

Study Handbook

Syllabus

Curriculum
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Abbreviations

Previous academic year (05/06)

Next academic year (07/08)

Biotechnology

Biotechnology BIO1

Code Name	Credits	Level	Lec	Tut	Le	Lab	Periods				Other	
							1	2	3	4		
Compulsory Courses												
3A1501 Introduction to Biotechnology	4	B	36	8	-	4		2				
3A1512 Cellbiology	4	B	36	-	-	-			3			
3B1700 Introductory Chemistry	4	A	24	18	-	22	1					
3B1711 Chemical Equilibria	4	A	12	22	-	25			3	4		
3B1750 Organic Chemistry 1	5	A	20	14	-	42		2				
5A1225 Electromagnetism and Waves	5	A	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	-	-	-	-						
5B1120 Introductory Course in Mathematics I	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	-	22	1	2			
3A1109 Biochemistry	8	D	34	-	-	-				4	
3A1307 Microbiology	6	B	30	24	-	48		2	3		
3B1725 Chemical Thermodynamics	4	A	28	30	-	-	1				
3B1730 Molecular Structure	5	A	36	22	-	20		2	3		
3B1740 Chemical Dynamics	4	A	20	20	-	15			3		
3B1760 Organic Chemistry 2	5	A	16	10	-	42				4	6 h Computer6 h Computer
5B1210 Mathematics IV	6	A	60	30	-	-	1	2			

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Biotechnology

Biotechnology BIO3

Code Name	Credits	Level	Lec	Tut	Le	Lab	Periods				Other
							1	2	3	4	
Compulsory Courses											
3A1109 Biochemistry	8	D	-	-	-	96	1	2			
3A1503 Molecular Biotechnology	5	D	36	-	-	15		2	3		
3B1770 Chemical Measuring Techniques	5	A	22	4	-	12	1				
4D1023 Industrial Economy and Management, Basic Course <i>Examiner: Thomas Westin.</i>	4	A	44	-	-	-		2			8 h Seminars8 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											
3A1316 Industrial and Environmental Microbiology, Theory	5	D	-	-	-	-			3		
3A1504 Structure Biology	4	D	30	-	-	22				4	6 h Seminars6 h Seminars

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	D	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	
3A1513 <u>Enzyme Technology</u>	5	D	34	-	-	-			3		6 h Seminars6 h Seminars
3A1519 <u>Applied Gene Technology</u>	4	D	18	-	-	-	1				
3A1645 <u>Molecular Modeling</u>	5	D	-	-	-	-			3		
3B1531 <u>Organic Chemistry, Advanced Course</u>	4	D	-	-	-	54	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 Bioinformatics	4	D	32	-	-	16			3		
3A1315 Industrial and Environmental Microbiology	8	D	44	12	-	-			3	4	12 h Seminars12 h Seminars
3C1344 Environmental Technology and Environmental Impact Studies	5	C	40	13	-	-			3		8 h ProjektuppgiftProject work 8 h Projektuppgift
Recommended Courses											
3C1347 Environmental Technology and Environmental Impact Studies, Larger Course	8	D	40	17	-	-			3	4	Projekt work 16 h, Tutorials/Lab. 16h
3C1356 Ecology, Advanced Course	4	C	21	4	-	-			3	4	Field work 8h

Environmental biotechnology BIO4

3C1345 or 3C1347

Code Name	Credits	Level	Lec	Tut	Le	Lab	Periods				Other
							1	2	3	4	
Compulsory Courses											
3A1104 Environmental Toxicology	6	D	36	14	-	-	1	2			
Recommended Courses											
1N1109 Ethics of Biotechnology	5	C	20	-	-	-	1	2			Seminars 10h, individual essay-tutorials
3A1208 Biochemical Technology	7	D	40	-	-	60			3	4	
3A1312 Microbiology of Wastewater Treatment	5	D	30	-	-	20				4	
3B1443 Atmosphere, Aquatic and Terrestrial Chemistry	5	C	12	10	-	24				4	

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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											
3A1316 Industrial and Environmental Microbiology, Theory	5	D	-	-	-	-			3		
3A1504 Structure Biology	4	D	30	-	-	22				4	6 h Seminars6 h Seminars

Molecular biotechnology BIO4

Code Name	Credits	Level	Lec	Tut	Le	Lab	Periods				Other
							1	2	3	4	
Compulsory Courses											
3A1506 Drug Development	4	D	36	-	-	-			3		8 h Study visit8 h Study visit
3A1519 Applied Gene Technology	4	D	18	-	-	-	1				
Recommended Courses											
1N1109 Ethics of Biotechnology	5	C	20	-	-	-	1	2			Seminars 10h, individual essay-tutorials
3A1104 Environmental Toxicology	6	D	36	14	-	-	1	2			
3A1110 Molecular Enzymology	5	D	24	6	-	10		2			4 h Seminars4 h Seminars
3A1208 Biochemical Technology	7	D	40	-	-	60			3	4	
3A1520 Micro- and Nanotechnologies for Biotechnology	3	D	10	10	-	-			3		
3A1521 Proteomics technologies	3	D	24	-	-	-			3		
Elective Courses											
2D1220 Applied Numerical Methods I	4	C	36	-	-	14			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 Bioinformatics	4	D	32	-	-	16			3		
3A1315 Industrial and Environmental Microbiology	8	D	44	12	-	-			3	4	12 h Seminars12 h Seminars
Recommended Courses											
3A1112 Biochemical Analyses and Separation Techniques	5	D	32	-	-	30				4	
3A1312 Microbiology of Wastewater Treatment	5	D	30	-	-	20				4	

Process biotechnology BIO4

Code Name	Credits	Level	Lec	Tut	Le	Lab	Periods				Other	
							1	2	3	4		
Compulsory Courses												
3A1208 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	
3A1519 Applied Gene Technology	4	D	18	-	-	-	1					

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Wood biotechnology BIO3

Code Name	Credits	Level	Lec	Tut	Le	Lab	Periods				Other
							1	2	3	4	
Compulsory Courses											
2D1396 Bioinformatics	4	D	-	-	-	-		2			
Recommended Courses											
3A1504 Structure Biology	4	D	30	-	-	22				4	6 h Seminars6 h Seminars
3D1058 Wood Chemistry and Wood Biotechnology	4	D	26	-	-	15			3		

Wood biotechnology BIO4

Code Name	Credits	Level	Lec	Tut	Le	Lab	Periods				Other
							1	2	3	4	
Compulsory Courses											
3A1519 Applied Gene Technology	4	D	18	-	-	-	1				
3D1116 Pulp and Paper Processes, Minor Course	4	D	20	-	-	-	1	2			
Recommended Courses											
1N1109 Ethics of Biotechnology	5	C	20	-	-	-	1	2			Seminars 10h, individual essay-tutorials
3A1110 Molecular Enzymology	5	D	24	6	-	10		2			4 h Seminars4 h Seminars
3A1112 Biochemical Analyses and Separation Techniques	5	D	32	-	-	30		2			
3A1208 Biochemical Technology	7	D	40	-	-	60			3	4	
3A1513 Enzyme Technology	5	D	34	-	-	-			3		6 h Seminars6 h Seminars
3D1112 Fiber Technology	4	D	26	-	-	15				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 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	80	16	64	-	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> <i>Under bearbetning</i>	10	A	-	-	-	-		2			
KTD110 <u>Educational Perspective on Mathematics</u> <i>Under bearbetning</i>	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											
2D1240 Numerical Methods, Basic Course II	4	A	24	14	-	14		2	3		
3B1700 Introductory Chemistry	4	A	24	18	-	22	1				
3B1711 Chemical Equilibria	4	A	12	22	-	25			3	4	
3C1451 Introduction to Chemical Engineering	7	A	39	26	-	-		2	3		Plant Trip 1 day
5B1118 Discrete Mathematics	5	A	50	25	-	-			3	4	
5B1212 Differential Equations and Transforms III	4	C	40	20	-	-		2			
KTD110 Educational Perspective on Mathematics <i>Under bearbetning</i>	10	A	-	-	-	-				4	
KTD140 Educational Perspective on Chemistry	10	B	-	-	-	-	1				
SAUO2N Perspectives of educational science <i>Under bearbetning</i>	20	AB	-	-	-	-	1	2			
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
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 15h
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 8h
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	24	10	-	2	1				
2D2013 Creation and Design for Bachelors, Undergraduate Course	5	B	20	2	-	-			3	4	
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 <u>Science, Technology and Learning, part II</u>	3	C	4	-	-	-	1	2	3	4	
3B1720 <u>Chemical Thermodynamics</u>	5	B	28	30	-	15	1	2			
3B1731 <u>Molecular Structure</u>	4	B	36	22	-	20		2	3		
3B1750 <u>Organic Chemistry 1</u>	5	A	20	14	-	42		2			
3E1700 <u>Polymer Technology</u>	4	C	-	-	-	-				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	
KTD140 <u>Educational Perspective on Chemistry</u>	10	B	-	-	-	-		2	3		
SCK01N <u>Social and Cultural Studies in Education</u> <i>Under bearbetning</i>	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	A	20	20	-	15			3		
3B1775 Analytical Chemistry	4	C	20	-	-	16	1		3		
3B1781 Inorganic Chemistry <i>Under bearbetning</i>	4	D	20	6	-	16				4	
5B1493 Mathematics, Advanced Course	5	C	54	-	-	-		2	3		
5B1494 <i>Under bearbetning</i>	4	C	-	-	-	-	1				
KTD110 Educational Perspective on Mathematics <i>Under bearbetning</i>	10	A	-	-	-	-	1				
KTD140 Educational Perspective on Chemistry	10	B	-	-	-	-			3		
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 15h
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 8h
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	24	10	-	2	1				
2D2013 Creation and Design for Bachelors, Undergraduate Course	5	B	20	2	-	-			3	4	
5B1496 Mathematical Forum	4	D	14	-	-	-	1	2	3	4	

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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	
Compulsory Courses											
5B1494 <i>Under bearbetning</i>	4	C	-	-	-	-	1				
5B1495 The History of Mathematics <i>Under bearbetning</i>	5	D	-	-	-	-	1				
KTD110 Educational Perspective on Mathematics <i>Under bearbetning</i>	10	A	-	-	-	-	2				
KTD140 Educational Perspective on Chemistry	10	B	-	-	-	-	2				
KTEX4N Master´s Project in Technology and Learning	20	D	-	-	-	-					

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Master of Science in Engineering and of Education, Degree Programme in Mathematics and Information Technology and Computer Science CLMDA1

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	80	16	64	-	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> <i>Under bearbetning</i>	10	A	-	-	-	-		2			
KTD110 <u>Educational Perspective on Mathematics</u> <i>Under bearbetning</i>	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 Information Technology and Computer Science CLMDA2

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	-	14		2	3		
2D1320 Applied Computer Science	4	A	28	14	-	20	1	2			
2D1377 Low Level Programming and Computer Architecture	5	C	28	-	-	24			3		
2D1607 Learning and ICT, Project Course <i>Under bearbetning</i>	4	C	-	-	-	-	1	2			
3C1330 Technology and Environmental	4	A	22	3	-	-	1				
4F1224 Electrical Engineering, Basic Course Media <i>Under bearbetning</i>	4	A	12	21	-	13				4	
5B1118 Discrete Mathematics	5	A	50	25	-	-			3	4	
5B1212 Differential Equations and Transforms III	4	C	40	20	-	-		2			
KTD110 Educational Perspective on Mathematics <i>Under bearbetning</i>	10	A	-	-	-	-				4	
KTD130 No translation <i>Under bearbetning</i>	10	B	-	-	-	-			3	4	
SAUO2N Perspectives of educational science <i>Under bearbetning</i>	20	AB	-	-	-	-	1	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 CLMDA3

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		
2D1607 Learning and ICT, Project Course <i>Under bearbetning</i>	4	C	-	-	-	-	1	2			
2D1624 Human-Computer Interaction - a Didactive Perspective	5	C	24	10	-	2	1				
2G1518 Computer Hardware Engineering	5	B	-	-	-	-			3	4	
5B1118 Discrete Mathematics	5	A	50	25	-	-			3	4	
5B1505 Probability Theory and Statistics, Basic Course	4	C	24	36	-	-				4	
KTD130 No translation <i>Under bearbetning</i>	10	B	-	-	-	-			3	4	
SCK01N Social and Cultural Studies in Education <i>Under bearbetning</i>	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 CLMDA4

Code Name	Credits	Level	Lec	Tut	Le	Lab	Periods				Other
							1	2	3	4	
Compulsory Courses											
2D1605 Science, Technology and Learning, part II	3	C	4	-	-	-	1	2	3	4	
3C1330 Technology and Environmental	4	A	22	3	-	-		2			
5B1493 Mathematics, Advanced Course	5	C	54	-	-	-		2	3		
KTD110 Educational Perspective on Mathematics <i>Under bearbetning</i>	10	A	-	-	-	-	1				
Conditionally Elective Courses											
2D1220 Applied Numerical Methods I	4	C	36	-	-	14			3	4	
2D1225 Numerical Solutions of Differential Equations	4	C	24	4	-	12	1	2			
2D1323 Computer Graphics and Interaction <i>Allowed for all programmes except D.</i>	4	C	30	-	-	8				4	
2D1354 Algorithms and Complexity	4	C	30	18	-	-	1	2			
2D1361 Programming Paradigms	5	C	42	-	-	24	1	2			
2D1371 Theory of Automata	4	C	20	-	-	10				4	
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	18	-	-	32		2			
2D1395 Computer Security <i>The course is given for the first time 06/07.</i>	4	C	18	14	-	12	1				
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		
2D1456 Advanced Functional Programming <i>The course is not given from the studying year 07/08</i>	4	D	28	-	-	14			3		
2D1469 Database Theory <i>The course is given every second year. It will not be given 06/07.</i>	4	D	31	17	-	-					
2D1471 Modern Database Systems and Their Applications	5	D	26	8	-	-				4	
2D1486 Systems Programming and Operating Systems	5	D	24	-	-	24		2			
2D1622 Human-Computer Interaction, Advanced Course	4	C	18	5	-	8		2			
2D1655 Cooperative IT-design <i>Replaces 2D1410.</i>	6	D	26	8	-	22			3	4	
5B1305 Applied Combinatorics <i>Given 06/07.</i>	4	C	-	-	42	-				4	
5B1496 Mathematical Forum	4	D	14	-	-	-	1	2	3	4	

*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	
Compulsory Courses											
5B1495 The History of Mathematics <i>Under bearbetning</i>	5	D	-	-	-	-	1				
KTD110 Educational Perspective on Mathematics <i>Under bearbetning</i>	10	A	-	-	-	-		2			
KTD130 No translation <i>Under bearbetning</i>	10	B	-	-	-	-		2			
KTEX4N Master´s Project in Technology and Learning	20	D	-	-	-	-					
Conditionally Elective Courses											
2D1220 Applied Numerical Methods I	4	C	36	-	-	14			3	4	
2D1225 Numerical Solutions of Differential Equations	4	C	24	4	-	12	1	2			
2D1323 Computer Graphics and Interaction <i>Allowed for all programmes except D.</i>	4	C	30	-	-	8				4	
2D1354 Algorithms and Complexity	4	C	30	18	-	-	1	2			
2D1361 Programming Paradigms	5	C	42	-	-	24	1	2			
2D1371 Theory of Automata	4	C	20	-	-	10				4	
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	18	-	-	32		2			
2D1395 Computer Security <i>The course is given for the first time 06/07.</i>	4	C	18	14	-	12	1				
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		
2D1456 Advanced Functional Programming <i>The course is not given from the studying year 07/08</i>	4	D	28	-	-	14		3		
2D1469 Database Theory <i>The course is given every second year. It will not be given 06/07.</i>	4	D	31	17	-	-				
2D1471 Modern Database Systems and Their Applications	5	D	26	8	-	-			4	
2D1486 Systems Programming and Operating Systems	5	D	24	-	-	24	2			
2D1622 Human-Computer Interaction, Advanced Course	4	C	18	5	-	8	2			
2D1655 Cooperative IT-design <i>Replaces 2D1410.</i>	6	D	26	8	-	22		3	4	
5B1305 Applied Combinatorics <i>Given 06/07.</i>	4	C	-	-	42	-			4	

*The course has limited participation

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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 CLMFY1

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	80	16	64	-	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> <i>Under bearbetning</i>	10	A	-	-	-	-		2			
KTD110 <u>Educational Perspective on Mathematics</u> <i>Under bearbetning</i>	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 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											
2D1240 Numerical Methods, Basic Course II	4	A	24	14	-	14		2	3		
5A1203 Physics, Basic Course I	6	A	46	30	-	10	1	2			Project work
5A1204 Physics, Basic Course II	6	A	38	20	-	16			3	4	
5A1306 Mathematical Methods in Physics	6	B	-	-	-	-	1				
5B1118 Discrete Mathematics	5	A	50	25	-	-			3	4	
5B1212 Differential Equations and Transforms III	4	C	40	20	-	-		2			
5C1103 Mechanics, Basic Course	6	A	48	27	-	-			3	4	
KTD110 Educational Perspective on Mathematics <i>Under bearbetning</i>	10	A	-	-	-	-				4	
SAUO2N Perspectives of educational science <i>Under bearbetning</i>	20	AB	-	-	-	-	1	2			

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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 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	37	37	-	-	1	2			
2D1605 <u>Science, Technology and Learning, part II</u>	3	C	4	-	-	-	1	2	3	4	
5A1247 <u>Modern Physics</u> <i>Under bearbetning</i>	7	B	44	30	-	14			3	4	
5A1306 <u>Mathematical Methods in Physics</u>	6	B	42	48	-	-	1		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	-		2			
SCK01N <u>Social and Cultural Studies in Education</u> <i>Under bearbetning</i>	10	B	-	-	-	-	1	2			
Elective Courses											
2A1865 <u>Electromagnetic Theory CL, Optional Course</u>	2	C	14	14	-	-	1	2			

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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 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	5	C	30	36	-	-	1	2			
5A1320 Introduction to Quantum Mechanics <i>This course is identical with part 1 and the project in 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 <i>Under bearbetning</i>	10	A	-	-	-	-	1				
KTD120 Educational Perspective on Physics	10	A	-	-	-	-				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 15h
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 8h
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	24	10	-	2	1			
2D2013 Creation and Design for Bachelors, Undergraduate Course	5	B	20	2	-	-		3	4	
5B1496 Mathematical Forum	4	D	14	-	-	-	1	2	3	4

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Master of Science in Engineering and of Education, Degree Programme in Mathematics and Physics CLMFY5

Code Name	Credits	Level	Lec	Tut	Le	Lab	Periods				Other
							1	2	3	4	
Compulsory Courses											
5B1495 <u>The History of Mathematics</u> <i>Under bearbetning</i>	5	D	-	-	-	-	1				
KTD110 <u>Educational Perspective on Mathematics</u> <i>Under bearbetning</i>	10	A	-	-	-	-		2			
KTD120 <u>Educational Perspective on Physics</u>	10	A	-	-	-	-		2			
KTEX4N <u>Master´s Project in Technology and Learning</u>	20	D	-	-	-	-					
Conditionally Elective Courses											
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
1N1107 <u>Information Analysis</u>	5	C	14	14	-	-				4	
1N1108 <u>Computer- and Information Ethics</u>	5	C	20	10	-	-			3		
1N1113 <u>Aesthetics and Technology</u>	5	C	20	10	-	-		2			
1N1114 <u>Ethics for Engineers</u>	5	B	18	-	-	-			3		8h Seminars
1N1116 <u>Political Philosophy</u>	5	C	14	-	-	-		2			Seminars 15h
1N1117 <u>Decision Theory</u>	5	C	16	14	-	-	1				
1N1118 <u>Gender, Philosophy and Technology</u>	5	C	20	-	-	-			3		Seminars 10h
1N1119 <u>Management Ethics</u>	5	C	18	-	-	-	1				Seminars 8h
1N1123 <u>Philosophy of the Natural Sciences</u>	5	C	20	-	-	10		2			Seminars 10h
2C1522 <u>Business Development and Quality Management</u>	5	C	36	10	-	-		2			
2D1624 <u>Human-Computer Interaction - a Didactive Perspective</u>	5	C	24	10	-	2	1				
2D2013 <u>Creation and Design for Bachelors, Undergraduate Course</u>	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											
2B1560 Digital Design	5	A	24	22	-	16			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 Computer8 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 <i>Under bearbetning</i>	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	-	18	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	20	20	-	12		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			

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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	
2D1364 Database Technology <i>The course is given for the first time 06/07.</i>	5	C	36	24	-	8	1	2			
5B1506 Mathematical Statistics, Basic Course	6	A	36	48	-	-	1	2			
Conditionally Elective Courses											
1N1108 Computer- and Information Ethics	5	C	20	10	-	-			3		
2D1620 Human-Computer Interaction, Introductory Course	4	C	20	10	-	2	1				
3C1330 Technology and Environmental	4	A	22	3	-	-		2			
3C1330 Technology and Environmental	4	A	-	3	-	-					
5B1212 Differential Equations and Transforms III	4	C	40	20	-	-		2			
5B1305 Applied Combinatorics <i>Given 06/07.</i>	4	C	-	-	42	-				4	
5B1712 Optimization for F	4	C	28	16	-	6			3		
5B1752 Optimization for E	4	C	28	16	-	8	1				
5C1102 Mechanics, Smaller Course	4	A	30	15	-	-			3		
5C1102 Mechanics, Smaller Course	4	A	30	15	-	-				4	
Elective Courses											
2D1378 Text and Image Processing <i>Given 06/07.</i> <i>The course is given every second year.</i>	4	A	28	18	-	-		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	18	-	-	32		2			
2D1395 Computer Security <i>The course is given for the first time 06/07.</i>	4	C	18	14	-	12	1				
2D1418 Language Engineering	4	D	40	-	-	12	1				
2D1422 Image Analysis and Computer Vision <i>Replaces 2D1421.</i>	4	C	30	2	-	20		2			

2D1439 Artificial Intelligence and Multi-agent Systems, Project Course* <i>The course is given if there are at least 16 students. The number of students is limited.</i>	14	D	18	-	-	8	1	2	3	4	8 h Seminars 8 h Seminars
2D1458 Problem Solving and Programming under Pressure*	6	C	26	-	-	32	1	2			
2D1486 Systems Programming and Operating Systems	5	D	24	-	-	24		2			
2D1620 Human-Computer Interaction, Introductory Course	4	C	20	10	-	2	1				
2I1053 Internet and ERP Systems	5	C	12	-	-	-	1				Project work 80 h
2I1068 Internet Search and Monitoring Techniques <i>The course replaces 2I1413</i>	5	C	-	-	16	-	1				6 assignments
2I1130 Cognitive Psychology	4	A	30	12	-	-	1				
2I1184 Introduction to Computer Game Development	5	B	-	-	-	-	1				
2I1186 3D Graphics for Computer Game Development	5	B	-	-	-	-		2			
2I1228 Enterprise Computing and ERP Systems	5	D	14	12	-	60	1				80h
2I1417 Relational Database Design <i>The course is a replacement for 2I1056 from 06/07. Students who have already taken the course 2I1056 can therefore not apply for this one.</i>	5	C	12	12	9	8		2			
2I1420 Processes for IT Production <i>The course is a replacement for 2I1403 from 06/07. Students who have already taken the course 2I1403 can therefore not apply for this one.</i>	5	D	21	-	-	-		2			6 h Seminars 6 h Seminars
2I1715 Artificial Intelligence: Principles and Techniques <i>The course is a replacement for 2I1705 from 06/07. Students who have already taken the course 2I1705 can therefore not apply for this one.</i>	5	C	-	-	-	-	1				
2I1717 Programming of Interactive Systems <i>The course is a replacement for 2I1706 from 06/07. Students who have already taken the course 2I1706 can therefore not apply for this one.</i>	5	D	26	6	-	50		2			
2I1801 Internet Programming I <i>Replaces 2I1264 from HT04.</i>	5	D	6	-	-	160	1				
2I1802 Internet Programming II <i>Replaces 2I1265 from HT04.</i>	5	D	6	-	-	160		2			
2I2121 Global IT-management	5	D	20	-	-	-		2			10 h Seminars, 10 h Projektuppgift 10 h Seminars, 10 h Projektuppgift

*The course has limited participation

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Next academic year (07/08)

Computer Science

Computer Science D4

Code Name	Credits	Level	Lec	Tut	Le	Lab	Periods				Other
							1	2	3	4	
Conditionally Elective Courses											
2I1512 Security Architecture for Open Distributed Systems <i>The course is a replacement for 2I1272 from 06/07. Students who have already taken the course 2I1272 can therefore not apply for this one.</i>	5	D	24	-	-	16			3		
2I1514 Security in Mobile and Wireless Networks <i>The course is a replacement for 2I1279 from 06/07. Students who have already taken the course 2I1279 can therefore not apply for this one.</i>	5	D	24	-	-	16				4	
Elective Courses											
2C1224 Management of Technology	5	D	32	20	-	-	1				
2D1190 General Cultural Knowledge	4	A	30	-	-	10			3	4	10 h SeminarsSupervised work 10 h 10 h Seminars
2D1220 Applied Numerical Methods I	4	C	36	-	-	14			3	4	
2D1250 Applied Numerical Methods II	6	C	48	-	-	30			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 1	5	C	48	-	-	12	1	2			
2D1371 Theory of Automata	4	C	20	-	-	10				4	
2D1375 Implementation of Programming Languages <i>Self-study course. The course is given for the last time 06/07.</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			
2D1388 No translation* <i>The course is given for the first time 06/07.</i>	5	C	24	-	-	32			3	4	
2D1390 Internet Programming	4	C	18	-	-	32		2			
2D1392 Protocols and Principles of the Internet	5	C	35	21	-	32			3		

2D1395 Computer Security <i>The course is given for the first time 06/07.</i>	4	C	18	14	-	12	1				
2D1408 Evaluation Methods in Human-Computer Interaction <i>Given if there are at least 15 participants.</i>	4	D	10	10	-	-			3		
2D1413 Advanced Graphics and Interaction	6	D	46	-	-	12	1	2			
2D1416 Computer Support for Cooperative Work <i>Given if there are at least 15 participants.</i>	6	D	24	12	-	2			3	4	
2D1418 Language Engineering	4	D	40	-	-	12	1				
2D1422 Image Analysis and Computer Vision <i>Replaces 2D1421.</i>	4	C	30	2	-	20		2			
2D1426 Robotics and Autonomous Systems*	5	D	16	-	-	60				4	
2D1427 Image Based Recognition and Classification <i>Replaces 2D1425.</i>	4	D	26	-	-	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				
2D1439 Artificial Intelligence and Multi-agent Systems, Project Course* <i>The course is given if there are at least 16 students. The number of students is limited.</i>	14	D	18	-	-	8	1	2	3	4	8 h Seminars8 h Seminars
2D1440 Advanced Algorithms	4	D	30	-	-	-		2			
2D1441 Seminars on Theoretical Computer Science <i>The course is given every second year and will be given in 06/07.</i>	4	D	30	-	-	-				4	
2D1446 Complexity Theory <i>The course is given every second year and will not be given in 06/07.</i>	4	D	30	-	-	-					
2D1447 Statistical Methods in Applied Computer Science <i>The course is given for the first time 06/07.</i>	4	D	18	6	-	-			3	4	
2D1449 Foundations of Cryptography	4	D	30	-	-	-			3		
2D1450 Algorithmic Bioinformatics	4	D	36	-	-	-				4	
2D1452 Formal Methods	5	D	20	14	-	12			3		
2D1454 Semantics for Programming Languages <i>Replaces 2G1117.</i>	4	D	20	10	-	-		2			
2D1455 Theoretical Foundations of Object-Oriented	5	D	28	4	-	10				4	
2D1456 Advanced Functional Programming <i>The course is not given from the studying year 07/08</i>	4	D	28	-	-	14			3		
2D1458 Problem Solving and Programming under Pressure*	6	C	26	-	-	32	1	2			

2D1464 Bigger Advanced, Individual Course in Computer Science <i>The course can be studied any time during the semesters.</i>	6	D	-	-	-	-	1	2	3	4	
2D1465 Advanced, Individual Course in Computer Science <i>The course can be studied any time during the semesters.</i>	4	D	-	-	-	-	1	2	3	4	
2D1469 Database Theory <i>The course is given every second year. It will not be given 06/07.</i>	4	D	31	17	-	-					
2D1471 Modern Database Systems and Their Applications	5	D	26	8	-	-				4	
2D1472 No translation <i>The course is given for the first time 06/07.</i>	4	D	14	-	-	10		2			
2D1483 Development of Web Applications with Enterprise Java <i>Replaces 2D1482.</i>	4	D	16	-	-	32			3		
2D1490 IP Routing in Simple Computer Networks	5	D	24	8	-	32				4	
2D1491 IP Routing in Internet and Other Complex Networks <i>The course will not be given 06/07.</i>	5	D	24	8	-	32					
2D1492 Net Design, Project Course <i>The course is given every second year. Not given 06/07.</i>	6	D	12	4	-	8					
2D1493 Seminars on Grid Computing and Internetworking <i>The course is given every second year. Given 06/07.</i>	4	D	20	-	-	12		2			
2D1520 Graphic Arts Technology, Minor Course	4	C	24	8	-	16		2			
2D1523 Digital Video Production	5	B	18	6	-	24			3		
2D1600 Communication in Engineering Sciences	5	A	8	30	-	10	1	2			
2D1603 Technologies that Changes Time, Space and Reality <i>Given if there are at least 15 participants.</i>	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			
2D1655 Cooperative IT-design <i>Replaces 2D1410.</i>	6	D	26	8	-	22			3	4	
2E1245 Hybrid and Embedded Control Systems <i>This course is not given in 06/07. Next time the course will be given is 07/08.</i>	5	D	28	28	-	8			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	16	-	8		2			
2E1390 Sound Perception <i>Replaces 2F1300.</i>	5	D	24	12	-	4	1				20 h Projektuppgift 20 h Projektuppgift
2E1423 Signal Theory	5	C	24	22	-	10			3		

2E1605 Internetworking	5	C	-	-	-	-		3	
2E1616 Data Communications and Computer Networks <i>Given at Campus Valhallavägen</i>	4	B	24	18	-	4		3	
2E1618 Queuing Theory and Teletraffic Systems <i>The course replaces 2G1318.</i>	4	C	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>	5	D	-	-	24	-		3	30 h Projektuppgift30 h Projektuppgift
2E1632 Management of Networks and Networked Systems <i>The course replaces 2G1332.</i>	5	D	20	-	-	-		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
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
2G1509 Distributed Systems, Basic Course	5	D	24	-	-	-	1		Project work 12 hours
2G1513 Distributed Systems, Advanced Course	5	D	24	-	-	-		3	
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	20	10	-	-	1		12 h ProjektuppgiftProjectwork 12 h 12 h Projektuppgift
2G1533 Compilers and Execution Environments	5	C	28	8	-	-	2		
2G1534 Computer Systems Architecture	5	C	16	16	-	16	1		Homework 16h
2G1535 Research Methods in Computer Systems Engineering	5	D	8	-	-	-		3	

2G1704 Internet Security and Privacy	5	D	30	10	-	-	2		assigned paper
2G1711 Communication System Design	12	D	-	-	-	-	3	4	project
2G1712 Communication System Design	16	D	-	-	-	-	3	4	Project
2G1713 Communication System Design	20	D	-	-	-	-	3	4	Project
2G1722 Developing Mobile Applications	5	D	20	-	-	10	3		
2G1723 GSM Network and Services	5	D	20	-	-	10		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	5	C	36	-	-	24		3	
2I1050 Security Management <i>The course cannot be included in an exam together with course 2I1506</i>	5	D	27	-	-	-		4	
2I1053 Internet and ERP Systems	5	C	12	-	-	-	1		Project work 80 h
2I1068 Internet Search and Monitoring Techniques <i>The course replaces 2I1413</i>	5	C	-	-	16	-	1		6 assignments
2I1095 Cognitive Science	4	C	25	-	-	-		3	Course assignment work 120
2I1130 Cognitive Psychology	4	A	30	12	-	-	1		
2I1228 Enterprise Computing and ERP Systems	5	D	14	12	-	60	1		80h
2I1234 Machine Learning	4	D	36	-	-	-		4	
2I1235 Agent Programming <i>The course are not electiv if students already had read 2G1524 This course is not given 2006/2007.</i>	4	D	18	-	-	3		3 4	Other 80 hours
2I1242 Models and Languages for Object and Web Databases	5	D	21	40	-	75		3	Studying/Practice 60h
2I1263 Internet Application Protocols and Standards <i>The course will not be given during the academic year 2006-2007.</i>	4	A	24	-	-	20		3	120h
2I1404 Model-driven Development of Components <i>not given 2005/06</i>	5	D	20	35	-	110		4	
2I1406 Mobile Business	5	D	18	12	-	-		3 4	Project work 80 h
2I1409 Complex Social Networks	4	D	20	-	-	-	2		
2I1503 Network Security <i>Replaces 2I1274 from 04/05</i>	5	D	18	-	-	18	2		
2I1504 Software Engineering and Security Architecture	5	D	18	-	-	18		3	
2I1505 Legal Aspects of Information Security	5	D	24	-	-	12		3	
2I1506 Security Management <i>Cannot be included in an exam together with course 2I1050</i>	10	D	24	-	-	6		4	Seminars 18 hours
2I1511 Value Based Risk Management	5	D	12	12	-	-	2		
2I1513 Security for Java Environment and Electronic Commerce <i>The course is a replacement for 2I1276 from 06/07. Students who have already taken the course 2I1276 can therefore not apply for this one.</i>	5	D	24	-	-	16		4	
2I1801 Internet Programming I <i>Replaces 2I1264 from HT04.</i>	5	D	6	-	-	160	1		
2I1802 Internet Programming II <i>Replaces 2I1265 from HT04.</i>	5	D	6	-	-	160	2		

2I1803 Internet Programming III <i>Replaces 2I1266 from VT04</i>	5	D	6	-	-	160		3		
2I1901 Introduction to Software Engineering	5	C	15	-	-	-		3		Seminars 6 hours, project 120 hours
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>Given 06/07.</i>	4	C	-	-	42	-			4	
5B1306 Financial Mathematics, Basic Course	5	C	-	-	54	-			4	
5B1308 Wavelets <i>Not given 06/07.</i>	4	C	24	-	-	-				
5B1309 Algebra, Basic Course	4	C	42	-	-	-		3		
5B1456 Seminar Course in Mathematics I <i>Given 06/07.</i>	5	D	36	-	-	-	1	2		
5B1457 Seminar Course in Mathematics II <i>Given 06/07.</i>	5	D	36	-	-	-		3	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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Computer Science

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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Uppdaterad: 2004-11-10

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Computer Science

Autonomous Systems D3

At least 16 cr of the recommended courses have to be studied.

Code Name	Credits	Level	Lec	Tut	Le	Lab	Periods				Other
							1	2	3	4	
Recommended Courses											
2D1426 <u>Robotics and Autonomous Systems*</u>	5	D	16	-	-	60				4	
2D1427 <u>Image Based Recognition and Classification</u> <i>Replaces 2D1425.</i>	4	D	26	-	-	8			3		
2D1428 <u>Geometric Computing and Visualization</u>	4	D	26	-	-	8				4	
2D1432 <u>Artificial Neural Networks and Other Learning Systems</u>	4	D	26	-	-	16			3		
2D1433 <u>Artificial Neural Networks. Advanced Course</u>	4	D	16	-	-	8				4	4 h Seminars4 h Seminars
Elective Courses											
2D1220 <u>Applied Numerical Methods I</u>	4	C	36	-	-	14			3	4	
2D1250 <u>Applied Numerical Methods II</u>	6	C	48	-	-	30			3	4	
2E1423 <u>Signal Theory</u>	5	C	24	22	-	10			3		
2G1515 <u>Constraint Programming</u>	5	D	24	-	-	-				4	Project work 10 hours
2G1915 <u>Concurrent Programming</u>	5	C	36	-	-	24			3		
5B1712 <u>Optimization for F</u>	4	C	28	16	-	6			3		

*The course has limited participation

Autonomous Systems D4

At least 16 cr of the recommended courses have to be studied.

Code Name	Credits	Level	Lec	Tut	Le	Lab	Periods				Other
							1	2	3	4	
Recommended Courses											
2D1380 Artificial Intelligence	4	C	24	4	-	30	1				
2D1422 Image Analysis and Computer Vision <i>Replaces 2D1421.</i>	4	C	30	2	-	20		2			
2D1426 Robotics and Autonomous Systems*	5	D	16	-	-	60				4	
2D1427 Image Based Recognition and Classification <i>Replaces 2D1425.</i>	4	D	26	-	-	8			3		

2D1428 Geometric Computing and Visualization	4	D	26	-	-	8			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 Seminars4 h Seminars
Elective Courses										
2D1220 Applied Numerical Methods I	4	C	36	-	-	14			3	4
2D1250 Applied Numerical Methods II	6	C	48	-	-	30			3	4
2D1381 Industrial Applications of Artificial Intelligence	4	C	36	-	-	-	1	2		
2D1387 Program System Construction Using C++	4	C	18	6	-	32	1	2		
2D1620 Human-Computer Interaction, Introductory Course	4	C	20	10	-	2	1			
2E1211 Automatic Control, General Course	4	C	24	26	-	12		2		
2E1395 Pattern Recognition <i>Replaces 2F1510.</i>	4	D	24	24	-	-	1			24 h Projektuppgift24 h Projektuppgift
2E1423 Signal Theory	5	C	24	22	-	10			3	
2G1515 Constraint Programming	5	D	24	-	-	-			4	Project work 10 hours
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		
2G1530 Logic Programming <i>replaces 2G1121</i>	5	D	16	12	-	-	1			Individual work on project and group presentation 4h
2G1915 Concurrent Programming	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	4	A	30	12	-	-	1			
2I1719 Microsimulation <i>Teachers are Magnus Boman and Wah-Sui Almqvist, with guest lecturer Kalle Mäkilä (preliminary).</i> <i>The course is a replacement for 2I1708 from 06/07. Students who have already taken the course 2I1708 can therefore not apply for this one.</i>	5	D	20	-	6	3			3	
5B1712 Optimization for F	4	C	28	16	-	6			3	

*The course has limited participation

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Computer Science

Scientific Computing D3

Prerequisites for the spec. is 5B1212 Differential Equations and Transforms III. At least 15 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											
2D1250 Applied Numerical Methods II	6	C	48	-	-	30			3	4	
2D1264 Parallell Computations for Large-Scale Problems, part 1 <i>Replaces 2D1263.</i>	4	C	24	-	-	12			3	4	
Elective Courses											
2D1257 Visualization	4	C	16	-	-	14			3		
2D1265 Parallell Computations for Large-Scale Problems, part 2 <i>Replaces 2D1285.</i>	2	C	4	-	-	8				4	

Scientific Computing D4

Prerequisites for the spec. is 5B1212 Differential Equations and Transforms III. At least 15 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											
2D1264 Parallell Computations for Large-Scale Problems, part 1 <i>Replaces 2D1263.</i>	4	C	24	-	-	12			3	4	
Elective Courses											
2D1253 Numerical Algebra, Methods for Large Matrices	4	D	24	-	-	6		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	-	10	1				
2D1265 Parallell Computations for Large-Scale Problems, part 2 <i>Replaces 2D1285.</i>	2	C	4	-	-	8				4	
2D1269 Mathematical Models, Analysis and Simulation, part 2 <i>Not given 06/07.</i>	5	D	42	-	-	12					

2D1290 Advanced Numerical Analysis

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D

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*The course will not be on the central
schedule.*

Not given 06/07.

