concurrent Programming</u> <i>In period 1, the course is given at Campus Valhallavägen.</i>	5	C	36	-	-	24	1			
<u>2G1915 Concurrent Programming</u> <i>In period 3, the course is given in Kista</i>	5	C	36	-	-	24			3	
<u>2I1041 Software Evolution and Maintenance</u> <i>This course is a part-time course (75%), meaning that you accomplish 4 credits within 6 weeks.</i> <i>Under bearbetning</i>	4	C	21	16	-	9	1			group counselling 1h
<u>2I1228 Enterprise Computing and ERP Systems</u>	5	D	14	12	-	60	1			80h
<u>2I1273 Principles of Computer Security</u> <i>The course cannot be included in an exam that already includes one of the courses 2I1030, 2I1501, 2I1502, 2I1278, 2I4075.</i> <i>Under bearbetning</i>	4	D	24	-	-	12			3	Seminar paper 24 hours
<u>2I1273 Principles of Computer Security</u> <i>The course cannot be included in an exam that already includes one of the courses 2I1030, 2I1501, 2I1502, 2I1278, 2I4075.</i> <i>Under bearbetning</i>	4	D	24	-	-	12	1			Seminar paper 24 hours
<u>2I1504 Software Engineering and Security Architecture</u> <i>Under bearbetning</i>	5	D	18	-	-	18			3	
<u>2I1902 Advanced Issues in Object-Oriented</u>	5	C	30	-	-	120	2			

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Publishing Technology D3

Code Name	Credits	Level	Lec	Tut	Le	Lab	Periods				Other
							1	2	3	4	
Compulsory Courses											
2D1528 Media Production, General Course	5	C	30	-	-	16			3		

Publishing Technology D4

Code Name	Credits	Level	Lec	Tut	Le	Lab	Periods				Other
							1	2	3	4	
Compulsory Courses											
2D1515 Machinery and Materials in Graphic Arts Technology	6	C	36	8	-	8		2			
2D1517 XML for Publishing	5	C	22	-	-	44	1	2			
2D1518 Audio, Video and Multimedia Production*	5	C	30	-	-	40		2	3		8 h Study visit8 h Study visit
2D1524 Image Processing and Reprographic Methods* <i>Limited number of participants</i>	6	C	26	16	-	12	1				
2D1527 Publishing Technology, Advanced Course <i>Open only to students of the specialization Publishing Technology.</i>	10	D	60	8	-	8			3	4	

*The course has limited participation

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Computer Science

Theoretical Computer Science D3

1 = at least 25 cr of the courses have to be studied. At least 2 of the recommended courses have to be studied.

Code Name	Credits	Level	Lec	Tut	Le	Lab	Periods				Other
							1	2	3	4	
Elective Courses											
2D1373 Artificial Languages and Syntax Analysis 1	4	C	24	-	-	16			3		
2D1380 Artificial Intelligence 1	4	C	24	4	-	30	1				
2D1450 Algorithmic Bioinformatics 1	4	D	36	-	-	-				4	
2E1423 Signal Theory 1	5	C	24	24	-	10			3		
5B1305 Applied Combinatorics Not given 05/06. 1	4	C	-	-	42	-					
5B1750 Optimization for E and D 1	4	A	28	14	-	9				4	

Theoretical Computer Science D4

1 = at least 25 cr of the courses have to be studied. At least 2 of the recommended courses have to be studied.

Code Name	Credits	Level	Lec	Tut	Le	Lab	Periods				Other
							1	2	3	4	
Recommended Courses											
2D1440 <u>Advanced Algorithms</u>	4	D	30	-	-	-		2			
2D1441 <u>Seminars on Theoretical Computer Science</u> <i>The course is given every second year and will not be given in 05/06.</i>	4	D	30	-	-	-					
2D1446 <u>Complexity Theory</u> <i>The course is given every second year and will be given in 05/06.</i>	4	D	30	-	-	-				4	
2D1449 <u>Foundations of Cryptography</u>	4	D	30	-	-	-			3		
2D1458 <u>Problem Solving and Programming under Pressure*</u>	6	C	26	-	-	52	1	2			
2G1505 <u>Theory of Automata</u>	4	D	20	10	-	-				4	
5B1309 <u>Algebra, Basic Course</u>	4	C	42	-	-	-			3		
5B1475 <u>Combinatorics, Advanced Course</u> <i>Given 05/06.</i> <i>Under bearbetning</i>	5	D	36	-	-	-	1	2			
Elective Courses											

2D1373 Artificial Languages and Syntax Analysis 1	4	C	24	-	-	16		3	
2D1380 Artificial Intelligence 1	4	C	24	4	-	30	1		
2D1450 Algorithmic Bioinformatics 1	4	D	36	-	-	-		4	
2E1423 Signal Theory 1	5	C	24	24	-	10		3	
2G1117 Semantics for Programming Languages 1	4	D	20	10	-	-		3	
2G1516 Formal Methods 1	5	D	24	20	-	12	2		
2G1530 Logic Programming <i>replaces 2G1121 1</i>	5	D	16	12	-	-	1		Individual work on project and group presentation 4h
2G1915 Concurrent Programming <i>In period 3, the course is given in Kista 1</i>	5	C	36	-	-	24		3	
2G1915 Concurrent Programming <i>In period 1, the course is given at Campus Valhallavägen. 1</i>	5	C	36	-	-	24	1		
5B1305 Applied Combinatorics <i>Not given 05/06. 1</i>	4	C	-	-	42	-			
5B1750 Optimization for E and D 1	4	A	28	14	-	9		4	

*The course has limited participation

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Design and Product realisation

Design and Product realisation P1

Code Name	Credits	Level	Lec	Tut	Le	Lab	Periods				Other	
							1	2	3	4		
Compulsory Courses												
2D1212 Numerical Methods and Basic Programming	6	A	34	30	-	28			3	4		
4F1811 Design and Product Realisation	6	A	30	50	-	40	1	2				
5A1226 Physics I	6	AB	38	-	-	30	1	2	3			
5B1132 Analytical Methods and Linear Algebra I	8	A	80	40	-	-	1	2				
5B1133 Analytical Methods and Linear Algebra II	8	B	80	40	-	-			3	4		
5C1130 Mechanics I	6	A	48	-	27	-		2	3	4		
Recommended Courses												
5B1120 Introductory Course in Mathematics I	1	A	-	-	-	-						

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Design and Product realisation

Design and Product realisation P2

Code Name	Credits	Level	Lec	Tut	Le	Lab	Periods				Other
							1	2	3	4	
Compulsory Courses											
4A1112 <u>Applied Thermodynamics</u>	6	AB	48	48	-	-			3	4	Math exercises
4C1010 <u>Solid Mechanics, basic course</u>	8	B	52	30	-	2	1	2			60 h Projektuppgift60 h Projektuppgift
4F1812 <u>Design and Product Realisation, A</u>	4	B	14	44	-	5	1	2			24 h Workshop24 h Workshop
4F1813 <u>Design and Product Realisation, B</u>	8	C	22	68	-	-			3	4	15 h Workshop15 h Workshop
4F1816	6	B	22	24	-	22			3	4	
5B1206 <u>Differential Equations I</u>	4	C	40	20	-	-	1	2			
5C1140 <u>Mechanics II</u>	4	B	30	-	15	-		2			

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Design and Product realisation

Design and Product realisation P3

Code Name	Credits	Level	Lec	Tut	Le	Lab	Periods				Other
							1	2	3	4	
Compulsory Courses											
4B1111 Fundamentals of Noise and Vibration Control	4	C	31	32	-	4	1				
4D1400 Industrial Economics and Management, Basic Course	4	A	20	16	-	-		2			4 h Seminars4 h Seminars
4F1814 Design and Product Realization C	6	C	16	24	-	42	1	2			20 h WorkshopProject work 20 h Workshop
4H1068 Structural Materials	4	B	36	-	-	15	1				
Conditionally Elective Courses											
2D1321 Applied Programming and Computer Science	6	B	38	20	-	-		2	3		
2E1200 Automatic Control, General Course	4	C	24	26	-	12		2			
2E1212 Automatic Control, General Course	4	C	24	26	-	12			3		
4A1112 Applied Thermodynamics	6	AB	48	48	-	-			3	4	Math exercises
4A1601 Heat Transfer	4	C	24	24	-	20		2			
4A1604 Project Course in Sustainable Energy Systems	10	C	-	-	-	-			3	4	Project wor Seminars
4B1121 Signals and Mechanical Systems	4	D	24	22	-	4		2			
4B1150 Bachelor's Thesis in Sound, Vibrations and Signals	10	C	-	-	-	-			3	4	Seminrs
4B1430 Bachelor´s Thesis in Vehicle Engineering	10	C	-	-	-	-			3	4	
4C1003 Project Course in Solid Mechanics	10	C	-	-	-	-			3	4	Project work Seminars
4C1025 FEM for Engineering Applications	4	C	36	14	-	4			3		
4D1061 Strategic Management	4	B	20	-	-	-				4	
4D1075 Work Organization and Leadership	4	B	24	24	-	-			3		
4D1096 Human Resource Management	4	B	28	12	-	-			3		
4E1110 Project Course in Light Weight Structures	10	C	-	-	-	-			3	4	Project work Seminars
4E1400 Project Course in Naval Architecture	10	C	-	-	-	-			3	4	
4F1242 Introduction to Microcomputer Systems <i>Under bearbetning</i>	4	C	12	22	-	14				4	
4F1819 Visualisation and Communication 1 <i>Under bearbetning</i>	4	C	13	50	-	16			3	4	24 h Seminars24 h Seminars

4F1820 Project Course in Industrial Design	10	C	-	-	-	-		3	4	
4F1821 Project Course in Integrated Product Development	10	C	-	-	-	-		3	4	
4F1822 Project Course in Mechatronics	10	C	-	-	-	-		3	4	
4G1165 Automation Technology	4	C	18	26	-	12		3		
4G1166 Project Course in Production Engineering and Mangement	10	C	-	-	-	-		3	4	Seminars
4G1169 Manufacturing	4	C	18	26	-	12	2			
5B1762 Optimization for T	4	C	28	16	-	8			4	
5C1010 Project Course in Mechanics	10	C	-	-	-	-		3	4	
5C1220 Fluid Mechanics for Engineers	4	B	26	-	-	6		3		
6S1414 Ergonomics in Product Development	4	B	20	9	-	6	2			
Elective Courses										
2D1322 Applied Programming and Computer Science, Part 1	4	B	26	14	-	14	2			
2D1324 Applied Programming and Computer Science, Part 2	2	B	12	6	-	18		3		
3C1330 Technology and Ecosystems	4	B	24	3	-	-	1			
3C1330 Technology and Ecosystems	4	B	24	3	-	-	2			
3C1330 Technology and Ecosystems	4	B	24	3	-	-		3		
4A1603 Energy Technology	4	C	48	12	-	-		3	4	
4F1829 Industrial Design Theory <i>Under bearbetning</i>	4	C	-	28	-	-			4	
4G1134 Effective Production	6	D	30	10	-	-		3	4	Project work
4G1165 Automation Technology	4	C	18	26	-	12		3		
4K1213 Advanced CAD Modelling & Rapid Prototyping, Project Course <i>Under bearbetning</i>	4	D	16	24	-	-	2	3		Project work
5A1228 Laser metrology and optical metrology	4	B	24	-	6	-		3	4	
5A1229 Physics of Visual Impressions	4	B	24	-	6	-		3	4	
5B1304 Mathematics, Extended Course	5	C	-	-	54	-		3	4	
5C1217 Fluid Mechanics, Basic Course	4	B	26	14	-	6		3		

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Electrical Engineering

Electrical Engineering E1

Code Name	Credits	Level	Lec	Tut	Le	Lab	Periods				Other
							1	2	3	4	
Compulsory Courses											
2A1800 Electrical Circuit Analysis	5	A	26	30	-	-		2			
2B1520 Electronics	8	A	-	-	-	-	1				
2D1343 Computer Science	8	A	44	28	-	28	1	2	3		
2U1700 Project Course in Electrical Engineering	5	A	12	-	-	50			3	4	
5B1115 Mathematics I	6	A	60	30	-	-	1	2			
5B1116 Mathematics II	6	A	60	30	-	-		2	3		
5B1117 Mathematics III	6	A	60	30	-	-			3	4	
5C1102 Mechanics, Smaller Course	4	A	30	15	-	-			3		
Elective Courses											
2A1801 Applied Electronics	1	B	4	-	-	8				4	
2E1215 Introductory Matlab Course	1	A	4	-	-	-			3		8 h Computer8 h Computer
5B1120 Introductory Course in Mathematics I	1	A	-	-	-	-					

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Electrical Engineering

Electrical Engineering E2

Code Name	Credits	Level	Lec	Tut	Le	Lab	Periods				Other
							1	2	3	4	
Compulsory Courses											
2A1810 Electromagnetic Theory EA	4	A	29	28	-	-	1				
2A1820 Electromagnetic Theory EB	4	A	29	28	-	-			3		
2B1100 Physics part 1, Thermodynamics and Wave Physics	4	B	-	-	-	-			3		
2B1520 Electronics	8	A	-	-	-	-				4	
2D1240 Numerical Methods, Basic Course II	4	A	24	14	-	18	1	2			
2D1343 Computer Science	8	A	4	-	-	-	1				
2E1119 Measurement Technology <i>1,5 cr are studied during the second year and 3,5 cr during the third year. The course are studied by E04 and younger.</i>	5	C	10	6	-	8			3		
2E1313 Signals and Systems, part II	5	C	30	24	-	4				4	10 h Computer10 h Computer
5B1209 Signals and Systems, part I	5	A	30	-	24	-		2			
5B1501 Probability Theory and Statistics	4	A	24	36	-	-		2			

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Electrical Engineering

Electrical Engineering E3

Code Name	Credits	Level	Lec	Tut	Le	Lab	Periods				Other
							1	2	3	4	
Compulsory Courses											
2B1101 Physics part 2, Material Physics	4	B	-	-	-	-	1				
2C1240 Electric Power Systems	4	C	28	22	-	8		2			
2E1117 Measurement Technology <i>2 cr are studied during the second year and 3 cr during the third year. The course are studied by E03 and older.</i>	5	C	10	8	-	12	1	2			Räknestuga 8h
2E1211 Automatic Control, General Course	4	C	24	26	-	12		2			
5B1307 Linear Algebra, Basic Course	4	C	40	20	-	-	1				
Elective Courses											
2B1430 Design of Digital Integrated Circuits - LSI	5	C	20	8	-	16				4	Project 16h The course is given in Campus. (Valhallavägen)
2B1454 Design of Fault-tolerant Systems	5	D	-	-	-	-				4	
2B1455 Anatomy of EDA CAD-tools	5	D	24	6	-	-			3		
2C1117 Wind Power Systems <i>Replaces 2C1114.</i>	5	C	60	-	-	-			3	4	
2C1135 Reliability Assessment of Electrical Power Systems	4	C	48	6	-	6				4	
2C1149 Electric Traction	4	C	36	-	-	-				4	
2D1220 Applied Numerical Methods I	4	C	36	-	-	18			3	4	
2D1323 Computer Graphics and Interaction <i>Allowed for all programmes except D.</i>	4	C	42	-	-	12				4	
2D1334 Database Technology	4	C	24	20	-	12			3		
2D1421 Image Analysis and Computer Vision	5	D	36	4	-	8			3		
2E1282 Modelling of Dynamical Systems	4	C	24	24	-	12				4	
2E1285 Modelling of Dynamical Systems, advanced course <i>Under bearbetning</i>	2	C	6	-	-	20					
2E1514 Wireless Transmission Techniques	4	D	26	26	-	-			3		
2F1212 Music Acoustics	4	D	-	-	48	8				4	
2F1213 Musical Communication and Music Technology	5	D	28	8	-	12				4	Project assignment 30h
2G1529 Network Programming with Java <i>The course replaces 2G1118 The course is given in Campus Valhallavägen in period 4</i>	5	D	22	10	-	10				4	

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Electrical Engineering

Electrical Engineering E4

Code Name	Credits	Level	Lec	Tut	Le	Lab	Periods				Other
							1	2	3	4	
Elective Courses											
2A1170 Chaos and Self-organization	4	D	32	17	-	-	1				
2B1221 Methods and Instruments of Analysis	5	D	-	-	28	16		2			
2B1260 Semiconductor Theory and Device Physics, General Course <i>Can only be studied of the E-students who have not studied 2B1252.</i>	5	D	30	-	-	10	1				Individual assignments 20h
2B1430 Design of Digital Integrated Circuits - LSI	5	C	20	8	-	16				4	Project 16h The course is given in Campus. (Valhallavägen)
2B1454 Design of Fault-tolerant Systems	5	D	-	-	-	-				4	
2B1455 Anatomy of EDA CAD-tools	5	D	24	6	-	-			3		
2C1117 Wind Power Systems <i>Replaces 2C1114.</i>	5	C	60	-	-	-			3	4	
2C1135 Reliability Assessment of Electrical Power Systems	4	C	48	6	-	6				4	
2C1149 Electric Traction	4	C	36	-	-	-				4	
2C1224 Management of Technology	5	D	32	20	-	-	1				
2C1243 Hybrid Vehicle Drives*	5	D	-	-	-	-		2			3 course meetings, 2-3 days each
2C1244 Seminars in Electrical Machines and Power Electronics	1	D	8	-	-	-			3	4	
2C1244 Seminars in Electrical Machines and Power Electronics	1	D	8	-	-	-	1	2			
2C1522 Business Development and Quality Management	5	C	36	10	-	-		2			
2D1220 Applied Numerical Methods I	4	C	36	-	-	18			3	4	
2D1274 Computational Electromagnetics <i>Not on the central schedule. Not given 05/06</i>	5	D	24	-	-	12					
2D1323 Computer Graphics and Interaction <i>Allowed for all programmes except D.</i>	4	C	42	-	-	12				4	
2D1334 Database Technology	4	C	24	20	-	12			3		
2D1387 Program System Construction Using C++	4	C	18	6	-	32	1	2			
2D1390 Internet Programming	4	C	28	-	-	26		2			

2D1421 Image Analysis and Computer Vision	5	D	36	4	-	8		3	
2D1620 Human-Computer Interaction, Introductory Course	4	C	20	10	-	2	1		
2D1622 Human-Computer Interaction, Advanced Course	4	C	18	5	-	8		2	
2E1282 Modelling of Dynamical Systems	4	C	24	24	-	12			4
2E1285 Modelling of Dynamical Systems, advanced course <i>Under bearbetning</i>	2	C	6	-	-	20			
2E1434 Detection and Modulation Theory, Accelerated Program	5	D	21	-	-	-		2	
2E1438 Information Theory and Channel Coding, Accelerated Program	5	D	21	-	-	-			4
2E1514 Wireless Transmission Techniques	4	D	26	26	-	-		3	
2F1212 Music Acoustics	4	D	-	-	48	8			4
2F1213 Musical Communication and Music Technology	5	D	28	8	-	12			4
									Project assignment 30h
2F1400 Electroacoustics	4	D	34	12	-	8	1		
2F1410 Audio Technology	5	D	30	12	-	12		2	
									20 h Projektuppgift20 h Projektuppgift
2G1114 Parallel Computer Systems	5	D	-	-	24	-		2	
									Individual project guidance: 2-5 h/ student. Home study time: 150 h
2G1117 Semantics for Programming Languages	4	D	20	10	-	-		3	
2G1513 Distributed Systems, Advanced Course	5	D	24	-	-	-		3	
2G1515 Constraint Programming	5	D	24	-	-	-		3	
									Project work 10 hours
2G1520 Operating Systems <i>Given in Kista</i>	5	C	28	10	-	-		2	
2G1520 Operating Systems <i>Given at Campus Valhallavägen</i>	5	C	28	12	-	-			4
2G1529 Network Programming with Java <i>The course replaces 2G1118 The course is given in Kista in period 2</i>	5	D	22	10	-	10		2	
2G1529 Network Programming with Java <i>The course replaces 2G1118 The course is given in Campus Valhallavägen in period 4</i>	5	D	22	10	-	10			4
2G1530 Logic Programming <i>replaces 2G1121</i>	5	D	16	12	-	-	1		
									Individual work on project and group presentation 4h
2G1531 System Modelling and Simulation <i>This course is replaces 2G1503</i>	5	C	24	-	-	-	1		
									Projectwork 12 h
2G1915 Concurrent Programming <i>In period 1, the course is given at Campus Valhallavägen.</i>	5	C	36	-	-	24	1		
2G1915 Concurrent Programming <i>In period 3, the course is given in Kista</i>	5	C	36	-	-	24		3	
3C1330 Technology and Ecosystems	4	B	24	3	-	-	1		
3C1330 Technology and Ecosystems	4	B	24	3	-	-		2	
3C1330 Technology and Ecosystems	4	B	24	3	-	-			3
4B1424 Vehicle Systems for a Better Environment* <i>There are 50 places to be shared among universities engaged in this set of courses.</i>	5	C	26	26	-	8	1		
4B1428 Environmental Friendly Vehicle - Project course*	5	D	10	-	-	-		2	3
								4	

<u>5A1320 Introduction to Quantum Mechanics</u> <i>The teaching is given together with the quantum mechanics part of 5A1324.</i>	4	C	30	24	-	-					
<u>5A1340 Thermodynamics and Statistical Mechanics, Basic Course</u> <i>Not given 05/06.</i>	4	C	30	24	-	-					
<u>5A1412 Atomic Nuclei - Radiation - Energy</u> <i>Given if there are enough interest. Please contact course administrator.</i>	5	A	24	-	-	15			3		

*The course has limited participation

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Electrical Engineering

Biomedical Engineering E3

At least three of the conditionally elective courses have to be studied and 20 cr elective courses within the specialization. Only two of the courses 5A1414, 7E1112, 7E1113, 7E1114 and 7E1115 are allowed to be studied within the specialization.

Code Name	Credits	Level	Lec	Tut	Le	Lab	Periods				Other
							1	2	3	4	
Conditionally Elective Courses											
2B1252 Semiconductor Devices	6	C	32	10	-	12				4	
2D1385 Software Engineering	4	C	24	12	-	18				4	
2E1423 Signal Theory	5	C	24	24	-	10			3		
5B1750 Optimization for E and D	4	A	28	14	-	9				4	
7E1200 Cellular and Molecular Biology*	10	C	67	-	-	18			3	4	3 h Seminars 3 h Seminars

*The course has limited participation

Biomedical Engineering E4

At least three of the conditionally elective courses have to be studied and 20 cr elective courses within the specialization. Only two of the courses 5A1414, 7E1112, 7E1113, 7E1114 and 7E1115 are allowed to be studied within the specialization.

Code Name	Credits	Level	Lec	Tut	Le	Lab	Periods				Other	
							1	2	3	4		
Conditionally Elective Courses												
2B1252 Semiconductor Devices	6	C	32	10	-	12				4		
2D1385 Software Engineering	4	C	24	12	-	18				4		
2E1423 Signal Theory	5	C	24	24	-	10			3			
5B1750 Optimization for E and D	4	A	28	14	-	9				4		
7E1101 Medical Engineering, Basic Course	4	C	24	-	-	-	1					
7E1200 Cellular and Molecular Biology*₋	10	C	67	-	-	18			3	4	3 h Seminars 3 h Seminars	
Elective Courses												
2A1140 Accelerator and Radiation Technology	4	D	36	-	-	-			3		8 h Study visit 8 h Study visit	
2B1242 Design and Characterisation of Nano- and Microdevices	5	D	24	-	-	16			3			
2B1248 Simulation of Semiconductor Devices	5	D	24	-	-	32		2				
2B1252 Semiconductor Devices	6	C	32	10	-	12				4		
2D1426 Robotics and Autonomous Systems*₋	5	D	16	-	-	60				4		
2D1432 Artificial Neural Networks and Other Learning Systems	4	D	26	-	-	16			3			

2D1433 Artificial Neural Networks, Advanced Course	4	D	16	-	-	8				4	4 h Seminars4 h Seminars
2D1435 Mathematical Modelling of Biological Systems	6	D	26	-	-	20	1	2			
2D1436 Modelling of Processes in Cell Biology	4	D	16	-	-	16	1				
2D1450 Algorithmic Bioinformatics	4	D	36	-	-	-				4	
2E1126 Measurement Systems, Project Course	4	C	6	-	-	50			3		
2E1135 Microsystem Technology*_ _	5	D	28	-	-	40				4	Industry Site Visit 4h
2E1340 Digital Signal Processing	5	D	26	24	-	3		2			
2E1390 Sound Perception <i>Replaces 2F1300.</i>	5	D	24	12	-	4	1				20 h Projektuppgift20 h Projektuppgift
2E1395 Pattern Recognition <i>Replaces 2F1510.</i>	4	D	24	24	-	-	1				24 h Projektuppgift24 h Projektuppgift
2E1410 Information Theory and Source Coding, Accel Program Course	5	D	36	12	-	-			3		
2E1432 Digital Communications	6	C	32	30	-	12	1	2			
2F1111 Speech Technology	4	D	36	14	-	6			3		
5A1414 Radiation Detectors and Medical Imaging Systems	5	D	24	-	-	15			3	4	6 h Seminars, 20 h Study visit6 h Seminars, 20 h Study visit
7E1110 Quality and Regulatory Aspects on Medical Devices	2	D	20	-	-	-			3	4	
7E1112 Implants and Biomaterials*_ _	4	D	25	-	-	-			3	4	
7E1113 Medical Instrumentation and Signal Processing*_ _	4	D	30	-	-	6			3	4	
7E1114 Radiation Physics and Biology	4	D	36	-	-	-				4	
7E1115 Engineering in Intensive Care and Anesthesia*_ _	4	D	12	-	-	-			3	4	30 + 10h (field work with oral and written report)
7E1121 Medical Radiation Physics	1	C	6	-	-	-	1				
7E1201 Neuroscience*_ _	5	C	50	-	-	20				4	
7E1202 Systems Biology*_ _	5	C	32	-	-	25		2			24 h Seminars24 h Seminars

*The course has limited participation

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Electronics E3

At least three of the conditionally elective courses have to be studied and 20 cr elective courses within the specialization.

Code Name	Credits	Level	Lec	Tut	Le	Lab	Periods				Other	
							1	2	3	4		
Conditionally Elective Courses												
2B1252 Semiconductor Devices	6	C	32	10	-	12				4		
2B1430 Design of Digital Integrated Circuits - LSI	5	C	20	8	-	16				4	Project 16h The course is given in Campus. (Valhallavägen)	
2B1515 Analog Electronics, Advanced Course	5	C	30	14	-	20			3		Project work	
2E1423 Signal Theory	5	C	24	24	-	10			3			
2G1518 Computer Hardware Engineering	5	B	20	20	-	12			3	4		

Electronics E4

At least three of the conditionally elective courses have to be studied and 20 cr elective courses within the specialization.

Code Name	Credits	Level	Lec	Tut	Le	Lab	Periods				Other
							1	2	3	4	
Conditionally Elective Courses											
2B1211 Physics of Electronic Materials	5	C	40	24	-	8	1				
2B1252 Semiconductor Devices	6	C	32	10	-	12				4	
2B1430 Design of Digital Integrated Circuits - LSI	5	C	20	8	-	16				4	Project 16h The course is given in Campus. (Valhallavägen)
2B1515 Analog Electronics, Advanced Course	5	C	30	14	-	20			3		
2E1423 Signal Theory	5	C	24	24	-	10			3		
2G1518 Computer Hardware Engineering	5	B	20	20	-	12			3	4	
Elective Courses											
2B1230 Power Semiconductor Devices	5	D	40	-	-	-			3		Project 40h
2B1234 Nanoelectronics	6	D	30	10	-	8			3	4	
2B1242 Design and Characterisation of Nano- and Microdevices	5	D	24	-	-	16			3		
2B1245 Advanced VLSI-Devices	5	D	20	-	-	32				4	
2B1248 Simulation of Semiconductor Devices	5	D	24	-	-	32		2			
2B1310 Microwave Engineering	5	C	36	18	-	10		2			
2B1322 Fiber Optical Communication	5	D	28	14	-	8			3		
2B1325 Photonics	5	D	38	-	-	8				4	

2B1423 ASIC-design Methodology with High-level Languages	5	D	20	4	-	16			4	Project 12 hours
2B1428 Design of Digital Integrated Circuits - VLSI	5	D	21	8	-	16			3 4	
2B1429 System Modelling	5	D	24	-	-	-			3	Exercises 12
2B1435 DSP-Construction with HDL	5	D	24	12	-	24			3	
2B1446 Embedded Systems <i>The course replaces 2B1445 The course is given in Kista</i>	5	C	24	6	-	16	1			
2B1448 System-On-Chip Architectures <i>The course replaces 2B1447 The course is given in Kista</i>	5	D	24	6	-	12		2		
2B1463 Embedded Software <i>The course is given in Kista</i>	5	D	20	6	-	12			3	
2B1513 Digital Design with HDL	5	D	20	4	-	40	1			
2B1600 Radio Electronics	5	D	26	12	-	16			4	
2B1611 Low Power Analog and Mixed Signal IC's	5	D	-	14	42	-			4	
2B1700 Advanced Semiconductor Materials	5	D	34	-	-	16			3	
2B1824 Optical Networking	5	D	28	-	-	-			4	
2E1135 Microsystem Technology*	5	D	28	-	-	40			4	Industry Site Visit 4h
2G1510 Computer Architecture Fundamentals, Intermediate Course <i>Under bearbetning</i>	5	C	14	12	-	4		2		Seminar 4h
2G1511 Computer Architecture	6	D	42	-	-	12			3 4	Individual project guidance: 2-5 h/ student Home study time: 180 h

*The course has limited participation

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At least three of the conditionally elective courses have to be studied and 20 cr elective courses within the specialization.

Code Name	Credits	Level	Lec	Tut	Le	Lab	Periods				Other
							1	2	3	4	
Conditionally Elective Courses											
2C1115 Power Systems, Basic Course	5	C	68	-	-	-			3		
2C1133 Electrotechnical Modelling	5	C	38	-	-	-				4	
2E1423 Signal Theory	5	C	24	24	-	10			3		

Electrical Engineering E4

At least three of the conditionally elective courses have to be studied and 20 cr elective courses within the specialization.

Code Name	Credits	Level	Lec	Tut	Le	Lab	Periods				Other
							1	2	3	4	
Conditionally Elective Courses											
2B1211 Physics of Electronic Materials	5	C	40	24	-	8	1				
2C1115 Power Systems, Basic Course	5	C	68	-	-	-			3		
2C1115 Power Systems, Basic Course	5	C	68	-	-	-	1				
2C1133 Electrotechnical Modelling	5	C	38	-	-	-				4	
2E1423 Signal Theory	5	C	24	24	-	10			3		
5A1301 Mathematical Methods in Physics, Course I <i>Not given 05/06.</i>	4	C	26	28	-	-					
5B1201 Complex Analysis	4	C	40	20	-	-	1				
Elective Courses											
2A1131 Plasma Physics	4	C	28	12	-	-	1	2			
2A1137 Plasma Physics, Supplementary Course	2	D	12	-	-	-			3		
2A1140 Accelerator and Radiation Technology	4	D	36	-	-	-			3		8 h Study visit 8 h Study visit
2A1145 Electromagnetic Waves in Dispersive Media	4	D	24	6	-	-			3		
2A1151 Energy and Fusion Research	4	D	26	12	-	-				4	
2A1830 Applied Antenna Theory	5	D	-	-	50	18			3	4	
2B1230 Power Semiconductor Devices	5	D	40	-	-	-			3		Project 40h
2B1310 Microwave Engineering	5	C	36	18	-	10		2			
2C1116 Power Systems, Advanced Course	5	D	72	-	-	-		2			
2C1118 System Planning <i>Replaces 2C1111.</i>	5	C	70	-	-	3			3		

2C1132 High-voltage Engineering	5	C	26	-	-	12				4	
2C1134 Electrotechnical Design	5	C	36	-	-	8		2			
2C1148 Analysis of Electrical Machines	5	D	28	20	-	4				4	
2C1228 Industrial Information Systems, Systems Engineering*	5	D	24	12	-	-				3	
2C1241 Electrical Machines and Drives	5	D	30	20	-	12				3	
2C1242 Power Electronics	5	D	28	20	-	8	1				1 design project
2C1521 Industrial Control and Information Systems	5	D	36	10	-	3		2			
2E1252 Control Theory and Practice, Advanced Course	5	D	28	26	-	8				3	
2H1250 Electromagnetic Field Theory	5	A	-	-	60	-	1	2			
2H1255 Electromagnetic Wave Propagation	5	D	-	-	56	-				3	4

*The course has limited participation

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Electrical Engineering

Communication Systems E3

At least three of the conditionally elective courses have to be studied and 20 cr elective courses within the specialization.

Code Name	Credits	Level	Lec	Tut	Le	Lab	Periods				Other
							1	2	3	4	
Conditionally Elective Courses											
2D1385 Software Engineering	4	C	24	12	-	18				4	
2E1423 Signal Theory	5	C	24	24	-	10			3		
2G1316 Datacommunication and Computer Networks <i>Given at Campus Valhallavägen</i>	4	A	24	18	-	12			3		
2G1518 Computer Hardware Engineering	5	B	20	20	-	12			3	4	
5B1750 Optimization for E and D	4	A	28	14	-	9				4	

Communication Systems E4

At least three of the conditionally elective courses have to be studied and 20 cr elective courses within the specialization.

Code Name	Credits	Level	Lec	Tut	Le	Lab	Periods				Other
							1	2	3	4	
Conditionally Elective Courses											
2D1385 Software Engineering	4	C	24	12	-	18				4	
2E1423 Signal Theory	5	C	24	24	-	10			3		
2E1511 Radio Communication, Basic Course	4	D	24	24	-	8	1				
2G1316 Datacommunication and Computer Networks <i>Given at Campus Valhallavägen</i>	4	A	24	18	-	12			3		
2G1518 Computer Hardware Engineering	5	B	20	20	-	12			3	4	
5B1750 Optimization for E and D	4	A	28	14	-	9				4	
Elective Courses											
2B1310 Microwave Engineering	5	C	36	18	-	10		2			
2B1513 Digital Design with HDL	5	D	20	4	-	40	1				
2B1600 Radio Electronics	5	D	26	12	-	16				4	
2E1340 Digital Signal Processing	5	D	26	24	-	3		2			
2E1350 Adaptive Signal Processing	4	D	24	14	-	-			3		
2E1367 Project Course in Signal Processing&Digital Communications	8	D	-	-	-	-				4	Project work 8 cr.
2E1380 Seminars in Signals, Sensors and Systems	2	D	-	-	-	-			3	4	16 h Seminars16 h Seminars
2E1400 Speech Signal Processing <i>Replaces 2F1521.</i>	4	D	24	24	-	-		2			

2E1405 Image Processing	4	D	24	24	-	-				4		
2E1432 Digital Communications	6	C	32	30	-	12	1	2				
2E1436 Advanced Digital Communications	4	D	26	26	-	-				3		
2E1512 Wireless Networks*	8	D	30	24	-	12				4	80 h Projektuppgift80 h Projektuppgift	
2E1618 Queuing Theory and Teletraffic Systems <i>The course replaces 2G1318.</i>	4	D	24	24	-	-			2			
2E1632 Management of Networks and Networked Systems <i>The course replaces 2G1332.</i>	5	D	18	-	-	-				4	Project	
2G1305 Internetworking <i>Given at Campus Valhallavägen</i>	4	C	20	18	-	10	1				Assignments	
2G1305 Internetworking <i>Given in Kista</i>	4	C	14	14	-	-				4		
2G1319 Communication System Design <i>Also given as 2G1711, 12 credits; 2G1712, 16 credits and 2G1713, 20 credits</i>	10	D	-	-	-	-				3	4	Project work
2G1330 Wireless and Mobile Network Architectures	5	D	10	-	-	-				3		Assigned paper 50h
2H1260 Antenna Theory	5	D	26	24	-	18				3		

*The course has limited participation

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Electrical Engineering

Systems Engineering E3

At least three of the conditionally elective courses have to be studied and 20 cr elective courses within the specialization.

Code Name	Credits	Level	Lec	Tut	Le	Lab	Periods				Other
							1	2	3	4	
Conditionally Elective Courses											
2C1115 <u>Power Systems, Basic Course</u>	5	C	68	-	-	-			3		
2D1385 <u>Software Engineering</u>	4	C	24	12	-	18				4	
2E1282 <u>Modelling of Dynamical Systems</u>	4	C	24	24	-	12				4	
2E1423 <u>Signal Theory</u>	5	C	24	24	-	10			3		
2G1518 <u>Computer Hardware Engineering</u>	5	B	20	20	-	12			3	4	
5B1750 <u>Optimization for E and D</u>	4	A	28	14	-	9				4	

Systems Engineering E4

At least three of the conditionally elective courses have to be studied and 20 cr elective courses within the specialization.

Code Name	Credits	Level	Lec	Tut	Le	Lab	Periods				Other
							1	2	3	4	
Conditionally Elective Courses											
2C1115 Power Systems, Basic Course	5	C	68	-	-	-	1				
2C1115 Power Systems, Basic Course	5	C	68	-	-	-			3		
2D1385 Software Engineering	4	C	24	12	-	18				4	
2E1282 Modelling of Dynamical Systems	4	C	24	24	-	12				4	
2E1423 Signal Theory	5	C	24	24	-	10			3		
2G1518 Computer Hardware Engineering	5	B	20	20	-	12			3	4	
5B1750 Optimization for E and D	4	A	28	14	-	9				4	
Elective Courses											
2C1116 Power Systems, Advanced Course	5	D	72	-	-	-		2			
2C1118 System Planning <i>Replaces 2C1111.</i>	5	C	70	-	-	3			3		
2C1228 Industrial Information Systems, Systems Engineering*	5	D	24	12	-	-			3		
2C1229 Industrial Information Systems, Case Studies*	5	D	24	12	-	-				4	
2C1241 Electrical Machines and Drives	5	D	30	20	-	12			3		
2C1521 Industrial Control and Information Systems	5	D	36	10	-	3		2			
2D1421 Image Analysis and Computer Vision	5	D	36	4	-	8			3		

2D1426 Robotics and Autonomous Systems*_	5	D	16	-	-	60			4	
2D1432 Artificial Neural Networks and Other Learning Systems	4	D	26	-	-	16			3	
2E1126 Measurement Systems, Project Course	4	C	6	-	-	50			3	
2E1135 Microsystem Technology*_	5	D	28	-	-	40			4	Industry Site Visit 4h
2E1242 Automatic Control, Project Course*_	8	D	4	-	-	50			4	
2E1245 Hybrid and Embedded Control Systems	5	D	28	28	-	-			3	
2E1252 Control Theory and Practice, Advanced Course	5	D	28	26	-	8			3	
2E1262 Nonlinear Control	5	D	28	28	-	8		2		
2E1285 Modelling of Dynamical Systems, advanced course <i>Under bearbetning</i>	2	C	6	-	-	20				
2E1333 Optimal Filtering, accelerated program <i>Given every second year. Given 06/07.</i> <i>Under bearbetning</i>	4	D	-	-	24	-	1			
2E1340 Digital Signal Processing	5	D	26	24	-	3		2		
2E1350 Adaptive Signal Processing	4	D	24	14	-	-			3	
2E1632 Management of Networks and Networked Systems <i>The course replaces 2G1332.</i>	5	D	18	-	-	-			4	Project
5B1201 Complex Analysis	4	C	40	20	-	-	1			
5B1822 Mathematical Systems Theory, Advanced Course	4	D	24	24	-	6		2		
5B1872 Optimal Control Theory	4	D	32	16	-	-			3	

*The course has limited participation

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Vehicle Engineering

Vehicle Engineering T1

Code Name	Credits	Level	Lec	Tut	Le	Lab	Periods				Other
							1	2	3	4	
Compulsory Courses											
2D1212 Numerical Methods and Basic Programming	6	A	34	30	-	28			3	4	
4B1052 Perspectives on Vehicle Engineering <i>Under bearbetning</i>	6	A	60	8	24	-	1	2			Selfstudies MATLAB 48h Projektuppgift 52h
5A1226 Physics I	6	AB	38	-	-	30	1	2	3		
5B1132 Analytical Methods and Linear Algebra I	8	A	80	40	-	-	1	2			
5B1133 Analytical Methods and Linear Algebra II	8	B	80	40	-	-			3	4	
5C1130 Mechanics I	6	A	48	-	27	-		2	3	4	
Recommended Courses											
5B1120 Introductory Course in Mathematics I	1	A	-	-	-	-					

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Vehicle Engineering

Vehicle Engineering T2

Code Name	Credits	Level	Lec	Tut	Le	Lab	Periods				Other
							1	2	3	4	
Compulsory Courses											
4B1117 <u>Sound and Vibration</u>	6	C	38	44	-	4			3	4	
4C1010 <u>Solid Mechanics, basic course</u>	8	B	52	30	-	2	1	2			60 h Projektuppgift60 h Projektuppgift
4F1815 <i>Under bearbetning</i>	8	B	30	60	-	-	1	2			
5B1207 <u>Differential Equations II</u>	6	C	60	30	-	-			3		
5C1140 <u>Mechanics II</u>	4	B	30	15	-	-	1				
5C1216 <u>Thermodynamics for vehicle technology</u>	4	B	12	12	-	3				4	12 h Seminars12 h Seminars
5C1217 <u>Fluid Mechanics, Basic Course</u>	4	B	26	14	-	6			3		

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Vehicle Engineering

Vehicle Engineering T3

Code Name	Credits	Level	Lec	Tut	Le	Lab	Periods				Other
							1	2	3	4	
Compulsory Courses											
2E1200 Automatic Control, General Course	4	C	24	26	-	12	2				
4B1121 Signals and Mechanical Systems	4	D	24	22	-	4	2				
4C1025 FEM for Engineering Applications	4	C	36	14	-	4			3		
4F1817 <i>Under bearbetning</i>	4	B	16	20	-	13	1				
5B1507 Mathematical Statistics	4	C	24	32	-	4	1				
5B1762 Optimization for T	4	C	28	16	-	8				4	
Conditionally Elective Courses											
2D1321 Applied Programming and Computer Science	6	B	38	20	-	-		2	3		
4A1601 Heat Transfer	4	C	24	24	-	20	2				
4A1604 Project Course in Sustainable Energy Systems	10	C	-	-	-	-			3	4	Project wor Seminars
4B1150 Bachelor's Thesis in Sound, Vibrations and Signals	10	C	-	-	-	-			3	4	Seminrs
4B1430 Bachelor´s Thesis in Vehicle Engineering	10	C	-	-	-	-			3	4	
4C1003 Project Course in Solid Mechanics	10	C	-	-	-	-			3	4	Project work Seminars
4D1075 Work Organization and Leadership	4	B	24	24	-	-			3		
4E1110 Project Course in Light Weight Structures	10	C	-	-	-	-			3	4	Project work Seminars
4E1234 Project Course in Aeronautics <i>Under bearbetning</i>	10	C	-	-	-	-			3	4	
4E1400 Project Course in Naval Architecture	10	C	-	-	-	-			3	4	
4F1242 Introduction to Microcomputer Systems <i>Under bearbetning</i>	4	C	12	22	-	14				4	
4F1821 Project Course in Integrated Product Development	10	C	-	-	-	-			3	4	
4F1822 Project Course in Mechatronics	10	C	-	-	-	-			3	4	
5C1010 Project Course in Mechanics	10	C	-	-	-	-			3	4	
6S1414 Ergonomics in Product Development	4	B	20	9	-	6	2				
Elective Courses											

2D1322 Applied Programming and Computer Science, Part 1	4	B	26	14	-	14	2		
2D1324 Applied Programming and Computer Science, Part 2	2	B	12	6	-	18		3	
3C1330 Technology and Ecosystems	4	B	24	3	-	-	1		
4B1127 Vibroacoustics	5	D	-	56	-	8	1	2	
4E1114 Fiber Composites - Materials and Manufacturing	4	C	40	-	-	8		3	4
4F1823 Basic Electrical Engineering, Part 2 <i>Under bearbetning</i>	2	B	6	6	-	10		3	4
4G1134 Effective Production	6	D	30	10	-	-		3	4
4G1165 Automation Technology	4	C	18	26	-	12		3	
4K1213 Advanced CAD Modelling & Rapid Prototyping, Project Course <i>Under bearbetning</i>	4	D	16	24	-	-	2	3	Project work
4K1601 Wood Material Science, Basic Course	5	C	50	18	-	24		3	4
5A1228 Laser metrology and optical metrology	4	B	24	-	6	-		3	4
5A1229 Physics of Visual Impressions	4	B	24	-	6	-		3	4
5C1840 Structural Dynamics	5	D	33	-	-	-			4
9E1131 Information Searching for B, I, M, T <i>Also BD and P</i>	1	B	-	-	-	-		3	Three laborations on all together 9 hours. The course is given regularly throughout the year, see
9E1131 Information Searching for B, I, M, T <i>Also BD and P</i>	1	B	-	-	-	-	2		Three laborations on all together 9 hours. The course is given regularly throughout the year, see
9E1131 Information Searching for B, I, M, T <i>Also BD and P</i>	1	B	-	-	-	-	1		Three laborations on all together 9 hours. The course is given regularly throughout the year, see
9E1131 Information Searching for B, I, M, T <i>Also BD and P</i>	1	B	-	-	-	-	1		Three laborations on all together 9 hours. The course is given regularly throughout the year, see
9E1131 Information Searching for B, I, M, T <i>Also BD and P</i>	1	B	-	-	-	-			4
9E1131 Information Searching for B, I, M, T <i>Also BD and P</i>	1	B	-	-	-	-			4
9E1300 Technical English, Lower Intermediate Level*	4	B	-	-	56	-		3	4
9E1301 Technical English, Intermediate Level*	6	B	-	-	56	-		3	4
9E1320 German, Elementary Level*	4	B	-	-	56	-		3	4
9E1325 Technical German, Intermediate Level	6	B	-	-	15	-		3	4
9E1330 French, Elementary Level*	4	B	-	-	56	-		3	4
9E1334 Technical French, Intermediate Level*	6	B	-	-	56	-		3	4
9E1342 Spanish, Elementary Level*	4	B	-	-	56	-		3	4
9E1348 Technical Spanish, Intermediate Level*	6	B	-	-	56	-		3	4



9E1350 Italian, Elementary Level*_	4	B	-	-	56	-			3	4	

*The course has limited participation

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Vehicle Engineering

Vehicle Engineering T4

Code Name	Credits	Level	Lec	Tut	Le	Lab	Periods				Other
							1	2	3	4	
Conditionally Elective Courses											
4F1242 <u>Introduction to Microcomputer Systems</u> <i>Under bearbetning</i>	4	C	12	22	-	14				4	
Elective Courses											
2A1140 <u>Accelerator and Radiation Technology</u>	4	D	36	-	-	-			3		8 h Study visit8 h Study visit
2A1151 <u>Energy and Fusion Research</u>	4	D	26	12	-	-				4	
2A1160 <u>Space Physics</u>	3	D	18	-	-	-	1				
2C1117 <u>Wind Power Systems</u> <i>Replaces 2C1114.</i>	5	C	60	-	-	-			3	4	
2C1243 <u>Hybrid Vehicle Drives*</u>	5	D	-	-	-	-		2			3 course meetings, 2-3 days each
2D1225 <u>Numerical Solutions of Differential Equations</u>	4	C	24	4	-	16	1	2			
2D1250 <u>Applied Numerical Methods II</u>	6	C	60	-	-	36			3	4	
2D1255 <u>Numerical Solutions of Differential Equations</u>	5	D	30	-	-	8			3	4	
2D1257 <u>Visualization</u>	4	C	16	-	-	14			3		
2D1258 <u>Introduction to High Performance Computing*</u> <i>Please note that the course starts in August. Will not be on the central schedule.</i>	5	C	40	-	-	40	1				
2D1260 <u>The Finite Element Method</u>	4	C	18	14	-	12		2			
2D1263 <u>Program Construction for Scientific Computing</u>	4	C	24	-	-	12			3	4	
2D1266 <u>Mathematical Models, Analysis and Simulation Part I</u>	5	C	48	-	-	12	1	2			
2D1269 <u>Mathematical Models, Analysis and Simulation, part II</u>	5	D	42	-	-	12			3	4	
2D1297 <u>Advanced Individual Course in Scientific Computing</u> <i>Course may start any time during the semester.</i>	4	D	-	-	-	-					
2D1320 <u>Applied Computer Science</u>	4	A	28	14	-	20	1	2			
2D1334 <u>Database Technology</u>	4	C	24	20	-	12			3		
2D1354 <u>Algorithms and Complexity</u>	4	C	30	18	-	-	1	2			
2D1385 <u>Software Engineering</u>	4	C	24	12	-	18				4	

2D1421 Image Analysis and Computer Vision	5	D	36	4	-	8		3		
2D1426 Robotics and Autonomous Systems*	5	D	16	-	-	60			4	
2D1432 Artificial Neural Networks and Other Learning Systems	4	D	26	-	-	16		3		
2D1520 Graphic Arts Technology, Minor Course	4	C	24	8	-	16	2			
2D1521 Communication and Information*	5	C	16	12	-	-		3		
2D1522 Computer Technology and Communication*	4	C	30	-	-	20			4	
2D1524 Image Processing and Reprographic Methods* <i>Limited number of participants</i>	6	C	26	16	-	12	1			
2E1242 Automatic Control, Project Course*	8	D	4	-	-	50			4	
2E1262 Nonlinear Control	5	D	28	28	-	8	2			
2E1291 Chemical Process Control	4	C	20	28	-	8		3		
2F1400 Electroacoustics	4	D	34	12	-	8	1			
3C1330 Technology and Ecosystems	4	B	24	3	-	-	1			
3C1330 Technology and Ecosystems	4	B	24	3	-	-		2		
3C1330 Technology and Ecosystems	4	B	24	3	-	-			3	
3C1350 Waste Management, Advanced Course <i>Study visit</i>	4	D	18	-	-	-			4	Project work 20h
3C1355 Ecology, Advanced Course	4	C	21	4	-	-		3	4	
3C1365 Environmental Consequences, Advanced Course II	4	D	15	15	-	40	1	2		Field exercises
3C1380 Environmental Management	4	C	10	-	-	-			3	12 h Seminars 12 h Seminars
3C1385 Biology	4	C	30	6	-	6	1			Field exercise 8h
3C1387 Environmental Systems Analysis	4	C	16	8	-	6		2		
3C1395 Technology and Sustainable Development	4	C	2	6	-	-		2		
3D1163 Pulp Technology	4	D	20	-	-	24	1			
3E1360 Mechanical Properties of Polymers, Minor Course	4	D	24	16	-	12	1			
3E1361 Polymer Processing, Minor Course	4	D	24	8	-	18		2		
4A1140 Energy Systems and Models I <i>This course is not given the academic year 05/06.</i>	4	D	14	32	-	-				9 h Seminars 9 H 9 h Seminars
4A1341 Introductory Airbreathing Propulsion	4	C	21	24	-	8		2		
4A1344 Airbreathing Propulsion, Intermediate Course I	4	D	40	-	-	-			3	Project work 6h
4A1346 Rocket Propulsion	4	D	36	10	-	-				4 Project work 6h
4A1347 Airbreathing Propulsion for High Speed Flight	4	D	27	10	-	6				4
4A1605 Sustainable Power Generation	6	D	30	48	-	18	1	2		
4A1607 Sustainable Energy Utilisation	6	D	-	-	72	16	1	2		
4A1609 Applied Energy Technology - Project Course	6	D	12	-	-	-			3	4 Project 78h
4A1610 Energy Management	4	D	50	-	-	-		2	3	

