

Study Handbook**Syllabus**

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Biotechnology

Biotechnology BIO1

Code Name	Credits	Level	Lec	Tut	Le	Lab	Periods				Other
							1	2	3	4	
Compulsory Courses											
2D1310 <u>Programming Technique</u>	4	A	26	16	-	36			3	4	
3A1501 <u>Introduction to Biotechnology</u>	4	AB	36	8	-	4	1	2			including visits for study purpose
3A1502 <u>Cellbiology with Immunology</u>	4	AB	42	-	-	-			3	4	
3B1700 <u>Introductory Chemistry</u>	4	AB	24	22	-	22	1				
3B1711 <u>Chemical Equilibria</u>	4	AB	12	22	-	25		2	3		
3B1750 <u>Organic Chemistry 1</u>	5	AB	20	14	-	42		2			
5B1115 <u>Mathematics I</u>	6	B	-	-	-	-	1				
5B1116 <u>Mathematics II</u>	6	B	-	-	-	-			3		
5C1102 <u>Mechanics, Smaller Course</u>	4	B	30	15	-	-				4	
Elective Courses											
3B1705 <u>Introductory Course in Chemistry</u>	1	A	-	-	-	-					
5B1120 <u>Introductory Course in Mathematics I</u>	1	A	-	-	-	-					

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Biotechnology

Biotechnology BIO2

Code Name	Credits	Level	Lec	Tut	Le	Lab	Periods				Other
							1	2	3	4	
Compulsory Courses											
3A1109 Biochemistry	8	C	32	-	-	-				4	
3A1307 Microbiology	6	C	30	24	-	48	1	2	3		
3B1725 Chemical Thermodynamics	4	AB	28	30	-	-	1				
3B1730 Molecular Structure	5	AB	36	22	-	20		2	3		
3B1740 Chemical Dynamics	4	AB	20	20	-	15			3		
3B1760 Organic Chemistry 2	5	AB	12	22	-	54				4	
5A1225 Electromagnetism and Waves	5	B	38	18	-	20		2			
5B1210 Mathematics IV	6	C	-	-	-	-	1				

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Biotechnology

Biotechnology BIO3

Code Name	Credits	Level	Lec	Tut	Le	Lab	Periods				Other
							1	2	3	4	
Compulsory Courses											
2D1210 Numerical Methods, Basic Course I	4	B	24	24	-	24	1	2			
3A1109 Biochemistry	8	C	34	-	-	96	1	2			
3A1503 Molecular Biotechnology	5	C	36	-	-	15		2	3		
3B1770 Chemical Measuring Techniques	5	AB	22	4	-	12	1				
4D1023 Industrial Economy and Management, Basic Course	4	A	26	16	-	-		2			4 h Seminars 4 h Seminars
Recommended Courses											
1N1109 Ethics of Biotechnology	5	C	24	-	-	-	1	2			6 h Seminars individual essay-tutorials 6 h Seminars
Elective Courses											
3A1112 Biochemical Analyses and Separation Techniques	5	D	32	-	-	30				4	
3A1308 Technical Microbiology 1	4	D	38	8	-	-			3		Study visit 8h
3A1309 Technical Microbiology 2	4	D	18	4	-	-				4	Seminars 20h
3A1504 Structure Biology	4	C	32	-	-	20				4	

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Biotechnology

Biotechnology BIO4

Code Name	Credits	Level	Lec	Tut	Le	Lab	Periods				Other
							1	2	3	4	
Recommended Courses											
1N1109 Ethics of Biotechnology	5	C	24	-	-	-	1	2			6 h Seminarsindividual essay-tutorials 6 h Seminars
Elective Courses											
3A1104 Environmental Toxicology	6	C	36	14	-	-	1	2			
3A1110 Molecular Enzymology	5	D	20	-	-	24		2			6 h Seminars6 h Seminars
3A1111 Enzymatic Synthesis	5	D	20	12	-	20				4	
3A1205 Biochemical Technology	7	D	40	-	-	60			3	4	
3A1206 Biochemical Technology, Theory	5	D	40	10	-	-			3	4	
3A1505 Biophysical Chemistry	4	D	30	20	-	-			3		
3A1506 Drug Development	4	C	36	-	-	-			3		8 h Study visit8 h Study visit
3A1507 Functional Genomics	4	D	24	-	-	15	1				
3A1508 Wood Biotechnology	5	C	34	-	-	-		2			
3B1231 NMR-spectroscopy	4	D	30	-	-	12		2			

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Biomolecular chemistry BIO3

Code Name	Credits	Level	Lec	Tut	Le	Lab	Periods				Other	
							1	2	3	4		
Compulsory Courses												
3A1509 Bioinformatic	4	D	32	16	-	-			3			
3B1521 Organic Chemistry, Theory, Advanced Course 1	5	C	12	6	-	-				4		
Recommended Courses												
3A1504 Structure Biology	4	C	32	-	-	20				4		

Biomolecular chemistry BIO4

Code Name	Credits	Level	Lec	Tut	Le	Lab	Periods				Other
							1	2	3	4	
Compulsory Courses											
3A1110 <u>Molecular Enzymology</u>	5	D	20	-	-	24		2			6 h Seminars6 h Seminars
3A1111 <u>Enzymatic Synthesis</u>	5	D	20	12	-	20				4	
3A1506 <u>Drug Development</u>	4	C	36	-	-	-			3		8 h Study visit8 h Study visit
Recommended Courses											
1N1109 <u>Ethics of Biotechnology</u>	5	C	24	-	-	-	1	2			6 h Seminarsindividual essay-tutorials 6 h Seminars
3A1112 <u>Biochemical Analyses and Separation Techniques</u>	5	D	32	-	-	30				4	
3A1505 <u>Biophysical Chemistry</u>	4	D	30	20	-	-			3		
Elective Courses											
3A1507 <u>Functional Genomics</u>	4	D	24	-	-	15	1				
3B1231 <u>NMR-spectroscopy</u>	4	D	30	-	-	12		2			
3B1531 <u>Organic Chemistry, lab, Advanced Course</u>	4	D	-	-	-	54	1				
3B1542 <u>Organic Chemistry, Intermediate Course II</u>	5	D	24	-	-	40			3		

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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											
3A1308 <u>Technical Microbiology 1</u>	4	D	38	8	-	-			3		Study visit 8h
3A1309 <u>Technical Microbiology 2</u>	4	D	18	4	-	-				4	Seminars 20h
3A1509 <u>Bioinformatic</u>	4	D	32	16	-	-			3		
3C1345 <u>Environmental Technology and Environmental Impact Studies</u>	4	D	32	4	-	-			3		8 h Projektuppgift8 h Projektuppgift
Recommended Courses											
3C1347 <u>Env. Technology and Env. Impact Studies, Larger Course</u>	8	D	32	16	-	24			3	4	
3C1355 <u>Ecology, Advanced Course</u>	4	C	21	4	-	-			3	4	

Environmental biotechnology BIO4

3C1345 or 3C1347

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

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Molecular biophysics BIO3

Code Name	Credits	Level	Lec	Tut	Le	Lab	Periods				Other
							1	2	3	4	
Compulsory Courses											
3A1504 <u>Structure Biology</u>	4	C	32	-	-	20				4	
3A1509 <u>Bioinformatic</u>	4	D	32	16	-	-			3		
Recommended Courses											
3A1112 <u>Biochemical Analyses and Separation Techniques</u>	5	D	32	-	-	30				4	

Molecular biophysics BIO4

Code Name	Credits	Level	Lec	Tut	Le	Lab	Periods				Other
							1	2	3	4	
Compulsory Courses											
3A1505 <u>Biophysical Chemistry</u>	4	D	30	20	-	-			3		
Recommended Courses											
1A14TW <u>Third World Housing</u> <i>The course is given after agreement Under bearbetning</i>	10	D	-	-	-	-					
1N1109 <u>Ethics of Biotechnology</u>	5	C	24	-	-	-	1	2			6 h Seminarsindividual essay-tutorials 6 h Seminars
2D1220 <u>Applied Numerical Methods I</u>	4	C	40	-	-	20			3	4	
2D1225 <u>Numerical Solutions of Differential Equations</u>	4	C	26	4	-	18	1	2			
3A1110 <u>Molecular Enzymology</u>	5	D	20	-	-	24		2			6 h Seminars6 h Seminars
3B1211 <u>Quantum Chemistry and Spectroscopy</u>	6	D	48	-	-	8	1				
3B1231 <u>NMR-spectroscopy</u>	4	D	30	-	-	12		2			

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Molecular biotechnology BIO3

Code Name	Credits	Level	Lec	Tut	Le	Lab	Periods				Other
							1	2	3	4	
Compulsory Courses											
3A1112 Biochemical Analyses and Separation Techniques	5	D	32	-	-	30				4	
3A1509 Bioinformatic	4	D	32	16	-	-			3		
Recommended Courses											
3A1504 Structure Biology	4	C	32	-	-	20				4	

Molecular biotechnology BIO4

Code Name	Credits	Level	Lec	Tut	Le	Lab	Periods				Other
							1	2	3	4	
Compulsory Courses											
3A1506 Drug Development	4	C	36	-	-	-			3		8 h Study visit8 h Study visit
3A1507 Functional Genomics	4	D	24	-	-	15	1				
Recommended Courses											
1N1109 Ethics of Biotechnology	5	C	24	-	-	-	1	2			6 h Seminarsindividual essay-tutorials 6 h Seminars
3A1110 Molecular Enzymology	5	D	20	-	-	24		2			6 h Seminars6 h Seminars
Elective Courses											
2D1220 Applied Numerical Methods I	4	C	40	-	-	20			3	4	
3A1104 Environmental Toxicology	6	C	36	14	-	-	1	2			
3A1205 Biochemical Technology	7	D	40	-	-	60			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											
3A1308 Technical Microbiology 1	4	D	38	8	-	-			3		Study visit 8h
3A1309 Technical Microbiology 2	4	D	18	4	-	-				4	Seminars 20h
3A1509 Bioinformatic	4	D	32	16	-	-			3		
Recommended Courses											
3A1112 Biochemical Analyses and Separation Techniques	5	D	32	-	-	30				4	

Process biotechnology BIO4

Code Name	Credits	Level	Lec	Tut	Le	Lab	Periods				Other
							1	2	3	4	
Compulsory Courses											
3A1205 Biochemical Technology	7	D	40	-	-	60			3	4	
Recommended Courses											
1N1109 Ethics of Biotechnology	5	C	24	-	-	-	1	2			6 h Seminarsindividual essay-tutorials 6 h Seminars
3A1111 Enzymatic Synthesis	5	D	20	12	-	20				4	
3A1507 Functional Genomics	4	D	24	-	-	15	1				
3A1508 Wood Biotechnology	5	C	34	-	-	-		2			

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Wood biotechnology, start 2002 BIO3

Code Name	Credits	Level	Lec	Tut	Le	Lab	Periods				Other
							1	2	3	4	
Compulsory Courses											
3A1509 Bioinformatic	4	D	32	16	-	-			3		

Wood biotechnology, start 2002 BIO4

Code Name	Credits	Level	Lec	Tut	Le	Lab	Periods				Other
							1	2	3	4	
Compulsory Courses											
3A1508 Wood Biotechnology	5	C	34	-	-	-		2			