*The course has limited participation

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Computer Science

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

7E1201 + 7E1211 may be included. At least 10 of the compulsory courses have to be studied.											
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. At least 10 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												
7E1202 Systems Biology*-	5	C	32	-	-	25		2				24 h Seminars24 h Seminars
Elective Courses												
2D1266 Mathematical Models, Analysis and Simulation Part 1	5	C	48	-	-	12	1	2				
2D1422 Image Analysis and Computer Vision <i>Replaces 2D1421.</i>	4	C	30	2	-	20		2				
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
7E1101 Medical Engineering, Basic Course	4	C	24	-	-	-	1					
7E1121 Medical Radiation Physics	1	C	6	-	-	-	1					

*The course has limited participation

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Computer Security D3

Given for the last time by DSV for D4 06/07. Given for the first time by CSC for D3 06/07.

Code Name	Credits	Level	Lec	Tut	Le	Lab	Periods				Other
							1	2	3	4	
Compulsory Courses											
2D1392 Protocols and Principles of the Internet	5	C	35	21	-	32			3		
Elective Courses											
2D1441 Seminars on Theoretical Computer Science <i>The course is given every second year and will be given in 06/07.</i>	4	D	30	-	-	-				4	
2D1449 Foundations of Cryptography	4	D	30	-	-	-			3		
2D1452 Formal Methods	5	D	20	14	-	12			3		
2D1453 Advanced Formal Methods	5	D	12	8	-	-				4	
2D1490 IP Routing in Simple Computer Networks	5	D	24	8	-	32				4	
2I1505 Legal Aspects of Information Security	5	D	24	-	-	12			3		

Computer Security D4

Given for the last time by DSV for D4 06/07. Given for the first time by CSC for D3 06/07.

Code Name	Credits	Level	Lec	Tut	Le	Lab	Periods				Other
							1	2	3	4	
Compulsory Courses											
2I1516 <u>Principles of Computer Security</u> <i>The course is a replacement for 2I1273 from Autumn 2006, and it is an extended version of the same.</i>	5	D	24	-	10	12	1				
2I1516 <u>Principles of Computer Security</u> <i>The course is a replacement for 2I1273 from Autumn 2006, and it is an extended version of the same.</i>	5	D	24	-	10	12			3		
Recommended Courses											
2I1503 <u>Network Security</u> <i>Replaces 2I1274 from 04/05 *</i>	5	D	18	-	-	18		2			
Elective Courses											
2D1440 <u>Advanced Algorithms</u>	4	D	30	-	-	-		2			
2I1259 <u>Value-Based Software Engineering</u>	5	D	28	-	-	-				4	Seminar 14 h
2I1504 <u>Software Engineering and Security Architecture</u>	5	D	18	-	-	18			3		

211505 <u>Legal Aspects of Information Security</u>	5	D	24	-	-	12			3		
211506 <u>Security Management</u> <i>Cannot be included in an exam together with course 211050</i>	10	D	24	-	-	6			4	Seminars 18 hours	
211511 <u>Value Based Risk Management</u>	5	D	12	12	-	-		2			

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Computer Systems Engineering D3

At least 30 cr have to be studied and of these 15 cr have to be of the *-marked courses.

At least 30 or have to be studied and of these 15 or have to be of the marked courses:											
Code Name	Credits	Level	Lec	Tut	Le	Lab	Periods				Other
							1	2	3	4	
Elective Courses											
2G1520 Operating Systems <i>Given at Campus Valhallavägen</i>	5	C	28	12	-	-				4	
2G1915 Concurrent Programming	5	C	36	-	-	24			3		

Computer Systems Engineering D4

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 <u>ASIC-design Methodology with High-level Languages</u> *	5	D	-	10	-	20		2			
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	26	10	-	28	1				
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				
2D1264 <u>Parallell Computations for Large-Scale Problems, part 1</u> <i>Replaces 2D1263.</i>	4	C	24	-	-	12			3	4	
2D1375 <u>Implementation of Programming Languages</u> <i>Self-study course. The course is given for the last time 06/07. *</i>	4	D	2	-	-	-	1	2			
2G1531 <u>System Modelling and Simulation</u> <i>This course is replaces 2G1503</i>	5	C	20	10	-	-	1				12 h Projektuppgift 12 h 12 h Projektuppgift
2G1533 <u>Compilers and Execution Environments</u>	5	C	28	8	-	-		2			

2G1534 Computer Systems Architecture	5	C	16	16	-	16	1			Homework 16h
2G1535 Research Methods in Computer Systems Engineering *	5	D	8	-	-	-		3		

*The course has limited participation

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Studentwebben

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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											
2G1515 Constraint Programming	5	D	24	-	-	-				4	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 12 hours
2G1513 Distributed Systems, Advanced Course	5	D	24	-	-	-			3		
Elective Courses											
2G1515 Constraint Programming	5	D	24	-	-	-				4	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	20	10	-	-	1				12 h Projektuppgift 12 h 12 h Projektuppgift
2G1704 Internet Security and Privacy	5	D	30	10	-	-		2			assigned paper
2G1915 Concurrent Programming	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 D4

At least 20 cr of the elective courses have to be studied. The spec. is given for the last time for D4 06/07. From 06/07 it is merged together with the spec. in Theoretical computer Science for D3.

Code Name	Credits	Level	Lec	Tut	Le	Lab	Periods				Other
							1	2	3	4	
Compulsory Courses											
2D1452 Formal Methods	5	D	20	14	-	12			3		
2D1453 Advanced Formal Methods	5	D	12	8	-	-				4	
2D1454 Semantics for Programming Languages <i>Replaces 2G1117.</i>	4	D	20	10	-	-		2			
Elective Courses											
2D1371 Theory of Automata	4	C	20	-	-	10				4	
2D1440 Advanced Algorithms	4	D	30	-	-	-		2			
2D1446 Complexity Theory <i>The course is given every second year and will not be given in 06/07.</i>	4	D	30	-	-	-					
2D1449 Foundations of Cryptography	4	D	30	-	-	-			3		
2G1515 Constraint Programming	5	D	24	-	-	-				4	Project work 10 hours
2G1530 Logic Programming <i>replaces 2G1121</i>	5	D	16	12	-	-	1				Individual work on project and group presentation 4h
2G1533 Compilers and Execution Environments	5	C	28	8	-	-		2			
2G1915 Concurrent Programming	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				
5B1712 Optimization for F	4	C	28	16	-	6			3		
5B1752 Optimization for E	4	C	28	16	-	8	1				

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Computer Science

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	14	-	-			3		2 h Seminars2 h Seminars
4D1061 Strategic Management <i>Examiner: Bertil Guve.</i>	4	B	20	-	-	-				4	
Elective Courses											
4D1051 Commercial Law <i>Examiner: Bengt Domeij.</i>	4	B	14	18	-	-			3		
4D1052 Intellectual Property Law <i>Examiner: Bengt Domeij.</i>	4	C	18	8	-	-				4	6 h SeminarsSeminars 6h 6 h Seminars
4D1084 Human Factors Engineering - Man - Machine System <i>Examinor: Lena Mårtensson.</i>	4	B	24	6	-	3			3		
4D1098 Organizational Change and Change Management*_	4	C	-	8	-	-				4	36 h Seminars36 h Seminars

*The course has limited participation

IT Project Management and Organisation D4

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

or for more detailed information, see the brochure about specializations for B (in Swedish).

Code Name	Credits	Level	Lec	Tut	Le	Lab	Periods				Other	
							1	2	3	4		
Compulsory Courses												
4D1047 Project Management: Leadership and Control <i>Examiner: Johann Packendorff.</i>	4	B	40	8	-	-	1					
4D1049 Project Management: Leading Project-Based Operations	4	C	36	12	-	-			3			
4D1059 Management of New Technology and Industrial Creativity <i>Examinor: Staffan Laestadius.</i>	4	C	36	8	-	-		2			8 h Seminars8 h Seminars	
4D1068 Management Issues in the Software Industry*	4	D	-	-	-	-			3		48 h Seminars48 h Seminars	
4D1308 Knowledge Management	4	D	18	12	-	-				4	12 h Seminars12 h Seminars	
Elective Courses												
4D1028 Industrial Economics and Management, Advanced Course <i>Examiner: Håkan Kullén.</i>	4	B	26	20	-	-				4	8 h SeminarsSeminars 4 H 8 h Seminars	

<u>4D1057 Advanced Patent Law</u> <i>Not given 2006/07.</i>	4	C	4	14	-	-				14 h Seminars 14h 14 h Seminars
<u>4D1076 Leadership in Cross-Cultural Context*</u> <i>The course is maximized to 60 students.</i>	4	C	22	12	-	-		2		12 h Seminars 12 h Seminars
<u>4D1093 Psychology for Engineers</u> <i>Examiner: Lena Mårtensson.</i>	4	B	24	3	-	4		2		
<u>4D1096 Human Resource Management</u> <i>Examiner: Matti Kaulio.</i>	4	B	28	12	-	-			3	
<u>4D1098 Organizational Change and Change Management*</u>	4	C	-	8	-	-				4 36 h Seminars 36 h Seminars
<u>4D1142 Leadership</u> <i>Examiner: Matti Kaulio.</i>	4	B	24	24	-	-	1			
<u>4D1152 Industrial Marketing, Advanced Course</u> <i>Examiner: Henrik Ugglä.</i>	4	C	36	-	-	-		2		12 h Seminars 12 h Seminars
<u>4D1163 Performance and Cost Analysis</u> <i>Examiner: Håkan Kullvén.</i>	4	B	34	-	-	-		2		4 h Seminars 4 h Seminars
<u>4D1166 Finance</u> <i>Examiner: Tomas Sörensson.</i>	4	B	30	18	-	-		2		
<u>4D1306 Art, Science and Skill</u> <i>Not given 2006/07. Examiner: Bo Göransson. Not given 2006/07.</i>	4	C	14	-	-	-				9 h Seminars 9 h Seminars
<u>4D1311 Intercultural Understanding</u> <i>Not given 2006/07. Examiner: Claes Gustafsson. Not given 2006/07.</i>	4	D	28	-	-	-				4 h Seminars 4 h Seminars
<u>4D1404 Leading Temporary Organizations and Projects</u> <i>Examiner: Johann Packendorff.</i>	4	D	36	-	-	-			4	12 h Seminars 12 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											
2D1400 Interactive Media for Computer Scientists	5	D	-	-	-	-	1	2	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 be given in 06/07.</i>	4	D	30	-	-	-				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			
2D1655 Cooperative IT-design <i>Replaces 2D1410.</i>	6	D	26	8	-	22			3	4	
2I1234 Machine Learning	4	D	36	-	-	-				4	
2I1418 Data Warehousing <i>The course is a replacement for 2I1224 from 06/07. Students who have already taken the course 2I1224 can therefore not apply for this one.</i>	5	D	15	-	2	-			3		9 h Seminars9 h Seminars
2I1419 Knowledge Management <i>The course is a replacement for 2I1229 from 06/07. Students who have already taken the course 2I1229 can therefore not apply for this one.</i>	5	D	24	24	-	-			3		

<u>211721 Ubiquitous Computing</u> <i>The course is a replacement for 211710 from 06/07. Students who have already taken the course 211710 can therefore not apply for this one.</i>	5	D	29	2	2	-			3	4	4 h Seminars4 h Seminars
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Computer Science

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											
211242 Models and Languages for Object and Web Databases	5	D	21	40	-	75			3		Studying/Practice 60h
211415 Knowledge and Software Reuse <i>The course is a replacement for 211040 from 06/07. Students who have already taken the course 211040 can therefore not apply for this one.</i>	5	C	18	18	-	40			3	4	
211418 Data Warehousing <i>The course is a replacement for 211224 from 06/07. Students who have already taken the course 211224 can therefore not apply for this one.</i>	5	D	15	-	2	-			3		9 h Seminars 9 h Seminars
211419 Knowledge Management <i>The course is a replacement for 211229 from 06/07. Students who have already taken the course 211229 can therefore not apply for this one.</i>	5	D	24	24	-	-			3		
Recommended Courses											
211406 Mobile Business	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.

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

Code Name	Credits	Level	Lec	Tut	Le	Lab	Periods				Other	
							1	2	3	4		
Compulsory Courses												
211053 Internet and ERP Systems	5	C	12	-	-	-	1					Project work 80 h
211228 Enterprise Computing and ERP Systems	5	D	14	12	-	60	1					80h
211242 Models and Languages for Object and Web Databases	5	D	21	40	-	75			3			Studying/Practice 60h
211415 Knowledge and Software Reuse <i>The course is a replacement for 211040 from 06/07. Students who have already taken the course 211040 can therefore not apply for this one.</i>	5	C	18	18	-	40			3	4		
211418 Data Warehousing <i>The course is a replacement for 211224 from 06/07. Students who have already taken the course 211224 can therefore not apply for this one.</i>	5	D	15	-	2	-			3			9 h Seminars 9 h Seminars

211419 Knowledge Management <i>The course is a replacement for 211229 from 06/07. Students who have already taken the course 211229 can therefore not apply for this one.</i>	5	D	24	24	-	-		3	
Recommended Courses									
211068 Internet Search and Monitoring Techniques <i>The course replaces 211413</i>	5	C	-	-	16	-	1		6 assignments
211404 Model-driven Development of Components <i>not given 2005/06</i>	5	D	20	35	-	110			4
211416 Software Evolution and Maintenance <i>The course is a replacement for 211041 from 06/07. Students who have already taken the course 211041 can therefore not apply for this one.</i>	5	C	24	-	6	-			4
211417 Relational Database Design <i>The course is a replacement for 211056 from 06/07. Students who have already taken the course 211056 can therefore not apply for this one.</i>	5	C	12	12	9	8	2		
211420 Processes for IT Production <i>The course is a replacement for 211403 from 06/07. Students who have already taken the course 211403 can therefore not apply for this one.</i>	5	D	21	-	-	-	2		6 h Seminars 6 h Seminars
212121 Global IT-management	5	D	20	-	-	-	2		10 h Seminars, 10 h Projektuppgift 10 h Seminars, 10 h Projektuppgift
212125 Management of IT-enabled Change	5	D	20	-	-	-		3	Seminars 10 h, Team project 10 h
212126 Strategic Management of IT	5	D	20	-	-	-			4 Seminars 10h, Team project 10h
Elective Courses									
211420 Processes for IT Production <i>The course is a replacement for 211403 from 06/07. Students who have already taken the course 211403 can therefore not apply for this one.</i>	5	D	21	-	-	-	2		6 h Seminars 6 h Seminars
211421 Project and Power Games <i>The course is a replacement for 211408 from 06/07. Students who have already taken the course 211408 can therefore not apply for this one.</i>	5	D	27	27	-	-			4
211423 Interoperability of Enterprise Systems and Services <i>The course is a replacement for 211058 from 06/07. Students who have already taken the course 211058 can therefore not apply for this one.</i>	5	D	12	12	40	18	2		

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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	4	D	36	-	-	-				4	
211235 Agent Programming <i>The course are not electiv if students already had read 2G1524 This course is not given 2006/2007.</i>	4	D	18	-	-	3			3	4	Other 80 hours
211719 Microsimulation <i>Teachers are Magnus Boman and Wah-Sui Almberg, with guest lecturer Kalle Mäkilä (preliminary).</i> <i>The course is a replacement for 211708 from 06/07. Students who have already taken the course 211708 can therefore not apply for this one.</i>	5	D	20	-	6	3			3		
211721 Ubiquitous Computing <i>The course is a replacement for 211710 from 06/07. Students who have already taken the course 211710 can therefore not apply for this one.</i>	5	D	29	2	2	-			3	4	4 h Seminars4 h Seminars
Recommended Courses											
211263 Internet Application Protocols and Standards <i>The course will not be given during the academic year 2006-2007.</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	4	C	25	-	-	-			3		Course assignment work 120
211715 Artificial Intelligence: Principles and Techniques <i>The course is a replacement for 211705 from 06/07. Students who have already taken the course 211705 can therefore not apply for this one.</i>	5	C	-	-	-	-	1				
211717 Programming of Interactive Systems <i>The course is a replacement for 211706 from 06/07. Students who have already taken the course 211706 can therefore not apply for this one.</i>	5	D	26	6	-	50		2			

2I1721 Ubiquitous Computing <i>The course is a replacement for 2I1710 from 06/07. Students who have already taken the course 2I1710 can therefore not apply for this one.</i>	5	D	29	2	2	-			3	4	4 h Seminars4 h Seminars
Recommended Courses											
2I1042 Design and Construction of Interactive Systems	5	C	-	-	-	-				4	
2I1059 Methods for the Design of Multimedia and Interactive Systems	6	D	25	-	-	64			3	4	
2I1130 Cognitive Psychology	4	A	30	12	-	-	1				
2I1263 Internet Application Protocols and Standards <i>The course will not be given during the academic year 2006-2007.</i>	4	A	24	-	-	20			3		120h
2I1409 Complex Social Networks	4	D	20	-	-	-		2			
2I1801 Internet Programming I <i>Replaces 2I1264 from HT04.</i>	5	D	6	-	-	160	1				
2I1802 Internet Programming II <i>Replaces 2I1265 from HT04.</i>	5	D	6	-	-	160		2			
Elective Courses											
2I1720 Collaborative Computing <i>The course is a replacement for 2I1709 from 06/07. Students who have already taken the course 2I1709 can therefore not apply for this one.</i>	5	D	20	-	-	10			3		20 h Seminars20 h Seminars
2I1722 Affective Interaction <i>The course is a replacement for 2I1703 from 06/07. Students who have already taken the course 2I1703 can therefore not apply for this one.</i>	5	D	18	-	-	120			3	4	
2I1724 Advanced Individual Course in Human-Computer Interaction	5	D	-	-	-	-	1	2	3	4	

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Internet Working Technology D3

At least 15 cr of the recommended courses have to be studied.

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	24	8	-	32				4	
Recommended Courses											
2G1520 Operating Systems <i>Given at Campus Valhallavägen</i>	5	C	28	12	-	-				4	

Internet Working Technology D4

At least 15 cr of the recommended courses have to be studied.

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			3		
2D1490 <u>IP Routing in Simple Computer Networks</u>	5	D	24	8	-	32				4	
Recommended Courses											
2D1390 <u>Internet Programming</u>	4	C	18	-	-	32		2			
2D1395 <u>Computer Security</u> <i>The course is given for the first time 06/07.</i>	4	C	18	14	-	12	1				
2D1491 <u>IP Routing in Internet and Other Complex Networks</u> <i>The course will not be given 06/07.</i>	5	D	24	8	-	32					
2D1492 <u>Net Design, Project Course</u> <i>The course is given every second year. Not given 06/07.</i>	6	D	12	4	-	8					
2D1493 <u>Seminars on Grid Computing and Internetworking</u> <i>The course is given every second year. Given 06/07.</i>	4	D	20	-	-	12		2			
2E1618 <u>Queuing Theory and Teletraffic Systems</u> <i>The course replaces 2G1318.</i>	4	C	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>	5	D	-	-	24	-			3		30 h Projektuppgift30 h Projektuppgift

2E1632 Management of Networks and Networked Systems <i>The course replaces 2G1332.</i>	5	D	20	-	-	-				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
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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Computer Science

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											
2E1616 Data Communications and Computer Networks <i>Given at Campus Valhallavägen</i>	4	B	24	18	-	4			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											
2E1605 Internetworking	5	C	-	-	-	-			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
2G1711 Communication System Design	12	D	-	-	-	-			3	4	project
2G1712 Communication System Design	16	D	-	-	-	-			3	4	Project
2G1713 Communication System Design	20	D	-	-	-	-			3	4	Project
Recommended Courses											
2D1452 Formal Methods	5	D	20	14	-	12			3		
2E1618 Queuing Theory and Teletraffic Systems <i>The course replaces 2G1318.</i>	4	C	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>	5	D	-	-	24	-			3		30 h Projektuppgift30 h Projektuppgift
2E1632 Management of Networks and Networked Systems <i>The course replaces 2G1332.</i>	5	D	20	-	-	-				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
2G1533 Compilers and Execution Environments	5	C	28	8	-	-		2	
2G1534 Computer Systems Architecture	5	C	16	16	-	16	1		Homework 16h
2G1704 Internet Security and Privacy	5	D	30	10	-	-		2	assigned paper
2G1722 Developing Mobile Applications	5	D	20	-	-	10		3	
2G1723 GSM Network and Services	5	D	20	-	-	10		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	5	C	36	-	-	24		3	

*The course has limited participation

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Human-Computer Interaction D3

At least 2 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 <i>Given if there are at least 15 participants.</i>	4	A	18	-	-	8				4	Seminars 8 h
4D1208 History of Technology and Science	5	B	18	-	-	-			3		4h Seminars

Human-Computer Interaction D4

At least 2 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>Given 06/07. The course is given every second year.</i>	4	A	28	18	-	-		2			
2D1381 Industrial Applications of Artificial Intelligence	4	C	36	-	-	-	1	2			
2D1400 Interactive Media for Computer Scientists	5	D	-	-	-	-	1	2	3	4	
2D1408 Evaluation Methods in Human-Computer Interaction <i>Given if there are at least 15 participants. Advanced course</i>	4	D	10	10	-	-			3		
2D1413 Advanced Graphics and Interaction	6	D	46	-	-	12	1	2			
2D1416 Computer Support for Cooperative Work <i>Given if there are at least 15 participants. Advanced course</i>	6	D	24	12	-	2			3	4	
2D1418 Language Engineering	4	D	40	-	-	12	1				
2D1422 Image Analysis and Computer Vision <i>Replaces 2D1421.</i>	4	C	30	2	-	20		2			

2D1521 Communication and Information <i>Not given 06/07.</i>	5	A	16	12	-	-					
2D1530 Audio-, Video and multimediamproduction <i>Replaces 2D1518.</i>	5	C	26	8	-	36		2			
2D1603 Technologies that Changes Time, Space and Reality <i>Given if there are at least 15 participants.</i>	5	B	34	27	-	-	1	2			
2D1630 Methods in Behavioural Science	4	C	16	4	-	-	1				
2D1631 Software Support for Prototyping	4	C	11	6	-	16	1	2			
2D1650 Computer Game Design* <i>Limited number of participants.</i>	4	D	24	6	-	4		2			
2D1651 Computer Game Design and Advanced Graphics* <i>Limited number of participants.</i>	6	D	48	12	-	18	1	2			
2D1655 Cooperative IT-design <i>Replaces 2D1410. Advanced course</i>	6	D	26	8	-	22			3	4	
2E1395 Pattern Recognition <i>Replaces 2F1510.</i>	4	D	24	24	-	-	1				24 h Projektuppgift 24 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	4	A	30	12	-	-	1				
4D1093 Psychology for Engineers <i>Examiner: Lena Mårtensson.</i>	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.

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											
2D1450 <u>Algorithmic Bioinformatics</u>	4	D	36	-	-	-				4	
2D1455 <u>Theoretical Foundations of Object-Oriented</u>	5	D	28	4	-	10				4	
2D1456 <u>Advanced Functional Programming</u> <i>The course is not given from the studying year 07/08</i>	4	D	28	-	-	14			3		
2D1471 <u>Modern Database Systems and Their Applications</u>	5	D	26	8	-	-				4	
2D1483 <u>Development of Web Applications with Enterprise Java</u> <i>Replaces 2D1482.</i>	4	D	16	-	-	32			3		
5B1305 <u>Applied Combinatorics</u> <i>Given 06/07.</i>	4	C	-	-	42	-				4	

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												
2D1375 <u>Implementation of Programming Languages</u> <i>Self-study course.</i> <i>The course is given for the last time 06/07.</i> <i>1</i>	4	D	2	-	-	-	1	2				
2D1380 <u>Artificial Intelligence</u>	4	C	24	4	-	30	1					
2D1381 <u>Industrial Applications of Artificial Intelligence</u>	4	C	36	-	-	-	1	2				
2D1387 <u>Program System Construction Using C++</u>	4	C	18	6	-	32	1	2				
2D1388 <u>No translation*</u> <i>The course is given for the first time 06/07.</i>	5	C	24	-	-	32			3	4		
2D1390 <u>Internet Programming</u>	4	C	18	-	-	32		2				
2D1395 <u>Computer Security</u> <i>The course is given for the first time 06/07.</i>	4	C	18	14	-	12	1					
2D1418 <u>Language Engineering</u> <i>1</i>	4	D	40	-	-	12	1					
2D1431 <u>Machine Learning</u>	4	C	26	-	-	20		2				

2D1440 Advanced Algorithms 1	4	D	30	-	-	-	2			
2D1450 Algorithmic Bioinformatics	4	D	36	-	-	-			4	
2D1452 Formal Methods	5	D	20	14	-	12		3		
2D1454 Semantics for Programming Languages <i>Replaces 2G1117. 1</i>	4	D	20	10	-	-	2			
2D1455 Theoretical Foundations of Object-Oriented	5	D	28	4	-	10			4	
2D1456 Advanced Functional Programming <i>The course is not given from the studying year 07/08</i>	4	D	28	-	-	14		3		
2D1458 Problem Solving and Programming under Pressure* 1	6	C	26	-	-	32	1	2		
2D1469 Database Theory <i>The course is given every second year. It will not be given 06/07.</i>	4	D	31	17	-	-				
2D1471 Modern Database Systems and Their Applications	5	D	26	8	-	-			4	
2D1472 No translation <i>The course is given for the first time 06/07.</i>	4	D	14	-	-	10	2			
2D1483 Development of Web Applications with Enterprise Java <i>Replaces 2D1482.</i>	4	D	16	-	-	32		3		
2D1486 Systems Programming and Operating Systems	5	D	24	-	-	24	2			
2D1655 Cooperative IT-design <i>Replaces 2D1410.</i>	6	D	26	8	-	22		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	5	C	36	-	-	24		3		
2I1228 Enterprise Computing and ERP Systems	5	D	14	12	-	60	1			80h
2I1282 Software Testing and Metrics	5	D	40	-	120	-		3		
5B1305 Applied Combinatorics <i>Given 06/07.</i>	4	C	-	-	42	-			4	

*The course has limited participation

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Computer Science

Software Technology D4

Given for the last time for D4 06/07.

Code Name	Credits	Level	Lec	Tut	Le	Lab	Periods				Other
							1	2	3	4	
Compulsory Courses											
2I1249 <u>Current Problems in Software Engineering</u>	5	D	-	-	-	-	1	2	3	4	total workload is 200 hours
2I1281 <u>Agile Software Construction</u>	6	C	40	-	40	120			3	4	
2I1282 <u>Software Testing and Metrics</u>	5	D	40	-	120	-			3		
2I1283 <u>Formal Methods in Software Engineering</u>	5	C	20	16	-	-				4	Varies, total workload is 200 hours
2I1284 <u>Dynamic Programming Languages</u>	5	C	30	-	-	-				4	
2I1901 <u>Introduction to Software Engineering</u>	5	C	15	-	-	-			3		Seminars 6 hours, project 120 hours
Recommended Courses											
2D1454 <u>Semantics for Programming Languages</u> <i>Replaces 2G1117.</i>	4	D	20	10	-	-		2			
2D1655 <u>Cooperative IT-design</u> <i>Replaces 2D1410.</i>	6	D	26	8	-	22			3	4	
2G1915 <u>Concurrent Programming</u> <i>In period 1, the course is given at Campus Valhallavägen.</i>	5	C	36	-	-	24	1				
2G1915 <u>Concurrent Programming</u>	5	C	36	-	-	24			3		
2I1228 <u>Enterprise Computing and ERP Systems</u>	5	D	14	12	-	60	1				80h
2I1416 <u>Software Evolution and Maintenance</u> <i>The course is a replacement for 2I1041 from 06/07. Students who have already taken the course 2I1041 can therefore not apply for this one.</i>	5	C	24	-	6	-				4	
2I1504 <u>Software Engineering and Security Architecture</u>	5	D	18	-	-	18			3		
2I1516 <u>Principles of Computer Security</u> <i>The course is a replacement for 2I1273 from Autumn 2006, and it is an extended version of the same.</i>	5	D	24	-	10	12	1				
2I1516 <u>Principles of Computer Security</u> <i>The course is a replacement for 2I1273 from Autumn 2006, and it is an extended version of the same.</i>	5	D	24	-	10	12			3		
2I1902 <u>Advanced Issues in Object-Orientation</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											
2D1517 XML for Publishing	5	C	20	2	-	24	1	2			20 h Projektuppgift20 h Projektuppgift
2D1527 Publishing Technology, Advanced Course <i>Open only to students of the specialization Publishing Technology.</i>	10	D	60	-	-	-			3	4	8 h Study visit8 h Study visit
2D1529 Digital Images for Publication <i>Replaces 2D1524.</i>	5	C	22	8	-	12	1				8 h Study visit8 h Study visit
2D1530 Audio-, Video and multimediamproduction <i>Replaces 2D1518.</i>	5	C	26	8	-	36		2			
2D1531 Graphic Arts Production <i>Replaces 2D1515.</i>	5	C	30	-	-	8		2			8 h Study visit8 h Study visit

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Computer Science

Theoretical Computer Science D3

At least 25 cr and three of the courses marked with 1 have to be studied. The spec. is merged with Formal design techniques 06/07 for D3.

Code Name	Credits	Level	Lec	Tut	Le	Lab	Periods				Other
							1	2	3	4	
Elective Courses											
2D1371 <u>Theory of Automata</u>	4	C	20	-	-	10				4	
2D1441 <u>Seminars on Theoretical Computer Science</u> <i>The course is given every second year and will be given in 06/07. 1</i>	4	D	30	-	-	-				4	
2D1446 <u>Complexity Theory</u> <i>The course is given every second year and will not be given in 06/07. 1</i>	4	D	30	-	-	-					
2D1447 <u>Statistical Methods in Applied Computer Science</u> <i>The course is given for the first time 06/07. 1</i>	4	D	18	6	-	-			3	4	
2D1449 <u>Foundations of Cryptography 1</u>	4	D	30	-	-	-			3		
2D1450 <u>Algorithmic Bioinformatics</u>	4	D	36	-	-	-				4	
2D1452 <u>Formal Methods 1</u>	5	D	20	14	-	12			3		
2D1453 <u>Advanced Formal Methods 1</u>	5	D	12	8	-	-				4	
2D1455 <u>Theoretical Foundations of Object-Oriented</u>	5	D	28	4	-	10				4	
2G1515 <u>Constraint Programming</u>	5	D	24	-	-	-				4	Project work 10 hours
5B1305 <u>Applied Combinatorics</u> <i>Given 06/07. 1</i>	4	C	-	-	42	-				4	
5B1309 <u>Algebra, Basic Course</u>	4	C	42	-	-	-			3		
5B1712 <u>Optimization for F</u>	4	C	28	16	-	6			3		

Theoretical Computer Science D4

At least 25 cr and three of the courses marked with 1 have to be studied. The spec. is merged with Formal design techniques 06/07 for D3.

Code Name	Credits	Level	Lec	Tut	Le	Lab	Periods				Other
							1	2	3	4	
Elective Courses											
2D1371 <u>Theory of Automata</u>	4	C	20	-	-	10				4	
2D1380 <u>Artificial Intelligence</u>	4	C	24	4	-	30	1				
2D1395 <u>Computer Security</u> <i>The course is given for the first time 06/07.</i>	4	C	18	14	-	12	1				

2D1440 Advanced Algorithms 1	4	D	30	-	-	-	2			
2D1441 Seminars on Theoretical Computer Science <i>The course is given every second year and will be given in 06/07. 1</i>	4	D	30	-	-	-			4	
2D1446 Complexity Theory <i>The course is given every second year and will not be given in 06/07. 1</i>	4	D	30	-	-	-				
2D1447 Statistical Methods in Applied Computer Science <i>The course is given for the first time 06/07. 1</i>	4	D	18	6	-	-		3	4	
2D1449 Foundations of Cryptography 1	4	D	30	-	-	-		3		
2D1450 Algorithmic Bioinformatics 1	4	D	36	-	-	-			4	
2D1452 Formal Methods 1	5	D	20	14	-	12		3		
2D1453 Advanced Formal Methods 1	5	D	12	8	-	-			4	
2D1454 Semantics for Programming Languages <i>Replaces 2G1117. 1</i>	4	D	20	10	-	-	2			
2D1455 Theoretical Foundations of Object-Oriented	5	D	28	4	-	10			4	
2D1458 Problem Solving and Programming under Pressure*	6	C	26	-	-	32	1	2		
2G1515 Constraint Programming	5	D	24	-	-	-			4	Project work 10 hours
2G1530 Logic Programming <i>replaces 2G1121 1</i>	5	D	16	12	-	-	1			Individual work on project and group presentation 4h
2G1915 Concurrent Programming 1	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>Given 06/07. 1</i>	4	C	-	-	42	-			4	
5B1309 Algebra, Basic Course	4	C	42	-	-	-		3		
5B1475 Combinatorics, Advanced Course <i>Not given 06/07.</i>	5	D	36	-	-	-				
5B1712 Optimization for F	4	C	28	16	-	6		3		
5B1752 Optimization for E	4	C	28	16	-	8	1			

*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	-	22			3	4	
4F1811 Design and Product Realisation	6	A	30	50	-	40	1	2			
4F1828 Design and Project Realization, Models and Simulation	6	B	24	36	-	-			3	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	-		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	A	44	48	-	-			3	4	Math exercises	
4C1010 <u>Solid Mechanics, Basic Course</u>	8	B	54	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 <u>No translation</u>	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 <i>Examiner: Thorolf Hedborg.</i>	4	A	22	14	-	-		2			2 h Seminars 2 h Seminars
4F1814 Design and Product Realization C	6	C	16	24	-	42	1	2			20 h Workshop Project 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	-	32		2	3		
2E1200 Automatic Control, General Course	4	C	24	26	-	12		2			
4A1601 Heat Transfer	4	C	24	24	-	20		2			
4A1604 Project Course in Sustainable Energy Systems	10	C	-	-	-	-			3	4	Project wor Seminars
4B1150 Project Course in Sound, Vibrations and Signals	10	C	-	-	-	-			3	4	Seminrs
4B1430 Project Course 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		
4C1128 Solid Mechanics for Machine Design	4	C	22	18	-	-				4	
4D1061 Strategic Management <i>Examiner: Bertil Guve.</i>	4	B	20	-	-	-				4	
4D1075 Work Organization and Leadership	4	B	24	24	-	-			3		
4D1096 Human Resource Management <i>Examiner: Matti Kaulio.</i>	4	B	28	12	-	-			3		
4E1110 Project Course in Lightweight Structures	10	C	-	-	128	-			3	4	Project work Seminars
4E1400 Project Course in Naval Systems	10	C	-	-	-	-			3	4	
4F1540 Tribology	4	C	18	9	-	5		2			
4F1819 Visualisation and Communication 1	4	C	13	50	-	16			3		24 h Seminars 24 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	
4F1824 Project Course in Machine Engineering	10	C	-	-	-	-			3	4	
4F1826 Model Based Product Development I	6	C	24	24	-	12	1	2			
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	24	10	-	6	1				7 h Seminars7 h Seminars
6S1414 Ergonomics in Product Development	4	B	20	9	-	6		2			
7E1200 Cellular and Molecular Biology*_-	10	C	67	-	-	18			3	4	3 h Seminars3 h Seminars
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 Environmental	4	A	22	3	-	-	1				
3C1330 Technology and Environmental	4	A	22	3	-	-		2			
4A1603 Energy Technology <i>Lectures are given jointly with 4A1604 Project Course in Sustainable Energy Systems</i>	4	C	48	12	-	-			3		
4D1024 Industrial Economy and Management, Basic Course	4	A	20	14	-	-			3		2 h Seminars2 h Seminars
4F1541 CAD 3D-modelling and Visualization for	4	C	8	36	-	-				4	
4F1825 Model Based Product Development II	4	C	24	-	-	-	1				
4F1827 Microcomputers in Embedded Systems	6	C	-	-	72	-	1	2			
4F1829 Industrial Design Theory	4	C	-	28	-	-				4	
4F1831 Vizualization Methods	4	C	10	28	-	56				4	
4F1832 Project Work in Product Development*_-	5	C	-	-	-	-				4	10 h Seminars, 80 h Projektuppgift10 h Seminars, 80 h Projektuppgift
4G1169 Manufacturing	4	C	18	26	-	12		2			
4G1540 Laser Metrology Methods and Non Destructive Testing	4	C	28	22	-	4		2			
4H1071 Basic Chemistry for Industrial Engineering	4	A	14	10	-	-	1	2			5 h Projektuppgift5 h Projektuppgift
4K1101 Control Systems	4	C	18	28	-	12			3		
4K1105 Manufacturing Systems and Automation	4	C	14	24	-	12		2			
4K1132 Modularisation of Products	4	C	24	20	-	-			3		
4K1201 Computer Aided Design and Manufacturing, Introductory course	5	C	48	-	-	24				4	Graded exercise