4A1611 Renewable Energy Technology	4	D	-	-	52	-	1				Study visit 8h
4A1612 Renewable Energy Technology, Advanced Course	4	D	26	-	-	-			3		Study visit 4 h
4A1613 Energy and Environment <i>Examinator: Björn Palm, Tel 790 7453</i>	4	D	50	-	-	-			3	4	Study visit 6h
4A1620 Combustion Theory	4	C	18	18	-	15	1	2			
4A1621 Modelling of Thermodynamic Systems	4	D	16	-	-	32	1	2	3	4	The course is given upon agreement
4A1623 Applied Refrigeration and Heat Pump Technology	4	D	24	24	-	16			3	4	
4A1625 Cooling of Electronics	4	D	-	-	48	-			3		
4A1626 Applied Heat and Power Technology	4	D	36	12	-	8			3	4	Project assignment 8h
4A1627 Applied Reactor Technology and Nuclear Power Safety	4	D	48	-	-	-			3	4	Study visits 12h
4A1628 Advanced Nuclear Reactor Engineering <i>Under bearbetning</i>	4	D	42	-	-	-				4	Study visits 18h
4A1629 Fluid Machinery	4	C	30	18	-	12	1				
4A1630 Thermal Fluid Machinery	4	D	36	12	-	12			3		
4B1131 Experimental Structure Dynamics	5	D	-	58	-	12		2	3		
4B1136 Flow Acoustics	4	D	-	36	-	8			3		
4B1141 Sound and Vibration, Project Course	5	D	-	48	-	12			3	4	Study tour to industry 40h
4B1162 Vibro-Acoustics	7	D	-	-	64	8	1	2			
4B1164 Signal Analysis	5	D	-	-	26	22	1	2			
4B1166 Acoustical Measurements	5	D	-	-	16	20	1	2			
4B1168 Energy Methods	4	D	-	-	28	-				4	
4B1170 Numerical Methods for Acoustics and Vibration	4	D	-	-	24	-			3		
4B1172 Non-Linear Acoustics	4	D	-	-	24	-			3		
4B1174 Ultrasonics	4	D	-	-	24	-				4	
4B1176 Vehicle Acoustics and Vibration	4	D	-	-	24	-				4	
4B1304 Railway Systems and Rail Vehicles	6	C	-	-	60	9	1	2			Project assignment 9h
4B1313 Rail Vehicle Dynamics	5	D	-	-	36	24			3		
4B1420 Ground Vehicle Engineering, Basic Course*	6	C	36	36	-	-	1	2			
4B1424 Vehicle Systems for a Better Environment* <i>There are 50 places to be shared among universities engaged in this set of courses.</i>	5	C	26	26	-	8	1				
4B1428 Environmental Friendly Vehicle - Project course*	5	D	10	-	-	-		2	3	4	
4C1110 Material Mechanics	4	D	52	-	-	3	1				
4C1111 Fracture Mechanics and Fatigue	4	D	48	-	-	4				4	
4C1116 Dynamic Problems in Solid Mechanics	4	D	42	-	-	8			3	4	
4C1121 Introduction to Biomechanics	6	C	48	-	-	8			3		
4C1122 Applied solid mechanics	6	D	28	16	14	24	1	2			
4C1124 Orthopedic Biomechanics	4	D	32	-	-	4				4	
4D1032 Production	4	B	36	12	-	10				4	

4D1051 Commercial Law	4	B	14	18	-	-			3		
4D1057 Advanced Patent Law	4	C	4	14	-	-	1				14 h Seminars 14h 14 h Seminars
4D1060 Industrial Development	4	B	40	8	-	-			3		
4D1062 Industrial Marketing <i>Replaces 4D1065 Industrial Marketing and 4D1151 Marketing</i>	4	B	36	12	-	-			3		
4D1075 Work Organization and Leadership	4	B	24	24	-	-			3		
4D1084 Human Factors Engineering - Man - Machine System	4	B	24	6	-	3			3		
4D1093 Psychology for Engineers	4	B	24	3	-	4		2			
4E1111 Lightweight Structures and FEM <i>The course is not given during the academic year 05/06.</i>	5	D	48	-	-	14	1				
4E1114 Fiber Composites - Materials and Manufacturing	4	C	40	-	-	8			3	4	
4E1124 Fibre Composites I: materials and processes	4	D	40	-	-	8	1				
4E1125 Fibre Composites II, Analysis and Design	4	D	2	-	-	6		2			
4E1126 Structural Design and Optimisation	4	D	40	-	-	18			3		
4E1140 Flight Dynamics and Aeroelasticity <i>Under bearbetning</i>	4	D	38	21	-	4			3		
4E1150 Biomechanics and Neurronics	4	D	34	-	-	8				4	
4E1231 Flight Mechanics <i>Under bearbetning</i>	4	D	28	18	-	4	1				
4E1401 Introduction to Naval Architecture	5	C	38	10	-	10			3		
4F1131 Microcomputers in Embedded Systems* <i>Limited attendance: 25</i>	5	D	-	36	-	36			3		
4F1141 Project Work in Mechatronics* <i>Limited attendance due to limited number of available projects</i>	4	C	-	-	-	-	1	2	3	4	No scheduled hours
4F1244 Motion Control <i>The course will not be given until further notice.</i>	4	D	30	-	-	12				4	
4F1340 Introduction to Fluid Power	4	C	24	24	-	9		2			
4F1343 Fluid Systems and Machines	4	C	24	24	-	12	1	2			
4F1430 Combustion Engines, general course*	4	C	42	6	-	12	1				
4F1431 Combustion Engines, Advanced Course*	6	D	48	-	-	28		2	3		
4F1460 Combustion Engines, Project Course <i>The course is open only to students specializing in combustion engines. Open only for students with individual specialization of Combustion engines.</i>	6	D	-	-	18	-			3	4	
4F1540 Tribology	4	C	18	9	-	5				4	
4F1541 CAD 3D-modelling and Visualization for Personal Computers*	4	C	8	36	-	-				4	
4F1630 Introduction to Machine Design	5	C	24	36	-	-	1	2			
4F1631 Intermediate Machine Design Course	7	D	4	84	-	-			3	4	
4F1640 Industrial Design* <i>Limited number of participants.</i>	4	C	24	36	-	-			3		
4F1640 Industrial Design*	4	C	24	36	-	-		2			

4F1641 Environmentally Adapted Product Design <i>80% participation.</i>	4	C	-	-	42	-	2			
4F1643 Eco Design Project*	4	C	-	-	-	-	1	2	3	4
4G1134 Effective Production	6	D	30	10	-	-			3	4
4G1165 Automation Technology	4	C	18	26	-	12			3	
4G1230 Introductory Welding Technology	4	C	24	18	-	12	1			
4G1231 Intermediate Welding Technology	4	D	24	24	-	12	1	2		
4G1246 Enlarged Welding Technology for EWE <i>Course is given upon agreement</i>	4	D	25	25	-	10	1	2		
4G1540 Laser Metrology Methods and Non Destructive Testing	4	C	28	22	-	4		2		
4G1541 Measurement Technology & Statistics f Manufact. Processes	4	D	30	-	-	8			3	
4G1634 Manufacturing Engineering, Basic Course	6	C	32	20	-	12	1	2		
4H1113 Powder Metallurgy	4	D	18	18	-	12		2		
4H1301 Material Design	4	D	-	2	-	10			3	4
4H1404 Corrosion and Surface Protection, General Course	4	C	16	12	-	12	1			
4H1405 Corrosion Science, Advanced Course	4	D	16	-	-	-			3	
4H1505 Structure and Properties of Ceramic Materials	4	B	12	-	-	18		2		
4H1609 Functional Materials	4	D	18	-	-	6		2		Study visit 8h
4H1610 Advanced Materials	4	C	18	-	-	6			3	Study visit 8h Seminars 18h
4H1702 Current Research Topics in Materials Chemistry	4	D	20	4	-	8				4
4H1703 Materials Chemistry	4	D	20	4	-	8				4
4H1802 Artificial Materials	4	D	20	4	-	6	1			
4H1803 Physics of Nanostructured Materials	4	D	20	4	-	6				4
4K1107 Production of Electronics I	4	C	36	-	-	8			3	
4K1109 Principles for Product Integrated Manufacturing Systems Design	4	C	12	12	-	4	1			
4K1131 Assembly Systems	4	C	24	20	-	12		2		
4K1202 Modelling and Interaction in CAD/CAM* <i>Maximum of 20 participants. Students of "Computer Systems for Design and Manufacturing" will have priority.</i>	5	D	-	36	-	24	1			3 Programming tasks, periods 1, 2
4K1213 Advanced CAD Modelling & Rapid Prototyping, Project Course <i>Under bearbetning</i>	4	D	16	24	-	-		2	3	Project work
4K1601 Wood Material Science, Basic Course	5	C	50	18	-	24			3	4
4K1602 Industrial Wood Processing, Basic Course	4	C	26	16	-	16	1			
4M1051 Project Assignment	4	D	-	160	-	-	1	2		
4M1341 Foundry Processing	4	D	12	-	-	-			3	Seminarier 24h Other 28h
4M1342 Space Systems and Technology	4	D	36	-	-	-		2		

4M1343 Materials Processing, Project Support	4	D	72	48	-	40	1	2			
4M1344 Metrology in Materials Processing	4	D	16	-	-	80	1				Seminars 16h
4M1345 Powder Processing and Materials Forming	4	D	30	-	-	-				4	Home assignments 80h
4M1346 Simulation and Modelling	4	D	10	80	-	-	1	2			
4M1370 Solidification Processing	4	D	36	24	-	-	1	2			
5A1370 Solid State Theory	4	D	36	-	-	-	1				
5A1414 Radiation Detectors and Medical Imaging Systems	5	D	24	-	-	15			3	4	6 h Seminars, 20 h Study visit 6 h Seminars, 20 h Study visit
5A1416 Radiation Sources for Therapy	2	D	10	-	-	-				4	14 h Study visit 14 h Study visit
5A1590 Technical Photography	5	D	20	-	-	36			3	4	
5B1538 Reliability Theory <i>Not given 05/06.</i>	6	C	-	-	72	-					
5B1550 Applied Mathematical Statistics	5	C	-	-	60	-			3		
5B1555 Computer Intensive Methods in Mathematical Statistics	5	D	-	-	48	-				4	
5B1574 Portfolio Theory and Risk Management	4	C	30	12	-	-	1				
5B1814 Applied Mathematical Programming - Linear Problems	4	D	18	12	-	-	1				18 h Projektuppgift 18 h Projektuppgift
5B1816 Applied Mathematical Programming - Nonlinear Problems	4	D	18	12	-	-		2			18 h Projektuppgift 18 h Projektuppgift
5B1822 Mathematical Systems Theory, Advanced Course	4	D	24	24	-	6		2			
5B1852 Mathematical Economics <i>Not given 05/06.</i>	4	C	32	16	-	-					
5B1872 Optimal Control Theory	4	D	32	16	-	-			3		
5C1122 Continuum Mechanics	4	C	42	-	-	-	1				
5C1123 Mathematical Methods of Mechanics, General Course	4	D	36	-	-	-		2			
5C1125 Mathematical Methods of Mechanics, Intermediate Course	2	D	-	-	-	-			3		
5C1211 Vehicle Aerodynamics	4	C	16	-	-	4				4	4 h Seminars 4 h Seminars
5C1213 Applied Computational Fluid Dynamics	2	D	-	-	10	14				4	
5C1214 Fluid Mechanics	5	C	-	30	30	3	1				
5C1218 Turbulence <i>Replaces 5C1992.</i>	5	D	-	-	36	3			3	4	
5C1400 Nonlinear Dynamics in Mechanics	5	C	24	-	-	-			3		
5C1860 FEM Modelling	5	D	33	-	-	-		2			33 h Workshop 33 h Workshop
5C1904 Advanced Modern Mechanics	4	D	24	-	-	-		2			
7E1101 Medical Engineering, Basic Course	4	C	24	-	-	-	1				
7E1110 Quality and Regulatory Aspects on Medical Devices	2	D	20	-	-	-			3	4	
7E1112 Implants and Biomaterials*	4	D	25	-	-	-			3	4	
7E1113 Medical Instrumentation and Signal Processing*	4	D	30	-	-	6			3	4	
7E1114 Radiation Physics and Biology	4	D	36	-	-	-				4	

7E1115 Engineering in Intensive Care and Anesthesia*_	4	D	12	-	-	-			3	4	30 + 10h (field work with oral and written report)
7E1200 Cellular and Molecular Biology*_	10	C	67	-	-	18			3	4	3 h Seminars3 h Seminars
7E1202 Systems Biology*_	5	C	32	-	-	25		2			24 h Seminars24 h Seminars
9E1131 Information Searching for B, I, M, T <i>Also BD and P</i>	1	B	-	-	-	-		2			Three laborations on all together 9 hours. The course is given regularly throughout the year, see
9E1131 Information Searching for B, I, M, T <i>Also BD and P</i>	1	B	-	-	-	-			3		Three laborations on all together 9 hours. The course is given regularly throughout the year, see
9E1131 Information Searching for B, I, M, T <i>Also BD and P</i>	1	B	-	-	-	-				4	Three laborations on all together 9 hours. The course is given regularly throughout the year, see
9E1131 Information Searching for B, I, M, T <i>Also BD and P</i>	1	B	-	-	-	-	1				Three laborations on all together 9 hours. The course is given regularly throughout the year, see
9E1300 Technical English, Lower Intermediate Level*_	4	B	-	-	56	-	1	2			
9E1301 Technical English, Intermediate Level*_	6	B	-	-	56	-	1	2			
9E1304 Technical English, Advanced Level*_	6	C	-	-	56	-			3	4	
9E1304 Technical English, Advanced Level*_	6	C	-	-	56	-	1	2			
9E1320 German, Elementary Level*_	4	B	-	-	56	-	1	2			
9E1325 Technical German, Intermediate Level	6	B	-	-	15	-	1	2			E-learning exercises appr. 75 % of the course. 15 classroom hours in the evening.
9E1326 Technical German, Advanced Level*_	6	C	-	-	56	-	1	2			
9E1326 Technical German, Advanced Level*_	6	C	-	-	56	-			3	4	
9E1330 French, Elementary Level*_	4	B	-	-	56	-	1	2			
9E1334 Technical French, Intermediate Level*_	6	B	-	-	56	-	1	2			
9E1342 Spanish, Elementary Level*_	4	B	-	-	56	-	1	2			
9E1350 Italian, Elementary Level*_	4	B	-	-	56	-	1	2			
9E1360 Communicative Swedish*_	4	B	-	-	56	-	1	2			

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Advanced Materials T4

Code Name	Credits	Level	Lec	Tut	Le	Lab	Periods				Other
							1	2	3	4	
Compulsory Courses											
4H1609 Functional Materials	4	D	18	-	-	6		2			Study visit 8h
4H1612 High Temperature Materials	7	D	18	12	-	6	1				Study visit 8h Seminars 10h Project assignment 100h
Elective Courses											
4H1404 Corrosion and Surface Protection, General Course	4	C	16	12	-	12	1				
4H1405 Corrosion Science, Advanced Course	4	D	16	-	-	-			3		
4H1505 Structure and Properties of Ceramic Materials	4	B	12	-	-	18		2			

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Vehicle Engineering

Biomedical Engineering T4

Code Name	Credits	Level	Lec	Tut	Le	Lab	Periods				Other
							1	2	3	4	
Compulsory Courses											
7E1101 Medical Engineering, Basic Course	4	C	24	-	-	-	1				
7E1121 Medical Radiation Physics	1	C	6	-	-	-	1				
7E1202 Systems Biology* <u> </u>	5	C	32	-	-	25		2			24 h Seminars 24 h Seminars
Elective Courses											
2D1435 Mathematical Modelling of Biological Systems	6	D	26	-	-	20	1	2			

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Computer Systems for Design and Manufacturing T4

Code Name	Credits	Level	Lec	Tut	Le	Lab	Periods				Other
							1	2	3	4	
Compulsory Courses											
4F1630 Introduction to Machine Design	5	C	24	36	-	-	1	2			
4K1102 Manufacturing Automation I	4	C	18	26	-	12	1				
4K1202 Modelling and Interaction in CAD/CAM* Maximum of 20 participants. Students of "Computer Systems for Design and Manufacturing" will have priority.	5	D	-	36	-	24	1				3 Programming tasks, periods 1, 2
4K1203 Computer Systems for Design and Manufacturing, advanced course* Maximum of 20 participants. Students of "Computer Systems for Design and Manufacturing" will have priority.	12	D	-	68	-	60		2	3	4	4 Programming Projects, periods 2, 3, 4
Elective Courses											
4F1131 Microcomputers in Embedded Systems*	5	D	-	36	-	36		2			
4K1103 Manufacturing Automation II	6	C	26	34	-	17	1	2			

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Energy Technology T4

Code Name	Credits	Level	Lec	Tut	Le	Lab	Periods				Other
							1	2	3	4	
Compulsory Courses											
4A1605 Sustainable Power Generation	6	D	30	48	-	18	1	2			
4A1607 Sustainable Energy Utilisation	6	D	-	-	72	16	1	2			
4A1609 Applied Energy Technology - Project Course	6	D	12	-	-	-			3	4	Project 78h
Elective Courses											
2A1151 Energy and Fusion Research	4	D	26	12	-	-				4	
4A1140 Energy Systems and Models I <i>This course is not given the academic year 05/06.</i>	4	D	14	32	-	-					9 h Seminars 9 H 9 h Seminars
4A1610 Energy Management	4	D	50	-	-	-		2	3		
4A1611 Renewable Energy Technology	4	D	-	-	52	-	1				Study visit 8h
4A1613 Energy and Environment <i>Examinator: Björn Palm, Tel 790 7453</i>	4	D	50	-	-	-			3	4	Study visit 6h
4A1620 Combustion Theory	4	C	18	18	-	15	1	2			
4A1621 Modelling of Thermodynamic Systems	4	D	16	-	-	32	1	2	3	4	The course is given upon agreement
4A1622 Thermal Comfort and Indoor Climate	4	D	54	-	-	-			3	4	Study visits 6h
4A1623 Applied Refrigeration and Heat Pump Technology	4	D	24	24	-	16			3	4	
4A1624 Numerical Methods in Energy Technology <i>Under bearbetning</i>	4	D	24	12	-	12	1	2			
4A1625 Cooling of Electronics	4	D	-	-	48	-			3		
4A1626 Applied Heat and Power Technology	4	D	36	12	-	8			3	4	Project assignment 8h
4A1627 Applied Reactor Technology and Nuclear Power Safety	4	D	48	-	-	-			3	4	Study visits 12h
4A1629 Fluid Machinery	4	C	30	18	-	12	1				
4A1630 Thermal Fluid Machinery	4	D	36	12	-	12			3		
5C1215 Compressible Flow	5	D	-	-	52	9		2			

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Aerospace Engineering T4

Code Name	Credits	Level	Lec	Tut	Le	Lab	Periods				Other
							1	2	3	4	
Compulsory Courses											
4E1140 <u>Flight Dynamics and Aeroelasticity</u> <i>Under bearbetning</i>	4	D	38	21	-	4			3		
4E1212 <u>Aerodynamics</u> <i>Under bearbetning</i>	6	D	56	10	-	14	1	2			
4E1231 <u>Flight Mechanics</u> <i>Under bearbetning</i>	4	D	28	18	-	4	1				
Conditionally Elective Courses											
4A1341 <u>Introductory Airbreathing Propulsion</u>	4	C	21	24	-	8		2			
4B1131 <u>Experimental Structure Dynamics</u>	5	D	-	58	-	12		2	3		
4E1125 <u>Fibre Composites II, Analysis and Design</u>	4	D	2	-	-	6		2			
4E1126 <u>Structural Design and Optimisation</u>	4	D	40	-	-	18			3		
4E1233 <u>Project in Aeronautics*</u> <i>Under bearbetning</i>	6	D	28	-	-	48			3	4	
4M1342 <u>Space Systems and Technology</u>	4	D	36	-	-	-		2			
5B1816 <u>Applied Mathematical Programming - Nonlinear Problems</u>	4	D	18	12	-	-		2			18 h Projektuppgift18 h Projektuppgift

*The course has limited participation

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Ground Vehicle Engineering T4

Code Name	Credits	Level	Lec	Tut	Le	Lab	Periods				Other
							1	2	3	4	
Compulsory Courses											
4D1400 Industrial Economics and Management, Basic Course	4	A	20	16	-	-		2			4 h Seminars4 h Seminars
Conditionally Elective Courses											
1C1206 Railway Track Engineering	5	D	33	-	-	-			3		44 h Workshop
1H1206 Planning of Railroad Traffic	5	C	-	-	72	-	1				
2C1149 Electric Traction	4	C	36	-	-	-				4	
4B1304 Railway Systems and Rail Vehicles	6	C	-	-	60	9	1	2			Project assignment 9h
4B1313 Rail Vehicle Dynamics	5	D	-	-	36	24			3		
4B1420 Ground Vehicle Engineering, Basic Course*_	6	C	36	36	-	-	1	2			
4B1425 Ground Vehicle Dynamics, Basic Course*_ <i>Under bearbetning</i>	7	D	33	60	-	-			3	4	
4F1430 Combustion Engines, general course*_	4	C	42	6	-	12	1				
Recommended Courses											
4B1131 Experimental Structure Dynamics	5	D	-	58	-	12		2	3		
4E1111 Lightweight Structures and FEM <i>The course is not given during the academic year 05/06.</i>	5	D	48	-	-	14	1				
4F1131 Microcomputers in Embedded Systems*_	5	D	-	36	-	36		2			
4F1630 Introduction to Machine Design	5	C	24	36	-	-	1	2			
4F1640 Industrial Design*_ <i>Limited number of participants.</i>	4	C	24	36	-	-			3		
5C1211 Vehicle Aerodynamics	4	C	16	-	-	4				4	4 h Seminars4 h Seminars

*The course has limited participation

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Solid Mechanics T4

Code Name	Credits	Level	Lec	Tut	Le	Lab	Periods				Other
							1	2	3	4	
Compulsory Courses											
4C1122 Applied solid mechanics	6	D	28	16	14	24	1	2			
Conditionally Elective Courses											
4C1110 Material Mechanics	4	D	52	-	-	3	1				
4C1111 Fracture Mechanics and Fatigue	4	D	48	-	-	4				4	
4C1116 Dynamic Problems in Solid Mechanics	4	D	42	-	-	8			3	4	
4C1121 Introduction to Biomechanics	6	C	48	-	-	8			3		
4C1124 Orthopedic Biomechanics	4	D	32	-	-	4				4	
Elective Courses											
3E1324 Polymer Materials - Properties and Applications	4	C	30	12	-	10				4	
3E1360 Mechanical Properties of Polymers, Minor Course	4	D	24	16	-	12	1				
4B1420 Ground Vehicle Engineering, Basic Course*	6	C	36	36	-	-	1	2			
4E1125 Fibre Composites II, Analysis and Design	4	D	2	-	-	6		2			
4F1540 Tribology	4	C	18	9	-	5				4	
4G1230 Introductory Welding Technology	4	C	24	18	-	12	1				
4H1202 Mechanical Metallurgy I	6	D	24	12	-	48			3	4	Home assignments
4H1203 Mechanical Metallurgy II	4,5	C	24	12	-	24			3	4	Home assignments
4H1205 Mechanical Properties of Materials Under bearbetning	4	C	20	18	-	6		2			4 h Study visitStudy visit 4h 4 h Study visit
4H1505 Structure and Properties of Ceramic Materials	4	B	12	-	-	18		2			
5A1301 Mathematical Methods in Physics, Course I <i>Not given 05/06.</i>	4	C	26	28	-	-					
5C1122 Continuum Mechanics	4	C	42	-	-	-	1				
5C1123 Mathematical Methods of Mechanics, General Course	4	D	36	-	-	-		2			
5C1125 Mathematical Methods of Mechanics, Intermediate Course	2	D	-	-	-	-			3		
5C1214 Fluid Mechanics	5	C	-	30	30	3	1				

5C1902 Advanced Dynamics of Complex Systems	4	D	24	-	-	-	1				

*The course has limited participation

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Industrial Economics and Management T4

Code Name	Credits	Level	Lec	Tut	Le	Lab	Periods				Other
							1	2	3	4	
Compulsory Courses											
4D1035 <u>Advanced Industrial Economics and Management</u> *	12	D	68	72	-	16		2	3	4	Roll-play 16h
Conditionally Elective Courses											
4D1062 <u>Industrial Marketing</u> <i>Replaces 4D1065 Industrial Marketing and 4D1151 Marketing</i>	4	B	36	12	-	-			3		
4D1071 <u>Industrial Project Management, Basic Course</u>	4	B	40	8	-	-	1				
4F1630 <u>Introduction to Machine Design</u>	5	C	24	36	-	-	1	2			
4K1102 <u>Manufacturing Automation I</u>	4	C	18	26	-	12	1				
Elective Courses											
4D1062 <u>Industrial Marketing</u> <i>Replaces 4D1065 Industrial Marketing and 4D1151 Marketing</i>	4	B	36	12	-	-			3		
4D1152 <u>Industrial Marketing, Advanced Course</u>	4	C	36	-	-	-	1				12 h Seminars12 h Seminars
4D1170 <u>Advanced Production and Product Development</u>	4	C	36	12	-	-		2			
4D1174 <u>Management and Analysis of Innovations and Technology</u>	4	C	38	-	-	-		2			10 h Seminars10 h Seminars
4K1103 <u>Manufacturing Automation II</u>	6	C	26	34	-	17	1	2			

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Industrial Engineering T4

Code Name	Credits	Level	Lec	Tut	Le	Lab	Periods				Other
							1	2	3	4	
Compulsory Courses											
4G1146 <u>Advanced Industrial Engineering*</u> <i>Under bearbetning</i>	12	D	67	22	-	-	1	2			120 h Projektuppgift120 h Projektuppgift
Conditionally Elective Courses											
4G1634 <u>Manufacturing Engineering, Basic Course</u>	6	C	32	20	-	12	1	2			
Elective Courses											
4D1062 <u>Industrial Marketing</u> <i>Replaces 4D1065 Industrial Marketing and 4D1151 Marketing</i>	4	B	36	12	-	-			3		
4D1093 <u>Psychology for Engineers</u>	4	B	24	3	-	4		2			
4G1053 <u>Materials Processing, Project Support</u> <i>Under bearbetning</i>	4	D	72	48	-	40			3	4	Home assignments 48h
4G1170 <u>Intelligent Machining, Advanced Course</u> <i>Under bearbetning</i>	4	D	36	20	-	-		2	3	4	
4G1243 <u>Advanced Welding Technology, Modulus 1</u> <i>Under bearbetning</i>	4	D	20	20	-	20			3		
4G1244 <u>Advanced Welding Technology, Modulus 2</u> <i>Under bearbetning</i>	4	D	20	20	-	20			3		
4G1245 <u>Advanced Welding Technology, Modulus 3</u> <i>Under bearbetning</i>	4	D	20	20	-	20				4	
4G1246 <u>Enlarged Welding Technology for EWE</u> <i>Course is given upon agreement</i>	4	D	25	25	-	10	1	2			
4G1540 <u>Laser Metrology Methods and Non-Destructive Testing</u>	4	C	28	22	-	4		2			
4K1102 <u>Manufacturing Automation I</u>	4	C	18	26	-	12	1				
4M1320 <u>Manufacturing Technology</u>	4	C	26	22	-	20				4	Preparatory course 20h Computer work 20h Home assignments 20h Study visit 12h

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Integrated Product Development T4

Code Name	Credits	Level	Lec	Tut	Le	Lab	Periods				Other
							1	2	3	4	
Compulsory Courses											
4F1760 Integrated Product Development, Advanced Course* <i>Under bearbetning</i>	20	D	-	180	-	-	1	2	3	4	
Conditionally Elective Courses											
4F1541 CAD 3D-modelling and Visualization for Personal Computers*	4	C	8	36	-	-		2			
Elective Courses											
4F1131 Microcomputers in Embedded Systems*	5	D	-	36	-	36		2			
4F1641 Environmentally Adapted Product Design <i>80% participation.</i>	4	C	-	-	42	-		2			
4F1642 Modelling and Computer Support in Mechanical Design <i>Under bearbetning</i>	4	C	24	36	-	-			3		

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Sound and Vibrations T4

Code Name	Credits	Level	Lec	Tut	Le	Lab	Periods				Other
							1	2	3	4	
Compulsory Courses											
4B1127 Vibroacoustics	5	D	-	56	-	8	1	2			
4B1131 Experimental Structure Dynamics	5	D	-	58	-	12		2	3		
4B1136 Flow Acoustics	4	D	-	36	-	8			3		
4B1141 Sound and Vibration, Project Course	5	D	-	48	-	12			3	4	Study tour to industry 40h

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Vehicle Engineering

Lightweight Structures T4

Code Name	Credits	Level	Lec	Tut	Le	Lab	Periods				Other
							1	2	3	4	
Compulsory Courses											
4E1124 Fibre Composites I: materials and processes	4	D	40	-	-	8	1				
4E1125 Fibre Composites II, Analysis and Design	4	D	2	-	-	6		2			
4E1126 Structural Design and Optimisation	4	D	40	-	-	18			3		
4E1132 Lightweight Design*_ <i>Open only to students on the specialisation LKR.</i>	10	D	-	-	336	-	1	2	3	4	
4E1150 Biomechanics and Neuronics	4	D	34	-	-	8				4	
Elective Courses											
4B1304 Railway Systems and Rail Vehicles	6	C	-	-	60	9	1	2			Project assignment 9h
4B1420 Ground Vehicle Engineering, Basic Course*_	6	C	36	36	-	-	1	2			
4E1212 Aerodynamics <i>Under bearbetning</i>	6	D	56	10	-	14	1	2			
4F1630 Introduction to Machine Design	5	C	24	36	-	-	1	2			
9E1300 Technical English, Lower Intermediate Level*_	4	B	-	-	56	-	1	2			
9E1301 Technical English, Intermediate Level*_	6	B	-	-	56	-	1	2			
9E1304 Technical English, Advanced Level*_	6	C	-	-	56	-	1	2			
9E1325 Technical German, Intermediate Level	6	B	-	-	15	-	1	2			E-learning exercises appr. 75 % of the course. 15 classroom hours in the evening.
9E1326 Technical German, Advanced Level*_	6	C	-	-	56	-	1	2			
9E1334 Technical French, Intermediate Level*_	6	B	-	-	56	-	1	2			
9E1348 Technical Spanish, Intermediate Level*_	6	B	-	-	56	-			3	4	

*The course has limited participation

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Naval systems T4

Code Name	Credits	Level	Lec	Tut	Le	Lab	Periods				Other
							1	2	3	4	
Compulsory Courses											
4E1402 <u>Naval design*_</u> <i>Only open to MSY students.</i>	10	D	-	336	-	-	1	2	3	4	
Conditionally Elective Courses											
2C1224 <u>Management of Technology</u>	5	D	32	20	-	-	1				
4E1124 <u>Fibre Composites I: materials and processes</u>	4	D	40	-	-	8	1				
4E1125 <u>Fibre Composites II, Analysis and Design</u>	4	D	2	-	-	6		2			
4E1126 <u>Structural Design and Optimisation</u>	4	D	40	-	-	18			3		
5C1212 <u>Computational Fluid Dynamics</u>	5	D	-	-	50	10			3		
5C1213 <u>Applied Computational Fluid Dynamics</u>	2	D	-	-	10	14				4	
5C1214 <u>Fluid Mechanics</u>	5	C	-	30	30	3	1				
Elective Courses											
4B1131 <u>Experimental Structure Dynamics</u>	5	D	-	58	-	12		2	3		
4E1140 <u>Flight Dynamics and Aeroelasticity</u> <i>Under bearbetning</i>	4	D	38	21	-	4			3		
4E1150 <u>Biomechanics and Neuronics</u>	4	D	34	-	-	8				4	
4F1430 <u>Combustion Engines, general course*_</u>	4	C	42	6	-	12	1				
4G1230 <u>Introductory Welding Technology</u>	4	C	24	18	-	12	1				
9E1300 <u>Technical English, Lower Intermediate Level*_</u>	4	B	-	-	56	-	1	2			

*The course has limited participation

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Machine Elements T4

Code Name	Credits	Level	Lec	Tut	Le	Lab	Periods				Other
							1	2	3	4	
Compulsory Courses											
4F1540 Tribology	4	C	18	9	-	5				4	
4F1560 Advanced Machine Elements* <i>Under bearbetning</i>	12	D	-	120	-	-			3	4	
4F1630 Introduction to Machine Design	5	C	24	36	-	-	1	2			
4K1132 Modularisation of Products <i>Some parts of the course are outlined in 4K1131 Assembly Systems and 4K1104 Manufacturing Systems, advanced course.</i>	4	C	24	20	-	-			3		
Elective Courses											
4C1122 Applied solid mechanics	6	D	28	16	14	24	1	2			

*The course has limited participation

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Machine Design T4

Code Name	Credits	Level	Lec	Tut	Le	Lab	Periods				Other
							1	2	3	4	
Compulsory Courses											
4F1630 Introduction to Machine Design	5	C	24	36	-	-	1	2			
4F1644 Industrial Design* <i>Under bearbetning</i>	4	C	24	36	-	-	1				
4F1660 Advanced Machine Design* <i>Under bearbetning</i>	12	D	4	114	-	-			3	4	
Elective Courses											
3E1360 Mechanical Properties of Polymers, Minor Course	4	D	24	16	-	12	1				
3E1361 Polymer Processing, Minor Course	4	D	24	8	-	18		2			
4C1122 Applied solid mechanics	6	D	28	16	14	24	1	2			
4F1131 Microcomputers in Embedded Systems*	5	D	-	36	-	36		2			
4F1131 Microcomputers in Embedded Systems* <i>Limited attendance: 25</i>	5	D	-	36	-	36			3		
4F1141 Project Work in Mechatronics* <i>Limited attendance due to limited number of available projects</i>	4	C	-	-	-	-	1	2	3	4	No scheduled hours
4F1541 CAD 3D-modelling and Visualization for Personal Computers*	4	C	8	36	-	-				4	
4F1641 Environmentally Adapted Product Design <i>80% participation.</i>	4	C	-	-	42	-		2			
4K1102 Manufacturing Automation I	4	C	18	26	-	12	1				

*The course has limited participation

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Mechanics T4

Code Name	Credits	Level	Lec	Tut	Le	Lab	Periods				Other
							1	2	3	4	
Conditionally Elective Courses											
2D1225 Numerical Solutions of Differential Equations	4	C	24	4	-	16	1	2			
5C1123 Mathematical Methods of Mechanics, General Course	4	D	36	-	-	-		2			
5C1125 Mathematical Methods of Mechanics, Intermediate Course	2	D	-	-	-	-			3		
5C1211 Vehicle Aerodynamics	4	C	16	-	-	4				4	4 h Seminars4 h Seminars
5C1212 Computational Fluid Dynamics	5	D	-	-	50	10			3		
5C1213 Applied Computational Fluid Dynamics	2	D	-	-	10	14				4	
5C1214 Fluid Mechanics	5	C	-	30	30	3	1				
5C1215 Compressible Flow	5	D	-	-	52	9		2			
5C1850 Finite Element Methods	5	D	33	-	-	-	1				33 h Workshop33 h Workshop
5C1860 FEM Modelling	5	D	33	-	-	-		2			33 h Workshop33 h Workshop
5C1902 Advanced Dynamics of Complex Systems	4	D	24	-	-	-	1				
5C1904 Advanced Modern Mechanics	4	D	24	-	-	-		2			
Elective Courses											
5C1122 Continuum Mechanics	4	C	42	-	-	-	1				

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Mechatronics T3

Code Name	Credits	Level	Lec	Tut	Le	Lab	Periods				Other	
							1	2	3	4		
Conditionally Elective Courses												
4F1823 Basic Electrical Engineering, Part 2 <i>Under bearbetning</i>	2	B	6	6	-	10			3	4		

Mechatronics T4

Code Name	Credits	Level	Lec	Tut	Le	Lab	Periods				Other
							1	2	3	4	
Compulsory Courses											
4F1132 <u>Microcomputers in Embedded Systems</u> <i>Under bearbetning</i>	5	D	-	36	-	36	1				
4F1142 <u>Motion control and Real-time implementation*</u> <i>Under bearbetning</i>	5	D	22	10	-	30		2			
4F1162 <u>Mechatronics, Advanced Course II*</u> <i>Under bearbetning</i>	15	D	-	116	-	80		2	3	4	

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Environmental Management T4

Code Name	Credits	Level	Lec	Tut	Le	Lab	Periods				Other
							1	2	3	4	
Compulsory Courses											
3C1365 <u>Environmental Consequences, Advanced Course II</u>	4	D	15	15	-	40	1	2			Field exercises
3C1387 <u>Environmental Systems Analysis</u>	4	C	16	8	-	6		2			
3C1390 <u>Environmental Management, Larger Course</u>	8	D	36	3	-	24			3	4	Project work, field exercise
Elective Courses											
3C1350 <u>Waste Management, Advanced Course</u> <i>Study visit</i>	4	D	18	-	-	-				4	Project work 20h

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Paper Technology T4

Code Name	Credits	Level	Lec	Tut	Le	Lab	Periods				Other
							1	2	3	4	
Compulsory Courses											
2D1520 Graphic Arts Technology, Minor Course	4	C	24	8	-	16		2			
3D1113 Paper Physics	4	D	20	-	-	20		2			
3D1114 Paper Processes Technology	4	D	20	-	-	20			3		
3D1115 Pulp and Paper Processes	6	D	40	-	-	48	1	2			
3D1117 Paper Technology, project	4	D	-	-	-	-			3	4	Project work

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Publiceringsteknik T4

Code Name	Credits	Level	Lec	Tut	Le	Lab	Periods				Other
							1	2	3	4	
Compulsory Courses											
2D1515 Machinery and Materials in Graphic Arts Technology	6	C	36	8	-	8		2			
2D1517 XML for Publishing	5	C	22	-	-	44	1	2			
2D1518 Audio, Video and Multimedia Production*	5	C	30	-	-	40		2	3		8 h Study visit8 h Study visit
2D1524 Image Processing and Reprographic Methods* <i>Limited number of participants</i>	6	C	26	16	-	12	1				
2D1527 Publishing Technology, Advanced Course <i>Open only to students of the specialization Publishing Technology.</i>	10	D	60	8	-	8			3	4	
Elective Courses											
2D1334 Database Technology	4	C	24	20	-	12			3		

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Systems Engineering T4

Code Name	Credits	Level	Lec	Tut	Le	Lab	Periods				Other
							1	2	3	4	
Compulsory Courses											
4D1400 Industrial Economics and Management, Basic Course	4	A	20	16	-	-		2			4 h Seminars4 h Seminars
5B1832 Systems Engineering	8	C	56	28	-	12	1	2			
Elective Courses											
1H1206 Planning of Railroad Traffic	5	C	-	-	72	-	1				
1H1212 Logistics, Advanced Course	5	D	4	-	-	-			3		Project-course, 12h Seminars
1H1401 Optimisation Models in Transport and Location Analysis	5	D	27	15	-	6			3		6 h Seminars6 h Seminars
1N1150 Optimisation Models in Transport and Location Analysis	5	D	27	15	-	6			3		6 h Seminars6 h Seminars
5B1550 Applied Mathematical Statistics	5	C	-	-	60	-			3		
5B1852 Mathematical Economics <i>Not given 05/06.</i>	4	C	32	16	-	-					

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Materials Processing T4

T-students have to choose 4M1320 or 4G1634 for INP or TIP.

Code Name	Credits	Level	Lec	Tut	Le	Lab	Periods				Other
							1	2	3	4	
Compulsory Courses											
4G1051 Project Assignment, Materials Processing <i>Under bearbetning</i>	4	D	-	160	-	-			3	4	160 h Projektuppgift160 h Projektuppgift
4G1053 Materials Processing, Project Support <i>Under bearbetning</i>	4	D	72	48	-	40			3	4	Home assignments 48h
Conditionally Elective Courses											
4G1170 Intelligent Machining, Advanced Course <i>Under bearbetning</i>	4	D	36	20	-	-		2	3	4	
4G1230 Introductory Welding Technology	4	C	24	18	-	12	1				
4G1570 Metrology & Quality for the Manufacturing Industry <i>Under bearbetning</i>	4	D	36	24	-	-		2	3		
4G1634 Manufacturing Engineering, Basic Course	6	C	32	20	-	12	1	2			
4G1670 Materials Forming <i>Under bearbetning</i>	4	D	18	12	-	18		2	3		
4M1346 Simulation and Modelling	4	D	10	80	-	-	1	2			
4M1370 Solidification Processing	4	D	36	24	-	-	1	2			
Elective Courses											
4C1110 Material Mechanics	4	D	52	-	-	3	1				
4F1630 Introduction to Machine Design	5	C	24	36	-	-	1	2			
4G1243 Advanced Welding Technology, Modulus 1 <i>Under bearbetning</i>	4	D	20	20	-	20			3		
4G1244 Advanced Welding Technology, Modulus 2 <i>Under bearbetning</i>	4	D	20	20	-	20			3		
4G1245 Advanced Welding Technology, Modulus 3 <i>Under bearbetning</i>	4	D	20	20	-	20				4	
4G1246 Enlarged Welding Technology for EWE <i>Course is given upon agreement</i>	4	D	25	25	-	10	1	2			
4G1541 Measurement Technology & Statistics f Manufact. Processes	4	D	30	-	-	8			3		

4M1320 Manufacturing Technology	4	C	26	22	-	20				4	Preparatory course 20h Computer work 20h Home assignments 20h Study visit 12h
4M1341 Foundry Processing	4	D	12	-	-	-				3	Seminarier 24h Other 28h

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Assembly Systems T4

Code Name	Credits	Level	Lec	Tut	Le	Lab	Periods				Other
							1	2	3	4	
Compulsory Courses											
4D1400 Industrial Economics and Management, Basic Course	4	A	20	16	-	-		2			4 h Seminars4 h Seminars
4K1102 Manufacturing Automation I	4	C	18	26	-	12	1				
4K1104 Manufacturing Systems, advanced course* <i>Under bearbetning</i>	12	D	50	48	-	28		2	3	4	
4K1109 Principles for Product Integrated Manufacturing Systems Design	4	C	12	12	-	4	1				
Conditionally Elective Courses											
4G1634 Manufacturing Engineering, Basic Course	6	C	32	20	-	12	1	2			

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Wood Technology T4

Code Name	Credits	Level	Lec	Tut	Le	Lab	Periods				Other
							1	2	3	4	
Compulsory Courses											
4K1602 Industrial Wood Processing, Basic Course	4	C	26	16	-	16	1				
4K1603 Wood Technology, Advanced Course*	10	D	48	24	-	36		2	3	4	
Elective Courses											
4D1062 Industrial Marketing <i>Replaces 4D1065 Industrial Marketing and 4D1151 Marketing</i>	4	B	36	12	-	-			3		
4K1102 Manufacturing Automation I	4	C	18	26	-	12	1				

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Industrial Engineering and Management

Industrial Engineering and Management I1

Code Name	Credits	Level	Lec	Tut	Le	Lab	Periods				Other
							1	2	3	4	
Compulsory Courses											
2D1312 Programming Technique and Matlab	5	B	26	14	-	30	1	2			
4D1112 Engineering, Technique and Humanities	5	A	42	-	-	-			3		10 h Seminars, 20 h Study visit10 h Seminars, 20 h Study visit
4D1123 Industrial Economics and Management, Basic Course	6	A	32	22	-	-	1	2			6 h Seminars6 h Seminars
5B1120 Introductory Course in Mathematics I	1	A	-	-	-	-					
5B1135 Mathematics I for I	6	A	45	-	45	-	1	2			
5B1136 Mathematics II for I	6	A	45	-	45	-		2	3		
5B1230 Mathematics IV	6	A	45	-	45	-			3	4	
5C1103 Mechanics, Basic Course	6	A	48	27	-	-			3	4	

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Industrial Engineering and Management

Industrial Engineering and Management I2

Code Name	Credits	Level	Lec	Tut	Le	Lab	Periods				Other
							1	2	3	4	
Compulsory Courses											
4D1124 Industrial Economics and Management, Advanced Course	4	B	26	10	-	-	1				4 h Seminars4 h Seminars
4D1160 Economics With Focus on Microeconomic Theory	4	A	40	8	-	-		2			

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Industrial Engineering and Management

Industrial Engineering and Management I3

Code Name	Credits	Level	Lec	Tut	Le	Lab	Periods				Other
							1	2	3	4	
Compulsory Courses											
4D1113 Knowledge Formation in Technology and Natural Science	4	C	20	-	-	-			3		8 h Seminars8 h Seminars
Conditionally Elective Courses											
4D1032 Production	4	B	36	12	-	10				4	
4D1051 Commercial Law	4	B	14	18	-	-			3		
4D1052 Intellectual Property Law	4	C	18	8	-	-				4	6 h SeminarsSeminars 6h 6 h Seminars
4D1062 Industrial Marketing <i>Replaces 4D1065 Industrial Marketing and 4D1151 Marketing</i>	4	B	36	12	-	-			3		
4D1064 Management of Software Development Projects*_	4	C	28	-	-	-			3		
4D1071 Industrial Project Management, Basic Course	4	B	40	8	-	-				4	
4D1071 Industrial Project Management, Basic Course	4	B	40	8	-	-	1				
4D1072 Industrial Project Management, Advanced Course	4	C	36	12	-	-			3		
4D1096 Human Resource Management	4	B	28	12	-	-			3		
4D1098 Organizational Change and Change Management*_	4	C	-	8	-	-				4	36 h Seminars36 h Seminars
4D1152 Industrial Marketing, Advanced Course	4	C	36	-	-	-	1				12 h Seminars12 h Seminars
4D1161 Finance, Corporate Valuation*_	4	C	34	-	-	-			3		6 h Seminars6 h Seminars
4D1162 Management Control: Strategic and Behavioural Perspectives	4	B	34	-	-	-		2			4 h Seminars4 h Seminars
4D1164 Cost Management and Performance Measurement	4	C	34	-	-	-			3		4 h Seminars4 h Seminars
4D1166 Finance	4	B	30	18	-	-		2			
4D1168 Industrial Dynamics	4	B	40	-	-	-	1				8 h Seminars8 h Seminars
4D1170 Advanced Production and Product Development	4	C	36	12	-	-		2			
4D1174 Management and Analysis of Innovations and Technology	4	C	38	-	-	-		2			10 h Seminars10 h Seminars
5B1306 Financial Mathematics, Basic Course	5	A	-	-	54	-				4	

5B1574 Portfolio Theory and Risk Management	4	C	30	12	-	-	1				
Elective Courses											
9E1131 Information Searching for B, I, M, T <i>Also BD and P</i>	1	B	-	-	-	-	1				Three laborations on all together 9 hours. The course is given regularly throughout the year, see
9E1131 Information Searching for B, I, M, T <i>Also BD and P</i>	1	B	-	-	-	-		2			Three laborations on all together 9 hours. The course is given regularly throughout the year, see
9E1131 Information Searching for B, I, M, T <i>Also BD and P</i>	1	B	-	-	-	-			3		Three laborations on all together 9 hours. The course is given regularly throughout the year, see
9E1131 Information Searching for B, I, M, T <i>Also BD and P</i>	1	B	-	-	-	-				4	Three laborations on all together 9 hours. The course is given regularly throughout the year, see

*The course has limited participation

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Industrial Engineering and Management

Industrial Engineering and Management I4

Code Name	Credits	Level	Lec	Tut	Le	Lab	Periods				Other
							1	2	3	4	
Conditionally Elective Courses											
1H1212 Logistics, Advanced Course	5	D	4	-	-	-			3		Project-course, 12h Seminars
1N1119 Management Ethics	5	C	18	-	-	-	1				Seminars 10h
2I1228 Enterprise Computing and ERP Systems	5	D	14	12	-	60	1				80h
4D1032 Production	4	B	36	12	-	10				4	
4D1041 Business Negotiations*_	4	C	24	8	-	-			3	4	
4D1051 Commercial Law	4	B	14	18	-	-			3		
4D1052 Intellectual Property Law	4	C	18	8	-	-				4	6 h SeminarsSeminars 6h 6 h Seminars
4D1057 Advanced Patent Law	4	C	4	14	-	-	1				14 h SeminarsSeminars 14h 14 h Seminars
4D1061 Strategic Management	4	B	20	-	-	-				4	
4D1062 Industrial Marketing <i>Replaces 4D1065 Industrial Marketing and 4D1151 Marketing</i>	4	B	36	12	-	-			3		
4D1064 Management of Software Development Projects*_	4	C	28	-	-	-			3		
4D1071 Industrial Project Management, Basic Course	4	B	40	8	-	-	1				
4D1071 Industrial Project Management, Basic Course	4	B	40	8	-	-				4	
4D1072 Industrial Project Management, Advanced Course	4	C	36	12	-	-			3		
4D1096 Human Resource Management	4	B	28	12	-	-			3		
4D1098 Organizational Change and Change Management*_	4	C	-	8	-	-				4	36 h Seminars36 h Seminars
4D1142 Leadership	4	B	16	12	-	-	1				12 h Seminars12 h Seminars
4D1152 Industrial Marketing, Advanced Course	4	C	36	-	-	-	1				12 h Seminars12 h Seminars
4D1161 Finance, Corporate Valuation*_	4	C	34	-	-	-			3		6 h Seminars6 h Seminars
4D1162 Management Control: Strategic and Behavioural Perspectives	4	B	34	-	-	-		2			4 h Seminars4 h Seminars
4D1164 Cost Management and Performance Measurement	4	C	34	-	-	-			3		4 h Seminars4 h Seminars
4D1166 Finance	4	B	30	18	-	-		2			

4D1167 Behavioral Finance	4	C	20	-	-	-			4	8 h Seminars8 h Seminars
4D1168 Industrial Dynamics	4	B	40	-	-	-	1			8 h Seminars8 h Seminars
4D1170 Advanced Production and Product Development	4	C	36	12	-	-		2		
4D1174 Management and Analysis of Innovations and Technology	4	C	38	-	-	-		2		10 h Seminars10 h Seminars
4D1177 Digital Media Management	4	C	30	12	-	-			4	
4D1180 Knowledge Perspectives: Investigations in Ethics and Leadership* The course is maximized to 30 students.	4	D	28	-	-	-	1			
4D1181 Knowledge Perspectives: Practice and Philosophy* The course is maximized to 30 students.	4	D	28	-	-	-	1			
4D1182 Knowledge Perspectives: Images of Organization* The course is maximized to 30 students.	4	D	28	-	-	-	1			
4D1183 Knowledge Perspectives: Value and Value Creation* Not given 2005/06. Not given 2005/06.	4	D	28	-	-	-				
4D1188 Knowledge Perspectives: Strategy, Rationality and Judgement* The course is maximized to 30 students.	4	D	28	-	-	-	1			
4D1216 Future Issues and Historical Perspectives	4	C	7	-	-	-		2		14 h Seminars14 h Seminars
4D1302 Management Control Frontiers	4	D	-	-	-	-			4	36 h Seminars36 h Seminars
4D1531 ICT Entrepreneurship* See Course: 2G1724. www.sses.se See Course: 2G1724. www.sses.se	5	C	-	-	-	-				
4D1534 From Science to Business* www.sses.se www.sses.se	5	C	-	-	-	-			4	
4G1161 Quality Under bearbetning	6	C	40	16	-	-				
5B1306 Financial Mathematics, Basic Course	5	A	-	-	54	-			4	
5B1574 Portfolio Theory and Risk Management	4	C	30	12	-	-	1			
Elective Courses										
4D1154 Writing - A Method for Reflection* The course is maximized to 30 students.	4	C	4	-	-	-			3	20 h Seminars20 h Seminars
9E1131 Information Searching for B, I, M, T Also BD and P	1	B	-	-	-	-	1			Three laborations on all together 9 hours. The course is given regularly throughout the year, see
9E1131 Information Searching for B, I, M, T Also BD and P	1	B	-	-	-	-		2		Three laborations on all together 9 hours. The course is given regularly throughout the year, see
9E1131 Information Searching for B, I, M, T Also BD and P	1	B	-	-	-	-			3	Three laborations on all together 9 hours. The course is given regularly throughout the year, see
9E1131 Information Searching for B, I, M, T Also BD and P	1	B	-	-	-	-			4	Three laborations on all together 9 hours. The course is given regularly throughout the year, see

*The course has limited participation

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Industrial Engineering and Management