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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	-	-			3		
2D1310 <u>Programming Technique</u>	4	A	26	16	-	36		2	3		
5B1122 <u>Mathematics 1 for Teachers</u>	8	B	48	-	48	-	1	2			
5B1123 <u>Mathematics 2 for Teachers</u>	8	B	48	-	48	-			3	4	
7F1200 <u>Technology, Communication and Learning</u> <i>The course is given by Tom Tits, Södertälje. Läsas på Tom Tits, Södertälje 2 dagar/v</i>	5	B	8	-	12	25				4	
ICK01N <u>Human Development, Learning and Special Education</u> <i>Kursen ges av Lärarhögskolan i Stockholm, Institutionen för individ, omvärld och lärande Central kurs (CK)som läses på LHS</i>	10	A	16	20	25	-	1	2			
Elective Courses											
5B1120 <u>Introductory Course in Mathematics I</u>	1	A	-	-	-	-					

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CLMFY2

Code Name	Credits	Level	Lec	Tut	Le	Lab	Periods				Other
							1	2	3	4	
Compulsory Courses											
2D1210 Numerical Methods, Basic Course I	4	B	24	24	-	24			3	4	
2D1601 Communication and Media	5	C	40	-	-	-			3	4	20 h Seminars 20 h Seminars
5A1201 Physics, Basic Course I	7	B	52	14	-	30	1	2			
5A1202 Physics, Basic Course Part II	8	B	42	32	-	25			3	4	
5B1212 Differential Equations and Transforms III	4	C	-	-	-	-		2			
5C1103 Mechanics, Basic Course	6	B	48	27	-	-			3	4	
UCK01N Curriculum Studies and Communication	10	B	-	-	-	-	1	2			

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CLMDA1

Code Name	Credits	Level	Lec	Tut	Le	Lab	Periods				Other
							1	2	3	4	
Compulsory Courses											
2A1500 Engineering Science	5	B	24	12	-	-			3		
2D1310 Programming Technique	4	A	26	16	-	36		2	3		
5B1122 Mathematics 1 for Teachers	8	B	48	-	48	-	1	2			
5B1123 Mathematics 2 for Teachers	8	B	48	-	48	-			3	4	
7F1200 Technology, Communication and Learning <i>The course is given by Tom Tits, Södertälje. Läsas på Tom Tits, Södertälje 2 dagar/v</i>	5	B	8	-	12	25				4	
ICK01N Human Development, Learning and Special Education <i>Kursen ges av Lärarhögskolan i Stockholm, Institutionen för individ, omvärld och lärande Central kurs (CK)som läses på LHS</i>	10	A	16	20	25	-	1	2			
Elective Courses											
5B1120 Introductory Course in Mathematics I	1	A	-	-	-	-					

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CLMDA2

Code Name	Credits	Level	Lec	Tut	Le	Lab	Periods				Other
							1	2	3	4	
Compulsory Courses											
2D1210 Numerical Methods, Basic Course I	4	B	24	24	-	24			3	4	
2D1320 Applied Computer Science	4	B	30	14	-	20	1	2			
2D1385 Software Engineering	4	C	24	12	-	18			3		
2D1601 Communication and Media	5	C	40	-	-	-			3	4	20 h Seminars 20 h Seminars
2D1602 Teacher Program Summary Course	12	C	-	-	-	-	1	2	3	4	
4F1224 Electrical Engineering, Basic Course Media	4	B	12	21	-	13				4	
5B1212 Differential Equations and Transforms III	4	C	-	-	-	-		2			
UCK01N Curriculum Studies and Communication	10	B	-	-	-	-	1	2			

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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	-	-			3		
2D1310 <u>Programming Technique</u>	4	A	26	16	-	36		2	3		
5B1122 <u>Mathematics 1 for Teachers</u>	8	B	48	-	48	-	1	2			
5B1123 <u>Mathematics 2 for Teachers</u>	8	B	48	-	48	-			3	4	
7F1200 <u>Technology, Communication and Learning</u> <i>The course is given by Tom Tits, Södertälje. Läses på Tom Tits, Södertälje 2 dagar/v</i>	5	B	8	-	12	25				4	
ICK01N <u>Human Development, Learning and Special Education</u> <i>Kursen ges av Lärarhögskolan i Stockholm, Institutionen för individ, omvärld och lärande Central kurs (CK)som läses på LHS</i>	10	A	16	20	25	-	1	2			
Elective Courses											
5B1120 <u>Introductory Course in Mathematics I</u>	1	A	-	-	-	-					

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CLMKE2

Code Name	Credits	Level	Lec	Tut	Le	Lab	Periods				Other
							1	2	3	4	
Compulsory Courses											
2D1210 Numerical Methods, Basic Course I	4	B	24	24	-	24			3	4	
2D1601 Communication and Media	5	C	40	-	-	-			3	4	20 h Seminars20 h Seminars
3B1700 Introductory Chemistry	4	AB	24	22	-	22	1				
3B1711 Chemical Equilibria	4	AB	12	22	-	25		2	3		
3C1451 Introduction to Chemical Engineering	7	AB	36	26	-	-				4	Field Exercise 1 day, Plant Trip 1 day
5B1212 Differential Equations and Transforms III	4	C	-	-	-	-		2			
UCK01N Curriculum Studies and Communication	10	B	-	-	-	-	1	2			

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Computer Science

Computer Science D1

Code Name	Credits	Level	Lec	Tut	Le	Lab	Periods				Other
							1	2	3	4	
Compulsory Courses											
2A1805 Electrical Circuits	5	B	32	24	-	4			3	4	
2D1345 Introduction to Computer Science	11	B	55	48	-	64	1	2	3	4	
2D1347 Communication	4	B	8	-	-	6		2	3		30 h Seminars 30 h Seminars
5B1104 Calculus I, part 1	5	B	-	-	-	-	1	2			
5B1105 Calculus I, part 2	5	B	-	-	-	-			3	4	
5B1109 Linear Algebra II	5	B	-	-	-	-	1				
5B1928 Logic	4	D	-	-	-	-				4	
Elective Courses											
2E1215 Introductory Matlab Course	1	A	4	-	-	-				4	Computer 8h
5B1111 Complementary Course in Calculus	2	B	-	-	-	-					
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											
2D1240 Numerical Methods, Basic Course II	4	B	28	14	-	18	1	2			
2D1350 Programming Paradigms	4	C	32	-	-	20	1	2			
2D1352 Algorithms, Data Structures and Complexity	6	C	44	24	-	18			3	4	
5B1204 Discrete Mathematics	8	C	72	-	-	-			3		
5B1212 Differential Equations and Transforms III	4	C	-	-	-	-				4	
5B1506 Mathematical Statistics, Basic Course	6	C	36	48	-	-	1	2			
5C1105 Insights in Mechanics - Modeling and Simulation	4	B	24	10	-	-				4	
Conditionally Elective Courses											
5A1232 Optical Communication and Imaging <i>Under bearbetning</i>	4	B	24	18	-	10		2			
5A1242 Physics of Microcosmos <i>Under bearbetning</i>	4	B	24	18	-	-		2			

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Uppdaterad: 2003-03-01

Study Handbook**Syllabus**

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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											
2D1362 <u>Program Development Project with Software Engineering</u> <i>The course will only be given in 03/ 04.</i>	6	C	30	-	-	-		2	3	4	
2G1502 <u>Computer Hardware Basics</u> <i>replaces 2G1119 and 2G1129</i>	4	B	18	18	-	20	1	2			
2I1100 <u>Information Systems and Database Technology</u>	6	C	12	12	-	80	1	2			
3C1330 <u>Technology and Ecosystems</u>	4	AB	24	3	-	-		2			
4D1097 <u>Organization and Knowledge Intensive Work</u> <i>Replaces course 4D1094 Work Environment, Computers and Business Administration.</i>	4	A	28	4	-	10	1				

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Uppdaterad: 2003-03-01

Kungl Tekniska Högskolan

Studentwebben

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[Next academic year \(04/05\)](#)

Computer Science

Computer Science D4

Code Name	Credits	Level	Lec	Tut	Le	Lab	Periods				Other	
							1	2	3	4		
Conditionally Elective Courses												
2G1325 <u>Practical Voice Over IP (VoIP)</u>	5	D	-	-	-	-					4	
Elective Courses												
2A1170 <u>Chaos and Self-organization</u> <i>The course can not be given 03/ 04.</i>	4	D	32	17	-	-						
2B1447 <u>SoC Architectures</u>	4	D	30	-	-	-		2				
2B1453 <u>Design of Fault-tolerant Systems</u>	4	D	24	6	-	-					4	
2B1455 <u>Anatomy of EDA CAD-tools</u>	5	D	24	6	-	-				3		
2B1512 <u>Digital Design with HDL</u>	6	D	30	-	-	60	1	2				
2C1224 <u>Management of Technology</u>	5	D	32	20	-	-	1					
2D1220 <u>Applied Numerical Methods I</u>	4	C	40	-	-	20				3	4	
2D1225 <u>Numerical Solutions of Differential Equations</u>	4	C	26	4	-	18	1	2				
2D1250 <u>Applied Numerical Methods II</u>	6	C	-	-	56	24				3	4	
2D1255 <u>Numerical Solutions of Differential Equations</u>	5	D	36	-	-	20				3	4	
2D1257 <u>Visualization</u>	4	C	20	-	-	10				3		
2D1258 <u>Introduction to High Performance Computing*</u> <i>Please note that the course starts in August. Will not be on the central schedule.</i>	5	C	40	-	-	40	1					
2D1260 <u>The Finite Element Method</u>	4	C	18	14	-	12		2				
2D1263 <u>Program Construction for Scientific Computing</u> <i>Will not be on the central schedule.</i>	4	C	24	-	-	12				3	4	
2D1266 <u>Mathematical Models, Analysis and Simulation Part I</u>	5	C	48	-	-	26	1	2				
2D1269 <u>Mathematical Models, Analysis and Simulation, part II</u>	5	D	48	-	-	28				3	4	
2D1272 <u>Computational Physics</u> <i>The course will not be on the central schedule.</i>	5	D	24	-	-	-					4	
2D1285 <u>Numerical Algorithms for Parallel Computers</u> <i>The course will not be on the central schedule. Not given 03/ 04.</i>	4	D	24	-	-	-						
2D1290 <u>Advanced Numerical Analysis</u> <i>The course will not be on the central schedule.</i>	4	D	28	-	-	14					4	