4K1213 Advanced CAD Modelling & Rapid Prototyping, Project Course	4	D	16	24	-	-		2	3		Project work
5A1228 Laser metrology and optical metrology <i>Under bearbetning</i>	4	B	24	-	6	-			3	4	
5A1229 Physics of Visual Impressions <i>Under bearbetning</i>	4	B	24	-	6	-				4	
5C1217 Fluid Mechanics, Basic Course	4	B	24	10	-	6			3		7 h Seminars7 h Seminars
9E1343 Spanish, Advanced Beginners' Level*_	5	B	-	-	56	-	1	2			

*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											
4E1114 <u>Fiber Composites - Materials and Manufacturing</u> <i>Replaces 4E1124.</i>	4	C	40	-	-	8			3	4	
Elective Courses											
3C1336 <u>Introduction Industrial Ecology</u>	4	C	12	8	12	-	1				8 h Seminars, 12 h Projektuppgift 8 h Seminars, 12 h Projektuppgift
3C1341 <u>Environmental Technology, Advanced Course</u>	5	C	34	9	-	-	1				3 h Projektuppgift Advanced course on environmental technology 3 h Projektuppgift
3C1356 <u>Ecology, Advanced Course</u>	4	C	21	4	-	-			3	4	Field work 8h
3C1396 <u>Technology and Sustainable Development</u>	4	C	8	9	-	-		2			
4A1651 <u>Management and Leadership in Systems Engineering - Project Course</u> <i>Under bearbetning</i>	2	A	10	-	-	-				4	
4F1541 <u>CAD 3D-modelling and Visualization for</u>	4	C	8	36	-	-				4	
4F1640 <u>Industrial Design*</u> <i>Limited number of participants.</i>	4	C	24	36	-	-			3		
4F1829 <u>Industrial Design Theory</u>	4	C	-	28	-	-				4	
4F1831 <u>Vizualization Methods</u>	4	C	10	28	-	56				4	
4F1912 <u>Innovation Engineering</u>	20	D	-	-	-	-	1	2	3	4	40 h Seminars, 40 h Workshop, 40 h Study visit 40 h Seminars, 40 h Workshop, 40 h Study visit
4K1213 <u>Advanced CAD Modelling & Rapid Prototyping, Project Course</u>	4	D	16	24	-	-		2	3		Project work

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Biomedical Engineering P4

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				
7E1201 Neuroscience*_ _	5	C	50	-	-	20				4	
7E1202 Systems Biology*_ _	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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Automotive Engineering P4

Code Name	Credits	Level	Lec	Tut	Le	Lab	Periods				Other
							1	2	3	4	
Compulsory Courses											
5C1211 Vehicle Aerodynamics	4	C	28	-	-	4				4	8 h Seminars8 h Seminars
Conditionally Elective Courses											
4B1304 Railway Systems and Rail Vehicles	6	C	-	-	60	9	1	2			Project assignment 9h
4B1313 Rail Vehicle Dynamics	5	D	-	-	36	-			3		24 h Projektuppgift24 h Projektuppgift
4B1422 Vehicle Components <i>Replaces 4B1420.</i>	5	D	30	30	-	-		2			
4B1425 Ground Vehicle Dynamics, Basic Course*	7	D	33	60	-	-			3	4	
4F1430 Combustion Engines, general course*	4	C	42	6	-	12	1				
Recommended Courses											
2C1149 Electric Traction	4	C	36	-	-	-				4	
2C1243 Hybrid Vehicle Drives*	5	D	-	-	-	-		2			3 course meetings. (LTH, CTH and KTH) Project work/ assignments in between the meetings.
2E1252 Control Theory and Practice, Advanced Course	5	D	28	26	-	8			3		
4B1132 Experimental Structure Dynamics <i>Replaces 4B1131.</i>	6	D	-	36	24	12		2	3		18 h Computer18 h Computer
4B1428 Environmental Friendly Vehicle - Project Course*	5	D	10	-	-	-			3	4	
4D1084 Human Factors Engineering - Man - Machine System <i>Examinor: Lena Mårtensson.</i>	4	B	24	6	-	3			3		
4E1111 Lightweight Structures and FEM <i>Replaces 4E1102.</i>	5	D	48	-	-	14	1				
4E1150 Biomechanics and Neurronics <i>Under bearbetning</i>	4	D	34	-	-	8				4	
4F1431 Combustion Engines, Advanced Course*	6	D	48	-	-	28		2	3		
Elective Courses											
4F1460 Combustion Engines, Project Course <i>Open only for students with individual specialization of Combustion engines.</i>	6	D	-	-	18	-			3	4	

*The course has limited participation

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Solid Mechanics P4

Code Name	Credits	Level	Lec	Tut	Le	Lab	Periods				Other
							1	2	3	4	
Compulsory Courses											
4C1122 Applied Solid Mechanics	6	D	28	16	-	24	1	2			
4C1126 Material Mechanics	6	D	60	-	-	15	1	2			
Conditionally Elective Courses											
4C1111 Fracture Mechanics and Fatigue	4	D	48	-	-	4			3		
4C1116 Dynamic Problems in Solid Mechanics	4	D	42	-	-	8			3	4	
4C1121 Introduction to Biomechanics	6	C	48	-	-	8			3		
4C1123 Testing Techniques in Solid Mechanics <i>Under bearbetning</i>	4	C	24	-	-	24				4	
4C1124 Orthopedic Biomechanics <i>Not given 06/07.</i>	4	D	32	-	-	4					
4C1125 Solid Mechanics Modelling for Design	6	D	60	-	-	12				4	

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Industrial Design P4

Code Name	Credits	Level	Lec	Tut	Le	Lab	Periods				Other
							1	2	3	4	
Compulsory Courses											
4F1902	20	D	-	180	-	-	1	2	3	4	
4F1905 Innovative Design I	8	D	24	96	-	-	1	2			
Elective Courses											
4F1829 Industrial Design Theory	4	C	-	28	-	-				4	
4F1831 Vizualization Methods	4	C	10	28	-	56				4	
4F1909 Visualisation and Communication II	4	D	3	12	-	-				4	
Under bearbetning											

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Industrial Ecology P4

Code Name	Credits	Level	Lec	Tut	Le	Lab	Periods				Other
							1	2	3	4	
Compulsory Courses											
3C1341 Environmental Technology, Advanced Course	5	C	34	9	-	-	1				3 h ProjektuppgiftAdvanced course on environmental technology 3 h Projektuppgift
3C1380 Environmental Management	4	C	10	-	-	-			3		12 h Seminars12 h Seminars
3C1387 Environmental Systems Analysis	4	C	16	8	-	6		2			
Recommended Courses											
3C1350 Waste Management, Advanced Course	4	D	18	-	-	-				4	Project work, assignments, Study visit
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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Industrial Management and Economics P4

Code Name	Credits	Level	Lec	Tut	Le	Lab	Periods				Other
							1	2	3	4	
Compulsory Courses											
4D1303 Research Methodology <i>Examiner: Monica Lindgren</i>	2	D	12	-	-	-				4	
Conditionally Elective Courses											
4D1038 Operations Management: Organization and Control <i>Examinor: Johann Packendorff.</i>	4	B	46	12	-	-		2			
4D1039 Operations Management: Strategy and Development <i>Examiner: Johann Packendorff.</i>	4	C	36	12	-	-			3		
4D1047 Project Management: Leadership and Control <i>Examiner: Johann Packendorff.</i>	4	B	40	8	-	-	1				
4D1049 Project Management: Leading Project-Based Operations	4	C	36	12	-	-			3		
4D1053 Economics of Industrial and Technical Transformation <i>Examiner: Pär Blomkvist.</i>	4	B	36	-	-	-	1				8 h Seminars8 h Seminars
4D1059 Management of New Technology and Industrial Creativity <i>Examinor: Staffan Laestadius.</i>	4	C	36	8	-	-		2			8 h Seminars8 h Seminars
4D1069 Globalization of Industry and Technology, Advanced Course <i>In case that too few students sign up for this course, the course will be cancel. Examiner: Staffan Laestadius.</i>	4	D	24	8	-	-				4	8 h Seminars8 h Seminars
4D1078 Industrial Sweden - from Local to Global Change <i>Not given 2006/07. Not given 2006/07.</i>	4	D	24	-	-	-					
4D1079 Brand Trends and Traditions <i>Examiner: Henrik Ugglä.</i>	4	D	35	-	-	-			3		
4D1308 Knowledge Management	4	D	18	12	-	-				4	12 h Seminars12 h Seminars
4D1402 IT & Management I: Project Management*	4	B	16	-	-	-	1				12 h Seminars, 8 h Study visit12 h Seminars, 8 h Study visit
4D1403 IT & Management II: Strategies*	4	C	16	-	-	-		2			12 h Seminars, 4 h Study visit12 h Seminars, 4 h Study visit
4D1404 Leading Temporary Organizations and Projects <i>Examiner: Johann Packendorff.</i>	4	D	36	-	-	-				4	12 h Seminars12 h Seminars

Elective Courses[4D1166 Finance](#)

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Examiner: Tomas Sörensson.

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Industrial engineering P4

Code Name	Credits	Level	Lec	Tut	Le	Lab	Periods				Other	
							1	2	3	4		
Compulsory Courses												
4G1180 <u>European Business Culture</u>	5	C	30	60	-	-			3	4		
4G1181 <u>Design and Process Modelling</u>	5	C	30	60	-	-	1	2				
4G1182 <u>Quality Control</u>	6	D	30	60	-	-	1	2	3	4		
4G1183 <u>Process Control and Management</u>	6	D	30	60	-	-			3	4		
4G1184 <u>Manufacturing Technology and Planning</u>	6	D	30	60	-	-	1	2				
4G1185 <u>Operations Management</u>	6	C	30	60	-	-	1	2	3	4		
4G1186 <u>Design and Information Management</u>	6	D	30	60	-	-	1	2	3	4		

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Integrated Product Development P3

Code Name	Credits	Level	Lec	Tut	Le	Lab	Periods				Other
							1	2	3	4	
Elective Courses											
4F1541 CAD 3D-modelling and Visualization for	4	C	8	36	-	-				4	

Integrated Product Development P4

Code Name	Credits	Level	Lec	Tut	Le	Lab	Periods				Other
							1	2	3	4	
Compulsory Courses											
4F1901 Integrated Product Development, Advanced Course	20	D	-	180	-	-	1	2	3	4	
Recommended Courses											
4D1084 Human Factors Engineering - Man - Machine System <i>Examinor: Lena Mårtensson.</i>	4	B	24	6	-	3			3		
4D1098 Organizational Change and Change Management*	4	C	-	8	-	-				4	36 h Seminars 36 h Seminars
4D1099 Managing Risks in Complex Technical Systems <i>Examiner: Lena Mårtensson.</i>	4	C	12	-	-	-	1				18 h Seminars 18 h Seminars
4F1641 Environmentally Adapted Product Design <i>80% participation.</i>	4	C	-	-	42	-		2			
4F1643 Eco Design Project*	4	C	-	-	-	-	1	2	3	4	
4F1906 Inventive design	4	D	24	48	-	-	1				
4G1165 Automation Technology	4	C	18	26	-	12			3		
4G1169 Manufacturing	4	C	18	26	-	12		2			

*The course has limited participation

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Design and Product Realisation

Sound and vibration P4

Code Name	Credits	Level	Lec	Tut	Le	Lab	Periods				Other
							1	2	3	4	
Compulsory Courses											
4B1127 Vibroacoustics <i>Under bearbetning</i>	5	D	-	56	-	8	1	2			
4B1132 Experimental Structure Dynamics <i>Replaces 4B1131.</i>	6	D	-	36	24	12		2	3		18 h Computer18 h Computer
4B1136 Flow Acoustics	4	D	-	36	-	8			3		
Recommended Courses											
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	

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Design and Product Realisation

Lightweight Structures P4

Code Name	Credits	Level	Lec	Tut	Le	Lab	Periods				Other
							1	2	3	4	
Compulsory Courses											
4E1111 <u>Lightweight Structures and FEM</u> <i>Replaces 4E1102.</i>	5	D	48	-	-	14	1				
4E1113 <u>Fibre Composites - Analysis and Design</u> <i>Replaces 4E1125.</i>	4	D	52	-	-	6		2			
4E1115 <u>Process Modelling for Composite Manufacturing</u>	4	D	18	-	-	18				4	
4E1116 <u>Structural Optimisation and Sandwich Design</u> <i>Replaces 4E1126.</i>	4	D	40	-	-	18			3		
Conditionally Elective Courses											
4E1112 <u>Biomaterials and Products</u>	5	C	56	-	-	18	1	2			
4E1132 <u>Lightweight Design*</u> <i>Primarily aimed for students on the specialisation LKR.</i>	10	D	-	-	336	-	1	2	3	4	
4E1150 <u>Biomechanics and Neuronics</u> <i>Under bearbetning</i>	4	D	34	-	-	8				4	

*The course has limited participation

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Design and Product Realisation

Naval Systems P4

Code Name	Credits	Level	Lec	Tut	Le	Lab	Periods				Other
							1	2	3	4	
Compulsory Courses											
4E1111 <u>Lightweight Structures and FEM</u> <i>Replaces 4E1102.</i>	5	D	48	-	-	14	1				
4E1402 <u>Naval Design*</u> <i>Primarily aimed for MSY students.</i>	10	D	-	336	-	-	1	2	3	4	
4E1403 <u>Marine Dynamics</u>	6	D	64	10	-	10	1	2			
Conditionally Elective Courses											
4E1401 <u>Introduction to Naval Architecture</u>	5	C	10	44	-	4			3		
Recommended Courses											
2C1224 <u>Management of Technology</u>	5	D	32	20	-	-	1				
4E1113 <u>Fibre Composites - Analysis and Design</u> <i>Replaces 4E1125.</i>	4	D	52	-	-	6		2			
4E1114 <u>Fiber Composites - Materials and Manufacturing</u> <i>Replaces 4E1124.</i>	4	C	40	-	-	8			3	4	
4E1116 <u>Structural Optimisation and Sandwich Design</u> <i>Replaces 4E1126.</i>	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	-	-	16	14				4	
5C1214 <u>Fluid Mechanics</u>	5	C	-	30	30	3	1				

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Mechanics P4

Code Name	Credits	Level	Lec	Tut	Le	Lab	Periods				Other
							1	2	3	4	
Compulsory Courses											
5C1150 Advanced Engineering Dynamics	5	D	-	30	-	-	1				
5C1214 Fluid Mechanics	5	C	-	30	30	3	1				
Conditionally 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		
5C1151 Modern Multibody Dynamics	5	D	30	-	-	-		2			
5C1211 Vehicle Aerodynamics	4	C	28	-	-	4				4	8 h Seminars8 h Seminars
5C1212 Computational Fluid Dynamics	5	D	-	-	50	10			3		
5C1213 Applied Computational Fluid Dynamics	2	D	-	-	16	14				4	
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	
5C1221 Wave Motions and Hydrodynamic Stability	5	D	-	-	42	3		2			
5C1400 Nonlinear Dynamics in Mechanics	5	C	24	-	-	-			3		
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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Design and Product Realisation

Mechatronics P4

Code Name	Credits	Level	Lec	Tut	Le	Lab	Periods				Other
							1	2	3	4	
Compulsory Courses											
4F1903 <u>Mechatronics, Advanced Course</u>	12	D	-	-	-	-			3	4	
4F1907 <u>Dynamics and Motion Control</u>	6	D	24	14	-	-	1				
4F1908 <u>Embedded Control Systems</u>	6	D	24	12	-	24		2			
Elective Courses											
4F1910	20	D	-	-	-	-	1	2	3	4	8 h Seminars8 h Seminars

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Sustainable Energy Technology P4

Code Name	Credits	Level	Lec	Tut	Le	Lab	Periods				Other
							1	2	3	4	
Compulsory Courses											
4A1605 Sustainable Power Generation	6	D	50	30	-	12	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
4A1611 Renewable Energy Technology	4	D	-	-	52	-	1				Study visit 8h
Conditionally Elective Courses											
4A1622 Thermal Comfort and Indoor Climate <i>Mandatory for Energy Utilisation</i>	4	D	54	-	-	-			3	4	Study visits 6h
4A1623 Applied Refrigeration and Heat Pump Technology <i>Mandatory for Energy Utilisation.</i>	4	D	24	24	-	16			3	4	
4A1626 Applied Heat and Power Technology <i>Mandatory for Power Generation.</i>	4	D	36	12	-	8			3	4	Project assignment 8h
4A1627 Applied Reactor Technology and Nuclear Power Safety <i>Mandatory for Power Generation.</i>	4	D	48	-	-	-			3	4	Study visits 12h
Elective Courses											
4A1610 Energy Management	4	D	50	-	-	-		2	3		
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
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		
4A1628 Advanced Nuclear Reactor Engineering	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		

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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	24	30	-	-		2			
2B1560 Digital Design	5	A	24	22	-	16	1				
2D1343 Computer Science	8	A	44	28	-	28	1	2	3		
2U1700 Project Course in Electrical Engineering	5	A	12	-	-	50			3	4	
5B1146 Algebra and Geometry <i>Under bearbetning</i>	5	A	38	-	38	-	1				
5B1147 Calculus in One Variable <i>Under bearbetning</i>	5	A	50	25	-	-		2			
5B1148 Calculus in Sevrval Variable <i>Under bearbetning</i>	5	A	50	25	-	-			3		
5B1219 Vector Analysis and Complex Functions <i>Under bearbetning</i>	5	C	50	25	-	-				4	
Elective Courses											
2A1801 Applied Electronics <i>Under bearbetning</i>	1	B	4	-	-	8				4	8 h Computer8 h Computer
2E1215 Introductory Matlab Course	1	A	4	-	-	-			3		
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 <i>Under bearbetning</i>	4	A	-	-	-	-			3		
2B1520 Electronics	8	A	-	-	-	-				4	
2D1240 Numerical Methods, Basic Course II	4	A	24	14	-	14	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	34	-	26	-		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 <u>Physics part 2, Material Physics</u>	4	A	-	-	-	-	1				
2C1240 <u>Electric Power Systems</u>	4	C	28	22	-	8		2			
2E1117 <u>Measurement Technology</u> <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 <u>Automatic Control, General Course</u>	4	C	24	26	-	12		2			
5B1752 <u>Optimization for E</u>	4	C	28	16	-	8	1				
Elective Courses											
2B1430 <u>Design of Digital Integrated Circuits - LSI</u>	5	C	20	8	-	16				4	Project 16h The course is given in Campus. (Valhallavägen)
2B1454 <u>Design of Fault-tolerant Systems</u> <i>Under bearbetning</i>	5	D	-	-	-	-				4	
2B1456 <u>Advanced Logic Design</u> <i>This course is not given 2006/2007. This course is not given 2006/2007.</i>	5	D	24	6	-	-			3		
2C1117 <u>Wind Power Systems</u> <i>Replaces 2C1114.</i>	5	D	60	-	-	-			3	4	
2C1119 <u>Electricity Market Analysis</u>	5	D	70	-	-	-				4	
2C1135 <u>Reliability Evaluation of Electrical Power Systems</u>	4	C	48	12	-	-				4	
2C1149 <u>Electric Traction</u>	4	C	36	-	-	-				4	
2D1220 <u>Applied Numerical Methods I</u>	4	C	36	-	-	14			3	4	
2D1323 <u>Computer Graphics and Interaction</u> <i>Allowed for all programmes except D.</i>	4	C	30	-	-	8				4	
2D1334 <u>Database Technology</u>	4	C	24	20	-	12			3		
2E1282 <u>Modelling of Dynamical Systems</u>	4	C	24	24	-	12				4	
2E1514 <u>Wireless Transmission Techniques</u>	4	D	26	26	-	-			3		
2E1623 <u>Data Links and Local Area Networks*</u>	5	C	24	14	-	12			3		
2F1212 <u>Music Acoustics</u>	4	D	-	-	48	8				4	
2F1213 <u>Musical Communication and Music Technology</u>	5	D	28	8	-	12				4	Project assignment 30h
2G1529 <u>Network Programming with Java</u> <i>The course replaces 2G1118 The course is given in Campus Valhallavägen in period 4</i>	5	D	22	10	-	10				4	

3C1380 Environmental Management	4	C	10	-	-	-		3	12 h Seminars12 h Seminars
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*The course has limited participation

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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											
2A1160 Space Physics	3	D	18	-	-	-	1				
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		2			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 <i>Under bearbetning</i>	5	D	-	-	-	-				4	
2C1117 Wind Power Systems <i>Replaces 2C1114.</i>	5	D	60	-	-	-			3	4	
2C1119 Electricity Market Analysis	5	D	70	-	-	-				4	
2C1135 Reliability Evaluation of Electrical Power Systems	4	C	48	12	-	-				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. (LTH, CTH and KTH) Project work/assignments in between the meetings.
2C1244 Seminars in Electrical Machines and Power Electronics	1	D	8	-	-	-			3	4	
2C1244 Seminars in Electrical Machines and Power Electronics	1	D	16	-	-	-	1	2			
2C1522 Business Development and Quality Management	5	C	36	10	-	-		2			
2D1220 Applied Numerical Methods I	4	C	36	-	-	14			3	4	
2D1274 Computational Electromagnetics <i>Not on the central schedule.</i>	5	D	24	-	-	8		2			
2D1323 Computer Graphics and Interaction <i>Allowed for all programmes except D.</i>	4	C	30	-	-	8				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	18	-	-	32	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			
2E1282 Modelling of Dynamical Systems	4	C	24	24	-	12			4	
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		
2E1623 Data Links and Local Area Networks*	5	C	24	14	-	12		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	C	34	12	-	8	1			
2F1410 Audio Technology	5	D	30	12	-	12	2			20 h Projektuppgift20 h Projektuppgift
2G1509 Distributed Systems, Basic Course	5	D	24	-	-	-	1			Project work 12 hours
2G1513 Distributed Systems, Advanced Course	5	D	24	-	-	-		3		
2G1515 Constraint Programming	5	D	24	-	-	-			4	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	20	10	-	-	1			12 h ProjektuppgiftProjectwork 12 h 12 h Projektuppgift
2G1535 Research Methods in Computer Systems Engineering	5	D	8	-	-	-		3		
2G1915 Concurrent Programming <i>In period 1, the course is given at Campus Valhallavägen.</i>	5	C	36	-	-	24	1			
2G1915 Concurrent Programming	5	C	36	-	-	24		3		
3C1330 Technology and Environmental	4	A	22	3	-	-	1			
3C1330 Technology and Environmental	4	A	22	3	-	-	2			
3C1330 Technology and Environmental	4	A	-	3	-	-				
3C1380 Environmental Management	4	C	10	-	-	-		3		12 h Seminars12 h Seminars
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	-	-	-		3	4	

5A1320 <u>Introduction to Quantum Mechanics</u> <i>This course is identical with part 1 and the project in 5A1324.</i>	4	C	30	24	-	-	1	2	3		
5A1340 <u>Thermodynamics and Statistical Mechanics, Basic Course</u> <i>This course is part 2 of 5A1324.</i>	4	C	30	24	-	-	1	2			
5A1412 <u>Atomic Nuclei - Radiation - Energy</u> <i>Given if there are enough interest. Please contact course administrator.</i> <i>Under bearbetning</i>	5	A	24	-	-	15			3		

*The course has limited participation

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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	22	-	10			3		
7E1200 Cellular and Molecular Biology*	10	C	67	-	-	18			3	4	3 h Seminars3 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	22	-	10			3		
7E1101 Medical Engineering, Basic Course	4	C	24	-	-	-	1				
7E1200 Cellular and Molecular Biology*	10	C	67	-	-	18			3	4	3 h Seminars3 h Seminars
Elective Courses											
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	16	-	8		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		2	3		Project work	
2E1423 Signal Theory	5	C	24	22	-	10			3			
2G1518 Computer Hardware Engineering	5	B	-	-	-	-			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		2	3		
2E1423 Signal Theory	5	C	24	22	-	10			3		
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			
2B1263 Surface Physics, Basic Course	4	D	36	-	-	-		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	-	10	-	20	2			
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	26	10	-	28	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
2G1534 Computer Systems Architecture	5	C	16	16	-	16	1			Homework 16h

*The course has limited participation

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Electrical 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	70	-	-	-			3		
2C1133 <u>Electrotechnical Modelling</u> <i>The Course is given in period 2 in english and in swedish in period 4.</i>	5	C	38	-	-	-		2		4	Computer workshop 28 h

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	70	-	-	-			3		
2C1115 Power Systems, Basic Course	5	C	-	-	70	-	1				
2C1133 Electrotechnical Modelling <i>The Course is given in period 2 in english and in swedish in period 4.</i>	5	C	38	-	-	-		2		4	Computer workshop 28 h
5A1301 Mathematical Methods in Physics, Course I <i>This course is a part of 5A1305.</i>	4	C	26	28	-	-	1				
5B1201 Complex Analysis	4	C	40	20	-	-			3		
Elective Courses											
2A1131 Plasma Physics	4	C	48	-	-	-	1	2			
2A1137 Plasma Physics, Supplementary Course	2	D	12	-	-	-			3		
2A1145 Electromagnetic Waves in Dispersive Media <i>Under bearbetning</i>	4	D	24	6	-	-			3		
2A1151 Energy and Fusion Research	4	D	24	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 Systems Planning <i>Replaces 2C1111.</i>	5	C	64	-	-	3			3		
2C1132 High-voltage Engineering	5	D	26	-	-	12				4	

2C1134 Electrotechnical Design	5	D	32	-	-	8			3		
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	28	20	-	12			3		
2C1242 Power Electronics	5	D	28	20	-	12	1				1 design project
2C1521 Industrial Control and Information Systems	5	D	36	16	-	3		2			
2E1252 Control Theory and Practice, Advanced Course	5	D	28	26	-	8			3		
2H1250 Electromagnetic Field Theory	5	C	-	-	40	-	1	2			Projekthandledning 16 h, Studiebesök 4 h. (Om färre än fem deltagare: självstudier samt konsultation.)
2H1255 Electromagnetic Wave Propagation <i>Under bearbetning</i>	5	D	-	-	56	-			3	4	

*The course has limited participation

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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	22	-	10			3			
2E1616 Data Communications and Computer Networks <i>Given at Campus Valhallavägen</i>	4	B	24	18	-	4			3			
2G1518 Computer Hardware Engineering	5	B	-	-	-	-			3	4		
Elective Courses												
2E1605 Internetworking	5	C	-	-	-	-			3			

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	22	-	10			3		
2E1511 Radio Communication, Basic Course	4	D	24	24	-	8	1				
2E1616 Data Communications and Computer Networks <i>Given at Campus Valhallavägen</i>	4	B	24	18	-	4			3		
Elective Courses											
2B1310 Microwave Engineering	5	C	36	18	-	10		2			
2B1600 Radio Electronics	5	D	26	12	-	16				4	
2E1340 Digital Signal Processing	5	D	26	16	-	8		2			
2E1350 Adaptive Signal Processing	4	D	24	14	-	-			3		
2E1367 Project Course in Signal Processing and Digital Communication	8	D	10	-	50	-				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 Projektuppgift	80 h Projektuppgift
2E1605 Internetworking	5	C	-	-	-	-			3		
2E1618 Queuing Theory and Teletraffic Systems <i>The course replaces 2G1318.</i>	4	C	24	24	-	-		2			
2E1624 Performance Analysis of Communication Networks <i>The course replaces 2G1324.</i>	5	D	-	-	24	-			3	30 h Projektuppgift	30 h Projektuppgift
2E1632 Management of Networks and Networked Systems <i>The course replaces 2G1332.</i>	5	D	20	-	-	-			4	Project	
2E1633 Network Services and Internet-based Applications* <i>The course replaces 2G1333.</i>	5	D	8	-	-	-			4	120 h Projektuppgift	120 h Projektuppgift
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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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	70	-	-	-			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	22	-	10			3		
2G1518 <u>Computer Hardware Engineering</u>	5	B	-	-	-	-			3	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	-	-	70	-	1				
2C1115 Power Systems, Basic Course	5	C	70	-	-	-			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	22	-	10			3		
Elective Courses											
2C1116 Power Systems, Advanced Course	5	D	-	-	72	-		2			
2C1118 Systems Planning <i>Replaces 2C1111.</i>	5	C	64	-	-	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	28	20	-	12			3		
2C1521 Industrial Control and Information Systems	5	D	36	16	-	3		2			
2D1422 Image Analysis and Computer Vision <i>Replaces 2D1421.</i>	4	C	30	2	-	20		2			
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	10	-	-	50			4		
2E1245 Hybrid and Embedded Control Systems <i>This course is not given in 06/07. Next time the course will be given is 07/08.</i>	5	D	28	28	-	8			3		
2E1246 Hybrid and Embedded Control Systems, Advanced Course	2	D	6	-	-	-			3		
2E1252 Control Theory and Practice, Advanced Course	5	D	28	26	-	8			3		
2E1262 Nonlinear Control	5	D	28	28	-	8		2			
2E1333 Optimal Filtering <i>Given every second year. Given 06/07.</i>	4	D	-	-	24	-	1				
2E1340 Digital Signal Processing	5	D	26	16	-	8		2			
2E1350 Adaptive Signal Processing	4	D	24	14	-	-			3		
2E1432 Digital Communications	6	C	32	30	-	12	1	2			
2E1632 Management of Networks and Networked Systems <i>The course replaces 2G1332.</i>	5	D	20	-	-	-			4	Project	
5B1201 Complex Analysis	4	C	40	20	-	-			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	-	22			3	4		
4B1052 Perspectives on Vehicle Engineering	6	A	58	6	18	-	1	2			Selfstudies MATLAB 48h Projektuppgift 52h	
5A1226 Physics I	6	A	38	20	-	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 Noise and Vibration Control	6	C	38	44	-	8			3	4	
4C1010 Solid Mechanics, Basic Course	8	B	54	30	-	2	1	2			60 h Projektuppgift60 h Projektuppgift
4F1815 No translation <i>Under bearbetning</i>	8	B	30	60	-	-	1	2			
5B1207 Differential Equations II	6	C	60	30	-	-			3		
5C1140 Mechanics II	4	B	30	15	-	-	1				
5C1216 Thermodynamics for vehicle technology	4	B	20	10	-	-				4	1 h Seminars1 h Seminars
5C1217 Fluid Mechanics, Basic Course	4	B	24	10	-	6			3		7 h Seminars7 h Seminars

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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, Basic Course	4	C	24	34	-	2	1				
5B1762 Optimization for T	4	C	28	16	-	8				4	
Conditionally Elective Courses											
2D1321 Applied Programming and Computer Science	6	B	38	20	-	32	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 Project Course in Sound, Vibrations and Signals	10	C	-	-	-	-			3	4	Seminrs
4B1430 Project Course in Vehicle Engineering	10	C	-	-	-	-			3	4	
4C1003 Project Course in Solid Mechanics	10	C	-	-	-	-			3	4	Project work Seminars
4C1128 Solid Mechanics for Machine Design	4	C	22	18	-	-				4	
4D1075 Work Organization and Leadership	4	B	24	24	-	-			3		
4E1110 Project Course in Lightweight Structures	10	C	-	-	128	-			3	4	Project work Seminars
4E1234 Project Course in Aeronautics	10	C	-	-	-	-			3	4	
4E1400 Project Course in Naval Systems	10	C	-	-	-	-			3	4	
4F1540 Tribology	4	C	18	9	-	5	2				
4F1821 Project Course in Integrated Product Development	10	C	-	-	-	-			3	4	
4F1822 Project Course in Mechatronics	10	C	-	-	-	-			3	4	
4F1824 Project Course in Machine Engineering	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

2D1225 Numerical Solutions of Differential Equations	4	C	24	4	-	12	1	2			
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 Environmental	4	A	22	3	-	-	1				
4B1127 Vibroacoustics <i>Under bearbetning</i>	5	D	-	56	-	8	1	2			
4D1400 Industrial Economics and Management, Basic Course <i>Examiner: Thorolf Hedborg.</i>	4	A	22	14	-	-		2			2 h Seminars 2 h Seminars
4E1601 Wood and Cellulose Materials	5	C	56	-	-	18			3	4	
4F1541 CAD 3D-modelling and Visualization for	4	C	8	36	-	-				4	
4F1541 CAD 3D-modelling and Visualization for	4	C	8	36	-	-		2			
4G1165 Automation Technology	4	C	18	26	-	12			3		
4G1169 Manufacturing	4	C	18	26	-	12		2			
4H1063 Materials Science for Mechanical Engineering	4	B	36	-	-	15		2			
4H1068 Structural Materials	4	B	36	-	-	15	1				
4K1213 Advanced CAD Modelling & Rapid Prototyping, Project Course	4	D	16	24	-	-		2	3		Project work
5A1228 Laser metrology and optical metrology <i>Under bearbetning</i>	4	B	24	-	6	-			3	4	
5A1229 Physics of Visual Impressions <i>Under bearbetning</i>	4	B	24	-	6	-				4	

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Vehicle Engineering

Vehicle Engineering T4

Code Name	Credits	Level	Lec	Tut	Le	Lab	Periods				Other
							1	2	3	4	
Elective Courses											
2A1151 Energy and Fusion Research	4	D	24	12	-	-				4	
2A1160 Space Physics	3	D	18	-	-	-	1				
2C1117 Wind Power Systems <i>Replaces 2C1114.</i>	5	D	60	-	-	-			3	4	
2C1243 Hybrid Vehicle Drives*	5	D	-	-	-	-		2			3 course meetings. (LTH, CTH and KTH) Project work/ assignments in between the meetings.
2D1225 Numerical Solutions of Differential Equations	4	C	24	4	-	12	1	2			
2D1250 Applied Numerical Methods II	6	C	48	-	-	30			3	4	
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	-	10	1				
2D1266 Mathematical Models, Analysis and Simulation Part 1	5	C	48	-	-	12	1	2			
2D1269 Mathematical Models, Analysis and Simulation, part 2 <i>Not given 06/07.</i>	5	D	42	-	-	12					
2D1297 Advanced Individual Course in Scientific Computing <i>Course may start any time during the semester.</i>	4	D	-	-	-	-	1	2	3	4	
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	
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 <i>Not given 06/07.</i>	5	A	16	12	-	-					

2D1522 Computer Technology and Data Communication	4	A	30	-	-	20			4		
2E1242 Automatic Control, Project Course*	8	D	10	-	-	50			4		
2E1262 Nonlinear Control	5	D	28	28	-	8		2			
2E1291 Chemical Process Control	4	C	20	28	-	8			3		
2F1400 Electroacoustics	4	C	34	12	-	8	1				
3C1330 Technology and Environmental	4	A	22	3	-	-	1				
3C1330 Technology and Environmental	4	A	22	3	-	-		2			
3C1350 Waste Management, Advanced Course	4	D	18	-	-	-			4	Project work, assignments, Study visit	
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	21	3	-	3	1			Field exercise 8h	
3C1387 Environmental Systems Analysis	4	C	16	8	-	6		2			
3D1163 Pulp Technology	4	D	20	-	-	24	1				
3E1361 Polymer Processing, Minor Course	4	D	24	8	-	18		2			
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	50	30	-	12	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 <i>Mandatory for Energy Utilisation.</i>	4	D	24	24	-	16			3	4	
4A1625 Cooling of Electronics	4	D	-	-	48	-			3		
4A1626 Applied Heat and Power Technology <i>Mandatory for Power Generation.</i>	4	D	36	12	-	8			3	4	Project assignment 8h
4A1627 Applied Reactor Technology and Nuclear Power Safety <i>Mandatory for Power Generation.</i>	4	D	48	-	-	-			3	4	Study visits 12h
4A1628 Advanced Nuclear Reactor Engineering	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		

4B1136 Flow Acoustics	4	D	-	36	-	8		3			
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	-		3		24 h Projektuppgift24 h Projektuppgift	
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	-	-	-		3	4		
4C1111 Fracture Mechanics and Fatigue	4	D	48	-	-	4		3			
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	-	24	1	2			
4C1124 Orthopedic Biomechanics <i>Not given 06/07.</i>	4	D	32	-	-	4					
4D1051 Commercial Law <i>Examiner: Bengt Domeij.</i>	4	B	14	18	-	-		3			
4D1057 Advanced Patent Law <i>Not given 2006/07.</i>	4	C	4	14	-	-				14 h SeminarsSeminars 14h 14 h Seminars	
4D1062 Industrial Marketing <i>Examiner: Henrik Ugglä.</i>	4	B	36	12	-	-	1				
4D1075 Work Organization and Leadership	4	B	24	24	-	-		3			
4D1084 Human Factors Engineering - Man - Machine System <i>Examinor: Lena Mårtensson.</i>	4	B	24	6	-	3		3			
4D1093 Psychology for Engineers <i>Examiner: Lena Mårtensson.</i>	4	B	24	3	-	4		2			
4E1111 Lightweight Structures and FEM <i>Replaces 4E1102.</i>	5	D	48	-	-	14	1				
4E1114 Fiber Composites - Materials and Manufacturing <i>Replaces 4E1124.</i>	4	C	40	-	-	8		3	4		
4E1150 Biomechanics and Neuronics <i>Under bearbetning</i>	4	D	34	-	-	8			4		
4E1240 Advanced Topics in Aeronautics	4	D	14	14	-	-			4		
4E1401 Introduction to Naval Architecture	5	C	10	44	-	4		3			
4F1141 Project Work in Mechatronics* <i>Limited attendance due to limited number of available projects</i> <i>Under bearbetning</i>	4	C	-	-	-	-	1	2	3	4	No scheduled hours
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>Open only for students with individual specialization of Combustion engines.</i>	6	D	-	-	18	-		3	4
4F1540 Tribology	4	C	18	9	-	5	2		
4F1640 Industrial Design* <i>Limited number of participants.</i>	4	C	24	36	-	-		3	
4F1641 Environmentally Adapted Product Design <i>80% participation.</i>	4	C	-	-	42	-	2		
4F1643 Eco Design Project*	4	C	-	-	-	-	1	2	3
4F1827 Microcomputers in Embedded Systems	6	C	-	-	72	-	1	2	
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	
4H1113 Powder Metallurgy	4	D	18	18	-	12		2	
4H1301 Material Design	4	D	-	15	-	15		2	3
4H1404 Corrosion and Surface Protection, General Course	4	D	16	12	-	-	1		12 h Seminars 12 h Seminars
4H1609 Functional Materials	4	D	18	-	-	6		3	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		
4K1202 Modelling and Interaction in CAD/CAM* <i>Maximum of 20 participants.</i>	5	D	-	36	-	24	1	2	3 Programming tasks, periods 1, 2
4K1213 Advanced CAD Modelling & Rapid Prototyping, Project Course	4	D	16	24	-	-		2	3
4M1051 Project Assignment <i>Under bearbetning</i>	4	D	-	160	-	-	1		
4M1341 Foundry Processing <i>Under bearbetning</i>	4	D	12	-	-	-		3	Seminarier 24h Other 28h
4M1342 Space Systems and Technology <i>Under bearbetning</i>	4	D	36	-	-	-		2	
4M1343 Materials Processing, Project Support <i>Under bearbetning</i>	4	D	72	48	-	40	1	2	
4M1345 Powder Processing and Materials Forming <i>Under bearbetning</i>	4	D	30	-	-	-			4 Home assignments 80h
4M1346 Simulation and Modelling <i>Under bearbetning</i>	4	D	10	80	-	-	1	2	
4M1370 Solidification Processing <i>Under bearbetning</i>	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
5A1416 Radiation Sources for Therapy	2	D	10	-	-	-			4