Biotechnology and Industrial Engineering I2

Code Name	Credits	Level	Lec	Tut	Le	Lab	Periods				Other
							1	2	3	4	
Compulsory Courses											
2D1210 Numerical Methods, Basic Course I	4	A	20	18	-	18			3	4	
2E1215 Introductory Matlab Course	1	A	4	-	-	-			3		8 h Computer 8 h Computer
3A1501 Introduction to Biotechnology	4	A	36	8	-	4	1	2			
3A1512 Cellbiology	4	B	36	-	-	-			3		
3B1700 Introductory Chemistry	4	A	24	18	-	22	1				
3B1711 Chemical Equilibria	4	B	12	22	-	25			3	4	
3B1750 Organic Chemistry 1	5	B	20	14	-	42		2			
5A1225 Electromagnetism and Waves <i>Under bearbetning</i>	5	B	36	20	-	16				4	

Biotechnology and Industrial Engineering I3

Code Name	Credits	Level	Lec	Tut	Le	Lab	Periods				Other
							1	2	3	4	
Compulsory Courses											
2D1396 Bioinformatics	4	D	32	-	-	16			3		
3A1115 Biochemistry	4	C	34	-	-	-				4	
3A1307 Microbiology	6	C	30	24	-	48		2	3		
3A1503 Molecular Biotechnology	5	C	36	-	-	15		2	3		
3B1725 Chemical Thermodynamics	4	B	28	30	-	-	1				
3B1770 Chemical Measuring Techniques	5	B	22	4	-	12	1				

Biotechnology and Industrial Engineering I4

Code Name	Credits	Level	Lec	Tut	Le	Lab	Periods				Other
							1	2	3	4	
Compulsory Courses											
4D1144 Management in Technology Intensive Organisations	4	D	28	-	-	-		2			4 h Seminars4 h Seminars
4D1190 Biotechnology - Business - Leadership	8	D	-	-	-	20			3	4	20 h Seminars20 h Seminars

Recommended Courses

3A1506 Drug Development	4	C	36	-	-	-			3	8 h Study visit8 h Study visit
3A1507 Functional Genomics	4	D	36	-	-	15	1			

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Industrial Engineering and Management

Energy Systems and Industrial Engineering I2

Code Name	Credits	Level	Lec	Tut	Le	Lab	Periods				Other
							1	2	3	4	
Compulsory Courses											
2D1210 Numerical Methods, Basic Course I	4	A	20	18	-	18	1	2			
4A1112 Applied Thermodynamics	6	AB	48	48	-	-			3	4	Math exercises
4F1816	6	B	22	24	-	22			3	4	
5A1225 Electromagnetism and Waves <i>Under bearbetning</i>	5	B	38	18	-	20	1				
5B1501 Probability Theory and Statistics	4	A	24	36	-	-		2			

Energy Systems and Industrial Engineering I3

Code Name	Credits	Level	Lec	Tut	Le	Lab	Periods				Other
							1	2	3	4	
Compulsory Courses											
2C1118 System Planning <i>Replaces 2C1111.</i>	5	C	70	-	-	3			3		
4A1607 Sustainable Energy Utilisation	6	D	-	-	72	16	1	2			
4D1191 Energy Business	4	D	12	-	-	-				4	12 h Seminars, 16 h Study visit12 h Seminars, 16 h Study visit
4F1816	6	B	22	24	-	22			3	4	
Recommended Courses											
4A1605 Sustainable Power Generation	6	D	30	48	-	18	1	2			

Energy Systems and Industrial Engineering I4

Code Name	Credits	Level	Lec	Tut	Le	Lab	Periods				Other
							1	2	3	4	
Compulsory Courses											
4A1145 <u>Energysystems - Business - Leadership</u> <i>The course will be given from 03/04</i> <i>Under bearbetning</i>	8	D	24	24	-	4			3	4	
4D1144 <u>Management in Technology Intensive Organisations</u>	4	D	28	-	-	-		2			4 h Seminars 4 h Seminars

Recommended Courses[4A1605 Sustainable Power Generation](#)

6

D

30

48

-

18

1

2

Elective Courses[4D1191 Energy Business](#)

4

D

12

-

-

-

4

12 h Seminars, 16 h
Study visit12 h
Seminars, 16 h Study
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Financial Mathematics and Industrial Engineering I2

Code Name	Credits	Level	Lec	Tut	Le	Lab	Periods				Other
							1	2	3	4	
Compulsory Courses											
2D1210 Numerical Methods, Basic Course I	4	A	20	18	-	18			3	4	
2D1320 Applied Computer Science	4	A	28	14	-	20	1	2			
5A1225 Electromagnetism and Waves <i>Under bearbetning</i>	5	B	38	18	-	20	1				
5B1506 Mathematical Statistics, Basic Course	6	A	36	48	-	-		2	3		
5B1540 Probability Theory	5	C	24	24	-	-				4	
5B1712 Optimization for F	4	C	28	14	-	6			3		

Financial Mathematics and Industrial Engineering I3

Code Name	Credits	Level	Lec	Tut	Le	Lab	Periods				Other
							1	2	3	4	
Compulsory Courses											
4D1166 Finance	4	B	30	18	-	-		2			
5B1306 Financial Mathematics, Basic Course	5	A	-	-	54	-				4	
5B1545 Time Series Analysis	4	C	24	24	-	-		2			
5B1550 Applied Mathematical Statistics	5	C	-	-	60	-			3		
5B1574 Portfolio Theory and Risk Management	4	C	30	12	-	-	1				

Financial Mathematics and Industrial Engineering I4

Code Name	Credits	Level	Lec	Tut	Le	Lab	Periods				Other	
							1	2	3	4		
Compulsory Courses												
4D1144 Management in Technology Intensive Organisations	4	D	28	-	-	-		2			4 h Seminars4 h Seminars	
4D1192 Finance - Mathematics - Business Management	8	D	-	-	-	-			3	4	20 h Seminars20 h Seminars	
5B1576 Portfolio Theory, Advanced Course	5	D	36	18	-	-		2	3			



5B1580 Risk Management	5	D	24	24	-	-	2		

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Industrial Engineering and Management

Integrated Production and Industrial Engineering I2

Code Name	Credits	Level	Lec	Tut	Le	Lab	Periods				Other
							1	2	3	4	
Compulsory Courses											
2D1210 Numerical Methods, Basic Course I	4	A	20	18	-	18	1	2			
4C1012 Solid Mechanics, Basic Course, IPI <i>Under bearbetning</i>	6	B	52	30	-	2			3	4	
4F1816	6	B	22	24	-	22			3	4	
4G1162	8	B	30	90	-	12			3	4	
5A1225 Electromagnetism and Waves <i>Under bearbetning</i>	5	B	38	18	-	20	1				
5B1501 Probability Theory and Statistics	4	A	24	36	-	-		2			

Integrated Production and Industrial Engineering I3

Code Name	Credits	Level	Lec	Tut	Le	Lab	Periods				Other
							1	2	3	4	
Compulsory Courses											
4G1634 <u>Manufacturing Engineering, Basic Course</u>	6	C	32	20	-	12	1	2			
4H1063 <u>Materials Science for Mechanical Engineering</u>	4	B	36	-	-	15		2			
4K1111 <u>Production Automation</u>	5	C	50	-	-	15			3		
4K1211 <u>Computer Aided Design and Manufacturing, Introductory Course II</u>	4	C	48	-	-	24				4	Graded exercise

Integrated Production and Industrial Engineering I4

Code Name	Credits	Level	Lec	Tut	Le	Lab	Periods				Other
							1	2	3	4	
Compulsory Courses											
4D1144 Management in Technology Intensive Organisations	4	D	28	-	-	-		2			4 h Seminars4 h Seminars
4K1110 Production - Business - Leadership	8	D	-	-	18	-			3	4	Project work
4K1112 Integrated Production	8	D	-	-	84	-	1	2			

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Industrial Engineering and Management

Communication Systems and Industrial Engineering I2

Code Name	Credits	Level	Lec	Tut	Le	Lab	Periods				Other
							1	2	3	4	
Compulsory Courses											
2D1210 Numerical Methods, Basic Course I	4	A	20	18	-	18			3	4	
2E1215 Introductory Matlab Course	1	A	4	-	-	-			3		8 h Computer8 h Computer
2E1313 Signals and Systems, part II	5	C	30	24	-	4				4	10 h Computer10 h Computer
2G1316 Datacommunication and Computer Networks <i>Given at Campus Valhallavägen</i>	4	A	24	18	-	12			3		
2G1518 Computer Hardware Engineering	5	B	20	20	-	12			3	4	
5A1225 Electromagnetism and Waves <i>Under bearbetning</i>	5	B	38	18	-	20	1				
5B1506 Mathematical Statistics, Basic Course	6	A	36	48	-	-		2	3		

Communication Systems and Industrial Engineering I3

Code Name	Credits	Level	Lec	Tut	Le	Lab	Periods				Other
							1	2	3	4	
Compulsory Courses											
2D1320 <u>Applied Computer Science</u>	4	A	28	14	-	20	1	2			
2D1385 <u>Software Engineering</u>	4	C	24	12	-	18				4	
2E1422 <u>Introduction to Signal Theory</u> <i>Under bearbetning</i>	3	C	18	10	-	-	1				
2E1432 <u>Digital Communications</u>	6	C	32	30	-	12	1	2			
2E1511 <u>Radio Communication, Basic Course</u>	4	D	24	24	-	8	1				
2E1618 <u>Queuing Theory and Teletraffic Systems</u> <i>The course replaces 2G1318.</i>	4	D	24	24	-	-		2			
2G1504 <u>Operating Systems</u>	4	C	24	10	-	-				4	
Conditionally Elective Courses											
2E1340 <u>Digital Signal Processing</u>	5	D	26	24	-	3		2			
2E1350 <u>Adaptive Signal Processing</u>	4	D	24	14	-	-			3		
2E1367 <u>Project Course in Signal Processing&Digital Communications</u>	8	D	-	-	-	-				4	Project work 8 cr.

2E1381 Seminars in Wireless Systems <i>Under bearbetning</i>	2	D	-	-	-	-		3	4	Seminars 16h
2E1400 Speech Signal Processing <i>Replaces 2F1521.</i>	4	D	24	24	-	-		2		
2E1410 Information Theory and Source Coding, Accel Program Course	5	D	36	12	-	-		3		
2E1436 Advanced Digital Communications	4	D	26	26	-	-		3		
2E1512 Wireless Networks*	8	D	30	24	-	12			4	80 h Projektuppgift80 h Projektuppgift
2E1618 Queuing Theory and Teletraffic Systems <i>The course replaces 2G1318.</i>	4	D	24	24	-	-		2		
Recommended Courses										
2B1545 Digital Electronics <i>Given in Kista</i> <i>Under bearbetning</i>	5	B	26	18	-	16		3	4	
2E1632 Management of Networks and Networked Systems <i>The course replaces 2G1332.</i>	5	D	18	-	-	-			4	Project

*The course has limited participation

Communication Systems and Industrial Engineering I4

Code Name	Credits	Level	Lec	Tut	Le	Lab	Periods				Other
							1	2	3	4	
Compulsory Courses											
4D1144 Management in Technology Intensive Organisations	4	D	28	-	-	-		2			4 h Seminars4 h Seminars
Conditionally Elective Courses											
2E1603 Data Communications - Economics - Leadership* <i>The course replaces 2G1403.</i> <i>Under bearbetning</i>	8	D	-	-	-	-			3	4	
2G1321 Communication - Business - Leadership <i>Under bearbetning</i>	12	D	-	-	-	-			3	4	
Recommended Courses											
2G1524 Distributed Artificial Intelligence and Intelligent Agents <i>The course is not elective if the student has already taken 2I1235</i>	5	D	24	10	-	-		2			

*The course has limited participation

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Industrial Engineering and Management

Mechatronics and Industrial Engineering I2

Code Name	Credits	Level	Lec	Tut	Le	Lab	Periods				Other
							1	2	3	4	
Compulsory Courses											
2D1210 Numerical Methods, Basic Course I	4	A	20	18	-	18			3	4	
4C1011 Solid Mechanics, basic course, MEI <i>Under bearbetning</i>	8	B	52	30	-	2			3	4	60 h Projektuppgift60 h Projektuppgift
4F1815 <i>Under bearbetning</i>	8	B	30	60	-	-	1	2			
4F1816	6	B	22	24	-	22			3	4	
5A1225 Electromagnetism and Waves <i>Under bearbetning</i>	5	B	38	18	-	20	1				

Mechatronics and Industrial Engineering I3

Code Name	Credits	Level	Lec	Tut	Le	Lab	Periods				Other
							1	2	3	4	
Compulsory Courses											
2D1320 Applied Computer Science	4	A	28	14	-	20	1	2			
2E1200 Automatic Control, General Course	4	C	24	26	-	12	1				
4F1131 Microcomputers in Embedded Systems*	5	D	-	36	-	36		2			
4F1142 Motion control and Real-time implementation* <i>Under bearbetning</i>	5	D	22	10	-	30					
5C1140 Mechanics II	4	B	30	-	15	-		2			

*The course has limited participation

Mechatronics and Industrial Engineering I4

Code Name	Credits	Level	Lec	Tut	Le	Lab	Periods				Other	
							1	2	3	4		
Compulsory Courses												
4F1161 Mechatronics-Economics-Leadership <i>Under bearbetning</i>	15	D	-	116	-	80		2	3	4		

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Industrial Engineering and Management

Program Design and Industrial Engineering I2

Code Name	Credits	Level	Lec	Tut	Le	Lab	Periods				Other
							1	2	3	4	
Compulsory Courses											
2D1210 Numerical Methods, Basic Course I	4	A	20	18	-	18			3	4	
2D1320 Applied Computer Science	4	A	28	14	-	20	1	2			
2D1334 Database Technology	4	C	24	20	-	12			3		
2D1377 Computer Architecture and Programming Close to the Computer	5	C	28	-	-	24			3		
2D1385 Software Engineering	4	C	24	12	-	18				4	
5A1225 Electromagnetism and Waves <i>Under bearbetning</i>	5	B	38	18	-	20	1				
5B1501 Probability Theory and Statistics	4	A	24	36	-	-		2			

Program Design and Industrial Engineering I3

Code Name	Credits	Level	Lec	Tut	Le	Lab	Periods				Other
							1	2	3	4	
Compulsory Courses											
2D1363 <u>Software Engineering</u>	8	D	40	-	-	-		2	3	4	
2D1377 <u>Computer Architecture and Programming Close to the Computer</u>	5	C	28	-	-	24			3		
2D1620 <u>Human-Computer Interaction, Introductory Course</u>	4	C	20	10	-	2	1				
2D1622 <u>Human-Computer Interaction, Advanced Course</u>	4	C	18	5	-	8		2			
2D1640 <u>Graphics and Interaction Programming</u>	6	C	36	14	-	42			3	4	
2I1228 <u>Enterprise Computing and ERP Systems</u>	5	D	14	12	-	60	1				80h
Recommended Courses											
2B1545 <u>Digital Electronics</u> <i>Given in Kista</i> <i>Under bearbetning</i>	5	B	26	18	-	16			3	4	

Program Design and Industrial Engineering I4

Code Name	Credits	Level	Lec	Tut	Le	Lab	Periods	Other

							1	2	3	4	
Compulsory Courses											
2D1460 Software Design - Business - Leadership	8	D	24	-	-	50			3	4	
4D1144 Management in Technology Intensive Organisations	4	D	28	-	-	-		2			4 h Seminars4 h Seminars

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Information and Communication Technology

Information and Communication Technology IT1

Code Name	Credits	Level	Lec	Tut	Le	Lab	Periods				Other
							1	2	3	4	
Compulsory Courses											
2B1115 Engineering Fundamentals	4	A	28	34	-	12	1				
2B1545 Digital Electronics <i>Given in Kista</i> <i>Under bearbetning</i>	5	B	26	18	-	16			3	4	
2G1518 Computer Hardware Engineering	5	B	20	20	-	12				4	
2I1027 Computer Science, Basic Course	6	B	32	80	24	-		2	3		
5B1118 Discrete Mathematics	5	A	50	25	-	-		2			
5B1140 Analytical Methods and Linear Algebra I, IT	8	A	60	-	60	-	1	2			
5B1141 Analytical Methods and Linear Algebra II, IT	8	B	60	-	60	-			3	4	
Recommended Courses											
9E1362 Spoken and Written Swedish*	4	B	-	-	42	-		2	3		
Elective Courses											
5B1120 Introductory Course in Mathematics I	1	A	-	-	-	-					

*The course has limited participation

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Information and Communication Technology

Information and Communication Technology IT2

Code Name	Credits	Level	Lec	Tut	Le	Lab	Periods				Other
							1	2	3	4	
Compulsory Courses											
2B1120 Introductory Physics	4	B	-	-	-	-		2			
2B1350 Electromagnetism and Waves <i>Under bearbetning</i>	4	B	-	-	-	-			3		
2G1316 Datacommunication and Computer Networks <i>Given in Kista</i>	4	A	-	-	-	-	1				
2G1519 Programming Concepts and Techniques, Advanced Course	8	C	38	36	-	22	1	2	3		Individual work approx 200 hours
5B1506 Mathematical Statistics, Basic Course	6	A	36	48	-	-	1	2			
6B3023 IT Project, Part 1-Method	4	C	16	16	-	-			3		
9E1363 Written and Spoken Communication	4	B	-	-	42	-			3	4	
Conditionally Elective Courses											
2G1525 IT Project Course, part 2	5	C	-	-	-	-			3	4	
2I1074	5	C	-	-	-	-			3	4	

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Information and Communication Technology

Information and Communication Technology IT3

Code Name	Credits	Level	Lec	Tut	Le	Lab	Periods				Other
							1	2	3	4	
Elective Courses											
211288 3D Game Development with Shockwave & 3ds Max	5	B	-	-	-	-					

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Information and Communication Technology

Information and Communication Technology IT4

Code Name	Credits	Level	Lec	Tut	Le	Lab	Periods				Other
							1	2	3	4	
Conditionally Elective Courses											
3C1330 Technology and Ecosystems	4	B	24	3	-	-	1				
6B2913 Sustainable Technology	4	A	6	12	-	4			3	4	
Elective Courses											
2B1140 Frontiers of Microelectronics and Information Technology <i>Offered twice a year, either fall or spring.</i>	4	D	20	-	-	-	1	2	3	4	

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åk3-Biomedical Engineering for IT IT3

Code Name	Credits	Level	Lec	Tut	Le	Lab	Periods				Other
							1	2	3	4	
Compulsory Courses											
2G1520 <u>Operating Systems</u> <i>Given in Kista</i>	5	C	28	10	-	-		2			
2I1029 <u>Human-Computer Interaction</u> <i>Under bearbetning</i>	4	B	27	-	-	-	1				Seminar 6 h,Prodject 80 h
2I1034 <u>Object Oriented Analysis and Design</u> <i>Under bearbetning</i>	4	C	-	-	-	-	1				
2I1075 <u>Relational database technology</u> <i>Under bearbetning</i>	4	C	14	3	10	3		2			
5B1928 <u>Logic</u>	4	A	40	20	-	-	1	2			
7E1200 <u>Cellular and Molecular Biology*</u>	10	C	67	-	-	18			3	4	3 h Seminars3 h Seminars
Conditionally Elective Courses											
2G1915 <u>Concurrent Programming</u> <i>In period 3, the course is given in Kista</i>	5	C	36	-	-	24			3		
2I1030 <u>Introduction to Computer Security</u> <i>Under bearbetning</i>	4	A	-	-	-	15			3		Other 100 hours
2I1901 <u>Introduction to Software Engineering</u> <i>Under bearbetning</i>	5	C	15	-	-	-			3		Seminars 6 hours, project 120 hours
7E1201 <u>Neuroscience*</u>	5	C	50	-	-	20				4	

*The course has limited participation

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åk3-Computer systems engineering IT3

Code Name	Credits	Level	Lec	Tut	Le	Lab	Periods				Other
							1	2	3	4	
Compulsory Courses											
2B1446 Embedded Systems <i>The course replaces 2B1445 The course is given in Kista</i>	5	C	24	6	-	16	1				
2G1508 Compilers and Virtual Machines	4	C	24	8	-	4		2			
2G1520 Operating Systems <i>Given in Kista</i>	5	C	28	10	-	-		2			
2G1531 System Modelling and Simulation <i>This course is replaces 2G1503</i>	5	C	24	-	-	-	1				Projectwork 12 h
Conditionally Elective Courses											
2B1463 Embedded Software <i>The course is given in Kista</i>	5	D	20	6	-	12			3		
2E1632 Management of Networks and Networked Systems <i>The course replaces 2G1332.</i>	5	D	18	-	-	-				4	Project
2E1633 Network Services and Internet-based Applications* <i>The course replaces 2G1333.</i>	5	D	8	-	-	-				4	120 h Projektuppgift120 h Projektuppgift
2G1305 Internetworking <i>Given in Kista</i>	4	C	14	14	-	-				4	
2G1505 Theory of Automata	4	D	20	10	-	-				4	
2G1915 Concurrent Programming <i>In period 3, the course is given in Kista</i>	5	C	36	-	-	24			3		
2I1901 Introduction to Software Engineering <i>Under bearbetning</i>	5	C	15	-	-	-			3		Seminars 6 hours, project 120 hours
5B1928 Logic	4	A	40	20	-	-				4	

*The course has limited participation

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åk3-Distributed systems IT3

Code Name	Credits	Level	Lec	Tut	Le	Lab	Periods				Other
							1	2	3	4	
Compulsory Courses											
2B1446 Embedded Systems <i>The course replaces 2B1445 The course is given in Kista</i>	5	C	24	6	-	16	1				
2G1508 Compilers and Virtual Machines	4	C	24	8	-	4		2			
2G1520 Operating Systems <i>Given in Kista</i>	5	C	28	10	-	-		2			
2G1531 System Modelling and Simulation <i>This course is replaces 2G1503</i>	5	C	24	-	-	-	1				Projectwork 12 h
Conditionally Elective Courses											
2B1463 Embedded Software <i>The course is given in Kista</i>	5	D	20	6	-	12			3		
2E1632 Management of Networks and Networked Systems <i>The course replaces 2G1332.</i>	5	D	18	-	-	-				4	Project
2E1633 Network Services and Internet-based Applications* <i>The course replaces 2G1333.</i>	5	D	8	-	-	-				4	120 h Projektuppgift120 h Projektuppgift
2G1305 Internetworking <i>Given in Kista</i>	4	C	14	14	-	-				4	
2G1505 Theory of Automata	4	D	20	10	-	-				4	
2G1915 Concurrent Programming <i>In period 3, the course is given in Kista</i>	5	C	36	-	-	24			3		
2I1901 Introduction to Software Engineering <i>Under bearbetning</i>	5	C	15	-	-	-			3		Seminars 6 hours, project 120 hours
5B1928 Logic	4	A	40	20	-	-				4	

*The course has limited participation

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åk3-Nanoscale Electronics IT3

Code Name	Credits	Level	Lec	Tut	Le	Lab	Periods				Other
							1	2	3	4	
Compulsory Courses											
2B1513 Digital Design with HDL	5	D	20	4	-	40	1				
2B1553 Analog Electronics	5	B	32	32	-	8		2			
2E1313 Signals and Systems, part II	5	C	-	-	60	-		2			
5B1209 Signals and Systems, part I	5	A	30	-	24	-	1				
Conditionally Elective Courses											
2B1430 Design of Digital Integrated Circuits - LSI	5	C	20	8	-	16				4	Project 16h The course is given in Campus. (Valhallavägen)
2B1435 DSP-Construction with HDL	5	D	24	12	-	24			3		
2B1515 Analog Electronics, Advanced Course	5	C	30	14	-	20			3		Project work
2E1423 Signal Theory	5	C	24	24	-	10			3		
2G1505 Theory of Automata	4	D	20	10	-	-				4	

åk3-Nanoscale Electronics IT4

Code Name	Credits	Level	Lec	Tut	Le	Lab	Periods				Other
							1	2	3	4	
Compulsory Courses											
2B1252 Semiconductor Devices	6	C	32	10	-	12				4	

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åk3-Interactive systems IT3

Code Name	Credits	Level	Lec	Tut	Le	Lab	Periods				Other
							1	2	3	4	
Compulsory Courses											
2G1520 Operating Systems <i>Given in Kista</i>	5	C	28	10	-	-		2			
2I1029 Human-Computer Interaction <i>Under bearbetning</i>	4	B	27	-	-	-	1				Seminar 6 h,Prodject 80 h
2I1034 Object Oriented Analysis and Design <i>Under bearbetning</i>	4	C	-	-	-	-	1				
2I1075 Relational database technology <i>Under bearbetning</i>	4	C	14	3	10	3		2			
5B1928 Logic	4	A	40	20	-	-	1	2			
Conditionally Elective Courses											
2G1305 Internetworking <i>Given in Kista</i>	4	C	14	14	-	-				4	
2G1505 Theory of Automata	4	D	20	10	-	-				4	
2G1915 Concurrent Programming <i>In period 3, the course is given in Kista</i>	5	C	36	-	-	24			3		
2I1030 Introduction to Computer Security <i>Under bearbetning</i>	4	A	-	-	-	15			3		Other 100 hours
2I1095 Cognitive Science <i>Under bearbetning</i>	4	C	25	-	-	-			3		Course assignment work 120
2I1140 Artificial Intelligence <i>Under bearbetning</i>	6	D	39	10	-	80			3		
2I1281 Agile Software Construction <i>Under bearbetning</i>	6	C	40	-	40	120				4	
2I1282 Software Testing and Metrics <i>Under bearbetning</i>	5	D	40	-	120	-			3		
2I1901 Introduction to Software Engineering <i>Under bearbetning</i>	5	C	15	-	-	-			3		Seminars 6 hours, project 120 hours

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åk3-Communication systems IT3

Code Name	Credits	Level	Lec	Tut	Le	Lab	Periods				Other
							1	2	3	4	
Compulsory Courses											
2B1446 Embedded Systems <i>The course replaces 2B1445 The course is given in Kista</i>	5	C	24	6	-	16	1				
2G1508 Compilers and Virtual Machines	4	C	24	8	-	4		2			
2G1520 Operating Systems <i>Given in Kista</i>	5	C	28	10	-	-		2			
2G1531 System Modelling and Simulation <i>This course is replaces 2G1503</i>	5	C	24	-	-	-	1				Projectwork 12 h
Conditionally Elective Courses											
2B1463 Embedded Software <i>The course is given in Kista</i>	5	D	20	6	-	12			3		
2E1632 Management of Networks and Networked Systems <i>The course replaces 2G1332.</i>	5	D	18	-	-	-				4	Project
2E1633 Network Services and Internet-based Applications* <i>The course replaces 2G1333.</i>	5	D	8	-	-	-				4	120 h Projektuppgift120 h Projektuppgift
2G1305 Internetworking <i>Given in Kista</i>	4	C	14	14	-	-				4	
2G1505 Theory of Automata	4	D	20	10	-	-				4	
2G1915 Concurrent Programming <i>In period 3, the course is given in Kista</i>	5	C	36	-	-	24			3		
2I1901 Introduction to Software Engineering <i>Under bearbetning</i>	5	C	15	-	-	-			3		Seminars 6 hours, project 120 hours
5B1928 Logic	4	A	40	20	-	-				4	

*The course has limited participation

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åk3-Management with IT and IS IT3

Code Name	Credits	Level	Lec	Tut	Le	Lab	Periods				Other
							1	2	3	4	
Compulsory Courses											
2G1520 Operating Systems <i>Given in Kista</i>	5	C	28	10	-	-		2			
2I1029 Human-Computer Interaction <i>Under bearbetning</i>	4	B	27	-	-	-	1				Seminar 6 h,Prodject 80 h
2I1034 Object Oriented Analysis and Design <i>Under bearbetning</i>	4	C	-	-	-	-	1				
2I1075 Relational database technology <i>Under bearbetning</i>	4	C	14	3	10	3		2			
5B1928 Logic	4	A	40	20	-	-	1	2			
Conditionally Elective Courses											
2G1305 Internetworking <i>Given in Kista</i>	4	C	14	14	-	-				4	
2G1505 Theory of Automata	4	D	20	10	-	-				4	
2G1915 Concurrent Programming <i>In period 3, the course is given in Kista</i>	5	C	36	-	-	24			3		
2I1030 Introduction to Computer Security <i>Under bearbetning</i>	4	A	-	-	-	15			3		Other 100 hours
2I1095 Cognitive Science <i>Under bearbetning</i>	4	C	25	-	-	-			3		Course assignment work 120
2I1140 Artificial Intelligence <i>Under bearbetning</i>	6	D	39	10	-	80			3		
2I1281 Agile Software Construction <i>Under bearbetning</i>	6	C	40	-	40	120				4	
2I1282 Software Testing and Metrics <i>Under bearbetning</i>	5	D	40	-	120	-			3		
2I1901 Introduction to Software Engineering <i>Under bearbetning</i>	5	C	15	-	-	-			3		Seminars 6 hours, project 120 hours

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åk3-Software Engineering and Security IT3

Code Name	Credits	Level	Lec	Tut	Le	Lab	Periods				Other
							1	2	3	4	
Compulsory Courses											
2G1520 Operating Systems <i>Given in Kista</i>	5	C	28	10	-	-		2			
2I1029 Human-Computer Interaction <i>Under bearbetning</i>	4	B	27	-	-	-	1				Seminar 6 h,Prodject 80 h
2I1034 Object Oriented Analysis and Design <i>Under bearbetning</i>	4	C	-	-	-	-	1				
2I1075 Relational database technology <i>Under bearbetning</i>	4	C	14	3	10	3		2			
5B1928 Logic	4	A	40	20	-	-	1	2			
Conditionally Elective Courses											
2G1305 Internetworking <i>Given in Kista</i>	4	C	14	14	-	-				4	
2G1505 Theory of Automata	4	D	20	10	-	-				4	
2G1915 Concurrent Programming <i>In period 3, the course is given in Kista</i>	5	C	36	-	-	24			3		
2I1030 Introduction to Computer Security <i>Under bearbetning</i>	4	A	-	-	-	15			3		Other 100 hours
2I1095 Cognitive Science <i>Under bearbetning</i>	4	C	25	-	-	-			3		Course assignment work 120
2I1140 Artificial Intelligence <i>Under bearbetning</i>	6	D	39	10	-	80			3		
2I1281 Agile Software Construction <i>Under bearbetning</i>	6	C	40	-	40	120				4	
2I1282 Software Testing and Metrics <i>Under bearbetning</i>	5	D	40	-	120	-			3		
2I1901 Introduction to Software Engineering <i>Under bearbetning</i>	5	C	15	-	-	-			3		Seminars 6 hours, project 120 hours

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Åk3-System-on-Chip IT3

Code Name	Credits	Level	Lec	Tut	Le	Lab	Periods				Other
							1	2	3	4	
Compulsory Courses											
2B1513 Digital Design with HDL	5	D	20	4	-	40	1				
2B1553 Analog Electronics	5	B	32	32	-	8		2			
2E1313 Signals and Systems, part II	5	C	-	-	60	-		2			
5B1209 Signals and Systems, part I	5	A	30	-	24	-	1				
Conditionally Elective Courses											
2B1252 Semiconductor Devices	6	C	32	10	-	12				4	
2B1430 Design of Digital Integrated Circuits - LSI	5	C	20	8	-	16				4	Project 16h The course is given in Campus. (Valhallavägen)
2B1435 DSP-Construction with HDL	5	D	24	12	-	24			3		
2B1515 Analog Electronics, Advanced Course	5	C	30	14	-	20			3		Project work
2E1423 Signal Theory	5	C	24	24	-	10			3		
2G1505 Theory of Automata	4	D	20	10	-	-				4	

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Åk3-Wireless systems IT3

Code Name	Credits	Level	Lec	Tut	Le	Lab	Periods				Other
							1	2	3	4	
Compulsory Courses											
2B1513 Digital Design with HDL	5	D	20	4	-	40	1				
2B1553 Analog Electronics	5	B	32	32	-	8		2			
2E1313 Signals and Systems, part II	5	C	-	-	60	-		2			
5B1209 Signals and Systems, part I	5	A	30	-	24	-	1				
Conditionally Elective Courses											
2B1252 Semiconductor Devices	6	C	32	10	-	12				4	
2B1430 Design of Digital Integrated Circuits - LSI	5	C	20	8	-	16				4	Project 16h The course is given in Campus. (Valhallavägen)
2B1435 DSP-Construction with HDL	5	D	24	12	-	24			3		
2B1515 Analog Electronics, Advanced Course	5	C	30	14	-	20			3		Project work
2E1423 Signal Theory	5	C	24	24	-	10			3		
2G1505 Theory of Automata	4	D	20	10	-	-				4	

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Åk4-Electronic and Computer Systems - Computer Systems IT4

Code Name	Credits	Level	Lec	Tut	Le	Lab	Periods				Other
							1	2	3	4	
Conditionally Elective Courses											
2D1373 <u>Artificial Languages and Syntax Analysis</u>	4	C	24	-	-	16			3		
2D1426 <u>Robotics and Autonomous Systems*</u>	5	D	16	-	-	60				4	
2E1423 <u>Signal Theory</u>	5	C	24	24	-	10			3		
2G1114 <u>Parallel Computer Systems</u>	5	D	-	-	24	-		2			Individual project guidance: 2-5 h/ student. Home study time: 150 h
2G1305 <u>Internetworking</u> <i>Given in Kista</i>	4	C	14	14	-	-				4	
2G1505 <u>Theory of Automata</u>	4	D	20	10	-	-				4	
2G1510 <u>Computer Architecture Fundamentals, Intermediate Course</u> <i>Under bearbetning</i>	5	C	14	12	-	4		2			Seminar 4h
2G1511 <u>Computer Architecture</u>	6	D	42	-	-	12			3	4	Individual project guidance: 2-5 h/ student Home study time: 180 h
2G1530 <u>Logic Programming</u> <i>replaces 2G1121</i>	5	D	16	12	-	-	1				Individual work on project and group presentation 4h

*The course has limited participation

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Code Name	Credits	Level	Lec	Tut	Le	Lab	Periods				Other	
							1	2	3	4		
Conditionally Elective Courses												
2B1423 <u>ASIC-design Methodology with High-level Languages</u>	5	D	20	4	-	16				4	Project 12 hours	
2B1428 <u>Design of Digital Integrated Circuits - VLSI</u>	5	D	21	8	-	16			3	4		
2B1429 <u>System Modelling</u>	5	D	24	-	-	-			3		Exercises 12	
2B1454 <u>Design of Fault-tolerant Systems</u>	5	D	-	-	-	-				4		
2B1455 <u>Anatomy of EDA CAD-tools</u>	5	D	24	6	-	-			3			
2E1423 <u>Signal Theory</u>	5	C	24	24	-	10			3			
2G1305 <u>Internetworking</u> <i>Given in Kista</i>	4	C	14	14	-	-				4		
2G1505 <u>Theory of Automata</u>	4	D	20	10	-	-				4		
2G1510 <u>Computer Architecture Fundamentals, Intermediate Course</u> <i>Under bearbetning</i>	5	C	14	12	-	4		2			Seminar 4h	
2G1530 <u>Logic Programming</u> <i>replaces 2G1121</i>	5	D	16	12	-	-	1				Individual work on project and group presentation 4h	

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Åk4-Electronic and Computer Systems - Embedded Systems IT4

Code Name	Credits	Level	Lec	Tut	Le	Lab	Periods				Other
							1	2	3	4	
Conditionally Elective Courses											
2B1423 <u>ASIC-design Methodology with High-level Languages</u>	5	D	20	4	-	16				4	Project 12 hours
2B1429 <u>System Modelling</u>	5	D	24	-	-	-			3		Exercises 12
2B1454 <u>Design of Fault-tolerant Systems</u>	5	D	-	-	-	-				4	
2D1426 <u>Robotics and Autonomous Systems*</u>	5	D	16	-	-	60				4	
2E1423 <u>Signal Theory</u>	5	C	24	24	-	10			3		
2G1305 <u>Internetworking</u> <i>Given in Kista</i>	4	C	14	14	-	-				4	
2G1505 <u>Theory of Automata</u>	4	D	20	10	-	-				4	
2G1508 <u>Compilers and Virtual Machines</u>	4	C	24	8	-	4		2			
2G1510 <u>Computer Architecture Fundamentals, Intermediate Course</u> <i>Under bearbetning</i>	5	C	14	12	-	4		2			Seminar 4h

*The course has limited participation

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Information and Communication Technology

åk4-Information Systems - Interactive Systems IT4

Code Name	Credits	Level	Lec	Tut	Le	Lab	Periods				Other
							1	2	3	4	
Conditionally Elective Courses											
2F1111 <u>Speech Technology</u>	4	D	36	14	-	6			3		
2I1042 <u>Design and Construction of Interactive Systems</u> <i>Under bearbetning</i>	5	C	-	-	-	-		2			
2I1059 <u>Methods for the Design of Multimedia & Interactive Systems</u> <i>Under bearbetning</i>	6	D	25	-	-	64				4	
2I1095 <u>Cognitive Science</u> <i>Under bearbetning</i>	4	C	25	-	-	-			3		Course assignment work 120
2I1234 <u>Machine Learning</u> <i>Under bearbetning</i>	4	D	36	-	-	-				4	
2I1235 <u>Agent Programming</u> <i>The course are not electiv if students already had read 2G1524</i> <i>Under bearbetning</i>	4	D	18	-	-	3			3	4	Other 80 hours
2I1703 <u>Affective interaction</u> <i>Under bearbetning</i>	4	D	18	-	-	-				4	project 120 hours
2I1706 <u>Programming of Interactive Systems</u> <i>Under bearbetning</i>	4	D	26	-	6	50	1	2			
2I1710 <u>Ubiquitous Computing</u> <i>Replaces course 2I1237 start in P3, end in P4</i> <i>Under bearbetning</i>	4	D	29	-	50	-			3	4	tutorials 6 h, seminars 5 h
2I1803 <u>Internet Programming III</u> <i>Replaces 2I1266 from VT04</i>	5	D	6	-	-	160			3		
2I1804 <u>Internet Programming IV</u> <i>Under bearbetning</i>	5	C	4	-	-	160				4	

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Åk4-Information Systems - Management of Information Technology and Systems IT4

Code Name	Credits	Level	Lec	Tut	Le	Lab	Periods				Other	
							1	2	3	4		
Conditionally Elective Courses												
2G1726 Strategic Management of IT	5	D	20	-	-	-				4	Seminars 10h, Team project 10h	
2I1040 Knowledge and Software Reuse <i>Under bearbetning</i>	4	C	18	18	-	40			3	4		
2I1053 Internet and ERP Systems	5	C	12	-	-	-	1				Project work 80 h	
2I1056 Relational Database Design - Logical and Physical	4	C	12	12	-	60		2			Computer tutorials and hand in assignments 80h	
2I1068 Internet Search and Monitoring Techniques <i>The course replaces 2I1413</i>	5	C	-	-	16	-		2			6 assignments	
2I1190 Organisations, IT-Systems and Management <i>Under bearbetning</i>	7	C	36	-	14	9			3	4	Seminars 6h	
2I1191 IT-Platform: Strategy, Architecture and Design <i>Under bearbetning</i>	5	C	30	-	-	-				4	Seminars 6h	
2I1197 Systems Theory <i>Under bearbetning</i>	3	C	21	-	3	3			3			
2I1198 IT-Management <i>Under bearbetning</i>	5	C	27	-	7	-				4	Seminars 8 hours	
2I1224 Data Warehousing <i>Under bearbetning</i>	4	D	15	10	-	30				4		
2I1228 Enterprise Computing and ERP Systems	5	D	14	12	-	60	1				80h	
2I1229 Knowledge Management	4	D	28	-	-	18			3		70h	
2I1242 Models and Languages for Object, Relational and Web Databases	5	D	20	40	-	75			3	4	Studying/Practice 60h	
2I1404 Model-driven Development of Components	5	D	20	35	-	110				4		
2I1406 Mobile Business <i>Under bearbetning</i>	5	D	18	12	-	-			3	4	Project work 80 h	
2I1408 Projects and Powergames	4	D	24	-	-	-				4	Seminars 15 hours	

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åk4-Information Systems - Software Engineering and Security IT4

Code Name	Credits	Level	Lec	Tut	Le	Lab	Periods				Other
							1	2	3	4	
Conditionally Elective Courses											
2G1505 <u>Theory of Automata</u>	4	D	20	10	-	-				4	
2G1516 <u>Formal Methods</u>	5	D	24	20	-	12		2			
2G1530 <u>Logic Programming</u> <i>replaces 2G1121</i>	5	D	16	12	-	-	1				Individual work on project and group presentation 4h
2I1050 <u>Security Management</u> <i>The course cannot be included in an exam together with course 2I1506</i> <i>Under bearbetning</i>	5	D	27	-	-	-				4	
2I1249 <u>Current Problems in Software Engineering</u> <i>Under bearbetning</i>	5	D	-	-	-	-	1	2	3	4	total workload is 200 hours
2I1259 <u>Value-Based Software Engineering</u> <i>Under bearbetning</i>	5	D	28	-	-	-				4	Seminar 14 h
2I1272 <u>Security Architecture for Open Distributed Systems</u> <i>Under bearbetning</i>	4	D	24	-	-	-				4	Research Assignment 24h, Extra Reading Materials 36h
2I1276 <u>Security for Java Environment and Electronic Commerce</u> <i>Under bearbetning</i>	4	D	21	8	3	-			3		Extra Reading Materials 36h, Research Project 24h
2I1279 <u>Security in Mobile and Wireless Networks</u> <i>Under bearbetning</i>	4	D	24	-	-	10			3		
2I1281 <u>Agile Software Construction</u> <i>Under bearbetning</i>	6	C	40	-	40	120				4	
2I1282 <u>Software Testing and Metrics</u> <i>Under bearbetning</i>	5	D	40	-	120	-			3		
2I1283 <u>Formal Methods in Software Engineering</u> <i>Under bearbetning</i>	5	C	20	16	-	-				4	Varies, total workload is 200 hours
2I1284 <u>Dynamic Programming Languages</u> <i>Under bearbetning</i>	5	C	30	-	-	-				4	
2I1502 <u>Introduction to Cryptography</u> <i>Under bearbetning</i>	5	D	28	-	-	12		2			
2I1503 <u>Network Security</u> <i>Replaces 2I1274 from 04/05</i> <i>Under bearbetning</i>	5	D	18	-	-	18		2			
2I1504 <u>Software Engineering and Security Architecture</u> <i>Under bearbetning</i>	5	D	18	-	-	18			3		

2I1505 <u>Legal Aspects of Information Security</u> <i>Under bearbetning</i>	5	D	24	-	-	12		3	
2I1511 <u>Value Based Risk Management</u> <i>Under bearbetning</i>	5	D	12	12	-	-	1		
2I1804 <u>Internet Programming IV</u> <i>Under bearbetning</i>	5	C	4	-	-	160		4	
2I1902 <u>Advanced Issues in Object-Orientation</u>	5	C	30	-	-	120	2		

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Code Name	Credits	Level	Lec	Tut	Le	Lab	Periods				Other	
							1	2	3	4		
Conditionally Elective Courses												
2B1423 <u>ASIC-design Methodology with High-level Languages</u>	5	D	20	4	-	16				4	Project 12 hours	
2B1435 <u>DSP-Construction with HDL</u>	5	D	24	12	-	24			3			
2B1446 <u>Embedded Systems</u> <i>The course replaces 2B1445 The course is given in Kista</i>	5	C	24	6	-	16	1					
2B1448 <u>System-On-Chip Architectures</u> <i>The course replaces 2B1447 The course is given in Kista</i>	5	D	24	6	-	12		2				
2B1463 <u>Embedded Software</u> <i>The course is given in Kista</i>	5	D	20	6	-	12			3			
2B1513 <u>Digital Design with HDL</u>	5	D	20	4	-	40	1					
2D1373 <u>Artificial Languages and Syntax Analysis</u>	4	C	24	-	-	16			3			
2D1375 <u>Implementation of Programming Languages</u> <i>Self-study course.</i>	4	D	2	-	-	-	1	2				
2D1426 <u>Robotics and Autonomous Systems*</u>	5	D	16	-	-	60				4		
2G1114 <u>Parallel Computer Systems</u>	5	D	-	-	24	-		2			Individual project guidance: 2-5 h/ student. Home study time: 150 h	
2G1505 <u>Theory of Automata</u>	4	D	20	10	-	-				4		
2G1511 <u>Computer Architecture</u>	6	D	42	-	-	12			3	4	Individual project guidance: 2-5 h/ student Home study time: 180 h	
2G1530 <u>Logic Programming</u> <i>replaces 2G1121</i>	5	D	16	12	-	-	1				Individual work on project and group presentation 4h	

*The course has limited participation

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åk4-Computer and Communication Systems - Communication Systems IT4

Code Name	Credits	Level	Lec	Tut	Le	Lab	Periods				Other
							1	2	3	4	
Conditionally Elective Courses											
2E1618 <u>Queuing Theory and Teletraffic Systems</u> <i>The course replaces 2G1318.</i>	4	D	24	24	-	-		2			
2E1623 <u>Data Links and Local Area Networks*</u>	5	C	24	14	-	12			3		
2E1624 <u>Performance Analysis of Communication Networks</u> <i>The course replaces 2G1324.</i> <i>Under bearbetning</i>	5	D	-	-	24	-			3		30 h Projektuppgift30 h Projektuppgift
2E1632 <u>Management of Networks and Networked Systems</u> <i>The course replaces 2G1332.</i>	5	D	18	-	-	-				4	Project
2E1633 <u>Network Services and Internet-based Applications*</u> <i>The course replaces 2G1333.</i>	5	D	8	-	-	-				4	120 h Projektuppgift120 h Projektuppgift
2G1319 <u>Communication System Design</u> <i>Also given as 2G1711, 12 credits; 2G1712, 16 credits and 2G1713, 20 credits</i>	10	D	-	-	-	-			3	4	Project work
2G1325 <u>Practical Voice Over IP (VoIP)</u>	5	D	10	-	-	-				4	Assigned paper 50h
2G1330 <u>Wireless and Mobile Network Architectures</u>	5	D	10	-	-	-			3		Assigned paper 50h
2G1516 <u>Formal Methods</u>	5	D	24	20	-	12		2			
2G1703 <u>Inter Domain Routing</u> <i>Under bearbetning</i>	5	D	10	-	-	20		2			Home assignment
2G1704 <u>Internet Security and Privacy</u>	5	D	30	10	-	-		2			assigned paper
2G1720 <u>Global Entrepreneurial Leadership</u>	5	D	-	-	-	-		2			
2G1721 <u>Global IT Management</u>	5	D	20	-	-	-			3		Seminars 10 h, Team project 10 h
2G1722 <u>Developing Mobile Applications</u>	5	D	20	-	-	10	1				
2G1723 <u>GSM Network and Services</u>	5	D	24	-	-	-				4	Laboratory 5 sessions
2G1725 <u>Management of IT-enabled Change</u>	5	D	20	-	-	-	1				Seminars 10 h, Team project 10 h

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åk4-Computer and Communication Systems - Parallel and Distributed Systems IT4

Code Name	Credits	Level	Lec	Tut	Le	Lab	Periods				Other
							1	2	3	4	
Conditionally Elective Courses											
2G1114 <u>Parallel Computer Systems</u>	5	D	-	-	24	-		2			Individual project guidance: 2-5 h/ student. Home study time: 150 h
2G1117 <u>Semantics for Programming Languages</u>	4	D	20	10	-	-			3		
2G1505 <u>Theory of Automata</u>	4	D	20	10	-	-				4	
2G1509 <u>Distributed Systems, Basic Course</u>	5	D	24	-	-	-	1				Project work 10 hours
2G1513 <u>Distributed Systems, Advanced Course</u>	5	D	24	-	-	-			3		
2G1515 <u>Constraint Programming</u>	5	D	24	-	-	-			3		Project work 10 hours
2G1516 <u>Formal Methods</u>	5	D	24	20	-	12		2			
2G1517 <u>Advanced Formal Methods</u>	5	D	12	-	-	-				4	Seminars 6 hours
2G1522 <u>Modern Methods in Software Engineering</u>	5	D	20	10	-	-	1				
2G1523 <u>Programming Web-Services</u>	5	D	20	10	-	-			3		
2G1524 <u>Distributed Artificial Intelligence and Intelligent Agents</u> <i>The course is not elective if the student has already taken 2I1235</i>	5	D	24	10	-	-		2			
2G1526 <u>Distributed Computing, Peer-to-Peer and GRIDS</u>	5	D	-	-	12	-				4	Assignment presentations 1 h per group
2G1529 <u>Network Programming with Java</u> <i>The course replaces 2G1118 The course is given in Kista in period 2</i>	5	D	22	10	-	10		2			
2G1530 <u>Logic Programming</u> <i>replaces 2G1121</i>	5	D	16	12	-	-	1				Individual work on project and group presentation 4h
2G1704 <u>Internet Security and Privacy</u>	5	D	30	10	-	-		2			assigned paper
2I1235 <u>Agent Programming</u> <i>The course are not electiv if students already had read 2G1524</i> <i>Under bearbetning</i>	4	D	18	-	-	3			3	4	Other 80 hours

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åk4-Computer and Communication Systems - Wireless Systems IT4

Code Name	Credits	Level	Lec	Tut	Le	Lab	Periods				Other
							1	2	3	4	
Conditionally Elective Courses											
2B1435 DSP-Construction with HDL	5	D	24	12	-	24			3		
2B1513 Digital Design with HDL	5	D	20	4	-	40	1				
2B1600 Radio Electronics	5	D	26	12	-	16				4	
2E1340 Digital Signal Processing	5	D	26	24	-	3		2			
2E1350 Adaptive Signal Processing	4	D	24	14	-	-			3		
2E1400 Speech Signal Processing <i>Replaces 2F1521.</i>	4	D	24	24	-	-		2			
2E1410 Information Theory and Source Coding, Accel Program Course	5	D	36	12	-	-			3		
2E1511 Radio Communication, Basic Course	4	D	24	24	-	8	1				
2E1618 Queuing Theory and Teletraffic Systems <i>The course replaces 2G1318.</i>	4	D	24	24	-	-		2			
2E1632 Management of Networks and Networked Systems <i>The course replaces 2G1332.</i>	5	D	18	-	-	-				4	Project
2G1330 Wireless and Mobile Network Architectures	5	D	10	-	-	-			3		Assigned paper 50h
2G1509 Distributed Systems, Basic Course	5	D	24	-	-	-	1				Project work 10 hours
2G1510 Computer Architecture Fundamentals, Intermediate Course <i>Under bearbetning</i>	5	C	14	12	-	4		2			Seminar 4h
2G1522 Modern Methods in Software Engineering	5	D	20	10	-	-	1				
2G1523 Programming Web-Services	5	D	20	10	-	-			3		

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Åk4-Microelectronics - Semiconductor technology IT4

Code Name	Credits	Level	Lec	Tut	Le	Lab	Periods				Other
							1	2	3	4	
Compulsory Courses											
2B1515 <u>Analog Electronics, Advanced Course</u>	5	C	30	14	-	20			3		Project work
Conditionally Elective Courses											
2B1221 <u>Methods and Instruments of Analysis</u>	5	D	-	-	28	16		2			
2B1242 <u>Design and Characterisation of Nano- and Microdevices</u>	5	D	24	-	-	16			3		
2B1245 <u>Advanced VLSI-Devices</u>	5	D	20	-	-	32				4	
2B1248 <u>Simulation of Semiconductor Devices</u>	5	D	24	-	-	32		2			
2B1700 <u>Advanced Semiconductor Materials</u>	5	D	34	-	-	16			3		
2B1814 <u>Photonics</u>	5	D	38	-	-	8				4	

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Information and Communication Technology

Åk4-Microelectronics - Circuit Design IT4

Code Name	Credits	Level	Lec	Tut	Le	Lab	Periods				Other
							1	2	3	4	
Compulsory Courses											
2B1515 <u>Analog Electronics, Advanced Course</u>	5	C	30	14	-	20			3		Project work
Conditionally Elective Courses											
2B1248 <u>Simulation of Semiconductor Devices</u>	5	D	24	-	-	32		2			
2B1428 <u>Design of Digital Integrated Circuits - VLSI</u>	5	D	21	8	-	16			3	4	
2B1450 <u>Electronic System Packaging</u> <i>Under bearbetning</i>	5	D	20	-	-	16			3		
2B1513 <u>Digital Design with HDL</u>	5	D	20	4	-	40	1				
2B1600 <u>Radio Electronics</u>	5	D	26	12	-	16				4	
2B1611 <u>Low Power Analog and Mixed Signal IC's</u>	5	D	-	14	42	-				4	
2E1511 <u>Radio Communication, Basic Course</u>	4	D	24	24	-	8	1				
2G1305 <u>Internetworking</u> <i>Given in Kista</i>	4	C	14	14	-	-				4	

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Chemical Engineering

Chemical Engineering K1

Code Name	Credits	Level	Lec	Tut	Le	Lab	Periods				Other
							1	2	3	4	
Compulsory Courses											
3B1700 Introductory Chemistry	4	A	24	18	-	22	1				
3B1711 Chemical Equilibria	4	B	12	22	-	25			3	4	
3B1750 Organic Chemistry 1	5	B	20	14	-	42		2			
3C1451 Introduction to Chemical Engineering	7	B	39	26	-	-		2	3		Plant Trip 1 day
5A1225 Electromagnetism and Waves <i>Under bearbetning</i>	5	B	36	20	-	16				4	
5B1115 Mathematics I	6	A	60	30	-	-	1				
5B1116 Mathematics II	6	A	60	30	-	-		2	3		
5C1102 Mechanics, Smaller Course	4	A	30	15	-	-				4	
Elective Courses											
3B1705 Introductory Course in Chemistry	1	A	-	-	-	-					
3C1921 Oral and Written Presentation for Chemists	4	B	4	12	2	2		2			
5B1120 Introductory Course in Mathematics I	1	A	-	-	-	-					

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Chemical Engineering

Chemical Engineering K2

Code Name	Credits	Level	Lec	Tut	Le	Lab	Periods				Other
							1	2	3	4	
Compulsory Courses											
2D1212 Numerical Methods and Basic Programming	6	A	34	30	-	28	1	2			
3B1720 Chemical Thermodynamics	5	B	28	30	-	15	1				
3B1731 Molecular Structure	4	B	36	22	-	20		2	3		
3B1740 Chemical Dynamics	4	B	20	20	-	15			3		
3B1760 Organic Chemistry 2	5	B	14	10	-	42				4	6 h Computer6 h Computer
3C1715 Transport Phenomena and Engineering Thermodynamics	7	C	28	40	-	12		2	3		6 h Seminars, 12 h Computer6 h Seminars, 12 h Computer
3E1200 Polymer Technology with Cellulose Technology	5	C	34	25	-	-				4	
5B1210 Mathematics IV	6	A	60	30	-	-	1				
Elective Courses											
3C1921 Oral and Written Presentation for Chemists	4	B	4	12	2	2		2			

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Chemical Engineering

Chemical Engineering K3

Code Name	Credits	Level	Lec	Tut	Le	Lab	Periods				Other
							1	2	3	4	
Compulsory Courses											
3A1108 Biotechnology	4	B	36	-	-	-		2			
3B1770 Chemical Measuring Techniques	5	B	22	4	-	12	1				
3C1616 Reaction and Separation Engineering	7	C	-	-	-	12		2	3		8 h Seminars, 10 h Computer, 8 h Study visit8 h Seminars, 10 h Computer, 8 h Study visit
3C1715 Transport Phenomena and Engineering Thermodynamics	7	C	28	40	-	12	1	2			6 h Seminars, 12 h Computer6 h Seminars, 12 h Computer
Elective Courses											
3B1242 Technical Surface Colloid Chemistry	4	C	32	6	-	12			3		
3B1511 Organic Chemistry, Advanced Course 1	9	C	12	6	54	-	1			4	
3B1781 Inorganic Chemistry	4	D	20	6	-	16				4	
3C1345 Environmental Technology and Environmental Impact Studies	4	D	32	4	-	-			3		8 h Projektuppgift8 h Projektuppgift
3C1347 Env. Technology and Env. Impact Studies, Larger Course	8	D	32	16	-	24			3	4	
3C1355 Ecology, Advanced Course	4	C	21	4	-	-			3	4	
3C1383 Risk Management	4	C	16	30	-	-	1				
3C1387 Environmental Systems Analysis	4	C	16	8	-	6		2			
3C1395 Technology and Sustainable Development	4	C	2	6	-	-		2			
3C1621 Process Chemistry	5	D	36	72	-	-			3		10 h Seminars10 h Seminars
3C1626 Chemical Engineering, Laboratory Course	4	D	2	-	80	-			3		
3C1723 Transport Phenomena, Advanced Course	5	D	18	12	-	-			3		6 h Seminars, 12 h Computer6 h Seminars, 12 h Computer
3C1786 Pharmaceutical Bioscience	4	C	28	-	-	4			3		
3C1921 Oral and Written Presentation for Chemists	4	B	4	12	2	2		2			
3D1058 Wood Chemistry and Wood Biotechnology	4	D	26	-	-	15			3		
3D1112 Fiber Technology	4	D	26	-	-	15				4	

3E1120 Mechanical Properties of Materials	5	C	30	15	-	12			4	
3E1142 Polymer Physics	5	D	18	18	-	45			3	
3U1101 Oral and Written Presentation for Chemists	4	B	-	-	-	-				
5B1301 Mathematics, Advanced Course, Partial Differential Equations	4	C	-	-	42	-			3	
9E1230 Information Searching for K	1	B	-	-	-	-	1			Three laborations on all together 9h. The course is given regularly throughout the year.
9E1230 Information Searching for K	1	B	-	-	-	-		2		Three laborations on all together 9h. The course is given regularly throughout the year.
9E1230 Information Searching for K	1	B	-	-	-	-			3	Three laborations on a total of 9h. The course is given regularly throughout the year.
9E1230 Information Searching for K	1	B	-	-	-	-			4	Three laborations on a total of 9h. The course is given regularly throughout the year.