2D1373 Artificial Languages and Syntax Analysis	4	C	24	-	-	16			3		
2D1375 Implementation of Programming Languages	4	D	2	-	-	-	1	2			
2D1378 Text and Image Processing	4	B	28	28	-	-	1				
2D1381 Industrial Applications of Artificial Intelligence	4	C	36	-	-	-			3	4	
2D1387 Program System Construction Using C++	4	C	18	6	-	30	1	2			
2D1390 Internet Programming	4	C	28	-	-	26		2			
2D1408 Evaluation Methods in Human-Computer Interaction*	4	D	10	19	-	-			3	4	2 h Seminars 2 h Seminars
2D1410 User Centered Program Development	6	D	30	-	-	-			3	4	14 h Seminars 14 h Seminars
2D1413 Advanced Graphics and Interaction	6	D	50	-	-	12	1	2			
2D1416 Computer Supported Cooperative Work <i>Given every second year. Not given 03/ 04.</i>	6	D	30	-	-	15					
2D1418 Language Engineering	4	D	42	-	-	12	1				
2D1420 Computer Vision, Basic Course	5	D	46	6	-	12			3		
2D1424 Geometric Computing in Image Analysis and Visualization	4	D	28	-	-	8				4	
2D1426 Robotics and Autonomous Systems*	5	D	16	-	-	60	1				
2D1426 Robotics and Autonomous Systems*	5	D	16	-	-	60				4	
2D1431 Machine Learning	4	C	32	-	-	20		2			
2D1432 Artificial Neural Networks and Other Learning Systems	4	D	26	-	-	16			3		
2D1435 Mathematical Modelling of Biological Systems <i>The course is given every second year and will be given in 03/04.</i>	6	D	26	-	-	20				4	
2D1440 Advanced Algorithms	4	D	30	-	-	-		2			
2D1441 Seminars on Theoretical Computer Science <i>The course is given every second year and will not be given in 03/ 04.</i>	4	D	30	-	-	-					
2D1446 Complexity Theory <i>The course is given every second year and will be given in 03/04.</i>	4	D	30	-	-	-				4	
2D1449 Foundations of Cryptography	4	D	30	-	-	-			3		
2D1450 Algorithmic Bioinformatics	4	D	36	-	-	-				4	
2D1458 Problem Solving and Programming under Pressure	6	C	24	-	-	52	1	2			
2D1464 Bigger Advanced, Individual Course in Computer Science <i>The course can be studied any time during the semesters.</i>	6	D	-	-	-	-					
2D1465 Advanced, Individual Course in Computer Science <i>The course can be studied any time during the semesters.</i>	4	D	-	-	-	-					
2D1469 Database Theory	4	D	24	24	-	-	1				
2D1470 Object Oriented Database Systems	5	D	24	24	-	-				4	

2D1482 Programming of Web Server Applications*_	4	D	12	-	-	26			4	
2D1490 IP Routing in Simple Computer Networks*_	5	D	32	8	-	32			3	
2D1491 IP-routing in Internet and Other Complex Networks*_	5	D	32	8	-	32			4	
2D1492 Net Design, Project Course	6	D	10	4	-	8	1	2		
2D1518 Audio, Video and Multimedia Production*_	5	C	30	-	-	40		2	3	
2D1520 Graphic Arts Technology, Minor Course	4	C	30	8	-	16		2		
2D1620 Human-Computer Interaction, Introductory Course	4	C	18	2	-	5	1			
2D1622 Human-Computer Interaction, Second Course	4	C	18	2	-	5		2		
2D1953 Graphics and Interaction Programming	4	C	30	6	-	28			3	
2D2096 Digital Video Production*_	5	B	18	4	-	12			3	
2E1245 Hybrid and Embedded Control Systems	5	D	28	28	-	-			3	
2E1252 Control Theory and Practice, Advanced Course	5	D	28	26	-	8			3	
2E1262 Nonlinear Control	5	D	28	28	-	8		2		
2E1282 Modelling of Dynamical Systems	4	C	24	24	-	12				4
2E1340 Digital Signal Processing	5	C	26	24	-	3		2		
2E1423 Signal Theory	5	C	24	22	-	10			3	
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
2F1300 Perception of Sound	5	D	24	12	-	12	1			
2F1400 Electroacoustics	4	D	34	12	-	8	1			
2F1410 Audio Technology	5	D	30	12	-	12		2		20 h Projektuppgift20 h Projektuppgift
2G1117 Semantics for Programming Languages	4	D	18	18	-	-	1			
2G1118 Network Programming with Java	4	D	20	10	-	8		2		
2G1121 Logic Programming	4	D	16	8	-	-	1			Individual work on project
2G1301 Theory of Distributed Systems	4	C	14	-	-	88		2		
2G1305 Internetworking	4	D	20	20	-	26			3	
2G1316 Data and Computer Communication	4	C	24	18	-	12			3	
2G1318 Queuing Theory and Teletraffic Systems	4	D	24	24	-	-		2		
2G1319 Communication System Design <i>Replaces 2G1303. Also given as 2G1711, 12 credits; 2G1712, 16 credits and 2G1713, 20 credits</i>	10	D	-	-	-	-			3	4
2G1330 Wireless and Mobile Network Architectures	5	D	10	-	-	-				4
2G1332 Management of Network and Networked Systems	5	D	20	-	-	20	1			
2G1503 System Modeling and Simulation	6	B	24	-	-	-				4

2G1504 Operating Systems <i>Replaces 2G1113</i>	4	C	24	18	-	12				4	
2G1505 Theory of Automata	4	D	18	12	-	-		2			
2G1506 Programming with Processes <i>Is given for last time 2003/2004. The course 2G1915, Concurrent Programming, will replace.</i>	5	C	36	-	-	24	1				
2G1509 Distributed Systems, Basic Course	5	D	24	-	-	-			3		Project work 5 hours
2G1510 Computer Architecture Fundamentals	5	C	18	12	-	4		2			Seminar 4h
2G1511 Computer Architecture	6	D	42	-	-	12			3	4	Individual project guidance: 2-5 h/ student Home study time: 180 h
2G1513 Distributed Systems, Advanced Course <i>Replaces 2G1126 from 2003/2004</i>	5	D	-	-	-	-				4	
2G1514 Distributed Artificial Intelligence and Intelligent Agents	4	D	24	10	-	-				4	
2G1516 Formal Methods <i>Replaces 2G1301 from 2003/2004</i>	5	D	24	24	-	18		2			
2G1711 Communication System Design	12	D	-	-	-	-			3	4	
2G1712 Communication System Design	16	D	-	-	-	-			3	4	
2G1713 Communication System Design	20	D	-	-	-	-			3	4	
2I1130 Cognitive Psychology	4	B	30	12	-	-	1				
2I1140 Artificial Intelligence	6	C	36	16	-	80			3		
2I1150 Theory of Knowledge and Philosophy of Science <i>not given 03/04</i>	4	B	30	12	-	80					
2I1224 Data Warehousing	4	D	15	10	-	30				4	
2I1228 Enterprise Computing and ERP Systems	5	D	14	12	-	60	1				80h
2I1229 Knowledge Management	4	D	28	-	-	18				4	70h
2I1234 Machine Learning	4	D	36	-	-	-				4	
2I1235 Agent Programming	4	D	18	-	-	3				4	Other 80 hours
2I1236 Intelligent Interfaces <i>Replaced by 2I1237</i>	4	D	36	-	-	-			3	4	
2I1251 Theory of Software Metrics	4	D	13	-	-	60			3	4	
2I1255 Quality Models and Standards	4	D	21	-	-	140			3	4	
2I1256 Current Problems in Software Engineering	4	D	-	-	-	-	1	2	3	4	160h
2I1258 Large-Scale Software Engineering	5	D	20	-	-	100			3	4	
2I1263 Internet Application Protocols and Standards	4	B	24	-	-	20			3		120h
2I1264 Internet Programming I	4	D	2	-	-	160	1				
2I1265 Internet Programming II	4	D	2	-	-	160		2			
2I1266 Internet Programming III <i>Replaced by 2I1803</i>	4	D	-	-	-	160				4	
2I1272 Security Architecture for Open Distributed Systems	4	D	24	-	-	-				4	Research Assignment 24h, Extra Reading Materials 36h
2I1273 Principles of Computer Security	4	D	24	-	-	12			3		Seminar paper 24 hours
2I1274 Security Protocols and Applications in Computer Network	4	D	24	-	-	24				4	Extra reading material 36 hours

2I1276 Security for Java Environment and Electronic Commerce	4	D	21	8	3	-	2		Extra Reading Materials 36h, Research Project 24h
2I1278 Computer Security - Overview	4	D	24	-	-	-	1		Extra Reading Materials 36h
3C1355 Ecology, Advanced Course	4	C	21	4	-	-		3 4	
3C1360 Environmental Consequences, Advanced Course	4	C	15	-	-	-	1		
3C1395 Sustainable Development	4	C	10	9	-	-	2		
5A1414 Radiation Detectors and Medical Imaging Systems <i>Under bearbetning</i>	5	D	24	6	-	20		3 4	
5B1201 Complex Analysis	4	C	48	-	-	-	1		
5B1202 Differential Equations and Transforms II	6	C	72	-	-	-		3 4	
5B1303 Analysis, Basic Course	6	D	-	-	66	-		3 4	
5B1305 Applied Combinatorics	4	D	-	-	42	-		4	
5B1306 Financial Mathematics, Basic Course	5	C	-	-	54	-		4	
5B1309 Algebra, Basic Course	4	C	42	-	-	-		3	
5B1456 Seminar Course in Mathematics I <i>Not given 03/04.</i>	5	D	36	-	-	-			
5B1457 Seminar Course in Mathematics II <i>Not given 03/04.</i>	5	D	36	-	-	-			
5B1466 Fourier Analysis <i>Given 03/04.</i>	5	D	36	-	-	-		3 4	
5B1472 Functional Analysis <i>Given 03/04.</i>	5	D	36	-	-	-		3 4	
5B1479 Integration Theory <i>Given 03/04.</i>	5	D	36	-	-	-	1 2		
5B1750 Optimization for E and D	4	C	28	14	-	9		4	
5C1212 Computational Fluid Dynamics	5	D	-	-	50	10		3	
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	40	-	-	-		4	
7E1115 Engineering in Intensive Care and Anesthesia*	4	D	12	-	-	-		3 4	30 + 10h (field work with oral and written report)
7E1120 Biomedical Engineering, Basic Course	5	C	30	-	-	-	1		

*The course has limited participation

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Uppdaterad: 2003-03-01

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TMS Courses
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[Previous academic year \(02/03\)](#)[Next academic year \(04/05\)](#)

Computer Science

Computer Science D5

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

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Computer Science

Autonomous Systems D3

Code Name	Credits	Level	Lec	Tut	Le	Lab	Periods				Other
							1	2	3	4	
Elective Courses											
2D1420 Computer Vision, Basic Course	5	D	46	6	-	12			3		
2D1424 Geometric Computing in Image Analysis and Visualization	4	D	28	-	-	8				4	
2E1350 Adaptive Signal Processing	4	D	24	14	-	-			3		
2E1423 Signal Theory	5	C	24	22	-	10			3		
2I1140 Artificial Intelligence	6	C	36	16	-	80			3		
5B1750 Optimization for E and D	4	C	28	14	-	9				4	

Autonomous Systems D4

Code Name	Credits	Level	Lec	Tut	Le	Lab	Periods				Other
							1	2	3	4	
Elective Courses											
2D1220 Applied Numerical Methods I	4	C	40	-	-	20			3	4	
2D1381 Industrial Applications of Artificial Intelligence	4	C	36	-	-	-			3	4	
2D1420 Computer Vision, Basic Course	5	D	46	6	-	12			3		
2D1424 Geometric Computing in Image Analysis and Visualization	4	D	28	-	-	8				4	
2D1426 Robotics and Autonomous Systems*	5	D	16	-	-	60				4	
2D1426 Robotics and Autonomous Systems*	5	D	16	-	-	60	1				
2D1431 Machine Learning	4	C	32	-	-	20		2			
2D1432 Artificial Neural Networks and Other Learning Systems	4	D	26	-	-	16			3		
2D1435 Mathematical Modelling of Biological Systems <i>The course is given every second year and will be given in 03/04.</i>	6	D	26	-	-	20				4	
2D1620 Human-Computer Interaction, Introductory Course	4	C	18	2	-	5	1				
2E1200 Automatic Control, General Course	4	C	24	26	-	12		2			
2E1340 Digital Signal Processing	5	C	26	24	-	3		2			