5A1590 Technical Photography <i>Under bearbetning</i>	5	A	28	-	-	30			3	4	
5B1550 Applied Mathematical Statistics	5	C	-	-	60	-			3		
5B1555 Computer Intensive Methods in Mathematical Statistics <i>Not given 06/07.</i>	5	D	-	-	48	-					
5B1574 Portfolio Theory and Risk Management	4	C	30	12	-	-	1				
5B1815 Applied Linear Optimization <i>Replaces 5B1814.</i>	5	D	24	14	-	-	1				Project assignments
5B1817 Applied Nonlinear Optimization <i>Replaces 5B1816.</i>	5	D	24	14	-	-		2			Project assignments
5B1823 Geometric Control Theory <i>Replaces 5B1822.</i>	5	D	36	18	-	-		2			Homework assignments
5B1852 Mathematical Economics <i>Given 06/07.</i>	4	C	32	16	-	-		2			
5B1873 Optimal Control Theory <i>Replaces 5B1872.</i>	5	D	36	18	-	-			3		Homework assignments
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	28	-	-	4				4	8 h Seminars8 h Seminars
5C1213 Applied Computational Fluid Dynamics	2	D	-	-	16	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 Workshop33 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 Seminars3 h Seminars
7E1202 Systems Biology*	5	C	32	-	-	25		2			24 h Seminars24 h Seminars

*The course has limited participation

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Vehicle Engineering

T3

Code Name	Credits	Level	Lec	Tut	Le	Lab	Periods				Other
							1	2	3	4	
Compulsory Courses											
4E1601 Wood and Cellulose Materials	5	C	56	-	-	18			3	4	
Conditionally Elective Courses											
4C1003 Project Course in Solid Mechanics	10	C	-	-	-	-			3	4	Project work Seminars
4E1110 Project Course in Lightweight Structures	10	C	-	-	128	-			3	4	Project work Seminars

T4

Code Name	Credits	Level	Lec	Tut	Le	Lab	Periods				Other	
							1	2	3	4		
Compulsory Courses												
4C1127 <u>Packaging Materials</u>	5	D	36	-	-	12			3			
4E1112 <u>Biomaterials and Products</u>	5	C	56	-	-	18	1	2				
4E1603 <u>Biobased Materials - Project</u>	10	D	-	-	336	-	1	2	3	4		
4E1604 <u>Experimental Methods for Biobased Materials</u>	5	D	12	-	-	72		2				
Elective Courses												
3E1372 <u>Structure and Function of Biofibres*_</u>	5	D	28	-	-	14		2				

*The course has limited participation

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Aerospace Engineering T3

Code Name	Credits	Level	Lec	Tut	Le	Lab	Periods				Other
							1	2	3	4	
Compulsory Courses											
4E1234 Project Course in Aeronautics	10	C	-	-	-	-			3	4	

Aerospace Engineering T4

Code Name	Credits	Level	Lec	Tut	Le	Lab	Periods				Other
							1	2	3	4	
Compulsory Courses											
4E1111 Lightweight Structures and FEM <i>Replaces 4E1102.</i>	5	D	48	-	-	14	1				
4E1235 Aircraft Performance Analysis	6	D	40	27	-	-	1	2			
4E1236 Experimental Aerodynamics	4	D	14	18	-	9		2			
4E1237 Flight Mechanics	6	D	28	27	-	4		2	3		
4E1238 Aeroelasticity	6	D	40	27	-	4			3	4	
4E1239 Computational Aerodynamics	6	D	56	16	-	16			3	4	

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Vehicle Engineering

Ground Vehicle Engineering T3

Code Name	Credits	Level	Lec	Tut	Le	Lab	Periods				Other
							1	2	3	4	
Compulsory Courses											
4B1430 Project Course in Vehicle Engineering	10	C	-	-	-	-			3	4	

Ground Vehicle Engineering T4

Code Name	Credits	Level	Lec	Tut	Le	Lab	Periods				Other
							1	2	3	4	
Compulsory Courses											
5C1211 Vehicle Aerodynamics	4	C	28	-	-	4				4	8 h Seminars8 h Seminars
Conditionally Elective Courses											
4B1304 Railway Systems and Rail Vehicles	6	C	-	-	60	9	1	2			Project assignment 9h
4B1313 Rail Vehicle Dynamics	5	D	-	-	36	-			3		24 h Projektuppgift24 h Projektuppgift
4B1422 Vehicle Components <i>Replaces 4B1420.</i>	5	D	30	30	-	-		2			
4B1425 Ground Vehicle Dynamics, Basic Course*_	7	D	33	60	-	-			3	4	
4D1400 Industrial Economics and Management, Basic Course <i>Examiner: Thorolf Hedborg.</i>	4	A	22	14	-	-		2			2 h Seminars2 h Seminars
4F1430 Combustion Engines, general course*_	4	C	42	6	-	12	1				
Recommended Courses											
2C1149 Electric Traction	4	C	36	-	-	-				4	
2C1243 Hybrid Vehicle Drives*_	5	D	-	-	-	-		2			3 course meetings. (LTH, CTH and KTH) Project work/ assignments in between the meetings.
2E1252 Control Theory and Practice, Advanced Course	5	D	28	26	-	8			3		
4B1132 Experimental Structure Dynamics <i>Replaces 4B1131.</i>	6	D	-	36	24	12		2	3		18 h Computer18 h Computer
4B1428 Environmental Friendly Vehicle - Project Course*_	5	D	10	-	-	-			3	4	

4D1084 Human Factors Engineering - Man - Machine System <i>Examinor: Lena Mårtensson.</i>	4	B	24	6	-	3		3	
4E1111 Lightweight Structures and FEM <i>Replaces 4E1102.</i>	5	D	48	-	-	14	1		
4E1150 Biomechanics and Neuronics <i>Under bearbetning</i>	4	D	34	-	-	8		4	
4F1431 Combustion Engines, Advanced Course*	6	D	48	-	-	28	2	3	

*The course has limited participation

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Combustion Engineering T3

At least 12 cr have to be chosen among de conditionally elective courses, and at least 8 cr have to be from the same group.

Code Name	Credits	Level	Lec	Tut	Le	Lab	Periods				Other
							1	2	3	4	
Conditionally Elective Courses											
4A1604 Project Course in Sustainable Energy Systems	10	C	-	-	-	-			3	4	Project wor Seminars
4B1150 Project Course in Sound, Vibrations and Signals	10	C	-	-	-	-			3	4	Seminrs
4B1430 Project Course in Vehicle Engineering	10	C	-	-	-	-			3	4	
4C1003 Project Course in Solid Mechanics	10	C	-	-	-	-			3	4	Project work Seminars
4E1110 Project Course in Lightweight Structures	10	C	-	-	128	-			3	4	Project work Seminars
4E1234 Project Course in Aeronautics	10	C	-	-	-	-			3	4	
4E1400 Project Course in Naval Systems	10	C	-	-	-	-			3	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	

Combustion Engineering T4

At least 12 cr have to be chosen among de conditionally elective courses, and at least 8 cr have to be from the same group.

Code Name	Credits	Level	Lec	Tut	Le	Lab	Periods				Other
							1	2	3	4	
Compulsory Courses											
4B1422 Vehicle Components <i>Replaces 4B1420.</i>	5	D	30	30	-	-		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>Open only for students with individual specialization of Combustion engines.</i>	6	D	-	-	18	-			3	4	
Conditionally Elective Courses											
3C1365 Environmental Consequences, Advanced Course II <i>Group 3</i>	4	D	15	15	-	40	1	2			Field exercises

<u>4B1132 Experimental Structure Dynamics</u> <i>Replaces 4B1131. Group 3</i>	6	D	-	36	24	12		2	3		18 h Computer 18 h Computer
<u>4F1141 Project Work in Mechatronics*</u> <i>Limited attendance due to limited number of available projects Group 3</i> <i>Under bearbetning</i>	4	C	-	-	-	-	1	2	3	4	No scheduled hours
<u>4F1343 Fluid Systems and Machines</u> <i>Group 1</i>	4	C	24	24	-	12	1	2			
<u>4F1540 Tribology</u> <i>Group 1</i>	4	C	18	9	-	5		2			
<u>4F1825 Model Based Product Development</u> <i>II</i> <i>Group 1</i>	4	C	24	-	-	-	1				
<u>4F1826 Model Based Product Development</u> <i>I</i> <i>Group 1</i>	6	C	24	24	-	12	1	2			
<u>4F1827 Microcomputers in Embedded</u> <u>Systems</u> <i>Group 2</i>	6	C	-	-	72	-	1	2			
<u>4F1907 Dynamics and Motion Control</u> <i>Group 2</i>	6	D	24	14	-	-	1				

*The course has limited participation

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Solid Mechanics T3

Code Name	Credits	Level	Lec	Tut	Le	Lab	Periods				Other
							1	2	3	4	
Compulsory Courses											
4C1003 Project Course in Solid Mechanics	10	C	-	-	-	-			3	4	Project work Seminars

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	-	24	1	2			
4C1126 Material Mechanics	6	D	60	-	-	15	1	2			
Conditionally Elective Courses											
4C1111 Fracture Mechanics and Fatigue	4	D	48	-	-	4			3		
4C1116 Dynamic Problems in Solid Mechanics	4	D	42	-	-	8			3	4	
4C1121 Introduction to Biomechanics	6	C	48	-	-	8			3		
4C1123 Testing Techniques in Solid Mechanics	4	C	24	-	-	24				4	
<i>Under bearbetning</i>											
4C1124 Orthopedic Biomechanics	4	D	32	-	-	4					
<i>Not given 06/07.</i>											
4C1125 Solid Mechanics Modelling for Design	6	D	60	-	-	12				4	

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Industrial Ecology T3

Code Name	Credits	Level	Lec	Tut	Le	Lab	Periods				Other	
							1	2	3	4		
Conditionally Elective Courses												
4A1604 Project Course in Sustainable Energy Systems	10	C	-	-	-	-			3	4	Project wor Seminars	
4B1150 Project Course in Sound, Vibrations and Signals	10	C	-	-	-	-			3	4	Seminrs	
4B1430 Project Course in Vehicle Engineering	10	C	-	-	-	-			3	4		
4C1003 Project Course in Solid Mechanics	10	C	-	-	-	-			3	4	Project work Seminars	
4E1110 Project Course in Lightweight Structures	10	C	-	-	128	-			3	4	Project work Seminars	
4E1234 Project Course in Aeronautics	10	C	-	-	-	-			3	4		
4E1400 Project Course in Naval Systems	10	C	-	-	-	-			3	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		

Industrial Ecology T4

Code Name	Credits	Level	Lec	Tut	Le	Lab	Periods				Other	
							1	2	3	4		
Compulsory Courses												
3C1336 Introduction Industrial Ecology	4	C	12	8	12	-	1				8 h Seminars, 12 h Projektuppgift8 h Seminars, 12 h Projektuppgift	
3C1341 Environmental Technology, Advanced Course	5	C	34	9	-	-	1				3 h ProjektuppgiftAdvanced course on environmental technology 3 h Projektuppgift	
3C1380 Environmental Management	4	C	10	-	-	-			3		12 h Seminars12 h Seminars	
3C1387 Environmental Systems Analysis	4	C	16	8	-	6		2				
Recommended Courses												
3C1350 Waste Management, Advanced Course	4	D	18	-	-	-				4	Project work, assignments, Study visit	

3C1356 Ecology, Advanced Course	4	C	21	4	-	-			3	4	Field work 8h
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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Integrated Product Development T3

Code Name	Credits	Level	Lec	Tut	Le	Lab	Periods				Other
							1	2	3	4	
Compulsory Courses											
4D1075 <u>Work Organization and Leadership</u>	4	B	24	24	-	-			3		
4F1821 <u>Project Course in Integrated Product Development</u>	10	C	-	-	-	-			3	4	
6S1414 <u>Ergonomics in Product Development</u>	4	B	20	9	-	6		2			
Elective Courses											
4F1541 <u>CAD 3D-modelling and Visualization for</u>	4	C	8	36	-	-				4	
4F1541 <u>CAD 3D-modelling and Visualization for</u>	4	C	8	36	-	-				4	

Integrated Product Development T4

Code Name	Credits	Level	Lec	Tut	Le	Lab	Periods				Other
							1	2	3	4	
Compulsory Courses											
4F1901 Integrated Product Development, Advanced Course	20	D	-	180	-	-	1	2	3	4	

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Sound, Vibrations and Signals T3

Code Name	Credits	Level	Lec	Tut	Le	Lab	Periods				Other
							1	2	3	4	
Compulsory Courses											
4B1150 Project Course in Sound, Vibrations and Signals	10	C	-	-	-	-			3	4	Seminrs

Sound, Vibrations and Signals T4

Code Name	Credits	Level	Lec	Tut	Le	Lab	Periods				Other
							1	2	3	4	
Compulsory Courses											
4B1127 Vibroacoustics <i>Under bearbetning</i>	5	D	-	56	-	8	1	2			
4B1132 Experimental Structure Dynamics <i>Replaces 4B1131.</i>	6	D	-	36	24	12		2	3		18 h Computer18 h Computer
4B1136 Flow Acoustics	4	D	-	36	-	8			3		
Recommended Courses											
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	

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Lightweight Structures T3

Among the conditionally elective courses either 4E1112+4E1150 or 4E1132 have to be studied.

Among the compulsory elective courses either 4E1111, 4E1113 or 4E1112 have to be studied.											
Code Name	Credits	Level	Lec	Tut	Le	Lab	Periods				Other
							1	2	3	4	
Compulsory Courses											
4E1110 Project Course in Lightweight Structures	10	C	-	-	128	-			3	4	Project work Seminars

Lightweight Structures T4

Among the conditionally elective courses either 4E1112+4E1150 or 4E1132 have to be studied.

Among the conditionally elective courses offered 4E1111, 4E1113, 4E1115, 4E1116 and 4E1132 have to be studied.

Code Name	Credits	Level	Lec	Tut	Le	Lab	Periods				Other
							1	2	3	4	
Compulsory Courses											
4E1111 <u>Lightweight Structures and FEM</u> <i>Replaces 4E1102.</i>	5	D	48	-	-	14	1				
4E1113 <u>Fibre Composites - Analysis and Design</u> <i>Replaces 4E1125.</i>	4	D	52	-	-	6		2			
4E1115 <u>Process Modelling for Composite Manufacturing</u>	4	D	18	-	-	18				4	
4E1116 <u>Structural Optimisation and Sandwich Design</u> <i>Replaces 4E1126.</i>	4	D	40	-	-	18			3		
Conditionally Elective Courses											
4E1112 <u>Biomaterials and Products</u>	5	C	56	-	-	18	1	2			
4E1114 <u>Fiber Composites - Materials and Manufacturing</u> <i>Replaces 4E1124.</i>	4	C	40	-	-	8			3	4	
4E1132 <u>Lightweight Design*</u> <i>Primarily aimed for students on the specialisation LKR.</i>	10	D	-	-	336	-	1	2	3	4	
4E1150 <u>Biomechanics and Neuronics</u> <i>Under bearbetning</i>	4	D	34	-	-	8				4	

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Naval systems T3

Code Name	Credits	Level	Lec	Tut	Le	Lab	Periods				Other
							1	2	3	4	
Compulsory Courses											
4E1400 Project Course in Naval Systems	10	C	-	-	-	-			3	4	

Naval systems T4

Code Name	Credits	Level	Lec	Tut	Le	Lab	Periods				Other
							1	2	3	4	
Compulsory Courses											
4E1111 Lightweight Structures and FEM <i>Replaces 4E1102.</i>	5	D	48	-	-	14	1				
4E1402 Naval Design* <i>Primarily aimed for MSY students.</i>	10	D	-	336	-	-	1	2	3	4	
4E1403 Marine Dynamics	6	D	64	10	-	10	1	2			
Conditionally Elective Courses											
4E1401 Introduction to Naval Architecture	5	C	10	44	-	4			3		
Recommended Courses											
2C1224 Management of Technology	5	D	32	20	-	-	1				
4E1113 Fibre Composites - Analysis and Design <i>Replaces 4E1125.</i>	4	D	52	-	-	6		2			
4E1114 Fiber Composites - Materials and Manufacturing <i>Replaces 4E1124.</i>	4	C	40	-	-	8			3	4	
4E1116 Structural Optimisation and Sandwich Design <i>Replaces 4E1126.</i>	4	D	40	-	-	18			3		
5C1212 Computational Fluid Dynamics	5	D	-	-	50	10			3		
5C1213 Applied Computational Fluid Dynamics	2	D	-	-	16	14				4	
5C1214 Fluid Mechanics	5	C	-	30	30	3	1				

*The course has limited participation

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Mechanics T3

At least 15 cr of the conditionally elective courses have to be studied, and at least 10 cr have to be on D-level.

Code Name	Credits	Level	Lec	Tut	Le	Lab	Periods				Other
							1	2	3	4	
Compulsory Courses											
5C1010 Project Course in Mechanics	10	C	-	-	-	-			3	4	

Mechanics T4

At least 15 cr of the conditionally elective courses have to be studied, and at least 10 cr have to be on D-level.

Code Name	Credits	Level	Lec	Tut	Le	Lab	Periods				Other
							1	2	3	4	
Compulsory Courses											
5C1150 Advanced Engineering Dynamics	5	D	-	30	-	-	1				
5C1214 Fluid Mechanics	5	C	-	30	30	3	1				
Conditionally 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		
5C1151 Modern Multibody Dynamics	5	D	30	-	-	-		2			
5C1211 Vehicle Aerodynamics	4	C	28	-	-	4				4	8 h Seminars 8 h Seminars
5C1212 Computational Fluid Dynamics	5	D	-	-	50	10			3		
5C1213 Applied Computational Fluid Dynamics	2	D	-	-	16	14				4	
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	
5C1221 Wave Motions and Hydrodynamic Stability	5	D	-	-	42	3		2			
5C1400 Nonlinear Dynamics in Mechanics	5	C	24	-	-	-			3		
5C1850 Finite Element Methods	5	D	33	-	-	-	1				33 h Workshop 33 h Workshop
5C1860 FEM Modelling	5	D	33	-	-	-		2			33 h Workshop 33 h Workshop

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Mechatronics T3

Code Name	Credits	Level	Lec	Tut	Le	Lab	Periods				Other
							1	2	3	4	
Compulsory Courses											
2D1321 Applied Programming and Computer Science	6	B	38	20	-	32		2	3		
4F1822 Project Course in Mechatronics	10	C	-	-	-	-			3	4	
4F1823 Basic Electrical Engineering, Part 2	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											
4F1903 Mechatronics, Advanced Course	12	D	-	-	-	-			3	4	
4F1907 Dynamics and Motion Control	6	D	24	14	-	-	1				
4F1908 Embedded Control Systems	6	D	24	12	-	24		2			
Elective Courses											
4F1910	20	D	-	-	-	-	1	2	3	4	8 h Seminars 8 h Seminars

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Vehicle Engineering

Systems Engineering T3

Code Name	Credits	Level	Lec	Tut	Le	Lab	Periods				Other
							1	2	3	4	
Conditionally Elective Courses											
4A1604 Project Course in Sustainable Energy Systems	10	C	-	-	-	-			3	4	Project wor Seminars
4B1150 Project Course in Sound, Vibrations and Signals	10	C	-	-	-	-			3	4	Seminrs
4B1430 Project Course in Vehicle Engineering	10	C	-	-	-	-			3	4	
4C1003 Project Course in Solid Mechanics	10	C	-	-	-	-			3	4	Project work Seminars
4E1110 Project Course in Lightweight Structures	10	C	-	-	128	-			3	4	Project work Seminars
4E1234 Project Course in Aeronautics	10	C	-	-	-	-			3	4	
4E1400 Project Course in Naval Systems	10	C	-	-	-	-			3	4	
4F1821 Project Course in Integrated Product Development	10	C	-	-	-	-			3	4	
4F1822 Project Course in Mechatronics	10	C	-	-	-	-			3	4	

Systems Engineering T4

Code Name	Credits	Level	Lec	Tut	Le	Lab	Periods				Other
							1	2	3	4	
Compulsory Courses											
2D1321 Applied Programming and Computer Science	6	B	38	20	-	32		2	3		
4D1400 Industrial Economics and Management, Basic Course <i>Examiner: Thorolf Hedborg.</i>	4	A	22	14	-	-		2			2 h Seminars 2 h Seminars
5B1537 Reliability Theory <i>Replaces 5B1538.</i>	5	C	-	-	60	-	1				
5B1815 Applied Linear Optimization <i>Replaces 5B1814.</i>	5	D	24	14	-	-	1				Project assignments
5B1843 Stochastic Decision Support Models <i>Replaces 5B1842.</i>	5	D	36	18	-	-			3		Homework assignments
5B1847 Decision Support Methods - Project Course <i>Replaces 5B1846.</i>	5	D	12	6	-	-				4	Project assignments
Elective Courses											

1N1154 Advanced Transport Modelling	5	D	24	8	-	12				4	Seminar 6h
5B1574 Portfolio Theory and Risk Management	4	C	30	12	-	-	1				
5B1817 Applied Nonlinear Optimization <i>Replaces 5B1816.</i>	5	D	24	14	-	-		2			Project assignments

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Sustainable Energy Systems T3

Code Name	Credits	Level	Lec	Tut	Le	Lab	Periods				Other
							1	2	3	4	
Compulsory Courses											
4A1601 Heat Transfer	4	C	24	24	-	20		2			
4A1604 Project Course in Sustainable Energy Systems	10	C	-	-	-	-			3	4	Project wor Seminars

Sustainable Energy Systems T4

Code Name	Credits	Level	Lec	Tut	Le	Lab	Periods				Other
							1	2	3	4	
Compulsory Courses											
4A1605 Sustainable Power Generation	6	D	50	30	-	12	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
4A1611 Renewable Energy Technology	4	D	-	-	52	-	1				Study visit 8h
4A1623 Applied Refrigeration and Heat Pump Technology <i>Mandatory for Energy Utilisation.</i>	4	D	24	24	-	16			3	4	
4A1626 Applied Heat and Power Technology <i>Mandatory for Power Generation.</i>	4	D	36	12	-	8			3	4	Project assignment 8h
4A1627 Applied Reactor Technology and Nuclear Power Safety <i>Mandatory for Power Generation.</i>	4	D	48	-	-	-			3	4	Study visits 12h
Elective Courses											
4A1610 Energy Management	4	D	50	-	-	-		2	3		
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
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		

4A1628 <u>Advanced Nuclear Reactor Engineering</u>	4	D	42	-	-	-				4	Study visits 18h
4A1629 <u>Fluid Machinery</u>	4	C	30	18	-	12	1				
4A1630 <u>Thermal Fluid Machinery</u>	4	D	36	12	-	12			3		

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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 <u>Programming Technique and Matlab</u>	5	B	26	14	-	30	1	2			
4D1112 <u>Engineering, Technique and Humanities</u> <i>Examiner: Pär Blomkvist.</i>	5	A	42	-	-	-			3		10 h Seminars, 20 h Study visit10 h Seminars, 20 h Study visit
4D1123 <u>Industrial Economics and Management, Basic Course</u> <i>Examiner A: Thorolf Hedborg, examiner B: Eric Giertz.</i>	6	A	44	14	-	-	1	2			2 h Seminars2 h Seminars
5B1120 <u>Introductory Course in Mathematics I</u>	1	A	-	-	-	-					
5B1135 <u>Mathematics I for I</u>	6	A	45	-	45	-	1	2			
5B1136 <u>Mathematics II for I</u>	6	A	45	-	45	-		2	3		
5B1230 <u>Mathematics IV</u>	6	A	45	-	45	-			3	4	
5C1103 <u>Mechanics, Basic Course</u>	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											
2D1240 Numerical Methods, Basic Course II	4	A	24	14	-	14			3	4	
4D1053 Economics of Industrial and Technical Transformation Examiner: Pär Blomkvist.	4	B	36	-	-	-		2			8 h Seminars8 h Seminars
4D1124 Industrial Economics and Management, Advanced Course Examiner: Håkan Kullvén.	4	B	26	10	-	-	1				4 h Seminars4 h Seminars

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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 <i>Examiner: Claes Gustafsson.</i>	4	C	20	-	-	-			3		8 h Seminars8 h Seminars	
4D1142 Leadership <i>Examiner: Matti Kaulio.</i>	4	B	24	24	-	-	1					
Conditionally Elective Courses												
4D1038 Operations Management: Organization and Control <i>Examinor: Johann Packendorff.</i>	4	B	46	12	-	-		2				
4D1039 Operations Management: Strategy and Development <i>Examiner: Johann Packendorff.</i>	4	C	36	12	-	-			3			
4D1047 Project Management: Leadership and Control <i>Examiner: Johann Packendorff.</i>	4	B	40	8	-	-	1					
4D1049 Project Management: Leading Project-Based Operations	4	C	36	12	-	-			3			
4D1054 Industrial Dynamics and Technical Change <i>Examiner: Pär Blomkvist.</i>	4	C	36	-	-	-			3		8 h Seminars8 h Seminars	
4D1059 Management of New Technology and Industrial Creativity <i>Examinor: Staffan Laestadius.</i>	4	C	36	8	-	-		2			8 h Seminars8 h Seminars	
4D1062 Industrial Marketing <i>Examiner: Henrik Ugglä.</i>	4	B	36	12	-	-	1					
4D1098 Organizational Change and Change Management*	4	C	-	8	-	-				4	36 h Seminars36 h Seminars	
4D1152 Industrial Marketing, Advanced Course <i>Examiner: Henrik Ugglä.</i>	4	C	36	-	-	-		2			12 h Seminars12 h Seminars	
4D1161 Finance, Corporate Valuation* <i>Examinor: Tomas Sörensson.</i>	4	C	34	-	-	-				4	7 h Seminars7 h Seminars	
4D1165 Behavioural Management Control <i>Examinor: Håkan Kullén.</i>	4	C	34	-	-	-			3		4 h Seminars4 h Seminars	
4D1166 Finance <i>Examiner: Tomas Sörensson.</i>	4	B	30	18	-	-		2				
Elective Courses												
4D1041 Business Negotiations* <i>Examinor: Thorolf Hedborg.</i>	4	C	24	8	-	-	1	2				

4H1071 Basic Chemistry for Industrial Engineering	4	A	14	10	-	-	1	2		5 h Projektuppgift5 h Projektuppgift
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*The course has limited participation

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Industrial Engineering and Management I4

Code Name	Credits	Level	Lec	Tut	Le	Lab	Periods				Other
							1	2	3	4	
Compulsory Courses											
4D1189 Management: Traditions, theory and trends	4	D	-	-	-	-	1				
Conditionally Elective Courses											
4D1038 Operations Management: Organization and Control <i>Examinor: Johann Packendorff.</i>	4	B	46	12	-	-		2			
4D1039 Operations Management: Strategy and Development <i>Examiner: Johann Packendorff.</i>	4	C	36	12	-	-			3		
4D1047 Project Management: Leadership and Control <i>Examiner: Johann Packendorff.</i>	4	B	40	8	-	-	1				
4D1049 Project Management: Leading Project-Based Operations	4	C	36	12	-	-			3		
4D1054 Industrial Dynamics and Technical Change <i>Examiner: Pär Blomkvist.</i>	4	C	36	-	-	-			3		8 h Seminars8 h Seminars
4D1059 Management of New Technology and Industrial Creativity <i>Examinor: Staffan Laestadius.</i>	4	C	36	8	-	-		2			8 h Seminars8 h Seminars
4D1062 Industrial Marketing <i>Examiner: Henrik Ugglä.</i>	4	B	36	12	-	-	1				
4D1098 Organizational Change and Change Management*_	4	C	-	8	-	-				4	36 h Seminars36 h Seminars
4D1152 Industrial Marketing, Advanced Course <i>Examiner: Henrik Ugglä.</i>	4	C	36	-	-	-		2			12 h Seminars12 h Seminars
4D1161 Finance, Corporate Valuation*_ <i>Examinor: Tomas Sörensson.</i>	4	C	34	-	-	-				4	7 h Seminars7 h Seminars
4D1165 Behavioural Management Control <i>Examinor: Håkan Kullvén.</i>	4	C	34	-	-	-			3		4 h Seminars4 h Seminars
4D1166 Finance <i>Examiner: Tomas Sörensson.</i>	4	B	30	18	-	-		2			
Elective Courses											
4D1041 Business Negotiations*_ <i>Examinor: Thorolf Hedborg.</i>	4	C	24	8	-	-	1	2			

*The course has limited participation

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Biotechnology and Industrial Engineering I2

Code Name	Credits	Level	Lec	Tut	Le	Lab	Periods				Other
							1	2	3	4	
Compulsory Courses											
3A1501 <u>Introduction to Biotechnology</u>	4	B	36	8	-	4		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	A	12	22	-	25			3	4	
3B1750 <u>Organic Chemistry 1</u>	5	A	20	14	-	42		2			
5A1225 <u>Electromagnetism and Waves</u>	5	A	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 <u>Bioinformatics</u>	4	D	32	-	-	16			3			
3A1115 <u>Biochemistry</u>	4	D	34	-	-	-				4		
3A1307 <u>Microbiology</u>	6	B	30	24	-	48		2	3			
3A1503 <u>Molecular Biotechnology</u>	5	D	36	-	-	15		2	3			
3B1725 <u>Chemical Thermodynamics</u>	4	A	28	30	-	-	1					
3B1770 <u>Chemical Measuring Techniques</u>	5	A	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 <u>Management in Technology Intensive Organisations</u>	4	D	28	-	-	-		2			4 h Seminars4 h Seminars
4D1190 <u>Biotechnology - Business - Leadership</u> <i>Examiner: Claes Gustafsson.</i>	8	D	-	-	-	20			3	4	20 h Seminars20 h Seminars
Recommended Courses											
3A1506 <u>Drug Development</u>	4	D	36	-	-	-			3		8 h Study visit8 h Study visit



3A1519 Applied Gene Technology	4	D	18	-	-	-	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											
4A1112 Applied Thermodynamics	6	A	44	48	-	-			3	4	Math exercises
4F1816 No translation	6	B	22	24	-	22			3	4	
5A1225 Electromagnetism and Waves	5	A	38	18	-	16	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 Systems Planning <i>Replaces 2C1111.</i>	5	C	64	-	-	3			3		
4A1601 Heat Transfer	4	C	24	24	-	20		2			
4A1604 Project Course in Sustainable Energy Systems	10	C	-	-	-	-			3	4	Project wor Seminars
4D1191 Energy Business <i>Examiner: Thomas Sandberg</i>	4	D	12	-	-	-				4	12 h Seminars, 16 h Study visit12 h Seminars, 16 h Study visit

Energy Systems and Industrial Engineering I4

Code Name	Credits	Level	Lec	Tut	Le	Lab	Periods				Other
							1	2	3	4	
Compulsory Courses											
4A1140 Energy Systems and Models I <i>This course is not given the academic year 05/06.</i>	4	D	14	32	-	-	1				9 h SeminarsSeminars 9 H 9 h Seminars
4A1145 Energysystems - Business - Leadership <i>The course will be given from 03/04</i> <i>Under bearbetning</i>	8	D	24	24	-	4			3	4	
4D1144 Management in Technology Intensive Organisations	4	D	28	-	-	-		2			4 h Seminars4 h Seminars

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Industrial Engineering and Management

Financial Mathematics and Industrial Engineering I2

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			
5A1225 <u>Electromagnetism and Waves</u>	5	A	38	18	-	16	1				
5B1506 <u>Mathematical Statistics, Basic Course</u>	6	A	36	48	-	-	1	2			
5B1541 <u>Probability Theory and Linear Models</u>	5	B	-	-	48	-				4	
5B1712 <u>Optimization for F</u>	4	C	28	16	-	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 <i>Examiner: Tomas Sörensson.</i>	4	B	30	18	-	-		2			
5B1306 Financial Mathematics, Basic Course	5	C	-	-	54	-				4	
5B1545 Time Series Analysis	4	C	24	24	-	-		2			
5B1551 Econometrics	5	C	-	-	48	-			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 <i>Examiner: Birger Ljung</i>	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											
4C1012 Solid Mechanics, Basic Course, IPI	6	B	52	30	-	2	1	2			
4F1816 No translation	6	B	22	24	-	22			3	4	
4G1162	8	B	30	90	-	12			3	4	
5A1225 Electromagnetism and Waves	5	A	38	18	-	16	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											
4G1163 Product Realization 2 for M	6	C	25	50	-	6	1	2			
4H1063 Materials Science for Mechanical Engineering	4	B	36	-	-	15		2			
4K1101 Control Systems	4	C	18	28	-	12			3		
4K1111 Production Automation	5	C	50	-	-	15				4	

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												
2E1313 <u>Signals and Systems, part II</u>	5	C	30	24	-	4				4	10 h Computer	10 h Computer
2E1616 <u>Data Communications and Computer Networks</u> <i>Given at Campus Valhallavägen</i>	4	B	24	18	-	4			3			
2G1518 <u>Computer Hardware Engineering</u>	5	B	-	-	-	-			3	4		
5A1225 <u>Electromagnetism and Waves</u>	5	A	38	18	-	16	1					
5B1506 <u>Mathematical Statistics, Basic Course</u>	6	A	36	48	-	-	1	2				

Communication Systems 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			
2D1385 Software Engineering	4	C	24	12	-	18				4	
2E1422 Introduction to Signal Theory	3	C	18	10	-	-	1				
2E1432 Digital Communications	6	C	32	30	-	12	1	2			
2E1511 Radio Communication, Basic Course	4	D	24	24	-	8	1				
2E1618 Queuing Theory and Teletraffic Systems <i>The course replaces 2G1318.</i>	4	C	24	24	-	-		2			
2G1305 Internetworking <i>Given in Kista</i>	4	C	14	14	-	-				4	
2G1504 Operating Systems	4	C	24	10	-	-				4	
Conditionally Elective Courses											
2E1340 Digital Signal Processing	5	D	26	16	-	8		2			
2E1350 Adaptive Signal Processing	4	D	24	14	-	-			3		
2E1367 Project Course in Signal Processing and Digital Communication	8	D	10	-	50	-				4	Project work 8 cr.
2E1381 Seminars in Wireless Systems	2	D	-	-	-	-			3	4	16 h Seminars16 h Seminars
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	C	24	24	-	-			2		
Recommended Courses											
2E1632 Management of Networks and Networked Systems <i>The course replaces 2G1332.</i>	5	D	20	-	-	-				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											
2G1305 Internetworking <i>Given at Campus Valhallavägen</i>	4	C	20	18	-	10	1				Assignments
4D1144 Management in Technology Intensive Organisations	4	D	28	-	-	-		2			4 h Seminars4 h Seminars
Conditionally Elective Courses											
2E1603 Data Communication - Economy - Leadership*_ <i>The course replaces 2G1403.</i>	8	D	-	-	-	-			3	4	
2G1321 Communication - Business - Leadership	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											
4C1012 Solid Mechanics, Basic Course, IPI	6	B	52	30	-	2	1	2			
4F1815 No translation <i>Under bearbetning</i>	8	B	30	60	-	-	1	2			
4F1816 No translation	6	B	22	24	-	22			3	4	
5A1225 Electromagnetism and Waves	5	A	36	20	-	16				4	

Mechatronics 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				
2D1324 <u>Applied Programming and Computer Science, Part 2</u>	2	B	12	6	-	18			3			
2E1200 <u>Automatic Control, General Course</u>	4	C	24	26	-	12		2				
4F1822 <u>Project Course in Mechatronics</u>	10	C	-	-	-	-			3	4		
5B1501 <u>Probability Theory and Statistics</u>	4	A	24	36	-	-		2				
5C1140 <u>Mechanics II</u>	4	B	30	15	-	-	1					

Mechatronics and Industrial Engineering I4

Code Name	Credits	Level	Lec	Tut	Le	Lab	Periods				Other
							1	2	3	4	
Compulsory Courses											
4F1903 <u>Mechatronics, Advanced Course</u>	12	D	-	-	-	-			3	4	
4F1907 <u>Dynamics and Motion Control</u>	6	D	24	14	-	-	1				
Recommended Courses											
4D1144 <u>Management in Technology Intensive Organisations</u>	4	D	28	-	-	-		2			4 h Seminars 4 h Seminars

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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											
2D1320 <u>Applied Computer Science</u>	4	A	28	14	-	20	1	2			
2D1334 <u>Database Technology</u>	4	C	24	20	-	12			3		
2D1377 <u>Low Level Programming and Computer Architecture</u>	5	C	28	-	-	24			3		
2D1385 <u>Software Engineering</u>	4	C	24	12	-	18				4	
5A1225 <u>Electromagnetism and Waves</u>	5	A	38	18	-	16	1				
5B1501 <u>Probability Theory and Statistics</u>	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 Software Engineering	8	D	40	-	-	-		2	3	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			
2D1640 Graphics and Interaction Programming	6	C	36	14	-	42			3	4	
2I1228 Enterprise Computing and ERP Systems	5	D	14	12	-	60	1				80h