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Chemical Engineering

Chemical Engineering K4

Code Name	Credits	Level	Lec	Tut	Le	Lab	Periods				Other
							1	2	3	4	
Recommended Courses											
3C1381 Environmental Management II, Advanced Course	4	D	8	6	-	-				4	
3E5001 Polymer Chemistry	4	D	30	-	-	-			3		
Elective Courses											
3B1650 Molecular Simulations Using a Computer	5	D	14	10	-	40			3		
3B1655 Optical Processes and Properties	5	D	10	10	-	-				4	
9E1230 Information Searching for K	1	B	-	-	-	-			3		Three laborations on a total of 9h. The course is given regularly throughout the year.
9E1230 Information Searching for K	1	B	-	-	-	-	1				Three laborations on all together 9h. The course is given regularly throughout the year.
9E1230 Information Searching for K	1	B	-	-	-	-		2			Three laborations on all together 9h. The course is given regularly throughout the year.
9E1230 Information Searching for K	1	B	-	-	-	-				4	Three laborations on a total of 9h. The course is given regularly throughout the year.

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Business Development and Media Technology K4

Code Name	Credits	Level	Lec	Tut	Le	Lab	Periods				Other
							1	2	3	4	
Compulsory Courses											
2D1550 Market Systems	5	C	-	-	-	-	1				Seminars 40h
2D1552 Media Management	10	C	72	56	-	-			3	4	Only open for AFM-students.
2D1553 Media Production*_ <i>Only open for AFM-students.</i>	10	C	52	-	-	88		2			Only open for AFM-students.
2D1555 Information Technology and Organizations*_	5	D	20	20	-	-				4	Open only to AMF-students.
2D1557 Consumer Behaviour <i>Replaces 2D1551. Open only to AFM-students.</i>	5	C	-	-	-	-	1				Seminars 40h

*The course has limited participation

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Biomedical Engineering K3

Code Name	Credits	Level	Lec	Tut	Le	Lab	Periods				Other
							1	2	3	4	
Compulsory Courses											
7E1200 Cellular and Molecular Biology*_	10	C	67	-	-	18			3	4	3 h Seminars3 h Seminars
7E1201 Neuroscience*_	5	C	50	-	-	20				4	

*The course has limited participation

Biomedical Engineering K4

Code Name	Credits	Level	Lec	Tut	Le	Lab	Periods				Other
							1	2	3	4	
Compulsory Courses											
7E1202 Systems Biology*_	5	C	32	-	-	25		2			24 h Seminars24 h Seminars
Recommended Courses											
3A1115 Biochemistry	4	C	34	-	-	-				4	

*The course has limited participation

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Biomolecular technology K3

Code Name	Credits	Level	Lec	Tut	Le	Lab	Periods				Other	
							1	2	3	4		
Compulsory Courses												
3A1109 Biochemistry	8	C	34	-	-	-				4		
3A1305 Microbiology, General Course	6	C	36	16	-	54			3	4		
3B1102 Analytical Chemistry	4	C	16	-	-	16			3			
3B1521 Organic Chemistry, Theory, Advanced Course 1	5	C	12	6	-	-				4		
Recommended Courses												
3B1321 Radical Chemistry	5	C	30	-	-	-			3			

Biomolecular technology K4

Code Name	Credits	Level	Lec	Tut	Le	Lab	Periods				Other
							1	2	3	4	
Compulsory Courses											
3A1109 Biochemistry	8	C	-	-	-	96	1	2			
3A1510 Molecular Biotechnology, Theory	4	D	36	-	-	-		2			
Recommended Courses											
1N1109 Ethics of Biotechnology	5	C	20	-	-	-	1	2			Seminars 10h, individual essay- tutorials
3A1104 Environmental Toxicology	6	C	36	14	-	-	1	2			
3A1110 Molecular Enzymology	5	D	24	6	-	10		2			4 h Seminars4 h Seminars
3A1111 Enzymatic Synthesis	5	D	20	12	-	20				4	6 h Seminars6 h Seminars
3A1112 Biochemical Analyses and Separation Techniques	5	D	32	-	-	30				4	
3A1205 Biochemical Technology	7	D	40	-	-	60			3	4	
3A1206 Biochemical Technology, Theory	5	D	40	10	-	-			3	4	
3A1313 Technical Microbiology	8	D	44	12	-	-			3	4	12 h Seminars12 h Seminars
3A1314 Technical Microbiology, Theory	5	D	44	-	-	-			3		
3A1504 Structure Biology	4	C	32	-	-	20				4	
3A1506 Drug Development	4	C	36	-	-	-			3		8 h Study visit8 h Study visit
3A1507 Functional Genomics	4	D	36	-	-	15	1				

3B1121 Organic and Biochemical Analytical Separations	5	D	28	20	-	36			4	
3B1211 Quantum Chemistry and Spectroscopy	6	D	48	-	-	8	1			
3B1231 NMR-spectroscopy	4	D	30	-	-	12	2			
3B1321 Radical Chemistry	5	C	30	-	-	-		3		
3B1482 Structural Chemistry	5	D	16	6	-	16	1			
3B1531 Organic Chemistry, Advanced Course	4	D	-	-	-	54	1			
3B1542 Organic Chemistry, Advanced Course II	5	D	24	-	-	40		3		
3B1580 Ecological Chemistry	4	C	20	-	-	48		3	4	
3B1581 Ecological Chemistry, with project	6	C	20	-	-	-		3	4	

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Code Name	Credits	Level	Lec	Tut	Le	Lab	Periods				Other
							1	2	3	4	
Compulsory Courses											
3C1347 Env. Technology and Env. Impact Studies, Larger Course	8	D	32	16	-	24			3	4	
3C1380 Environmental Management	4	C	10	-	-	-			3		12 h Seminars12 h Seminars
Recommended Courses											
3A1115 Biochemistry	4	C	34	-	-	-				4	
3B1102 Analytical Chemistry	4	C	16	-	-	16			3		
3B1443 Atmosphere, Aquatic and Terrestrial Chemistry	5	C	12	10	-	24				4	
3B1511 Organic Chemistry, Advanced Course 1	9	C	12	6	54	-	1			4	
3B1521 Organic Chemistry, Theory, Advanced Course 1	5	C	12	6	-	-				4	
3B1781 Inorganic Chemistry	4	D	20	6	-	16				4	
3C1350 Waste Management, Advanced Course <i>Study visit</i>	4	D	18	-	-	-				4	Project work 20h
3C1351 International Intensive Course in Solid Waste Management	4	D	-	-	-	-			3	4	Week 8 in Stockholm and week 14 in Lviv (Ukraine). Note! These are full time weeks.
3C1651 Environmental Catalysis	4	D	30	-	-	-			3		6 h Seminars, 6 h Study visit6 h Seminars, 6 h Study visit

Industrial ecology K4

Code Name	Credits	Level	Lec	Tut	Le	Lab	Periods				Other	
							1	2	3	4		
Compulsory Courses												
3C1335 Introduction Industrial Ecology	4	C	12	-	-	-	1				8 h Seminars, 12 h Projektuppgift8 h Seminars, 12 h Projektuppgift	
3C1380 Environmental Management	4	C	10	-	-	-			3		12 h Seminars12 h Seminars	
3C1387 Environmental Systems Analysis	4	C	16	8	-	6		2				

3C1395 Technology and Sustainable Development	4	C	2	6	-	-	2			
Recommended Courses										
3A1104 Environmental Toxicology	6	C	36	14	-	-	1	2		
3A1115 Biochemistry	4	C	34	-	-	-			4	
3A1305 Microbiology, General Course	6	C	36	16	-	54		3	4	
3B1443 Atmosphere, Aquatic and Terrestrial Chemistry	5	C	12	10	-	24			4	
3C1343 Environmental Technology, Advanced Course II	6	D	-	-	-	-				
3C1350 Waste Management, Advanced Course <i>Study visit</i>	4	D	18	-	-	-			4	Project work 20h
3C1351 International Intensive Course in Solid Waste Management	4	D	-	-	-	-		3	4	Week 8 in Stockholm and week 14 in Lviv (Ukraine). Note! These are full time weeks.
3C1365 Environmental Consequences, Advanced Course II	4	D	15	15	-	40	1	2		Field exercises
3C1381 Environmental Management II, Advanced Course	4	D	8	6	-	-			4	
3C1383 Risk Management	4	C	16	30	-	-	1			

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K1

Code Name	Credits	Level	Lec	Tut	Le	Lab	Periods				Other
							1	2	3	4	
Compulsory Courses											
3B1700 <u>Introductory Chemistry</u>	4	A	24	18	-	22	1				
3B1711 <u>Chemical Equilibria</u>	4	B	12	22	-	25			3	4	
3B1750 <u>Organic Chemistry 1</u>	5	B	20	14	-	42		2			
3C1451 <u>Introduction to Chemical Engineering</u>	7	B	39	26	-	-		2	3		Plant Trip 1 day
5A1225 <u>Electromagnetism and Waves</u> <i>Under bearbetning</i>	5	B	36	20	-	16				4	
5B1115 <u>Mathematics I</u>	6	A	60	30	-	-	1				
5B1116 <u>Mathematics II</u>	6	A	60	30	-	-		2	3		
5C1102 <u>Mechanics, Smaller Course</u>	4	A	30	15	-	-				4	
9E1339 <u>French, Advanced Beginners' Level</u>	5	B	-	-	56	-			3	4	
Elective Courses											
3B1705 <u>Introductory Course in Chemistry</u>	1	A	-	-	-	-					
5B1120 <u>Introductory Course in Mathematics I</u>	1	A	-	-	-	-					

K2

Code Name	Credits	Level	Lec	Tut	Le	Lab	Periods				Other
							1	2	3	4	
Compulsory Courses											
2D1212 <u>Numerical Methods and Basic Programming</u>	6	A	34	30	-	28	1	2			
3B1720 <u>Chemical Thermodynamics</u>	5	B	28	30	-	15	1				
3B1731 <u>Molecular Structure</u>	4	B	36	22	-	20		2	3		
3B1740 <u>Chemical Dynamics</u>	4	B	20	20	-	15			3		
3B1760 <u>Organic Chemistry 2</u>	5	B	14	10	-	42				4	6 h Computer6 h Computer
3C1715 <u>Transport Phenomena and Engineering Thermodynamics</u>	7	C	28	40	-	12		2	3		6 h Seminars, 12 h Computer6 h Seminars, 12 h Computer
3E1200 <u>Polymer Technology with Cellulose Technology</u>	5	C	34	25	-	-				4	
5B1210 <u>Mathematics IV</u>	6	A	60	30	-	-	1				



9E1334 <u>Technical French, Intermediate</u> <u>Level</u>	6	B	-	-	56	-			3	4	

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K1

Code Name	Credits	Level	Lec	Tut	Le	Lab	Periods				Other
							1	2	3	4	
Compulsory Courses											
3B1700 Introductory Chemistry	4	A	24	18	-	22	1				
3B1711 Chemical Equilibria	4	B	12	22	-	25			3	4	
3B1750 Organic Chemistry 1	5	B	20	14	-	42		2			
3C1451 Introduction to Chemical Engineering	7	B	39	26	-	-		2	3		Plant Trip 1 day
5A1225 Electromagnetism and Waves <i>Under bearbetning</i>	5	B	36	20	-	16				4	
5B1115 Mathematics I	6	A	60	30	-	-	1				
5B1116 Mathematics II	6	A	60	30	-	-		2	3		
5C1102 Mechanics, Smaller Course	4	A	30	15	-	-				4	
9E1381 Elementary Japanese and Japanese Studies	4	B	-	-	56	-			3	4	
Elective Courses											
3B1705 Introductory Course in Chemistry	1	A	-	-	-	-					
5B1120 Introductory Course in Mathematics I	1	A	-	-	-	-					

K2

Code Name	Credits	Level	Lec	Tut	Le	Lab	Periods				Other
							1	2	3	4	
Compulsory Courses											
2D1212 <u>Numerical Methods and Basic Programming</u>	6	A	34	30	-	28	1	2			
3B1720 <u>Chemical Thermodynamics</u>	5	B	28	30	-	15	1				
3B1731 <u>Molecular Structure</u>	4	B	36	22	-	20		2	3		
3B1740 <u>Chemical Dynamics</u>	4	B	20	20	-	15			3		
3B1760 <u>Organic Chemistry 2</u>	5	B	14	10	-	42				4	6 h Computer6 h Computer
3C1715 <u>Transport Phenomena and Engineering Thermodynamics</u>	7	C	28	40	-	12		2	3		6 h Seminars, 12 h Computer6 h Seminars, 12 h Computer
3E1200 <u>Polymer Technology with Cellulose Technology</u>	5	C	34	25	-	-				4	
5B1210 <u>Mathematics IV</u>	6	A	60	30	-	-	1				



9E1382 Japanese, Advanced Beginners' Level	4	B	-	-	56	-			3	4	

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K1

Code Name	Credits	Level	Lec	Tut	Le	Lab	Periods				Other
							1	2	3	4	
Compulsory Courses											
3B1700 <u>Introductory Chemistry</u>	4	A	24	18	-	22	1				
3B1711 <u>Chemical Equilibria</u>	4	B	12	22	-	25			3	4	
3B1750 <u>Organic Chemistry 1</u>	5	B	20	14	-	42		2			
3C1451 <u>Introduction to Chemical Engineering</u>	7	B	39	26	-	-		2	3		Plant Trip 1 day
5A1225 <u>Electromagnetism and Waves</u> <i>Under bearbetning</i>	5	B	36	20	-	16				4	
5B1115 <u>Mathematics I</u>	6	A	60	30	-	-	1				
5B1116 <u>Mathematics II</u>	6	A	60	30	-	-		2	3		
5C1102 <u>Mechanics, Smaller Course</u>	4	A	30	15	-	-				4	
9E1390 <u>Elementary Chinese and Chinese Studies</u>	4	B	-	-	56	-			3	4	
Elective Courses											
3B1705 <u>Introductory Course in Chemistry</u>	1	A	-	-	-	-					
5B1120 <u>Introductory Course in Mathematics I</u>	1	A	-	-	-	-					

K2

Code Name	Credits	Level	Lec	Tut	Le	Lab	Periods				Other
							1	2	3	4	
Compulsory Courses											
2D1212 <u>Numerical Methods and Basic Programming</u>	6	A	34	30	-	28	1	2			
3B1720 <u>Chemical Thermodynamics</u>	5	B	28	30	-	15	1				
3B1731 <u>Molecular Structure</u>	4	B	36	22	-	20		2	3		
3B1740 <u>Chemical Dynamics</u>	4	B	20	20	-	15			3		
3B1760 <u>Organic Chemistry 2</u>	5	B	14	10	-	42				4	6 h Computer6 h Computer
3C1715 <u>Transport Phenomena and Engineering Thermodynamics</u>	7	C	28	40	-	12		2	3		6 h Seminars, 12 h Computer6 h Seminars, 12 h Computer
3E1200 <u>Polymer Technology with Cellulose Technology</u>	5	C	34	25	-	-				4	
5B1210 <u>Mathematics IV</u>	6	A	60	30	-	-	1				



9E1392 Chinese, Advanced Beginners' Level	4	B	-	-	56	-			3	4	

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K1

Code Name	Credits	Level	Lec	Tut	Le	Lab	Periods				Other
							1	2	3	4	
Compulsory Courses											
3B1700 Introductory Chemistry	4	A	24	18	-	22	1				
3B1711 Chemical Equilibria	4	B	12	22	-	25			3	4	
3B1750 Organic Chemistry 1	5	B	20	14	-	42		2			
3C1451 Introduction to Chemical Engineering	7	B	39	26	-	-		2	3		Plant Trip 1 day
5A1225 Electromagnetism and Waves <i>Under bearbetning</i>	5	B	36	20	-	16				4	
5B1115 Mathematics I	6	A	60	30	-	-	1				
5B1116 Mathematics II	6	A	60	30	-	-		2	3		
5C1102 Mechanics, Smaller Course	4	A	30	15	-	-				4	
9E1344 Spanish, Advanced Beginners' Level	5	B	-	-	56	-			3	4	
Elective Courses											
3B1705 Introductory Course in Chemistry	1	A	-	-	-	-					
5B1120 Introductory Course in Mathematics I	1	A	-	-	-	-					

K2

Code Name	Credits	Level	Lec	Tut	Le	Lab	Periods				Other
							1	2	3	4	
Compulsory Courses											
2D1212 <u>Numerical Methods and Basic Programming</u>	6	A	34	30	-	28	1	2			
3B1720 <u>Chemical Thermodynamics</u>	5	B	28	30	-	15	1				
3B1731 <u>Molecular Structure</u>	4	B	36	22	-	20		2	3		
3B1740 <u>Chemical Dynamics</u>	4	B	20	20	-	15			3		
3B1760 <u>Organic Chemistry 2</u>	5	B	14	10	-	42				4	6 h Computer6 h Computer
3C1715 <u>Transport Phenomena and Engineering Thermodynamics</u>	7	C	28	40	-	12		2	3		6 h Seminars, 12 h Computer6 h Seminars, 12 h Computer
3E1200 <u>Polymer Technology with Cellulose Technology</u>	5	C	34	25	-	-				4	
5B1210 <u>Mathematics IV</u>	6	A	60	30	-	-	1				



9E1348 <u>Technical Spanish, Intermediate Level</u>	6	B	-	-	56	-			3	4	

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K1

Code Name	Credits	Level	Lec	Tut	Le	Lab	Periods				Other
							1	2	3	4	
Compulsory Courses											
3B1700 <u>Introductory Chemistry</u>	4	A	24	18	-	22	1				
3B1711 <u>Chemical Equilibria</u>	4	B	12	22	-	25			3	4	
3B1750 <u>Organic Chemistry 1</u>	5	B	20	14	-	42		2			
3C1451 <u>Introduction to Chemical Engineering</u>	7	B	39	26	-	-		2	3		Plant Trip 1 day
5A1225 <u>Electromagnetism and Waves</u> <i>Under bearbetning</i>	5	B	36	20	-	16				4	
5B1115 <u>Mathematics I</u>	6	A	60	30	-	-	1				
5B1116 <u>Mathematics II</u>	6	A	60	30	-	-		2	3		
5C1102 <u>Mechanics, Smaller Course</u>	4	A	30	15	-	-				4	
9E1323 <u>German, Advanced Beginner's Level</u>	5	B	-	-	-	-			3	4	
Elective Courses											
3B1705 <u>Introductory Course in Chemistry</u>	1	A	-	-	-	-					
5B1120 <u>Introductory Course in Mathematics I</u>	1	A	-	-	-	-					

K2

Code Name	Credits	Level	Lec	Tut	Le	Lab	Periods				Other
							1	2	3	4	
Compulsory Courses											
2D1212 <u>Numerical Methods and Basic Programming</u>	6	A	34	30	-	28	1	2			
3B1720 <u>Chemical Thermodynamics</u>	5	B	28	30	-	15	1				
3B1731 <u>Molecular Structure</u>	4	B	36	22	-	20		2	3		
3B1740 <u>Chemical Dynamics</u>	4	B	20	20	-	15			3		
3B1760 <u>Organic Chemistry 2</u>	5	B	14	10	-	42				4	6 h Computer6 h Computer
3C1715 <u>Transport Phenomena and Engineering Thermodynamics</u>	7	C	28	40	-	12		2	3		6 h Seminars, 12 h Computer6 h Seminars, 12 h Computer
3E1200 <u>Polymer Technology with Cellulose Technology</u>	5	C	34	25	-	-				4	
5B1210 <u>Mathematics IV</u>	6	A	60	30	-	-	1				



9E1324 <u>Technical German, Intermediate Level</u>	6	B	-	-	56	-					

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Chemical Engineering

Chemical engineering K3

Code Name	Credits	Level	Lec	Tut	Le	Lab	Periods				Other
							1	2	3	4	
Conditionally Elective Courses											
3C1723 <u>Transport Phenomena, Advanced Course</u>	5	D	18	12	-	-			3		6 h Seminars, 12 h Computer6 h Seminars, 12 h Computer
Recommended Courses											
2E1291 <u>Chemical Process Control</u>	4	C	20	28	-	8			3		
3A1305 <u>Microbiology, General Course</u>	6	C	36	16	-	54			3	4	
3B1102 <u>Analytical Chemistry</u>	4	C	16	-	-	16			3		
3B1242 <u>Technical Surface Colloid Chemistry</u>	4	C	32	6	-	12			3		
3B1521 <u>Organic Chemistry, Theory, Advanced Course 1</u>	5	C	12	6	-	-				4	
3B1781 <u>Inorganic Chemistry</u>	4	D	20	6	-	16				4	
3C1347 <u>Env. Technology and Env. Impact Studies, Larger Course</u>	8	D	32	16	-	24			3	4	
3C1621 <u>Process Chemistry</u>	5	D	36	72	-	-			3		10 h Seminars10 h Seminars
3C1626 <u>Chemical Engineering, Laboratory Course</u>	4	D	2	-	80	-			3		
3C1651 <u>Environmental Catalysis</u>	4	D	30	-	-	-			3		6 h Seminars, 6 h Study visit6 h Seminars, 6 h Study visit
3C1823 <u>Applied Electrochemistry</u>	5	D	32	16	-	15			3		
3D1058 <u>Wood Chemistry and Wood Biotechnology</u>	4	D	26	-	-	15			3		
3D1112 <u>Fiber Technology</u>	4	D	26	-	-	15				4	
3E1120 <u>Mechanical Properties of Materials</u>	5	C	30	15	-	12				4	
5B1301 <u>Mathematics, Advanced Course, Partial Differential Equations</u>	4	C	-	-	42	-			3		
5B1304 <u>Mathematics, Extended Course</u>	5	C	-	-	54	-			3	4	
5C1212 <u>Computational Fluid Dynamics</u>	5	D	-	-	50	10			3		

Chemical engineering K4

Code Name	Credits	Level	Lec	Tut	Le	Lab	Periods				Other
							1	2	3	4	

Conditionally Elective Courses

3C1422 Industrial Energy Processes	5	D	20	20	-	-	1	2			
3C1524 Chemical Engineering	6	D	16	18	-	12				4	
3C1633 Chemical Reaction Engineering	6	D	16	24	-	34	1	2			
3C1781 Chemical Engineering in Fine and Specialty Chemicals	5	D	20	12	42	27	1				8h industry visit

Recommended Courses

2D1225 Numerical Solutions of Differential Equations	4	C	24	4	-	16	1	2			
2D1263 Program Construction for Scientific Computing	4	C	24	-	-	12			3	4	
2D1320 Applied Computer Science	4	A	28	14	-	20	1	2			
2E1200 Automatic Control, General Course	4	C	24	26	-	12	1				
2E1291 Chemical Process Control	4	C	20	28	-	8			3		
3A1205 Biochemical Technology	7	D	40	-	-	60			3	4	
3A1206 Biochemical Technology, Theory	5	D	40	10	-	-			3	4	
3A1305 Microbiology, General Course	6	C	36	16	-	54			3	4	
3A1313 Technical Microbiology	8	D	44	12	-	-			3	4	12 h Seminars 12 h Seminars
3A1314 Technical Microbiology, Theory	5	D	44	-	-	-			3		
3B1102 Analytical Chemistry	4	C	16	-	-	16			3		
3B1301 Nuclear Chemistry	5	C	30	-	-	20		2			
3B1443 Atmosphere, Aquatic and Terrestrial Chemistry	5	C	12	10	-	24				4	
3B1511 Organic Chemistry, Advanced Course 1	9	C	12	6	54	-	1			4	
3B1521 Organic Chemistry, Theory, Advanced Course 1	5	C	12	6	-	-				4	
3B1781 Inorganic Chemistry	4	D	20	6	-	16				4	
3C1422 Industrial Energy Processes	5	D	20	20	-	-	1	2			
3C1621 Process Chemistry	5	D	36	72	-	-			3		10 h Seminars 10 h Seminars
3C1626 Chemical Engineering, Laboratory Course	4	D	2	-	80	-			3		
3C1651 Environmental Catalysis	4	D	30	-	-	-			3		6 h Seminars, 6 h Study visit 6 h Seminars, 6 h Study visit
3C1654 Computational Project in Chemical Engineering	5	D	-	-	-	-				4	
3C1823 Applied Electrochemistry	5	D	32	16	-	15			3		
3C1941 Chemical Engineering, Design Course	10	D	40	120	-	-				4	
3D1059 The Chemistry of Pulping and Bleaching	5	D	26	-	-	-		2			24 h Seminars 24 h Seminars
3D1114 Paper Processes Technology	4	D	20	-	-	20			3		
3D1115 Pulp and Paper Processes	6	D	40	-	-	48	1	2			
3D1116 Pulp and Paper Processes, Minor Course	4	D	20	-	-	-	1	2			
3D1164 Pulp Technology	4	D	24	-	-	-				4	24 h Seminars 24 h Seminars
3E1120 Mechanical Properties of Materials	5	C	30	15	-	12				4	

4A1140 Energy Systems and Models I <i>This course is not given the academic year 05/06.</i>	4	D	14	32	-	-					9 h Seminars 9 H 9 h Seminars
4A1610 Energy Management	4	D	50	-	-	-		2	3		
4A1611 Renewable Energy Technology	4	D	-	-	52	-	1				Study visit 8h
4A1613 Energy and Environment <i>Examinator: Björn Palm, Tel 790 7453</i>	4	D	50	-	-	-			3	4	Study visit 6h
4B1424 Vehicle Systems for a Better Environment* <i>There are 50 places to be shared among universities engaged in this set of courses.</i>	5	C	26	26	-	8	1				
4B1428 Environmental Friendly Vehicle - Project course*	5	D	10	-	-	-		2	3	4	
4F1131 Microcomputers in Embedded Systems*	5	D	-	36	-	36		2			
4F1430 Combustion Engines, general course*	4	C	42	6	-	12	1				
4F1431 Combustion Engines, Advanced Course*	6	D	48	-	-	28		2	3		
4F1530 Function Analysis and Optimization in Mechanical Engineering <i>Under bearbetning</i>	5	C	-	60	-	-			3	4	One day field trip.
5B1301 Mathematics, Advanced Course, Partial Differential Equations	4	C	-	-	42	-			3		
5B1304 Mathematics, Extended Course	5	C	-	-	54	-			3	4	

*The course has limited participation

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Chemical Engineering

Chemical Engineering, fr o m K-00 K3

Code Name	Credits	Level	Lec	Tut	Le	Lab	Periods				Other
							1	2	3	4	
Conditionally Elective Courses											
5B1301 Mathematics, Advanced Course, Partial Differential Equations	4	C	-	-	42	-			3		
5B1304 Mathematics, Extended Course	5	C	-	-	54	-			3	4	

Chemical Engineering, fr o m K-00 K4

Code Name	Credits	Level	Lec	Tut	Le	Lab	Periods				Other
							1	2	3	4	
Conditionally Elective Courses											
3C1422 Industrial Energy Processes	5	D	20	20	-	-	1	2			
3C1621 Process Chemistry	5	D	36	72	-	-			3		10 h Seminars 10 h Seminars
3C1626 Chemical Engineering, Laboratory Course	4	D	2	-	80	-			3		
3C1633 Chemical Reaction Engineering	6	D	16	24	-	34	1	2			
3C1651 Environmental Catalysis	4	D	30	-	-	-			3		6 h Seminars, 6 h Study visit 6 h Seminars, 6 h Study visit
3C1723 Transport Phenomena, Advanced Course	5	D	18	12	-	-			3		6 h Seminars, 12 h Computer 6 h Seminars, 12 h Computer
3C1781 Chemical Engineering in Fine and Specialty Chemicals	5	D	20	12	42	27	1				8h industry visit
3C1823 Applied Electrochemistry	5	D	32	16	-	15			3		
3C1941 Chemical Engineering, Design Course	10	D	40	120	-	-				4	

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Chemical Engineering

Pharmaceuticals and Fine Chemicals Technology K4

For informationen about the courses 3FG150 and 3FK070 please contact the dept. of Chemical Engineering

Code Name	Credits	Level	Lec	Tut	Le	Lab	Periods				Other
							1	2	3	4	
Compulsory Courses											
3C1781 <u>Chemical Engineering in Fine and Specialty Chemicals</u>	5	D	20	12	42	27	1				8h industry visit
3C1784 <u>Pharmaceutical Technology</u> <i>Lectures are given in Stockholm (KTH) and laboratory work in Uppsala (Biomedical centre).</i>	5	D	32	10	-	25			3		
Recommended Courses											
3A1116 <u>Biochemistry, Laboratory Course</u>	4	C	-	-	-	96	1	2			
3B1102 <u>Analytical Chemistry</u>	4	C	16	-	-	16			3		
3B1531 <u>Organic Chemistry, Advanced Course</u>	4	D	-	-	-	54	1				
4K1105 <u>Manufacturing Systems and Automation</u> <i>Under bearbetning</i>	4	C	14	24	-	12		2			

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Pharmaceutical technology K3

Code Name	Credits	Level	Lec	Tut	Le	Lab	Periods				Other
							1	2	3	4	
Compulsory Courses											
3B1242 <u>Technical Surface Colloid Chemistry</u>	4	C	32	6	-	12			3		
3B1521 <u>Organic Chemistry, Theory, Advanced Course 1</u>	5	C	12	6	-	-				4	
3C1786 <u>Pharmaceutical Bioscience</u>	4	C	28	-	-	4			3		
Recommended Courses											
3A1115 <u>Biochemistry</u>	4	C	34	-	-	-				4	
3B1102 <u>Analytical Chemistry</u>	4	C	16	-	-	16			3		
3B1121 <u>Organic and Biochemical Analytical Separations</u>	5	D	28	20	-	36				4	
3C1626 <u>Chemical Engineering, Laboratory Course</u>	4	D	2	-	80	-			3		

Pharmaceutical technology K4

Code Name	Credits	Level	Lec	Tut	Le	Lab	Periods				Other
							1	2	3	4	
Compulsory Courses											
3C1781 <u>Chemical Engineering in Fine and Specialty Chemicals</u>	5	D	20	12	42	27	1				8h industry visit
3C1784 <u>Pharmaceutical Technology</u> <i>Lectures are given in Stockholm (KTH) and laboratory work in Uppsala (Biomedical centre).</i>	5	D	32	10	-	25			3		
Recommended Courses											
3A1503 <u>Molecular Biotechnology</u>	5	C	36	-	-	15		2	3		
3A1504 <u>Structure Biology</u>	4	C	32	-	-	20				4	
3A1506 <u>Drug Development</u>	4	C	36	-	-	-			3		8 h Study visit8 h Study visit

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Chemical Engineering

Material Chemistry K3

Code Name	Credits	Level	Lec	Tut	Le	Lab	Periods				Other
							1	2	3	4	
Compulsory Courses											
3E1120 Mechanical Properties of Materials	5	C	30	15	-	12				4	
Conditionally Elective Courses											
3B1456 Inorganic Materials Chemistry	5	D	20	6	-	15				4	
3D1058 Wood Chemistry and Wood Biotechnology	4	D	26	-	-	15			3		
3D1112 Fiber Technology	4	D	26	-	-	15				4	
3E1142 Polymer Physics	5	D	18	18	-	45			3		
Recommended Courses											
3B1102 Analytical Chemistry	4	C	16	-	-	16			3		
3B1242 Technical Surface Colloid Chemistry	4	C	32	6	-	12			3		
3B1321 Radical Chemistry	5	C	30	-	-	-			3		
3B1511 Organic Chemistry, Advanced Course 1	9	C	12	6	54	-	1			4	
3B1521 Organic Chemistry, Theory, Advanced Course 1	5	C	12	6	-	-				4	
3B1781 Inorganic Chemistry	4	D	20	6	-	16				4	
3C1723 Transport Phenomena, Advanced Course	5	D	18	12	-	-			3		6 h Seminars, 12 h Computer6 h Seminars, 12 h Computer
3C1823 Applied Electrochemistry	5	D	32	16	-	15			3		
3D1118 Paper Chemistry	4	D	26	15	-	-			3		
3E1143 Surface Coatings Chemistry	5	D	30	-	-	28				4	
3E1146 Biopolymers	5	D	20	6	-	25			3		
4H1504 Processing of Ceramic Materials <i>Under bearbetning</i>	4	C	12	-	-	18			3		
4H1610 Advanced Materials	4	C	18	-	-	6			3		Study visit 8h Seminars 18h
4H1703 Materials Chemistry	4	D	20	4	-	8				4	

Material Chemistry K4

Code Name	Credits	Level	Lec	Tut	Le	Lab	Periods				Other
							1	2	3	4	

Conditionally Elective Courses

3E1141 Polymer Chemistry	5	D	18	18	-	45	1				

Recommended Courses

2B1263 Surface Physics, Basic Course	4	D	36	-	-	-	2			
2B1700 Advanced Semiconductor Materials	5	D	34	-	-	16		3		
2B1760 Experimental Methods in Material Physics <i>Under bearbetning</i>	5	C	26	22	-	30	2	3		
2D1520 Graphic Arts Technology, Minor Course	4	C	24	8	-	16	2			
3B1102 Analytical Chemistry	4	C	16	-	-	16		3		
3B1242 Technical Surface Colloid Chemistry	4	C	32	6	-	12		3		
3B1321 Radical Chemistry	5	C	30	-	-	-		3		
3B1482 Structural Chemistry	5	D	16	6	-	16	1			
3B1483 Nano-structured Materials	5	D	16	6	-	16	2			
3B1521 Organic Chemistry, Theory, Advanced Course 1	5	C	12	6	-	-			4	
3B1781 Inorganic Chemistry	4	D	20	6	-	16			4	
3C1422 Industrial Energy Processes	5	D	20	20	-	-	1	2		
3C1723 Transport Phenomena, Advanced Course	5	D	18	12	-	-		3		6 h Seminars, 12 h Computer 6 h Seminars, 12 h Computer
3C1823 Applied Electrochemistry	5	D	32	16	-	15		3		
3D1059 The Chemistry of Pulping and Bleaching	5	D	26	-	-	-	2			24 h Seminars 24 h Seminars
3D1113 Paper Physics	4	D	20	-	-	20	2			
3D1114 Paper Processes Technology	4	D	20	-	-	20		3		
3D1115 Pulp and Paper Processes	6	D	40	-	-	48	1	2		
3D1118 Paper Chemistry	4	D	26	15	-	-		3		
3D1164 Pulp Technology	4	D	24	-	-	-			4	24 h Seminars 24 h Seminars
3E1143 Surface Coatings Chemistry	5	D	30	-	-	28			4	
3E1144 Mechanical Properties and Testing of Polymers	5	D	30	12	-	12		3		
3E1145 Polymer Process Engineering I	5	D	30	10	-	28			4	
3E1146 Biopolymers	5	D	20	6	-	25		3		
3E1147 Polymeric Materials: Structure and Properties	5	D	18	18	-	45	2			
3E1362 Polymer Physics, Intermediate Course	5	D	36	9	-	20		3		
3E1370 Polymers in Engineering Design	4	D	18	24	-	8			4	
4H1504 Processing of Ceramic Materials <i>Under bearbetning</i>	4	C	12	-	-	18		3		
4H1609 Functional Materials	4	D	18	-	-	6	2			Study visit 8h
4H1610 Advanced Materials	4	C	18	-	-	6		3		Study visit 8h Seminars 18h
4H1703 Materials Chemistry	4	D	20	4	-	8			4	

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Chemical Engineering

Environmental Management K4

Code Name	Credits	Level	Lec	Tut	Le	Lab	Periods				Other
							1	2	3	4	
Compulsory Courses											
3C1380 Environmental Management	4	C	10	-	-	-			3		12 h Seminars12 h Seminars
3C1387 Environmental Systems Analysis	4	C	16	8	-	6		2			
Recommended Courses											
3B1443 Atmosphere, Aquatic and Terrestrial Chemistry	5	C	12	10	-	24				4	
3C1350 Waste Management, Advanced Course <i>Study visit</i>	4	D	18	-	-	-				4	Project work 20h
3C1351 International Intensive Course in Solid Waste Management	4	D	-	-	-	-			3	4	Week 8 in Stockholm and week 14 in Lviv (Ukraine). Note! These are full time weeks.
3C1365 Environmental Consequences, Advanced Course II	4	D	15	15	-	40	1	2			Field exercises
3C1383 Risk Management	4	C	16	30	-	-	1				

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Chemical Engineering

Molecular Design K3

Code Name	Credits	Level	Lec	Tut	Le	Lab	Periods				Other
							1	2	3	4	
Conditionally Elective Courses											
3A1115 Biochemistry	4	C	34	-	-	-				4	
3B1102 Analytical Chemistry	4	C	16	-	-	16			3		
3B1223 Molecular Thermodynamics	4	D	24	4	-	-			3		
3B1242 Technical Surface Colloid Chemistry	4	C	32	6	-	12			3		
3B1521 Organic Chemistry, Theory, Advanced Course 1	5	C	12	6	-	-				4	
3B1781 Inorganic Chemistry	4	D	20	6	-	16				4	
Recommended Courses											
3A1504 Structure Biology	4	C	32	-	-	20				4	
3B1321 Radical Chemistry	5	C	30	-	-	-			3		
3B1443 Atmosphere, Aquatic and Terrestrial Chemistry	5	C	12	10	-	24				4	
3B1451 Bio-inorganic Chemistry	5	D	20	6	-	15				4	
3B1456 Inorganic Materials Chemistry	5	D	20	6	-	15				4	
3B1511 Organic Chemistry, Advanced Course 1	9	C	12	6	54	-	1			4	
3C1345 Environmental Technology and Environmental Impact Studies	4	D	32	4	-	-			3		8 h Projektuppgift8 h Projektuppgift
3C1347 Env. Technology and Env. Impact Studies, Larger Course	8	D	32	16	-	24			3	4	
3C1784 Pharmaceutical Technology <i>Lectures are given in Stockholm (KTH) and laboratory work in Uppsala (Biomedical centre).</i>	5	D	32	10	-	25			3		
3C1823 Applied Electrochemistry	5	D	32	16	-	15			3		
3D1058 Wood Chemistry and Wood Biotechnology	4	D	26	-	-	15			3		
3E1142 Polymer Physics	5	D	18	18	-	45			3		
5A1351 Non-equilibrium Statistical Mechanics <i>Under bearbetning</i>	4	D	24	-	-	-				4	

5A1365 Molecular Biophysics, Basic Course <i>5A1365 + 5A1366 replace 5A1355. The course is given by the Department of Biochemistry and Biophysics, Stockholm University. The instruction takes place at the Arrhenius laboratories, Frescati. Under bearbetning</i>	6	D	90	-	-	-				4	5 h Study visit Study visit
5B1301 Mathematics, Advanced Course, Partial Differential Equations	4	C	-	-	42	-				3	
5B1550 Applied Mathematical Statistics	5	C	-	-	60	-				3	
Elective Courses											
3B1482 Structural Chemistry	5	D	16	6	-	16	1				
3B1483 Nano-structured Materials	5	D	16	6	-	16		2			
5A1366 Molecular Biophysics Complementary Course <i>5A1365 + 5A1366 replace 5A1355. The course is given by the Department of Biochemistry and Biophysics, Stockholm University. The instruction takes place at the Arrhenius laboratories, Frescati. Under bearbetning</i>	2	D	-	-	-	20				4	Literature seminars

Molecular Design K4

Code Name	Credits	Level	Lec	Tut	Le	Lab	Periods				Other
							1	2	3	4	
Conditionally Elective Courses											
3A1115 <u>Biochemistry</u>	4	C	34	-	-	-				4	
3B1102 <u>Analytical Chemistry</u>	4	C	16	-	-	16			3		
3B1211 <u>Quantum Chemistry and Spectroscopy</u>	6	D	48	-	-	8	1				
3B1223 <u>Molecular Thermodynamics</u>	4	D	24	4	-	-			3		
3B1242 <u>Technical Surface Colloid Chemistry</u>	4	C	32	6	-	12			3		
3B1521 <u>Organic Chemistry, Theory, Advanced Course 1</u>	5	C	12	6	-	-				4	
3B1781 <u>Inorganic Chemistry</u>	4	D	20	6	-	16				4	
Recommended Courses											
2B1263 <u>Surface Physics, Basic Course</u>	4	D	36	-	-	-		2			
2D1225 <u>Numerical Solutions of Differential Equations</u>	4	C	24	4	-	16	1	2			
2D1320 <u>Applied Computer Science</u>	4	A	28	14	-	20	1	2			
3A1110 <u>Molecular Enzymology</u>	5	D	24	6	-	10		2			4 h Seminars 4 h Seminars
3A1111 <u>Enzymatic Synthesis</u>	5	D	20	12	-	20				4	6 h Seminars 6 h Seminars
3A1116 <u>Biochemistry, Laboratory Course</u>	4	C	-	-	-	96	1	2			
3A1305 <u>Microbiology, General Course</u>	6	C	36	16	-	54			3	4	
3A1503 <u>Molecular Biotechnology</u>	5	C	36	-	-	15		2	3		
3A1504 <u>Structure Biology</u>	4	C	32	-	-	20				4	
3B1121 <u>Organic and Biochemical Analytical Separations</u>	5	D	28	20	-	36				4	
3B1231 <u>NMR-spectroscopy</u>	4	D	30	-	-	12		2			
3B1301 <u>Nuclear Chemistry</u>	5	C	30	-	-	20		2			

3B1312 Nuclear Fuel Cycle	4	D	16	-	-	6		3	Project
3B1321 Radical Chemistry	5	C	30	-	-	-		3	
3B1443 Atmosphere, Aquatic and Terrestrial Chemistry	5	C	12	10	-	24		4	
3B1451 Bio-inorganic Chemistry	5	D	20	6	-	15		4	
3B1456 Inorganic Materials Chemistry	5	D	20	6	-	15		4	
3B1482 Structural Chemistry	5	D	16	6	-	16	1		
3B1483 Nano-structured Materials	5	D	16	6	-	16	2		
3B1531 Organic Chemistry, Advanced Course	4	D	-	-	-	54	1		
3B1542 Organic Chemistry, Advanced Course II	5	D	24	-	-	40		3	
3B1544 Applied Organic Molecular Spectroscopy	4	D	-	-	-	-	1		
3B1545 Selective Organic Synthesis	4	D	28	-	-	-		3	
3B1546 Selective Organic Synthesis <i>Under bearbetning</i>	5	D	28	-	-	40		3	
3B1580 Ecological Chemistry	4	C	20	-	-	48		3	4
3B1581 Ecological Chemistry, with project	6	C	20	-	-	-		3	4
3B1650 Molecular Simulations Using a Computer	5	D	14	10	-	40		3	
3C1345 Environmental Technology and Environmental Impact Studies	4	D	32	4	-	-		3	8 h Projektuppgift8 h Projektuppgift
3C1347 Env. Technology and Env. Impact Studies, Larger Course	8	D	32	16	-	24		3	4
3C1784 Pharmaceutical Technology <i>Lectures are given in Stockholm (KTH) and laboratory work in Uppsala (Biomedical centre).</i>	5	D	32	10	-	25		3	
3C1823 Applied Electrochemistry	5	D	32	16	-	15		3	
3D1058 Wood Chemistry and Wood Biotechnology	4	D	26	-	-	15		3	
3E1141 Polymer Chemistry	5	D	18	18	-	45	1		
3E1142 Polymer Physics	5	D	18	18	-	45		3	
5A1351 Non-equilibrium Statistical Mechanics <i>Under bearbetning</i>	4	D	24	-	-	-			4
5A1354 Computational Physics <i>Under bearbetning</i>	6	D	30	-	-	20	1		
5A1365 Molecular Biophysics, Basic Course <i>5A1365 + 5A1366 replace 5A1355. The course is given by the Department of Biochemistry and Biophysics, Stockholm University. The instruction takes place at the Arrhenius laboratories, Frescati.</i> <i>Under bearbetning</i>	6	D	90	-	-	-		4	5 h Study visit5 h Study visit
5A1490 Laser Chemistry <i>Under bearbetning</i>	4	D	24	-	-	12	2		
5A1491 Femtochemistry <i>Under bearbetning</i>	5	D	36	-	-	-		3	
5B1301 Mathematics, Advanced Course, Partial Differential Equations	4	C	-	-	42	-		3	
5B1550 Applied Mathematical Statistics	5	C	-	-	60	-		3	
Elective Courses									

<u>5A1366 Molecular Biophysics</u> <u>Complementary Course</u> 5A1365 + 5A1366 replace 5A1355. <i>The course is given by the Department of Biochemistry and Biophysics, Stockholm University. The instruction takes place at the Arrhenius laboratories, Frescati.</i> <i>Under bearbetning</i>	2	D	-	-	-	20				4	Literature seminars

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Chemical Engineering

Process and Environmental Biotechnology K4

Code Name	Credits	Level	Lec	Tut	Le	Lab	Periods				Other
							1	2	3	4	
Recommended Courses											
3A1116 Biochemistry, Laboratory Course	4	C	-	-	-	96	1	2			
3B1102 Analytical Chemistry	4	C	16	-	-	16			3		
3B1531 Organic Chemistry, Advanced Course	4	D	-	-	-	54	1				
3C1345 Environmental Technology and Environmental Impact Studies	4	D	32	4	-	-			3		8 h Projektuppgift8 h Projektuppgift
3C1723 Transport Phenomena, Advanced Course	5	D	18	12	-	-			3		6 h Seminars, 12 h Computer6 h Seminars, 12 h Computer
Elective Courses											
3C1781 Chemical Engineering in Fine and Specialty Chemicals	5	D	20	12	42	27	1				8h industry visit