2E1350 Adaptive Signal Processing	4	D	24	14	-	-			3		
2E1423 Signal Theory	5	C	24	22	-	10			3		
2E1432 Digital Communications	6	C	32	30	-	12	1	2			
2G1506 Programming with Processes <i>Is given for last time 2003/2004. The course 2G1915, Concurrent Programming, will replace.</i>	5	C	36	-	-	24	1				
2I1130 Cognitive Psychology	4	B	30	12	-	-	1				
2I1140 Artificial Intelligence	6	C	36	16	-	80			3		
2I1235 Agent Programming	4	D	18	-	-	3				4	Other 80 hours
5B1750 Optimization for E and D	4	C	28	14	-	9				4	

*The course has limited participation

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Computer Science

Biomedical Engineering D3

Code Name	Credits	Level	Lec	Tut	Le	Lab	Periods				Other
							1	2	3	4	
Compulsory Courses											
7E1200 Cellular and Molecular Biology*_	10	C	80	-	-	8			3	4	
7E1201 Neuroscience*_	5	C	60	-	-	30				4	

*The course has limited participation

Biomedical Engineering D4

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 Seminars 24 h Seminars
Elective Courses											
2D1266 Mathematical Models, Analysis and Simulation Part I	5	C	48	-	-	26	1	2			
2D1420 Computer Vision, Basic Course	5	D	46	6	-	12			3		
2D1432 Artificial Neural Networks and Other Learning Systems	4	D	26	-	-	16			3		
2D1435 Mathematical Modelling of Biological Systems <i>The course is given every second year and will be given in 03/04.</i>	6	D	26	-	-	20				4	
2D1450 Algorithmic Bioinformatics	4	D	36	-	-	-				4	
2F1510 Pattern Recognition	4	D	24	24	-	-	1				
5A1352 Complex Systems <i>Under bearbetning</i>	4	D	24	-	-	-	1				
7E1120 Biomedical Engineering, Basic Course	5	C	30	-	-	-	1				

*The course has limited participation

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Computer Science

Computer Security D3

Code Name	Credits	Level	Lec	Tut	Le	Lab	Periods				Other	
							1	2	3	4		
Compulsory Courses												
2I1272 Security Architecture for Open Distributed Systems	4	D	24	-	-	-				4	Research Assignment 24h, Extra Reading Materials 36h	
2I1273 Principles of Computer Security	4	D	24	-	-	12			3		Seminar paper 24 hours	
2I1274 Security Protocols and Applications in Computer Network	4	D	24	-	-	24				4	Extra reading material 36 hours	
Recommended Courses												
2I1263 Internet Application Protocols and Standards	4	B	24	-	-	20			3		120h	

Computer Security D4

Code Name	Credits	Level	Lec	Tut	Le	Lab	Periods				Other
							1	2	3	4	
Recommended Courses											
2D1440 Advanced Algorithms	4	D	30	-	-	-		2			
2G1516 Formal Methods <i>Replaces 2G1301 from 2003/2004</i>	5	D	24	24	-	18		2			
2I1263 Internet Application Protocols and Standards	4	B	24	-	-	20			3		120h
2I1276 Security for Java Environment and Electronic Commerce	4	D	21	8	3	-		2			Extra Reading Materials 36h, Research Project 24h

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Uppdaterad: 2003-03-01

Kungl Tekniska Högskolan

Studentwebben

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Computer Science

Computer Systems D3

Code Name	Credits	Level	Lec	Tut	Le	Lab	Periods				Other
							1	2	3	4	
Elective Courses											
2G1316 Data and Computer Communication	4	C	24	18	-	12			3		
2G1504 Operating Systems <i>Replaces 2G1113</i>	4	C	24	18	-	12				4	

Computer Systems D4

Code Name	Credits	Level	Lec	Tut	Le	Lab	Periods				Other
							1	2	3	4	
Compulsory Courses											
2G1509 Distributed Systems, Basic Course	5	D	24	-	-	-			3		Project work 5 hours
2G1510 Computer Architecture Fundamentals	5	C	18	12	-	4		2			Seminar 4h
2G1511 Computer Architecture	6	D	42	-	-	12			3	4	Individual project guidance: 2-5 h/ student Home study time: 180 h
2G1513 Distributed Systems, Advanced Course <i>Replaces 2G1126 from 2003/2004</i>	5	D	-	-	-	-				4	
Elective Courses											
2B1512 Digital Design with HDL	6	D	30	-	-	60	1	2			
2G1114 Parallel Computer Systems	5	D	-	-	24	-		2			Individual project guidance: 2-5 h/ student. Home study time: 150 h
2G1117 Semantics for Programming Languages	4	D	18	18	-	-	1				
2G1118 Network Programming with Java	4	D	20	10	-	8		2			
2G1121 Logic Programming	4	D	16	8	-	-	1				Individual work on project
2G1506 Programming with Processes <i>Is given for last time 2003/2004. The course 2G1915, Concurrent Programming, will replace.</i>	5	C	36	-	-	24	1				

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Formal Design Techniques D3

Code Name	Credits	Level	Lec	Tut	Le	Lab	Periods				Other
							1	2	3	4	
Elective Courses											
2D1373 Artificial Languages and Syntax Analysis	4	C	24	-	-	16			3		
2G1316 Data and Computer Communication	4	C	24	18	-	12			3		
2G1504 Operating Systems <i>Replaces 2G1113</i>	4	C	24	18	-	12				4	
2I1273 Principles of Computer Security	4	D	24	-	-	12			3		Seminar paper 24 hours
5B1305 Applied Combinatorics	4	D	-	-	42	-				4	
5B1750 Optimization for E and D	4	C	28	14	-	9				4	

Formal Design Techniques D4

Code Name	Credits	Level	Lec	Tut	Le	Lab	Periods				Other
							1	2	3	4	
Compulsory Courses											
2G1117 Semantics for Programming Languages	4	D	18	18	-	-	1				
2G1516 Formal Methods <i>Replaces 2G1301 from 2003/2004</i>	5	D	24	24	-	18		2			
2G1517 Advanced System Modelling and Analysis Techniques	5	D	28	-	-	-				4	
Elective Courses											
2D1440 Advanced Algorithms	4	D	30	-	-	-		2			
2D1446 Complexity Theory <i>The course is given every second year and will be given in 03/04.</i>	4	D	30	-	-	-				4	
2D1449 Foundations of Cryptography	4	D	30	-	-	-			3		
2G1121 Logic Programming	4	D	16	8	-	-	1				Individual work on project
2G1318 Queuing Theory and Teletraffic Systems	4	D	24	24	-	-		2			
2G1505 Theory of Automata	4	D	18	12	-	-		2			
2G1506 Programming with Processes <i>Is given for last time 2003/2004. The course 2G1915, Concurrent Programming, will replace.</i>	5	C	36	-	-	24	1				

2G1508 Compilers and Virtual Machines	4	C	24	24	-	16	2		
2G1515 Constraint Programming	5	D	24	-	-	-	3		Project work 10 hours
2I1273 Principles of Computer Security	4	D	24	-	-	12	3		Seminar paper 24 hours

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The Philosophy of Information D4

Code Name	Credits	Level	Lec	Tut	Le	Lab	Periods				Other
							1	2	3	4	
Compulsory Courses											
1N1107 Information Analysis	5	C	16	14	-	-				4	
1N1108 Computer- and Information Ethics	5	C	20	10	-	-			3		
1N1112 Human and Machine Rationality <i>The course will be given from 03/04</i>	5	D	20	10	-	-	1				
1N1113 Aesthetics and Technology <i>The course will be given from 03/04</i>	5	C	20	10	-	-		2			
Elective Courses											
1H1601 Mathematics and Reality	5	C	20	10	-	-			3		
1H1604 Philosophy of Risk	5	C	18	-	-	-		2			12 h Seminars
1N1106 Philosophy of Science	5	D	20	-	-	6				4	4 h Seminars4 h Seminars
1N1111 The Epistemology of Technology	5	D	20	-	-	-				4	10 h Seminars
2D1400 Interactive Media for Computer Scientists	5	D	-	-	-	-	1				
2D1410 User Centered Program Development	6	D	30	-	-	-			3	4	14 h Seminars14 h Seminars
2D1418 Language Engineering	4	D	42	-	-	12	1				
2D1432 Artificial Neural Networks and Other Learning Systems	4	D	26	-	-	16			3		
2D1441 Seminars on Theoretical Computer Science <i>The course is given every second year and will not be given in 03/ 04.</i>	4	D	30	-	-	-					
2D1620 Human-Computer Interaction, Introductory Course	4	C	18	2	-	5	1				
2D1622 Human-Computer Interaction, Second Course	4	C	18	2	-	5		2			
2I1229 Knowledge Management	4	D	28	-	-	18				4	70h
2I1234 Machine Learning	4	D	36	-	-	-				4	
2I1236 Intelligent Interfaces <i>Replaced by 2I1237</i>	4	D	36	-	-	-			3	4	

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Computer Science

Information Systems and Computer Base Technology D3

Code Name	Credits	Level	Lec	Tut	Le	Lab	Periods				Other
							1	2	3	4	
Compulsory Courses											
211040 Knowledge and Software Reuse	4	C	18	18	-	40			3		
211224 Data Warehousing	4	D	15	10	-	30				4	
211229 Knowledge Management	4	D	28	-	-	18				4	70h
211242 Models and Languages for Object and Web Databases	5	D	21	15	70	70			3		
Elective Courses											
211140 Artificial Intelligence	6	C	36	16	-	80			3		
211236 Intelligent Interfaces <i>Replaced by 211237</i>	4	D	36	-	-	-			3	4	
211251 Theory of Software Metrics	4	D	13	-	-	60			3	4	
211258 Large-Scale Software Engineering	5	D	20	-	-	100			3	4	
211263 Internet Application Protocols and Standards	4	B	24	-	-	20			3		120h
211272 Security Architecture for Open Distributed Systems	4	D	24	-	-	-				4	Research Assignment 24h, Extra Reading Materials 36h
211273 Principles of Computer Security	4	D	24	-	-	12			3		Seminar paper 24 hours
211274 Security Protocols and Applications in Computer Network	4	D	24	-	-	24				4	Extra reading material 36 hours

Information Systems and Computer Base Technology D4

Code Name	Credits	Level	Lec	Tut	Le	Lab	Periods				Other
							1	2	3	4	
Compulsory Courses											
211040 Knowledge and Software Reuse	4	C	18	18	-	40			3		
211224 Data Warehousing	4	D	15	10	-	30				4	
211228 Enterprise Computing and ERP Systems	5	D	14	12	-	60	1				80h
211229 Knowledge Management	4	D	28	-	-	18				4	70h
211242 Models and Languages for Object and Web Databases	5	D	21	15	70	70			3		
Elective Courses											
211140 Artificial Intelligence	6	C	36	16	-	80			3		

211236 Intelligent Interfaces <i>Replaced by 211237</i>	4	D	36	-	-	-			3	4	
211251 Theory of Software Metrics	4	D	13	-	-	60			3	4	
211256 Current Problems in Software Engineering	4	D	-	-	-	-	1	2	3	4	160h
211258 Large-Scale Software Engineering	5	D	20	-	-	100			3	4	
211263 Internet Application Protocols and Standards	4	B	24	-	-	20			3		120h
211264 Internet Programming I	4	D	2	-	-	160	1				
211265 Internet Programming II	4	D	2	-	-	160		2			
211266 Internet Programming III <i>Replaced by 211803</i>	4	D	-	-	-	160				4	
211272 Security Architecture for Open Distributed Systems	4	D	24	-	-	-				4	Research Assignment 24h, Extra Reading Materials 36h
211273 Principles of Computer Security	4	D	24	-	-	12			3		Seminar paper 24 hours
211274 Security Protocols and Applications in Computer Network	4	D	24	-	-	24				4	Extra reading material 36 hours
211276 Security for Java Environment and Electronic Commerce	4	D	21	8	3	-		2			Extra Reading Materials 36h, Research Project 24h
211278 Computer Security - Overview	4	D	24	-	-	-	1				Extra Reading Materials 36h