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	16	-	-	26			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											
2B1116 <u>Engineering Fundamentals</u>	5	A	28	34	-	12	1				
2B1560 <u>Digital Design</u>	5	A	24	22	-	16	1				
2G1518 <u>Computer Hardware Engineering</u>	5	B	20	20	-	12			3		
2I1080 <u>Objektoriented Programming</u>	5	B	27	50	15	-		2			
2I1081 <u>Algorithms and Data Structures</u>	5	B	27	50	15	-				4	
5B1146 <u>Algebra and Geometry</u> <i>Under bearbetning</i>	5	A	38	-	38	-		2			
5B1147 <u>Calculus in One Variable</u> <i>Under bearbetning</i>	5	A	50	25	-	-			3		
5B1148 <u>Calculus in Sevral Variable</u> <i>Under bearbetning</i>	5	A	50	25	-	-				4	
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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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 <u>Introductory Physics</u>	4	A	-	-	-	-		2			
2B1350 <u>Electromagnetism and Waves</u>	4	A	-	-	-	-			3		
2G1519 <u>Programming Concepts and Techniques, Advanced Course</u>	8	C	38	36	-	22	1	2	3		Individual work approx 200 hours
2G1525 <u>IT Project Course, part 2</u>	5	C	-	-	-	-			3	4	
2G1700 <u>Networks and Communication</u>	5	B	-	-	-	-	1				
2I1074 <u>Project IT</u>	5	C	-	-	-	-			3	4	
5B1506 <u>Mathematical Statistics, Basic Course</u>	6	A	36	48	-	-	1	2			
6B3023 <u>IT Project, Part 1-Method</u>	4	C	16	16	-	-			3	4	
9E1363 <u>Written and Spoken Communication</u>	4	B	-	-	42	-			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											
2I1184 Introduction to Computer Game Development	5	B	-	-	-	-	1				
2I1186 3D Graphics for Computer Game Development	5	B	-	-	-	-		2			
2I1188 Online Game, Gaming Communities and Advergaming	5	B	-	-	-	-			3		

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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											
2G1533 Compilers and Execution Environments	5	C	28	8	-	-		2			
2G1720 Global Entrepreneurial Leadership	5	D	-	-	-	-		2			
Elective Courses											
2B1140 Frontiers of Microelectronics and Information Technology <i>Offered twice a year, either fall or spring.</i>	4	D	20	-	-	-			3	4	
2B1140 Frontiers of Microelectronics and Information Technology	4	D	-	-	-	-	1	2			
2G1535 Research Methods in Computer Systems Engineering	5	D	8	-	-	-			3		
2I1184 Introduction to Computer Game Development	5	B	-	-	-	-	1				
2I1186 3D Graphics for Computer Game Development	5	B	-	-	-	-		2			
2I1188 Online Game, Gaming Communities and Advergaming	5	B	-	-	-	-			3		
2I1721 Ubiquitous Computing <i>The course is a replacement for 2I1710 from 06/07. Students who have already taken the course 2I1710 can therefore not apply for this one.</i>	5	D	29	2	2	-			3	4	4 h Seminars 4 h Seminars

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Information and Communication Technology

Biomedical Engineering for IT 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>This course 2I1029 has been replaced by 2I1714 in the master's program of Interaktive Systems Engineering.</i>	4	C	27	-	-	-	1				6 h Seminars, 80 h Projektuppgift 6 h Seminars, 80 h Projektuppgift
2I1034 Object Oriented Analysis and Design	4	C	-	-	-	-	1				
2I1075 Relational Database Technology	4	C	14	3	10	3		2			
5B1928 Logic	4	A	40	20	-	-	1	2			
7E1200 Cellular and Molecular Biology* ₋	10	C	67	-	-	18			3	4	3 h Seminars 3 h Seminars
Conditionally Elective Courses											
2G1915 Concurrent Programming	5	C	36	-	-	24			3		
2I1515 Introduction to Computer Security	5	B	22	-	-	15			3		
2I1901 Introduction to Software Engineering	5	C	15	-	-	-			3		Seminars 6 hours, project 120 hours
7E1201 Neuroscience* ₋	5	C	50	-	-	20				4	

*The course has limited participation

Biomedical Engineering for IT IT4

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				
Conditionally Elective Courses											
2D1436 Modelling of Processes in Cell Biology	4	D	16	-	-	16	1				
2I1140 Artificial Intelligence	6	D	39	10	-	80			3		
2I1234 Machine Learning	4	D	36	-	-	-				4	

211418 Data Warehousing <i>The course is a replacement for 211224 from 06/07. Students who have already taken the course 211224 can therefore not apply for this one.</i>	5	D	15	-	2	-			3	9 h Seminars9 h Seminars
211419 Knowledge Management <i>The course is a replacement for 211229 from 06/07. Students who have already taken the course 211229 can therefore not apply for this one.</i>	5	D	24	24	-	-			3	
211505 Legal Aspects of Information Security	5	D	24	-	-	12			3	
211723 Principles of Visualization <i>The course is a replacement for 211711 from 06/07. Students who have already taken the course 211711 can therefore not apply for this one.</i>	5	D	15	-	-	40			4	12 h Seminars, 136 h Projektuppgift12 h Seminars, 136 h Projektuppgift
7E1110 Quality and Regulatory Aspects on Medical Devices	2	D	20	-	-	-			3	4
7E1115 Engineering in Intensive Care and Anesthesia*	4	D	12	-	-	-			3	4
7E1202 Systems Biology*	5	C	32	-	-	25		2		24 h Seminars24 h Seminars

*The course has limited participation

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Information and Communication Technology

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				
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	20	10	-	-	1				12 h ProjektuppgiftProjectwork 12 h 12 h Projektuppgift
2G1533 Compilers and Execution Environments	5	C	28	8	-	-		2			
Conditionally Elective Courses											
2B1463 Embedded Software <i>The course is given in Kista</i>	5	D	20	6	-	12			3		
2D1371 Theory of Automata	4	C	20	-	-	10				4	
2E1632 Management of Networks and Networked Systems <i>The course replaces 2G1332.</i>	5	D	20	-	-	-				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	
2G1915 Concurrent Programming	5	C	36	-	-	24			3		
2I1901 Introduction to Software Engineering	5	C	15	-	-	-			3		Seminars 6 hours, project 120 hours
5B1928 Logic	4	A	40	20	-	-				4	

*The course has limited participation

Computer systems engineering IT4

Code Name	Credits	Level	Lec	Tut	Le	Lab	Periods				Other
							1	2	3	4	
Conditionally Elective Courses											
2B1423 ASIC-design Methodology with High-level Languages	5	D	-	10	-	20		2			
2B1429 System Modelling	5	D	24	-	-	-			3		Exercises 12
2B1435 DSP-Construction with HDL	5	D	24	12	-	24			3		

2B1448 System-On-Chip Architectures <i>The course replaces 2B1447 The course is given in Kista</i>	5	D	24	6	-	12	2			
2B1513 Digital Design with HDL	5	D	26	10	-	28	1			
2D1371 Theory of Automata	4	C	20	-	-	10			4	
2D1375 Implementation of Programming Languages <i>Self-study course. The course is given for the last time 06/07.</i>	4	D	2	-	-	-	1	2		
2G1122 Individual Studies in Computer Systems <i>The course can be taken any time during the semesters.</i>	5	D	-	-	-	-	1	2	3	4
2G1305 Internetworking <i>Given in Kista</i>	4	C	14	14	-	-				4
2G1530 Logic Programming <i>replaces 2G1121</i>	5	D	16	12	-	-	1			Individual work on project and group presentation 4h
2G1534 Computer Systems Architecture	5	C	16	16	-	16	1			Homework 16h
2G1535 Research Methods in Computer Systems Engineering	5	D	8	-	-	-			3	

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Information and Communication Technology

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				
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	20	10	-	-	1				12 h Projektuppgift 12 h 12 h Projektuppgift
2G1533 Compilers and Execution Environments	5	C	28	8	-	-		2			
Conditionally Elective Courses											
2B1463 Embedded Software <i>The course is given in Kista</i>	5	D	20	6	-	12			3		
2D1371 Theory of Automata	4	C	20	-	-	10				4	
2E1632 Management of Networks and Networked Systems <i>The course replaces 2G1332.</i>	5	D	20	-	-	-				4	Project
2E1633 Network Services and Internet-based Applications* <i>The course replaces 2G1333.</i>	5	D	8	-	-	-				4	120 h Projektuppgift 120 h Projektuppgift
2G1305 Internetworking <i>Given in Kista</i>	4	C	14	14	-	-				4	
2G1915 Concurrent Programming	5	C	36	-	-	24			3		
2I1901 Introduction to Software Engineering	5	C	15	-	-	-			3		Seminars 6 hours, project 120 hours
5B1928 Logic	4	A	40	20	-	-				4	

*The course has limited participation

Distributed systems IT4

Code Name	Credits	Level	Lec	Tut	Le	Lab	Periods				Other
							1	2	3	4	
Conditionally Elective Courses											
2D1371 Theory of Automata	4	C	20	-	-	10				4	
2D1452 Formal Methods	5	D	20	14	-	12			3		
2D1453 Advanced Formal Methods	5	D	12	8	-	-				4	

2D1454 Semantics for Programming Languages <i>Replaces 2G1117.</i>	4	D	-	-	-	-	2			
2G1509 Distributed Systems, Basic Course	5	D	24	-	-	-	1			Project work 12 hours
2G1513 Distributed Systems, Advanced Course	5	D	24	-	-	-		3		
2G1515 Constraint Programming	5	D	24	-	-	-			4	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
2G1528 Individual Studies in Software Engineering <i>This course is proposed in software Engineering of Distributed Systems Master program.</i>	5	D	-	-	-	-		3	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			
2G1530 Logic Programming <i>replaces 2G1121</i>	5	D	16	12	-	-	1			Individual work on project and group presentation 4h

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Information and Communication Technology

Nanoscale Electronics IT3

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	
2B1513 Digital Design with HDL	5	D	26	10	-	28	1				
2B1553 Analog Electronics	5	B	28	20	-	20		2			
2E1313 Signals and Systems, part II	5	C	30	28	60	4		2			
5B1209 Signals and Systems, part I	5	A	-	-	60	-	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		
2D1371 Theory of Automata	4	C	20	-	-	10				4	
2E1423 Signal Theory	5	C	24	22	-	10			3		

Nanoscale Electronics IT4

Code Name	Credits	Level	Lec	Tut	Le	Lab	Periods				Other
							1	2	3	4	
Conditionally Elective Courses											
2B1140 Frontiers of Microelectronics and Information Technology	4	D	-	-	-	-	1	2	3	4	
2B1211 Physics of Electronic Materials	5	C	40	24	-	8	1				
2B1221 Methods and Instruments of Analysis	5	D	-	-	28	16		2			
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			
2B1322 Fiber Optical Communication	5	D	28	14	-	8			3		
2B1325 Photonics	5	D	38	-	-	8				4	
2B1428 Design of Digital Integrated Circuits - VLSI	5	D	21	8	-	16			3	4	

2B1450 Electronic System Packaging	5	D	20	-	-	16			3		
2B1515 Analog Electronics, Advanced Course	5	C	30	14	-	20		2	3		Project work
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		

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Information and Communication Technology

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>This course 2I1029 has been replaced by 2I1714 in the master's program of Interaktive Systems Engineering.</i>	4	C	27	-	-	-	1				6 h Seminars, 80 h Projektuppgift6 h Seminars, 80 h Projektuppgift
2I1034 Object Oriented Analysis and Design	4	C	-	-	-	-	1				
2I1075 Relational Database Technology	4	C	14	3	10	3		2			
5B1928 Logic	4	A	40	20	-	-	1	2			
Conditionally Elective Courses											
2D1371 Theory of Automata	4	C	20	-	-	10				4	
2G1305 Internetworking <i>Given in Kista</i>	4	C	14	14	-	-				4	
2G1915 Concurrent Programming	5	C	36	-	-	24			3		
2I1095 Cognitive Science	4	C	25	-	-	-			3		Course assignment work 120
2I1140 Artificial Intelligence	6	D	39	10	-	80			3		
2I1281 Agile Software Construction	6	C	40	-	40	120			3	4	
2I1282 Software Testing and Metrics	5	D	40	-	120	-			3		
2I1515 Introduction to Computer Security	5	B	22	-	-	15			3		
2I1901 Introduction to Software Engineering	5	C	15	-	-	-			3		Seminars 6 hours, project 120 hours

Interactive systems IT4

Code Name	Credits	Level	Lec	Tut	Le	Lab	Periods				Other
							1	2	3	4	
Conditionally Elective Courses											
2F1111 Speech Technology	4	D	36	14	-	6			3		
2I1042 Design and Construction of Interactive Systems	5	C	-	-	-	-				4	
2I1059 Methods for the Design of Multimedia and Interactive Systems	6	D	25	-	-	64			3	4	
2I1095 Cognitive Science	4	C	25	-	-	-			3		Course assignment work 120

211234 Machine Learning	4	D	36	-	-	-			4	
211409 Complex Social Networks	4	D	20	-	-	-		2		
211717 Programming of Interactive Systems <i>The course is a replacement for 211706 from 06/07. Students who have already taken the course 211706 can therefore not apply for this one.</i>	5	D	26	6	-	50		2		
211721 Ubiquitous Computing <i>The course is a replacement for 211710 from 06/07. Students who have already taken the course 211710 can therefore not apply for this one.</i>	5	D	29	2	2	-			3	4 h Seminars4 h Seminars
211722 Affective Interaction <i>The course is a replacement for 211703 from 06/07. Students who have already taken the course 211703 can therefore not apply for this one.</i>	5	D	18	-	-	120			3	4
211724 Advanced Individual Course in Human-Computer Interaction	5	D	-	-	-	-	1	2	3	4
211803 Internet Programming III <i>Replaces 211266 from VT04</i>	5	D	6	-	-	160			3	
211804 Internet Programming IV	5	C	4	-	-	160				4

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Information and Communication Technology

International Profile IT1

Code Name	Credits	Level	Lec	Tut	Le	Lab	Periods				Other
							1	2	3	4	
Conditionally Elective Courses											
9E1323 German, Advanced Beginner's Level*_	5	B	-	-	56	-			3	4	
9E1339 French, Advanced Beginners' Level	5	B	-	-	56	-			3	4	
9E1344 Spanish, Advanced Beginners' Level*_	5	B	-	-	56	-			3	4	
9E1380 Elementary Japanese and Japanese Studies*_	4	B	-	-	56	-			3	4	
9E1390 Elementary Chinese and Chinese Studies*_	4	B	-	-	56	-			3	4	

*The course has limited participation

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Information and Communication Technology

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				
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	20	10	-	-	1				12 h ProjektuppgiftProjectwork 12 h 12 h Projektuppgift
2G1533 Compilers and Execution Environments	5	C	28	8	-	-		2			
Conditionally Elective Courses											
2B1463 Embedded Software <i>The course is given in Kista</i>	5	D	20	6	-	12			3		
2D1371 Theory of Automata	4	C	20	-	-	10				4	
2E1632 Management of Networks and Networked Systems <i>The course replaces 2G1332.</i>	5	D	20	-	-	-				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	
2G1915 Concurrent Programming	5	C	36	-	-	24			3		
2I1901 Introduction to Software Engineering	5	C	15	-	-	-			3		Seminars 6 hours, project 120 hours
5B1928 Logic	4	A	40	20	-	-				4	

*The course has limited participation

Communication systems IT4

Code Name	Credits	Level	Lec	Tut	Le	Lab	Periods				Other
							1	2	3	4	
Conditionally Elective Courses											
2B1315 Dimensioning of Communication Systems	5	C	26	24	-	-			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	
2G1509 Distributed Systems, Basic Course	5	D	24	-	-	-	1			Project work 12 hours	
2G1701 Advanced Internetworking <i>The course is given in Kista.</i>	6	D	8	18	-	20	1			Group project, additiona lectures online	
2G1703 Inter Domain Routing	5	D	10	-	-	20		2		Home assignment	
2G1704 Internet Security and Privacy	5	D	30	10	-	-		2		assigned paper	
2G1722 Developing Mobile Applications	5	D	20	-	-	10			3		
2G1723 GSM Network and Services	5	D	20	-	-	10				4	Laboratory 5 sessions
2G1751 Network Society	5	C	20	-	-	-			3	4	Assingned paper 50 h

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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>This course 2I1029 has been replaced by 2I1714 in the master's program of Interaktive Systems Engineering.</i>	4	C	27	-	-	-	1				6 h Seminars, 80 h Projektuppgift6 h Seminars, 80 h Projektuppgift
2I1034 Object Oriented Analysis and Design	4	C	-	-	-	-	1				
2I1075 Relational Database Technology	4	C	14	3	10	3		2			
5B1928 Logic	4	A	40	20	-	-	1	2			
Conditionally Elective Courses											
2D1371 Theory of Automata	4	C	20	-	-	10				4	
2G1305 Internetworking <i>Given in Kista</i>	4	C	14	14	-	-				4	
2G1915 Concurrent Programming	5	C	36	-	-	24			3		
2I1095 Cognitive Science	4	C	25	-	-	-			3		Course assignment work 120
2I1140 Artificial Intelligence	6	D	39	10	-	80			3		
2I1281 Agile Software Construction	6	C	40	-	40	120			3	4	
2I1282 Software Testing and Metrics	5	D	40	-	120	-			3		
2I1515 Introduction to Computer Security	5	B	22	-	-	15			3		
2I1901 Introduction to Software Engineering	5	C	15	-	-	-			3		Seminars 6 hours, project 120 hours

Management with IT and IS IT4

Code Name	Credits	Level	Lec	Tut	Le	Lab	Periods				Other
							1	2	3	4	
Conditionally Elective Courses											
2I1053 Internet and ERP Systems	5	C	12	-	-	-	1				Project work 80 h
2I1068 Internet Search and Monitoring Techniques <i>The course replaces 2I1413</i>	5	C	-	-	16	-	1				6 assignments
2I1190 Organisations, IT-Systems and Management	7	D	36	-	14	9			3	4	Seminars 6h

211191 IT-Platform: Strategy, Architecture and Design	5	D	30	-	-	-			4	Seminars 6h
211197 Systems Theory	3	D	21	-	3	3			3	
211198 IT-Management	5	D	27	-	7	-			4	Seminars 8 hours
211228 Enterprise Computing and ERP Systems	5	D	14	12	-	60	1			80h
211242 Models and Languages for Object and Web Databases	5	D	21	40	-	75			3	Studying/Practice 60h
211404 Model-driven Development of Components <i>not given 2005/06</i>	5	D	20	35	-	110			4	
211406 Mobile Business	5	D	18	12	-	-			3	4 Project work 80 h
211415 Knowledge and Software Reuse <i>The course is a replacement for 211040 from 06/07. Students who have already taken the course 211040 can therefore not apply for this one.</i>	5	C	18	18	-	40			3	4
211417 Relational Database Design <i>The course is a replacement for 211056 from 06/07. Students who have already taken the course 211056 can therefore not apply for this one.</i>	5	C	12	12	9	8		2		
211418 Data Warehousing <i>The course is a replacement for 211224 from 06/07. Students who have already taken the course 211224 can therefore not apply for this one.</i>	5	D	15	-	2	-			3	9 h Seminars9 h Seminars
211419 Knowledge Management <i>The course is a replacement for 211229 from 06/07. Students who have already taken the course 211229 can therefore not apply for this one.</i>	5	D	24	24	-	-			3	
211420 Processes for IT Production <i>The course is a replacement for 211403 from 06/07. Students who have already taken the course 211403 can therefore not apply for this one.</i>	5	D	21	-	-	-		2		6 h Seminars6 h Seminars
211421 Project and Power Games <i>The course is a replacement for 211408 from 06/07. Students who have already taken the course 211408 can therefore not apply for this one.</i>	5	D	27	27	-	-				4
211423 Interoperability of Enterprise Systems and Services <i>The course is a replacement for 211058 from 06/07. Students who have already taken the course 211058 can therefore not apply for this one.</i>	5	D	12	12	40	18		2		
212121 Global IT-management	5	D	20	-	-	-		2		10 h Seminars, 10 h Projektuppgift10 h Seminars, 10 h Projektuppgift
212125 Management of IT-enabled Change	5	D	20	-	-	-			3	Seminars 10 h, Team project 10 h
212126 Strategic Management of IT	5	D	20	-	-	-			4	Seminars 10h, Team project 10h
Elective Courses										
211418 Data Warehousing <i>The course is a replacement for 211224 from 06/07. Students who have already taken the course 211224 can therefore not apply for this one.</i>	5	D	15	-	2	-			3	9 h Seminars9 h Seminars

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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>This course 2I1029 has been replaced by 2I1714 in the master's program of Interaktive Systems Engineering.</i>	4	C	27	-	-	-	1				6 h Seminars, 80 h Projektuppgift6 h Seminars, 80 h Projektuppgift
2I1034 Object Oriented Analysis and Design	4	C	-	-	-	-	1				
2I1075 Relational Database Technology	4	C	14	3	10	3		2			
5B1928 Logic	4	A	40	20	-	-	1	2			
Conditionally Elective Courses											
2D1371 Theory of Automata	4	C	20	-	-	10				4	
2G1305 Internetworking <i>Given in Kista</i>	4	C	14	14	-	-				4	
2G1915 Concurrent Programming	5	C	36	-	-	24			3		
2I1095 Cognitive Science	4	C	25	-	-	-			3		Course assignment work 120
2I1140 Artificial Intelligence	6	D	39	10	-	80			3		
2I1281 Agile Software Construction	6	C	40	-	40	120			3	4	
2I1282 Software Testing and Metrics	5	D	40	-	120	-			3		
2I1515 Introduction to Computer Security	5	B	22	-	-	15			3		
2I1901 Introduction to Software Engineering	5	C	15	-	-	-			3		Seminars 6 hours, project 120 hours

Software Engineering and Security IT4

Code Name	Credits	Level	Lec	Tut	Le	Lab	Periods				Other
							1	2	3	4	
Conditionally Elective Courses											
2D1371 <u>Theory of Automata</u>	4	C	20	-	-	10				4	
2D1452 <u>Formal Methods</u>	5	D	20	14	-	12			3		
2G1530 <u>Logic Programming</u> <i>replaces 2G1121</i>	5	D	16	12	-	-	1				Individual work on project and group presentation 4h

211050 Security Management <i>The course cannot be included in an exam together with course 211506</i>	5	D	27	-	-	-				4	
211249 Current Problems in Software Engineering	5	D	-	-	-	-	1	2	3	4	total workload is 200 hours
211259 Value-Based Software Engineering	5	D	28	-	-	-				4	Seminar 14 h
211281 Agile Software Construction	6	C	40	-	40	120			3	4	
211282 Software Testing and Metrics	5	D	40	-	120	-			3		
211283 Formal Methods in Software Engineering	5	C	20	16	-	-				4	Varies, total workload is 200 hours
211284 Dynamic Programming Languages	5	C	30	-	-	-				4	
211502 Introduction to Cryptography	5	D	28	-	-	12		2			
211503 Network Security <i>Replaces 211274 from 04/05</i>	5	D	18	-	-	18		2			
211504 Software Engineering and Security Architecture	5	D	18	-	-	18			3		
211505 Legal Aspects of Information Security	5	D	24	-	-	12			3		
211506 Security Management <i>Cannot be included in an exam together with course 211050</i>	10	D	24	-	-	6				4	Seminars 18 hours
211511 Value Based Risk Management	5	D	12	12	-	-		2			
211512 Security Architecture for Open Distributed Systems <i>The course is a replacement for 211272 from 06/07. Students who have already taken the course 211272 can therefore not apply for this one.</i>	5	D	24	-	-	16			3		
211513 Security for Java Environment and Electronic Commerce <i>The course is a replacement for 211276 from 06/07. Students who have already taken the course 211276 can therefore not apply for this one.</i>	5	D	24	-	-	16				4	
211514 Security in Mobile and Wireless Networks <i>The course is a replacement for 211279 from 06/07. Students who have already taken the course 211279 can therefore not apply for this one.</i>	5	D	24	-	-	16				4	
211902 Advanced Issues in Object-Oriented	5	C	30	-	-	120		2			

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Information and Communication Technology

System-on-Chip IT3

Code Name	Credits	Level	Lec	Tut	Le	Lab	Periods				Other
							1	2	3	4	
Compulsory Courses											
2B1513 <u>Digital Design with HDL</u>	5	D	26	10	-	28	1				
2B1553 <u>Analog Electronics</u>	5	B	28	20	-	20		2			
2E1313 <u>Signals and Systems, part II</u>	5	C	30	28	60	4		2			
5B1209 <u>Signals and Systems, part I</u>	5	A	-	-	60	-	1				
Conditionally Elective Courses											
2B1252 <u>Semiconductor Devices</u>	6	C	32	10	-	12				4	Project 16h The course is given in Campus. (Valhallavägen)
2B1430 <u>Design of Digital Integrated Circuits - LSI</u>	5	C	20	8	-	16				4	
2B1435 <u>DSP-Construction with HDL</u>	5	D	24	12	-	24			3		
2D1371 <u>Theory of Automata</u>	4	C	20	-	-	10				4	
2E1423 <u>Signal Theory</u>	5	C	24	22	-	10			3		

System-on-Chip 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	-	10	-	20		2			
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
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			
2B1450 <u>Electronic System Packaging</u>	5	D	20	-	-	16			3		
2B1454 <u>Design of Fault-tolerant Systems</u> <i>Under bearbetning</i>	5	D	-	-	-	-				4	
2B1456 <u>Advanced Logic Design</u> <i>This course is not given 2006/2007. This course is not given 2006/2007.</i>	5	D	24	6	-	-			3		

2B1463 Embedded Software <i>The course is given in Kista</i>	5	D	20	6	-	12		3	
2B1480 Submicron Digital Circuits Design <i>This course has been replaced by 2B1430 Design of Digital Integrated Circuits - LSI.</i>	5	D	24	8	-	16	2		The course is given in Kista
2B1515 Analog Electronics, Advanced Course	5	C	30	14	-	20	2	3	Project work
2B1600 Radio Electronics	5	D	26	12	-	16		4	
2B1611 Low Power Analog and Mixed Signal IC's	5	D	-	14	42	-		4	
2G1534 Computer Systems Architecture	5	C	16	16	-	16	1		Homework 16h

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Wireless systems IT3

Code Name	Credits	Level	Lec	Tut	Le	Lab	Periods				Other
							1	2	3	4	
Compulsory Courses											
2B1513 <u>Digital Design with HDL</u>	5	D	26	10	-	28	1				
2B1553 <u>Analog Electronics</u>	5	B	28	20	-	20		2			
2E1313 <u>Signals and Systems, part II</u>	5	C	30	28	60	4		2			
5B1209 <u>Signals and Systems, part I</u>	5	A	-	-	60	-	1				
Conditionally Elective Courses											
2B1252 <u>Semiconductor Devices</u>	6	C	32	10	-	12				4	Project 16h The course is given in Campus. (Valhallavägen)
2B1430 <u>Design of Digital Integrated Circuits - LSI</u>	5	C	20	8	-	16				4	
2B1435 <u>DSP-Construction with HDL</u>	5	D	24	12	-	24			3		
2D1371 <u>Theory of Automata</u>	4	C	20	-	-	10				4	
2E1423 <u>Signal Theory</u>	5	C	24	22	-	10			3		

Wireless systems IT4

Code Name	Credits	Level	Lec	Tut	Le	Lab	Periods				Other
							1	2	3	4	
Compulsory Courses											
2E1511 <u>Radio Communication, Basic Course</u>	4	D	24	24	-	8	1				
2E1514 <u>Wireless Transmission Techniques</u>	4	D	26	26	-	-			3		
2G1330 <u>Wireless and Mobile Network Architectures</u>	5	D	10	-	-	-			3		Assigned paper 50h
Conditionally Elective Courses											
2B1600 <u>Radio Electronics</u>	5	D	26	12	-	16				4	
2E1340 <u>Digital Signal Processing</u>	5	D	26	16	-	8		2			
2E1350 <u>Adaptive Signal Processing</u>	4	D	24	14	-	-			3		
2E1381 <u>Seminars in Wireless Systems</u>	2	D	-	-	-	-			3	4	16 h Seminars16 h Seminars
2E1410 <u>Information Theory and Source Coding, Accel Program Course</u>	5	D	36	12	-	-			3		
2E1512 <u>Wireless Networks*_ </u>	8	D	30	24	-	12				4	80 h Projektuppgift80 h Projektuppgift

2E1618 <u>Queuing Theory and Teletraffic Systems</u> <i>The course replaces 2G1318.</i>	4	C	24	24	-	-	2			
2E1632 <u>Management of Networks and Networked Systems</u> <i>The course replaces 2G1332.</i>	5	D	20	-	-	-			4	Project
2G1509 <u>Distributed Systems, Basic Course</u>	5	D	24	-	-	-	1			Project work 12 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	
2G1534 <u>Computer Systems Architecture</u>	5	C	16	16	-	16	1			Homework 16h

*The course has limited participation

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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 <u>Introductory Chemistry</u>	4	A	24	18	-	22	1				
3B1711 <u>Chemical Equilibria</u>	4	A	12	22	-	25			3	4	
3B1750 <u>Organic Chemistry 1</u>	5	A	20	14	-	42		2			
3C1451 <u>Introduction to Chemical Engineering</u>	7	A	39	26	-	-		2	3		Plant Trip 1 day
5A1225 <u>Electromagnetism and Waves</u>	5	A	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	-	-	-	-					
3C1921 <u>Oral and Written Presentation for Chemists</u>	4	A	4	12	2	2		2	3		
5B1120 <u>Introductory Course in Mathematics I</u>	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	-	22	1	2			
3B1720 Chemical Thermodynamics	5	B	28	30	-	15	1	2			
3B1731 Molecular Structure	4	B	36	22	-	20		2	3		
3B1740 Chemical Dynamics	4	A	20	20	-	15			3		
3B1760 Organic Chemistry 2	5	A	16	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	2			
Elective Courses											
3C1921 Oral and Written Presentation for Chemists	4	A	4	12	2	2		2	3		

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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	A	22	4	-	12	1				
3B1782 Inorganic Chemistry	4	C	24	4	-	20	1				40 h Projektuppgift40 h Projektuppgift
3C1616 Reaction and Separation Engineering	7	C	28	30	-	12	1	2			8 h Seminars, 10 h Computer, 8 h Study visit8 h Seminars, 10 h Computer, 8 h Study visit
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	
3C1347 Environmental Technology and Environmental Impact Studies, Larger Course	8	D	40	17	-	-			3	4	Projekt work 16 h, Tutorials/Lab. 16h
3C1383 Risk Management	4	C	16	30	-	-	1				
3C1387 Environmental Systems Analysis	4	C	16	8	-	6		2			
3C1524 Chemical Engineering	6	D	16	18	-	12				4	
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	A	4	12	2	2		2	3		
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	-	-	-	-					
Under bearbetning											

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			
3E5002 Polymer Physics	4	D	30	-	-	-		2				
Elective Courses												
3A1646 Theoretical materials design	5	D	30	12	-	-				4		
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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Chemical Engineering

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 Not given 06/07. Only open for AFM-students	5	C	-	-	-	-					Seminars 40h	
2D1552 Media Management Not given 06/07.	10	C	72	56	-	-					Only open for AFM-students.	
2D1553 Media Production* Only open for AFM-students. Not given 06/07.	10	C	53	-	-	34					Only open for AFM-students.	
2D1555 Information Technology and Organizations* Only open for AFM-students. Not given 06/07.	5	D	20	20	-	-					Open only to AMF-students.	
2D1557 Consumer Behaviour Replaces 2D1551. Not given 06/07. Open only to AFM-students.	5	C	-	-	-	-					Seminars 40h	

*The course has limited participation

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Chemical Engineering

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	D	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	D	34	-	-	-				4		
3A1305 Microbiology, General Course	6	D	36	16	-	54				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	D	-	-	-	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	D	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	
3A1208 Biochemical Technology	7	D	40	-	-	60			3	4	
3A1209 Biochemical Technology, Theory	5	D	40	10	-	-			3	4	
3A1315 Industrial and Environmental Microbiology	8	D	44	12	-	-			3	4	12 h Seminars12 h Seminars
3A1316 Industrial and Environmental Microbiology, Theory	5	D	-	-	-	-			3		
3A1504 Structure Biology	4	D	30	-	-	22				4	6 h Seminars6 h Seminars
3A1506 Drug Development	4	D	36	-	-	-			3		8 h Study visit8 h Study visit

3A1519 Applied Gene Technology	4	D	18	-	-	-	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				
3B1545 Selective Organic Synthesis	4	D	28	-	-	-			3		
3B1546 Selective Organic Synthesis	5	D	28	-	-	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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Industrial ecology K3

Code Name	Credits	Level	Lec	Tut	Le	Lab	Periods				Other
							1	2	3	4	
Compulsory Courses											
3C1347 Environmental Technology and Environmental Impact Studies, Larger Course	8	D	40	17	-	-			3	4	Projekt work 16 h, Tutorials/Lab. 16h
3C1380 Environmental Management	4	C	10	-	-	-			3		12 h Seminars12 h Seminars
Recommended Courses											
3A1115 Biochemistry	4	D	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	
3C1350 Waste Management, Advanced Course	4	D	18	-	-	-				4	Project work, assignments, Study visit
3C1351 International Intensive Course in Solid Waste Management	4	D	-	-	-	-			3		
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											
3C1336 Introduction Industrial Ecology	4	C	12	8	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			
3C1396 Technology and Sustainable Development	4	C	8	9	-	-		2			
Recommended Courses											

3A1104 Environmental Toxicology	6	D	36	14	-	-	1	2			
3A1115 Biochemistry	4	D	34	-	-	-				4	
3A1305 Microbiology, General Course	6	D	36	16	-	54				4	
3B1443 Atmosphere, Aquatic and Terrestrial Chemistry	5	C	12	10	-	24				4	
3C1343 Environmental Technology, Advanced Course II	6	D	-	-	-	-					Project work
3C1350 Waste Management, Advanced Course	4	D	18	-	-	-				4	Project work, assignments, Study visit
3C1351 International Intensive Course in Solid Waste Management	4	D	-	-	-	-			3		
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	A	12	22	-	25			3	4	
3B1750 <u>Organic Chemistry 1</u>	5	A	20	14	-	42		2			
3C1451 <u>Introduction to Chemical Engineering</u>	7	A	39	26	-	-		2	3		Plant Trip 1 day
5A1225 <u>Electromagnetism and Waves</u>	5	A	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	-	-	-	-					

*The course has limited participation

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	-	22	1	2			
3B1720 <u>Chemical Thermodynamics</u>	5	B	28	30	-	15	1	2			
3B1731 <u>Molecular Structure</u>	4	B	36	22	-	20		2	3		
3B1740 <u>Chemical Dynamics</u>	4	A	20	20	-	15			3		
3B1760 <u>Organic Chemistry 2</u>	5	A	16	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 Mathematics IV	6	A	60	30	-	-	1	2			
9E1334 Technical French, Intermediate Level*	6	B	-	-	56	-			3	4	

*The course has limited participation

K3

Code Name	Credits	Level	Lec	Tut	Le	Lab	Periods				Other
							1	2	3	4	
Compulsory Courses											
3B1782 Inorganic Chemistry	4	C	24	4	-	20	1				40 h Projektuppgift40 h Projektuppgift

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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	A	12	22	-	25			3	4	
3B1750 Organic Chemistry 1	5	A	20	14	-	42		2			
3C1451 Introduction to Chemical Engineering	7	A	39	26	-	-		2	3		Plant Trip 1 day
5A1225 Electromagnetism and Waves	5	A	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	-	-	-	-					

*The course has limited participation

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	-	22	1	2			
3B1720 <u>Chemical Thermodynamics</u>	5	B	28	30	-	15	1	2			
3B1731 <u>Molecular Structure</u>	4	B	36	22	-	20		2	3		
3B1740 <u>Chemical Dynamics</u>	4	A	20	20	-	15			3		
3B1760 <u>Organic Chemistry 2</u>	5	A	16	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 Mathematics IV	6	A	60	30	-	-	1	2			
9E1382 Japanese, Advanced Beginners' Level*	4	B	-	-	56	-			3	4	

*The course has limited participation

K3

Code Name	Credits	Level	Lec	Tut	Le	Lab	Periods				Other
							1	2	3	4	
Compulsory Courses											
3B1782 Inorganic Chemistry	4	C	24	4	-	20	1				40 h Projektuppgift40 h Projektuppgift

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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	A	12	22	-	25			3	4	
3B1750 <u>Organic Chemistry 1</u>	5	A	20	14	-	42		2			
3C1451 <u>Introduction to Chemical Engineering</u>	7	A	39	26	-	-		2	3		Plant Trip 1 day
5A1225 <u>Electromagnetism and Waves</u>	5	A	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	-	-	-	-					

*The course has limited participation

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	-	22	1	2			
3B1720 <u>Chemical Thermodynamics</u>	5	B	28	30	-	15	1	2			
3B1731 <u>Molecular Structure</u>	4	B	36	22	-	20		2	3		
3B1740 <u>Chemical Dynamics</u>	4	A	20	20	-	15			3		
3B1760 <u>Organic Chemistry 2</u>	5	A	16	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 Mathematics IV	6	A	60	30	-	-	1	2			
9E1392 Chinese, Advanced Beginners' Level*	4	B	-	-	56	-			3	4	

*The course has limited participation

K3

Code Name	Credits	Level	Lec	Tut	Le	Lab	Periods				Other
							1	2	3	4	
Compulsory Courses											
3B1782 Inorganic Chemistry	4	C	24	4	-	20	1				40 h Projektuppgift40 h Projektuppgift