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Surveying

Surveying L4

Code Name	Credits	Level	Lec	Tut	Le	Lab	Periods				Other
							1	2	3	4	
Elective Courses											
1A14TW <u>Third World Housing</u> <i>The course is given after agreement</i> <i>Under bearbetning</i>	10	D	-	-	-	-					
1B1820 <u>Risk in Technical Systems</u>	5	D	-	-	-	-	1	2	3	4	Project-course
1B1990 <u>Developing Countries, Society and Technology</u> <i>Under bearbetning</i>	4	C	30	-	-	-	1	2			
1B1991 <u>Management of Development Cooperation Projects</u> <i>Under bearbetning</i>	4	C	30	-	-	-			3	4	
1B1992 <u>East- and Central Europe - Our Future Market</u> <i>Under bearbetning</i>	4	C	30	-	-	-	1	2			
1H1004 <u>Master's Project in Regional Planning</u>	20	D	-	-	-	-					
1H1204 <u>Logistics</u>	5	C	6	-	-	-	1	2			15 h SeminarsProject-course, 15 h Seminars
1H1212 <u>Logistics, Advanced Course</u>	5	D	4	-	-	-			3		Project-course, 12h Seminars
1H1601 <u>Mathematics and Reality</u>	5	C	20	10	-	-				4	
1H1602 <u>Good and Bad Science</u>	5	C	32	-	-	-			3	4	
1H1603 <u>Technology and Ethics</u>	5	C	18	-	-	-	1				Seminars 8h
1H1603 <u>Technology and Ethics</u>	5	C	18	-	-	-			3		Seminars 8h
1H1604 <u>Philosophy of Risk</u>	5	C	20	-	-	-		2			10h seminars
1K14LV <u>Architecture, Basic Course</u> <i>Under bearbetning</i>	5	D	-	36	-	-				4	Lectures, Study-visits, Seminar: 20h
1N1217 <u>Logistics and Transportation</u>	5	C	21	-	-	-				4	Case-study
1N1218 <u>Logistics, Advanced Project Course</u>	10	D	4	-	-	-			3	4	Project-course, Seminars
1N1401 <u>Applied Contract Law</u>	5	A	20	35	-	-			3		Web-based study-support
1N1402 <u>Civil and Public Law, Intermediate Course</u> <i>Under bearbetning</i>	5	B	30	44	-	-			3	4	Web-based study-support
2D1220 <u>Applied Numerical Methods I</u>	4	C	36	-	-	18			3	4	
2D1225 <u>Numerical Solutions of Differential Equations</u>	4	C	24	4	-	16	1	2			
2D1320 <u>Applied Computer Science</u>	4	A	28	14	-	20	1	2			

2D1334 Database Technology	4	C	24	20	-	12			3	
2D1378 Text and Image Processing <i>Not given 05/06.</i>	4	B	28	18	-	-				
5B1306 Financial Mathematics, Basic Course	5	A	-	-	54	-			4	
9E1150 Information Searching for A, L, V	1	B	-	-	-	-	1			Three laborations on all together 9 hours. The course is given regularly throughout the academic year. See the timetable
9E1150 Information Searching for A, L, V	1	B	-	-	-	-		2		Three laborations on all together 9 hours. The course is given regularly throughout the academic year. See the timetable
9E1150 Information Searching for A, L, V	1	B	-	-	-	-			3	Three laborations on all together 9 hours. The course is given regularly throughout the academic year. See the timetable
9E1150 Information Searching for A, L, V	1	B	-	-	-	-			4	Three laborations on all together 9 hours. The course is given regularly throughout the academic year. See the timetable

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Surveying

Building and Real Estate Economics L4

Code Name	Credits	Level	Lec	Tut	Le	Lab	Periods				Other
							1	2	3	4	
Recommended Courses											
1F1327 Management	5	D	30	30	-	-			3	4	
1F1333 Real Estate Market Analysis and Development	5	D	30	30	-	-			3		
1F1336 Real Estate Brokerage	5	D	30	30	-	-		2			
1F1339 Real Estate Finance and Economics	5	D	30	30	-	-				4	
1F1395 Urban Land Economics	5	D	24	36	-	-	1				
1F1396 Management Control	5	D	30	30	-	-		2			
1F1398 Real Estate Management	5	D	30	30	-	-	1				
1F1399 Real Estate Valuation	5	D	30	30	-	-				4	
1F1444 Law of Leaseholds	5	D	30	28	-	-		2	3		
1F1540 Information Technology in Construction	5	D	-	-	66	-		2			
1F1560 Project Management	5	D	-	-	66	-		2			
1N1305 Financial Analysis	5	C	30	30	-	-			3		

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Surveying

Environmental Engineering and Sustainable Infrastructure L4

Code Name	Credits	Level	Lec	Tut	Le	Lab	Periods				Other
							1	2	3	4	
Recommended Courses											
1B1133 Applied Hydrology	5	D	29	29	-	-			3		
1B1233 Water and Waste Handling	5	C	-	-	77	-			3		
1B1291 Environmental Dynamics/Chemical Processes <i>Under bearbetning</i>	5	D	24	-	-	-		2			Exercises/lab.work 30h
1B1292 Environmental Dynamics/Physical Processes	5	C	26	24	-	-		2			
1B1333 Environmental Geology and Geophysics <i>Under bearbetning</i>	5	D	27	27	-	-				4	
1B1634 Environmental Impact Assessment* <i>First prio: Students within TESIM-, L- and V-programs. Second prio: Incoming exchange-students LV.</i>	5	C	30	26	-	-	1				8 h Exkursion8 h Exkursion
1B1635 Quantitative Hydrogeology	5	D	20	14	-	6				4	20 h Field excursions, 15 h Computer20 h Field excursions, 15 h Computer
1B1640 Natural Resources Management	5	D	19	-	-	36				4	
1E1610 Environmental Data* <i>First prio: Students within TESIM-, L- and V-programs. Second prio: Incoming exchange-students LV.</i> <i>Under bearbetning</i>	5	D	18	2	-	38			3		
1F1462 Management of Land and Water	5	D	22	-	-	-			3		23h Seminars
1H1141 Urban Infrastructure	5	D	-	-	54	-				4	
1H1142 Political Economy for Environmental Planners* <i>First prio: Students within TESIM-, L- and V-programs. Second prio: Incoming exchange-students LV.</i>	5	C	30	6	-	-	1				8 h Seminars
1H1143 Sustainable Rural and Urban Development* <i>First prio: Students within TESIM-, L- and V-programs. Second prio: Incoming exchange-students LV.</i> <i>Under bearbetning</i>	5	C	32	-	16	-		2			24 h Seminars, 8 h Exkursion
1H1146 Sustainable Project Management <i>Under bearbetning</i>	5	C	35	-	-	30			3		15 h Field excursions
1H1501 Human Settlements and Housing <i>Under bearbetning</i>	5	D	24	20	-	-		2			

<u>1U1030 Theory of Science, Research Methodology and Excursions</u> <i>Under bearbetning</i>	5	D	29	-	-	-	1	2	4	Exkursion 40hSeminars Exkursion 40h

*The course has limited participation

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Surveying

Land Development and Management L4

Code Name	Credits	Level	Lec	Tut	Le	Lab	Periods				Other
							1	2	3	4	
Compulsory Courses											
1F1427 <u>Compulsory Purchase and Compensation</u>	5	D	32	32	-	-		2			
1F1430 <u>Land Development</u>	10	D	-	-	142	-	1	2			
Recommended Courses											
1B1640 <u>Natural Resources Management</u>	5	D	19	-	-	36				4	
1F1336 <u>Real Estate Brokerage</u>	5	D	30	30	-	-		2			
1F1444 <u>Law of Leaseholds</u>	5	D	30	28	-	-		2	3		
1F1452 <u>Law of Real Estate Formation</u>	5	D	30	30	-	-	1				
1N1401 <u>Applied Contract Law</u>	5	A	20	35	-	-			3		Web-based study-support
1N1406 <u>Law of Planning, Construction and Infrastructure</u>	10	D	50	70	-	-			3	4	
1N1407 <u>Land Management</u>	5	D	-	-	-	-				4	Lectures/seminars 20h

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Surveying

Urban Planning L4

Code Name	Credits	Level	Lec	Tut	Le	Lab	Periods				Other
							1	2	3	4	
Recommended Courses											
1H1157 Urban and Regional Economics	5	D	-	-	66	-		2			
1H1162 Urban Center Planning <i>The course is mainly carried out in Norrtelje</i>	5	D	-	-	-	-			3		77 h Seminars77 h Seminars
1H1170 Sustainable Cities	10	D	-	-	120	-	1				
1H1171 Urban Governance <i>The course will be replaced by 1N1509 Urban Planning, advanced course</i>	5	D	30	-	-	-			3		6 h Seminars6 h Seminars
1H1172 Futures Studies and Forecasts	5	D	-	-	36	-		2			10 h Computer10 h Computer
1H1174 Planning for Regional Development	10	D	27	26	-	-				4	Large Projecttask
1H1401 Optimisation Models in Transport and Location Analysis	5	D	27	15	-	6			3		6 h Seminars6 h Seminars
1N1150 Optimisation Models in Transport and Location Analysis	5	D	27	15	-	6			3		6 h Seminars6 h Seminars
1N1663 Spatial Planning with GIS	5	D	30	-	-	36			3		

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Surveying and Mapping L4

At least two of the recommended courses must be fulfilled in addition to compulsory courses

Code Name	Credits	Level	Lec	Tut	Le	Lab	Periods				Other
							1	2	3	4	
Compulsory Courses											
1N1250 <u>Reference Systems</u>	5	C	30	-	-	40	1				
1N1257 <u>Satellite Positioning with GPS</u>	5	D	22	-	-	30		2			Field exercises 4d
1N1653 <u>GIS Architecture</u>	5	C	24	-	-	48	1				
1N1660 <u>Spatial Analysis</u>	5	D	24	-	-	48		2			
Recommended Courses											
1E1440 <u>Digital Photogrammetry</u>	5	D	24	-	-	32	1				
1N1253 <u>Physical Geodesy</u>	5	D	28	-	-	36			3		
1N1256 <u>Integrated Navigation</u>	5	D	30	-	-	30				4	
1N1260 <u>Satellite Gravimetry</u>	5	D	20	-	-	-				4	Project 40h
1N1266 <u>Advanced Theory of Errors</u>	5	D	20	-	-	40			3		
1N1655 <u>Digital Image Processing and Applications</u>	5	D	44	-	-	60			3		Filed exercises 4d
1N1656 <u>Visualisation Techniques</u>	5	C	24	-	-	48			3		
1N1657 <u>A GIS Project</u>	5	D	-	-	-	40				4	Seminars 24h
1N1666 <u>Web-GIS</u>	5	D	24	-	-	48				4	

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Mechanical Engineering

Mechanical Engineering M1

Code Name	Credits	Level	Lec	Tut	Le	Lab	Periods				Other
							1	2	3	4	
Compulsory Courses											
2D1212 Numerical Methods and Basic Programming	6	A	34	30	-	28			3	4	
4A1101 Mechanical Engineering	6	A	38	60	-	-	1	2			
5A1226 Physics I	6	AB	38	-	-	30	1	2	3		
5B1132 Analytical Methods and Linear Algebra I	8	A	80	40	-	-	1	2			
5B1133 Analytical Methods and Linear Algebra II	8	B	80	40	-	-			3	4	
5C1130 Mechanics I	6	A	48	-	27	-		2	3	4	
Recommended Courses											
5B1120 Introductory Course in Mathematics I	1	A	-	-	-	-					

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Mechanical Engineering

Mechanical Engineering M2

Code Name	Credits	Level	Lec	Tut	Le	Lab	Periods				Other
							1	2	3	4	
Compulsory Courses											
4A1112 <u>Applied Thermodynamics</u>	6	AB	48	48	-	-			3	4	Math exercises
4C1010 <u>Solid Mechanics, basic course</u>	8	B	52	30	-	2	1	2			60 h Projektuppgift60 h Projektuppgift
4F1816	6	B	22	24	-	22			3	4	
4G1162	8	B	30	90	-	12			3	4	
4H1063 <u>Materials Science for Mechanical Engineering</u>	4	B	36	-	-	15		2			
5B1206 <u>Differential Equations I</u>	4	C	40	20	-	-	1	2			
5C1140 <u>Mechanics II</u>	4	B	30	15	-	-	1				

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Mechanical Engineering

Mechanical Engineering M3

Code Name	Credits	Level	Lec	Tut	Le	Lab	Periods				Other
							1	2	3	4	
Compulsory Courses											
4D1400 Industrial Economics and Management, Basic Course	4	A	20	16	-	-		2			4 h Seminars4 h Seminars
4G1163 Product Realization 2 for M	6	C	25	50	-	6	1	2			
Conditionally Elective Courses											
2D1321 Applied Programming and Computer Science	6	B	38	20	-	-		2	3		
2E1200 Automatic Control, General Course	4	C	24	26	-	12		2			
2E1212 Automatic Control, General Course	4	C	24	26	-	12			3		
4A1112 Applied Thermodynamics	6	AB	48	48	-	-			3	4	Math exercises
4A1601 Heat Transfer	4	C	24	24	-	20		2			
4A1604 Project Course in Sustainable Energy Systems	10	C	-	-	-	-			3	4	Project wor Seminars
4B1121 Signals and Mechanical Systems	4	D	24	22	-	4		2			
4B1150 Bachelor's Thesis in Sound, Vibrations and Signals	10	C	-	-	-	-			3	4	Seminrs
4B1430 Bachelor´s Thesis in Vehicle Engineering	10	C	-	-	-	-			3	4	
4C1003 Project Course in Solid Mechanics	10	C	-	-	-	-			3	4	Project work Seminars
4C1025 FEM for Engineering Applications	4	C	36	14	-	4			3		
4D1061 Strategic Management	4	B	20	-	-	-				4	
4D1075 Work Organization and Leadership	4	B	24	24	-	-			3		
4D1096 Human Resource Management	4	B	28	12	-	-			3		
4E1110 Project Course in Light Weight Structures	10	C	-	-	-	-			3	4	Project work Seminars
4E1400 Project Course in Naval Architecture	10	C	-	-	-	-			3	4	
4F1242 Introduction to Microcomputer Systems <i>Under bearbetning</i>	4	C	12	22	-	14				4	
4F1821 Project Course in Integrated Product Development	10	C	-	-	-	-			3	4	
4F1822 Project Course in Mechatronics	10	C	-	-	-	-			3	4	
4G1165 Automation Technology	4	C	18	26	-	12			3		

4G1166 Project Course in Production Engineering and Mangement	10	C	-	-	-	-		3	4	Seminars
4G1169 Manufacturing	4	C	18	26	-	12	2			
5B1507 Mathematical Statistics	4	C	24	32	-	4	1			
5B1762 Optimization for T	4	C	28	16	-	8			4	
5C1010 Project Course in Mechanics	10	C	-	-	-	-		3	4	
5C1220 Fluid Mechanics for Engineers	4	B	26	-	-	6	1			14 h Seminars14 h Seminars
6S1414 Ergonomics in Product Development	4	B	20	9	-	6	2			
Elective Courses										
2D1322 Applied Programming and Computer Science, Part 1	4	B	26	14	-	14	2			
2D1324 Applied Programming and Computer Science, Part 2	2	B	12	6	-	18		3		
3C1330 Technology and Ecosystems	4	B	24	3	-	-	1			
3C1330 Technology and Ecosystems	4	B	24	3	-	-	2			
3C1330 Technology and Ecosystems	4	B	24	3	-	-		3		
4A1603 Energy Technology	4	C	48	12	-	-		3	4	
4B1117 Sound and Vibration	6	C	38	44	-	4		3	4	
4E1114 Fiber Composites - Materials and Manufacturing	4	C	40	-	-	8		3	4	
4G1134 Effective Production	6	D	30	10	-	-		3	4	Project work
4G1165 Automation Technology	4	C	18	26	-	12		3		
4K1213 Advanced CAD Modelling & Rapid Prototyping, Project Course <i>Under bearbetning</i>	4	D	16	24	-	-	2	3		Project work
4K1601 Wood Material Science, Basic Course	5	C	50	18	-	24		3	4	
5A1228 Laser metrology and optical metrology	4	B	24	-	6	-		3	4	
5A1229 Physics of Visual Impressions	4	B	24	-	6	-		3	4	
5B1304 Mathematics, Extended Course	5	C	-	-	54	-		3	4	
5C1217 Fluid Mechanics, Basic Course	4	B	26	14	-	6		3		
9E1131 Information Searching for B, I, M, T <i>Also BD and P</i>	1	B	-	-	-	-		3		Three laborations on all together 9 hours. The course is given regularly throughout the year, see
9E1131 Information Searching for B, I, M, T <i>Also BD and P</i>	1	B	-	-	-	-	2			Three laborations on all together 9 hours. The course is given regularly throughout the year, see
9E1131 Information Searching for B, I, M, T <i>Also BD and P</i>	1	B	-	-	-	-			4	Three laborations on all together 9 hours. The course is given regularly throughout the year, see
9E1300 Technical English, Lower Intermediate Level*	4	B	-	-	56	-		3	4	
9E1301 Technical English, Intermediate Level*	6	B	-	-	56	-		3	4	
9E1320 German, Elementary Level*	4	B	-	-	56	-		3	4	

9E1325 Technical German, Intermediate Level	6	B	-	-	15	-			3	4	E-learning exercises make up appr. 75 % of the course. 15 classroom hours in the evening.
9E1330 French, Elementary Level*	4	B	-	-	56	-			3	4	
9E1334 Technical French, Intermediate Level*	6	B	-	-	56	-			3	4	
9E1342 Spanish, Elementary Level*	4	B	-	-	56	-			3	4	
9E1348 Technical Spanish, Intermediate Level*	6	B	-	-	56	-			3	4	
9E1350 Italian, Elementary Level*	4	B	-	-	56	-			3	4	

*The course has limited participation

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Uppdaterad: 2004-11-10

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Abbreviations

Previous academic year (04/05)

Next academic year (06/07)

Mechanical Engineering

Mechanical Engineering M4

Code Name	Credits	Level	Lec	Tut	Le	Lab	Periods				Other
							1	2	3	4	
Conditionally Elective Courses											
4A1341 Introductory Airbreathing Propulsion	4	C	21	24	-	8		2			
4B1121 Signals and Mechanical Systems	4	D	24	22	-	4		2			
4F1242 Introduction to Microcomputer Systems <i>Under bearbetning</i>	4	C	12	22	-	14				4	
5B1816 Applied Mathematical Programming - Nonlinear Problems	4	D	18	12	-	-		2			18 h Projektuppgift18 h Projektuppgift
Elective Courses											
2A1140 Accelerator and Radiation Technology	4	D	36	-	-	-			3		8 h Study visit8 h Study visit
2A1151 Energy and Fusion Research	4	D	26	12	-	-				4	
2A1160 Space Physics	3	D	18	-	-	-	1				
2C1243 Hybrid Vehicle Drives*_ 	5	D	-	-	-	-		2			3 course meetings, 2-3 days each
2D1225 Numerical Solutions of Differential Equations	4	C	24	4	-	16	1	2			
2D1320 Applied Computer Science	4	A	28	14	-	20	1	2			
2D1334 Database Technology	4	C	24	20	-	12			3		
2D1354 Algorithms and Complexity	4	C	30	18	-	-	1	2			
2D1385 Software Engineering	4	C	24	12	-	18				4	
2D1421 Image Analysis and Computer Vision	5	D	36	4	-	8			3		
2D1432 Artificial Neural Networks and Other Learning Systems	4	D	26	-	-	16			3		
2D1520 Graphic Arts Technology, Minor Course	4	C	24	8	-	16		2			
2D1521 Communication and Information*_ 	5	C	16	12	-	-			3		
2D1522 Computer Technology and Communication*_ 	4	C	30	-	-	20				4	
2D1524 Image Processing and Reprographic Methods*_ Limited number of participants	6	C	26	16	-	12	1				
2E1212 Automatic Control, General Course	4	C	24	26	-	12			3		
2E1242 Automatic Control, Project Course*_ 	8	D	4	-	-	50				4	

2E1252 Control Theory and Practice, Advanced Course	5	D	28	26	-	8			3		
2E1262 Nonlinear Control	5	D	28	28	-	8		2			
2E1291 Chemical Process Control	4	C	20	28	-	8			3		
2F1111 Speech Technology	4	D	36	14	-	6			3		
2F1400 Electroacoustics	4	D	34	12	-	8	1				
3C1330 Technology and Ecosystems	4	B	24	3	-	-			3		
3C1330 Technology and Ecosystems	4	B	24	3	-	-	1				
3C1330 Technology and Ecosystems	4	B	24	3	-	-		2			
3C1350 Waste Management, Advanced Course <i>Study visit</i>	4	D	18	-	-	-				4	Project work 20h
3C1355 Ecology, Advanced Course	4	C	21	4	-	-			3	4	
3C1365 Environmental Consequences, Advanced Course II	4	D	15	15	-	40	1	2			Field exercises
3C1380 Environmental Management	4	C	10	-	-	-			3		12 h Seminars 12 h Seminars
3C1383 Risk Management	4	C	16	30	-	-	1				
3C1385 Biology	4	C	30	6	-	6	1				Field exercise 8h
3C1387 Environmental Systems Analysis	4	C	16	8	-	6		2			
3C1395 Technology and Sustainable Development	4	C	2	6	-	-		2			
3D1163 Pulp Technology	4	D	20	-	-	24	1				
3E1360 Mechanical Properties of Polymers, Minor Course	4	D	24	16	-	12	1				
3E1361 Polymer Processing, Minor Course	4	D	24	8	-	18		2			
4A1140 Energy Systems and Models I <i>This course is not given the academic year 05/06.</i>	4	D	14	32	-	-					9 h Seminars Seminars 9 H 9 h Seminars
4A1341 Introductory Airbreathing Propulsion	4	C	21	24	-	8		2			
4A1344 Airbreathing Propulsion, Intermediate Course I	4	D	40	-	-	-			3		Project work 6h
4A1346 Rocket Propulsion	4	D	36	10	-	-				4	Project work 6h
4A1347 Airbreathing Propulsion for High Speed Flight	4	D	27	10	-	6				4	
4A1605 Sustainable Power Generation	6	D	30	48	-	18	1	2			
4A1607 Sustainable Energy Utilisation	6	D	-	-	72	16	1	2			
4A1609 Applied Energy Technology - Project Course	6	D	12	-	-	-			3	4	Project 78h
4A1610 Energy Management	4	D	50	-	-	-		2	3		
4A1611 Renewable Energy Technology	4	D	-	-	52	-	1				Study visit 8h
4A1612 Renewable Energy Technology, Advanced Course	4	D	26	-	-	-			3		Study visit 4 h
4A1613 Energy and Environment <i>Examinator: Björn Palm, Tel 790 7453</i>	4	D	50	-	-	-			3	4	Study visit 6h
4A1620 Combustion Theory	4	C	18	18	-	15	1	2			
4A1621 Modelling of Thermodynamic Systems	4	D	16	-	-	32	1	2	3	4	The course is given upon agreement
4A1622 Thermal Comfort and Indoor Climate	4	D	54	-	-	-			3	4	Study visits 6h
4A1623 Applied Refrigeration and Heat Pump Technology	4	D	24	24	-	16			3	4	

4A1625 Cooling of Electronics	4	D	-	-	48	-		3		
4A1626 Applied Heat and Power Technology	4	D	36	12	-	8		3	4	Project assignment 8h
4A1627 Applied Reactor Technology and Nuclear Power Safety	4	D	48	-	-	-		3	4	Study visits 12h
4A1629 Fluid Machinery	4	C	30	18	-	12	1			
4A1630 Thermal Fluid Machinery	4	D	36	12	-	12		3		
4B1117 Sound and Vibration	6	C	38	44	-	4		3	4	
4B1127 Vibroacoustics	5	D	-	56	-	8	1	2		
4B1131 Experimental Structure Dynamics	5	D	-	58	-	12		2	3	
4B1136 Flow Acoustics	4	D	-	36	-	8		3		
4B1141 Sound and Vibration, Project Course	5	D	-	48	-	12		3	4	Study tour to industry 40h
4B1162 Vibro-Acoustics	7	D	-	-	64	8	1	2		
4B1164 Signal Analysis	5	D	-	-	26	22	1	2		
4B1166 Acoustical Measurements	5	D	-	-	16	20	1	2		
4B1168 Energy Methods	4	D	-	-	28	-			4	
4B1170 Numerical Methods for Acoustics and Vibration	4	D	-	-	24	-		3		
4B1172 Non-Linear Acoustics	4	D	-	-	24	-		3		
4B1174 Ultrasonics	4	D	-	-	24	-			4	
4B1176 Vehicle Acoustics and Vibration	4	D	-	-	24	-			4	
4B1304 Railway Systems and Rail Vehicles	6	C	-	-	60	9	1	2		Project assignment 9h
4B1313 Rail Vehicle Dynamics	5	D	-	-	36	24		3		
4B1420 Ground Vehicle Engineering, Basic Course*	6	C	36	36	-	-	1	2		
4B1424 Vehicle Systems for a Better Environment* <i>There are 50 places to be shared among universities engaged in this set of courses.</i>	5	C	26	26	-	8	1			
4B1428 Environmental Friendly Vehicle - Project course*	5	D	10	-	-	-		2	3	4
4C1110 Material Mechanics	4	D	52	-	-	3	1			
4C1111 Fracture Mechanics and Fatigue	4	D	48	-	-	4			4	
4C1116 Dynamic Problems in Solid Mechanics	4	D	42	-	-	8		3	4	
4C1121 Introduction to Biomechanics	6	C	48	-	-	8		3		
4C1122 Applied solid mechanics	6	D	28	16	14	24	1	2		
4C1124 Orthopedic Biomechanics	4	D	32	-	-	4			4	
4D1032 Production	4	B	36	12	-	10			4	
4D1051 Commercial Law	4	B	14	18	-	-		3		
4D1057 Advanced Patent Law	4	C	4	14	-	-	1			14 h Seminars 14h 14 h Seminars
4D1060 Industrial Development	4	B	40	8	-	-		3		
4D1062 Industrial Marketing <i>Replaces 4D1065 Industrial Marketing and 4D1151 Marketing</i>	4	B	36	12	-	-		3		
4D1075 Work Organization and Leadership	4	B	24	24	-	-		3		
4D1084 Human Factors Engineering - Man - Machine System	4	B	24	6	-	3		3		
4D1093 Psychology for Engineers	4	B	24	3	-	4	2			

4E1111 Lightweight Structures and FEM <i>The course is not given during the academic year 05/06.</i>	5	D	48	-	-	14	1				
4E1114 Fiber Composites - Materials and Manufacturing	4	C	40	-	-	8			3	4	
4E1124 Fibre Composites I: materials and processes	4	D	40	-	-	8	1				
4E1125 Fibre Composites II, Analysis and Design	4	D	2	-	-	6		2			
4E1126 Structural Design and Optimisation	4	D	40	-	-	18			3		
4E1150 Biomechanics and Neurronics	4	D	34	-	-	8				4	
4E1401 Introduction to Naval Architecture	5	C	38	10	-	10			3		
4F1131 Microcomputers in Embedded Systems*	5	D	-	36	-	36		2			
4F1131 Microcomputers in Embedded Systems* <i>Limited attendance: 25</i>	5	D	-	36	-	36			3		
4F1141 Project Work in Mechatronics* <i>Limited attendance due to limited number of available projects</i>	4	C	-	-	-	-	1	2	3	4	No scheduled hours
4F1244 Motion Control <i>The course will not be given until further notice.</i>	4	D	30	-	-	12				4	
4F1340 Introduction to Fluid Power	4	C	24	24	-	9		2			
4F1343 Fluid Systems and Machines	4	C	24	24	-	12	1	2			
4F1430 Combustion Engines, general course*	4	C	42	6	-	12	1				
4F1431 Combustion Engines, Advanced Course*	6	D	48	-	-	28		2	3		
4F1460 Combustion Engines, Project Course <i>The course is open only to students specializing in combustion engines. Open only for students with individual specialization of Combustion engines.</i>	6	D	-	-	18	-			3	4	
4F1540 Tribology	4	C	18	9	-	5				4	
4F1541 CAD 3D-modelling and Visualization for Personal Computers*	4	C	8	36	-	-				4	
4F1630 Introduction to Machine Design	5	C	24	36	-	-	1	2			
4F1631 Intermediate Machine Design Course	7	D	4	84	-	-			3	4	
4F1640 Industrial Design* <i>Limited number of participants.</i>	4	C	24	36	-	-			3		
4F1640 Industrial Design*	4	C	24	36	-	-		2			
4F1641 Environmentally Adapted Product Design <i>80% participation.</i>	4	C	-	-	42	-		2			
4F1643 Eco Design Project*	4	C	-	-	-	-	1	2	3	4	
4G1134 Effective Production	6	D	30	10	-	-			3	4	Project work
4G1165 Automation Technology	4	C	18	26	-	12			3		
4G1230 Introductory Welding Technology	4	C	24	18	-	12	1				
4G1231 Intermediate Welding Technology	4	D	24	24	-	12	1	2			
4G1246 Enlarged Welding Technology for EWE <i>Course is given upon agreement</i>	4	D	25	25	-	10	1	2			

4G1540 Laser Metrology Methods and Non Destructive Testing	4	C	28	22	-	4	2			
4G1541 Measurement Technology & Statistics f Manufact. Processes	4	D	30	-	-	8		3		
4H1113 Powder Metallurgy	4	D	18	18	-	12	2			
4H1301 Material Design	4	D	-	2	-	10		3	4	
4H1404 Corrosion and Surface Protection, General Course	4	C	16	12	-	12	1			
4H1405 Corrosion Science, Advanced Course	4	D	16	-	-	-		3		
4H1505 Structure and Properties of Ceramic Materials	4	B	12	-	-	18	2			
4H1609 Functional Materials	4	D	18	-	-	6	2			Study visit 8h
4H1610 Advanced Materials	4	C	18	-	-	6		3		Study visit 8h Seminars 18h
4H1702 Current Research Topics in Materials Chemistry	4	D	20	4	-	8			4	
4H1703 Materials Chemistry	4	D	20	4	-	8			4	
4H1802 Artificial Materials	4	D	20	4	-	6	1			
4H1803 Physics of Nanostructured Materials	4	D	20	4	-	6			4	
4K1102 Manufacturing Automation I	4	C	18	26	-	12	1			
4K1103 Manufacturing Automation II	6	C	26	34	-	17	1	2		
4K1107 Production of Electronics I	4	C	36	-	-	8			3	
4K1109 Principles for Product Integrated Manufacturing Systems Design	4	C	12	12	-	4	1			
4K1131 Assembly Systems	4	C	24	20	-	12		2		
4K1132 Modularisation of Products <i>Some parts of the course are outlined in 4K1131 Assembly Systems and 4K1104 Manufacturing Systems, advanced course.</i>	4	C	24	20	-	-			3	
4K1202 Modelling and Interaction in CAD/CAM* <i>Maximum of 20 participants. Students of "Computer Systems for Design and Manufacturing" will have priority.</i>	5	D	-	36	-	24	1			3 Programming tasks, periods 1, 2
4K1213 Advanced CAD Modelling & Rapid Prototyping, Project Course <i>Under bearbetning</i>	4	D	16	24	-	-		2	3	Project work
4K1601 Wood Material Science, Basic Course	5	C	50	18	-	24			3	4
4K1602 Industrial Wood Processing, Basic Course	4	C	26	16	-	16	1			
4M1051 Project Assignment	4	D	-	160	-	-	1	2		
4M1341 Foundry Processing	4	D	12	-	-	-			3	Seminarier 24h Other 28h
4M1342 Space Systems and Technology	4	D	36	-	-	-		2		
4M1343 Materials Processing, Project Support	4	D	72	48	-	40	1	2		
4M1344 Metrology in Materials Processing	4	D	16	-	-	80	1			Seminars 16h
4M1345 Powder Processing and Materials Forming	4	D	30	-	-	-				4 Home assignments 80h
4M1346 Simulation and Modelling	4	D	10	80	-	-	1	2		
4M1370 Solidification Processing	4	D	36	24	-	-	1	2		
5A1260 Modern Physics <i>Given if there is enough interest.</i>	5	A	24	12	-	10	1	2		

5A1370 Solid State Theory	4	D	36	-	-	-	1				
5A1414 Radiation Detectors and Medical Imaging Systems	5	D	24	-	-	15			3	4	6 h Seminars, 20 h Study visit 6 h Seminars, 20 h Study visit
5A1416 Radiation Sources for Therapy	2	D	10	-	-	-				4	14 h Study visit 14 h Study visit
5A1590 Technical Photography	5	D	20	-	-	36			3	4	
5B1555 Computer Intensive Methods in Mathematical Statistics	5	D	-	-	48	-				4	
5B1574 Portfolio Theory and Risk Management	4	C	30	12	-	-	1				
5B1814 Applied Mathematical Programming - Linear Problems	4	D	18	12	-	-	1				18 h Projektuppgift 18 h Projektuppgift
5B1816 Applied Mathematical Programming - Nonlinear Problems	4	D	18	12	-	-		2			18 h Projektuppgift 18 h Projektuppgift
5B1852 Mathematical Economics <i>Not given 05/06.</i>	4	C	32	16	-	-					
5C1122 Continuum Mechanics	4	C	42	-	-	-	1				
5C1123 Mathematical Methods of Mechanics, General Course	4	D	36	-	-	-		2			
5C1125 Mathematical Methods of Mechanics, Intermediate Course	2	D	-	-	-	-			3		
5C1211 Vehicle Aerodynamics	4	C	16	-	-	4				4	4 h Seminars 4 h Seminars
5C1214 Fluid Mechanics	5	C	-	30	30	3	1				
5C1400 Nonlinear Dynamics in Mechanics	5	C	24	-	-	-				3	
5C1860 FEM Modelling	5	D	33	-	-	-			2		33 h Workshop 33 h Workshop
7E1101 Medical Engineering, Basic Course	4	C	24	-	-	-	1				
7E1110 Quality and Regulatory Aspects on Medical Devices	2	D	20	-	-	-			3	4	
7E1112 Implants and Biomaterials*	4	D	25	-	-	-			3	4	
7E1113 Medical Instrumentation and Signal Processing*	4	D	30	-	-	6			3	4	
7E1114 Radiation Physics and Biology	4	D	36	-	-	-				4	
7E1115 Engineering in Intensive Care and Anesthesia*	4	D	12	-	-	-			3	4	30 + 10h (field work with oral and written report)
7E1200 Cellular and Molecular Biology*	10	C	67	-	-	18			3	4	3 h Seminars 3 h Seminars
7E1202 Systems Biology*	5	C	32	-	-	25		2			24 h Seminars 24 h Seminars
9E1131 Information Searching for B, I, M, T <i>Also BD and P</i>	1	B	-	-	-	-		2			Three laborations on all together 9 hours. The course is given regularly throughout the year, see
9E1131 Information Searching for B, I, M, T <i>Also BD and P</i>	1	B	-	-	-	-			3		Three laborations on all together 9 hours. The course is given regularly throughout the year, see
9E1131 Information Searching for B, I, M, T <i>Also BD and P</i>	1	B	-	-	-	-				4	Three laborations on all together 9 hours. The course is given regularly throughout the year, see
9E1131 Information Searching for B, I, M, T <i>Also BD and P</i>	1	B	-	-	-	-	1				Three laborations on all together 9 hours. The course is given regularly throughout the year, see

9E1300 Technical English, Lower Intermediate Level*	4	B	-	-	56	-	1	2			
9E1301 Technical English, Intermediate Level*	6	B	-	-	56	-	1	2			
9E1304 Technical English, Advanced Level*	6	C	-	-	56	-			3	4	
9E1304 Technical English, Advanced Level*	6	C	-	-	56	-	1	2			
9E1320 German, Elementary Level*	4	B	-	-	56	-	1	2			
9E1325 Technical German, Intermediate Level	6	B	-	-	15	-	1	2			E-learning exercises appr. 75 % of the course. 15 classroom hours in the evening.
9E1326 Technical German, Advanced Level*	6	C	-	-	56	-	1	2			
9E1326 Technical German, Advanced Level*	6	C	-	-	56	-			3	4	
9E1330 French, Elementary Level*	4	B	-	-	56	-	1	2			
9E1334 Technical French, Intermediate Level*	6	B	-	-	56	-	1	2			
9E1342 Spanish, Elementary Level*	4	B	-	-	56	-	1	2			
9E1350 Italian, Elementary Level*	4	B	-	-	56	-	1	2			
9E1360 Communicative Swedish*	4	B	-	-	56	-	1	2			

*The course has limited participation

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[Next academic year \(06/07\)](#)

Mechanical Engineering

Advanced Materials M4

Code Name	Credits	Level	Lec	Tut	Le	Lab	Periods				Other	
							1	2	3	4		
Compulsory Courses												
4H1609 Functional Materials	4	D	18	-	-	6		2			Study visit 8h	
4H1612 High Temperature Materials	7	D	18	12	-	6	1				Study visit 8h Seminars 10h Project assignment 100h	
Elective Courses												
4H1404 Corrosion and Surface Protection, General Course	4	C	16	12	-	12	1					
4H1405 Corrosion Science, Advanced Course	4	D	16	-	-	-			3			
4H1505 Structure and Properties of Ceramic Materials	4	B	12	-	-	18		2				

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Mechanical Engineering

Biomedical Engineering M4

Code Name	Credits	Level	Lec	Tut	Le	Lab	Periods				Other
							1	2	3	4	
Compulsory Courses											
7E1101 <u>Medical Engineering, Basic Course</u>	4	C	24	-	-	-	1				
7E1121 <u>Medical Radiation Physics</u>	1	C	6	-	-	-	1				
7E1202 <u>Systems Biology*</u>	5	C	32	-	-	25		2			24 h Seminars 24 h Seminars
Elective Courses											
2D1435 <u>Mathematical Modelling of Biological Systems</u>	6	D	26	-	-	20	1	2			

*The course has limited participation

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Mechanical Engineering

Computer Systems for Design and Manufacturing M4

Code Name	Credits	Level	Lec	Tut	Le	Lab	Periods				Other
							1	2	3	4	
Compulsory Courses											
4F1630 Introduction to Machine Design	5	C	24	36	-	-	1	2			
4K1102 Manufacturing Automation I	4	C	18	26	-	12	1				
4K1202 Modelling and Interaction in CAD/CAM* Maximum of 20 participants. Students of "Computer Systems for Design and Manufacturing" will have priority.	5	D	-	36	-	24	1				3 Programming tasks, periods 1, 2
4K1203 Computer Systems for Design and Manufacturing, advanced course* Maximum of 20 participants. Students of "Computer Systems for Design and Manufacturing" will have priority.	12	D	-	68	-	60		2	3	4	4 Programming Projects, periods 2, 3, 4
Elective Courses											
4F1131 Microcomputers in Embedded Systems* 	5	D	-	36	-	36		2			
4K1103 Manufacturing Automation II	6	C	26	34	-	17	1	2			

*The course has limited participation

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Mechanical Engineering

Energy Technology M4

Code Name	Credits	Level	Lec	Tut	Le	Lab	Periods				Other
							1	2	3	4	
Compulsory Courses											
4A1605 Sustainable Power Generation	6	D	30	48	-	18	1	2			
4A1607 Sustainable Energy Utilisation	6	D	-	-	72	16	1	2			
4A1609 Applied Energy Technology - Project Course	6	D	12	-	-	-			3	4	Project 78h
Elective Courses											
4A1140 Energy Systems and Models I <i>This course is not given the academic year 05/06.</i>	4	D	14	32	-	-					9 h Seminars Seminars 9 H 9 h Seminars
4A1610 Energy Management	4	D	50	-	-	-		2	3		
4A1611 Renewable Energy Technology	4	D	-	-	52	-	1				Study visit 8h
4A1613 Energy and Environment <i>Examinator: Björn Palm, Tel 790 7453</i>	4	D	50	-	-	-			3	4	Study visit 6h
4A1620 Combustion Theory	4	C	18	18	-	15	1	2			
4A1621 Modelling of Thermodynamic Systems	4	D	16	-	-	32	1	2	3	4	The course is given upon agreement
4A1622 Thermal Comfort and Indoor Climate	4	D	54	-	-	-			3	4	Study visits 6h
4A1623 Applied Refrigeration and Heat Pump Technology	4	D	24	24	-	16			3	4	
4A1624 Numerical Methods in Energy Technology <i>Under bearbetning</i>	4	D	24	12	-	12	1	2			
4A1625 Cooling of Electronics	4	D	-	-	48	-			3		
4A1626 Applied Heat and Power Technology	4	D	36	12	-	8			3	4	Project assignment 8h
4A1627 Applied Reactor Technology and Nuclear Power Safety	4	D	48	-	-	-			3	4	Study visits 12h
4A1628 Advanced Nuclear Reactor Engineering <i>Under bearbetning</i>	4	D	42	-	-	-				4	Study visits 18h
4A1629 Fluid Machinery	4	C	30	18	-	12	1				
4A1630 Thermal Fluid Machinery	4	D	36	12	-	12			3		
5C1215 Compressible Flow	5	D	-	-	52	9		2			

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M4

Code Name	Credits	Level	Lec	Tut	Le	Lab	Periods				Other
							1	2	3	4	
Compulsory Courses											
4E1140 <u>Flight Dynamics and Aeroelasticity</u> <i>Under bearbetning</i>	4	D	38	21	-	4			3		
4E1212 <u>Aerodynamics</u> <i>Under bearbetning</i>	6	D	56	10	-	14	1	2			
4E1231 <u>Flight Mechanics</u> <i>Under bearbetning</i>	4	D	28	18	-	4	1				
Conditionally Elective Courses											
2E1252 <u>Control Theory and Practice, Advanced Course</u>	5	D	28	26	-	8			3		
4A1341 <u>Introductory Airbreathing Propulsion</u>	4	C	21	24	-	8		2			
4B1131 <u>Experimental Structure Dynamics</u>	5	D	-	58	-	12		2	3		
4E1125 <u>Fibre Composites II, Analysis and Design</u>	4	D	2	-	-	6		2			
4E1126 <u>Structural Design and Optimisation</u>	4	D	40	-	-	18			3		
4E1233 <u>Project in Aeronautics*</u> <i>Under bearbetning</i>	6	D	28	-	-	48			3	4	
4M1342 <u>Space Systems and Technology</u>	4	D	36	-	-	-		2			
5B1816 <u>Applied Mathematical Programming - Nonlinear Problems</u>	4	D	18	12	-	-		2			18 h Projektuppgift 18 h Projektuppgift
5C1215 <u>Compressible Flow</u>	5	D	-	-	52	9		2			

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Automotive Engineering M4

Code Name	Credits	Level	Lec	Tut	Le	Lab	Periods				Other
							1	2	3	4	
Conditionally Elective Courses											
1C1206 Railway Track Engineering	5	D	33	-	-	-			3		44 h Workshop
1H1206 Planning of Railroad Traffic	5	C	-	-	72	-	1				
2C1149 Electric Traction	4	C	36	-	-	-				4	
4B1304 Railway Systems and Rail Vehicles	6	C	-	-	60	9	1	2			Project assignment 9h
4B1313 Rail Vehicle Dynamics	5	D	-	-	36	24			3		
4B1420 Ground Vehicle Engineering, Basic Course*	6	C	36	36	-	-	1	2			
4B1425 Ground Vehicle Dynamics, Basic Course* <i>Under bearbetning</i>	7	D	33	60	-	-			3	4	
4F1430 Combustion Engines, general course*	4	C	42	6	-	12	1				
Recommended Courses											
4B1131 Experimental Structure Dynamics	5	D	-	58	-	12		2	3		
4E1111 Lightweight Structures and FEM <i>The course is not given during the academic year 05/06.</i>	5	D	48	-	-	14	1				
4F1131 Microcomputers in Embedded Systems*	5	D	-	36	-	36		2			
4F1630 Introduction to Machine Design	5	C	24	36	-	-	1	2			
4F1640 Industrial Design* <i>Limited number of participants.</i>	4	C	24	36	-	-			3		
5C1211 Vehicle Aerodynamics	4	C	16	-	-	4				4	4 h Seminars4 h Seminars
Elective Courses											
4C1025 FEM for Engineering Applications	4	C	36	14	-	4			3		

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Solid Mechanics M4

Code Name	Credits	Level	Lec	Tut	Le	Lab	Periods				Other
							1	2	3	4	
Compulsory Courses											
4C1122 Applied solid mechanics	6	D	28	16	14	24	1	2			
Conditionally Elective Courses											
4C1110 Material Mechanics	4	D	52	-	-	3	1				
4C1111 Fracture Mechanics and Fatigue	4	D	48	-	-	4				4	
4C1116 Dynamic Problems in Solid Mechanics	4	D	42	-	-	8			3	4	
4C1121 Introduction to Biomechanics	6	C	48	-	-	8			3		
4C1124 Orthopedic Biomechanics	4	D	32	-	-	4				4	
Elective Courses											
3E1324 Polymer Materials - Properties and Applications	4	C	30	12	-	10				4	
3E1360 Mechanical Properties of Polymers, Minor Course	4	D	24	16	-	12	1				
4B1420 Ground Vehicle Engineering, Basic Course*	6	C	36	36	-	-	1	2			
4E1125 Fibre Composites II, Analysis and Design	4	D	2	-	-	6		2			
4F1540 Tribology	4	C	18	9	-	5				4	
4G1230 Introductory Welding Technology	4	C	24	18	-	12	1				
4H1202 Mechanical Metallurgy I	6	D	24	12	-	48			3	4	Home assignments
4H1203 Mechanical Metallurgy II	4,5	C	24	12	-	24			3	4	Home assignments
4H1205 Mechanical Properties of Materials <i>Under bearbetning</i>	4	C	20	18	-	6		2			4 h Study visit Study visit 4h 4 h Study visit
4H1505 Structure and Properties of Ceramic Materials	4	B	12	-	-	18		2			
5A1301 Mathematical Methods in Physics, Course I <i>Not given 05/06.</i>	4	C	26	28	-	-					
5C1122 Continuum Mechanics	4	C	42	-	-	-	1				
5C1123 Mathematical Methods of Mechanics, General Course	4	D	36	-	-	-		2			
5C1125 Mathematical Methods of Mechanics, Intermediate Course	2	D	-	-	-	-			3		
5C1214 Fluid Mechanics	5	C	-	30	30	3	1				



5C1902 Advanced Dynamics of Complex Systems	4	D	24	-	-	-	1				

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Industrial Economics and Management M4

Code Name	Credits	Level	Lec	Tut	Le	Lab	Periods				Other
							1	2	3	4	
Compulsory Courses											
4D1035 <u>Advanced Industrial Economics and Management*</u>	12	D	68	72	-	16		2	3	4	Roll-play 16h
Conditionally Elective Courses											
4D1062 <u>Industrial Marketing</u> <i>Replaces 4D1065 Industrial Marketing and 4D1151 Marketing</i>	4	B	36	12	-	-			3		
4D1071 <u>Industrial Project Management, Basic Course</u>	4	B	40	8	-	-	1				
4F1630 <u>Introduction to Machine Design</u>	5	C	24	36	-	-	1	2			
4K1102 <u>Manufacturing Automation I</u>	4	C	18	26	-	12	1				
Elective Courses											
4D1062 <u>Industrial Marketing</u> <i>Replaces 4D1065 Industrial Marketing and 4D1151 Marketing</i>	4	B	36	12	-	-			3		
4D1152 <u>Industrial Marketing, Advanced Course</u>	4	C	36	-	-	-	1				12 h Seminars 12 h Seminars
4D1170 <u>Advanced Production and Product Development</u>	4	C	36	12	-	-		2			
4D1174 <u>Management and Analysis of Innovations and Technology</u>	4	C	38	-	-	-		2			10 h Seminars 10 h Seminars
4K1103 <u>Manufacturing Automation II</u>	6	C	26	34	-	17	1	2			

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Industrial Engineering M4

Code Name	Credits	Level	Lec	Tut	Le	Lab	Periods				Other
							1	2	3	4	
Compulsory Courses											
4G1146 <u>Advanced Industrial Engineering*</u> <i>Under bearbetning</i>	12	D	67	22	-	-	1	2			120 h Projektuppgift120 h Projektuppgift
Elective Courses											
4D1062 <u>Industrial Marketing</u> <i>Replaces 4D1065 Industrial Marketing and 4D1151 Marketing</i>	4	B	36	12	-	-			3		
4D1093 <u>Psychology for Engineers</u>	4	B	24	3	-	4		2			
4G1053 <u>Materials Processing, Project Support</u> <i>Under bearbetning</i>	4	D	72	48	-	40			3	4	Home assignments 48h
4G1170 <u>Intelligent Machining, Advanced Course</u> <i>Under bearbetning</i>	4	D	36	20	-	-		2	3	4	
4G1243 <u>Advanced Welding Technology, Modulus 1</u> <i>Under bearbetning</i>	4	D	20	20	-	20			3		
4G1244 <u>Advanced Welding Technology, Modulus 2</u> <i>Under bearbetning</i>	4	D	20	20	-	20			3		
4G1245 <u>Advanced Welding Technology, Modulus 3</u> <i>Under bearbetning</i>	4	D	20	20	-	20				4	
4G1246 <u>Enlarged Welding Technology for EWE</u> <i>Course is given upon agreement</i>	4	D	25	25	-	10	1	2			
4G1540 <u>Laser Metrology Methods and Non Destructive Testing</u>	4	C	28	22	-	4		2			
4K1102 <u>Manufacturing Automation I</u>	4	C	18	26	-	12	1				

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Integrated Product Development M4

Code Name	Credits	Level	Lec	Tut	Le	Lab	Periods				Other
							1	2	3	4	
Compulsory Courses											
4F1760 Integrated Product Development, Advanced Course* <i>Under bearbetning</i>	20	D	-	180	-	-	1	2	3	4	
Conditionally Elective Courses											
4F1541 CAD 3D-modelling and Visualization for Personal Computers*	4	C	8	36	-	-		2			
Elective Courses											
4F1131 Microcomputers in Embedded Systems*	5	D	-	36	-	36		2			
4F1641 Environmentally Adapted Product Design <i>80% participation.</i>	4	C	-	-	42	-		2			
4F1642 Modelling and Computer Support in Mechanical Design <i>Under bearbetning</i>	4	C	24	36	-	-			3		

*The course has limited participation

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Sound and Vibrations M4

Code Name	Credits	Level	Lec	Tut	Le	Lab	Periods				Other
							1	2	3	4	
Compulsory Courses											
4B1127 Vibroacoustics	5	D	-	56	-	8	1	2			
4B1131 Experimental Structure Dynamics	5	D	-	58	-	12		2	3		
4B1136 Flow Acoustics	4	D	-	36	-	8			3		
4B1141 Sound and Vibration, Project Course	5	D	-	48	-	12			3	4	Study tour to industry 40h

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Lightweight Structures M4

Code Name	Credits	Level	Lec	Tut	Le	Lab	Periods				Other
							1	2	3	4	
Compulsory Courses											
4E1124 Fibre Composites I: materials and processes	4	D	40	-	-	8	1				
4E1125 Fibre Composites II, Analysis and Design	4	D	2	-	-	6		2			
4E1126 Structural Design and Optimisation	4	D	40	-	-	18			3		
4E1132 Lightweight Design* Open only to students on the specialisation LKR.	10	D	-	-	336	-	1	2	3	4	
4E1150 Biomechanics and Neuronics	4	D	34	-	-	8				4	
Elective Courses											
4B1304 Railway Systems and Rail Vehicles	6	C	-	-	60	9	1	2			Project assignment 9h
4B1420 Ground Vehicle Engineering, Basic Course* 	6	C	36	36	-	-	1	2			
4F1630 Introduction to Machine Design	5	C	24	36	-	-	1	2			
9E1300 Technical English, Lower Intermediate Level* 	4	B	-	-	56	-	1	2			
9E1301 Technical English, Intermediate Level* 	6	B	-	-	56	-	1	2			
9E1304 Technical English, Advanced Level* 	6	C	-	-	56	-	1	2			
9E1325 Technical German, Intermediate Level	6	B	-	-	15	-	1	2			E-learning exercises appr. 75 % of the course. 15 classroom hours in the evening.
9E1326 Technical German, Advanced Level* 	6	C	-	-	56	-	1	2			
9E1334 Technical French, Intermediate Level* 	6	B	-	-	56	-	1	2			
9E1348 Technical Spanish, Intermediate Level* 	6	B	-	-	56	-			3	4	