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Intelligent Interactive Systems D3

Code Name	Credits	Level	Lec	Tut	Le	Lab	Periods				Other
							1	2	3	4	
Compulsory Courses											
2I1140 Artificial Intelligence	6	C	36	16	-	80			3		
2I1234 Machine Learning	4	D	36	-	-	-				4	
2I1235 Agent Programming	4	D	18	-	-	3				4	Other 80 hours
2I1236 Intelligent Interfaces <i>Replaced by 2I1237</i>	4	D	36	-	-	-			3	4	
Recommended Courses											
2I1263 Internet Application Protocols and Standards	4	B	24	-	-	20			3		120h

Intelligent Interactive Systems D4

Code Name	Credits	Level	Lec	Tut	Le	Lab	Periods				Other
							1	2	3	4	
Recommended Courses											
2I1130 Cognitive Psychology	4	B	30	12	-	-	1				
2I1150 Theory of Knowledge and Philosophy of Science <i>not given 03/04</i>	4	B	30	12	-	80					
2I1263 Internet Application Protocols and Standards	4	B	24	-	-	20			3		120h
2I1264 Internet Programming I	4	D	2	-	-	160	1				
2I1265 Internet Programming II	4	D	2	-	-	160		2			

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Internet Working Technology D3

Code Name	Credits	Level	Lec	Tut	Le	Lab	Periods				Other
							1	2	3	4	
Elective Courses											
<u>2G1330 Wireless and Mobile Network Architectures</u>	5	D	10	-	-	-				4	Assigned paper 50h

Internet Working Technology D4

Code Name	Credits	Level	Lec	Tut	Le	Lab	Periods				Other
							1	2	3	4	
Compulsory Courses											
2D1490 IP Routing in Simple Computer Networks*_	5	D	32	8	-	32			3		
Elective Courses											
2D1390 Internet Programming	4	C	28	-	-	26		2			
2D1491 IP-routing in Internet and Other Complex Networks*_	5	D	32	8	-	32				4	
2D1492 Net Design, Project Course	6	D	10	4	-	8	1	2			
2G1305 Internetworking	4	D	20	20	-	26			3		
2G1318 Queuing Theory and Teletraffic Systems	4	D	24	24	-	-		2			
2G1332 Management of Network and Networked Systems	5	D	20	-	-	20	1				
2G1504 Operating Systems <i>Replaces 2G1113</i>	4	C	24	18	-	12				4	

*The course has limited participation

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Communication Systems D3

Code Name	Credits	Level	Lec	Tut	Le	Lab	Periods				Other
							1	2	3	4	
Compulsory Courses											
2G1305 <u>Internetworking</u>	4	D	20	20	-	26			3		
2G1316 <u>Data and Computer Communication</u>	4	C	24	18	-	12			3		
2G1504 <u>Operating Systems</u> <i>Replaces 2G1113</i>	4	C	24	18	-	12				4	

Communication Systems D4

Code Name	Credits	Level	Lec	Tut	Le	Lab	Periods				Other
							1	2	3	4	
Compulsory Courses											
2G1319 Communication System Design <i>Replaces 2G1303. Also given as 2G1711, 12 credits; 2G1712, 16 credits and 2G1713, 20 credits</i>	10	D	-	-	-	-			3	4	Project work 400h
2G1711 Communication System Design	12	D	-	-	-	-			3	4	
2G1712 Communication System Design	16	D	-	-	-	-			3	4	
2G1713 Communication System Design	20	D	-	-	-	-			3	4	
Elective Courses											
2G1318 Queuing Theory and Teletraffic Systems	4	D	24	24	-	-		2			
2G1330 Wireless and Mobile Network Architectures	5	D	10	-	-	-				4	Assigned paper 50h
2G1332 Management of Network and Networked Systems	5	D	20	-	-	20	1				
2G1506 Programming with Processes <i>Is given for last time 2003/2004. The course 2G1915, Concurrent Programming, will replace.</i>	5	C	36	-	-	24	1				
2G1510 Computer Architecture Fundamentals	5	C	18	12	-	4		2			Seminar 4h
2G1516 Formal Methods <i>Replaces 2G1301 from 2003/2004</i>	5	D	24	24	-	18		2			

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Human-Computer Interaction D3

Code Name	Credits	Level	Lec	Tut	Le	Lab	Periods				Other	
							1	2	3	4		
Compulsory Courses												
2D1953 Graphics and Interaction Programming	4	C	30	6	-	28			3			
Elective Courses												
4K1401 History of Technology, a General Survey	4	B	12	-	-	-			3		12 h Seminars12 h Seminars	

Human-Computer Interaction D4

Code Name	Credits	Level	Lec	Tut	Le	Lab	Periods				Other	
							1	2	3	4		
Compulsory Courses												
2D1408 Evaluation Methods in Human-Computer Interaction*	4	D	10	19	-	-			3	4	2 h Seminars2 h Seminars	
2D1410 User Centered Program Development	6	D	30	-	-	-			3	4	14 h Seminars14 h Seminars	
2D1416 Computer Supported Cooperative Work <i>Given every second year. Not given 03/ 04.</i>	6	D	30	-	-	15						
2D1620 Human-Computer Interaction, Introductory Course	4	C	18	2	-	5	1					
2D1622 Human-Computer Interaction, Second Course	4	C	18	2	-	5		2				
Elective Courses												
2D1378 Text and Image Processing	4	B	28	28	-	-	1					
2D1381 Industrial Applications of Artificial Intelligence	4	C	36	-	-	-			3	4		
2D1413 Advanced Graphics and Interaction	6	D	50	-	-	12	1	2				
2D1418 Language Engineering	4	D	42	-	-	12	1					
2D1420 Computer Vision, Basic Course	5	D	46	6	-	12			3			
2D1518 Audio, Video and Multimedia Production*	5	C	30	-	-	40		2	3			
2D1521 Communication and Information*	5	C	21	24	-	-			3			
2F1111 Speech Technology	4	D	36	14	-	6			3			
2I1130 Cognitive Psychology	4	B	30	12	-	-	1					

2I1150 Theory of Knowledge and Philosophy of Science <i>not given 03/04</i>	4	B	30	12	-	80					
4D1093 Psychology for Engineers <i>Replaces 4D1088 Technical Work Psychology</i>	4	B	24	6	-	4		2			

*The course has limited participation

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Software Systems Technology D3

Code Name	Credits	Level	Lec	Tut	Le	Lab	Periods				Other
							1	2	3	4	
Elective Courses											
2D1373 Artificial Languages and Syntax Analysis	4	C	24	-	-	16			3		
2D1450 Algorithmic Bioinformatics	4	D	36	-	-	-				4	
2D1470 Object Oriented Database Systems	5	D	24	24	-	-				4	
2D1482 Programming of Web Server Applications*	4	D	12	-	-	26				4	
2G1504 Operating Systems <i>Replaces 2G1113</i>	4	C	24	18	-	12				4	
2I1140 Artificial Intelligence	6	C	36	16	-	80			3		
5B1305 Applied Combinatorics	4	D	-	-	42	-				4	

*The course has limited participation

Software Systems Technology D4

Code Name	Credits	Level	Lec	Tut	Le	Lab	Periods				Other
							1	2	3	4	
Elective Courses											
2D1373 Artificial Languages and Syntax Analysis	4	C	24	-	-	16			3		
2D1375 Implementation of Programming Languages	4	D	2	-	-	-	1	2			
2D1381 Industrial Applications of Artificial Intelligence	4	C	36	-	-	-			3	4	
2D1387 Program System Construction Using C++	4	C	18	6	-	30	1	2			
2D1390 Internet Programming	4	C	28	-	-	26		2			
2D1410 User Centered Program Development	6	D	30	-	-	-			3	4	14 h Seminars14 h Seminars
2D1418 Language Engineering	4	D	42	-	-	12	1				
2D1431 Machine Learning	4	C	32	-	-	20		2			
2D1440 Advanced Algorithms	4	D	30	-	-	-		2			
2D1450 Algorithmic Bioinformatics	4	D	36	-	-	-				4	
2D1458 Problem Solving and Programming under Pressure	6	C	24	-	-	52	1	2			

2D1469 Database Theory	4	D	24	24	-	-	1				
2D1470 Object Oriented Database Systems	5	D	24	24	-	-				4	
2D1482 Programming of Web Server Applications*	4	D	12	-	-	26				4	
2G1117 Semantics for Programming Languages	4	D	18	18	-	-	1				
2G1504 Operating Systems <i>Replaces 2G1113</i>	4	C	24	18	-	12				4	
2G1506 Programming with Processes <i>Is given for last time 2003/2004. The course 2G1915, Concurrent Programming, will replace.</i>	5	C	36	-	-	24	1				
2G1516 Formal Methods <i>Replaces 2G1301 from 2003/2004</i>	5	D	24	24	-	18		2			
2I1140 Artificial Intelligence	6	C	36	16	-	80			3		
5B1305 Applied Combinatorics	4	D	-	-	42	-				4	

*The course has limited participation

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Soft Ware Technology D3

Code Name	Credits	Level	Lec	Tut	Le	Lab	Periods				Other	
							1	2	3	4		
Compulsory Courses												
2I1028 <u>Introduction to Software Engineering</u>	4	B	15	-	-	-			3		tutorials 6h, project work 120	
2I1251 <u>Theory of Software Metrics</u>	4	D	13	-	-	60			3	4		
2I1255 <u>Quality Models and Standards</u>	4	D	21	-	-	140			3	4		
2I1258 <u>Large-Scale Software Engineering</u>	5	D	20	-	-	100			3	4		
Recommended Courses												
2D1410 <u>User Centered Program Development</u>	6	D	30	-	-	-			3	4	14 h Seminars14 h Seminars	

Soft Ware Technology D4

Code Name	Credits	Level	Lec	Tut	Le	Lab	Periods				Other
							1	2	3	4	
Compulsory Courses											
2I1251 <u>Theory of Software Metrics</u>	4	D	13	-	-	60			3	4	
2I1255 <u>Quality Models and Standards</u>	4	D	21	-	-	140			3	4	
2I1258 <u>Large-Scale Software Engineering</u>	5	D	20	-	-	100			3	4	
Recommended Courses											
2D1410 <u>User Centered Program Development</u>	6	D	30	-	-	-			3	4	14 h Seminars 14 h Seminars
2I1228 <u>Enterprise Computing and ERP Systems</u>	5	D	14	12	-	60	1				80h
2I1256 <u>Current Problems in Software Engineering</u>	4	D	-	-	-	-	1	2	3	4	160h
2I1278 <u>Computer Security - Overview</u>	4	D	24	-	-	-	1				Extra Reading Materials 36h
Elective Courses											
2I1259 <u>Value-Based Software Engineering</u>	5	D	28	-	-	-				4	Seminar 14 h

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Publishing Technology D3

Code Name	Credits	Level	Lec	Tut	Le	Lab	Periods				Other
							1	2	3	4	
Compulsory Courses											
2D1521 Communication and Information*_	5	C	21	24	-	-			3		
2D1522 Computer Technology and Communication*_	4	C	30	-	-	20				4	
2D1526 Publishing Technology, General Course	6	C	60	-	-	20			3		30h; A one week study tour is made in period 4.