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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	A	12	22	-	25			3	4	
3B1750 <u>Organic Chemistry 1</u>	5	A	20	14	-	42		2			
3C1451 <u>Introduction to Chemical Engineering</u>	7	A	39	26	-	-		2	3		Plant Trip 1 day
5A1225 <u>Electromagnetism and Waves</u>	5	A	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	
9E1344 <u>Spanish, 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	-	-	-	-					

*The course has limited participation

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	-	22	1	2			
3B1720 <u>Chemical Thermodynamics</u>	5	B	28	30	-	15	1	2			
3B1731 <u>Molecular Structure</u>	4	B	36	22	-	20		2	3		
3B1740 <u>Chemical Dynamics</u>	4	A	20	20	-	15			3		
3B1760 <u>Organic Chemistry 2</u>	5	A	16	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 Mathematics IV	6	A	60	30	-	-	1	2			
9E1348 Technical Spanish, Intermediate Level*	6	B	-	-	56	-			3	4	

*The course has limited participation

K3

Code Name	Credits	Level	Lec	Tut	Le	Lab	Periods				Other
							1	2	3	4	
Compulsory Courses											
3B1782 Inorganic Chemistry	4	C	24	4	-	20	1				40 h Projektuppgift40 h Projektuppgift

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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	A	12	22	-	25			3	4	
3B1750 <u>Organic Chemistry 1</u>	5	A	20	14	-	42		2			
3C1451 <u>Introduction to Chemical Engineering</u>	7	A	39	26	-	-		2	3		Plant Trip 1 day
5A1225 <u>Electromagnetism and Waves</u>	5	A	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	-	-	-	-					

*The course has limited participation

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	-	22	1	2			
3B1720 Chemical Thermodynamics	5	B	28	30	-	15	1	2			
3B1731 Molecular Structure	4	B	36	22	-	20		2	3		
3B1740 Chemical Dynamics	4	A	20	20	-	15			3		
3B1760 Organic Chemistry 2	5	A	16	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	2			
9E1324 Technical German, Intermediate Level*	6	B	-	-	56	-			3	4	

*The course has limited participation

K3

Code Name	Credits	Level	Lec	Tut	Le	Lab	Periods				Other
							1	2	3	4	
Compulsory Courses											
3B1782 Inorganic Chemistry	4	C	24	4	-	20	1				40 h Projektuppgift40 h Projektuppgift

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Chemical engineering K3

Code Name	Credits	Level	Lec	Tut	Le	Lab	Periods				Other	
							1	2	3	4		
Conditionally Elective Courses												
3C1524 Chemical Engineering	6	D	16	18	-	12				4		
3C1723 Transport Phenomena, Advanced Course	5	D	18	12	-	-			3		6 h Seminars, 12 h Computer6 h Seminars, 12 h Computer	
Recommended Courses												
3A1305 Microbiology, General Course	6	D	36	16	-	54				4		
3B1102 Analytical Chemistry	4	C	16	-	-	16			3			
3B1242 Technical Surface Colloid Chemistry	4	C	32	6	-	12			3			
3B1521 Organic Chemistry, Theory, Advanced Course 1	5	C	12	6	-	-				4		
3C1347 Environmental Technology and Environmental Impact Studies, Larger Course	8	D	40	17	-	-			3	4	Projekt work 16 h, Tutorials/Lab. 16h	
3C1621 Process Chemistry	5	D	36	72	-	-			3		10 h Seminars10 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 visit6 h Seminars, 6 h Study visit	
3C1823 Applied Electrochemistry	5	D	32	16	-	15			3			
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		
5B1301 Mathematics, Advanced Course, Partial Differential Equations	4	C	-	-	42	-			3			
5B1304 Mathematics, Extended Course <i>Not given 06/07.</i>	5	C	-	-	-	-						
5C1212 Computational Fluid Dynamics	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			
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	-	12	1	2			
2D1320 Applied Computer Science	4	A	28	14	-	20	1	2			
2E1200 Automatic Control, General Course	4	C	24	26	-	12	1				
3A1208 Biochemical Technology	7	D	40	-	-	60			3	4	
3A1209 Biochemical Technology, Theory	5	D	40	10	-	-			3	4	
3A1305 Microbiology, General Course	6	D	36	16	-	54				4	
3A1315 Industrial and Environmental Microbiology	8	D	44	12	-	-			3	4	12 h Seminars 12 h Seminars
3A1316 Industrial and Environmental Microbiology, Theory	5	D	-	-	-	-			3		
3A1645 Molecular Modeling	5	D	-	-	-	-			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	
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	-	-	1				9 h Seminars 9 h Seminars 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	-	-	-			3	4	
4F1430 Combustion Engines, general course*	4	C	42	6	-	12	1				
4F1431 Combustion Engines, Advanced Course*	6	D	48	-	-	28		2	3		
5B1301 Mathematics, Advanced Course, Partial Differential Equations	4	C	-	-	42	-			3		
5B1304 Mathematics, Extended Course <i>Not given 06/07.</i>	5	C	-	-	-	-					

*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											
5B1301 Mathematics, Advanced Course, Partial Differential Equations	4	C	-	-	42	-			3		
5B1304 Mathematics, Extended Course <i>Not given 06/07.</i>	5	C	-	-	-	-					

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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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	D	-	-	-	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>	4	C	14	24	-	12		2			

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Chemical Engineering

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	D	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 Chemical Engineering in Fine and Specialty Chemicals	5	D	20	12	42	27	1				8h industry visit
3C1784 Pharmaceutical Technology <i>Lectures are given in Stockholm (KTH) and laboratory work in Uppsala (Biomedical centre).</i>	5	D	32	10	-	25			3		
Recommended Courses											
3A1503 Molecular Biotechnology	5	D	36	-	-	15		2	3		
3A1504 Structure Biology	4	D	30	-	-	22				4	6 h Seminars6 h Seminars
3A1506 Drug Development	4	D	36	-	-	-			3		8 h Study visit8 h Study visit
3B1545 Selective Organic Synthesis	4	D	28	-	-	-			3		
3B1546 Selective Organic Synthesis	5	D	28	-	-	40			3		

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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	
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		
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	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
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		
3E1370 Polymers in Engineering Design	4	D	18	24	-	8			4
4H1609 Functional Materials	4	D	18	-	-	6		3	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	4	D	18	-	-	-				4	Project work, assignments, Study visit	
3C1351 International Intensive Course in Solid Waste Management	4	D	-	-	-	-			3			
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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Molecular Design K3

Code Name	Credits	Level	Lec	Tut	Le	Lab	Periods				Other
							1	2	3	4	
Conditionally Elective Courses											
3A1115 Biochemistry	4	D	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	
Recommended Courses											
3A1504 Structure Biology	4	D	30	-	-	22				4	6 h Seminars6 h Seminars
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	
3C1347 Environmental Technology and Environmental Impact Studies, Larger Course	8	D	40	17	-	-			3	4	Projekt work 16 h, Tutorials/Lab. 16h
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		
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>	6	D	90	-	-	-			3	4	5 h Study visit5 h 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 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.	2	D	-	-	-	20			3	4	Literature seminars

Molecular Design K4

Code Name	Credits	Level	Lec	Tut	Le	Lab	Periods				Other
							1	2	3	4	
Conditionally Elective Courses											
3A1115 Biochemistry	4	D	34	-	-	-				4	
3B1102 Analytical Chemistry	4	C	16	-	-	16			3		
3B1211 Quantum Chemistry and Spectroscopy	6	D	48	-	-	8	1				
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	
Recommended Courses											
2B1263 Surface Physics, Basic Course	4	D	36	-	-	-		2			
2D1225 Numerical Solutions of Differential Equations	4	C	24	4	-	12	1	2			
2D1320 Applied Computer Science	4	A	28	14	-	20	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
3A1116 Biochemistry, Laboratory Course	4	D	-	-	-	96	1	2			
3A1305 Microbiology, General Course	6	D	36	16	-	54				4	
3A1503 Molecular Biotechnology	5	D	36	-	-	15		2	3		
3A1504 Structure Biology	4	D	30	-	-	22				4	6 h Seminars6 h Seminars
3A1645 Molecular Modeling	5	D	-	-	-	-			3		
3A1646 Theoretical materials design	5	D	30	12	-	-				4	
3B1121 Organic and Biochemical Analytical Separations	5	D	28	20	-	36				4	
3B1231 NMR-spectroscopy	4	D	30	-	-	12		2			
3B1301 Nuclear Chemistry	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			
3B1544 Applied Organic Molecular Spectroscopy	4	D	-	-	-	-	1			
3B1545 Selective Organic Synthesis	4	D	28	-	-	-		3		
3B1546 Selective Organic Synthesis	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		
3C1347 Environmental Technology and Environmental Impact Studies, Larger Course	8	D	40	17	-	-		3	4	Projekt work 16 h, Tutorials/Lab. 16h
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		
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>	6	D	90	-	-	-		3	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										
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.</i>	2	D	-	-	-	20		3	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	D	-	-	-	96	1	2			
3B1102 Analytical Chemistry	4	C	16	-	-	16			3		
3B1531 Organic Chemistry, Advanced Course	4	D	-	-	-	54	1				
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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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	-	22			3	4	
4A1101 Mechanical Engineering	6	A	38	60	-	-	1	2			
5A1226 Physics I	6	A	38	20	-	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	A	44	48	-	-			3	4	Math exercises
4C1010 <u>Solid Mechanics, Basic Course</u>	8	B	54	30	-	2	1	2			60 h Projektuppgift60 h Projektuppgift
4F1816 <u>No translation</u>	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 <i>Examiner: Thorolf Hedborg.</i>	4	A	22	14	-	-		2			2 h Seminars 2 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	-	32		2	3		
2E1200 Automatic Control, General Course	4	C	24	26	-	12		2			
4A1601 Heat Transfer	4	C	24	24	-	20		2			
4A1604 Project Course in Sustainable Energy Systems	10	C	-	-	-	-			3	4	Project wor Seminars
4B1111 Fundamentals of Noise and Vibration Control	4	C	31	32	-	4	1				
4B1150 Project Course in Sound, Vibrations and Signals	10	C	-	-	-	-			3	4	Seminrs
4B1430 Project Course 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		
4C1128 Solid Mechanics for Machine Design	4	C	22	18	-	-				4	
4D1061 Strategic Management <i>Examiner: Bertil Guve.</i>	4	B	20	-	-	-				4	
4D1075 Work Organization and Leadership	4	B	24	24	-	-			3		
4D1096 Human Resource Management <i>Examiner: Matti Kaulio.</i>	4	B	28	12	-	-			3		
4E1110 Project Course in Lightweight Structures	10	C	-	-	128	-			3	4	Project work Seminars
4E1400 Project Course in Naval Systems	10	C	-	-	-	-			3	4	
4E1601 Wood and Cellulose Materials	5	C	56	-	-	18			3	4	
4F1540 Tribology	4	C	18	9	-	5		2			
4F1821 Project Course in Integrated Product Development	10	C	-	-	-	-			3	4	
4F1822 Project Course in Mechatronics	10	C	-	-	-	-			3	4	
4F1824 Project Course in Machine Engineering	10	C	-	-	-	-			3	4	

4F1826 Model Based Product Development I	6	C	24	24	-	12	1	2			
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, Basic Course	4	C	24	34	-	2	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	24	10	-	6	1				7 h Seminars7 h Seminars
6S1414 Ergonomics in Product Development	4	B	20	9	-	6		2			
7E1200 Cellular and Molecular Biology*₋	10	C	67	-	-	18			3	4	3 h Seminars3 h Seminars
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 Environmental	4	A	22	3	-	-	1				
3C1330 Technology and Environmental	4	A	22	3	-	-		2			
4A1603 Energy Technology <i>Lectures are given jointly with 4A1604 Project Course in Sustainable Energy Systems</i>	4	C	48	12	-	-			3		
4D1024 Industrial Economy and Management, Basic Course	4	A	20	14	-	-			3		2 h Seminars2 h Seminars
4D1041 Business Negotiations*₋ <i>Examinor: Thorolf Hedborg.</i>	4	C	24	8	-	-	1	2			
4F1541 CAD 3D-modelling and Visualization for	4	C	8	36	-	-		2			
4F1541 CAD 3D-modelling and Visualization for	4	C	8	36	-	-				4	
4F1825 Model Based Product Development II	4	C	24	-	-	-	1				
4F1827 Microcomputers in Embedded Systems	6	C	-	-	72	-	1	2			
4G1169 Manufacturing	4	C	18	26	-	12		2			
4G1230 Introductory Welding Technology	4	C	24	18	-	12	1				
4G1231 Intermediate Welding Technology	4	D	24	24	-	12	1	2			
4G1243 Advanced Welding Technology, Modulus 1	4	D	20	20	-	20			3		
4G1244 Advanced Welding Technology, Modulus 2	4	D	20	20	-	20			3		
4G1245 Advanced Welding Technology, Modulus 3	4	D	20	20	-	20				4	
4G1540 Laser Metrology Methods and Non Destructive Testing	4	C	28	22	-	4		2			
4H1071 Basic Chemistry for Industrial Engineering	4	A	14	10	-	-	1	2			5 h Projektuppgift5 h Projektuppgift
4K1101 Control Systems	4	C	18	28	-	12			3		
4K1105 Manufacturing Systems and Automation	4	C	14	24	-	12		2			

4K1132 <u>Modularisation of Products</u>	4	C	24	20	-	-			3		
4K1201 <u>Computer Aided Design and Manufacturing, Introductory course</u>	5	C	48	-	-	24				4	Graded exercise
4K1202 <u>Modelling and Interaction in CAD/CAM*</u> <i>Maximum of 20 participants.</i>	5	D	-	36	-	24	1	2			3 Programming tasks, periods 1, 2
4K1213 <u>Advanced CAD Modelling & Rapid Prototyping, Project Course</u>	4	D	16	24	-	-		2	3		Project work
5A1228 <u>Laser metrology and optical metrology</u> <i>Under bearbetning</i>	4	B	24	-	6	-			3	4	
5A1229 <u>Physics of Visual Impressions</u> <i>Under bearbetning</i>	4	B	24	-	6	-				4	
9E1131 <u>Information Searching for BD, I, M, T</u> <i>Also BD and P</i>	1	A-	-	-	-	-				4	Three laborations on all together 9 hours. The course is given regularly throughout the year, see
9E1131 <u>Information Searching for BD, I, M, T</u> <i>Also BD and P</i>	1	A-	-	-	-	-			3		Three laborations on all together 9 hours. The course is given regularly throughout the year, see
9E1131 <u>Information Searching for BD, I, M, T</u> <i>Also BD and P</i>	1	A-	-	-	-	-		2			Three laborations on all together 9 hours. The course is given regularly throughout the year, see
9E1334 <u>Technical French, Intermediate Level*</u>	6	B	-	-	56	-			3	4	

*The course has limited participation

Kungl Tekniska Högskolan

Studentwebben

KTH / Studentwebben / Study Handbook (06 / 07)

Study Handbook

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Abbreviations

Previous academic year (05/06)

Next academic year (07/08)

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			
Elective Courses											
2A1151 Energy and Fusion Research	4	D	24	12	-	-				4	
2A1160 Space Physics	3	D	18	-	-	-	1				
2C1243 Hybrid Vehicle Drives*	5	D	-	-	-	-		2			3 course meetings. (LTH, CTH and KTH) Project work/ assignments in between the meetings.
2D1225 Numerical Solutions of Differential Equations	4	C	24	4	-	12	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	
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			
2D1522 Computer Technology and Data Communication	4	A	30	-	-	20				4	
2E1242 Automatic Control, Project Course*	8	D	10	-	-	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	C	34	12	-	8	1				
3C1330 Technology and Environmental	4	A	22	3	-	-	1				
3C1330 Technology and Environmental	4	A	22	3	-	-		2			
3C1330 Technology and Environmental	4	A	-	3	-	-					

3C1336 Introduction Industrial Ecology	4	C	12	8	12	-	1			8 h Seminars, 12 h Projektuppgift8 h Seminars, 12 h Projektuppgift
3C1341 Environmental Technology, Advanced Course	5	C	34	9	-	-	1			3 h ProjektuppgiftAdvanced course on environmental technology 3 h Projektuppgift
3C1350 Waste Management, Advanced Course	4	D	18	-	-	-			4	Project work, assignments, Study visit
3C1356 Ecology, Advanced Course	4	C	21	4	-	-			3 4	Field work 8h
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	21	3	-	3	1			Field exercise 8h
3C1387 Environmental Systems Analysis	4	C	16	8	-	6		2		
3C1396 Technology and Sustainable Development	4	C	8	9	-	-		2		
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	-	-	1			9 h SeminarsSeminars 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	50	30	-	12	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
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 <i>Mandatory for Energy Utilisation</i>	4	D	54	-	-	-			3 4	Study visits 6h
4A1623 Applied Refrigeration and Heat Pump Technology <i>Mandatory for Energy Utilisation.</i>	4	D	24	24	-	16			3 4	
4A1625 Cooling of Electronics	4	D	-	-	48	-			3	
4A1626 Applied Heat and Power Technology <i>Mandatory for Power Generation.</i>	4	D	36	12	-	8			3 4	Project assignment 8h
4A1627 Applied Reactor Technology and Nuclear Power Safety <i>Mandatory for Power Generation.</i>	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		
4A1651 Management and Leadership in Systems Engineering - Project Course <i>Under bearbetning</i>	2	A	10	-	-	-				4	
4B1117 Noise and Vibration Control	6	C	38	44	-	8			3	4	
4B1127 Vibroacoustics <i>Under bearbetning</i>	5	D	-	56	-	8	1	2			
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	-			3		24 h Projektuppgift24 h Projektuppgift
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	-	-	-			3	4	
4C1111 Fracture Mechanics and Fatigue	4	D	48	-	-	4			3		
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	-	24	1	2			
4C1124 Orthopedic Biomechanics <i>Not given 06/07.</i>	4	D	32	-	-	4					
4D1041 Business Negotiations* <i>Examiner: Thorolf Hedborg.</i>	4	C	24	8	-	-	1	2			
4D1051 Commercial Law <i>Examiner: Bengt Domeij.</i>	4	B	14	18	-	-			3		
4D1057 Advanced Patent Law <i>Not given 2006/07.</i>	4	C	4	14	-	-					14 h SeminarsSeminars 14h 14 h Seminars
4D1062 Industrial Marketing <i>Examiner: Henrik Ugglä.</i>	4	B	36	12	-	-	1				
4D1075 Work Organization and Leadership	4	B	24	24	-	-			3		
4D1084 Human Factors Engineering - Man - Machine System <i>Examiner: Lena Mårtensson.</i>	4	B	24	6	-	3			3		
4D1093 Psychology for Engineers <i>Examiner: Lena Mårtensson.</i>	4	B	24	3	-	4		2			
4E1111 Lightweight Structures and FEM <i>Replaces 4E1102.</i>	5	D	48	-	-	14	1				
4E1114 Fiber Composites - Materials and Manufacturing <i>Replaces 4E1124.</i>	4	C	40	-	-	8			3	4	
4E1401 Introduction to Naval Architecture	5	C	10	44	-	4			3		

4F1141 Project Work in Mechatronics* <i>Limited attendance due to limited number of available projects</i> <i>Under bearbetning</i>	4	C	-	-	-	-	1	2	3	4	No scheduled hours
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>Open only for students with individual specialization of Combustion engines.</i>	6	D	-	-	18	-			3	4	
4F1540 Tribology	4	C	18	9	-	5		2			
4F1541 CAD 3D-modelling and Visualization for	4	C	8	36	-	-		2			
4F1541 CAD 3D-modelling and Visualization for	4	C	8	36	-	-				4	
4F1640 Industrial Design* <i>Limited number of participants.</i>	4	C	24	36	-	-			3		
4F1641 Environmentally Adapted Product Design <i>80% participation.</i>	4	C	-	-	42	-		2			
4F1643 Eco Design Project*	4	C	-	-	-	-	1	2	3	4	
4F1912 Innovation Engineering	20	D	-	-	-	-	1	2	3	4	40 h Seminars, 40 h Workshop, 40 h Study visit 40 h Seminars, 40 h Workshop, 40 h Study visit
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			
4G1243 Advanced Welding Technology, Modulus 1	4	D	20	20	-	20			3		
4G1244 Advanced Welding Technology, Modulus 2	4	D	20	20	-	20			3		
4G1245 Advanced Welding Technology, Modulus 3	4	D	20	20	-	20				4	
4G1540 Laser Metrology Methods and Non Destructive Testing	4	C	28	22	-	4		2			
4H1113 Powder Metallurgy	4	D	18	18	-	12		2			
4H1301 Material Design	4	D	-	15	-	15		2	3		
4H1404 Corrosion and Surface Protection, General Course	4	D	16	12	-	-	1				12 h Seminars 12 h Seminars
4H1609 Functional Materials	4	D	18	-	-	6			3		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	
4K1132 Modularisation of Products	4	C	24	20	-	-			3		

4K1202 <u>Modelling and Interaction in CAD/CAM*</u> <i>Maximum of 20 participants.</i>	5	D	-	36	-	24	1	2		3 Programming tasks, periods 1, 2
4K1213 <u>Advanced CAD Modelling & Rapid Prototyping, Project Course</u>	4	D	16	24	-	-		2	3	Project work
4M1051 <u>Project Assignment</u> <i>Under bearbetning</i>	4	D	-	160	-	-	1			
4M1341 <u>Foundry Processing</u> <i>Under bearbetning</i>	4	D	12	-	-	-			3	Seminarier 24h Other 28h
4M1342 <u>Space Systems and Technology</u> <i>Under bearbetning</i>	4	D	36	-	-	-		2		
4M1343 <u>Materials Processing, Project Support</u> <i>Under bearbetning</i>	4	D	72	48	-	40	1	2		
4M1345 <u>Powder Processing and Materials Forming</u> <i>Under bearbetning</i>	4	D	30	-	-	-				4 Home assignments 80h
4M1346 <u>Simulation and Modelling</u> <i>Under bearbetning</i>	4	D	10	80	-	-	1	2		
4M1370 <u>Solidification Processing</u> <i>Under bearbetning</i>	4	D	36	24	-	-	1	2		
5A1260 <u>Modern Physics</u> <i>Given if there is enough interest.</i>	5	A	24	12	-	10	1	2		
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 6 h Seminars, 20 h Study visit6 h Seminars, 20 h Study visit
5A1416 <u>Radiation Sources for Therapy</u>	2	D	10	-	-	-				4 14 h Study visit14 h Study visit
5A1590 <u>Technical Photography</u> <i>Under bearbetning</i>	5	A	28	-	-	30			3	4
5B1555 <u>Computer Intensive Methods in Mathematical Statistics</u> <i>Not given 06/07.</i>	5	D	-	-	48	-				
5B1574 <u>Portfolio Theory and Risk Management</u>	4	C	30	12	-	-	1			
5B1817 <u>Applied Nonlinear Optimization</u> <i>Replaces 5B1816.</i>	5	D	24	14	-	-		2		Project assignments
5B1852 <u>Mathematical Economics</u> <i>Given 06/07.</i>	4	C	32	16	-	-		2		
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	
5C1211 <u>Vehicle Aerodynamics</u>	4	C	28	-	-	4				4 8 h Seminars8 h Seminars
5C1214 <u>Fluid Mechanics</u>	5	C	-	30	30	3	1			
5C1400 <u>Nonlinear Dynamics in Mechanics</u>	5	C	24	-	-	-			3	
5C1860 <u>FEM Modelling</u>	5	D	33	-	-	-		2		33 h Workshop33 h Workshop
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 BD, I, M, T _ <i>Also BD and P</i>	1	A-	-	-	-	-		2			Three laborations on all together 9 hours. The course is given regularly throughout the year, see
9E1131 Information Searching for BD, I, M, T _ <i>Also BD and P</i>	1	A-	-	-	-	-			3		Three laborations on all together 9 hours. The course is given regularly throughout the year, see
9E1131 Information Searching for BD, I, M, T _ <i>Also BD and P</i>	1	A-	-	-	-	-				4	Three laborations on all together 9 hours. The course is given regularly throughout the year, see
9E1301 Technical English, Intermediate Level*_ _	6	B	-	-	56	-	1	2			
9E1301 Technical English, Intermediate Level*_ _	6	B	-	-	56	-			3	4	
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			
9E1320 German, Elementary Level*_ _	4	B	-	-	56	-			3	4	
9E1325 Technical German, Intermediate Level _	6	B	-	-	15	-	1	2			E-learning exercises appr. 75 % of the course. 15 classroom hours in the evening.
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.
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			
9E1330 French, Elementary Level*_ _	4	B	-	-	56	-			3	4	
9E1334 Technical French, Intermediate Level*_ _	6	B	-	-	56	-	1	2			
9E1334 Technical French, Intermediate Level*_ _	6	B	-	-	56	-			3	4	
9E1342 Spanish, Elementary Level*_ _	4	B	-	-	56	-	1	2			
9E1342 Spanish, Elementary Level*_ _	4	B	-	-	56	-			3	4	
9E1350 Italian, Elementary Level*_ _	4	B	-	-	56	-	1	2			
9E1350 Italian, Elementary Level*_ _	4	B	-	-	56	-			3	4	
9E1360 Communicative Swedish*_ _	4	B	-	-	56	-	1	2			

*The course has limited participation

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Mechanical Engineering

Biobased Materials and Products M4

Code Name	Credits	Level	Lec	Tut	Le	Lab	Periods				Other
							1	2	3	4	
Compulsory Courses											
4C1127 <u>Packaging Materials</u>	5	D	36	-	-	12			3		
4E1112 <u>Biomaterials and Products</u>	5	C	56	-	-	18	1	2			
4E1603 <u>Biobased Materials - Project</u>	10	D	-	-	336	-	1	2	3	4	
4E1604 <u>Experimental Methods for Biobased Materials</u>	5	D	12	-	-	72		2			
Elective Courses											
3E1372 <u>Structure and Function of Biofibres*</u>	5	D	28	-	-	14		2			

*The course has limited participation

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Uppdaterad: 2004-11-10

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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 Medical Engineering, Basic Course	4	C	24	-	-	-	1				
7E1121 Medical Radiation Physics	1	C	6	-	-	-	1				
7E1201 Neuroscience*_	5	C	50	-	-	20				4	
7E1201 Neuroscience*_	5	C	50	-	-	20				4	
7E1202 Systems Biology*_	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			

*The course has limited participation

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Uppdaterad: 2004-11-10

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Mechanical Engineering

Automotive Engineering M4

Code Name	Credits	Level	Lec	Tut	Le	Lab	Periods				Other
							1	2	3	4	
Compulsory Courses											
5C1211 Vehicle Aerodynamics	4	C	28	-	-	4				4	8 h Seminars8 h Seminars
Conditionally Elective Courses											
4B1304 Railway Systems and Rail Vehicles	6	C	-	-	60	9	1	2			Project assignment 9h
4B1313 Rail Vehicle Dynamics	5	D	-	-	36	-			3		24 h Projektuppgift24 h Projektuppgift
4B1422 Vehicle Components <i>Replaces 4B1420.</i>	5	D	30	30	-	-		2			
4B1425 Ground Vehicle Dynamics, Basic Course*_ 	7	D	33	60	-	-			3	4	
4F1430 Combustion Engines, general course*_ 	4	C	42	6	-	12	1				
Recommended Courses											
2C1149 Electric Traction	4	C	36	-	-	-				4	
2C1243 Hybrid Vehicle Drives*_ 	5	D	-	-	-	-		2			3 course meetings. (LTH, CTH and KTH) Project work/ assignments in between the meetings.
2E1252 Control Theory and Practice, Advanced Course	5	D	28	26	-	8			3		
4B1132 Experimental Structure Dynamics <i>Replaces 4B1131.</i>	6	D	-	36	24	12		2	3		18 h Computer18 h Computer
4B1428 Environmental Friendly Vehicle - Project Course*_ 	5	D	10	-	-	-			3	4	
4D1084 Human Factors Engineering - Man - Machine System <i>Examinor: Lena Mårtensson.</i>	4	B	24	6	-	3			3		
4E1111 Lightweight Structures and FEM <i>Replaces 4E1102.</i>	5	D	48	-	-	14	1				
4E1150 Biomechanics and Neurronics <i>Under bearbetning</i>	4	D	34	-	-	8				4	
4F1431 Combustion Engines, Advanced Course*_ 	6	D	48	-	-	28		2	3		

*The course has limited participation

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Mechanical Engineering

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	-	24	1	2			
4C1126 Material Mechanics	6	D	60	-	-	15	1	2			
Conditionally Elective Courses											
4C1111 Fracture Mechanics and Fatigue	4	D	48	-	-	4			3		
4C1116 Dynamic Problems in Solid Mechanics	4	D	42	-	-	8			3	4	
4C1121 Introduction to Biomechanics	6	C	48	-	-	8			3		
4C1123 Testing Techniques in Solid Mechanics <i>Under bearbetning</i>	4	C	24	-	-	24				4	
4C1124 Orthopedic Biomechanics <i>Not given 06/07.</i>	4	D	32	-	-	4					
4C1125 Solid Mechanics Modelling for Design	6	D	60	-	-	12				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		

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Industrial Ecology M4

Code Name	Credits	Level	Lec	Tut	Le	Lab	Periods				Other
							1	2	3	4	
Compulsory Courses											
3C1341 Environmental Technology, Advanced Course	5	C	34	9	-	-	1				3 h ProjektuppgiftAdvanced course on environmental technology 3 h Projektuppgift
3C1380 Environmental Management	4	C	10	-	-	-			3		12 h Seminars12 h Seminars
3C1387 Environmental Systems Analysis	4	C	16	8	-	6		2			
Recommended Courses											
3C1350 Waste Management, Advanced Course	4	D	18	-	-	-				4	Project work, assignments, Study visit
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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Industrial Economics and Management M4

Code Name	Credits	Level	Lec	Tut	Le	Lab	Periods				Other
							1	2	3	4	
Compulsory Courses											
4D1303 Research Methodology <i>Examiner: Monica Lindgren</i>	2	D	12	-	-	-				4	
Conditionally Elective Courses											
4D1038 Operations Management: Organization and Control <i>Examinor: Johann Packendorff.</i>	4	B	46	12	-	-		2			
4D1039 Operations Management: Strategy and Development <i>Examiner: Johann Packendorff.</i>	4	C	36	12	-	-			3		
4D1047 Project Management: Leadership and Control <i>Examiner: Johann Packendorff.</i>	4	B	40	8	-	-	1				
4D1049 Project Management: Leading Project-Based Operations	4	C	36	12	-	-			3		
4D1053 Economics of Industrial and Technical Transformation <i>Examiner: Pär Blomkvist.</i>	4	B	36	-	-	-	1				8 h Seminars 8 h Seminars
4D1059 Management of New Technology and Industrial Creativity <i>Examinor: Staffan Laestadius.</i>	4	C	36	8	-	-		2			8 h Seminars 8 h Seminars
4D1069 Globalization of Industry and Technology, Advanced Course <i>In case that too few students sign up for this course, the course will be cancel. Examiner: Staffan Laestadius.</i>	4	D	24	8	-	-				4	8 h Seminars 8 h Seminars
4D1078 Industrial Sweden - from Local to Global Change <i>Not given 2006/07. Not given 2006/07.</i>	4	D	24	-	-	-					
4D1079 Brand Trends and Traditions <i>Examiner: Henrik Ugglä.</i>	4	D	35	-	-	-			3		
4D1308 Knowledge Management	4	D	18	12	-	-				4	12 h Seminars 12 h Seminars
4D1402 IT & Management I: Project Management*	4	B	16	-	-	-	1				12 h Seminars, 8 h Study visit 12 h Seminars, 8 h Study visit
4D1403 IT & Management II: Strategies*	4	C	16	-	-	-		2			12 h Seminars, 4 h Study visit 12 h Seminars, 4 h Study visit
4D1404 Leading Temporary Organizations and Projects <i>Examiner: Johann Packendorff.</i>	4	D	36	-	-	-				4	12 h Seminars 12 h Seminars

Elective Courses[4D1166 Finance](#)

4

B

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18

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Examiner: Tomas Sörensson.

*The course has limited participation

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Industrial Engineering M4

Code Name	Credits	Level	Lec	Tut	Le	Lab	Periods				Other
							1	2	3	4	
Compulsory Courses											
4G1180 <u>European Business Culture</u>	5	C	30	60	-	-			3	4	
4G1181 <u>Design and Process Modelling</u>	5	C	30	60	-	-	1	2			
4G1182 <u>Quality Control</u>	6	D	30	60	-	-	1	2	3	4	
4G1183 <u>Process Control and Management</u>	6	D	30	60	-	-			3	4	
4G1184 <u>Manufacturing Technology and Planning</u>	6	D	30	60	-	-	1	2			
4G1185 <u>Operations Management</u>	6	C	30	60	-	-	1	2	3	4	
4G1186 <u>Design and Information Management</u>	6	D	30	60	-	-	1	2	3	4	
Elective Courses											
4G1540 <u>Laser Metrology Methods and Non Destructive Testing</u>	4	C	28	22	-	4		2			

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Integrated Product Development M3

Code Name	Credits	Level	Lec	Tut	Le	Lab	Periods				Other
							1	2	3	4	
Elective Courses											
4F1541 CAD 3D-modelling and Visualization for	4	C	8	36	-	-				4	

Integrated Product Development M4

Code Name	Credits	Level	Lec	Tut	Le	Lab	Periods				Other
							1	2	3	4	
Compulsory Courses											
4F1901 Integrated Product Development, Advanced Course	20	D	-	180	-	-	1	2	3	4	
Recommended Courses											
4D1084 Human Factors Engineering - Man - Machine System <i>Examinor: Lena Mårtensson.</i>	4	B	24	6	-	3			3		
4D1096 Human Resource Management <i>Examiner: Matti Kaulio.</i>	4	B	28	12	-	-			3		
4D1098 Organizational Change and Change Management*_	4	C	-	8	-	-				4	36 h Seminars36 h Seminars
4D1099 Managing Risks in Complex Technical Systems <i>Examiner: Lena Mårtensson.</i>	4	C	12	-	-	-	1				18 h Seminars18 h Seminars
4F1641 Environmentally Adapted Product Design <i>80% participation.</i>	4	C	-	-	42	-		2			
4F1643 Eco Design Project*_	4	C	-	-	-	-	1	2	3	4	
4F1906 Inventive design	4	D	24	48	-	-	1				
4G1165 Automation Technology	4	C	18	26	-	12			3		
4G1169 Manufacturing	4	C	18	26	-	12		2			

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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 <i>Under bearbetning</i>	5	D	-	56	-	8	1	2			
4B1132 Experimental Structure Dynamics <i>Replaces 4B1131.</i>	6	D	-	36	24	12		2	3		18 h Computer18 h Computer
4B1136 Flow Acoustics	4	D	-	36	-	8			3		
Recommended Courses											
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	

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Lightweight Structures M4

Code Name	Credits	Level	Lec	Tut	Le	Lab	Periods				Other
							1	2	3	4	
Compulsory Courses											
4E1111 <u>Lightweight Structures and FEM</u> <i>Replaces 4E1102.</i>	5	D	48	-	-	14	1				
4E1113 <u>Fibre Composites - Analysis and Design</u> <i>Replaces 4E1125.</i>	4	D	52	-	-	6		2			
4E1115 <u>Process Modelling for Composite Manufacturing</u>	4	D	18	-	-	18				4	
4E1116 <u>Structural Optimisation and Sandwich Design</u> <i>Replaces 4E1126.</i>	4	D	40	-	-	18			3		
Conditionally Elective Courses											
4E1112 <u>Biomaterials and Products</u>	5	C	56	-	-	18	1	2			
4E1114 <u>Fiber Composites - Materials and Manufacturing</u> <i>Replaces 4E1124.</i>	4	C	40	-	-	8			3	4	
4E1132 <u>Lightweight Design*</u> <i>Primarily aimed for students on the specialisation LKR.</i>	10	D	-	-	336	-	1	2	3	4	
4E1150 <u>Biomechanics and Neuronics</u> <i>Under bearbetning</i>	4	D	34	-	-	8				4	

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Naval Systems M4

Code Name	Credits	Level	Lec	Tut	Le	Lab	Periods				Other
							1	2	3	4	
Compulsory Courses											
4E1111 <u>Lightweight Structures and FEM</u> <i>Replaces 4E1102.</i>	5	D	48	-	-	14	1				
4E1402 <u>Naval Design*</u> <i>Primarily aimed for MSY students.</i>	10	D	-	336	-	-	1	2	3	4	
4E1403 <u>Marine Dynamics</u>	6	D	64	10	-	10	1	2			
Conditionally Elective Courses											
4E1401 <u>Introduction to Naval Architecture</u>	5	C	10	44	-	4			3		
Recommended Courses											
2C1224 <u>Management of Technology</u>	5	D	32	20	-	-	1				
4E1113 <u>Fibre Composites - Analysis and Design</u> <i>Replaces 4E1125.</i>	4	D	52	-	-	6		2			
4E1114 <u>Fiber Composites - Materials and Manufacturing</u> <i>Replaces 4E1124.</i>	4	C	40	-	-	8			3	4	
4E1116 <u>Structural Optimisation and Sandwich Design</u> <i>Replaces 4E1126.</i>	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	-	-	16	14				4	
5C1214 <u>Fluid Mechanics</u>	5	C	-	30	30	3	1				