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Naval Systems M4

Code Name	Credits	Level	Lec	Tut	Le	Lab	Periods				Other
							1	2	3	4	
Compulsory Courses											
4E1402 Naval design*_ Only open to MSY students.	10	D	-	336	-	-	1	2	3	4	
Conditionally Elective Courses											
2C1224 Management of Technology	5	D	32	20	-	-	1				
4E1124 Fibre Composites I: materials and processes	4	D	40	-	-	8	1				
4E1125 Fibre Composites II, Analysis and Design	4	D	2	-	-	6		2			
4E1126 Structural Design and Optimisation	4	D	40	-	-	18			3		
5C1212 Computational Fluid Dynamics	5	D	-	-	50	10			3		
5C1213 Applied Computational Fluid Dynamics	2	D	-	-	10	14				4	
5C1214 Fluid Mechanics	5	C	-	30	30	3	1				
Elective Courses											
4B1131 Experimental Structure Dynamics	5	D	-	58	-	12		2	3		
4E1140 Flight Dynamics and Aeroelasticity <i>Under bearbetning</i>	4	D	38	21	-	4			3		
4E1150 Biomechanics and Neuronics	4	D	34	-	-	8				4	
4F1430 Combustion Engines, general course*_ 	4	C	42	6	-	12	1				
9E1300 Technical English, Lower Intermediate Level*_ 	4	B	-	-	56	-	1	2			

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Machine Elements M4

Code Name	Credits	Level	Lec	Tut	Le	Lab	Periods				Other
							1	2	3	4	
Compulsory Courses											
4F1540 Tribology	4	C	18	9	-	5				4	
4F1560 Advanced Machine Elements* <i>Under bearbetning</i>	12	D	-	120	-	-			3	4	
4F1630 Introduction to Machine Design	5	C	24	36	-	-	1	2			
4K1132 Modularisation of Products <i>Some parts of the course are outlined in 4K1131 Assembly Systems and 4K1104 Manufacturing Systems, advanced course.</i>	4	C	24	20	-	-			3		
Elective Courses											
4C1122 Applied solid mechanics	6	D	28	16	14	24	1	2			

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Machine Design M4

Code Name	Credits	Level	Lec	Tut	Le	Lab	Periods				Other
							1	2	3	4	
Compulsory Courses											
4F1630 <u>Introduction to Machine Design</u>	5	C	24	36	-	-	1	2			
4F1644 <u>Industrial Design*</u> <i>Under bearbetning</i>	4	C	24	36	-	-	1				
4F1660 <u>Advanced Machine Design*</u> <i>Under bearbetning</i>	12	D	4	114	-	-			3	4	
Elective Courses											
3E1360 <u>Mechanical Properties of Polymers, Minor Course</u>	4	D	24	16	-	12	1				
3E1361 <u>Polymer Processing, Minor Course</u>	4	D	24	8	-	18		2			
4C1122 <u>Applied solid mechanics</u>	6	D	28	16	14	24	1	2			
4F1131 <u>Microcomputers in Embedded Systems*</u>	5	D	-	36	-	36		2			
4F1131 <u>Microcomputers in Embedded Systems*</u> <i>Limited attendance: 25</i>	5	D	-	36	-	36			3		
4F1141 <u>Project Work in Mechatronics*</u> <i>Limited attendance due to limited number of available projects</i>	4	C	-	-	-	-	1	2	3	4	No scheduled hours
4F1541 <u>CAD 3D-modelling and Visualization for Personal Computers*</u>	4	C	8	36	-	-				4	
4F1641 <u>Environmentally Adapted Product Design</u> <i>80% participation.</i>	4	C	-	-	42	-		2			
4K1102 <u>Manufacturing Automation I</u>	4	C	18	26	-	12	1				

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Materials Science M4

Code Name	Credits	Level	Lec	Tut	Le	Lab	Periods				Other
							1	2	3	4	
Compulsory Courses											
4H1104 Diffusion and Phase Equilibria	6	D	18	18	-	42	1	2			
4H1113 Powder Metallurgy	4	D	18	18	-	12		2			
4H1301 Material Design	4	D	-	2	-	10			3	4	
4H1404 Corrosion and Surface Protection, General Course	4	C	16	12	-	12	1				
Conditionally Elective Courses											
4H1405 Corrosion Science, Advanced Course	4	D	16	-	-	-			3		
4H1505 Structure and Properties of Ceramic Materials	4	B	12	-	-	18		2			
4H1609 Functional Materials	4	D	18	-	-	6		2			Study visit 8h
4H1610 Advanced Materials	4	C	18	-	-	6			3		Study visit 8h Seminars 18h
4H1702 Current Research Topics in Materials Chemistry	4	D	20	4	-	8				4	
4H1703 Materials Chemistry	4	D	20	4	-	8				4	
4H1802 Artificial Materials	4	D	20	4	-	6	1				
5A1370 Solid State Theory	4	D	36	-	-	-	1				

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Mechanics M4

Code Name	Credits	Level	Lec	Tut	Le	Lab	Periods				Other
							1	2	3	4	
Conditionally Elective Courses											
2D1225 Numerical Solutions of Differential Equations	4	C	24	4	-	16	1	2			
2D1255 Numerical Solutions of Differential Equations	5	D	30	-	-	8			3	4	
5C1122 Continuum Mechanics	4	C	42	-	-	-	1				
5C1123 Mathematical Methods of Mechanics, General Course	4	D	36	-	-	-		2			
5C1125 Mathematical Methods of Mechanics, Intermediate Course	2	D	-	-	-	-			3		
5C1211 Vehicle Aerodynamics	4	C	16	-	-	4				4	4 h Seminars4 h Seminars
5C1212 Computational Fluid Dynamics	5	D	-	-	50	10			3		
5C1213 Applied Computational Fluid Dynamics	2	D	-	-	10	14				4	
5C1214 Fluid Mechanics	5	C	-	30	30	3	1				
5C1215 Compressible Flow	5	D	-	-	52	9		2			
5C1850 Finite Element Methods	5	D	33	-	-	-	1				33 h Workshop33 h Workshop
5C1860 FEM Modelling	5	D	33	-	-	-		2			33 h Workshop33 h Workshop
5C1902 Advanced Dynamics of Complex Systems	4	D	24	-	-	-	1				
5C1904 Advanced Modern Mechanics	4	D	24	-	-	-		2			
Elective Courses											
5C1400 Nonlinear Dynamics in Mechanics	5	C	24	-	-	-			3		

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Mechatronics M4

Code Name	Credits	Level	Lec	Tut	Le	Lab	Periods				Other
							1	2	3	4	
Compulsory Courses											
4F1132 <u>Microcomputers in Embedded Systems</u> <i>Under bearbetning</i>	5	D	-	36	-	36	1				
4F1142 <u>Motion control and Real-time implementation*</u> <i>Under bearbetning</i>	5	D	22	10	-	30	2				
4F1162 <u>Mechatronics, Advanced Course II*</u> <i>Under bearbetning</i>	15	D	-	116	-	80		2	3	4	

*The course has limited participation

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Environmental Management M4

Code Name	Credits	Level	Lec	Tut	Le	Lab	Periods				Other
							1	2	3	4	
Compulsory Courses											
3C1365 <u>Environmental Consequences, Advanced Course II</u>	4	D	15	15	-	40	1	2			Field exercises
3C1387 <u>Environmental Systems Analysis</u>	4	C	16	8	-	6		2			
3C1390 <u>Environmental Management, Larger Course</u>	8	D	36	3	-	24			3	4	Project work, field exercise
Elective Courses											
3C1350 <u>Waste Management, Advanced Course</u> <i>Study visit</i>	4	D	18	-	-	-				4	Project work 20h

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Mechanical Engineering

Paper Technology M4

Code Name	Credits	Level	Lec	Tut	Le	Lab	Periods				Other
							1	2	3	4	
Compulsory Courses											
2D1520 <u>Graphic Arts Technology, Minor Course</u>	4	C	24	8	-	16		2			
3D1113 <u>Paper Physics</u>	4	D	20	-	-	20		2			
3D1114 <u>Paper Processes Technology</u>	4	D	20	-	-	20			3		
3D1115 <u>Pulp and Paper Processes</u>	6	D	40	-	-	48	1	2			
3D1117 <u>Paper Technology, project</u>	4	D	-	-	-	-			3	4	Project work

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Mechanical Engineering

Publishing Technology M4

Code Name	Credits	Level	Lec	Tut	Le	Lab	Periods				Other
							1	2	3	4	
Compulsory Courses											
2D1515 Machinery and Materials in Graphic Arts Technology	6	C	36	8	-	8		2			
2D1517 XML for Publishing	5	C	22	-	-	44	1	2			
2D1518 Audio, Video and Multimedia Production*	5	C	30	-	-	40		2	3		8 h Study visit8 h Study visit
2D1524 Image Processing and Reprographic Methods* <i>Limited number of participants</i>	6	C	26	16	-	12	1				
2D1527 Publishing Technology, Advanced Course <i>Open only to students of the specialization Publishing Technology.</i>	10	D	60	8	-	8			3	4	
Elective Courses											
2D1334 Database Technology	4	C	24	20	-	12			3		

*The course has limited participation

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Systems Engineering M4

Code Name	Credits	Level	Lec	Tut	Le	Lab	Periods				Other
							1	2	3	4	
Compulsory Courses											
5B1832 Systems Engineering	8	C	56	28	-	12	1	2			
Elective Courses											
1H1206 Planning of Railroad Traffic	5	C	-	-	72	-	1				
1H1212 Logistics, Advanced Course	5	D	4	-	-	-			3		Project-course, 12h Seminars
1H1401 Optimisation Models in Transport and Location Analysis	5	D	27	15	-	6			3		6 h Seminars6 h Seminars
1N1150 Optimisation Models in Transport and Location Analysis	5	D	27	15	-	6			3		6 h Seminars6 h Seminars
2E1252 Control Theory and Practice, Advanced Course	5	D	28	26	-	8			3		
5B1550 Applied Mathematical Statistics	5	C	-	-	60	-			3		
5B1814 Applied Mathematical Programming - Linear Problems	4	D	18	12	-	-	1				18 h Projektuppgift18 h Projektuppgift
5B1816 Applied Mathematical Programming - Nonlinear Problems	4	D	18	12	-	-		2			18 h Projektuppgift18 h Projektuppgift
5B1852 Mathematical Economics <i>Not given 05/06.</i>	4	C	32	16	-	-					

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Mechanical Engineering

Materials Processing M4

Code Name	Credits	Level	Lec	Tut	Le	Lab	Periods				Other
							1	2	3	4	
Compulsory Courses											
4G1051 <u>Project Assignment, Materials Processing</u> <i>Under bearbetning</i>	4	D	-	160	-	-			3	4	160 h Projektuppgift160 h Projektuppgift
4G1053 <u>Materials Processing, Project Support</u> <i>Under bearbetning</i>	4	D	72	48	-	40			3	4	Home assignments 48h
Conditionally Elective Courses											
4D1071 <u>Industrial Project Management, Basic Course</u>	4	B	40	8	-	-	1				
4G1170 <u>Intelligent Machining, Advanced Course</u> <i>Under bearbetning</i>	4	D	36	20	-	-		2	3	4	
4G1541 <u>Measurement Technology & Statistics f Manufact. Processes</u>	4	D	30	-	-	8			3		
4G1570 <u>Metrology & Quality for the Manufacturing Industry</u> <i>Under bearbetning</i>	4	D	36	24	-	-		2	3		
4G1670 <u>Materials Forming</u> <i>Under bearbetning</i>	4	D	18	12	-	18		2	3		
4H1251 <u>Metal Forming - Fundamentals</u> <i>Under bearbetning</i>	6	C	36	36	-	18			3	4	
4H1255 <u>Metal Forming Processes</u>	6	C	18	18	-	-			3	4	Projektuppgift 60h
4M1334 <u>Casting Processing</u> <i>Under bearbetning</i>	4	D	12	24	-	18				4	
4M1346 <u>Simulation and Modelling</u>	4	D	10	80	-	-	1	2			
4M1370 <u>Solidification Processing</u>	4	D	36	24	-	-	1	2			
Elective Courses											
4C1110 <u>Material Mechanics</u>	4	D	52	-	-	3	1				
4C1122 <u>Applied solid mechanics</u>	6	D	28	16	14	24	1	2			
4F1630 <u>Introduction to Machine Design</u>	5	C	24	36	-	-	1	2			
4G1243 <u>Advanced Welding Technology, Modulus 1</u> <i>Under bearbetning</i>	4	D	20	20	-	20			3		
4G1244 <u>Advanced Welding Technology, Modulus 2</u> <i>Under bearbetning</i>	4	D	20	20	-	20			3		

4G1245 Advanced Welding Technology, Modulus 3 <i>Under bearbetning</i>	4	D	20	20	-	20				4	
4G1246 Enlarged Welding Technology for EWE <i>Course is given upon agreement</i>	4	D	25	25	-	10	1	2			
4M1341 Foundry Processing	4	D	12	-	-	-			3		Seminarier 24h Other 28h

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Assembly Systems M4

Code Name	Credits	Level	Lec	Tut	Le	Lab	Periods				Other
							1	2	3	4	
Compulsory Courses											
4K1102 <u>Manufacturing Automation I</u>	4	C	18	26	-	12	1				
4K1104 <u>Manufacturing Systems, advanced course*</u> <i>Under bearbetning</i>	12	D	50	48	-	28		2	3	4	
4K1109 <u>Principles for Product Integrated Manufacturing Systems Design</u>	4	C	12	12	-	4	1				

*The course has limited participation

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Wood Technology M4

Code Name	Credits	Level	Lec	Tut	Le	Lab	Periods				Other
							1	2	3	4	
Compulsory Courses											
4K1602 <u>Industrial Wood Processing, Basic Course</u>	4	C	26	16	-	16	1				
4K1603 <u>Wood Technology, Advanced Course*</u>	10	D	48	24	-	36		2	3	4	
Elective Courses											
4D1062 <u>Industrial Marketing</u> <i>Replaces 4D1065 Industrial Marketing and 4D1151 Marketing</i>	4	B	36	12	-	-			3		
4K1102 <u>Manufacturing Automation I</u>	4	C	18	26	-	12	1				

*The course has limited participation

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Materials Design and Engineering

Materials Design and Engineering BD1

Code Name	Credits	Level	Lec	Tut	Le	Lab	Periods				Other
							1	2	3	4	
Compulsory Courses											
3E1501 Perspectives on Materials Design	6	A	34	40	-	28	1	2			16 h Study visitSeminar 4h Written test 2h 16 h Study visit
4H1705 Materials chemistry for materials design	8	A	40	60	-	27	1	2	3		
5A1227 Physics II	4	A	38	-	-	15				4	
5B1132 Analytical Methods and Linear Algebra I	8	A	80	40	-	-	1	2			
5B1133 Analytical Methods and Linear Algebra II	8	B	80	40	-	-			3	4	
5C1130 Mechanics I	6	A	48	-	27	-			3	4	
Recommended Courses											
4H1706 Introduction to Chemistry	1	A	-	-	-	-					Lecture 1 h Exercises 12 h
5B1120 Introductory Course in Mathematics I	1	A	-	-	-	-					

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Materials Design and Engineering

Materials Design and Engineering BD2

Code Name	Credits	Level	Lec	Tut	Le	Lab	Periods				Other
							1	2	3	4	
Compulsory Courses											
2D1212 Numerical Methods and Basic Programming	6	A	34	30	-	28	1	2			
4C1020 Solid Mechanics, basic course, BD	6	B	52	30	-	2	1	2			
4H1064	6	B	28	-	-	20			3	4	
4H1065 Fundamentals of Materials Science and Engineering	8	B	64	-	-	30			3	4	
4H1806 Materials Physics	4	B	40	20	-	15				4	
4H1951 Thermodynamics of Materials	6	B	48	48	-	12		2	3		
5B1206 Differential Equations I	4	C	40	20	-	-	1	2			

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Materials Design and Engineering

Materials Design and Engineering BD3

Code Name	Credits	Level	Lec	Tut	Le	Lab	Periods				Other
							1	2	3	4	
Compulsory Courses											
3E1369 <u>Mechanical Properties of Materials</u>	5	C	30	12	-	12		2			20 h Projektuppgift20 h Projektuppgift
4H1114 <u>Micro and Nanostructures</u>	5	C	-	-	26	18	1				
4H1953 <u>Fabrication Processes</u>	5	C	32	8	-	8		2			
4H1954 <u>Transport Phenomena</u>	5	C	24	24	-	8	1				
Conditionally Elective Courses											
3E1325 <u>Project Course in Polymer and cellulose based materials</u>	10	C	-	-	-	-			3	4	
3E1326 <u>Physical polymer and cellulose chemistry</u> <i>Under bearbetning</i>	5	C	44	-	-	-			3		
4A1601 <u>Heat Transfer</u>	4	C	24	24	-	20		2			
4A1604 <u>Project Course in Sustainable Energy Systems</u>	10	C	-	-	-	-			3	4	Project wor Seminars
4C1003 <u>Project Course in Solid Mechanics</u>	10	C	-	-	-	-			3	4	Project work Seminars
4C1025 <u>FEM for Engineering Applications</u>	4	C	36	14	-	4			3		
4E1110 <u>Project Course in Light Weight Structures</u>	10	C	-	-	-	-			3	4	Project work Seminars
4H1066 <u>Advanced course in metals and ceramics</u> <i>Under bearbetning</i>	10	C	62	12	-	-			3	4	
4H1067 <u>Project Course in Materials Science and Process Design</u>	10	C	-	-	-	-			3	4	Project work
5B1762 <u>Optimization for T</u>	4	C	28	16	-	8				4	
5C1220 <u>Fluid Mechanics for Engineers</u>	4	B	26	-	-	6			3		
Elective Courses											
2D1321 <u>Applied Programming and Computer Science</u>	6	B	38	20	-	-		2	3		
2D1322 <u>Applied Programming and Computer Science, Part 1</u>	4	B	26	14	-	14		2			
2D1324 <u>Applied Programming and Computer Science, Part 2</u>	2	B	12	6	-	18			3		
3C1330 <u>Technology and Ecosystems</u>	4	B	24	3	-	-		2			
3C1330 <u>Technology and Ecosystems</u>	4	B	24	3	-	-	1				
4A1603 <u>Energy Technology</u>	4	C	48	12	-	-			3	4	

4E1114 Fiber Composites - Materials and Manufacturing	4	C	40	-	-	8			3	4	
4G1134 Effective Production	6	D	30	10	-	-			3	4	Project work
4K1601 Wood Material Science, Basic Course	5	C	50	18	-	24			3	4	
5A1228 Laser metrology and optical metrology	4	B	24	-	6	-			3	4	
5A1229 Physics of Visual Impressions	4	B	24	-	6	-			3	4	
5B1304 Mathematics, Extended Course	5	C	-	-	54	-			3	4	
5C1217 Fluid Mechanics, Basic Course	4	B	26	14	-	6			3		

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Materials Technology

Materials Technology B4

Code Name	Credits	Level	Lec	Tut	Le	Lab	Periods				Other
							1	2	3	4	
Elective Courses											
2A1140 Accelerator and Radiation Technology	4	D	36	-	-	-			3		8 h Study visit8 h Study visit
2A1151 Energy and Fusion Research	4	D	26	12	-	-				4	
2A1160 Space Physics	3	D	18	-	-	-	1				
2B1260 Semiconductor Theory and Device Physics, General Course	5	D	30	-	-	10	1				Individual assignments 20h
2B1261 Semiconductor Theory and Device Physics, Advanced Course <i>The course is not given 2005/06</i> <i>Under bearbetning</i>	4	D	-	36	-	-			3		
2B1262 The Nature of Materials	4	C	32	-	-	-				4	
2B1263 Surface Physics, Basic Course	4	D	36	-	-	-		2			
2B1380 Optics, General Course	4	D	26	14	-	25	1				
2B1700 Advanced Semiconductor Materials	5	D	34	-	-	16			3		
2B1750 Smart Electronic Materials <i>Under bearbetning</i>	4	C	18	10	-	8	1				
2B1751 Physics of Electronic Devices	4	D	12	6	-	-				4	
2B1760 Experimental Methods in Material Physics <i>Under bearbetning</i>	5	C	26	22	-	30		2	3		
2B1771 Superconductivity and Applications	4	D	28	-	-	-		2			
2C1117 Wind Power Systems <i>Replaces 2C1114.</i>	5	C	60	-	-	-			3	4	
2D1225 Numerical Solutions of Differential Equations	4	C	24	4	-	16	1	2			
2D1320 Applied Computer Science	4	A	28	14	-	20	1	2			
2D1354 Algorithms and Complexity	4	C	30	18	-	-	1	2			
2D1385 Software Engineering	4	C	24	12	-	18				4	
2D1432 Artificial Neural Networks and Other Learning Systems	4	D	26	-	-	16			3		
2D1520 Graphic Arts Technology, Minor Course	4	C	24	8	-	16		2			
2D1521 Communication and Information*_	5	C	16	12	-	-			3		

2D1522 Computer Technology and Communication*	4	C	30	-	-	20			4	
2D1524 Image Processing and Reprographic Methods* <i>Limited number of participants</i>	6	C	26	16	-	12	1			
2E1212 Automatic Control, General Course	4	C	24	26	-	12			3	
2E1242 Automatic Control, Project Course*	8	D	4	-	-	50			4	
2F1400 Electroacoustics	4	D	34	12	-	8	1			
3C1330 Technology and Ecosystems	4	B	24	3	-	-	1			
3C1330 Technology and Ecosystems	4	B	24	3	-	-		2		
3C1330 Technology and Ecosystems	4	B	24	3	-	-			3	
3C1350 Waste Management, Advanced Course <i>Study visit</i>	4	D	18	-	-	-			4	Project work 20h
3C1355 Ecology, Advanced Course	4	C	21	4	-	-			3	4
3C1365 Environmental Consequences, Advanced Course II	4	D	15	15	-	40	1	2		Field exercises
3C1380 Environmental Management	4	C	10	-	-	-			3	12 h Seminars12 h Seminars
3C1385 Biology	4	C	30	6	-	6	1			Field exercise 8h
3C1387 Environmental Systems Analysis	4	C	16	8	-	6		2		
3C1395 Technology and Sustainable Development	4	C	2	6	-	-		2		
3D1163 Pulp Technology	4	D	20	-	-	24	1			
3E1354 Biopolymers	5	D	24	10	-	25			3	5h Study visit
3E1360 Mechanical Properties of Polymers, Minor Course	4	D	24	16	-	12	1			
3E1361 Polymer Processing, Minor Course	4	D	24	8	-	18		2		
4A1140 Energy Systems and Models I <i>This course is not given the academic year 05/06.</i>	4	D	14	32	-	-				9 h SeminarsSeminars 9 H 9 h Seminars
4A1605 Sustainable Power Generation	6	D	30	48	-	18	1	2		
4A1607 Sustainable Energy Utilisation	6	D	-	-	72	16	1	2		
4A1609 Applied Energy Technology - Project Course	6	D	12	-	-	-			3	4
4A1610 Energy Management	4	D	50	-	-	-		2	3	
4A1611 Renewable Energy Technology	4	D	-	-	52	-	1			Study visit 8h
4A1612 Renewable Energy Technology, Advanced Course	4	D	26	-	-	-			3	Study visit 4 h
4A1613 Energy and Environment <i>Examinator: Björn Palm, Tel 790 7453</i>	4	D	50	-	-	-			3	4
4A1621 Modelling of Thermodynamic Systems	4	D	16	-	-	32	1	2	3	4
4A1623 Applied Refrigeration and Heat Pump Technology	4	D	24	24	-	16			3	4
4A1625 Cooling of Electronics	4	D	-	-	48	-			3	
4A1626 Applied Heat and Power Technology	4	D	36	12	-	8			3	4
4A1627 Applied Reactor Technology and Nuclear Power Safety	4	D	48	-	-	-			3	4
4A1629 Fluid Machinery	4	C	30	18	-	12	1			
4A1630 Thermal Fluid Machinery	4	D	36	12	-	12			3	

4B1131 Experimental Structure Dynamics	5	D	-	58	-	12	2	3		
4B1162 Vibro-Acoustics	7	D	-	-	64	8	1	2		
4B1164 Signal Analysis	5	D	-	-	26	22	1	2		
4B1304 Railway Systems and Rail Vehicles	6	C	-	-	60	9	1	2		Project assignment 9h
4C1110 Material Mechanics	4	D	52	-	-	3	1			
4C1111 Fracture Mechanics and Fatigue	4	D	48	-	-	4			4	
4C1122 Applied solid mechanics	6	D	28	16	14	24	1	2		
4D1032 Production	4	B	36	12	-	10			4	
4D1051 Commercial Law	4	B	14	18	-	-			3	
4D1057 Advanced Patent Law	4	C	4	14	-	-	1			14 h Seminars 14h 14 h Seminars
4D1060 Industrial Development	4	B	40	8	-	-			3	
4D1062 Industrial Marketing <i>Replaces 4D1065 Industrial Marketing and 4D1151 Marketing</i>	4	B	36	12	-	-			3	
4D1075 Work Organization and Leadership	4	B	24	24	-	-			3	
4D1084 Human Factors Engineering - Man - Machine System	4	B	24	6	-	3			3	
4D1093 Psychology for Engineers	4	B	24	3	-	4		2		
4E1114 Fiber Composites - Materials and Manufacturing	4	C	40	-	-	8			3	4
4E1124 Fibre Composites I: materials and processes	4	D	40	-	-	8	1			
4E1125 Fibre Composites II, Analysis and Design	4	D	2	-	-	6		2		
4E1126 Structural Design and Optimisation	4	D	40	-	-	18			3	
4E1150 Biomechanics and Neurronics	4	D	34	-	-	8				4
4F1131 Microcomputers in Embedded Systems*	5	D	-	36	-	36		2		
4F1131 Microcomputers in Embedded Systems* <i>Limited attendance: 25</i>	5	D	-	36	-	36			3	
4F1141 Project Work in Mechatronics* <i>Limited attendance due to limited number of available projects</i>	4	C	-	-	-	-	1	2	3	4
4F1244 Motion Control <i>The course will not be given until further notice.</i>	4	D	30	-	-	12				4
4F1460 Combustion Engines, Project Course <i>The course is open only to students specializing in combustion engines. Open only for students with individual specialization of Combustion engines.</i>	6	D	-	-	18	-			3	4
4F1531 Machine Elements, basic course for I and T	4	B	24	40	-	-	1			
4F1540 Tribology	4	C	18	9	-	5				4
4F1541 CAD 3D-modelling and Visualization for Personal Computers*	4	C	8	36	-	-				4
4F1630 Introduction to Machine Design	5	C	24	36	-	-	1	2		
4F1631 Intermediate Machine Design Course	7	D	4	84	-	-			3	4
4F1640 Industrial Design* <i>Limited number of participants.</i>	4	C	24	36	-	-			3	
4F1640 Industrial Design*	4	C	24	36	-	-		2		

4F1641 Environmentally Adapted Product Design <i>80% participation.</i>	4	C	-	-	42	-	2			
4F1643 Eco Design Project*	4	C	-	-	-	-	1	2	3	4
4G1134 Effective Production	6	D	30	10	-	-			3	4
4G1230 Introductory Welding Technology	4	C	24	18	-	12	1			
4G1231 Intermediate Welding Technology	4	D	24	24	-	12	1	2		
4G1246 Enlarged Welding Technology for EWE <i>Course is given upon agreement</i>	4	D	25	25	-	10	1	2		
4G1540 Laser Metrology Methods and Non Destructive Testing	4	C	28	22	-	4		2		
4G1541 Measurement Technology & Statistics f Manufact. Processes	4	D	30	-	-	8			3	
4G1634 Manufacturing Engineering, Basic Course	6	C	32	20	-	12	1	2		
4H1104 Diffusion and Phase Equilibria	6	D	18	18	-	42	1	2		
4H1113 Powder Metallurgy	4	D	18	18	-	12		2		
4H1202 Mechanical Metallurgy I	6	D	24	12	-	48			3	4
4H1203 Mechanical Metallurgy II	4,5	C	24	12	-	24			3	4
4H1255 Metal Forming Processes	6	C	18	18	-	-			3	4
4H1301 Material Design	4	D	-	2	-	10			3	4
4H1404 Corrosion and Surface Protection, General Course	4	C	16	12	-	12	1			
4H1405 Corrosion Science, Advanced Course	4	D	16	-	-	-			3	
4H1505 Structure and Properties of Ceramic Materials	4	B	12	-	-	18		2		
4H1609 Functional Materials	4	D	18	-	-	6		2		Study visit 8h
4H1610 Advanced Materials	4	C	18	-	-	6			3	Study visit 8h Seminars 18h
4H1611 Materials Optimisation and Design	5	C	18	18	-	12				4
4H1612 High Temperature Materials	7	D	18	12	-	6	1			Study visit 8h Seminars 10h Project assignment 100h
4H1702 Current Research Topics in Materials Chemistry	4	D	20	4	-	8				4
4H1703 Materials Chemistry	4	D	20	4	-	8				4
4H1802 Artificial Materials	4	D	20	4	-	6	1			
4H1803 Physics of Nanostructured Materials	4	D	20	4	-	6				4
4H1941 Electrochemical Material and Energy Processes	4	D	18	18	-	12				4
4H1942 Experimental Methods in Metallurgical Engineering	4	D	2	-	-	-			3	4
4H1945 Economical Process Analysis and Strategy	4	B	12	12	-	-				4
4H1946 Combustion in Industrial Processes	6	D	24	24	-	12				4
4H1948 Process Metallurgy II	4	C	24	24	-	-		2		
4K1107 Production of Electronics I	4	C	36	-	-	8			3	
4K1109 Principles for Product Integrated Manufacturing Systems Design	4	C	12	12	-	4	1			

4K1202 <u>Modelling and Interaction in CAD/CAM*</u> <i>Maximum of 20 participants. Students of "Computer Systems for Design and Manufacturing" will have priority.</i>	5	D	-	36	-	24	1			3 Programming tasks, periods 1, 2
4K1213 <u>Advanced CAD Modelling & Rapid Prototyping, Project Course</u> <i>Under bearbetning</i>	4	D	16	24	-	-		2	3	Project work
4K1601 <u>Wood Material Science, Basic Course</u>	5	C	50	18	-	24			3	4
4K1602 <u>Industrial Wood Processing, Basic Course</u>	4	C	26	16	-	16	1			
4M1051 <u>Project Assignment</u>	4	D	-	160	-	-	1	2		
4M1341 <u>Foundry Processing</u>	4	D	12	-	-	-			3	Seminarier 24h Other 28h
4M1342 <u>Space Systems and Technology</u>	4	D	36	-	-	-		2		
4M1343 <u>Materials Processing, Project Support</u>	4	D	72	48	-	40	1	2		
4M1344 <u>Metrology in Materials Processing</u>	4	D	16	-	-	80	1			Seminars 16h
4M1345 <u>Powder Processing and Materials Forming</u>	4	D	30	-	-	-			4	Home assignments 80h
4M1346 <u>Simulation and Modelling</u>	4	D	10	80	-	-	1	2		
4M1347 <u>Metal Forming</u>	4	D	8	28	-	-	1	2		
4M1370 <u>Solidification Processing</u>	4	D	36	24	-	-	1	2		
5A1332 <u>Advanced Quantum Mechanics, Course I</u> <i>Under bearbetning</i>	5	D	36	-	-	-	1	2		
5A1354 <u>Computational Physics</u> <i>Under bearbetning</i>	6	D	30	-	-	20	1			
5A1370 <u>Solid State Theory</u>	4	D	36	-	-	-	1			
5A1414 <u>Radiation Detectors and Medical Imaging Systems</u>	5	D	24	-	-	15			3	4
5A1416 <u>Radiation Sources for Therapy</u>	2	D	10	-	-	-			4	6 h Seminars, 20 h Study visit 6 h Seminars, 20 h Study visit
5A1502 <u>Quantum Electronics with Electro Optics</u> <i>Under bearbetning</i>	8	D	48	-	-	-		2		
5A1590 <u>Technical Photography</u>	5	D	20	-	-	36			3	4
5A1775 <u>Nuclear Reactor Physics, Major Course</u> <i>Under bearbetning</i>	6	D	36	-	-	24		2		
5A1777 <u>Reactor Physics, Minor Course</u> <i>Under bearbetning</i>	4	D	30	-	-	16		2		
5B1555 <u>Computer Intensive Methods in Mathematical Statistics</u>	5	D	-	-	48	-				4
5C1122 <u>Continuum Mechanics</u>	4	C	42	-	-	-	1			
5C1211 <u>Vehicle Aerodynamics</u>	4	C	16	-	-	4				4
7E1101 <u>Medical Engineering, Basic Course</u>	4	C	24	-	-	-	1			
7E1110 <u>Quality and Regulatory Aspects on Medical Devices</u>	2	D	20	-	-	-			3	4
7E1112 <u>Implants and Biomaterials*</u>	4	D	25	-	-	-			3	4
7E1113 <u>Medical Instrumentation and Signal Processing*</u>	4	D	30	-	-	6			3	4
7E1114 <u>Radiation Physics and Biology</u>	4	D	36	-	-	-				4

7E1115 Engineering in Intensive Care and Anesthesia*_ _	4	D	12	-	-	-			3	4	30 + 10h (field work with oral and written report)
7E1200 Cellular and Molecular Biology*_ _	10	C	67	-	-	18			3	4	3 h Seminars3 h Seminars
7E1202 Systems Biology*_ _	5	C	32	-	-	25		2			24 h Seminars24 h Seminars
9E1131 Information Searching for B, I, M, T _ <i>Also BD and P</i>	1	B	-	-	-	-		2			Three laborations on all together 9 hours. The course is given regularly throughout the year, see
9E1131 Information Searching for B, I, M, T _ <i>Also BD and P</i>	1	B	-	-	-	-			3		Three laborations on all together 9 hours. The course is given regularly throughout the year, see
9E1131 Information Searching for B, I, M, T _ <i>Also BD and P</i>	1	B	-	-	-	-				4	Three laborations on all together 9 hours. The course is given regularly throughout the year, see
9E1131 Information Searching for B, I, M, T _ <i>Also BD and P</i>	1	B	-	-	-	-	1				Three laborations on all together 9 hours. The course is given regularly throughout the year, see
9E1300 Technical English, Lower Intermediate Level*_ _	4	B	-	-	56	-	1	2			
9E1301 Technical English, Intermediate Level*_ _	6	B	-	-	56	-	1	2			
9E1304 Technical English, Advanced Level*_ _	6	C	-	-	56	-	1	2			
9E1304 Technical English, Advanced Level*_ _	6	C	-	-	56	-			3	4	
9E1320 German, Elementary Level*_ _	4	B	-	-	56	-	1	2			
9E1325 Technical German, Intermediate Level _	6	B	-	-	15	-	1	2			E-learning exercises appr. 75 % of the course. 15 classroom hours in the evening.
9E1326 Technical German, Advanced Level*_ _	6	C	-	-	56	-	1	2			
9E1326 Technical German, Advanced Level*_ _	6	C	-	-	56	-			3	4	
9E1330 French, Elementary Level*_ _	4	B	-	-	56	-	1	2			
9E1334 Technical French, Intermediate Level*_ _	6	B	-	-	56	-	1	2			
9E1342 Spanish, Elementary Level*_ _	4	B	-	-	56	-	1	2			
9E1350 Italian, Elementary Level*_ _	4	B	-	-	56	-	1	2			
9E1360 Communicative Swedish*_ _	4	B	-	-	56	-	1	2			

*The course has limited participation

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Materials Technology

Advanced Materials B4

Code Name	Credits	Level	Lec	Tut	Le	Lab	Periods				Other
							1	2	3	4	
Compulsory Courses											
4H1609 Functional Materials	4	D	18	-	-	6		2			Study visit 8h
4H1612 High Temperature Materials	7	D	18	12	-	6	1				Study visit 8h Seminars 10h Project assignment 100h
Elective Courses											
4H1404 Corrosion and Surface Protection, General Course	4	C	16	12	-	12	1				
4H1405 Corrosion Science, Advanced Course	4	D	16	-	-	-			3		
4H1505 Structure and Properties of Ceramic Materials	4	B	12	-	-	18		2			

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Materials Technology

Biomedical Engineering B4

Code Name	Credits	Level	Lec	Tut	Le	Lab	Periods				Other
							1	2	3	4	
Compulsory Courses											
7E1101 Medical Engineering, Basic Course	4	C	24	-	-	-	1				
7E1121 Medical Radiation Physics	1	C	6	-	-	-	1				
7E1202 Systems Biology* <u> </u>	5	C	32	-	-	25		2			24 h Seminars 24 h Seminars
Elective Courses											
2D1435 Mathematical Modelling of Biological Systems	6	D	26	-	-	20	1	2			

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Computer Systems for Design and Manufacturing B4

Code Name	Credits	Level	Lec	Tut	Le	Lab	Periods				Other
							1	2	3	4	
Compulsory Courses											
4F1630 Introduction to Machine Design	5	C	24	36	-	-	1	2			
4K1102 Manufacturing Automation I	4	C	18	26	-	12	1				
4K1202 Modelling and Interaction in CAD/CAM* Maximum of 20 participants. Students of "Computer Systems for Design and Manufacturing" will have priority.	5	D	-	36	-	24	1				3 Programming tasks, periods 1, 2
4K1203 Computer Systems for Design and Manufacturing, advanced course* Maximum of 20 participants. Students of "Computer Systems for Design and Manufacturing" will have priority.	12	D	-	68	-	60		2	3	4	4 Programming Projects, periods 2, 3, 4
Elective Courses											
4F1131 Microcomputers in Embedded Systems*	5	D	-	36	-	36		2			
4K1103 Manufacturing Automation II	6	C	26	34	-	17	1	2			

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Energy Technology B4

Code Name	Credits	Level	Lec	Tut	Le	Lab	Periods				Other
							1	2	3	4	
Compulsory Courses											
4A1605 Sustainable Power Generation	6	D	30	48	-	18	1	2			
4A1607 Sustainable Energy Utilisation	6	D	-	-	72	16	1	2			
4A1609 Applied Energy Technology - Project Course	6	D	12	-	-	-			3	4	Project 78h
Elective Courses											
2A1151 Energy and Fusion Research	4	D	26	12	-	-				4	
4A1140 Energy Systems and Models I <i>This course is not given the academic year 05/06.</i>	4	D	14	32	-	-					9 h Seminars Seminars 9 H 9 h Seminars
4A1610 Energy Management	4	D	50	-	-	-		2	3		
4A1611 Renewable Energy Technology	4	D	-	-	52	-	1				Study visit 8h
4A1613 Energy and Environment <i>Examinator: Björn Palm, Tel 790 7453</i>	4	D	50	-	-	-			3	4	Study visit 6h
4A1620 Combustion Theory	4	C	18	18	-	15	1	2			
4A1621 Modelling of Thermodynamic Systems	4	D	16	-	-	32	1	2	3	4	The course is given upon agreement
4A1622 Thermal Comfort and Indoor Climate	4	D	54	-	-	-			3	4	Study visits 6h
4A1623 Applied Refrigeration and Heat Pump Technology	4	D	24	24	-	16			3	4	
4A1624 Numerical Methods in Energy Technology <i>Under bearbetning</i>	4	D	24	12	-	12	1	2			
4A1625 Cooling of Electronics	4	D	-	-	48	-			3		
4A1626 Applied Heat and Power Technology	4	D	36	12	-	8			3	4	Project assignment 8h
4A1627 Applied Reactor Technology and Nuclear Power Safety	4	D	48	-	-	-			3	4	Study visits 12h
4A1628 Advanced Nuclear Reactor Engineering <i>Under bearbetning</i>	4	D	42	-	-	-				4	Study visits 18h
4A1629 Fluid Machinery	4	C	30	18	-	12	1				
4A1630 Thermal Fluid Machinery	4	D	36	12	-	12			3		
5C1215 Compressible Flow	5	D	-	-	52	9		2			

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Solid Mechanics B4

Code Name	Credits	Level	Lec	Tut	Le	Lab	Periods				Other
							1	2	3	4	
Compulsory Courses											
4C1122 <u>Applied solid mechanics</u>	6	D	28	16	14	24	1	2			
Conditionally Elective Courses											
4C1110 <u>Material Mechanics</u>	4	D	52	-	-	3	1				
4C1111 <u>Fracture Mechanics and Fatigue</u>	4	D	48	-	-	4				4	
4C1116 <u>Dynamic Problems in Solid Mechanics</u>	4	D	42	-	-	8			3	4	
Elective Courses											
3E1324 <u>Polymer Materials - Properties and Applications</u>	4	C	30	12	-	10				4	
3E1360 <u>Mechanical Properties of Polymers, Minor Course</u>	4	D	24	16	-	12	1				
4B1111 <u>Fundamentals of Noise and Vibration Control</u>	4	C	31	32	-	4	1				
4B1420 <u>Ground Vehicle Engineering, Basic Course*</u>	6	C	36	36	-	-	1	2			
4E1125 <u>Fibre Composites II, Analysis and Design</u>	4	D	2	-	-	6		2			
4F1540 <u>Tribology</u>	4	C	18	9	-	5				4	
4G1230 <u>Introductory Welding Technology</u>	4	C	24	18	-	12	1				
4H1202 <u>Mechanical Metallurgy I</u>	6	D	24	12	-	48			3	4	Home assignments
4H1203 <u>Mechanical Metallurgy II</u>	4,5	C	24	12	-	24			3	4	Home assignments
4H1505 <u>Structure and Properties of Ceramic Materials</u>	4	B	12	-	-	18		2			
5A1301 <u>Mathematical Methods in Physics, Course I</u> <i>Not given 05/06.</i>	4	C	26	28	-	-					
5C1122 <u>Continuum Mechanics</u>	4	C	42	-	-	-	1				
5C1123 <u>Mathematical Methods of Mechanics, General Course</u>	4	D	36	-	-	-		2			
5C1125 <u>Mathematical Methods of Mechanics, Intermediate Course</u>	2	D	-	-	-	-			3		
5C1214 <u>Fluid Mechanics</u>	5	C	-	30	30	3	1				
5C1902 <u>Advanced Dynamics of Complex Systems</u>	4	D	24	-	-	-	1				

*The course has limited participation

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Industrial Economics and Management B4

Code Name	Credits	Level	Lec	Tut	Le	Lab	Periods				Other
							1	2	3	4	
Compulsory Courses											
4D1035 <u>Advanced Industrial Economics and Management*</u>	12	D	68	72	-	16		2	3	4	Roll-play 16h
Conditionally Elective Courses											
4D1062 <u>Industrial Marketing</u> <i>Replaces 4D1065 Industrial Marketing and 4D1151 Marketing</i>	4	B	36	12	-	-			3		
4D1071 <u>Industrial Project Management, Basic Course</u>	4	B	40	8	-	-	1				
4F1630 <u>Introduction to Machine Design</u>	5	C	24	36	-	-	1	2			
4K1101 <u>Control Systems</u>	4	C	18	28	-	12				4	
4K1102 <u>Manufacturing Automation I</u>	4	C	18	26	-	12	1				
Elective Courses											
4D1062 <u>Industrial Marketing</u> <i>Replaces 4D1065 Industrial Marketing and 4D1151 Marketing</i>	4	B	36	12	-	-			3		
4D1152 <u>Industrial Marketing, Advanced Course</u>	4	C	36	-	-	-	1				12 h Seminars 12 h Seminars
4D1170 <u>Advanced Production and Product Development</u>	4	C	36	12	-	-		2			
4D1174 <u>Management and Analysis of Innovations and Technology</u>	4	C	38	-	-	-		2			10 h Seminars 10 h Seminars
4K1103 <u>Manufacturing Automation II</u>	6	C	26	34	-	17	1	2			

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Industrial Engineering B4

Code Name	Credits	Level	Lec	Tut	Le	Lab	Periods				Other
							1	2	3	4	
Compulsory Courses											
4G1146 Advanced Industrial Engineering* <i>Under bearbetning</i>	12	D	67	22	-	-	1	2			120 h Projektuppgift120 h Projektuppgift
Elective Courses											
4D1062 Industrial Marketing <i>Replaces 4D1065 Industrial Marketing and 4D1151 Marketing</i>	4	B	36	12	-	-			3		
4D1093 Psychology for Engineers	4	B	24	3	-	4		2			
4G1053 Materials Processing, Project Support <i>Under bearbetning</i>	4	D	72	48	-	40			3	4	Home assignments 48h
4G1170 Intelligent Machining, Advanced Course <i>Under bearbetning</i>	4	D	36	20	-	-		2	3	4	
4G1243 Advanced Welding Technology, Modulus 1 <i>Under bearbetning</i>	4	D	20	20	-	20			3		
4G1244 Advanced Welding Technology, Modulus 2 <i>Under bearbetning</i>	4	D	20	20	-	20			3		
4G1245 Advanced Welding Technology, Modulus 3 <i>Under bearbetning</i>	4	D	20	20	-	20				4	
4G1246 Enlarged Welding Technology for EWE <i>Course is given upon agreement</i>	4	D	25	25	-	10	1	2			
4G1540 Laser Metrology Methods and Non Destructive Testing	4	C	28	22	-	4		2			
4K1102 Manufacturing Automation I	4	C	18	26	-	12	1				

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Integratd Product Development B4

Code Name	Credits	Level	Lec	Tut	Le	Lab	Periods				Other
							1	2	3	4	
Compulsory Courses											
4F1760 Integrated Product Development, Advanced Course*_ <i>Under bearbetning</i>	20	D	-	180	-	-	1	2	3	4	
Conditionally Elective Courses											
4F1541 CAD 3D-modelling and Visualization for Personal Computers*_	4	C	8	36	-	-		2			
Elective Courses											
4F1131 Microcomputers in Embedded Systems*_	5	D	-	36	-	36		2			
4F1641 Environmentally Adapted Product Design <i>80% participation.</i>	4	C	-	-	42	-		2			
4F1642 Modelling and Computer Support in Mechanical Design <i>Under bearbetning</i>	4	C	24	36	-	-			3		

*The course has limited participation

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Sound and Vibrations B4

Code Name	Credits	Level	Lec	Tut	Le	Lab	Periods				Other
							1	2	3	4	
Compulsory Courses											
4B1127 Vibroacoustics	5	D	-	56	-	8	1	2			
4B1131 Experimental Structure Dynamics	5	D	-	58	-	12		2	3		
4B1136 Flow Acoustics	4	D	-	36	-	8			3		
4B1141 Sound and Vibration, Project Course	5	D	-	48	-	12			3	4	Study tour to industry 40h

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Lightweight Structures B4

Code Name	Credits	Level	Lec	Tut	Le	Lab	Periods				Other
							1	2	3	4	
Compulsory Courses											
4E1124 Fibre Composites I: materials and processes	4	D	40	-	-	8	1				
4E1125 Fibre Composites II, Analysis and Design	4	D	2	-	-	6		2			
4E1126 Structural Design and Optimisation	4	D	40	-	-	18			3		
4E1132 Lightweight Design* <i>Open only to students on the specialisation LKR.</i>	10	D	-	-	336	-	1	2	3	4	
4E1150 Biomechanics and Neuronics	4	D	34	-	-	8				4	
Elective Courses											
4B1304 Railway Systems and Rail Vehicles	6	C	-	-	60	9	1	2			Project assignment 9h
4B1420 Ground Vehicle Engineering, Basic Course*	6	C	36	36	-	-	1	2			
4F1630 Introduction to Machine Design	5	C	24	36	-	-	1	2			
9E1300 Technical English, Lower Intermediate Level*	4	B	-	-	56	-	1	2			
9E1301 Technical English, Intermediate Level*	6	B	-	-	56	-	1	2			
9E1304 Technical English, Advanced Level*	6	C	-	-	56	-	1	2			
9E1325 Technical German, Intermediate Level	6	B	-	-	15	-	1	2			E-learning exercises appr. 75 % of the course. 15 classroom hours in the evening.
9E1326 Technical German, Advanced Level*	6	C	-	-	56	-	1	2			
9E1334 Technical French, Intermediate Level*	6	B	-	-	56	-	1	2			
9E1348 Technical Spanish, Intermediate Level*	6	B	-	-	56	-			3	4	

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Machine Design B4

Code Name	Credits	Level	Lec	Tut	Le	Lab	Periods				Other
							1	2	3	4	
Compulsory Courses											
4F1630 <u>Introduction to Machine Design</u>	5	C	24	36	-	-	1	2			
4F1644 <u>Industrial Design*</u> <i>Under bearbetning</i>	4	C	24	36	-	-	1				
4F1660 <u>Advanced Machine Design*</u> <i>Under bearbetning</i>	12	D	4	114	-	-			3	4	
Elective Courses											
3E1360 <u>Mechanical Properties of Polymers, Minor Course</u>	4	D	24	16	-	12	1				
3E1361 <u>Polymer Processing, Minor Course</u>	4	D	24	8	-	18		2			
4C1122 <u>Applied solid mechanics</u>	6	D	28	16	14	24	1	2			
4F1131 <u>Microcomputers in Embedded Systems*</u>	5	D	-	36	-	36		2			
4F1131 <u>Microcomputers in Embedded Systems*</u> <i>Limited attendance: 25</i>	5	D	-	36	-	36			3		
4F1141 <u>Project Work in Mechatronics*</u> <i>Limited attendance due to limited number of available projects</i>	4	C	-	-	-	-	1	2	3	4	No scheduled hours
4F1541 <u>CAD 3D-modelling and Visualization for Personal Computers*</u>	4	C	8	36	-	-				4	
4F1641 <u>Environmentally Adapted Product Design</u> <i>80% participation.</i>	4	C	-	-	42	-		2			
4K1102 <u>Manufacturing Automation I</u>	4	C	18	26	-	12	1				

*The course has limited participation

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Materials Technology

Materials Science B4

Code Name	Credits	Level	Lec	Tut	Le	Lab	Periods				Other
							1	2	3	4	
Compulsory Courses											
4H1104 Diffusion and Phase Equilibria	6	D	18	18	-	42	1	2			
4H1113 Powder Metallurgy	4	D	18	18	-	12		2			
4H1301 Material Design	4	D	-	2	-	10			3	4	
4H1404 Corrosion and Surface Protection, General Course	4	C	16	12	-	12	1				
Conditionally Elective Courses											
4H1405 Corrosion Science, Advanced Course	4	D	16	-	-	-			3		
4H1505 Structure and Properties of Ceramic Materials	4	B	12	-	-	18		2			
4H1609 Functional Materials	4	D	18	-	-	6		2			Study visit 8h
4H1610 Advanced Materials	4	C	18	-	-	6			3		Study visit 8h Seminars 18h
4H1702 Current Research Topics in Materials Chemistry	4	D	20	4	-	8				4	
4H1703 Materials Chemistry	4	D	20	4	-	8				4	
4H1802 Artificial Materials	4	D	20	4	-	6	1				
5A1370 Solid State Theory	4	D	36	-	-	-	1				

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Materials Technology

Mechatronics B4

Code Name	Credits	Level	Lec	Tut	Le	Lab	Periods				Other
							1	2	3	4	
Compulsory Courses											
4F1132 <u>Microcomputers in Embedded Systems</u> <i>Under bearbetning</i>	5	D	-	36	-	36	1				
4F1142 <u>Motion control and Real-time implementation*</u> <i>Under bearbetning</i>	5	D	22	10	-	30	2				
4F1162 <u>Mechatronics, Advanced Course II*</u> <i>Under bearbetning</i>	15	D	-	116	-	80	2	3	4		

*The course has limited participation

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Materials Technology

Metallurgy and Processes of Manufacture B4

Code Name	Credits	Level	Lec	Tut	Le	Lab	Periods				Other
							1	2	3	4	
Compulsory Courses											
4H1923 Theory of High Temperature Processes <i>Under bearbetning</i>	6	D	24	24	-	8	1				
4H1924 Reactor and Process Technology <i>Under bearbetning</i>	6	D	24	24	-	16	1	2			Study visits 20h
4H1925 International Seminar in Material Processes <i>Under bearbetning</i>	4	D	2	-	-	-	1	2			120 h Projektuppgift120 h Projektuppgift
4H1926 Metallurgical Process Simulation <i>Under bearbetning</i>	6	D	2	-	-	-			3	4	Projektuppgift 240h
Elective Courses											
4H1203 Mechanical Metallurgy II	4,5	C	24	12	-	24			3	4	Home assignments
4H1943 Thermochemical Modelling of Metallurgical Processes	4	D	2	-	-	-		2			Projektuppgift 120h
4H1944 Energy and Environmental Issues within the Process Industry	4	C	24	24	-	-			3	4	
4H1945 Economical Process Analysis and Strategy	4	B	12	12	-	-				4	60 h Projektuppgift60 h Projektuppgift
4M1341 Foundry Processing	4	D	12	-	-	-			3		Seminarier 24h Other 28h
4M1370 Solidification Processing	4	D	36	24	-	-	1	2			