*The course has limited participation

Publishing Technology D4

Code Name	Credits	Level	Lec	Tut	Le	Lab	Periods				Other
							1	2	3	4	
Compulsory Courses											
2D1515 Machinery and Materials in Graphic Arts Technology	6	C	50	12	-	12		2			
2D1517 XML for Publishing*_	5	D	30	-	-	40	1	2			
2D1518 Audio, Video and Multimedia Production*_	5	C	30	-	-	40		2	3		
2D1524 Image Processing and Reprographic Methods*_ <i>Limited number of participants</i>	6	C	50	16	-	24	1				
2D1527 Publishing Technology, Advanced Course <i>Open only to students of the specialization Publishing Technology.</i>	10	D	100	80	-	32			3	4	

*The course has limited participation

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Theoretical Computer Science D3

Code Name	Credits	Level	Lec	Tut	Le	Lab	Periods				Other	
							1	2	3	4		
Elective Courses												
2D1373 Artificial Languages and Syntax Analysis	4	C	24	-	-	16			3			
2D1450 Algorithmic Bioinformatics	4	D	36	-	-	-				4		
2E1423 Signal Theory	5	C	24	22	-	10			3			
2I1140 Artificial Intelligence	6	C	36	16	-	80			3			
5B1305 Applied Combinatorics	4	D	-	-	42	-				4		
5B1750 Optimization for E and D	4	C	28	14	-	9				4		

Theoretical Computer Science D4

Code Name	Credits	Level	Lec	Tut	Le	Lab	Periods				Other
							1	2	3	4	
Elective Courses											
2D1373 Artificial Languages and Syntax Analysis	4	C	24	-	-	16			3		
2D1440 Advanced Algorithms	4	D	30	-	-	-		2			
2D1441 Seminars on Theoretical Computer Science <i>The course is given every second year and will not be given in 03/ 04.</i>	4	D	30	-	-	-					
2D1446 Complexity Theory <i>The course is given every second year and will be given in 03/04.</i>	4	D	30	-	-	-				4	
2D1449 Foundations of Cryptography	4	D	30	-	-	-			3		
2D1450 Algorithmic Bioinformatics	4	D	36	-	-	-				4	
2D1458 Problem Solving and Programming under Pressure	6	C	24	-	-	52	1	2			
2E1423 Signal Theory	5	C	24	22	-	10			3		
2G1117 Semantics for Programming Languages	4	D	18	18	-	-	1				
2G1121 Logic Programming	4	D	16	8	-	-	1				Individual work on project
2G1506 Programming with Processes <i>Is given for last time 2003/2004. The course 2G1915, Concurrent Programming, will replace.</i>	5	C	36	-	-	24	1				

2G1516 Formal Methods <i>Replaces 2G1301 from 2003/2004</i>	5	D	24	24	-	18	2			
2I1140 Artificial Intelligence	6	C	36	16	-	80		3		
5B1305 Applied Combinatorics	4	D	-	-	42	-			4	
5B1309 Algebra, Basic Course	4	C	42	-	-	-		3		
5B1475 Combinatorics, Advanced Course <i>Given 03/04.</i>	5	D	36	-	-	-	1	2		
5B1750 Optimization for E and D	4	C	28	14	-	9			4	

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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 Fundamentals of Programming	6	AB	36	36	-	36			3	4	
4F1811 Design an product realisation	6	A	30	50	-	40	1	2			
5A1226 Physics I	6	AB	38	-	-	30	1	2			
5B1132 Analytical methods and linear algebra I	8	AB	80	40	-	-	1	2			
5B1133 Analyticak methods and linear algebra II	8	AB	80	40	-	-			3	4	
5C1130 Mechanics I	6	AB	48	-	27	-			3	4	
Recommended Courses											
5B1120 Introductory Course in Mathematics I	1	A	-	-	-	-					

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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	B	-	-	-	-			3		
2B1520 Electronics	8	C	-	-	-	-	1				
2D1343 Computer Science	8	A	40	26	-	26		2	3		
2U1700 Project Course in Electrical Engineering	5	B	12	-	-	50			3	4	
5B1115 Mathematics I	6	B	-	-	-	-	1				
5B1116 Mathematics II	6	B	-	-	-	-		2			
5B1117 Mathematics III	6	B	-	-	-	-			3	4	
5C1102 Mechanics, Smaller Course	4	B	30	15	-	-		2			
Elective Courses											
2E1215 Introductory Matlab Course	1	A	4	-	-	-			3		Computer 8h
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	C	24	24	-	-	1				
2A1820 Electromagnetic Theory EB	4	C	24	24	-	-			3		
2B1100 Physics part 1, Thermodynamics and Wave Physics	4	B	-	-	-	-			3		
2B1520 Electronics	8	C	-	-	-	-				4	
2D1240 Numerical Methods, Basic Course II	4	B	28	14	-	18	1	2			
2D1343 Computer Science	8	A	4	-	-	-	1				
2E1117 Measurement Technology <i>2 cr are studied during the second year and 3 cr during the third year.</i>	5	C	10	6	-	8			3		Räknestuga 4h
2E1313 Signals and Systems, part II	5	C	30	24	-	4				4	10 h Computer10 h Computer
5B1209 Signals and Systems, part I	5	C	-	-	-	-		2			
5B1501 Probability Theory and Statistics	4	C	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	B	-	-	-	-	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.</i>	5	C	10	8	-	12	1	2			Räknestuga 8h
2E1211 <u>Automatic Control, Basic Course E</u>	4	C	24	26	-	12		2			
5B1307 <u>Linear Algebra, Basic Course</u>	4	D	48	14	-	-	1				
Elective Courses											
2B1430 <u>Design of Digital Integrated Circuits - LSI</u> <i>Given at Campus Valhallavägen</i>	5	C	20	8	-	32				4	
2B1455 <u>Anatomy of EDA CAD-tools</u>	5	D	24	6	-	-			3		
2C1114 <u>Wind Power Systems</u>	4	C	58	-	-	-			3	4	
2D1220 <u>Applied Numerical Methods I</u>	4	C	40	-	-	20			3	4	
2D1323 <u>Computer Graphics and Interaction</u>	4	C	42	-	-	12				4	
2D1334 <u>Database Technology</u>	4	C	24	20	-	12			3	4	
2E1126 <u>Measurement Systems, Project Course</u>	4	C	6	-	-	50			3		
2E1135 <u>Micro System Technology*</u>	5	D	28	-	-	40				4	Industry Site Visit 4h
2E1245 <u>Hybrid and Embedded Control Systems</u>	5	D	28	28	-	-			3		
2E1252 <u>Control Theory and Practice, Advanced Course</u>	5	D	28	26	-	8			3		
2E1282 <u>Modelling of Dynamical Systems</u>	4	C	24	24	-	12				4	
3C1320 <u>Environment and Technology</u>	4	AB	24	3	-	-			3		
4D1024 <u>Industrial Economy and Management, Basic Course</u>	4	A	26	18	-	-			3		4 h Seminars4 h Seminars
5A1320 <u>Introduction to Quantum Mechanics</u> <i>Under bearbetning</i>	4	C	30	24	-	-					
5A1340 <u>Thermodynamics and Statistical Mechanics, Basic Course</u> <i>Under bearbetning</i>	4	C	30	24	-	-					

*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											
2A1170 Chaos and Self-organization <i>The course can not be given 03/ 04.</i>	4	D	32	17	-	-					
2B1430 Design of Digital Integrated Circuits - LSI <i>Given at Campus Valhallavägen</i>	5	C	20	8	-	32				4	
2B1453 Design of Fault-tolerant Systems	4	D	24	6	-	-				4	
2B1455 Anatomy of EDA CAD-tools	5	D	24	6	-	-			3		
2C1114 Wind Power Systems	4	C	58	-	-	-			3	4	
2C1149 Electric Traction	4	C	36	-	-	-				4	
2C1224 Management of Technology	5	D	32	20	-	-	1				
2C1243 Hybrid Drive Systems	5	C	-	-	-	-			3		
2D1220 Applied Numerical Methods I	4	C	40	-	-	20			3	4	
2D1274 Computational Electromagnetics <i>Not on the central schedule. May not be given in 03/ 04.</i>	5	D	24	-	-	12	1	2			
2D1323 Computer Graphics and Interaction	4	C	42	-	-	12				4	
2D1334 Database Technology	4	C	24	20	-	12			3	4	
2D1620 Human-Computer Interaction, Introductory Course	4	C	18	2	-	5	1				
2D1622 Human-Computer Interaction, Second Course	4	C	18	2	-	5		2			
2E1126 Measurement Systems, Project Course	4	C	6	-	-	50			3		
2E1135 Micro System Technology*	5	D	28	-	-	40				4	Industry Site Visit 4h
2E1245 Hybrid and Embedded Control Systems	5	D	28	28	-	-			3		
2E1252 Control Theory and Practice, Advanced Course	5	D	28	26	-	8			3		
2E1262 Nonlinear Control	5	D	28	28	-	8		2			
2E1282 Modelling of Dynamical Systems	4	C	24	24	-	12				4	
2E1380 Seminars in Signals, Sensors and Systems	2	D	-	-	-	-			3	4	16 h Seminars16 h Seminars
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
2F1300 Perception of Sound	5	D	24	12	-	12	1			
2F1400 Electroacoustics	4	D	34	12	-	8	1			
2F1410 Audio Technology	5	D	30	12	-	12		2		20 h Projektuppgift20 h Projektuppgift
2G1114 Parallel Computer Systems	5	D	-	-	24	-		2		Individual project guidance: 2-5 h/ student. Home study time: 150 h
2G1117 Semantics for Programming Languages	4	D	18	18	-	-	1			
2G1118 Network Programming with Java	4	D	20	10	-	8		2		
2G1121 Logic Programming	4	D	16	8	-	-	1			Individual work on project
2G1316 Data and Computer Communication	4	C	24	18	-	12			3	
2G1319 Communication System Design <i>Replaces 2G1303. Also given as 2G1711, 12 credits; 2G1712, 16 credits and 2G1713, 20 credits</i>	10	D	-	-	-	-			3 4	Project work 400h
2G1330 Wireless and Mobile Network Architectures	5	D	10	-	-	-				4 Assigned paper 50h
2G1332 Management of Network and Networked Systems	5	D	20	-	-	20	1			
2G1503 System Modeling and Simulation	6	B	24	-	-	-				4 Project work 12 h
2G1504 Operating Systems <i>Replaces 2G1113</i>	4	C	24	18	-	12				4
2G1506 Programming with Processes <i>Is given for last time 2003/2004. The course 2G1915, Concurrent Programming, will replace.</i>	5	C	36	-	-	24	1			
2G1509 Distributed Systems, Basic Course	5	D	24	-	-	-			3	Project work 5 hours
2G1510 Computer Architecture Fundamentals	5	C	18	12	-	4		2		Seminar 4h
2G1511 Computer Architecture	6	D	42	-	-	12			3 4	Individual project guidance: 2-5 h/ student Home study time: 180 h
2G1513 Distributed Systems, Advanced Course <i>Replaces 2G1126 from 2003/2004</i>	5	D	-	-	-	-				4
2I1130 Cognitive Psychology	4	B	30	12	-	-	1			
3C1320 Environment and Technology	4	AB	24	3	-	-			3	
4B1424 Vehicle systems for a better environment*	5	C	26	26	-	8		2		
4B1428 Environmental Friendly Vehicle - Project Course* <i>Under bearbetning</i>	5	D	10	-	-	-		2	3 4	
4D1024 Industrial Economy and Management, Basic Course	4	A	26	18	-	-			3	4 h Seminars4 h Seminars
5A1320 Introduction to Quantum Mechanics <i>Under bearbetning</i>	4	C	30	24	-	-				
5A1340 Thermodynamics and Statistical Mechanics, Basic Course <i>Under bearbetning</i>	4	C	30	24	-	-				
5A1412 Atomic Nuclei - Radiation - Energy <i>Under bearbetning</i>	5	B	24	-	-	15			3	