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Materials Science M4

Code Name	Credits	Level	Lec	Tut	Le	Lab	Periods				Other
							1	2	3	4	
Compulsory Courses											
4H1069 Experimental Methods in Materials Science	4	D	10	10	-	20			3		
4H1113 Powder Metallurgy	4	D	18	18	-	12		2			
4H1301 Material Design	4	D	-	15	-	15		2	3		
4H1302 Thermodynamic Equilibrium Theory incl Models and Calculations	4	D	6	34	-	-	1				
4H1404 Corrosion and Surface Protection, General Course	4	D	16	12	-	-	1				12 h Seminars12 h Seminars
4H1407 Biomaterials	4	D	24	6	-	-				4	
4H1807 Physics and Chemistry of Modern Materials	4	D	20	4	-	8		2			
Conditionally Elective Courses											
4H1116 High Performance Steels and Other Alloys	4	D	16	8	-	-			3		
4H1206 Mechanical properties, Advanced course	4	D	16	16	-	8				4	
4H1303 Thermodynamic models and calculations, Advanced course	4	D	16	16	8	-			3		
4H1609 Functional Materials	4	D	18	-	-	6			3		Study visit 8h
4H1614 Materials Optimization	4	D	24	18	-	12				4	
4H1925 International Seminar in Material Processes	4	D	2	-	-	-				4	120 h Projektuppgift120 h Projektuppgift
4H1944 Energy and Environmental Issues within the Process Industry	4	C	24	24	-	-			3		
4H1961 Micro modelling	4	D	20	-	12	-				4	64 h Projektuppgift64 h Projektuppgift
4H1962 Industrial Metallurgical Processes	4	D	-	-	-	-				4	
4H1963 Chemical Kinetics	4	D	18	18	12	-	1				4 h Seminars, 64 h Projektuppgift4 h Seminars, 64 h Projektuppgift
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	
Compulsory Courses											
5C1150 Advanced Engineering Dynamics	5	D	-	30	-	-	1				
5C1214 Fluid Mechanics	5	C	-	30	30	3	1				
Conditionally 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		
5C1151 Modern Multibody Dynamics	5	D	30	-	-	-		2			
5C1211 Vehicle Aerodynamics	4	C	28	-	-	4				4	8 h Seminars 8 h Seminars
5C1212 Computational Fluid Dynamics	5	D	-	-	50	10			3		
5C1213 Applied Computational Fluid Dynamics	2	D	-	-	16	14				4	
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	
5C1221 Wave Motions and Hydrodynamic Stability	5	D	-	-	42	3		2			
5C1400 Nonlinear Dynamics in Mechanics	5	C	24	-	-	-			3		
5C1850 Finite Element Methods	5	D	33	-	-	-	1				33 h Workshop 33 h Workshop
5C1860 FEM Modelling	5	D	33	-	-	-		2			33 h Workshop 33 h Workshop

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Mechatronics M4

Code Name	Credits	Level	Lec	Tut	Le	Lab	Periods				Other
							1	2	3	4	
Compulsory Courses											
4F1903 <u>Mechatronics, Advanced Course</u>	12	D	-	-	-	-			3	4	
4F1907 <u>Dynamics and Motion Control</u>	6	D	24	14	-	-	1				
4F1908 <u>Embedded Control Systems</u>	6	D	24	12	-	24		2			
Elective Courses											
4F1910	20	D	-	-	-	-	1	2	3	4	8 h Seminars8 h Seminars

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Systems Engineering M4

Code Name	Credits	Level	Lec	Tut	Le	Lab	Periods				Other
							1	2	3	4	
Compulsory Courses											
2D1321 Applied Programming and Computer Science	6	B	38	20	-	32		2	3		
5B1537 Reliability Theory <i>Replaces 5B1538.</i>	5	C	-	-	60	-	1				
5B1815 Applied Linear Optimization <i>Replaces 5B1814.</i>	5	D	24	14	-	-	1				Project assignments
5B1843 Stochastic Decision Support Models <i>Replaces 5B1842.</i>	5	D	36	18	-	-			3		Homework assignments
5B1847 Decision Support Methods - Project Course <i>Replaces 5B1846.</i>	5	D	12	6	-	-				4	Project assignments
Elective Courses											
1N1154 Advanced Transport Modelling	5	D	24	8	-	12				4	Seminar 6h
5B1574 Portfolio Theory and Risk Management	4	C	30	12	-	-	1				
5B1817 Applied Nonlinear Optimization <i>Replaces 5B1816.</i>	5	D	24	14	-	-		2			Project assignments

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Sustainable 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	50	30	-	12	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
4A1611 Renewable Energy Technology	4	D	-	-	52	-	1				Study visit 8h
Conditionally Elective Courses											
4A1622 Thermal Comfort and Indoor Climate <i>Mandatory for Energy Utilisation</i>	4	D	54	-	-	-			3	4	Study visits 6h
4A1623 Applied Refrigeration and Heat Pump Technology <i>Mandatory for Energy Utilisation.</i>	4	D	24	24	-	16			3	4	
4A1626 Applied Heat and Power Technology <i>Mandatory for Power Generation.</i>	4	D	36	12	-	8			3	4	Project assignment 8h
4A1627 Applied Reactor Technology and Nuclear Power Safety <i>Mandatory for Power Generation.</i>	4	D	48	-	-	-			3	4	Study visits 12h
Elective Courses											
4A1610 Energy Management	4	D	50	-	-	-		2	3		
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
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		
4A1628 Advanced Nuclear Reactor Engineering	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		

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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 visitStudy visit 16 h Written test 2h 16 h Study visit
4H1705 Materials chemistry for materials design	8	A	38	38	-	15	1	2	3		6 h Workshop6 h Workshop
5A1227 Physics II	4	A	38	22	-	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	-	22	1	2			
4C1020 Solid Mechanics, Basic Course, BD	6	B	52	32	-	2	1	2			
4H1064	6	B	28	-	-	20			3	4	
4H1065 Fundamentals of Materials Science and Engineering <i>Under bearbetning</i>	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 Mechanical Properties of Materials	5	C	30	12	-	12		2			20 h Projektuppgift20 h Projektuppgift
4H1114 Micro and Nanostructures	5	C	-	4	30	18	1				
4H1953 Fabrication Processes	5	C	32	8	-	8		2			
4H1954 Transport Phenomena	5	C	24	24	-	8	1				
Conditionally Elective Courses											
3E1325 Project Course in Polymer and Cellulose Based Materials	10	C	-	-	-	-			3	4	
3E1326 Physical Polymer and Cellulose Chemistry	5	C	44	-	-	-			3		
4A1601 Heat Transfer	4	C	24	24	-	20		2			
4A1604 Project Course in Sustainable Energy Systems	10	C	-	-	-	-			3	4	Project wor Seminars
4C1003 Project Course in Solid Mechanics	10	C	-	-	-	-			3	4	Project work Seminars
4C1025 FEM for Engineering Applications	4	C	36	14	-	4			3		
4E1110 Project Course in Lightweight Structures	10	C	-	-	128	-			3	4	Project work Seminars
4E1601 Wood and Cellulose Materials	5	C	56	-	-	18			3	4	
4E1603 Biobased Materials - Project	10	D	-	-	336	-	1	2	3	4	
4H1066 Advanced Course in Metallic and Ceramic Materials	10	C	62	12	-	-			3	4	
4H1067 Project Course in Materials Science and Process Design	10	C	-	-	-	-			3	4	Project work
5B1762 Optimization for T	4	C	28	16	-	8				4	
5C1220 Fluid Mechanics for Engineers	4	B	24	10	-	6	1				7 h Seminars7 h Seminars
7E1200 Cellular and Molecular Biology*_	10	C	67	-	-	18			3	4	3 h Seminars3 h Seminars
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		
3E1354 Biopolymers	5	D	24	10	-	25			3		5h Study visit

<u>4A1603 Energy Technology</u> <i>Lectures are given jointly with 4A1604 Project Course in Sustainable Energy Systems</i>	4	C	48	12	-	-			3	
<u>4F1541 CAD 3D-modelling and Visualization for</u>	4	C	8	36	-	-			2	
<u>4F1541 CAD 3D-modelling and Visualization for</u>	4	C	8	36	-	-				4
<u>5A1228 Laser metrology and optical metrology</u> <i>Under bearbetning</i>	4	B	24	-	6	-			3	4
<u>5A1229 Physics of Visual Impressions</u> <i>Under bearbetning</i>	4	B	24	-	6	-				4
<u>5C1217 Fluid Mechanics, Basic Course</u>	4	B	24	10	-	6			3	7 h Seminars7 h Seminars

*The course has limited participation

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Materials Design and Engineering

Materials Design and Engineering BD4

Code Name	Credits	Level	Lec	Tut	Le	Lab	Periods				Other
							1	2	3	4	
Conditionally Elective Courses											
3E1354 Biopolymers	5	D	24	10	-	25			3		5h Study visit
3E1361 Polymer Processing, Minor Course	4	D	24	8	-	18		2			
3E1363 Coating Technology	4	D	30	-	-	24				4	
3E1370 Polymers in Engineering Design	4	D	18	24	-	8				4	
4E1603 Biobased Materials - Project	10	D	-	-	336	-	1	2	3	4	
4H1407 Biomaterials	4	D	24	6	-	-				4	
Elective Courses											
3C1336 Introduction Industrial Ecology	4	C	12	8	12	-	1				8 h Seminars, 12 h Projektuppgift8 h Seminars, 12 h Projektuppgift
3C1341 Environmental Technology, Advanced Course	5	C	34	9	-	-	1				3 h ProjektuppgiftAdvanced course on environmental technology 3 h Projektuppgift
3C1356 Ecology, Advanced Course	4	C	21	4	-	-			3	4	Field work 8h
3C1396 Technology and Sustainable Development	4	C	8	9	-	-		2			
4A1651 Management and Leadership in Systems Engineering - Project Course <i>Under bearbetning</i>	2	A	10	-	-	-				4	
4F1541 CAD 3D-modelling and Visualization for	4	C	8	36	-	-		2			
4F1541 CAD 3D-modelling and Visualization for	4	C	8	36	-	-				4	
4H1115 Computational Physics <i>Under bearbetning</i>	5	D	24	-	-	-				4	
4H1301 Material Design	4	D	-	15	-	15		2	3		
4K1213 Advanced CAD Modelling & Rapid Prototyping, Project Course	4	D	16	24	-	-		2	3		Project work

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Code Name	Credits	Level	Lec	Tut	Le	Lab	Periods				Other
							1	2	3	4	
Compulsory Courses											
4C1127 <u>Packaging Materials</u>	5	D	36	-	-	12			3		
4E1112 <u>Biomaterials and Products</u>	5	C	56	-	-	18	1	2			
4E1603 <u>Biobased Materials - Project</u>	10	D	-	-	336	-	1	2	3	4	
4E1604 <u>Experimental Methods for Biobased Materials</u>	5	D	12	-	-	72		2			
Elective Courses											
3E1372 <u>Structure and Function of Biofibres*</u>	5	D	28	-	-	14		2			

*The course has limited participation

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Biomedical Engineering BD4

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				
7E1201 Neuroscience*	5	C	50	-	-	20				4	
7E1202 Systems Biology*	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			
3E1146 Biopolymers	5	D	20	6	-	25			3		
3E1354 Biopolymers	5	D	24	10	-	25			3		5h Study visit
3E1371 Structure and Properties of Organic Materials	6	C	24	-	-	-	1				
4H1407 Biomaterials	4	D	24	6	-	-				4	

*The course has limited participation

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Solid Mechanics BD4

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	-	24	1	2			
4C1126 <u>Material Mechanics</u>	6	D	60	-	-	15	1	2			
Conditionally Elective Courses											
4C1111 <u>Fracture Mechanics and Fatigue</u>	4	D	48	-	-	4			3		
4C1116 <u>Dynamic Problems in Solid Mechanics</u>	4	D	42	-	-	8			3	4	
4C1121 <u>Introduction to Biomechanics</u>	6	C	48	-	-	8			3		
4C1123 <u>Testing Techniques in Solid Mechanics</u> <i>Under bearbetning</i>	4	C	24	-	-	24				4	
4C1124 <u>Orthopedic Biomechanics</u> <i>Not given 06/07.</i>	4	D	32	-	-	4					
4C1125 <u>Solid Mechanics Modelling for Design</u>	6	D	60	-	-	12				4	
Elective Courses											
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		

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Industrial Ecology BD4

Code Name	Credits	Level	Lec	Tut	Le	Lab	Periods				Other
							1	2	3	4	
Compulsory Courses											
3C1341 Environmental Technology, Advanced Course	5	C	34	9	-	-	1				3 h ProjektuppgiftAdvanced course on environmental technology 3 h Projektuppgift
3C1380 Environmental Management	4	C	10	-	-	-			3		12 h Seminars12 h Seminars
3C1387 Environmental Systems Analysis	4	C	16	8	-	6		2			
Recommended Courses											
3C1350 Waste Management, Advanced Course	4	D	18	-	-	-				4	Project work, assignments, Study visit
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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Lightweight Structures BD4

Code Name	Credits	Level	Lec	Tut	Le	Lab	Periods				Other
							1	2	3	4	
Compulsory Courses											
4E1111 Lightweight Structures and FEM <i>Replaces 4E1102.</i>	5	D	48	-	-	14	1				
4E1113 Fibre Composites - Analysis and Design <i>Replaces 4E1125.</i>	4	D	52	-	-	6		2			
4E1115 Process Modelling for Composite Manufacturing	4	D	18	-	-	18				4	
4E1116 Structural Optimisation and Sandwich Design <i>Replaces 4E1126.</i>	4	D	40	-	-	18			3		
Conditionally Elective Courses											
4E1112 Biomaterials and Products	5	C	56	-	-	18	1	2			
4E1114 Fiber Composites - Materials and Manufacturing <i>Replaces 4E1124.</i>	4	C	40	-	-	8			3	4	
4E1132 Lightweight Design* <i>Primarily aimed for students on the specialisation LKR.</i>	10	D	-	-	336	-	1	2	3	4	
4E1150 Biomechanics and Neuronics <i>Under bearbetning</i>	4	D	34	-	-	8				4	

*The course has limited participation

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Materials Science - Process Design BD4

Code Name	Credits	Level	Lec	Tut	Le	Lab	Periods				Other
							1	2	3	4	
Compulsory Courses											
4H1069 Experimental Methods in Materials Science	4	D	10	10	-	20			3		
4H1956 Equilibria in Metallurgical Processes	4	C	22	22	-	10	1				8 h Seminars 8 h Seminars
4H1957 Application of Chemical Equilibria in Metallurgical Processes	4	D	18	18	-	12		2			
4H1958 <i>Under bearbetning</i>	4	D	18	18	-	12		2			
4H1959 Reactor and Process Technology <i>Under bearbetning</i>	4	D	18	14	-	8			3		
4H1963 Chemical Kinetics	4	D	18	18	12	-	1				4 h Seminars, 64 h Projektuppgift4 h Seminars, 64 h Projektuppgift
4M1334 Casting Processing <i>Under bearbetning</i>	4	D	12	24	-	18		2			
Conditionally Elective Courses											
4H1116 High Performance Steels and Other Alloys	4	D	16	8	-	-			3		
4H1206 Mechanical properties, Advanced course	4	D	16	16	-	8				4	
4H1302 Thermodynamic Equilibrium Theory incl Models and Calculations	4	D	6	34	-	-	1				
4H1303 Thermodynamic models and calculations, Advanced course	4	D	16	16	8	-			3		
4H1609 Functional Materials	4	D	18	-	-	6			3		Study visit 8h
4H1614 Materials Optimization	4	D	24	18	-	12				4	
4H1925 International Seminar in Material Processes	4	D	2	-	-	-				4	120 h Projektuppgift120 h Projektuppgift
4H1944 Energy and Environmental Issues within the Process Industry	4	C	24	24	-	-			3		
4H1961 Micro modelling	4	D	20	-	12	-				4	64 h Projektuppgift64 h Projektuppgift
4H1962 Industrial Metallurgical Processes	4	D	-	-	-	-				4	
4M1370 Solidification Processing <i>Under bearbetning</i>	4	D	36	24	-	-	1	2			

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BD4

Code Name	Credits	Level	Lec	Tut	Le	Lab	Periods				Other
							1	2	3	4	
Compulsory Courses											
4H1069 Experimental Methods in Materials Science	4	D	10	10	-	20			3		
4H1113 Powder Metallurgy	4	D	18	18	-	12		2			
4H1301 Material Design	4	D	-	15	-	15		2	3		
4H1302 Thermodynamic Equilibrium Theory incl Models and Calculations	4	D	6	34	-	-	1				
4H1404 Corrosion and Surface Protection, General Course	4	D	16	12	-	-	1				12 h Seminars 12 h Seminars
4H1407 Biomaterials	4	D	24	6	-	-				4	
4H1807 Physics and Chemistry of Modern Materials	4	D	20	4	-	8		2			
Conditionally Elective Courses											
4H1116 High Performance Steels and Other Alloys	4	D	16	8	-	-			3		
4H1206 Mechanical properties, Advanced course	4	D	16	16	-	8				4	
4H1303 Thermodynamic models and calculations, Advanced course	4	D	16	16	8	-			3		
4H1609 Functional Materials	4	D	18	-	-	6			3		Study visit 8h
4H1614 Materials Optimization	4	D	24	18	-	12				4	
4H1925 International Seminar in Material Processes	4	D	2	-	-	-				4	120 h Projektuppgift 120 h Projektuppgift
4H1944 Energy and Environmental Issues within the Process Industry	4	C	24	24	-	-			3		
4H1961 Micro modelling	4	D	20	-	12	-				4	64 h Projektuppgift 64 h Projektuppgift
4H1962 Industrial Metallurgical Processes	4	D	-	-	-	-				4	
4H1963 Chemical Kinetics	4	D	18	18	12	-	1				4 h Seminars, 64 h Projektuppgift 4 h Seminars, 64 h Projektuppgift
5A1370 Solid State Theory	4	D	36	-	-	-	1				

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Polymeric and Fibre Materials BD4

Code Name	Credits	Level	Lec	Tut	Le	Lab	Periods				Other
							1	2	3	4	
Compulsory Courses											
3E1327 Polymer Chemistry	5	D	24	18	-	30	1				
3E1371 Structure and Properties of Organic Materials	6	C	24	-	-	-	1				
3E1372 Structure and Function of Biofibres*	5	D	28	-	-	14		2			
Conditionally Elective Courses											
3D1059 The Chemistry of Pulping and Bleaching	5	D	26	-	-	-		2			24 h Seminars24 h Seminars
3D1112 Fiber Technology	4	D	26	-	-	15				4	
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			
3D1116 Pulp and Paper Processes, Minor Course	4	D	20	-	-	-	1	2			
3D1117 Paper Technology, project	4	D	-	-	-	-			3	4	Project work
3D1118 Paper Chemistry	4	D	26	15	-	-			3		
3D1163 Pulp Technology	4	D	20	-	-	24	1				
Elective Courses											
3D1114 Paper Processes Technology	4	D	20	-	-	20			3		
3D1115 Pulp and Paper Processes	6	D	40	-	-	48	1	2			

*The course has limited participation

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Materials Design and Engineering

BD4

Code Name	Credits	Level	Lec	Tut	Le	Lab	Periods				Other
							1	2	3	4	
Compulsory Courses											
4A1605 Sustainable Power Generation	6	D	50	30	-	12	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
4A1611 Renewable Energy Technology	4	D	-	-	52	-	1				Study visit 8h
Conditionally Elective Courses											
4A1622 Thermal Comfort and Indoor Climate <i>Mandatory for Energy Utilisation</i>	4	D	54	-	-	-			3	4	Study visits 6h
4A1623 Applied Refrigeration and Heat Pump Technology <i>Mandatory for Energy Utilisation.</i>	4	D	24	24	-	16			3	4	
4A1626 Applied Heat and Power Technology <i>Mandatory for Power Generation.</i>	4	D	36	12	-	8			3	4	Project assignment 8h
4A1627 Applied Reactor Technology and Nuclear Power Safety <i>Mandatory for Power Generation.</i>	4	D	48	-	-	-			3	4	Study visits 12h
Elective Courses											
4A1610 Energy Management	4	D	50	-	-	-		2	3		
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
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		
4A1628 Advanced Nuclear Reactor Engineering	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		

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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	A	35	-	-	-		2	3		36 h Seminars36 h Seminars
4F1224 <u>Electrical Engineering, Basic Course Media</u> <i>Under bearbetning</i>	4	A	12	21	-	13				4	
5A1230 <u>Waves</u>	4	A	28	14	-	12			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>	4	C	-	-	-	-		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	68	6	-	35	1	2			11 h Projektuppgift, 8 h Study visit11 h Projektuppgift, 8 h Study visit
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	
2E1616 <u>Data Communications and Computer Networks</u> <i>Given at Campus Valhallavägen</i>	4	B	24	18	-	4			3		
4D1200 <u>Industrial Economics, Basic Course</u> <i>Examiner: Thorolf Hedborg</i>	4	A	26	14	-	-				4	2 h SeminarsSeminars 4h 2 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 Environmental	4	A	22	3	-	-		2			
4D1215 Media from Technology to Culture	4	B	20	-	-	-	1				16h Seminars
Recommended Courses											
2F1120 Spectral Transforms in Media Engineering	4	B	20	12	-	20		2			
Elective Courses											
2D1413 Advanced Graphics and Interaction	6	D	46	-	-	12	1	2			
2D1418 Language Engineering	4	D	40	-	-	12	1				
2D1573 Telepresence Production	4	C	20	-	10	-			3	4	
2D1590 Media Perception	4	C	28	-	-	15			3		
2D1591 Production Techniques for Moving Images	6	C	40	16	-	4				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
2F1111 Speech Technology	4	D	36	14	-	6			3		
4D1041 Business Negotiations* Examinor: Thorolf Hedborg.	4	C	24	8	-	-	1	2			
5B1209 Signals and Systems, part I	5	A	34	-	26	-		2			

*The course has limited participation

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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	
Elective Courses											
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	18	16	-	16	1				
2D1593 Display and Projection Technology	4	C	20	-	-	16		2			
2E1215 Introductory Matlab Course	1	A	4	-	-	-			3		8 h Computer8 h Computer
2E1313 Signals and Systems, part II	5	C	30	28	60	4		2			
2F1111 Speech Technology	4	D	36	14	-	6			3		
2F1120 Spectral Transforms in Media Engineering	4	B	20	12	-	20		2			
2F1212 Music Acoustics	4	D	-	-	48	8				4	
4D1041 Business Negotiations*_ Examinor: Thorolf Hedborg.	4	C	24	8	-	-	1	2			
5B1209 Signals and Systems, part I	5	A	34	-	26	-		2			

*The course has limited participation

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Media Technology

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	30	-	-	8				4		
2D1385 Software Engineering	4	C	24	12	-	18				4		
2D1573 Telepresence Production	4	C	20	-	10	-			3	4		
Elective Courses												
2D1590 Media Perception	4	C	28	-	-	15			3			

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	18	-	-	32		2			
2D1651 Computer Game Design and Advanced Graphics* <i>Limited number of participants.</i>	6	D	48	12	-	18	1	2			
Elective Courses											
2D1517 XML for Publishing	5	C	20	2	-	24	1	2			20 h Projektuppgift20 h Projektuppgift
2D1590 Media Perception	4	C	28	-	-	15			3		
2F1410 Audio Technology	5	D	30	12	-	12		2			20 h Projektuppgift20 h Projektuppgift

*The course has limited participation

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Information System Management MEDIA3

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

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Media Technology

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		

*The course has limited participation

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			

*The course has limited participation

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Communication Systems MEDIA3

One of the courses 2E1605/2G1305 has to be studied.

Code Name	Credits	Level	Lec	Tut	Le	Lab	Periods				Other
							1	2	3	4	
Conditionally Elective Courses											
2E1605 Internetworking_	5	C	-	-	-	-			3		
2G1305 Internetworking_ Given at Campus Valhallavägen	4	C	20	18	-	10	1				Assignments

Communication Systems MEDIA4

One of the courses 2E1605/2G1305 has to be studied.

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	C	24	24	-	-		2			
2G1305 <u>Internetworking</u> <i>Given at Campus Valhallavägen</i>	4	C	20	18	-	10	1				Assignments
2G1322 <u>Communication System Design</u>	16	D	-	-	-	-			3	4	Project plan P3 Project report P3 and P4
2G1520 <u>Operating Systems</u> <i>Given in Kista</i>	5	C	28	10	-	-		2			
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			

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Audio Technology MEDIA3

2F1120 Spectral Transforms is prerequisite for the spec.

Code Name	Credits	Level	Lec	Tut	Le	Lab	Periods				Other
							1	2	3	4	
Recommended Courses											
2F1120 Spectral Transforms in Media Engineering	4	B	20	12	-	20	2				
Elective Courses											
2E1215 Introductory Matlab Course	1	A	4	-	-	-		3			8 h Computer8 h Computer

Audio Technology MEDIA4

2F1120 Spectral Transforms is prerequisite for the spec.

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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Media Technology

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	
2D1622 Human-Computer Interaction, Advanced Course	4	C	18	5	-	8		2			
2D1640 Graphics and Interaction Programming	6	C	36	14	-	42			3	4	
2D1655 Cooperative IT-design <i>Replaces 2D1410.</i>	6	D	26	8	-	22			3	4	

Man-Machine Interaction MEDIA4

Code Name	Credits	Level	Lec	Tut	Le	Lab	Periods				Other
							1	2	3	4	
Elective Courses											
2D1390 Internet Programming	4	C	18	-	-	32		2			
2D1408 Evaluation Methods in Human-Computer Interaction <i>Given if there are at least 15 participants.</i>	4	D	10	10	-	-			3		
2D1413 Advanced Graphics and Interaction	6	D	46	-	-	12	1	2			
2D1418 Language Engineering	4	D	40	-	-	12	1				
2F1112 Speech Technology, Extended Course	5	D	36	14	-	6			3		

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Video and Film Production MEDIA3

2F1120 spectral Transforms is prerequisite for the spec.

Code Name	Credits	Level	Lec	Tut	Le	Lab	Periods				Other
							1	2	3	4	
Conditionally Elective Courses											
2D1590 Media Perception	4	C	28	-	-	15			3		
2D1591 Production Techniques for Moving Images	6	C	40	16	-	4				4	
Recommended Courses											
2F1120 Spectral Transforms in Media Engineering	4	B	20	12	-	20		2			

Video and Film Production MEDIA4

2F1120 spectral Transforms is prerequisite for the spec.

Code Name	Credits	Level	Lec	Tut	Le	Lab	Periods				Other
							1	2	3	4	
Conditionally Elective Courses											
2D1592 Processing of Moving Pictures	6	D	18	16	-	16	1				
2D1593 Display and Projection Technology	4	C	20	-	-	16		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											
2D1517 XML for Publishing	5	C	20	2	-	24	1	2			20 h Projektuppgift20 h Projektuppgift
2D1529 Digital Images for Publication <i>Replaces 2D1524.</i>	5	C	22	8	-	12	1				8 h Study visit8 h Study visit
2D1531 Graphic Arts Production <i>Replaces 2D1515.</i>	5	C	30	-	-	8		2			8 h Study visit8 h Study visit
4D1047 Project Management: Leadership and Control <i>Examiner: Johann Packendorff.</i>	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	-	-	-			3	4	8 h Study visit8 h Study visit

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Microelectronics

Microelectronics ME1

Code Name	Credits	Level	Lec	Tut	Le	Lab	Periods				Other
							1	2	3	4	
Compulsory Courses											
2B1113 <u>Applied Physics, Thermodynamics and Waves</u>	5	B	42	28	-	16				4	
2B1116 <u>Engineering Fundamentals</u>	5	A	28	34	-	12	1				
2B1560 <u>Digital Design</u>	5	A	24	22	-	16	1				
2I1080 <u>Objektoriented Programming</u>	5	B	27	50	15	-		2			
5B1146 <u>Algebra and Geometry</u> <i>Under bearbetning</i>	5	A	38	-	38	-		2			
5B1147 <u>Calculus in One Variable</u> <i>Under bearbetning</i>	5	A	50	25	-	-			3		
5B1148 <u>Calculus in Sevrал Variable</u> <i>Under bearbetning</i>	5	A	50	25	-	-				4	
5C1108 <u>Applied Physics, Mechanics</u>	5	A	-	-	54	-			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</u>	6	C	51	51	-	-	1	2			
2B1121 <u>Quantum Mechanics I</u>	5	C	30	24	-	-			3		
2B1252 <u>Semiconductor Devices</u>	6	C	32	10	-	12				4	
2B1553 <u>Analog Electronics</u>	5	B	28	20	-	20		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		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 <u>Optics, General Course</u>	4	D	26	14	-	25	1				
2B1560 <u>Digital Design</u>	5	A	24	22	-	16			3	4	
2B1710 <u>Condensed Matter Physics</u>	6	D	38	22	-	24			3	4	
2E1313 <u>Signals and Systems, part II</u>	5	C	30	28	60	4		2			
5B1506 <u>Mathematical Statistics, Basic Course</u>	6	A	36	48	-	-	1	2			
Elective Courses											
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				
9E1140 <u>Information Searching for D, E</u>	1	B	-	-	-	-	1				Three laborations on all together 9 hours. The course is given regularly throughout the academic year. Please refer to
9E1140 <u>Information Searching for D, E</u>	1	B	-	-	-	-			3		Three laborations on all together 9 hours. The course is given regularly throughout the academic year. Please refer to
9E1140 <u>Information Searching for D, E</u>	1	B	-	-	-	-		2			Three laborations on all together 9 hours. The course is given regularly throughout the academic year. Please refer to
9E1140 <u>Information Searching for D, E</u>	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

Microelectronics ME4

Code Name	Credits	Level	Lec	Tut	Le	Lab	Periods				Other
							1	2	3	4	
Conditionally Elective Courses											
2B1600 Radio Electronics	5	D	26	12	-	16				4	
Elective Courses											
2B1140 Frontiers of Microelectronics and Information Technology	4	D	-	-	-	-	1	2			
2B1140 Frontiers of Microelectronics and Information Technology <i>Offered twice a year, either fall or spring.</i>	4	D	20	-	-	-			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

Biomedical Engineering 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

Biomedical Engineering ME4

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

*The course has limited participation

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Microelectronics

Electronics 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>	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		2	3		Project work
2E1423 <u>Signal Theory</u>	5	C	24	22	-	10			3		
2G1518 <u>Computer Hardware Engineering</u>	5	B	20	20	-	12			3		

Electronics 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			
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	-	10	-	20		2			
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				
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	26	10	-	28	1				
2B1611 <u>Low Power Analog and Mixed Signal IC's</u>	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			
2G1534 Computer Systems Architecture	5	C	16	16	-	16	1			Homework 16h
Elective Courses										
2B1230 Power Semiconductor Devices	5	D	-	-	-	-	2			

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Photonics ME3

Code Name	Credits	Level	Lec	Tut	Le	Lab	Periods				Other
							1	2	3	4	
Conditionally Elective Courses											
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	
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				
2B1822 <u>Quantum Electronics</u>	5	D	24	16	-	-		2			

Photonics ME4

Code Name	Credits	Level	Lec	Tut	Le	Lab	Periods				Other
							1	2	3	4	
Conditionally Elective Courses											
2B1248 Simulation of Semiconductor Devices	5	D	24	-	-	32		2			
2B1382 Optics, Continuation Course	4	D	24	8	-	-				4	
2B1700 Advanced Semiconductor Materials	5	D	34	-	-	16			3		
2B1824 Optical Networking	5	D	28	-	-	-				4	
2E1423 Signal Theory	5	C	24	22	-	10			3		
2E1511 Radio Communication, Basic Course	4	D	24	24	-	8	1				
5A1456 Atomic and Molecular Physics <i>Under bearbetning</i>	4	D	24	-	-	-	1				
5A1491 Femtochemistry <i>Under bearbetning</i>	5	D	36	-	-	-			3		
5A1510 Optical Measurement Techniques <i>Under bearbetning</i>	4	D	36	-	-	-			3	4	One individual task. Study visits.
5A1520 Problem Solving in Optics <i>Under bearbetning</i>	4	D	-	-	-	-	1	2	3	4	
5A1523 Optical Systems Design <i>Not given 06/07.</i> <i>Under bearbetning</i>	4	D	12	-	-	5					10 h Projektuppgift10 h Projektuppgift
5A1800 Laser Physics I <i>Under bearbetning</i>	4	D	24	12	-	8				4	

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Microelectronics

International Profile ME1

Code Name	Credits	Level	Lec	Tut	Le	Lab	Periods				Other	
							1	2	3	4		
Conditionally Elective Courses												
9E1323 German, Advanced Beginner's Level*_	5	B	-	-	56	-			3	4		
9E1339 French, Advanced Beginners' Level	5	B	-	-	56	-			3	4		
9E1344 Spanish, Advanced Beginners' Level*_	5	B	-	-	56	-			3	4		
9E1380 Elementary Japanese and Japanese Studies*_	4	B	-	-	56	-			3	4		
9E1390 Elementary Chinese and Chinese Studies*_	4	B	-	-	56	-			3	4		

*The course has limited participation

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Microelectronics

Material Physicists ME3

Code Name	Credits	Level	Lec	Tut	Le	Lab	Periods				Other
							1	2	3	4	
Compulsory Courses											
2B1270 Statistical Physics	5	D	30	18	-	-				4	
Conditionally Elective Courses											
2B1822 Quantum Electronics	5	D	24	16	-	-		2			
2D1220 Applied Numerical Methods I	4	C	36	-	-	14			3	4	

Material Physicists 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>	4	C	18	10	-	8	1				
2B1760 <u>Experimental Methods in Material Physics</u>	5	C	26	22	-	30		2	3		
2B1771 <u>Superconductivity and Applications</u>	4	D	28	-	-	-		2			
4H1711 <u>Nanomaterials and Nanotechnology</u>	4	D	20	-	12	-	1				
5A1378 <u>Mesoscopic Physics</u> <i>Under bearbetning</i>	4	D	36	-	-	8		2			
5A1379 <u>Spin Electronics</u>	4	D	24	-	-	4				4	
5A1456 <u>Atomic and Molecular Physics</u> <i>Under bearbetning</i>	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* <i>Only for students admitted to the S-program</i>	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 <i>Will be given during the introductory weeks.</i> <i>Under bearbetning</i>	1	A	9	-	15	-					Project 8h, study-visit 1d

*The course has limited participation

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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	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 <i>Under bearbetning</i>	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 <i>Under bearbetning</i>	5	B	24	-	-	44			3		Project 10h	
2D1214 Numerical Methods, Basic Course	4	A	20	18	-	14	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	33	-	-	3			3		Workshop 27h
1M1301 <u>Fluid Mechanics for Architecture and Built Environment</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

Civil Engineering S4

Code Name	Credits	Level	Lec	Tut	Le	Lab	Periods				Other
							1	2	3	4	
Compulsory Courses											
1L1030 Structural Engineering, Advanced Course	5	D	33	44	-	-	1				
1L1033 Civil Engineering Project Course	10	D	40	-	-	-			3	4	Exercises/Workshops 100h
1N1127 Risk- and Safety Analys in Building <i>Under bearbetning</i>	5	D	44	-	-	-	1				Project 30h
Recommended Courses											
1L1031 Concrete and Steel Structures	5	D	33	44	-	-		2			
1L1032 Structural Dynamics for Civil Engineers	5	D	33	-	-	12				4	Exercises and Workshop 32h
1L1203 Bridge Design	5	D	33	-	-	-			3		Exercises and Workshop 44h
1L1602 Rock Mechanics <i>Under bearbetning</i>	5	D	30	10	-	2			3		
1L1603 Soil - Structure Interaction	5	D	35	40	-	-				4	

1L1913 Road- and Railway Track Engineering	5	C	33	44	-	-	2			
1M1401 Hydraulic Engineering	5	D	36	-	-	2	2			36h Workshop, 8h Study-visits
5C1820 Mebrane, Plates and FEM	5	D	33	-	-	-			4	33h Workshop
5C1830 Numerical Modelling and Simulation	5	C	33	-	-	-	2			33h Workshop

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Civil Engineering and Urban Management

Building and Real Estate Economics S3

At least one Conditionally Elective course on Academic D-level in the 4th academic year must be completed

Code Name	Credits	Level	Lec	Tut	Le	Lab	Periods				Other
							1	2	3	4	
Compulsory Courses											
1F1442 <u>Law of Real Estate</u>	5	C	35	30	-	-			3		
1L1041 <u>Building Technology and Building Services Engineering</u>	5	C	30	30	-	9			3		
1L1042 <u>Operation, Maintenance and Reconstruction of Buildings</u>	5	C	25	20	-	-				4	Study Visits 15h
1N1307 <u>Investment Analysis</u> <i>Under bearbetning</i>	5	C	30	30	-	-	1				
1N1308 <u>Quantitative Methods with Real Estate Applications</u> <i>Under bearbetning</i>	5	C	30	30	-	-	1				
1N1309 <u>Building and Real Estate Economics</u> <i>Under bearbetning</i>	5	C	30	30	-	-		2			
1N1310 <u>Accounting for Real Estate Companies</u>	5	C	30	30	-	-				4	
1N1420 <u>Jurisprudence, Basic Course</u> <i>Under bearbetning</i>	5	A	21	32	-	-		2			Web-based study-support

Building and Real Estate Economics S4

At least one Conditionally Elective course on Academic D-level in the 4th academic year must be completed

At least one Conditionally Elective course on Academic D level in the 4th academic year must be completed											
Code Name	Credits	Level	Lec	Tut	Le	Lab	Periods				Other
							1	2	3	4	
Compulsory Courses											
1H1157 <u>Urban and Regional Economics</u>	5	D	-	-	66	-		2			
1N1314 <u>Corporate and Real Estate Taxation</u>	5	C	30	30	-	-	1				
1N1315 <u>Financial Economics</u>	5	D	30	30	-	-		2			
1N1319 <u>Real Estate Management</u>	5	C	30	30	-	-	1				
Conditionally Elective Courses											
1F1333 <u>Real Estate Market Analysis and Development</u>	5	D	30	30	-	-			3		
1F1399 <u>Real Estate Valuation</u>	5	D	30	30	-	-				4	
1N1316 <u>Contract Theory</u>	5	D	30	30	-	-			3		
1N1317 <u>Facility Management</u>	5	D	30	30	-	-				4	Web-based study-support



1N1318 Portfolio Management and Real Estate Finance	5	D	30	30	-	-				4	
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Construction Project Management S3

At least one Conditionally Elective course on Academic D-level in the 4th academic year must be completed

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	33	-	-	3			3		Workshop 27h
1M1301 <u>Fluid Mechanics for Architecture and Built Environment</u>	5	C	40	-	-	2	1				Workshop 36h
4D1600 <u>Construction Project Management</u>	5	B	-	-	66	-				4	
5C1810 <u>Structural Mechanics, Basic Course</u>	5	C	39	-	-	-		2			Workshop 39h

Construction Project Management S4

At least one Conditionally Elective course on Academic D-level in the 4th academic year must be completed