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Materials Technology

Environmental Management B4

Code Name	Credits	Level	Lec	Tut	Le	Lab	Periods				Other
							1	2	3	4	
Compulsory Courses											
3C1365 <u>Environmental Consequences, Advanced Course II</u>	4	D	15	15	-	40	1	2			Field exercises
3C1387 <u>Environmental Systems Analysis</u>	4	C	16	8	-	6		2			
3C1390 <u>Environmental Management, Larger Course</u>	8	D	36	3	-	24			3	4	Project work, field exercise
Elective Courses											
3C1350 <u>Waste Management, Advanced Course</u> <i>Study visit</i>	4	D	18	-	-	-				4	Project work 20h

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Paper Technology B4

Code Name	Credits	Level	Lec	Tut	Le	Lab	Periods				Other
							1	2	3	4	
Compulsory Courses											
2D1520 Graphic Arts Technology, Minor Course	4	C	24	8	-	16	2				
3D1113 Paper Physics	4	D	20	-	-	20	2				
3D1114 Paper Processes Technology	4	D	20	-	-	20			3		
3D1115 Pulp and Paper Processes	6	D	40	-	-	48	1	2			
3D1117 Paper Technology, project	4	D	-	-	-	-			3	4	Project work

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Polymer Materials B4

Code Name	Credits	Level	Lec	Tut	Le	Lab	Periods				Other
							1	2	3	4	
Compulsory Courses											
3E1360 Mechanical Properties of Polymers, Minor Course	4	D	24	16	-	12	1				
3E1361 Polymer Processing, Minor Course	4	D	24	8	-	18		2			
4E1124 Fibre Composites I: materials and processes	4	D	40	-	-	8	1				
Conditionally Elective Courses											
3E1354 Biopolymers	5	D	24	10	-	25			3		5h Study visit
3E1362 Polymer Physics, Intermediate Course	5	D	36	9	-	20			3		
3E1367 Mechanical Properties of Polymers, Intermediate Course	4	D	24	24	-	-			3		
3E1368 Polymer Processing, Intermediate Course	4	D	24	-	-	24				4	
3E1370 Polymers in Engineering Design	4	D	18	24	-	8				4	
4C1110 Material Mechanics	4	D	52	-	-	3	1				
Elective Courses											
3E1363 Coating Technology	4	D	30	-	-	24				4	

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Code Name	Credits	Level	Lec	Tut	Le	Lab	Periods				Other
							1	2	3	4	
Compulsory Courses											
2D1515 Machinery and Materials in Graphic Arts Technology	6	C	36	8	-	8		2			
2D1517 XML for Publishing	5	C	22	-	-	44	1	2			
2D1518 Audio, Video and Multimedia Production*	5	C	30	-	-	40		2	3		8 h Study visit8 h Study visit
2D1524 Image Processing and Reprographic Methods* <i>Limited number of participants</i>	6	C	26	16	-	12	1				
2D1527 Publishing Technology, Advanced Course <i>Open only to students of the specialization Publishing Technology.</i>	10	D	60	8	-	8			3	4	
Elective Courses											
2D1334 Database Technology	4	C	24	20	-	12			3		

*The course has limited participation

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Materials Technology

Materials Processing B4

Code Name	Credits	Level	Lec	Tut	Le	Lab	Periods				Other
							1	2	3	4	
Compulsory Courses											
4G1051 <u>Project Assignment, Materials Processing</u> <i>Under bearbetning</i>	4	D	-	160	-	-			3	4	160 h Projektuppgift160 h Projektuppgift
4G1053 <u>Materials Processing, Project Support</u> <i>Under bearbetning</i>	4	D	72	48	-	40			3	4	Home assignments 48h
Conditionally Elective Courses											
4G1170 <u>Intelligent Machining, Advanced Course</u> <i>Under bearbetning</i>	4	D	36	20	-	-		2	3	4	
4G1230 <u>Introductory Welding Technology</u>	4	C	24	18	-	12	1				
4G1570 <u>Metrology & Quality for the Manufacturing Industry</u> <i>Under bearbetning</i>	4	D	36	24	-	-		2	3		
4G1670 <u>Materials Forming</u> <i>Under bearbetning</i>	4	D	18	12	-	18		2	3		
4M1346 <u>Simulation and Modelling</u>	4	D	10	80	-	-	1	2			
4M1370 <u>Solidification Processing</u>	4	D	36	24	-	-	1	2			
Elective Courses											
4C1110 <u>Material Mechanics</u>	4	D	52	-	-	3	1				
4F1630 <u>Introduction to Machine Design</u>	5	C	24	36	-	-	1	2			
4G1243 <u>Advanced Welding Technology, Modulus 1</u> <i>Under bearbetning</i>	4	D	20	20	-	20			3		
4G1244 <u>Advanced Welding Technology, Modulus 2</u> <i>Under bearbetning</i>	4	D	20	20	-	20			3		
4G1245 <u>Advanced Welding Technology, Modulus 3</u> <i>Under bearbetning</i>	4	D	20	20	-	20				4	
4G1246 <u>Enlarged Welding Technology for EWE</u> <i>Course is given upon agreement</i>	4	D	25	25	-	10	1	2			
4G1541 <u>Measurement Technology & Statistics f Manufact. Processes</u>	4	D	30	-	-	8			3		
4M1341 <u>Foundry Processing</u>	4	D	12	-	-	-			3		Seminarier 24h Other 28h

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Assembly Systems B4

Code Name	Credits	Level	Lec	Tut	Le	Lab	Periods				Other
							1	2	3	4	
Compulsory Courses											
4F1531 Machine Elements, basic course for I and T	4	B	24	40	-	-	1				
4K1102 Manufacturing Automation I	4	C	18	26	-	12	1				
4K1104 Manufacturing Systems, advanced course* <i>Under bearbetning</i>	12	D	50	48	-	28		2	3	4	
4K1109 Principles for Product Integrated Manufacturing Systems Design	4	C	12	12	-	4	1				

*The course has limited participation

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Wood Technology B4

Code Name	Credits	Level	Lec	Tut	Le	Lab	Periods				Other
							1	2	3	4	
Compulsory Courses											
4K1602 <u>Industrial Wood Processing, Basic Course</u>	4	C	26	16	-	16	1				
4K1603 <u>Wood Technology, Advanced Course*</u>	10	D	48	24	-	36		2	3	4	
Elective Courses											
4D1062 <u>Industrial Marketing</u> <i>Replaces 4D1065 Industrial Marketing and 4D1151 Marketing</i>	4	B	36	12	-	-			3		
4K1102 <u>Manufacturing Automation I</u>	4	C	18	26	-	12	1				

*The course has limited participation

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Media Technology

Media Technology MEDIA1

Code Name	Credits	Level	Lec	Tut	Le	Lab	Periods				Other
							1	2	3	4	
Compulsory Courses											
2D1310 <u>Programming Technique</u>	4	A	20	12	-	24		2	3		
2D1571 <u>Introduction to Media Technology</u>	4	A	42	12	10	-	1				
2D1575 <u>Media Technology Programme Summary Course</u> <i>The course is given with 1 credit point for each year in the years 1 – 4.</i>	4	A	10	-	-	-		2	3	4	
2D1606 <u>Communication, information and expression</u>	6	AB	40	-	-	-		2	3		30 h Seminars 30 h Seminars
4F1224 <u>Electrical Engineering, Basic Course Media</u>	4	A	12	21	-	13				4	
5A1230 <u>Waves</u> <i>Under bearbetning</i>	4	B	28	14	-	15			3		
5B1115 <u>Mathematics I</u>	6	A	60	30	-	-	1				
5B1116 <u>Mathematics II</u>	6	A	60	30	-	-		2			
5B1118 <u>Discrete Mathematics</u>	5	A	50	25	-	-				4	
Elective Courses											
5B1120 <u>Introductory Course in Mathematics I</u>	1	A	-	-	-	-					

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Media Technology

Media Technology MEDIA2

Code Name	Credits	Level	Lec	Tut	Le	Lab	Periods				Other
							1	2	3	4	
Compulsory Courses											
1A1996 <u>Communicative Spaces*</u> <i>Under bearbetning</i>	0		-	-	-	-	1	2			160 h Workshop160 h Workshop
2D1320 <u>Applied Computer Science</u>	4	A	28	14	-	20	1	2			
2D1334 <u>Database Technology</u>	4	C	24	20	-	12			3		
2D1574 <u>Media Technology, Basic Course</u>	12	A	64	6	-	38	1	2			Field trips 12h
2D1575 <u>Media Technology Programme Summary Course</u> <i>The course is given with 1 credit point for each year in the years 1 – 4.</i>	4	A	10	-	-	-	1	2	3	4	
2G1316 <u>Datacommunication and Computer Networks</u> <i>Given at Campus Valhallavägen</i>	4	A	24	18	-	12			3		
4D1200 <u>Industrial Economics for Media Technology, Basic Course</u>	4	A	26	16	-	-				4	4 h SeminarsSeminars 4h 4 h Seminars
5B1501 <u>Probability Theory and Statistics</u>	4	A	24	36	-	-				4	

*The course has limited participation

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Media Technology

Media Technology MEDIA3

Code Name	Credits	Level	Lec	Tut	Le	Lab	Periods				Other
							1	2	3	4	
Compulsory Courses											
2D1575 Media Technology Programme Summary Course <i>The course is given with 1 credit point for each year in the years 1 – 4.</i>	4	A	10	-	-	-	1	2	3	4	
2D1620 Human-Computer Interaction, Introductory Course	4	C	20	10	-	2	1				
3C1330 Technology and Ecosystems	4	B	24	3	-	-		2			
4D1215 Media from Technology to Culture	4	B	20	-	-	-	1				Seminars 16h
Conditionally Elective Courses											
2F1111 Speech Technology	4	D	36	14	-	6			3		
Elective Courses											
2D1220 Applied Numerical Methods I	4	C	36	-	-	18			3	4	
2D1250 Applied Numerical Methods II	6	C	60	-	-	36			3	4	
2D1257 Visualization	4	C	16	-	-	14			3		
2D1373 Artificial Languages and Syntax Analysis	4	C	24	-	-	16			3		
2D1408 Evaluation Methods in Human-Computer Interaction*	4	D	10	14	-	-			3	4	
2D1413 Advanced Graphics and Interaction	6	D	46	-	-	12	1	2			
2D1416 Computer Support for Cooperative Work	6	D	30	-	-	15			3	4	
2D1418 Language Engineering	4	D	40	-	-	12	1				
2D1421 Image Analysis and Computer Vision	5	D	36	4	-	8			3		
2D1425 Computer Vision, Advanced Course	5	D	46	6	-	12				4	
2D1471 Modern Database Systems and Their Applications	5	D	26	8	-	-				4	
2D1482 Programming of Web Server Applications*	4	D	16	-	-	30			3		
2D1490 IP Routing in Simple Computer Networks*	5	D	32	8	-	32			3		
2D1491 IP Routing in Internet and Other Complex Networks*	5	D	24	8	-	32				4	

2D1493 Seminars on Grid Computing and Internetworking <i>The course is given every second year. Not given 05/06.</i>	4	D	24	-	-	16					
2D1523 Digital Video Production*	5	B	22	6	-	24			3		
2D1573 Telepresence Production	4	C	20	-	10	-			3	4	
2D1590 Media Perception	4	C	20	-	-	24			3		
2D1591 Production Techniques for Moving Images	6	C	40	16	-	16				4	
2D1640 Graphics and Interaction Programming	6	C	36	14	-	42			3	4	
2E1215 Introductory Matlab Course	1	A	4	-	-	-			3		8 h Computer8 h Computer
2E1313 Signals and Systems, part II	5	C	30	24	-	4				4	10 h Computer10 h Computer
2E1423 Signal Theory	5	C	24	24	-	10			3		
2F1112 Speech Technology, Extended Course	5	D	36	14	-	6			3		
2F1212 Music Acoustics	4	D	-	-	48	8				4	
2F1213 Musical Communication and Music Technology	5	D	28	8	-	12				4	Project assignment 30h
2G1529 Network Programming with Java <i>The course replaces 2G1118 The course is given in Campus Valhallavägen in period 4</i>	5	D	22	10	-	10				4	
2I1803 Internet Programming III <i>Replaces 2I1266 from VT04</i>	5	D	6	-	-	160			3		
3C1355 Ecology, Advanced Course	4	C	21	4	-	-			3	4	
5B1209 Signals and Systems, part I	5	A	30	-	24	-		2			
5B1303 Analysis, Basic Course	6	C	-	-	66	-			3	4	
5B1306 Financial Mathematics, Basic Course	5	A	-	-	54	-				4	

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Media Technology MEDIA4

Code Name	Credits	Level	Lec	Tut	Le	Lab	Periods				Other
							1	2	3	4	
Compulsory Courses											
2D1575 Media Technology Programme Summary Course <i>The course is given with 1 credit point for each year in the years 1 – 4.</i>	4	A	10	-	-	-	1	2	3	4	1 h Other
2D1576 Media Management	6	C	60	30	-	-			3	4	
2D1577 Content and Expression in Media	6	D	40	25	-	-			3	4	
Conditionally Elective Courses											
2F1111 Speech Technology	4	D	36	14	-	6			3		
2F1212 Music Acoustics	4	D	-	-	48	8				4	
3C1330 Technology and Ecosystems	4	B	24	3	-	-		2			
Elective Courses											
2D1410 User Centered Program Development	6	D	26	-	-	22			3	4	
2D1413 Advanced Graphics and Interaction	6	D	46	-	-	12	1	2			
2D1418 Language Engineering	4	D	40	-	-	12	1				
2D1592 Processing of Moving Pictures	6	D	40	-	-	20	1				
2D1593 Display and Projection Technology	4	C	20	-	-	10		2			
2E1215 Introductory Matlab Course	1	A	4	-	-	-			3		8 h Computer8 h Computer
2E1313 Signals and Systems, part II	5	C	-	-	60	-		2			
2F1120 Spectral Transforms in Media Engineering	4	C	30	10	-	12		2			
5B1209 Signals and Systems, part I	5	A	30	-	24	-		2			

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Interactive Media Technology MEDIA3

Code Name	Credits	Level	Lec	Tut	Le	Lab	Periods				Other	
							1	2	3	4		
Conditionally Elective Courses												
2D1323 Computer Graphics and Interaction <i>Allowed for all programmes except D.</i>	4	C	42	-	-	12				4		
2D1385 Software Engineering	4	C	24	12	-	18				4		
2D1573 Telepresence Production	4	C	20	-	10	-			3	4		

Interactive Media Technology MEDIA4

Code Name	Credits	Level	Lec	Tut	Le	Lab	Periods				Other
							1	2	3	4	
Conditionally Elective Courses											
2D1390 Internet Programming	4	C	28	-	-	26		2			
2D1651 Computer Game Design with Advanced Graphics* <i>Limited number of participants.</i>	6	D	48	6	-	10	1	2			

*The course has limited participation

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Media Technology

Information System Management MEDIA3

Code Name	Credits	Level	Lec	Tut	Le	Lab	Periods				Other
							1	2	3	4	
Conditionally Elective Courses											
<u>2I1190 Organisations, IT-Systems and Management</u> <i>Under bearbetning</i>	7	C	36	-	14	9			3	4	Seminars 6h
<u>2I1191 IT-Platform: Strategy, Architecture and Design</u> <i>Under bearbetning</i>	5	C	30	-	-	-				4	Seminars 6h
<u>2I1197 Systems Theory</u> <i>Under bearbetning</i>	3	C	21	-	3	3			3		
<u>2I1198 IT-Management</u> <i>Under bearbetning</i>	5	C	27	-	7	-				4	Seminars 8 hours

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Journalism MEDIA3

Code Name	Credits	Level	Lec	Tut	Le	Lab	Periods				Other	
							1	2	3	4		
Conditionally Elective Courses												
7G1101 Specialisation Course in Journalism, Part 1 <i>Under bearbetning</i>	6	C	-	-	-	-			3			
7G1102 Specialisation Course in Journalism, Part 2 <i>Under bearbetning</i>	4	C	-	-	-	-				4		

Journalism MEDIA4

Code Name	Credits	Level	Lec	Tut	Le	Lab	Periods				Other	
							1	2	3	4		
Conditionally Elective Courses												
7G1103 Specialisation Course in Journalism, Part 3 <i>Under bearbetning</i>	5	D	-	-	-	-	1					
7G1104 Specialisation Course in Journalism, Part 4 <i>Under bearbetning</i>	5	D	-	-	-	-		2				

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Communication Systems MEDIA3

Code Name	Credits	Level	Lec	Tut	Le	Lab	Periods				Other	
							1	2	3	4		
Conditionally Elective Courses												
2G1305 Internetworking <i>Given at Campus Valhallavägen</i>	4	C	20	18	-	10	1					Assignments

Communication Systems MEDIA4

Code Name	Credits	Level	Lec	Tut	Le	Lab	Periods				Other
							1	2	3	4	
Conditionally Elective Courses											
2G1305 Internetworking <i>Given at Campus Valhallavägen</i>	4	C	20	18	-	10	1				Assignments
2G1318 Queuing Theory and Teletraffic Systems <i>The course has changed number to 2E1618 Under bearbetning</i>	4	D	24	24	-	-		2			
2G1322 Communication System Design <i>Under bearbetning</i>	16	D	-	-	-	-			3	4	Project plan P3 Project report P3 and P4
2G1520 Operating Systems <i>Given in Kista</i>	5	C	28	10	-	-		2			
2G1524 Distributed Artificial Intelligence and Intelligent Agents <i>The course is not elective if the student has already taken 2I1235</i>	5	D	24	10	-	-		2			

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Audio Technology MEDIA3

Code Name	Credits	Level	Lec	Tut	Le	Lab	Periods				Other
							1	2	3	4	
Compulsory Courses											
2F1120 Spectral Transforms in Media Engineering	4	C	30	10	-	12		2			

Audio Technology MEDIA4

Code Name	Credits	Level	Lec	Tut	Le	Lab	Periods				Other
							1	2	3	4	
Conditionally Elective Courses											
2E1390 Sound Perception <i>Replaces 2F1300.</i>	5	D	24	12	-	4	1				20 h Projektuppgift20 h Projektuppgift
2F1112 Speech Technology, Extended Course	5	D	36	14	-	6			3		
2F1213 Musical Communication and Music Technology	5	D	28	8	-	12				4	Project assignment 30h
2F1410 Audio Technology	5	D	30	12	-	12		2			20 h Projektuppgift20 h Projektuppgift

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Man-Machine Interaction MEDIA3

Code Name	Credits	Level	Lec	Tut	Le	Lab	Periods				Other
							1	2	3	4	
Conditionally Elective Courses											
2D1385 Software Engineering	4	C	24	12	-	18				4	
2D1410 User Centered Program Development	6	D	26	-	-	22			3	4	
2D1622 Human-Computer Interaction, Advanced Course	4	C	18	5	-	8		2			
2D1640 Graphics and Interaction Programming	6	C	36	14	-	42			3	4	

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Media Technology

Video and Film Production MEDIA3

Code Name	Credits	Level	Lec	Tut	Le	Lab	Periods				Other
							1	2	3	4	
Compulsory Courses											
2F1120 Spectral Transforms in Media Engineering	4	C	30	10	-	12		2			
Conditionally Elective Courses											
2D1590 Media Perception	4	C	20	-	-	24			3		
2D1591 Production Techniques for Moving Images	6	C	40	16	-	16				4	

Video and Film Production MEDIA4

Code Name	Credits	Level	Lec	Tut	Le	Lab	Periods				Other
							1	2	3	4	
Conditionally Elective Courses											
2D1592 Processing of Moving Pictures	6	D	40	-	-	20	1				
2D1593 Display and Projection Technology	4	C	20	-	-	10		2			

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Media Technology

Printed communication MEDIA4

Code Name	Credits	Level	Lec	Tut	Le	Lab	Periods				Other
							1	2	3	4	
Conditionally Elective Courses											
2D1515 Machinery and Materials in Graphic Arts Technology	6	C	36	8	-	8		2			
2D1517 XML for Publishing	5	C	22	-	-	44	1	2			
2D1524 Image Processing and Reprographic Methods* <i>Limited number of participants</i>	6	C	26	16	-	12	1				
4D1071 Industrial Project Management, Basic Course	4	B	40	8	-	-	1				
Elective Courses											
2D1527 Publishing Technology, Advanced Course <i>Open only to students of the specialization Publishing Technology.</i>	10	D	60	8	-	8			3	4	

*The course has limited participation

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Microelectronics

Microelectronics ME1

Code Name	Credits	Level	Lec	Tut	Le	Lab	Periods				Other
							1	2	3	4	
Compulsory Courses											
2B1111 <u>Applied Physics, Thermodynamics and Waves</u> <i>Under bearbetning</i>	6	B	42	28	-	16			3	4	
2B1112 <u>Project Course in Microelectronics</u> <i>Under bearbetning</i>	5	B	12	-	-	50				4	
2B1115 <u>Engineering Fundamentals</u>	4	A	28	34	-	12	1				
2I1035 <u>Computer Science, Basic Course</u>	4	B	14	50	24	-		2			
5B1115 <u>Mathematics I</u>	6	A	60	30	-	-	1	2			
5B1116 <u>Mathematics II</u>	6	A	60	30	-	-		2	3		
5B1117 <u>Mathematics III</u>	6	A	60	30	-	-			3	4	
5C1106 <u>Applied Physics, Mechanics</u>	4	A	30	15	-	-		2	3		
Recommended Courses											
9E1362 <u>Spoken and Written Swedish*</u>	4	B	-	-	42	-		2	3		
Elective Courses											
5B1120 <u>Introductory Course in Mathematics I</u>	1	A	-	-	-	-					

*The course has limited participation

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Microelectronics

Microelectronics ME2

Code Name	Credits	Level	Lec	Tut	Le	Lab	Periods				Other
							1	2	3	4	
Compulsory Courses											
2A1850 <u>Electromagnetic Theory ME</u>	6	C	52	52	-	-	1	2			
2B1121 <u>Quantum Mechanics I</u> <i>Under bearbetning</i>	5	C	30	24	-	-			3		
2B1252 <u>Semiconductor Devices</u>	6	C	32	10	-	12				4	
2B1553 <u>Analog Electronics</u>	5	B	32	32	-	8		2			
2D1213 <u>Numerical Methods for the Microelectronics Program</u>	4	B	22	22	-	24		2	3	4	
3B1810 <u>The Concepts of Chemistry</u>	4	B	-	-	-	-				4	
5B1215 <u>Mathematical Methods</u>	12	C	120	-	-	-	1	2	3		

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Microelectronics

Microelectronics ME3

Code Name	Credits	Level	Lec	Tut	Le	Lab	Periods				Other
							1	2	3	4	
Compulsory Courses											
2B1380 Optics, General Course	4	D	26	14	-	25	1				
2B1710 Condensed Matter Physics	6	D	38	22	-	16			3	4	
2E1313 Signals and Systems, part II	5	C	-	-	60	-		2			
5B1506 Mathematical Statistics, Basic Course	6	A	36	48	-	-	1	2			
6B2911 Digital Design	5	A	24	22	-	20			3		
Elective Courses											
2B1140 Frontiers of Microelectronics and Information Technology <i>Offered twice a year, either fall or spring.</i>	4	D	20	-	-	-	1	2	3	4	
2B1381 Optics, Extended Course <i>The course can only be studied as a supplement to 2B1380.</i>	2	D	12	6	-	10	1				
9E1140 Information Searching for D, E	1	B	-	-	-	-	1				Three laborations on all together 9 hours. The course is given regularly throughout the academic year. Please refer to
9E1140 Information Searching for D, E	1	B	-	-	-	-		2			Three laborations on all together 9 hours. The course is given regularly throughout the academic year. Please refer to
9E1140 Information Searching for D, E	1	B	-	-	-	-			3		Three laborations on all together 9 hours. The course is given regularly throughout the academic year. Please refer to
9E1140 Information Searching for D, E	1	B	-	-	-	-				4	Three laborations on all together 9 hours. The course is given regularly throughout the academic year. Please refer to

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Microelectronics ME4

Code Name	Credits	Level	Lec	Tut	Le	Lab	Periods				Other
							1	2	3	4	
Elective Courses											
2B1140 Frontiers of Microelectronics and Information Technology <i>Offered twice a year, either fall or spring.</i>	4	D	20	-	-	-	1	2	3	4	
2B1381 Optics, Extended Course <i>The course can only be studied as a supplement to 2B1380.</i>	2	D	12	6	-	10	1				
9E1140 Information Searching for D, E	1	B	-	-	-	-	1				Three laborations on all together 9 hours. The course is given regularly throughout the academic year. Please refer to
9E1140 Information Searching for D, E	1	B	-	-	-	-		2			Three laborations on all together 9 hours. The course is given regularly throughout the academic year. Please refer to
9E1140 Information Searching for D, E	1	B	-	-	-	-			3		Three laborations on all together 9 hours. The course is given regularly throughout the academic year. Please refer to
9E1140 Information Searching for D, E	1	B	-	-	-	-				4	Three laborations on all together 9 hours. The course is given regularly throughout the academic year. Please refer to

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ME3

Code Name	Credits	Level	Lec	Tut	Le	Lab	Periods				Other
							1	2	3	4	
Compulsory Courses											
7E1200 Cellular and Molecular Biology*_	10	C	67	-	-	18			3	4	3 h Seminars3 h Seminars
Conditionally Elective Courses											
2B1248 Simulation of Semiconductor Devices_	5	D	24	-	-	32		2			
2B1310 Microwave Engineering_	5	C	36	18	-	10		2			

*The course has limited participation

ME4

Code Name	Credits	Level	Lec	Tut	Le	Lab	Periods				Other
							1	2	3	4	
Conditionally Elective Courses											
2A1140 Accelerator and Radiation Technology	4	D	36	-	-	-			3		8 h Study visit8 h Study visit
2B1242 Design and Characterisation of Nano- and Microdevices	5	D	24	-	-	16			3		
2B1248 Simulation of Semiconductor Devices	5	D	24	-	-	32		2			
2E1126 Measurement Systems, Project Course	4	C	6	-	-	50			3		
2E1135 Microsystem Technology*_ 	5	D	28	-	-	40				4	Industry Site Visit 4h
5A1414 Radiation Detectors and Medical Imaging Systems	5	D	24	-	-	15			3	4	6 h Seminars, 20 h Study visit6 h Seminars, 20 h Study visit
7E1101 Medical Engineering, Basic Course	4	C	24	-	-	-	1				
7E1112 Implants and Biomaterials*_ 	4	D	25	-	-	-			3	4	
7E1113 Medical Instrumentation and Signal Processing*_ 	4	D	30	-	-	6			3	4	
7E1114 Radiation Physics and Biology	4	D	36	-	-	-				4	
7E1115 Engineering in Intensive Care and Anesthesia*_ 	4	D	12	-	-	-			3	4	30 + 10h (field work with oral and written report)
7E1121 Medical Radiation Physics	1	C	6	-	-	-	1				
7E1202 Systems Biology*_ 	5	C	32	-	-	25		2			24 h Seminars24 h Seminars

*The course has limited participation

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ME3

Code Name	Credits	Level	Lec	Tut	Le	Lab	Periods				Other
							1	2	3	4	
Conditionally Elective Courses											
2B1248 <u>Simulation of Semiconductor Devices</u>	5	D	24	-	-	32		2			
2B1270 <u>Statistical Physics</u> <i>Under bearbetning</i>	5	D	30	18	-	-				4	
2B1310 <u>Microwave Engineering</u>	5	C	36	18	-	10		2			
2B1515 <u>Analog Electronics, Advanced Course</u>	5	C	30	14	-	20			3		Project work
2E1423 <u>Signal Theory</u>	5	C	24	24	-	10			3		
2G1518 <u>Computer Hardware Engineering</u>	5	B	20	20	-	12				4	

ME4

Code Name	Credits	Level	Lec	Tut	Le	Lab	Periods				Other
							1	2	3	4	
Conditionally Elective Courses											
2B1221 <u>Methods and Instruments of Analysis</u>	5	D	-	-	28	16		2			
2B1230 <u>Power Semiconductor Devices</u>	5	D	40	-	-	-			3		Project 40h
2B1234 <u>Nanoelectronics</u>	6	D	30	10	-	8			3	4	
2B1242 <u>Design and Characterisation of Nano- and Microdevices</u>	5	D	24	-	-	16			3		
2B1245 <u>Advanced VLSI-Devices</u>	5	D	20	-	-	32				4	
2B1423 <u>ASIC-design Methodology with High-level Languages</u>	5	D	20	4	-	16				4	Project 12 hours
2B1428 <u>Design of Digital Integrated Circuits - VLSI</u>	5	D	21	8	-	16			3	4	
2B1430 <u>Design of Digital Integrated Circuits - LSI</u>	5	C	20	8	-	16				4	Project 16h The course is given in Campus. (Valhallavägen)
2B1435 <u>DSP-Construction with HDL</u>	5	D	24	12	-	24			3		
2B1446 <u>Embedded Systems</u> <i>The course replaces 2B1445 The course is given in Kista</i>	5	C	24	6	-	16	1				
2B1448 <u>System-On-Chip Architectures</u> <i>The course replaces 2B1447 The course is given in Kista</i>	5	D	24	6	-	12		2			

2B1463 Embedded Software <i>The course is given in Kista</i>	5	D	20	6	-	12		3		
2B1513 Digital Design with HDL	5	D	20	4	-	40	1			
2B1600 Radio Electronics	5	D	26	12	-	16			4	
2B1611 Low Power Analog and Mixed Signal IC's	5	D	-	14	42	-			4	
2B1700 Advanced Semiconductor Materials	5	D	34	-	-	16		3		
2E1511 Radio Communication, Basic Course	4	D	24	24	-	8	1			
2G1510 Computer Architecture Fundamentals, Intermediate Course <i>Under bearbetning</i>	5	C	14	12	-	4		2		Seminar 4h
2G1511 Computer Architecture	6	D	42	-	-	12		3	4	Individual project guidance: 2-5 h/ student Home study time: 180 h

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							1	2	3	4	
Conditionally Elective Courses											
2B1310 Microwave Engineering	5	C	36	18	-	10		2			
2B1322 Fiber Optical Communication	5	D	28	14	-	8			3		
2B1325 Photonics	5	D	38	-	-	8				4	
2B1822 Quantum Electronics	5	D	24	16	-	-		2			

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Code Name	Credits	Level	Lec	Tut	Le	Lab	Periods				Other
							1	2	3	4	
Conditionally Elective Courses											
2B1248 <u>Simulation of Semiconductor Devices</u>	5	D	24	-	-	32		2			
2B1381 <u>Optics, Extended Course</u> <i>The course can only be studied as a supplement to 2B1380.</i>	2	D	12	6	-	10	1				
2B1382 <u>Optics, Continuation Course</u> <i>Under bearbetning</i>	4	D	24	8	-	-				4	
2B1700 <u>Advanced Semiconductor Materials</u>	5	D	34	-	-	16			3		
2B1824 <u>Optical Networking</u>	5	D	28	-	-	-				4	
2E1423 <u>Signal Theory</u>	5	C	24	24	-	10			3		
2E1511 <u>Radio Communication, Basic Course</u>	4	D	24	24	-	8	1				
5A1491 <u>Femtochemistry</u> <i>Under bearbetning</i>	5	D	36	-	-	-			3		
5A1510 <u>Optical Measurement Techniques</u> <i>Under bearbetning</i>	4	D	36	-	-	-			3	4	One individual task. Study visits.
5A1520 <u>Problem Solving in Optics</u> <i>Under bearbetning</i>	4	D	-	-	-	-	1	2	3	4	
5A1523 <u>Optical Systems Design</u> <i>Under bearbetning</i>	4	D	12	-	-	5				4	10 h Projektuppgift10 h Projektuppgift
5A1800 <u>Laser Physics I</u> <i>Under bearbetning</i>	4	D	24	12	-	-				4	
5A1802 <u>Laser Physics II</u> <i>Not given 05/06. Given if there are enough interest. Please contact course administrator. Under bearbetning</i>	4	D	36	-	-	-					

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							1	2	3	4	
Compulsory Courses											
2B1270 Statistical Physics <i>Under bearbetning</i>	5	D	30	18	-	-				4	
Conditionally Elective Courses											
2B1822 Quantum Electronics	5	D	24	16	-	-		2			
2D1220 Applied Numerical Methods I	4	C	36	-	-	18			3	4	
5A1326 Relativity	4	C	28	20	-	-			3		

ME4

Code Name	Credits	Level	Lec	Tut	Le	Lab	Periods				Other
							1	2	3	4	
Conditionally Elective Courses											
2B1234 <u>Nanoelectronics</u>	6	D	30	10	-	8			3	4	
2B1263 <u>Surface Physics, Basic Course</u>	4	D	36	-	-	-		2			
2B1750 <u>Smart Electronic Materials</u> <i>Under bearbetning</i>	4	C	18	10	-	8	1				
2B1760 <u>Experimental Methods in Material Physics</u> <i>Under bearbetning</i>	5	C	26	22	-	30		2	3		
2B1771 <u>Superconductivity and Applications</u>	4	D	28	-	-	-		2			
3E1600 <u>Polymer Physics</u>	4,5	C	21	9	-	16				4	
4H1711 <u>Nanomaterials and Nanotechnology</u>	4	D	20	-	12	-	1				
5A1335 <u>Symmetries in Physics</u> <i>Under bearbetning</i>	4	D	30	-	-	-	1	2			
5A1376 <u>Strongly Correlated Systems</u> <i>Under bearbetning</i>	4	D	24	-	-	-			3		
5A1378 <u>Mesoscopic Physics</u>	4	D	36	-	-	8		2			
5A1379 <u>Spin Electronics</u> <i>Under bearbetning</i>	4	D	24	-	-	4				4	
5A1456 <u>Atomic and Molecular Physics</u>	4	D	24	-	-	-	1				

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Civil Engineering and Urban Management

Civil Engineering and Urban Management S1

Code Name	Credits	Level	Lec	Tut	Le	Lab	Periods				Other
							1	2	3	4	
Compulsory Courses											
1U1015 Introduction to the Planning and Building Process	8	A	60	50	-	-	1	2			study-visits, seminars, debates
2D1311 Programming Technique with PBL	4	A	26	12	-	21			3	4	Tutorials 6h
5A1216 Physical Principles and Processes	8	A	48	40	-	-			3	4	Project-tutorials 40h
5B1130 Mathematical Methods I	8	B	24	-	96	-	1	2	3		Tutor-supervised exercises 120h
5B1131 Mathematical Methods II	8	B	24	-	96	-			3	4	Tutor-supervised exercises 120h
5B1134 Mathematics and Models	4	A	12	-	48	-	1				Tutor-supervised exercises 60h
Recommended Courses											
1U1012 Introduction to Civil Engineering and Urban Management	1	A	9	-	15	-					Project 8h, study-visit 1d

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Civil Engineering and Urban Management

Civil Engineering and Urban Management S2

Code Name	Credits	Level	Lec	Tut	Le	Lab	Periods				Other	
							1	2	3	4		
Compulsory Courses												
1L1026 Buildings and Civil Engineering Structures	5	B	33	18	-	-				4	Workshop 18h, Study-visit 6h	
1M1201 Natural Resources Theory <i>Under bearbetning</i>	4	A	22	15	-	-	1				Projekt 6h, Field-trip 6h	
1M1202 Geology and Geotechnical Engineering	4	A	23	24	-	3	1				Field-trip 6h	
1N1306 Economics	5	B	30	25	-	-			3		Project 20h	
1N1409 Planning, Building and Environment Law <i>Under bearbetning</i>	4	A	24	24	-	-		2				
1N1502 Economic Geography <i>One of the courses 1N1502/5C1107 has to be choosen</i> <i>Under bearbetning</i>	5	B	24	-	-	-				4	Project 36h	
1N1651 Graphic Information Systems	5	B	24	-	-	44			3		Project 10h	
2D1214 Numerical Methods, Basic Course	4	A	20	18	-	18	1	2				
5B1508 Mathematical Statistics, Basic Course	4	A	24	32	-	4		2				
5C1107 Mechanics <i>One of the courses 5C1107/1N1502 has to be choosen</i>	5	A	28	14	-	-				4	Workshop 21h, mid-course test 4h	

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Civil Engineering and Urban Management

Civil Engineering S3

Code Name	Credits	Level	Lec	Tut	Le	Lab	Periods				Other	
							1	2	3	4		
Compulsory Courses												
1L1027 <u>Material and Water Chemistry</u>	5	B	31	7	-	8	1					
1L1028 <u>Building Materials and Building Physics</u>	5	C	40	40	-	5		2				
1L1029 <u>Structural Engineering, basic course</u>	5	C	33	44	-	-			3			
1L1501 <u>Building Services Engineering, basic course</u>	5	C	33	44	-	-				4	Computer-lab 3h, Study-visit 1h	
1L1601 <u>Soil Mechanics and Foundation Engineering</u>	5	C	43	-	-	4			3		Workshop 34h	
1M1301 <u>Fluid Mechanics</u>	5	C	40	-	-	2	1				Workshop 36h	
1M1303 <u>Environmental System Analysis</u>	5	C	22	10	-	-				4	Seminars 10h, Project 6h	
5C1810 <u>Structural Mechanics, Basic Course</u>	5	C	39	-	-	-		2			Workshop 39h	

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Building and Real Estate Economics S3

Code Name	Credits	Level	Lec	Tut	Le	Lab	Periods				Other
							1	2	3	4	
Compulsory Courses											
1L1041 Building Technology and Building Services Engineering	5	C	30	30	-	9			3		
1L1042 Operation, Maintenance and Reconstruction of Buildings	5	C	25	30	-	-				4	Study-visits 15h
1N1307 Investment Analysis	5	C	30	30	-	-	1				
1N1308 Quantitative Methods with Real Estate Applications	5	C	25	35	-	-	1				
1N1309 Building and Real Estate Economics	5	C	30	30	-	-		2			
1N1310 Accounting for Real Estate Companies	5	C	30	30	-	-				4	
Conditionally Elective Courses											
1N1410 Introduction to Swedish Law	10	A	65	80	-	-		2	3	4	Web-based study-support
1N1411 Jurisprudence	5	C	25	35	-	-		2			Web-based study-support

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Construction Project Management S3

Code Name	Credits	Level	Lec	Tut	Le	Lab	Periods				Other
							1	2	3	4	
Compulsory Courses											
1L1027 <u>Material and Water Chemistry</u>	5	B	31	7	-	8	1				
1L1028 <u>Building Materials and Building Physics</u>	5	C	40	40	-	5		2			
1L1029 <u>Structural Engineering, basic course</u>	5	C	33	44	-	-			3		
1L1501 <u>Building Services Engineering, basic course</u>	5	C	33	44	-	-				4	Computer-lab 3h, Study-visit 1h
1L1601 <u>Soil Mechanics and Foundation Engineering</u>	5	C	43	-	-	4			3		Workshop 34h
1M1301 <u>Fluid Mechanics</u>	5	C	40	-	-	2	1				Workshop 36h
4D1600 <u>Construction Project Management</u>	5	C	-	-	66	-				4	
5C1810 <u>Structural Mechanics, Basic Course</u>	5	C	39	-	-	-		2			Workshop 39h

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Architectural Engineering S3

Code Name	Credits	Level	Lec	Tut	Le	Lab	Periods				Other
							1	2	3	4	
Compulsory Courses											
1L1027 <u>Material and Water Chemistry</u>	5	B	31	7	-	8	1				
1L1028 <u>Building Materials and Building Physics</u>	5	C	40	40	-	5		2			
1L1029 <u>Structural Engineering, basic course</u>	5	C	33	44	-	-			3		
1L1401 <u>Building Technology and Design</u>	5	C	-	-	-	-				4	
1L1501 <u>Building Services Engineering, basic course</u>	5	C	33	44	-	-				4	Computer-lab 3h, Study-visit 1h
1L1601 <u>Soil Mechanics and Foundation Engineering</u>	5	C	43	-	-	4			3		Workshop 34h
1M1301 <u>Fluid Mechanics</u>	5	C	40	-	-	2	1				Workshop 36h
5C1810 <u>Structural Mechanics, Basic Course</u>	5	C	39	-	-	-		2			Workshop 39h

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Real Estate Planning and Land Law S3

Code Name	Credits	Level	Lec	Tut	Le	Lab	Periods				Other
							1	2	3	4	
Compulsory Courses											
1F1470 Land Law	5	C	30	32	-	-				4	
1N1255 Geodetic Surveying I <i>N.B.! This course is identical with, and will be read together with the first 5 credit part of the course 1N1251 Geodetic Surveying II, 7 credits.</i>	5	B	22	40	-	-	1				
1N1307 Investment Analysis	5	C	30	30	-	-	1				
1N1311 Real Estate Valuation	5	C	24	36	-	-			3		Field-trips 8h
1N1412 Real Estate Planning, basic course	5	C	42	22	-	-		2			
1N1654 GIS	5	C	24	40	-	-				4	
Conditionally Elective Courses											
1N1410 Introduction to Swedish Law	10	A	65	80	-	-		2	3	4	Web-based study-support
1N1411 Jurisprudence	5	C	25	35	-	-		2			Web-based study-support

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Natural Resources Engineering S3

Code Name	Credits	Level	Lec	Tut	Le	Lab	Periods				Other
							1	2	3	4	
Compulsory Courses											
1L1027 <u>Material and Water Chemistry</u>	5	B	31	7	-	8	1				
1L1028 <u>Building Materials and Building Physics</u>	5	C	40	40	-	5		2			
1L1029 <u>Structural Engineering, basic course</u>	5	C	33	44	-	-			3		
1L1601 <u>Soil Mechanics and Foundation Engineering</u>	5	C	43	-	-	4			3		Workshop 34h
1M1301 <u>Fluid Mechanics</u>	5	C	40	-	-	2	1				Workshop 36h
1M1302 <u>Hydrology</u>	5	C	40	-	-	-				4	workshop 36h, field-trip 6h
1M1303 <u>Environmental System Analysis</u>	5	C	22	10	-	-				4	Seminars 10h, Project 6h
5C1810 <u>Structural Mechanics, Basic Course</u>	5	C	39	-	-	-		2			Workshop 39h

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Urban Planning S3

Code Name	Credits	Level	Lec	Tut	Le	Lab	Periods				Other
							1	2	3	4	
Compulsory Courses											
1H1402 Travel Demand Forecasting	5	C	28	-	-	40			3		
1N1201 Urban and Traffic Planning, basic course	5	C	33	12	-	-	1				Project 32h
1N1309 Building and Real Estate Economics	5	C	30	30	-	-		2			
1N1503 Urban and Traffic Planning, continuation course <i>Under bearbetning</i>	5	C	33	12	-	-		2			Project 32h
1N1504 Planning Theory, basic course <i>Under bearbetning</i>	5	C	40	18	-	-			3		Seminars 8h
1N1505 Heritage Management in Urban Planning <i>Under bearbetning</i>	5	C	30	16	-	-				4	Seminars 8h, Study-visit 8h
1N1601 Urban Theory, basic course <i>Under bearbetning</i>	5	C	16	20	-	-	1				Seminars 12h, Study-visit 12h
1N1654 GIS	5	C	24	40	-	-				4	

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Geomatics Engineering S3

Code Name	Credits	Level	Lec	Tut	Le	Lab	Periods				Other
							1	2	3	4	
Compulsory Courses											
1E1630 Remote Sensing Technology	5	C	18	-	-	36		2			4 h Study visit4 h Study visit
1N1251 Geodetic Surveying II <i>N.B.! The first 5 credit part of this course is identical with, and will be read together with, the course 1N1255 Geodetic Surveying I, 5 credits.</i>	7	C	22	40	-	-	1				Project 24h
1N1252 Analysis of Measurements	5	C	28	32	-	-		2			
1N1254 Map Projections	4	C	18	32	-	-				4	
1N1652 Photogrammetry	6	C	28	40	-	-			3		
1N1654 GIS	5	C	24	40	-	-				4	
2D1320 Applied Computer Science	4	A	28	14	-	20	1	2			
2D1334 Database Technology	4	C	24	20	-	12			3		

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Traffic Engineering S3

Code Name	Credits	Level	Lec	Tut	Le	Lab	Periods				Other
							1	2	3	4	
Compulsory Courses											
1H1402 Travel Demand Forecasting	5	C	28	-	-	40			3		
1N1201 Urban and Traffic Planning, basic course	5	C	33	12	-	-	1				Project 32h
1N1202 Traffic and Road Engineering, basic course	5	C	33	21	-	-				4	Project 23h
1N1309 Building and Real Estate Economics	5	C	30	30	-	-		2			
1N1503 Urban and Traffic Planning, continuation course <i>Under bearbetning</i>	5	C	33	12	-	-		2			Project 32h
1N1504 Planning Theory, basic course <i>Under bearbetning</i>	5	C	40	18	-	-			3		Seminars 8h
1N1601 Urban Theory, basic course <i>Under bearbetning</i>	5	C	16	20	-	-	1				Seminars 12h, Study-visit 12h
1N1654 GIS	5	C	24	40	-	-				4	

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Engineering Physics

Engineering Physics F1

Code Name	Credits	Level	Lec	Tut	Le	Lab	Periods				Other
							1	2	3	4	
Compulsory Courses											
2D1339 Program Construction	5	A	30	24	-	34	1	2	3		
5A1203 Physics, Basic Course I <i>Under bearbetning</i>	6	B	44	30	-	10	1	2			Project work
5A1204 Physics, Basic Course II <i>Under bearbetning</i>	6	B	26	32	-	40			3	4	
5B1106 Calculus II, part 1	6	A	60	30	-	-	1	2			
5B1107 Calculus II, part 2	6	A	60	30	-	-			3	4	
5B1109 Linear Algebra II	5	A	60	30	-	-	1	2			
5C1103 Mechanics, Basic Course	6	A	48	27	-	-			3	4	
Elective Courses											
5B1120 Introductory Course in Mathematics I	1	A	-	-	-	-					
5B1137 Real Analysis I	8	A	-	-	64	-	1	2			
5B1138 Real Analysis II	7	B	-	-	56	-			3	4	
5B1139 Linear Algebra	7	A	-	-	56	-	1	2			
5B1203 Discrete Mathematics	6	C	-	-	60	-			3	4	

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Engineering Physics

Engineering Physics F2

Code Name	Credits	Level	Lec	Tut	Le	Lab	Periods				Other
							1	2	3	4	
Compulsory Courses											
2A1840 Electromagnetic Theory	6	A	52	52	-	-	1	2			
2D1240 Numerical Methods, Basic Course II	4	A	24	14	-	18			3	4	
4C1055 Strength of Materials and Solid Mechanics, Basic Course <i>Under bearbetning</i>	6	B	42	40	-	2			3	4	
5A1246 Modern Physics <i>Under bearbetning</i>	6	B	30	14	-	20		2	3	4	
5B1201 Complex Analysis	4	C	40	20	-	-	1				
5B1202 Differential Equations and Transforms II	6	A	60	30	-	-		2		4	
5B1501 Probability Theory and Statistics	4	A	24	36	-	-			3		
5C1113 Mechanics, Continuation Course	4	C	30	15	-	-	1				
Elective Courses											
2D1242 Numerical Analysis	5	B	26	14	-	18			3	4	
5B1216 Complex Analysis, Specialized Course	5	C	-	-	-	-	1				
5B1217 Differential Equations, Specialized Basic Course	4	C	-	-	-	-		2			
5B1218 Methods of Transformations, Specialized Course	4	C	-	-	-	-				4	
5B1509 Mathematical Statistics, Specialized Basic Course	1	C	-	12	-	-			3		
5U1201 Advanced Problems A <i>Under bearbetning</i>	4	C	-	48	-	-	1	2	3	4	

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Engineering Physics F3

Code Name	Credits	Level	Lec	Tut	Le	Lab	Periods				Other
							1	2	3	4	
Compulsory Courses											
2B1711 Solid State Physics <i>Under bearbetning</i>	4	D	30	18	-	12			3	4	
2D1344 Fundamentals of Computer Science	4	A	24	24	-	24		2	3		
2E1200 Automatic Control, General Course	4	C	24	26	-	12	1				
5A1305 Mathematical Methods in Physics <i>Under bearbetning</i>	5	C	30	36	-	-	1	2			
5A1324 Quantum Physics <i>Under bearbetning</i>	8	C	60	52	-	-	1	2	3		
Elective											
4B1121 Signals and Mechanical Systems	4	D	24	22	-	4		2			
5A1326 Relativity	4	C	28	20	-	-			3		
5A1350 Statistical Mechanics <i>Under bearbetning</i>	4	C	24	24	-	-				4	
5A1400 Subatomic Physics <i>Under bearbetning</i>	4	C	36	-	-	-				4	
5B1712 Optimization for F	4	C	28	14	-	6			3		
5B1713 Optimization, Specialized Part of the Basic Course	1	C	8	-	-	-			3		
5C1202 Fluid Mechanics, Introductory Course <i>Compulsory within competenceprogram Mechanics and Fluid mechanics.</i>	4	C	-	-	42	6			3		
5U1201 Advanced Problems A <i>Under bearbetning</i>	4	C	-	48	-	-	1	2	3	4	
5U1202 Advanced Problems B <i>Under bearbetning</i>	4	D	-	36	-	-	1	2	3		

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Engineering Physics

Atomic and subatomic physics F3

Code Name	Credits	Level	Lec	Tut	Le	Lab	Periods				Other
							1	2	3	4	
Elective Courses											
5A1326 Relativity	4	C	28	20	-	-			3		
5A1400 Subatomic Physics <i>Under bearbetning</i>	4	C	36	-	-	-				4	
5A1402 Subatomic Physics, Extended Course <i>The course can only be studied as a supplement to 5A1400.</i> <i>Under bearbetning</i>	2	D	4	-	-	20				4	

Atomic and subatomic physics F4

Code Name	Credits	Level	Lec	Tut	Le	Lab	Periods				Other
							1	2	3	4	
Elective Courses											
2A1131 Plasma Physics	4	C	28	12	-	-	1	2			
2A1137 Plasma Physics, Supplementary Course	2	D	12	-	-	-			3		
2A1151 Energy and Fusion Research	4	D	26	12	-	-				4	
2A1160 Space Physics	3	D	18	-	-	-	1				
5A1310 Elementary Particle Physics <i>Under bearbetning</i>	4	D	36	-	-	-				4	
5A1312 Astroparticle Physics <i>Under bearbetning</i>	4	D	28	-	-	-			3		
5A1329 Quantum Mechanics, Intermediate Course <i>Under bearbetning</i>	5	D	34	28	-	-	1	2			
5A1335 Symmetries in Physics <i>Under bearbetning</i>	4	D	30	-	-	-	1	2			
5A1405 Experimental Particle Physics <i>Under bearbetning</i>	4	D	26	-	-	4		2			
5A1410 Nuclear Physics <i>Under bearbetning</i>	4	D	24	-	-	25	1	2			
5A1412 Atomic Nuclei - Radiation - Energy <i>Given if there are enough interest. Please contact course administrator.</i>	5	A	24	-	-	15			3		
5A1414 Radiation Detectors and Medical Imaging Systems	5	D	24	-	-	15			3	4	6 h Seminars, 20 h Study visit 6 h Seminars, 20 h Study visit