*The course has limited participation

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Electrical Engineering

Electrical Engineering E5

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

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Biomedical Engineering E3

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			3		
2E1423 Signal Theory	5	C	24	22	-	10			3		
5B1750 Optimization for E and D	4	C	28	14	-	9				4	
7E1200 Cellular and Molecular Biology*	10	C	80	-	-	8			3	4	

*The course has limited participation

Biomedical Engineering E4

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			3		
2E1423 Signal Theory	5	C	24	22	-	10			3		
5B1750 Optimization for E and D	4	C	28	14	-	9				4	
7E1120 Biomedical Engineering, Basic Course	5	C	30	-	-	-	1				
7E1200 Cellular and Molecular Biology*	10	C	80	-	-	8			3	4	
Elective Courses											
2A1140 Accelerator and Radiation Technology	4	D	36	-	-	4			3		
2B1252 Semiconductor Devices	6	C	-	-	-	-				4	
2D1426 Robotics and Autonomous Systems*	5	D	16	-	-	60	1				
2D1426 Robotics and Autonomous Systems*	5	D	16	-	-	60				4	
2D1432 Artificial Neural Networks and Other Learning Systems	4	D	26	-	-	16			3		
2D1435 Mathematical Modelling of Biological Systems <i>The course is given every second year and will be given in 03/04.</i>	6	D	26	-	-	20				4	
2D1450 Algorithmic Bioinformatics	4	D	36	-	-	-				4	
2E1135 Micro System Technology*	5	D	28	-	-	40				4	Industry Site Visit 4h
2E1340 Digital Signal Processing	5	C	26	24	-	3		2			

2E1410 Information Theory and Source Coding, Accel Program Course <i>Replaces 2F1532.</i>	5	D	36	12	-	-			3		
2E1432 Digital Communications	6	C	32	30	-	12	1	2			
2F1111 Speech Technology	4	D	36	14	-	6			3		
2F1300 Perception of Sound	5	D	24	12	-	12	1				
2F1510 Pattern Recognition	4	D	24	24	-	-	1				
5A1414 Radiation Detectors and Medical Imaging Systems <i>Under bearbetning</i>	5	D	24	6	-	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	40	-	-	-				4	
7E1115 Engineering in Intensive Care and Anesthesia*_ _	4	D	12	-	-	-			3	4	30 + 10h (field work with oral and written report)
7E1201 Neuroscience*_ _	5	C	60	-	-	30				4	
7E1202 Systems Biology*_ _	5	C	32	-	-	25		2			24 h Seminars24 h Seminars

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Electronics E3

Code Name	Credits	Level	Lec	Tut	Le	Lab	Periods				Other	
							1	2	3	4		
Conditionally Elective Courses												
2B1252 Semiconductor Devices	6	C	-	-	-	-				4		
2B1430 Design of Digital Integrated Circuits - LSI <i>Given at Campus Valhallavägen</i>	5	C	20	8	-	32				4		
2B1515 Analog Electronics, Advanced Course	5	C	30	14	-	20			3		Project work	
2E1423 Signal Theory	5	C	24	22	-	10			3			
2G1502 Computer Hardware Basics <i>replaces 2G1119 and 2G1129</i>	4	B	18	18	-	20			3	4		

Electronics E4

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	-	-	-	-				4	
2B1430 Design of Digital Integrated Circuits - LSI <i>Given at Campus Valhallavägen</i>	5	C	20	8	-	32				4	
2B1515 Analog Electronics, Advanced Course	5	C	30	14	-	20			3		Project work
2E1423 Signal Theory	5	C	24	22	-	10			3		
2G1502 Computer Hardware Basics <i>replaces 2G1119 and 2G1129</i>	4	B	18	18	-	20			3	4	
Elective Courses											
2B1230 Power Semiconductor Devices	5	D	40	-	-	-			3		Project 40h
2B1240 VLSI-technology II	5	D	24	-	-	32				4	
2B1245 Advanced VLSI-Devices	5	D	20	-	-	32				4	
2B1260 Semiconductor Theory and Device Physics, General Course	5	D	30	-	-	10	1				Individual assignments 20h
2B1310 Microwave Engineering	5	C	36	18	-	10		2			
2B1322 Fibre 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	26	-	-	20			4	
2B1427 Design of Digital Integrated Circuits - VLSI	5	D	20	8	-	32			3	
2B1429 System Modelling	5	D	20	16	-	24			3	
2B1512 Digital Design with HDL	6	D	30	-	-	60	1	2		
2B1600 Radio Electronics	5	D	26	12	-	16			4	
2B1610 Low Power Analog and Mixed Signal IC's <i>Replaced by 2B1611</i>	5	D	42	14	-	-			4	
2B1700 Advanced Semiconductor Materials	5	D	34	-	-	16			3	
2B1824 Optical Networking	5	D	28	-	-	-			4	
2C1242 Power Electronics	5	D	28	20	-	12	1			
2E1135 Micro System Technology*	5	D	28	-	-	40			4	Industry Site Visit 4h
2G1510 Computer Architecture Fundamentals	5	C	18	12	-	4		2		Seminar 4h
2G1511 Computer Architecture	6	D	42	-	-	12			3	4 Individual project guidance: 2-5 h/ student Home study time: 180 h

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Electrical Engineering E3

Code Name	Credits	Level	Lec	Tut	Le	Lab	Periods				Other
							1	2	3	4	
Conditionally Elective Courses											
2C1115 Power Systems, Basic Course	5	C	32	36	-	-			3		
2C1133 Electrotechnical Modelling	5	C	40	-	-	-				4	
5A1301 Mathematical Methods in Physics, Course I	4	C	-	54	-	-			3		
Under bearbetning											

Electrical Engineering E4

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	32	36	-	-			3		
2C1115 Power Systems, Basic Course	5	C	-	-	-	-	1				
2C1133 Electrotechnical Modelling	5	C	40	-	-	-				4	
5A1301 Mathematical Methods in Physics, Course I <i>Under bearbetning</i>	4	C	-	54	-	-	1	2			
5A1301 Mathematical Methods in Physics, Course I <i>Under bearbetning</i>	4	C	-	54	-	-			3		
5B1201 Complex Analysis	4	C	48	-	-	-	1				
Elective Courses											
2A1131 Plasma Physics	4	C	48	-	-	-	1	2			
2A1133 Plasma Physics, Enlarged Course	6	C	60	-	-	-	1	2	3		
2A1140 Accelerator and Radiation Technology	4	D	36	-	-	4			3		
2A1141 Accelerator and Radiation Technology, Enlarged Course	6	D	48	-	-	4			3	4	
2A1145 Electromagnetic Processes in Dispersive Media	4	D	24	6	-	-			3		
2A1151 Energy and Fusion Research	4	D	24	12	-	-				4	
2A1830 Applied Antenna Theory	5	D	-	-	54	14			3	4	
2B1230 Power Semiconductor Devices	5	D	40	-	-	-			3		Project 40h

2B1812 Microwave Engineering	5	D	36	18	-	10	2			
2C1111 System Planning	4	D	60	-	-	-		3		
2C1116 Power Systems, Advanced Course	5	D	72	-	-	-			4	
2C1132 High-voltage Engineering	5	C	20	-	-	8		3		Projects 50h
2C1134 Electrotechnical Design	5	C	24	-	-	8	2			
2C1148 Analysis of Electrical Machines	5	D	28	20	-	4			4	
2C1223 Industrial Information and Control Systems	4	C	36	10	-	3	2			
2C1228 Industrial Information Systems, Systems Engineering*	5	D	24	-	-	-		3		
2C1241 Electrical Machines and Drives	5	D	28	20	-	12		3		
2C1242 Power Electronics	5	D	28	20	-	12	1			
2E1252 Control Theory and Practice, Advanced Course	5	D	28	26	-	8		3		
2H1250 Electromagnetic Field Theory	5	C	-	-	72	-	1	2		
2H1255 Electromagnetic Wave Propagation	5	D	36	30	-	-		3	4	

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Systems Engineering E3

Code Name	Credits	Level	Lec	Tut	Le	Lab	Periods				Other
							1	2	3	4	
Conditionally Elective Courses											
2C1115 Power Systems, Basic Course	5	C	32	36	-	-			3		
2D1385 Software Engineering	4	C	24	12	-	18			3		
2E1282 Modelling of Dynamical Systems	4	C	24	24	-	12				4	
2E1423 Signal Theory	5	C	24	22	-	10			3		
2G1502 Computer Hardware Basics <i>replaces 2G1119 and 2G1129</i>	4	B	18	18	-	20			3	4	
5B1750 Optimization for E and D	4	C	28	14	-	9				4	

Systems Engineering E4

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	-	-	-	-	1				
2C1115 <u>Power Systems, Basic Course</u>	5	C	32	36	-	-			3		
2D1385 <u>Software Engineering</u>	4	C	24	12	-	18			3		
2E1282 <u>Modelling of Dynamical Systems</u>	4	C	24	24	-	12				4	
2E1423 <u>Signal Theory</u>	5	C	24	22	-	10			3		
2G1502 <u>Computer Hardware Basics</u> <i>replaces 2G1119 and 2G1129</i>	4	B	18	18	-	20			3	4	
5B1750 <u>Optimization for E and D</u>	4	C	28	14	-	9				4	
Elective Courses											
2C1111 <u>System Planning</u>	4	D	60	-	-	-			3		
2C1116 <u>Power Systems, Advanced Course</u>	5	D	72	-	-	-				4	
2C1223 <u>Industrial Information and Control Systems</u>	4	C	36	10	-	3		2			
2C1228 <u>Industrial Information Systems, Systems Engineering*</u>	5	D	24	-	-	-			3		
2C1229 <u>Industrial Information Systems, Case Studies*</u>	5	D	16	-	-	-				4	
2C1241 <u>Electrical Machines and Drives</u>	5	D	28	20	-	12			3		
2D1420 <u>Computer Vision, Basic Course</u>	5	D	46	6	-	12			3		