Code Name	Credits	Level	Lec	Tut	Le	Lab	Periods				Other	
							1	2	3	4		
Compulsory Courses												
4D1601 <u>Industrial Economics and Management in Construction, Basic Course</u>	5	B	20	16	-	-		2			10h Seminars	
4D1604 <u>Construction Management</u>	5	C	-	-	66	-			3			
4D1605 <u>Project Communication</u>	5	C	20	12	-	-	1				8h Study-visits, 12h Seminars	
4D1609 <i>Examiner: Örjan Wikforss</i> <i>Under bearbetning</i>	10	D	30	100	-	-			3	4	12 h SeminarsProject-Work 12 h Seminars	
Conditionally Elective Courses												
4D1602 <u>Commercial Law with Construction Focus</u> <i>Will not be given during springterm 2007.</i> <i>Will instead be a part of 4D1609</i> <i>Under bearbetning</i>	5	B	14	14	-	-			3		16h Seminars	
4D1603 <u>Leadership for Construction</u>	5	C	-	-	66	-	1					
4D1606 <u>Building Informatics</u>	5	D	20	12	-	-		2			8h Study-visits, 12h Seminars	

4D1607 Knowledge Management	5	D	20	12	-	-			4	8h Study-visits, 12h Seminars
4D1608 Organizations of Temporary Operations	5	D	44	-	-	-			4	16h Seminar-exercises
4D1610 Architecture and Design	5	C	16	20	-	-		2		8h Study-visits, 8-16h Seminars

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Civil Engineering and Urban Management

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	33	-	-	3			3		Workshop 27h
1M1301 <u>Fluid Mechanics for Architecture and Built Environment</u>	5	C	40	-	-	2	1				Workshop 36h
5C1810 <u>Structural Mechanics, Basic Course</u>	5	C	39	-	-	-		2			Workshop 39h

Architectural Engineering S4

Code Name	Credits	Level	Lec	Tut	Le	Lab	Periods				Other
							1	2	3	4	
Compulsory Courses											
1L1030 <u>Structural Engineering, Advanced Course</u>	5	D	33	44	-	-	1				
1L1034 <u>Building Design and Construction Project</u>	10	D	40	-	-	-			3	4	100h Project
1L1402 <u>Acoustics and Fire</u>	5	C	33	44	-	-	1				
Recommended Courses											
1L1031 <u>Concrete and Steel Structures</u>	5	D	33	44	-	-		2			
1L1301 <u>Building Material, Advanced Course</u>	5	D	33	22	-	-		2			12h Seminars, 10h Study-visits
1L1403 <u>Building Technology, Advanced Course</u>	5	D	33	44	-	-			3		
1L1502 <u>Building Services Engineering, Advanced Course</u>	5	D	33	31	-	9		2			
1L1503 <u>Indoor Climate and Industrial Ventilation</u>	5	D	20	-	-	8			3		

1L1504 Building Services Engineering, Simulation	5	D	27	39	-	-			4	
1L1603 Soil - Structure Interaction	5	D	35	40	-	-			4	
5C1820 Mebrane, Plates and FEM	5	D	33	-	-	-			4	33h Workshop
5C1830 Numerical Modelling and Simulation	5	C	33	-	-	-		2		33h Workshop

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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											
1F1442 <u>Law of Real Estate</u>	5	C	35	30	-	-			3		
1F1470 <u>Land Law</u> <i>Under bearbetning</i>	5	C	30	32	-	-				4	
1N1255 <u>Geodetic Surveying I</u> <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 <u>Investment Analysis</u> <i>Under bearbetning</i>	5	C	30	30	-	-	1				
1N1311 <u>Real Estate Valuation</u>	5	C	24	36	-	-			3		Field-trips 8h
1N1412 <u>Real Estate Planning, Basic Course</u>	5	C	42	22	-	-		2			
1N1420 <u>Jurisprudence, Basic Course</u> <i>Under bearbetning</i>	5	A	21	32	-	-		2			Web-based study-support
1N1654 <u>GIS for the Built Environment</u>	5	B	24	40	-	-				4	

Real Estate Planning and Land Law S4

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			
1F1452 <u>Law of Real Estate Formation</u>	5	D	30	30	-	-	1				
Recommended Courses											
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 II</u>	5	D	-	-	-	-				4	20h Lectures/Seminars, Essay-writing

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Natural Resources Engineering S3

At least one Conditionally Elective course on Academic D-level in the 4th academic year must be completed

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	33	-	-	3			3		Workshop 27h
1M1301 <u>Fluid Mechanics for Architecture and Built Environment</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

Natural Resources Engineering S4

At least one Conditionally Elective course on Academic D-level in the 4th academic year must be completed

Code Name	Credits	Level	Lec	Tut	Le	Lab	Periods				Other	
							1	2	3	4		
Compulsory Courses												
1B1292 <u>Environmental Dynamics/Physical Processes</u>	5	C	26	28	-	-		2				
1B1634 <u>Environmental Impact Assessment</u> ⁺ <i>First prio: Students within S- and TESIM-program. Second prio: Incoming exchange-students S.</i> <i>Under bearbetning</i>	5	C	30	26	-	-	1					8h Excursion
1M1403 <u>No translation</u> <i>Under bearbetning</i>	10	D	20	-	-	-			3	4		30h Workshop, 15h Literature-seminars, 16h Field-exercises
Conditionally Elective Courses												
1B1133 <u>Applied Hydrology</u>	5	A	34	34	-	-					4	
1B1233 <u>Water and Waste Handling</u> <i>Under bearbetning</i>	5	C	-	-	77	-			3			
1B1635 <u>Quantitative Hydrogeology</u>	5	D	16	16	-	-					4	15h Computer-lab

<u>1E1610 Environmental Data*</u> <i>First prio: Students within S- and TESIM-program. Second prio: Incoming exchange-students S.</i> <i>Under bearbetning</i>	5	D	18	2	-	38		3	
<u>1M1401 Hydraulic Engineering</u>	5	D	36	-	-	2	2		36h Workshop, 8h Study-visits
<u>1M1402 Environmental Aquatic Chemistry</u>	5	C	24	20	-	12	2		
<u>1M1404 Engineering Geology</u>	5	D	24	21	-	-	1		Study-tours 3 resp 0,5 days
<u>1N1127 Risk- and Safety Analys in Building</u> <i>Under bearbetning</i>	5	D	44	-	-	-	1		Project 30h

*The course has limited participation

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Urban Planning S3

One of the Project-courses 1N1510/1N1512 must be completed

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

Urban Planning S4

One of the Project-courses 1N1510/1N1512 must be completed

Code Name	Credits	Level	Lec	Tut	Le	Lab	Periods				Other
							1	2	3	4	
Compulsory Courses											
1H1172 Futures Studies and Forecasts	5	D	40	10	-	-		2			
1N1506 Urbanism Worldwide	5	C	56	-	-	-	1				Seminars 24h
1N1508 Urban Theory, Advanced Course	5	D	12	-	-	-		2			Seminars 12h, Excursion 8h
1N1509 Planning Theory, Advanced Course <i>New course that replaces 1H1171 Urban Governance</i>	5	D	40	-	-	-			3		10h Seminars
Conditionally Elective Courses											
1N1510 Urban Planning Project	10	D	45	-	-	-				4	15h Seminars, 10h Excursion, Project-work, 20h Tutorial
1N1512 Urban Planning Project	10	D	45	-	-	-				4	15h Seminars, 10h Excursion, Project-work, 20h Tutorial
Recommended Courses											

1H1141 Urban Infrastructure <i>Under bearbetning</i>	5	D	36	-	-	-		3	12h Seminars, 4h Excursion, 20h Project
1N1507 Planning the Sustainable City	5	D	18	-	-	-	1		28h Project, 8h Excursion, 8h Seminars

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Civil Engineering and Urban Management

Geomatics Engineering S3

At least two Conditionally Elective courses on Academic D-level in the 4th academic year must be completed

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> <i>Under bearbetning</i>	7	C	22	40	-	-	1				Project 24h
1N1252 Analysis of Measurements	5	C	28	32	-	-		2			
1N1259 Engineering Surveying	5	D	16	-	-	40				4	
1N1652 Photogrammetry	6	C	28	40	-	-			3		
1N1654 GIS for the Built Environment	5	B	24	40	-	-				4	
2D1320 Applied Computer Science	4	A	28	14	-	20	1	2			
2D1334 Database Technology	4	C	24	20	-	12			3		

Geomatics Engineering S4

At least two Conditionally Elective courses on Academic D-level in the 4th academic year must be completed

Code Name	Credits	Level	Lec	Tut	Le	Lab	Periods				Other
							1	2	3	4	
Compulsory Courses											
1N1250 Reference Systems	5	C	30	-	-	40	1				
1N1257 Satellite Positioning with GPS	5	D	22	-	-	30		2			36h Field exercises
1N1653 GIS Architecture	5	C	24	-	-	48	1				
1N1656 Visualisation Techniques	5	C	24	-	-	48		2			
Conditionally Elective Courses											
1N1253 Physical Geodesy	5	D	28	-	-	36			3		
1N1256 Integrated Navigation	5	D	30	-	-	30				4	
1N1258 Laser Scanning Technologies	5	C	16	-	-	40			3		
1N1259 Engineering Surveying	5	D	16	-	-	40				4	
1N1655 Digital Image Processing and Applications	5	D	44	-	-	60			3		Filed exercises 4d
1N1657 A GIS Project	5	D	-	-	-	40				4	Seminars 24h
1N1660 Spatial Analysis	5	D	24	-	-	48			3		
1N1666 Web-GIS	5	D	24	-	-	48				4	

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Civil Engineering and Urban Management

Traffic Engineering S3

At least one Conditionally Elective course on Academic D-level in the 4th academic year must be completed

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 <i>Under bearbetning</i>	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 <i>Under bearbetning</i>	5	C	30	30	-	-		2			
1N1503 Urban and Traffic Planning, Continuation Course	5	C	33	12	-	-		2			32h Project
1N1504 Planning Theory, basic course <i>Under bearbetning</i>	5	C	40	18	-	-			3		8h Seminars
1N1601 Urban Theory, basic course <i>Under bearbetning</i>	5	C	16	20	-	-	1				Seminars 12h, Study-visit 12h
1N1654 GIS for the Built Environment	5	B	24	40	-	-				4	

Traffic Engineering S4

At least one Conditionally Elective course on Academic D-level in the 4th academic year must be completed

At least one Conditionally Elective course on Academic D-level in the 4th academic year must be completed											
Code Name	Credits	Level	Lec	Tut	Le	Lab	Periods				Other
							1	2	3	4	
Compulsory Courses											
1N1203 Urban Public Transport	5	D	33	44	-	-	1				
1N1204 Urban Traffic Management	5	D	33	44	-	-		2			
Conditionally Elective Courses											
1H1204 Logistics	5	C	6	-	-	-	1	2			15h Seminars, Project-course,
1L1913 Road- and Railway Track Engineering	5	C	33	44	-	-		2			
1N1154 Advanced Transport Modelling	5	D	24	8	-	12				4	Seminar 6h
1N1205 Impacts of Road Traffic Facilities	5	D	33	44	-	-			3		
1N1206 Railway Traffic - Market and Planning, Basic Course	5	C	33	44	-	-	1				
1N1207 Work Processes for Traffic Infrastructure	5	D	-	-	-	-				4	3 months trainee-work



1N1208 <u>Railway Traffic - Market and Planning, Advanced Course</u>	5	D	33	44	-	-			3	
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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											
2D1342 Program Construction <i>Replaces 2D1339.</i>	4	B	24	24	-	24		2	3		
5A1203 Physics, Basic Course I	6	A	46	30	-	10	1	2			Project work
5A1204 Physics, Basic Course II	6	A	38	20	-	16			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											
2D1301 Computer Introduction	1	A	5	-	-	10	1				
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	51	51	-	-	1	2			
2D1240 Numerical Methods, Basic Course II	4	A	24	14	-	14		2	3		
4C1055 Solid Mechanics, Basic Course	6	A	42	40	-	2			3	4	
5A1247 Modern Physics <i>Under bearbetning</i>	7	B	44	30	-	14			3	4	
5A1306 Mathematical Methods in Physics	6	B	42	48	-	-	1		3	4	
5B1201 Complex Analysis	4	C	40	20	-	-			3		
5B1202 Differential Equations and Transforms II	6	A	60	30	-	-	1	2			
5C1113 Mechanics, Continuation Course	4	C	30	15	-	-	1				
Elective Courses											
2D1242 Numerical Analysis, Supplementary Course	1	B	14	-	-	-		2	3		
5B1216 Complex Analysis, Specialized Course	5	C	40	20	14	-			3		
5B1217 Differential Equations, Specialized Basic Course	4	C	30	15	14	-	1				
5B1218 Methods of Transformations, Specialized Course	4	C	30	15	14	-		2			
5B1309 Algebra, Basic Course	4	C	42	-	-	-			3		
5B1509 Mathematical Statistics, Specialized Basic Course <i>Not given 06/07.</i>	1	C	-	12	-	-					
5U1201 Advanced Problems A <i>Under bearbetning</i>	4	C	-	48	-	-	1	2	3	4	

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Engineering Physics

Engineering Physics F3

Code Name	Credits	Level	Lec	Tut	Le	Lab	Periods				Other
							1	2	3	4	
Compulsory Courses											
2B1711 Solid State Physics	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	5	C	30	36	-	-	1	2			
5A1324 Quantum Physics	8	C	60	52	-	-	1	2	3		
Recommended Courses											
5A1328 Quantum Physics <i>Not given 06/07. Given for the first time spring 2008.</i>	6	C	50	30	-	-					
5B1717 Optimization and Markov Processes	6	C	40	34	-	-		2	3		
5C1223 Fluid Mechanics	6	C	32	-	32	3			3	4	
Elective											
5A1384 Relativity Theory <i>Replaces 5A1326.</i>	5	C	30	30	-	-			3		
5A1390 Statistical Mechanics <i>Replaces 5A1350.</i>	5	D	30	30	-	-				4	
5A1400 Subatomic Physics <i>Under bearbetning</i>	4	C	36	-	-	-				4	
5B1712 Optimization for F	4	C	28	16	-	6			3		
5B1713 Optimization, Specialized Part of the Basic Course	1	C	8	-	-	-			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											
5A1384 Relativity Theory <i>Replaces 5A1326.</i>	5	C	30	30	-	-			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	48	-	-	-	1	2			
2A1137 Plasma Physics, Supplementary Course	2	D	12	-	-	-			3		
2A1151 Energy and Fusion Research	4	D	24	12	-	-				4	
2A1160 Space Physics	3	D	18	-	-	-	1				
5A1312 Astroparticle Physics <i>Under bearbetning</i>	4	D	28	-	-	-			3		8 h Seminars8 h Seminars
5A1385 Advanced Quantum Mechanics <i>Replaces 5A1329.</i>	5	D	36	30	-	-	1	2			
5A1387 Theoretical Particle Physics <i>Replaces 5A1310.</i>	5	D	36	-	-	-			3	4	
5A1389 Mathematical Foundations of Quantum Mechanics <i>Replaces parts of 5A1332 and 5A1335. Given every second year. Given 06/07.</i>	5	D	36	-	-	-			3	4	
5A1405 Experimental Particle Physics <i>Under bearbetning</i>	4	D	26	-	-	4		2			8 h Seminars8 h Seminars
5A1411 Nuclear Physics <i>Replaces 5A1410. Under bearbetning</i>	5	D	24	-	-	25	1	2			
5A1412 Atomic Nuclei - Radiation - Energy <i>Given if there are enough interest. Please contact course administrator. Under bearbetning</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 visit 8 h Study visit
5A1456 Atomic and Molecular Physics <i>Under bearbetning</i>	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> <i>Under bearbetning</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> <i>Under bearbetning</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			

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Engineering Physics

Biological Physics and Medical Technology F3

Code Name	Credits	Level	Lec	Tut	Le	Lab	Periods				Other
							1	2	3	4	
Elective Courses											
5A1390 Statistical Mechanics <i>Replaces 5A1350.</i>	5	D	30	30	-	-				4	
5A1395 Membranes and Soft Matter <i>Replaces 5A1358.</i>	5	D	30	-	-	-			3		
5A1584 Cellular Biophysics <i>Under bearbetning</i>	5	D	20	-	-	24			3		
5A1586 Experimental Biomolecular Physics <i>Under bearbetning</i>	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												
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>	6	D	90	-	-	-			3	4	5 h Study visit 5 h Study visit	
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.</i>	2	D	-	-	-	20			3	4	Literature seminars	
5A1385 Advanced Quantum Mechanics <i>Replaces 5A1329.</i>	5	D	36	30	-	-	1	2				
5A1391 Nonequilibrium Statistical Mechanics	5	D	30	-	-	-				4		
5A1393 Computational Physics <i>Replaces 5A1354.</i>	5	D	30	-	-	20	1					
5A1394 Complex Systems <i>Replaces 5A1352. Not given 06/07.</i>	5	D	30	-	-	-						
5A1395 Membranes and Soft Matter <i>Replaces 5A1358.</i>	5	D	30	-	-	-			3			
5A1396 Physics of Molecular Biology <i>Replaces 5A1357.</i>	5	D	30	-	-	-	1					

5A1397 Protein Physics	5	D	24	-	-	20			4	
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
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	-	16	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			
5A1582 Physics of Biomedical Microscopy <i>Under bearbetning</i>	4	D	28	-	-	20		2		
5A1584 Cellular Biophysics <i>Under bearbetning</i>	5	D	20	-	-	24			3	
5A1586 Experimental Biomolecular Physics <i>Under bearbetning</i>	4	D	34	-	-	15			4	5 h Study visit 5 h Study visit
5A1588 Introduction to Biomedicine for Physicists <i>Under bearbetning</i>	4	D	28	-	-	-	1	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
7E1121 Medical Radiation Physics	1	C	6	-	-	-	1			
7E1200 Cellular and Molecular Biology*_ 	10	C	67	-	-	18			3	4
7E1201 Neuroscience*_ 	5	C	50	-	-	20				4
7E1202 Systems Biology*_ 	5	C	32	-	-	25	2			24 h Seminars 24 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											
5A1384 Relativity Theory <i>Replaces 5A1326.</i>	5	C	30	30	-	-			3		
5A1390 Statistical Mechanics <i>Replaces 5A1350.</i>	5	D	30	30	-	-				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			
5A1370 Solid State Theory	4	D	36	-	-	-	1				
5A1378 Mesoscopic Physics <i>Under bearbetning</i>	4	D	36	-	-	8		2			
5A1379 Spin Electronics	4	D	24	-	-	4				4	
5A1385 Advanced Quantum Mechanics <i>Replaces 5A1329.</i>	5	D	36	30	-	-	1	2			
5A1391 Nonequilibrium Statistical Mechanics	5	D	30	-	-	-				4	
5A1392 Many Particle Physics	5	D	30	-	-	-			3		
5A1394 Complex Systems <i>Replaces 5A1352. Not given 06/07.</i>	5	D	30	-	-	-					

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Engineering Physics

Laser Physics and 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	-	8				4	

Laser Physics and 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	4	C	18	10	-	8	1				
2B1751 Physics of Electronic Devices	4	D	12	6	-	-				4	
5A1378 Mesoscopic Physics <i>Under bearbetning</i>	4	D	36	-	-	8		2			
5A1379 Spin Electronics	4	D	24	-	-	4				4	
5A1385 Advanced Quantum Mechanics <i>Replaces 5A1329.</i>	5	D	36	30	-	-	1	2			
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	-	16	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	
5A1522 Problem Solving in Optics, Continuation Course 2 <i>Under bearbetning</i>	2	D	-	-	-	-			3	4	
5A1582 Physics of Biomedical Microscopy <i>Under bearbetning</i>	4	D	28	-	-	20		2			

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Engineering Physics

Mathematical Physics F3

Code Name	Credits	Level	Lec	Tut	Le	Lab	Periods				Other
							1	2	3	4	
Elective Courses											
5A1383 Analytical Mechanics and Classical Field Theory	5	C	30	30	-	-			3	4	
5A1384 Relativity Theory <i>Replaces 5A1326.</i>	5	C	30	30	-	-			3		
5A1390 Statistical Mechanics <i>Replaces 5A1350.</i>	5	D	30	30	-	-				4	
5A1400 Subatomic Physics <i>Under bearbetning</i>	4	C	36	-	-	-				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											
5A1356 Computational Physics, Additional Course	3	D	-	-	-	-		2	3		Project work
5A1382 Seminar Course in Theoretical Physics <i>Replaces 5A1381.</i>	5	D	10	16	-	-	1	2			
5A1385 Advanced Quantum Mechanics <i>Replaces 5A1329.</i>	5	D	36	30	-	-	1	2			
5A1386 Relativistic Quantum Physics <i>Replaces parts of 5A1332.</i>	5	D	30	-	-	-		2	3		
5A1387 Theoretical Particle Physics <i>Replaces 5A1310.</i>	5	D	36	-	-	-			3	4	
5A1388 Quantum Field Theory <i>Replaces 5A1333.</i> <i>Given every second year. Not given 06/07.</i>	5	D	36	-	-	-					
5A1389 Mathematical Foundations of Quantum Mechanics <i>Replaces parts of 5A1332 and 5A1335.</i> <i>Given every second year. Given 06/07.</i>	5	D	36	-	-	-			3	4	
5A1391 Nonequilibrium Statistical Mechanics	5	D	30	-	-	-				4	
5A1393 Computational Physics <i>Replaces 5A1354.</i>	5	D	30	-	-	20	1				
5A1394 Complex Systems <i>Replaces 5A1352.</i> <i>Not given 06/07.</i>	5	D	30	-	-	-					

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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		
5A1390 Statistical Mechanics <i>Replaces 5A1350.</i>	5	D	30	30	-	-				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		2			Individual assignments 20h
2B1261 Semiconductor Theory and Device Physics, Advanced Course <i>The course is not given 2006/07</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	4	C	18	10	-	8	1				
2B1751 Physics of Electronic Devices	4	D	12	6	-	-				4	
2B1760 Experimental Methods in Material Physics	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>	3	D	-	-	-	10			3		
2B1771 Superconductivity and Applications	4	D	28	-	-	-		2			
4C1111 Fracture Mechanics and Fatigue	4	D	48	-	-	4			3		
5A1356 Computational Physics, Additional Course	3	D	-	-	-	-		2	3		Project work
5A1370 Solid State Theory	4	D	36	-	-	-	1				
5A1386 Relativistic Quantum Physics <i>Replaces parts of 5A1332.</i>	5	D	30	-	-	-		2	3		

<u>5A1393 Computational Physics</u> <i>Replaces 5A1354.</i>	5	D	30	-	-	20	1				
<u>5A1502 Quantum Electronics with Electro Optics</u> <i>Under bearbetning</i>	8	D	48	-	-	-		2			
<u>5A1503 Electro Optics</u> <i>Under bearbetning</i>	4	D	24	-	-	-		2			
<u>5A1511 Optical Physics</u> <i>Under bearbetning</i>	4	D	26	14	-	16	1				
<u>5A1512 Optical Physics, Extended Course</u> <i>Can only be studied together with 5A1511.</i> <i>Under bearbetning</i>	2	D	12	6	-	10	1				
<u>5A1552 Optronics</u> <i>Not given 06/07.</i> <i>Under bearbetning</i>	4	D	20	-	-	10					
<u>5A1775 Nuclear Reactor Physics, Major Course</u> <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	48	-	-	30			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		2			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		2	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	22	-	10			3		

5A1502 Quantum Electronics with Electro Optics <i>Under bearbetning</i>	8	D	48	-	-	-	2			
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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	
Compulsory Courses											
2D1428 Geometric Computing and Visualization	4	D	26	-	-	8				4	
Elective Courses											
2D1220 Applied Numerical Methods I	4	C	36	-	-	14			3	4	
2D1257 Visualization	4	C	16	-	-	14			3		
2D1323 Computer Graphics and Interaction <i>Allowed for all programmes except D.</i>	4	C	30	-	-	8				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	
2D1375 Implementation of Programming Languages <i>Self-study course. The course is given for the last time 06/07.</i>	4	D	2	-	-	-	1	2			
2D1377 Low Level Programming and Computer Architecture	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	18	-	-	32		2			
2D1395 Computer Security <i>The course is given for the first time 06/07.</i>	4	C	18	14	-	12	1				

2D1408 Evaluation Methods in Human-Computer Interaction <i>Given if there are at least 15 participants.</i>	4	D	10	10	-	-			3		
2D1413 Advanced Graphics and Interaction	6	D	46	-	-	12	1	2			
2D1416 Computer Support for Cooperative Work <i>Given if there are at least 15 participants.</i>	6	D	24	12	-	2			3	4	
2D1418 Language Engineering	4	D	40	-	-	12	1				
2D1422 Image Analysis and Computer Vision <i>Replaces 2D1421.</i>	4	C	30	2	-	20		2			
2D1426 Robotics and Autonomous Systems*	5	D	16	-	-	60				4	
2D1427 Image Based Recognition and Classification <i>Replaces 2D1425.</i>	4	D	26	-	-	8			3		
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 be given in 06/07.</i>	4	D	30	-	-	-				4	
2D1446 Complexity Theory <i>The course is given every second year and will not be given in 06/07.</i>	4	D	30	-	-	-					
2D1447 Statistical Methods in Applied Computer Science <i>The course is given for the first time 06/07.</i>	4	D	18	6	-	-			3	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	-	-	32	1	2			
2D1465 Advanced, Individual Course in Computer Science <i>The course can be studied any time during the semesters.</i>	4	D	-	-	-	-	1	2	3	4	
2D1469 Database Theory <i>The course is given every second year. It will not be given 06/07.</i>	4	D	31	17	-	-					
2D1471 Modern Database Systems and Their Applications	5	D	26	8	-	-				4	
2D1483 Development of Web Applications with Enterprise Java <i>Replaces 2D1482.</i>	4	D	16	-	-	32			3		
2D1486 Systems Programming and Operating Systems	5	D	24	-	-	24		2			
2D1490 IP Routing in Simple Computer Networks	5	D	24	8	-	32				4	
2D1491 IP Routing in Internet and Other Complex Networks <i>The course will not be given 06/07.</i>	5	D	24	8	-	32					
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	22	-	10			3		

2E1616 Data Communications and Computer Networks <i>Given at Campus Valhallavägen</i>	4	B	24	18	-	4		3	
2G1915 Concurrent Programming	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	4	A	30	12	-	-	1		
5B1309 Algebra, Basic Course	4	C	42	-	-	-		3	
5B1456 Seminar Course in Mathematics I <i>Given 06/07.</i>	5	D	36	-	-	-	1	2	
5B1457 Seminar Course in Mathematics II <i>Given 06/07.</i>	5	D	36	-	-	-		3	4
5B1458 Seminar Course in Mathematics III <i>Not given 06/07.</i>	5	D	36	-	-	-			
5B1459 Seminar Course in Mathematics IV <i>Not given 06/07.</i>	5	D	36	-	-	-			
5B1466 Fourier Analysis <i>Not given 06/07.</i> <i>Under bearbetning</i>	5	D	36	-	-	-			
5B1475 Combinatorics, Advanced Course <i>Not given 06/07.</i>	5	D	36	-	-	-			
5B1492 Linear Algebra, Advanced Course <i>Not given 06/07.</i>	5	D	36	-	-	-			
5B1815 Applied Linear Optimization <i>Replaces 5B1814.</i>	5	D	24	14	-	-	1		Project assignments
5B1818 Topics in Optimization	5	D	12	6	-	-		3	Project assignments
5B1928 Logic	4	A	40	20	-	-			4

*The course has limited participation

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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 <i>Not given 06/07.</i>	4	D	36	-	-	-					
5B1456 Seminar Course in Mathematics I <i>Given 06/07.</i>	5	D	36	-	-	-	1	2			
5B1457 Seminar Course in Mathematics II <i>Given 06/07.</i>	5	D	36	-	-	-			3	4	
5B1458 Seminar Course in Mathematics III <i>Not given 06/07.</i>	5	D	36	-	-	-					
5B1459 Seminar Course in Mathematics IV <i>Not given 06/07.</i>	5	D	36	-	-	-					
5B1464 Topology <i>Given 06/07.</i>	5	D	36	-	-	-			3	4	
5B1466 Fourier Analysis <i>Not given 06/07.</i> <i>Under bearbetning</i>	5	D	36	-	-	-					
5B1467 Algebra, Advanced Course <i>Not given 06/07.</i> <i>Under bearbetning</i>	5	D	36	-	-	-					
5B1470 Analytic Functions <i>Not given 06/07.</i> <i>Under bearbetning</i>	5	D	36	-	-	-					
5B1472 Functional Analysis <i>Not given 06/07.</i> <i>Under bearbetning</i>	5	D	36	-	-	-					
5B1473 Elementary Differential Geometry <i>Given 06/07.</i>	5	D	36	-	-	-			3	4	
5B1475 Combinatorics, Advanced Course <i>Not given 06/07.</i>	5	D	36	-	-	-					
5B1479 Integration Theory <i>Given 06/07.</i>	5	D	36	-	-	-	1	2			

5B1490 Chaotic Dynamical Systems <i>Given 06/07.</i>	5	D	36	-	-	-	1	2			
5B1491 Analytical and Numerical Methods for Partial Differential Equations <i>Not given 06/07.</i>	5	D	36	-	-	-					
5B1492 Linear Algebra, Advanced Course <i>Not given 06/07.</i>	5	D	36	-	-	-					
5B1712 Optimization for F	4	C	28	16	-	6			3		

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Optimization and Systems Theory F3

Code Name	Credits	Level	Lec	Tut	Le	Lab	Periods				Other
							1	2	3	4	
Elective Courses											
2D1220 <u>Applied Numerical Methods I</u>	4	C	36	-	-	14			3	4	
2D1250 <u>Applied Numerical Methods II</u>	6	C	48	-	-	30			3	4	
5B1303 <u>Analysis, Basic Course</u>	6	C	-	-	66	-			3	4	
5B1540 <u>Probability Theory</u> <i>Not given 06/07.</i>	5	C	24	24	-	-					
5B1717 <u>Optimization and Markov Processes</u>	6	C	40	34	-	-		2	3		
5B1742 <u>Mathematical Systems Theory</u> <i>Not given 06/07.</i>	4	C	32	16	-	-					

Optimization and Systems Theory F4

Code Name	Credits	Level	Lec	Tut	Le	Lab	Periods				Other
							1	2	3	4	
Elective Courses											
1N1154 <u>Advanced Transport Modelling</u>	5	D	24	8	-	12				4	Seminar 6h
2D1334 <u>Database Technology</u>	4	C	24	20	-	12			3		
2D1385 <u>Software Engineering</u>	4	C	24	12	-	18				4	
2E1252 <u>Control Theory and Practice, Advanced Course</u>	5	D	28	26	-	8			3		
5B1537 <u>Reliability Theory</u> <i>Replaces 5B1538.</i>	5	C	-	-	60	-	1				
5B1545 <u>Time Series Analysis</u>	4	C	24	24	-	-		2			
5B1550 <u>Applied Mathematical Statistics</u>	5	C	-	-	60	-			3		
5B1570 <u>Martingales and Stochastic Integrals</u>	4	D	-	-	48	-	1				
5B1574 <u>Portfolio Theory and Risk Management</u>	4	C	30	12	-	-	1				
5B1575 <u>Financial Derivatives</u>	5	D	-	-	48	-			3	4	
5B1815 <u>Applied Linear Optimization</u> <i>Replaces 5B1814.</i>	5	D	24	14	-	-	1				Project assignments
5B1817 <u>Applied Nonlinear Optimization</u> <i>Replaces 5B1816.</i>	5	D	24	14	-	-		2			Project assignments
5B1818 <u>Topics in Optimization</u>	5	D	12	6	-	-			3		Project assignments

5B1823 Geometric Control Theory <i>Replaces 5B1822.</i>	5	D	36	18	-	-	2		Homework assignments
5B1843 Stochastic Decision Support Models <i>Replaces 5B1842.</i>	5	D	36	18	-	-		3	Homework assignments
5B1852 Mathematical Economics <i>Given 06/07.</i>	4	C	32	16	-	-	2		
5B1873 Optimal Control Theory <i>Replaces 5B1872.</i>	5	D	36	18	-	-		3	Homework assignments

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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	48	-	-	30			3	4		
5B1540 Probability Theory <i>Not given 06/07.</i>	5	C	24	24	-	-						
5B1550 Applied Mathematical Statistics	5	C	-	-	60	-			3			
5B1717 Optimization and Markov Processes	6	C	40	34	-	-		2	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	-	-	12	1	2			
2D1253 Numerical Algebra, Methods for Large Matrices	4	D	24	-	-	6		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	-	10	1				
2D1264 Parallell Computations for Large-Scale Problems, part 1 <i>Replaces 2D1263.</i>	4	C	24	-	-	12			3	4	
2D1265 Parallell Computations for Large-Scale Problems, part 2 <i>Replaces 2D1285.</i>	2	C	4	-	-	8				4	
2D1269 Mathematical Models, Analysis and Simulation, part 2 <i>Not given 06/07.</i>	5	D	42	-	-	12					
2D1274 Computational Electromagnetics <i>Not on the central schedule.</i>	5	D	24	-	-	8		2			
2D1290 Advanced Numerical Analysis <i>The course will not be on the central schedule. Not given 06/07.</i>	4	D	16	-	-	4					

2D1297 Advanced Individual Course in Scientific Computing <i>Course may start any time during the semester.</i>	4	D	-	-	-	-	1	2	3	4	
5B1303 Analysis, Basic Course	6	C	-	-	66	-			3	4	
5B1306 Financial Mathematics, Basic Course	5	C	-	-	54	-				4	
5B1308 Wavelets <i>Not given 06/07.</i>	4	C	24	-	-	-					
5B1309 Algebra, Basic Course	4	C	42	-	-	-			3		
5B1455 Ordinary Differential Equations <i>Not given 06/07.</i>	4	D	36	-	-	-					
5B1466 Fourier Analysis <i>Not given 06/07.</i> <i>Under bearbetning</i>	5	D	36	-	-	-					
5B1479 Integration Theory <i>Given 06/07.</i>	5	D	36	-	-	-	1	2			
5B1490 Chaotic Dynamical Systems <i>Given 06/07.</i>	5	D	36	-	-	-	1	2			
5B1491 Analytical and Numerical Methods for Partial Differential Equations <i>Not given 06/07.</i>	5	D	36	-	-	-					
5B1537 Reliability Theory <i>Replaces 5B1538.</i>	5	C	-	-	60	-	1				
5B1545 Time Series Analysis	4	C	24	24	-	-		2			
5B1550 Applied Mathematical Statistics	5	C	-	-	60	-			3		
5B1555 Computer Intensive Methods in Mathematical Statistics <i>Not given 06/07.</i>	5	D	-	-	48	-					
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			
5B1815 Applied Linear Optimization <i>Replaces 5B1814.</i>	5	D	24	14	-	-	1				Project assignments
5B1818 Topics in Optimization	5	D	12	6	-	-			3		Project assignments
5B1852 Mathematical Economics <i>Given 06/07.</i>	4	C	32	16	-	-		2			
5C1212 Computational Fluid Dynamics	5	D	-	-	50	10			3		

*The course has limited participation

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Engineering Physics

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	4	C	16	6	-	-				4	Estimated time for project: 90h

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	-	24	1	2			
Conditionally Elective Courses											
4C1111 Fracture Mechanics and Fatigue	4	D	48	-	-	4			3		
4C1116 Dynamic Problems in Solid Mechanics	4	D	42	-	-	8			3	4	
4C1119 Finite Element Method, Project Course <i>Given at request.</i>	2	D	-	-	-	-					
4C1121 Introduction to Biomechanics	6	C	48	-	-	8			3		
4C1124 Orthopedic Biomechanics <i>Not given 06/07.</i>	4	D	32	-	-	4					
4C1126 Material Mechanics	6	D	60	-	-	15	1	2			
Elective Courses											
4B1132 Experimental Structure Dynamics <i>Replaces 4B1131.</i>	6	D	-	36	24	12		2	3		18 h Computer18 h Computer
4C1123 Testing Techniques in Solid Mechanics <i>Under bearbetning</i>	4	C	24	-	-	24				4	
4C1125 Solid Mechanics Modelling for Design	6	D	60	-	-	12				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											
4B1121 <u>Signals and Mechanical Systems</u>	4	D	24	22	-	4		2			
4B1127 <u>Vibroacoustics</u> <i>Under bearbetning</i>	5	D	-	56	-	8	1	2			
4B1136 <u>Flow Acoustics</u>	4	D	-	36	-	8			3		
4B1141 <u>Sound and Vibration, Project Course</u>	5	D	-	48	-	12			3	4	Study tour to industry 40h

Sidansvarig: Studiehandboksredaktionen, studiehandbok@kth.se

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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	28	-	-	4				4	8 h Seminars8 h Seminars
5C1212 Computational Fluid Dynamics	5	D	-	-	50	10			3		
5C1213 Applied Computational Fluid Dynamics	2	D	-	-	16	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	
5C1221 Wave Motions and Hydrodynamic Stability	5	D	-	-	42	3		2			

 Sidansvarig: Studiehandboksredaktionen, studiehandbok@kth.se

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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			
5C1150 Advanced Engineering Dynamics	5	D	-	30	-	-	1					
5C1151 Modern Multibody Dynamics	5	D	30	-	-	-		2				
5C1400 Nonlinear Dynamics in Mechanics	5	C	24	-	-	-			3			

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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	-	14			3	4	
2D1310 Programming Technique	4	A	20	12	-	24	1	2			
5A1363 Environmental Physics and Chemistry <i>Under bearbetning</i>	6	B	54	-	-	35	1	2			
5B1121 Mathematic, Basic Course	4	A	16	16	32	-	1				
5B1141 Analytical Methods and Linear Algebra II	8	B	60	-	60	-			3	4	
5B1142 Calculus in One Variable and Linear Algebra	6	A	64	18	32	-		2			
5C1102 Mechanics, Smaller Course	4	A	30	15	-	-			3		
Conditionally Elective Courses											
2A1510 No translation*_ <i>Under bearbetning</i>	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