5A1425 Physics at Accelerators <i>Given if there are enough interest. Please contact course administrator.</i> <i>Under bearbetning</i>	4	D	35	-	-	8			3	8 h Study visit8 h Study visit
5A1456 Atomic and Molecular Physics	4	D	24	-	-	-	1			
5A1457 Atomic and Molecular Physics, Extended Course <i>The course can only be followed as an extension of 5A1456 Atomic-and Molecular Physics.</i>	2	D	4	-	-	20		2		
5A1460 Synchrotron Radiation Based Atomic and Molecular Physics <i>Given if there are enough interest. Please contact course administrator.</i>	4	D	24	-	-	-			4	
5A1490 Laser Chemistry <i>Under bearbetning</i>	4	D	24	-	-	12		2		
5A1491 Femtochemistry <i>Under bearbetning</i>	5	D	36	-	-	-			3	
5A1495 Molecular Physics <i>Under bearbetning</i>	5	D	34	10	-	-			3	
5A1510 Optical Measurement Techniques <i>Under bearbetning</i>	4	D	36	-	-	-			3	4 One individual task. Study visits.
5A1775 Nuclear Reactor Physics, Major Course <i>Under bearbetning</i>	6	D	36	-	-	24		2		
5A1802 Laser Physics II <i>Not given 05/06.</i> <i>Given if there are enough interest. Please contact course administrator.</i> <i>Under bearbetning</i>	4	D	36	-	-	-				

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Engineering Physics

Physics F3

Code Name	Credits	Level	Lec	Tut	Le	Lab	Periods				Other
							1	2	3	4	
Elective Courses											
2B1712 Solid State Physics, Extended Course	2	D	6	6	-	12				4	
5A1402 Subatomic Physics, Extended Course <i>The course can only be studied as a supplement to 5A1400.</i> <i>Under bearbetning</i>	2	D	4	-	-	20				4	
5A1800 Laser Physics I <i>Under bearbetning</i>	4	D	24	12	-	-				4	

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Biological Physics and Medical Technology F3

Code Name	Credits	Level	Lec	Tut	Le	Lab	Periods				Other	
							1	2	3	4		
Elective Courses												
5A1350 Statistical Mechanics <i>Under bearbetning</i>	4	C	24	24	-	-				4		
5A1351 Non-equilibrium Statistical Mechanics <i>Under bearbetning</i>	4	D	24	-	-	-				4		
5A1358 Membrane Physics <i>Under bearbetning</i>	4	D	24	-	-	-			3			
5A1584 Cellular Biophysics <i>Under bearbetning</i>	5	D	20	-	-	24			3			
5A1586 Experimental Biomolecular Physics	4	D	34	-	-	15				4	5 h Study visit5 h Study visit	

Biological Physics and Medical Technology F4

Code Name	Credits	Level	Lec	Tut	Le	Lab	Periods				Other
							1	2	3	4	
Elective Courses											
2D1432 Artificial Neural Networks and Other Learning Systems	4	D	26	-	-	16			3		
2D1433 Artificial Neural Networks, Advanced Course	4	D	16	-	-	8				4	4 h Seminars4 h Seminars
2D1435 Mathematical Modelling of Biological Systems	6	D	26	-	-	20	1	2			
2D1436 Modelling of Processes in Cell Biology	4	D	16	-	-	16	1				
5A1329 Quantum Mechanics, Intermediate Course <i>Under bearbetning</i>	5	D	34	28	-	-	1	2			
5A1352 Complex Systems <i>Under bearbetning</i>	4	D	24	-	-	-	1				
5A1354 Computational Physics <i>Under bearbetning</i>	6	D	30	-	-	20	1				
5A1356 Computational Physics, Additional Course <i>Under bearbetning</i>	3	D	-	-	-	-			3		
5A1356 Computational Physics, Additional Course <i>Under bearbetning</i>	3	D	-	-	-	-		2			

5A1357 Physics of Molecular Biology <i>Under bearbetning</i>	4	D	24	-	-	-	1				
5A1365 Molecular Biophysics, Basic Course 5A1365 + 5A1366 replace 5A1355. The course is given by the Department of Biochemistry and Biophysics, Stockholm University. The instruction takes place at the Arrhenius laboratories, Frescati. <i>Under bearbetning</i>	6	D	90	-	-	-				4	5 h Study visit5 h Study visit
5A1366 Molecular Biophysics Complementary Course 5A1365 + 5A1366 replace 5A1355. The course is given by the Department of Biochemistry and Biophysics, Stockholm University. The instruction takes place at the Arrhenius laboratories, Frescati. <i>Under bearbetning</i>	2	D	-	-	-	20				4	Literature seminars
5A1414 Radiation Detectors and Medical Imaging Systems	5	D	24	-	-	15			3	4	6 h Seminars, 20 h Study visit6 h Seminars, 20 h Study visit
5A1416 Radiation Sources for Therapy	2	D	10	-	-	-				4	14 h Study visit14 h Study visit
5A1490 Laser Chemistry <i>Under bearbetning</i>	4	D	24	-	-	12		2			
5A1491 Femtochemistry <i>Under bearbetning</i>	5	D	36	-	-	-			3		
5A1511 Optical Physics <i>Under bearbetning</i>	4	D	26	14	-	25	1				
5A1512 Optical Physics, Extended Course Can only be studied together with 5A1511. <i>Under bearbetning</i>	2	D	12	6	-	10	1				
5A1582 Physics of Biomedical Microscopy <i>Under bearbetning</i>	4	D	28	-	-	20		2			
7E1101 Medical Engineering, Basic Course	4	C	24	-	-	-	1				
7E1110 Quality and Regulatory Aspects on Medical Devices	2	D	20	-	-	-			3	4	
7E1112 Implants and Biomaterials*	4	D	25	-	-	-			3	4	
7E1113 Medical Instrumentation and Signal Processing*	4	D	30	-	-	6			3	4	
7E1114 Radiation Physics and Biology	4	D	36	-	-	-				4	
7E1115 Engineering in Intensive Care and Anesthesia*	4	D	12	-	-	-			3	4	30 + 10h (field work with oral and written report)
7E1121 Medical Radiation Physics	1	C	6	-	-	-	1				
7E1200 Cellular and Molecular Biology*	10	C	67	-	-	18			3	4	3 h Seminars3 h Seminars
7E1201 Neuroscience*	5	C	50	-	-	20				4	
7E1202 Systems Biology*	5	C	32	-	-	25		2			24 h Seminars24 h Seminars

*The course has limited participation

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Engineering Physics

Condensed matter physics F3

Code Name	Credits	Level	Lec	Tut	Le	Lab	Periods				Other
							1	2	3	4	
Elective Courses											
5A1326 Relativity	4	C	28	20	-	-			3		
5A1350 Statistical Mechanics <i>Under bearbetning</i>	4	C	24	24	-	-				4	
5B1303 Analysis, Basic Course	6	C	-	-	66	-			3	4	

Condensed matter physics F4

Code Name	Credits	Level	Lec	Tut	Le	Lab	Periods				Other
							1	2	3	4	
Elective Courses											
2B1771 Superconductivity and Applications	4	D	28	-	-	-		2			
5A1329 Quantum Mechanics, Intermediate Course <i>Under bearbetning</i>	5	D	34	28	-	-	1	2			
5A1351 Non-equilibrium Statistical Mechanics <i>Under bearbetning</i>	4	D	24	-	-	-				4	
5A1370 Solid State Theory	4	D	36	-	-	-	1				
5A1374 Many Particle Physics <i>Under bearbetning</i>	4	D	24	-	-	-		2			
5A1376 Strongly Correlated Systems <i>Under bearbetning</i>	4	D	24	-	-	-			3		
5A1378 Mesoscopic Physics	4	D	36	-	-	8		2			
5A1379 Spin Electronics <i>Under bearbetning</i>	4	D	24	-	-	4				4	

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Laser Physics and Quantum Optics F3

Code Name	Credits	Level	Lec	Tut	Le	Lab	Periods				Other	
							1	2	3	4		
Elective Courses												
5A1800 Laser Physics I <i>Under bearbetning</i>	4	D	24	12	-	-					4	

Laser Physics and Quantum Optics F4

Code Name	Credits	Level	Lec	Tut	Le	Lab	Periods				Other
							1	2	3	4	
Elective Courses											
2B1325 Photonics	5	D	38	-	-	8				4	
2B1750 Smart Electronic Materials <i>Under bearbetning</i>	4	C	18	10	-	8	1				
2B1751 Physics of Electronic Devices	4	D	12	6	-	-				4	
5A1329 Quantum Mechanics, Intermediate Course <i>Under bearbetning</i>	5	D	34	28	-	-	1	2			
5A1378 Mesoscopic Physics	4	D	36	-	-	8		2			
5A1379 Spin Electronics <i>Under bearbetning</i>	4	D	24	-	-	4				4	
5A1502 Quantum Electronics with Electro Optics <i>Under bearbetning</i>	8	D	48	-	-	-		2			
5A1503 Electro Optics <i>Under bearbetning</i>	4	D	24	-	-	-		2			
5A1510 Optical Measurement Techniques <i>Under bearbetning</i>	4	D	36	-	-	-			3	4	One individual task. Study visits.
5A1511 Optical Physics <i>Under bearbetning</i>	4	D	26	14	-	25	1				
5A1512 Optical Physics, Extended Course <i>Can only be studied together with 5A1511.</i> <i>Under bearbetning</i>	2	D	12	6	-	10	1				
5A1520 Problem Solving in Optics <i>Under bearbetning</i>	4	D	-	-	-	-	1	2	3	4	
5A1521 Problem Solving in Optics, Continuation Course 1 <i>Under bearbetning</i>	2	D	-	-	-	-			3	4	
5A1523 Optical Systems Design <i>Under bearbetning</i>	4	D	12	-	-	5				4	10 h Projektuppgift10 h Projektuppgift
5A1582 Physics of Biomedical Microscopy <i>Under bearbetning</i>	4	D	28	-	-	20		2			

5A1802 Laser Physics II

4

D

36

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*Not given 05/06.**Given if there are enough interest. Please
contact course administrator.**Under bearbetning*

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Mathematical Physics F3

Code Name	Credits	Level	Lec	Tut	Le	Lab	Periods				Other
							1	2	3	4	
Elective Courses											
5A1326 Relativity	4	C	28	20	-	-			3		
5A1350 Statistical Mechanics <i>Under bearbetning</i>	4	C	24	24	-	-				4	
5B1303 Analysis, Basic Course	6	C	-	-	66	-			3	4	

Mathematical Physics F4

Code Name	Credits	Level	Lec	Tut	Le	Lab	Periods				Other
							1	2	3	4	
Elective Courses											
5A1310 Elementary Particle Physics <i>Under bearbetning</i>	4	D	36	-	-	-				4	
5A1332 Advanced Quantum Mechanics, Course I <i>Under bearbetning</i>	5	D	36	-	-	-	1	2			
5A1333 Advanced Quantum Mechanics, Course II <i>Given if there are enough interest. Please contact course administrator.</i> <i>Under bearbetning</i>	4	D	32	-	-	-			3		
5A1334 Differential Geometry in Physics <i>Given if there are enough interest. Please contact course administrator.</i> <i>Under bearbetning</i>	4	D	34	-	-	-			3		
5A1335 Symmetries in Physics <i>Under bearbetning</i>	4	D	30	-	-	-	1	2			
5A1337 Integrable Nonlinear Systems and Solitons <i>Given if there are enough interest. Please contact course administrator.</i> <i>Under bearbetning</i>	4	D	20	-	-	-			3		
5A1351 Non-equilibrium Statistical Mechanics <i>Under bearbetning</i>	4	D	24	-	-	-				4	
5A1352 Complex Systems <i>Under bearbetning</i>	4	D	24	-	-	-	1				
5A1354 Computational Physics <i>Under bearbetning</i>	6	D	30	-	-	20	1				
5A1356 Computational Physics, Additional Course <i>Under bearbetning</i>	3	D	-	-	-	-			3		

5A1356 Computational Physics, Additional Course <i>Under bearbetning</i>	3	D	-	-	-	-	2			
5A1802 Laser Physics II <i>Not given 05/06. Given if there are enough interest. Please contact course administrator. Under bearbetning</i>	4	D	36	-	-	-				

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Engineering Physics

Material Physics F3

Code Name	Credits	Level	Lec	Tut	Le	Lab	Periods				Other
							1	2	3	4	
Elective Courses											
2B1712 Solid State Physics, Extended Course	2	D	6	6	-	12				4	
5A1350 Statistical Mechanics <i>Under bearbetning</i>	4	C	24	24	-	-				4	

Material Physics F4

Code Name	Credits	Level	Lec	Tut	Le	Lab	Periods				Other
							1	2	3	4	
Elective Courses											
2B1260 Semiconductor Theory and Device Physics, General Course	5	D	30	-	-	10	1				Individual assignments 20h
2B1261 Semiconductor Theory and Device Physics, Advanced Course <i>The course is not given 2005/06</i> <i>Under bearbetning</i>	4	D	-	36	-	-			3		
2B1262 The Nature of Materials	4	C	32	-	-	-				4	
2B1263 Surface Physics, Basic Course	4	D	36	-	-	-		2			
2B1380 Optics, General Course	4	D	26	14	-	25	1				
2B1381 Optics, Extended Course <i>The course can only be studied as a supplement to 2B1380.</i>	2	D	12	6	-	10	1				
2B1750 Smart Electronic Materials <i>Under bearbetning</i>	4	C	18	10	-	8	1				
2B1751 Physics of Electronic Devices	4	D	12	6	-	-				4	
2B1760 Experimental Methods in Material Physics <i>Under bearbetning</i>	5	C	26	22	-	30		2	3		
2B1761 Experimental Material Physics, Extended Course <i>The course can only be taken as a supplement to 2B1760.</i> <i>Under bearbetning</i>	3	D	-	-	-	10			3		
2B1771 Superconductivity and Applications	4	D	28	-	-	-		2			
4C1110 Material Mechanics	4	D	52	-	-	3	1				
4C1111 Fracture Mechanics and Fatigue	4	D	48	-	-	4				4	

5A1332 Advanced Quantum Mechanics, Course I <i>Under bearbetning</i>	5	D	36	-	-	-	1	2			
5A1354 Computational Physics <i>Under bearbetning</i>	6	D	30	-	-	20	1				
5A1356 Computational Physics, Additional Course <i>Under bearbetning</i>	3	D	-	-	-	-			3		
5A1356 Computational Physics, Additional Course <i>Under bearbetning</i>	3	D	-	-	-	-		2			
5A1370 Solid State Theory	4	D	36	-	-	-	1				
5A1502 Quantum Electronics with Electro Optics <i>Under bearbetning</i>	8	D	48	-	-	-		2			
5A1503 Electro Optics <i>Under bearbetning</i>	4	D	24	-	-	-		2			
5A1511 Optical Physics <i>Under bearbetning</i>	4	D	26	14	-	25	1				
5A1512 Optical Physics, Extended Course <i>Can only be studied together with 5A1511. Under bearbetning</i>	2	D	12	6	-	10	1				
5A1552 Optronics <i>Not planned to be given 05/06. Contact the coordinator for more information. Under bearbetning</i>	4	D	20	-	-	10					
5A1775 Nuclear Reactor Physics, Major Course <i>Under bearbetning</i>	6	D	36	-	-	24		2			

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Micro Electronics F3

Only one of the courses 2B1252 or 2B1260 can be studied.

Only one of the courses 2D1250 or 2D1255 can be studied.											
Code Name	Credits	Level	Lec	Tut	Le	Lab	Periods				Other
							1	2	3	4	
Elective Courses											
2D1250 Applied Numerical Methods II	6	C	60	-	-	36			3	4	

Micro Electronics F4

Only one of the courses 2B1252 or 2B1260 can be studied.

Code Name	Credits	Level	Lec	Tut	Le	Lab	Periods				Other
							1	2	3	4	
Elective Courses											
2B1221 <u>Methods and Instruments of Analysis</u>	5	D	-	-	28	16		2			
2B1230 <u>Power Semiconductor Devices</u>	5	D	40	-	-	-			3		Project 40h
2B1234 <u>Nanoelectronics</u>	6	D	30	10	-	8			3	4	
2B1242 <u>Design and Characterisation of Nano- and Microdevices</u>	5	D	24	-	-	16			3		
2B1245 <u>Advanced VLSI-Devices</u>	5	D	20	-	-	32				4	
2B1248 <u>Simulation of Semiconductor Devices</u>	5	D	24	-	-	32		2			
2B1252 <u>Semiconductor Devices</u>	6	C	32	10	-	12				4	
2B1260 <u>Semiconductor Theory and Device Physics, General Course</u>	5	D	30	-	-	10	1				Individual assignments 20h
2B1310 <u>Microwave Engineering</u>	5	C	36	18	-	10		2			
2B1322 <u>Fiber Optical Communication</u>	5	D	28	14	-	8			3		
2B1325 <u>Photonics</u>	5	D	38	-	-	8				4	
2B1380 <u>Optics, General Course</u>	4	D	26	14	-	25	1				
2B1381 <u>Optics, Extended Course</u> <i>The course can only be studied as a supplement to 2B1380.</i>	2	D	12	6	-	10	1				
2B1515 <u>Analog Electronics, Advanced Course</u>	5	C	30	14	-	20			3		Project work
2B1600 <u>Radio Electronics</u>	5	D	26	12	-	16				4	
2B1700 <u>Advanced Semiconductor Materials</u>	5	D	34	-	-	16			3		
2E1423 <u>Signal Theory</u>	5	C	24	24	-	10			3		

5A1502 Quantum Electronics with Electro Optics	8	D	48	-	-	-	2			
Under bearbetning										

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Discrete Mathematics and Computer Science F3

Code Name	Credits	Level	Lec	Tut	Le	Lab	Periods				Other
							1	2	3	4	
Elective Courses											
2D1385 Software Engineering	4	C	24	12	-	18				4	
5B1203 Discrete Mathematics	6	C	-	-	60	-			3	4	
5B1309 Algebra, Basic Course	4	C	42	-	-	-			3		

Discrete Mathematics and Computer Science F4

Code Name	Credits	Level	Lec	Tut	Le	Lab	Periods				Other
							1	2	3	4	
Elective Courses											
2D1220 Applied Numerical Methods I	4	C	36	-	-	18			3	4	
2D1257 Visualization	4	C	16	-	-	14			3		
2D1323 Computer Graphics and Interaction <i>Allowed for all programmes except D.</i>	4	C	42	-	-	12				4	
2D1334 Database Technology	4	C	24	20	-	12			3		
2D1354 Algorithms and Complexity	4	C	30	18	-	-	1	2			
2D1363 Software Engineering	8	D	40	-	-	-		2	3	4	
2D1373 Artificial Languages and Syntax Analysis	4	C	24	-	-	16			3		
2D1375 Implementation of Programming Languages <i>Self-study course.</i>	4	D	2	-	-	-	1	2			
2D1377 Computer Architecture and Programming Close to the Computer	5	C	28	-	-	24			3		
2D1380 Artificial Intelligence	4	C	24	4	-	30	1				
2D1381 Industrial Applications of Artificial Intelligence	4	C	36	-	-	-	1	2			
2D1387 Program System Construction Using C++	4	C	18	6	-	32	1	2			
2D1390 Internet Programming	4	C	28	-	-	26		2			
2D1408 Evaluation Methods in Human-Computer Interaction*	4	D	10	14	-	-			3	4	
2D1410 User Centered Program Development	6	D	26	-	-	22			3	4	

2D1413 Advanced Graphics and Interaction	6	D	46	-	-	12	1	2			
2D1416 Computer Support for Cooperative Work	6	D	30	-	-	15			3	4	
2D1418 Language Engineering	4	D	40	-	-	12	1				
2D1421 Image Analysis and Computer Vision	5	D	36	4	-	8			3		
2D1425 Computer Vision, Advanced Course	5	D	46	6	-	12				4	
2D1426 Robotics and Autonomous Systems*	5	D	16	-	-	60				4	
2D1431 Machine Learning	4	C	26	-	-	20		2			
2D1432 Artificial Neural Networks and Other Learning Systems	4	D	26	-	-	16			3		
2D1440 Advanced Algorithms	4	D	30	-	-	-		2			
2D1441 Seminars on Theoretical Computer Science <i>The course is given every second year and will not be given in 05/06.</i>	4	D	30	-	-	-					
2D1446 Complexity Theory <i>The course is given every second year and will be given in 05/06.</i>	4	D	30	-	-	-				4	
2D1449 Foundations of Cryptography	4	D	30	-	-	-			3		
2D1450 Algorithmic Bioinformatics	4	D	36	-	-	-				4	
2D1458 Problem Solving and Programming under Pressure*	6	C	26	-	-	52	1	2			
2D1465 Advanced, Individual Course in Computer Science <i>The course can be studied any time during the semesters.</i>	4	D	-	-	-	-					
2D1469 Database Theory	4	D	31	17	-	-	1				
2D1471 Modern Database Systems and Their Applications	5	D	26	8	-	-				4	
2D1482 Programming of Web Server Applications*	4	D	16	-	-	30	1				
2D1482 Programming of Web Server Applications*	4	D	16	-	-	30			3		
2D1490 IP Routing in Simple Computer Networks*	5	D	32	8	-	32			3		
2D1491 IP Routing in Internet and Other Complex Networks*	5	D	24	8	-	32				4	
2D1620 Human-Computer Interaction, Introductory Course	4	C	20	10	-	2	1				
2D1622 Human-Computer Interaction, Advanced Course	4	C	18	5	-	8		2			
2E1423 Signal Theory	5	C	24	24	-	10			3		
2G1316 Datacommunication and Computer Networks <i>Given at Campus Valhallavägen</i>	4	A	24	18	-	12			3		
2G1518 Computer Hardware Engineering	5	B	20	20	-	12			3	4	
2G1915 Concurrent Programming <i>In period 1, the course is given at Campus Valhallavägen.</i>	5	C	36	-	-	24	1				
2G1915 Concurrent Programming <i>In period 3, the course is given in Kista</i>	5	C	36	-	-	24			3		
2I1130 Cognitive Psychology <i>Under bearbetning</i>	4	B	30	12	-	-	1				

5B1309 Algebra, Basic Course	4	C	42	-	-	-			3		
5B1456 Seminar Course in Mathematics I <i>Not given 05/06.</i> <i>Under bearbetning</i>	5	D	36	-	-	-					
5B1457 Seminar Course in Mathematics II <i>Not given 05/06.</i> <i>Under bearbetning</i>	5	D	36	-	-	-					
5B1458 Seminar Course in Mathematics III <i>Given 05/06.</i> <i>Under bearbetning</i>	5	D	36	-	-	-	1	2			
5B1459 Seminar Course in Mathematics IV <i>Not given 04/05.</i> <i>Under bearbetning</i>	5	D	36	-	-	-			3	4	
5B1466 Fourier Analysis <i>Given 05/06.</i> <i>Under bearbetning</i>	5	D	36	-	-	-			3	4	
5B1467 Algebra, Advanced Course <i>Given 05/06.</i> <i>Under bearbetning</i>	5	D	36	-	-	-			3	4	
5B1475 Combinatorics, Advanced Course <i>Given 05/06.</i> <i>Under bearbetning</i>	5	D	36	-	-	-	1	2			
5B1492 Linear Algebra, Advanced Course <i>Not given 05/06.</i> <i>Under bearbetning</i>	5	D	36	-	-	-					
5B1814 Applied Mathematical Programming - Linear Problems	4	D	18	12	-	-	1				18 h Projektuppgift18 h Projektuppgift
5B1928 Logic	4	A	40	20	-	-				4	

*The course has limited participation

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Mathematics and Computer Science F3

Code Name	Credits	Level	Lec	Tut	Le	Lab	Periods				Other
							1	2	3	4	
Elective Courses											
2D1250 Applied Numerical Methods II	6	C	60	-	-	36			3	4	
2D1385 Software Engineering	4	C	24	12	-	18				4	
5B1203 Discrete Mathematics	6	C	-	-	60	-			3	4	
5B1303 Analysis, Basic Course	6	C	-	-	66	-			3	4	
5B1306 Financial Mathematics, Basic Course	5	A	-	-	54	-				4	
5B1309 Algebra, Basic Course	4	C	42	-	-	-			3		
5B1538 Reliability Theory <i>Not given 05/06.</i>	6	C	-	-	72	-					
5B1540 Probability Theory	5	C	24	24	-	-				4	
5B1742 Mathematical Systems Theory	4	C	32	16	-	-				4	

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Engineering Physics

Mathematics F3

Code Name	Credits	Level	Lec	Tut	Le	Lab	Periods				Other
							1	2	3	4	
Elective Courses											
5B1203 Discrete Mathematics	6	C	-	-	60	-			3	4	
5B1303 Analysis, Basic Course	6	C	-	-	66	-			3	4	

Mathematics F4

Code Name	Credits	Level	Lec	Tut	Le	Lab	Periods				Other
							1	2	3	4	
Elective Courses											
5B1309 Algebra, Basic Course	4	C	42	-	-	-			3		
5B1455 Ordinary Differential Equations Not given 05/06. <i>Under bearbetning</i>	4	D	36	-	-	-					
5B1456 Seminar Course in Mathematics I Not given 05/06. <i>Under bearbetning</i>	5	D	36	-	-	-					
5B1457 Seminar Course in Mathematics II Not given 05/06. <i>Under bearbetning</i>	5	D	36	-	-	-					
5B1458 Seminar Course in Mathematics III Given 05/06. <i>Under bearbetning</i>	5	D	36	-	-	-	1	2			
5B1459 Seminar Course in Mathematics IV Not given 04/05. <i>Under bearbetning</i>	5	D	36	-	-	-			3	4	
5B1464 Topology Not given 05/06. <i>Under bearbetning</i>	5	D	36	-	-	-					
5B1466 Fourier Analysis Given 05/06. <i>Under bearbetning</i>	5	D	36	-	-	-			3	4	
5B1467 Algebra, Advanced Course Given 05/06. <i>Under bearbetning</i>	5	D	36	-	-	-			3	4	
5B1470 Analytic Functions Not given 05/06. <i>Under bearbetning</i>	5	D	36	-	-	-					
5B1472 Functional Analysis Given 05/06. <i>Under bearbetning</i>	5	D	36	-	-	-			3	4	

<u>5B1473 Elementary Differential Geometry</u> Not given 05/06. <i>Under bearbetning</i>	5	D	36	-	-	-					
<u>5B1475 Combinatorics, Advanced Course</u> Given 05/06. <i>Under bearbetning</i>	5	D	36	-	-	-	1	2			
<u>5B1479 Integration Theory</u> Given 05/06. <i>Under bearbetning</i>	5	D	36	-	-	-	1	2			
<u>5B1490 Chaotic Dynamical Systems</u> Not given 05/06. <i>Under bearbetning</i>	5	D	36	-	-	-					
<u>5B1491 Analytical and Numerical Methods for Partial Differential Equations</u> Not given 05/06. <i>Under bearbetning</i>	5	D	36	-	-	-					
<u>5B1492 Linear Algebra, Advanced Course</u> Not given 05/06. <i>Under bearbetning</i>	5	D	36	-	-	-					
<u>5B1712 Optimization for F</u>	4	C	28	14	-	6			3		

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Engineering Physics

Optimization and Systems Theory F3

Code Name	Credits	Level	Lec	Tut	Le	Lab	Periods				Other	
							1	2	3	4		
Elective Courses												
2D1250 <u>Applied Numerical Methods II</u>	6	C	60	-	-	36			3	4		
5B1303 <u>Analysis, Basic Course</u>	6	C	-	-	66	-			3	4		
5B1540 <u>Probability Theory</u>	5	C	24	24	-	-				4		
5B1712 <u>Optimization for F</u>	4	C	28	14	-	6			3			
5B1742 <u>Mathematical Systems Theory</u>	4	C	32	16	-	-				4		

Optimization and Systems Theory F4

Code Name	Credits	Level	Lec	Tut	Le	Lab	Periods				Other
							1	2	3	4	
Elective Courses											
1H1401 Optimisation Models in Transport and Location Analysis	5	D	27	15	-	6			3		6 h Seminars6 h Seminars
2D1334 Database Technology	4	C	24	20	-	12			3		
2D1385 Software Engineering	4	C	24	12	-	18				4	
2E1252 Control Theory and Practice, Advanced Course	5	D	28	26	-	8			3		
5B1538 Reliability Theory <i>Not given 05/06.</i>	6	C	-	-	72	-					
5B1545 Time Series Analysis	4	C	24	24	-	-		2			
5B1550 Applied Mathematical Statistics	5	C	-	-	60	-			3		
5B1570 Martingales and Stochastic Integrals	4	D	-	-	48	-	1				
5B1574 Portfolio Theory and Risk Management	4	C	30	12	-	-	1				
5B1575 Financial Derivatives	5	D	-	-	48	-			3	4	
5B1814 Applied Mathematical Programming - Linear Problems	4	D	18	12	-	-	1				18 h Projektuppgift18 h Projektuppgift
5B1816 Applied Mathematical Programming - Nonlinear Problems	4	D	18	12	-	-		2			18 h Projektuppgift18 h Projektuppgift
5B1822 Mathematical Systems Theory, Advanced Course	4	D	24	24	-	6		2			
5B1842 Operations Research Methods	4	C	32	16	-	-	1				

5B1852 Mathematical Economics <i>Not given 05/06.</i>	4	C	32	16	-	-					
5B1872 Optimal Control Theory	4	D	32	16	-	-			3		

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Engineering Physics

Applied Mathematics F3

Code Name	Credits	Level	Lec	Tut	Le	Lab	Periods				Other
							1	2	3	4	
Elective Courses											
2D1250 Applied Numerical Methods II	6	C	60	-	-	36			3	4	
5B1540 Probability Theory	5	C	24	24	-	-				4	
5B1712 Optimization for F	4	C	28	14	-	6			3		

Applied Mathematics F4

Code Name	Credits	Level	Lec	Tut	Le	Lab	Periods				Other
							1	2	3	4	
Elective Courses											
2D1252 Numerical Algebra	6	C	36	-	-	24	1	2			
2D1253 Numerical Algebra, Methods for Large Matrices	4	D	24	-	-	12		2			
2D1255 Numerical Solutions of Differential Equations	5	D	30	-	-	8			3	4	
2D1257 Visualization	4	C	16	-	-	14			3		
2D1258 Introduction to High Performance Computing* <i>Please note that the course starts in August. Will not be on the central schedule.</i>	5	C	40	-	-	40	1				
2D1260 The Finite Element Method	4	C	18	14	-	12		2			
2D1263 Program Construction for Scientific Computing	4	C	24	-	-	12			3	4	
2D1269 Mathematical Models, Analysis and Simulation, part II	5	D	42	-	-	12			3	4	
2D1274 Computational Electromagnetics <i>Not on the central schedule.</i> <i>Not given 05/06</i>	5	D	24	-	-	12					
2D1285 Numerical Algorithms for Parallel Computers <i>The course will not be on the central schedule.</i> <i>Not given 05/06.</i>	4	D	16	-	-	4					
2D1290 Advanced Numerical Analysis <i>The course will not be on the central schedule.</i>	4	D	16	-	-	4				4	

2D1297 Advanced Individual Course in Scientific Computing <i>Course may start any time during the semester.</i>	4	D	-	-	-	-						
5B1306 Financial Mathematics, Basic Course	5	A	-	-	54	-					4	
5B1455 Ordinary Differential Equations <i>Not given 05/06.</i> <i>Under bearbetning</i>	4	D	36	-	-	-						
5B1466 Fourier Analysis <i>Given 05/06.</i> <i>Under bearbetning</i>	5	D	36	-	-	-				3	4	
5B1491 Analytical and Numerical Methods for Partial Differential Equations <i>Not given 05/06.</i> <i>Under bearbetning</i>	5	D	36	-	-	-						
5B1545 Time Series Analysis	4	C	24	24	-	-			2			
5B1550 Applied Mathematical Statistics	5	C	-	-	60	-				3		
5B1555 Computer Intensive Methods in Mathematical Statistics	5	D	-	-	48	-					4	
5B1560 Statistical Theory <i>The course is given by the Mathematical Department at Stockholms University.</i>	4	D	-	-	48	-			2			
5B1570 Martingales and Stochastic Integrals	4	D	-	-	48	-		1				
5B1574 Portfolio Theory and Risk Management	4	C	30	12	-	-		1				
5B1575 Financial Derivatives	5	D	-	-	48	-				3	4	
5B1576 Portfolio Theory, Advanced Course	5	D	36	18	-	-			2	3		
5B1580 Risk Management	5	D	24	24	-	-			2			
5B1814 Applied Mathematical Programming - Linear Problems	4	D	18	12	-	-		1				18 h Projektuppgift18 h Projektuppgift
5B1852 Mathematical Economics <i>Not given 05/06.</i>	4	C	32	16	-	-						
5C1212 Computational Fluid Dynamics	5	D	-	-	50	10				3		

*The course has limited participation

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Mechanics F3

Only one of the courses 4B1111, 4B1112 and 4B1117 can be studied.

Code Name	Credits	Level	Lec	Tut	Le	Lab	Periods				Other
							1	2	3	4	
Elective Courses											
2D1250 Applied Numerical Methods II	6	C	60	-	-	36			3	4	
2D1255 Numerical Solutions of Differential Equations	5	D	30	-	-	8			3	4	
4B1111 Fundamentals of Noise and Vibration Control	4	C	31	32	-	4	1				
4B1117 Sound and Vibration	6	C	38	44	-	4			3	4	

Mechanics F4

Only one of the courses 4B1111, 4B1112 and 4B1117 can be studied.

Code Name	Credits	Level	Lec	Tut	Le	Lab	Periods				Other
							1	2	3	4	
Elective Courses											
2B1545 Digital Electronics	5	B	26	18	-	16			3	4	
Given in Kista Under bearbetning											

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Solid Mechanics F3

At least 2 of the conditionally elective courses have to be studied.

Code Name	Credits	Level	Lec	Tut	Le	Lab	Periods				Other
							1	2	3	4	
Compulsory Courses											
4C1025 FEM for Engineering Applications	4	C	36	14	-	4			3		
4C1117 Design Applications of Solid Mechanics* <i>Under bearbetning</i>	4	D	16	6	-	-				4	Estimated time for project: 90h

*The course has limited participation

Solid Mechanics F4

At least 2 of the conditionally elective courses have to be studied.

Code Name	Credits	Level	Lec	Tut	Le	Lab	Periods				Other
							1	2	3	4	
Compulsory Courses											
4C1122 Applied solid mechanics	6	D	28	16	14	24	1	2			
Conditionally Elective Courses											
4C1110 Material Mechanics	4	D	52	-	-	3	1				
4C1111 Fracture Mechanics and Fatigue	4	D	48	-	-	4				4	
4C1116 Dynamic Problems in Solid Mechanics	4	D	42	-	-	8			3	4	
4C1121 Introduction to Biomechanics	6	C	48	-	-	8			3		
4C1124 Orthopedic Biomechanics	4	D	32	-	-	4				4	

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Noise and Vibration Control F4

Code Name	Credits	Level	Lec	Tut	Le	Lab	Periods				Other
							1	2	3	4	
Elective Courses											
4B1127 Vibroacoustics	5	D	-	56	-	8	1	2			
4B1131 Experimental Structure Dynamics	5	D	-	58	-	12		2	3		
4B1136 Flow Acoustics	4	D	-	36	-	8			3		
4B1141 Sound and Vibration, Project Course	5	D	-	48	-	12			3	4	Study tour to industry 40h

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Engineering Physics

Fluid Mechanics F4

Code Name	Credits	Level	Lec	Tut	Le	Lab	Periods				Other
							1	2	3	4	
Elective Courses											
5C1122 Continuum Mechanics	4	C	42	-	-	-	1				
5C1123 Mathematical Methods of Mechanics, General Course	4	D	36	-	-	-		2			
5C1125 Mathematical Methods of Mechanics, Intermediate Course	2	D	-	-	-	-			3		
5C1211 Vehicle Aerodynamics	4	C	16	-	-	4				4	4 h Seminars4 h Seminars
5C1212 Computational Fluid Dynamics	5	D	-	-	50	10			3		
5C1213 Applied Computational Fluid Dynamics	2	D	-	-	10	14				4	
5C1214 Fluid Mechanics	5	C	-	30	30	3	1				
5C1215 Compressible Flow	5	D	-	-	52	9		2			
5C1218 Turbulence <i>Replaces 5C1992.</i>	5	D	-	-	36	3			3	4	
5C1219 Advanced Compressible Flows	5	D	-	-	48	-			3	4	

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Engineering Physics

Theoretical and Applied Mechanics F4

Code Name	Credits	Level	Lec	Tut	Le	Lab	Periods				Other
							1	2	3	4	
Elective Courses											
5C1122 Continuum Mechanics	4	C	42	-	-	-	1				
5C1123 Mathematical Methods of Mechanics, General Course	4	D	36	-	-	-		2			
5C1125 Mathematical Methods of Mechanics, Intermediate Course	2	D	-	-	-	-			3		
5C1400 Nonlinear Dynamics in Mechanics	5	C	24	-	-	-			3		
5C1902 Advanced Dynamics of Complex Systems	4	D	24	-	-	-	1				
5C1904 Advanced Modern Mechanics	4	D	24	-	-	-		2			

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Civil Engineering

Civil Engineering V4

Code Name	Credits	Level	Lec	Tut	Le	Lab	Periods				Other
							1	2	3	4	
Elective Courses											
1A14TW <u>Third World Housing</u> <i>The course is given after agreement</i> <i>Under bearbetning</i>	10	D	-	-	-	-					
1B1820 <u>Risk in Technical Systems</u>	5	D	-	-	-	-	1	2	3	4	Project-course
1B1990 <u>Developing Countries, Society and Technology</u> <i>Under bearbetning</i>	4	C	30	-	-	-	1	2			
1B1991 <u>Management of Development Cooperation Projects</u> <i>Under bearbetning</i>	4	C	30	-	-	-			3	4	
1B1992 <u>East- and Central Europe - Our Future Market</u> <i>Under bearbetning</i>	4	C	30	-	-	-	1	2			
1F1327 <u>Management</u>	5	D	30	30	-	-			3	4	
1F1385 <u>Economics</u>	5	A	33	27	-	-	1	2			
1F1446 <u>Civil and Public Law</u>	5	A	35	40	-	-		2	3		Mostly evening-course, web-based study-support
1H1004 <u>Master's Project in Regional Planning</u>	20	D	-	-	-	-					
1H1005 <u>Master's Project in Traffic and Transport Planning</u>	20	D	-	-	-	-	1	2	3	4	
1H1204 <u>Logistics</u>	5	C	6	-	-	-	1	2			15 h SeminarsProject-course, 15 h Seminars
1H1212 <u>Logistics, Advanced Course</u>	5	D	4	-	-	-			3		Project-course, 12h Seminars
1H1601 <u>Mathematics and Reality</u>	5	C	20	10	-	-				4	
1H1602 <u>Good and Bad Science</u>	5	C	32	-	-	-			3	4	
1H1603 <u>Technology and Ethics</u>	5	C	18	-	-	-	1				Seminars 8h
1H1603 <u>Technology and Ethics</u>	5	C	18	-	-	-			3		Seminars 8h
1H1604 <u>Philosophy of Risk</u>	5	C	20	-	-	-		2			10h seminars
1K14LV <u>Architecture, Basic Course</u> <i>Under bearbetning</i>	5	D	-	36	-	-				4	Lectures, Study-visits, Seminar: 20h
1N1002 <u>Master's Project in Logistics</u>	20	D	-	-	-	-	1	2	3	4	
1N1217 <u>Logistics and Transportation</u>	5	C	21	-	-	-				4	Case-study
1N1218 <u>Logistics, Advanced Project Course</u>	10	D	4	-	-	-			3	4	Project-course, Seminars
1N1401 <u>Applied Contract Law</u>	5	A	20	35	-	-			3		Web-based study-support

1N1402 Civil and Public Law, Intermediate Course <i>Under bearbetning</i>	5	B	30	44	-	-			3	4	Web-based study-support
2D1220 Applied Numerical Methods I	4	C	36	-	-	18			3	4	
2D1225 Numerical Solutions of Differential Equations	4	C	24	4	-	16	1	2			
2D1320 Applied Computer Science	4	A	28	14	-	20	1	2			
2D1378 Text and Image Processing <i>Not given 05/06.</i>	4	B	28	18	-	-					
4B1304 Railway Systems and Rail Vehicles	6	C	-	-	60	9	1	2			Project assignment 9h
4B1313 Rail Vehicle Dynamics	5	D	-	-	36	24			3		
5B1306 Financial Mathematics, Basic Course	5	A	-	-	54	-				4	
9E1150 Information Searching for A, L, V	1	B	-	-	-	-		2			Three laborations on all together 9 hours. The course is given regularly throughout the academic year. See the timetable
9E1150 Information Searching for A, L, V	1	B	-	-	-	-	1				Three laborations on all together 9 hours. The course is given regularly throughout the academic year. See the timetable
9E1150 Information Searching for A, L, V	1	B	-	-	-	-			3		Three laborations on all together 9 hours. The course is given regularly throughout the academic year. See the timetable
9E1150 Information Searching for A, L, V	1	B	-	-	-	-				4	Three laborations on all together 9 hours. The course is given regularly throughout the academic year. See the timetable
9E1150 Information Searching for A, L, V	1	B	-	-	-	-	1				Three laborations on all together 9 hours. The course is given regularly throughout the academic year. See the timetable

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Civil Engineering

Civic Construction Engineering V4

In addition to compulsory course at least 10 credits of the recommended courses in the 3rd academic year must be fulfilled

Code Name	Credits	Level	Lec	Tut	Le	Lab	Periods				Other
							1	2	3	4	
Recommended Courses											
1B1131 Hydraulic Engineering	5	D	33	-	-	-		2			33 h Workshop33 h Workshop
1B1133 Applied Hydrology Only one of the courses 1B1133/1B1134 should be choosen	5	D	29	29	-	-			3		
1B1134 Water Resources Development Only one of the courses 1B1133/1B1134 should be choosen	5	D	33	-	-	-			3		33 h Workshop
1B1234 Water Supply and Waste Water Handling Under bearbetning	5	C	33	-	-	-				4	33 h Workshop
1B1334 Engineering Geology Under bearbetning	5	D	27	-	-	-	1				27 h WorkshopField-trips 3d 27 h Workshop
1B1335 Advanced Engineering Geology Under bearbetning	5	D	33	-	-	-			3		33 h Workshop
1B1434 Soil - Structure Interaction Under bearbetning	5	C	33	-	-	-				4	33 h Workshop
1B1435 Soil and Rock Dynamics Under bearbetning	5	D	33	-	-	-		2			33 h Workshop
1E1621 Geographic Information Technology for Civil Engineers	5	C	22	-	-	48	1				

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Civil Engineering

Construction Management V4

At least 15 credits of the recommended courses in the 3rd academic year must be fulfilled

Code Name	Credits	Level	Lec	Tut	Le	Lab	Periods				Other	
							1	2	3	4		
Recommended Courses												
1F1536 Leadership	5	D	-	-	66	-	1					
1F1540 Information Technology in Construction	5	D	-	-	66	-		2				
1F1547 Project Law	5	D	-	-	66	-			3			
1F1560 Project Management	5	D	-	-	66	-		2				
1F1563 Construction Management	5	D	-	-	66	-			3			
1F1580 Construction Economics	5	D	-	-	66	-				4		

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Civil Engineering

Buildings and Buildings Services V4

In addition to compulsory course at least one of the recommended courses in the 3rd academic year must be fulfilled

Code Name	Credits	Level	Lec	Tut	Le	Lab	Periods				Other	
							1	2	3	4		
Recommended Courses												
1D1111 Building Materials, Advanced Course	5	D	33	-	-	-	1				21 h Seminars, 8 h Workshop, 20 h Study visit	
1D1112 Fire in Buildings	5	C	21	-	-	1			3		9 h Seminars, 8 h Computer, 15 h Workshop, 2 h Study visit	
1D1211 Building Technology, Advanced Course <i>Under bearbetning</i>	5	D	33	44	-	-		2				
1D1243 Building Acoustics <i>Under bearbetning</i>	5	C	29	-	-	4	1				31 h Workshop31 h Workshop	
1D1311 Building Services Engineering, Advanced Course	5	D	33	31	-	9		2			4 h Study visit	
1D1313 Indoor Climate	5	C	20	-	-	8			3		24 h Workshop, 20 h Study visit	
1D1314 Simulation	5	D	22	-	-	-				4	55 h Computer	
1D1316 Industrial Ventilation <i>Will not be given 05/06</i>	5	C	36	24	-	-	1	2			12 h Study visit	
1D1806 Building Operation and Maintenance	5	D	40	12	-	-				4	8 h Seminars, 8 h Study visit	
1D1808 Building Damages	5	C	32	-	-	-				4	18 h Seminars, 6 h Workshop, 8 h Study visit	

Buildings and Buildings Services V5

In addition to compulsory course at least one of the recommended courses in the 3rd academic year must be fulfilled

In addition to compulsory course at least one of the recommended courses in the 3rd academic year must be fulfilled											
Code Name	Credits	Level	Lec	Tut	Le	Lab	Periods				Other
							1	2	3	4	
Recommended Courses											
1D1316 Industrial Ventilation <i>Will not be given 05/06</i>	5	C	36	24	-	-	1	2			12 h Study visit

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Structural Engineering V4

In addition to compulsory courses at least one of the recommended courses in the 3rd academic year must be fulfilled

Code Name	Credits	Level	Lec	Tut	Le	Lab	Periods				Other
							1	2	3	4	
Recommended Courses											
1C1204 Structural Design of Bridges	5	D	33	-	-	-				4	44 h Workshop
1C1205 Bridge Structures	5	D	33	-	-	-			3		44 h Workshop
1C1206 Railway Track Engineering	5	D	33	-	-	-			3		44 h Workshop
1C1302 Light-weight Structures	5	D	33	-	-	-				4	44 h Workshop
1C1304 Steel Structures	5	D	33	-	-	-			3		44 h Workshop
1C1401 Concrete Structures	5	D	33	-	-	-	1				44 h Workshop
1C1402 Concrete Infrastructures	5	D	33	-	-	-		2			44 h Workshop
5C1840 Structural Dynamics	5	D	33	-	-	-				4	44 h Workshop44 h Workshop
5C1850 Finite Element Methods	5	D	33	-	-	-	1				33 h Workshop33 h Workshop
5C1860 FEM Modelling	5	D	33	-	-	-		2			33 h Workshop33 h Workshop

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Environmental Engineering and Sustainable Infrastructure V4

At least 15 credits of the recommended courses in the 3rd academic year must be fulfilled

Code Name	Credits	Level	Lec	Tut	Le	Lab	Periods				Other
							1	2	3	4	
Recommended Courses											
1B1133 Applied Hydrology	5	D	29	29	-	-			3		
1B1233 Water and Waste Handling	5	C	-	-	77	-			3		
1B1291 Environmental Dynamics/Chemical Processes <i>Under bearbetning</i>	5	D	24	-	-	-		2			Exercises/lab.work 30h
1B1292 Environmental Dynamics/Physical Processes	5	C	26	24	-	-		2			
1B1333 Environmental Geology and Geophysics <i>Under bearbetning</i>	5	D	27	27	-	-				4	
1B1634 Environmental Impact Assessment* <i>First prio: Students within TESIM-, L- and V-programs. Second prio: Incoming exchange-students LV.</i>	5	C	30	26	-	-	1				8 h Exkursion8 h Exkursion
1B1635 Quantitative Hydrogeology	5	D	20	14	-	6				4	20 h Field excursions, 15 h Computer20 h Field excursions, 15 h Computer
1B1640 Natural Resources Management	5	D	19	-	-	36				4	
1E1610 Environmental Data* <i>First prio: Students within TESIM-, L- and V-programs. Second prio: Incoming exchange-students LV.</i> <i>Under bearbetning</i>	5	D	18	2	-	38			3		
1F1462 Management of Land and Water	5	D	22	-	-	-			3		23h Seminars
1H1141 Urban Infrastructure	5	D	-	-	54	-				4	
1H1142 Political Economy for Environmental Planners* <i>First prio: Students within TESIM-, L- and V-programs. Second prio: Incoming exchange-students LV.</i>	5	C	30	6	-	-	1				8 h Seminars
1H1143 Sustainable Rural and Urban Development* <i>First prio: Students within TESIM-, L- and V-programs. Second prio: Incoming exchange-students LV.</i> <i>Under bearbetning</i>	5	C	32	-	16	-		2			24 h Seminars, 8 h Exkursion
1H1146 Sustainable Project Management <i>Under bearbetning</i>	5	C	35	-	-	30			3		15 h Field excursions
1H1501 Human Settlements and Housing <i>Under bearbetning</i>	5	D	24	20	-	-		2			

<u>1U1030 Theory of Science, Research Methodology and Excursions</u> <i>Under bearbetning</i>	5	D	29	-	-	-	1	2	4	Exkursion 40hSeminars Exkursion 40h

*The course has limited participation

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Civil Engineering

Urban Planning V4

In addition to compulsory courses at least one of the recommended courses in the 3rd academic year must be fulfilled

Code Name	Credits	Level	Lec	Tut	Le	Lab	Periods				Other
							1	2	3	4	
Recommended Courses											
1H1157 Urban and Regional Economics	5	D	-	-	66	-		2			
1H1162 Urban Center Planning <i>The course is mainly carried out in Norrtelje</i>	5	D	-	-	-	-			3		77 h Seminars 77 h Seminars
1H1170 Sustainable Cities	10	D	-	-	120	-		1			
1H1171 Urban Governance <i>The course will be replaced by 1N1509 Urban Planning, advanced course</i>	5	D	30	-	-	-			3		6 h Seminars 6 h Seminars
1H1172 Futures Studies and Forecasts	5	D	-	-	36	-			2		10 h Computer 10 h Computer
1H1174 Planning for Regional Development	10	D	27	26	-	-				4	Large Project task
1H1401 Optimisation Models in Transport and Location Analysis	5	D	27	15	-	6			3		6 h Seminars 6 h Seminars
1N1150 Optimisation Models in Transport and Location Analysis	5	D	27	15	-	6			3		6 h Seminars 6 h Seminars
1N1663 Spatial Planning with GIS	5	D	30	-	-	36			3		

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Civil Engineering

Traffic and Transport Infrastructure V4

In addition to compulsory courses at least one of the recommended courses in the 3rd academic year must be fulfilled

Code Name	Credits	Level	Lec	Tut	Le	Lab	Periods				Other
							1	2	3	4	
Recommended Courses											
1H1162 Urban Center Planning <i>The course is mainly carried out in Norrtelje</i>	5	D	-	-	-	-			3		77 h Seminars77 h Seminars
1H1206 Planning of Railroad Traffic	5	C	-	-	72	-	1				
1H1214 Traffic in Urban Areas	5	C	-	-	84	-	1				
1H1215 Impact Analysis of Road Traffic Facilities	5	C	-	-	84	-		2			
1H1240 Procedure in Physical Infrastructure <i>The course is to be completed after the practical trainee period.</i>	5	C	-	-	-	-					Project
1H1307 Computer-aided Highway Design <i>Under bearbetning</i>	5	D	15	36	-	-			3		21 h Computer
1H1401 Optimisation Models in Transport and Location Analysis	5	D	27	15	-	6			3		6 h Seminars6 h Seminars
1L1912 Maintenance Management of Traffic Tunnels <i>The course will most likely not be given during the academic year 05/06, contact the department for further information</i> <i>Under bearbetning</i>	5	D	-	-	80	-		2			Taught full-time weeks 45, 48
1N1150 Optimisation Models in Transport and Location Analysis	5	D	27	15	-	6			3		6 h Seminars6 h Seminars

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Öppen ingång

Öppen ingång OPEN1

Code Name	Credits	Level	Lec	Tut	Le	Lab	Periods				Other
							1	2	3	4	
Compulsory Courses											
2D1240 Numerical Methods, Basic Course II	4	A	24	14	-	18			3	4	
2D1310 Programming Technique	4	A	20	12	-	24	1	2			
5A1363 Environmental Physics and Chemistry	6	B	54	-	-	35	1	2			
5B1121 Mathematic, Basic Course	4	A	16	16	32	-	1				
5B1141 Analytical Methods and Linear Algebra II, IT	8	B	60	-	60	-			3	4	
5B1142 Calculus in One Variable and Linear Algebra	6	A	36	18	36	-		2			
5C1102 Mechanics, Smaller Course	4	A	30	15	-	-			3		
Conditionally Elective Courses											
2A1510 No translation*	4	B	24	12	8	-				4	8h seminars
2D1347 Communication*	4	A	16	26	-	-				4	
Elective Courses											
5B1120 Introductory Course in Mathematics I	1	A	-	-	-	-					

*The course has limited participation

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