2D1426 Robotics and Autonomous Systems*	5	D	16	-	-	60			4	
2D1426 Robotics and Autonomous Systems*	5	D	16	-	-	60	1			
2D1432 Artificial Neural Networks and Other Learning Systems	4	D	26	-	-	16		3		
2E1126 Measurement Systems, Project Course	4	C	6	-	-	50		3		
2E1135 Micro System Technology*	5	D	28	-	-	40			4	Industry Site Visit 4h
2E1242 Automatic Control, Project Course*	8	D	4	-	-	50			4	
2E1245 Hybrid and Embedded Control Systems	5	D	28	28	-	-		3		
2E1252 Control Theory and Practice, Advanced Course	5	D	28	26	-	8		3		
2E1262 Nonlinear Control	5	D	28	28	-	8	2			
2E1333 Optimal Filtering, accelerated program course <i>Given every second year. Given 04/05.</i>	4	D	-	-	24	-				
2E1340 Digital Signal Processing	5	C	26	24	-	3	2			
2E1350 Adaptive Signal Processing	4	D	24	14	-	-		3		
2G1332 Management of Network and Networked Systems	5	D	20	-	-	20	1			
5B1201 Complex Analysis	4	C	48	-	-	-	1			
5B1822 Mathematical Systems Theory, Advanced Course	4	D	24	24	-	6	2			
5B1872 Optimal Control Theory	4	D	32	16	-	-		3		

*The course has limited participation

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Electrical Engineering

Wireless Systems E3

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			3		
2E1423 Signal Theory	5	C	24	22	-	10			3		
2G1316 Data and Computer Communication	4	C	24	18	-	12			3		
2G1502 Computer Hardware Basics <i>replaces 2G1119 and 2G1129</i>	4	B	18	18	-	20			3	4	
5B1750 Optimization for E and D	4	C	28	14	-	9				4	

Wireless Systems E4

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			3		
2E1423 Signal Theory	5	C	24	22	-	10			3		
2E1511 Radio Communication, Basic Course	4	D	24	24	-	8	1				
2G1316 Data and Computer Communication	4	C	24	18	-	12			3		
2G1502 Computer Hardware Basics <i>replaces 2G1119 and 2G1129</i>	4	B	18	18	-	20			3	4	
5B1750 Optimization for E and D	4	C	28	14	-	9				4	
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	C	26	24	-	3		2			
2E1350 Adaptive Signal Processing	4	D	24	14	-	-			3		
2E1367 Project Course in Signal Processing&Digital Communications	8	D	12	-	-	50				4	
2E1381 Seminars in Wireless Systems	2	D	-	-	-	-			3	4	Seminars 16h
2E1400 Speech Signal Processing <i>Replaces 2F1521.</i>	4	D	24	24	-	-		2			
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	
2G1305 Internetworking	4	D	20	20	-	26			3		
2G1318 Queuing Theory and Teletraffic Systems	4	D	24	24	-	-		2			
2G1319 Communication System Design <i>Replaces 2G1303. Also given as 2G1711, 12 credits; 2G1712, 16 credits and 2G1713, 20 credits</i>	10	D	-	-	-	-			3	4	Project work 400h
2G1330 Wireless and Mobile Network Architectures	5	D	10	-	-	-				4	Assigned paper 50h
2G1332 Management of Network and Networked Systems	5	D	20	-	-	20	1				
2H1260 Antenna Theory	5	D	26	24	-	18			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 Fundamentals of Programming	6	AB	36	36	-	36			3	4	Selfstudies MATLAB 48h Projektuppgift 52h
4B1052 Perspectives of Vehicle Engineering	6	AB	60	8	24	-	1	2			
5A1226 Physics I	6	AB	38	-	-	30	1	2			
5B1132 Analytical methods and linear algebra I	8	AB	80	40	-	-	1	2			
5B1133 Analytical methods and linear algebra II	8	AB	80	40	-	-			3	4	
5C1130 Mechanics I	6	AB	48	-	27	-			3	4	
Recommended Courses											
5B1120 Introductory Course in Mathematics I	1	A	-	-	-	-					
Elective 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											
2D1240 Numerical Methods, Basic Course II	4	B	26	18	-	20			3	4	
4C1095 Strength of Materials and Solid Mechanics, Basic Course <i>Under bearbetning</i>	8	B	52	52	-	2	1	2			
4C1096 Strength of Materials and Solid Mechanics, Advanced Course	4	C	36	14	-	4			3		
5B1202 Differential Equations and Transforms II	6	C	72	29	-	-			3	4	
5B1501 Probability Theory and Statistics	4	C	24	36	-	-				4	
5B1760 Linear and Quadratic Optimization	4	C	28	20	-	-		2			
5C1111 Mechanics, Continuation Course	4	C	30	15	-	-	1				
5C1201 Fluid Mechanics with Thermodynamics, for T	8	C	44	50	-	9	1	2	3		

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Vehicle Engineering

Vehicle Engineering T3

Code Name	Credits	Level	Lec	Tut	Le	Lab	Periods				Other
							1	2	3	4	
Compulsory Courses											
2E1200 Automatic Control, General Course	4	C	24	26	-	12		2			
3C1330 Technology and Ecosystems	4	AB	24	3	-	-	1				
4B1111 Fundamentals of Noise and Vibration Control T	4	C	31	32	-	4		2			
4F1222 Electrical Engineering, Basic Course T	6	B	18	27	-	26		2	3		
4F1531 Machine Elements, basic course for I and T	4	B	24	40	-	-	1				
4H1057 Engineering Materials	4	B	24	-	-	15	1				
Elective Courses											
2C1111 System Planning	4	D	60	-	-	-			3		
2C1114 Wind Power Systems	4	C	58	-	-	-			3	4	
2D1250 Applied Numerical Methods II	6	C	-	-	56	24			3	4	
2D1263 Program Construction for Scientific Computing <i>Will not be on the central schedule.</i>	4	C	24	-	-	12			3	4	
2D1522 Computer Technology and Communication*	4	C	30	-	-	20				4	
3C1395 Sustainable Development	4	C	10	9	-	-		2			
3D1112 Fiber Technology	4	C	26	-	-	15				4	
3E1324 Polymer Materials - Properties and Applications	4	C	30	12	-	10				4	
4A1601 Heat Transfer	4	C	24	24	-	20			3		
4A1603 Energy Technology	4	C	48	12	-	-				4	
4B1120 Signal Analysis with Applications	5	D	-	24	-	22				4	
4D1026 Industrial Economy and Management, Basic Course	4	A	20	16	-	-		2			4 h Seminars 4 h Seminars
4D1051 Commercial Law	4	B	18	14	-	-			3		
4D1094 Work Science	2	A	12	-	-	-		2			
4E1102 Lightweight Structures and FEM I	5	C	64	-	-	12			3	4	
4E1401 Introduction to Naval Architecture	5	C	46	10	-	10			3	4	
4F1241 Microcomputer, Sensors and Actuators	6	C	18	26	-	29				4	

4F1242 Introduction to Microcomputer Systems	4	C	12	22	-	14			4	
4F1244 Motion Control <i>The course will not be given until further notice.</i>	4	D	30	-	-	12			4	
4F1244 Motion Control <i>The course will not be given until further notice.</i>	4	D	30	-	-	12			4	
4F1530 Function Analysis and Optimization in Mechanical Engineering	5	C	-	60	-	-		3	4	One day field trip.
4F1541 CAD 3D-modelling and Visualization for Personal Computers	4	C	8	36	-	-			4	
4F1642 Modelling and Computer Support in Mechanical Design	4	C	24	36	-	-		3		
4G1134 Effective Production	6	D	25	35	-	-		3	4	
4H1202 Mechanical Metallurgy I	6	D	24	12	-	48		3	4	Home assignments
4H1204 Experimental Methods in Materials Science	5	D	10	10	-	48		3	4	
4H1504 Processing of Ceramic Materials	4	C	12	-	-	18		3		
4K1107 Production of Electronics I	4	C	36	-	-	8		3		
4K1201 Computer Aided Design and Manufacturing, Introductory course	5	C	48	-	-	24			4	Graded exercise
4K1401 History of Technology, a General Survey	4	B	12	-	-	-		3		12 h Seminars12 h Seminars
4M1335 Materials Processing, Laboratory Course	5	D	26	32	-	47		3	4	
4M1336 Physics for Materials Processing	5	C	16	16	-	-		3		Home assignments 60h
4M1345 Powder Processing and Materials Forming	4	D	30	-	-	-			4	Home assignments 80h
5B1538 Reliability Theory	6	D	-	-	72	-		3	4	
5B1540 Probability Theory	5	D	24	30	-	-			4	
5B1722 Applied Optimization	4	C	28	14	-	9		3		
5C1121 Analytical Mechanics	4	C	48	-	-	-		3		
5C1211 Vehicle Aerodynamics	4	C	16	-	-	4			4	4 h Seminars4 h Seminars
5C1214 Fluid Mechanics	5	C	-	30	30	3	1			
5C1840 Structural Dynamics	5	D	33	-	-	-			4	44 h Workshop44 h Workshop
9E1131 Information Searching for B, I, M, T	1	B	-	-	-	-		3	4	
9E1300 Technical English, Lower Intermediate Level*	4	B	-	-	56	-		3	4	
9E1301 Technical English, Intermediate Level*	6	B	-	-	56	-		3	4	
9E1320 German, Elementary Level*	4	B	-	-	56	-		3	4	
9E1322 German, Advanced Beginner's Level*	4	B	-	-	56	-		3	4	
9E1325 Technical German, Intermediate Level, E-learning	6	B	-	-	18	-		3	4	E-learning exercises
9E1330 French, Elementary Level*	4	B	-	-	56	-		3	4	
9E1332 French, Advanced Beginner's Level*	4	B	-	-	56	-		3	4	
9E1334 Technical French, Intermediate Level*	6	B	-	-	56	-		3	4	
9E1342 Spanish, Elementary Level*	4	B	-	-	56	-		3	4	

9E1346 Spanish, Advanced Beginner's Level*_	4	B	-	-	56	-			3	4	
9E1348 Technical Spanish, Intermediate Level*_	6	B	-	-	56	-			3	4	
9E1350 Italian, Elementary Level*_	4	B	-	-	56	-			3	4	

*The course has limited participation

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Kungl Tekniska Högskolan

Studentwebben

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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											
2A1140 Accelerator and Radiation Technology	4	D	36	-	-	4			3		
2A1151 Energy and Fusion Research	4	D	24	12	-	-				4	
2A1160 Space Physics	3	D	14	-	4	-	1				
2C1111 System Planning	4	D	60	-	-	-			3		
2C1114 Wind Power Systems	4	C	58	-	-	-			3	4	
2C1243 Hybrid Drive Systems	5	C	-	-	-	-			3		
2D1225 Numerical Solutions of Differential Equations	4	C	26	4	-	18	1	2			
2D1250 Applied Numerical Methods II	6	C	-	-	56	24			3	4	
2D1255 Numerical Solutions of Differential Equations	5	D	36	-	-	20			3	4	
2D1257 Visualization	4	C	20	-	-	10			3		
2D1258 Introduction to High Performance Computing* <i>Please note that the course starts in August. Will not be on the central schedule.</i>	5	C	40	-	-	40	1				
2D1260 The Finite Element Method	4	C	18	14	-	12		2			
2D1263 Program Construction for Scientific Computing <i>Will not be on the central schedule.</i>	4	C	24	-	-	12			3	4	
2D1266 Mathematical Models, Analysis and Simulation Part I	5	C	48	-	-	26	1	2			
2D1269 Mathematical Models, Analysis and Simulation, part II	5	D	48	-	-	28			3	4	
2D1297 Advanced Individual Course in Scientific Computing <i>Course may start any time during the semester.</i>	4	D	-	-	-	-					
2D1320 Applied Computer Science	4	B	30	14	-	20			3	4	
2D1323 Computer Graphics and Interaction	4	C	42	-	-	12				4	
2D1334 Database Technology	4	C	24	20	-	12			3	4	
2D1354 Algorithms and Complexity	4	C	30	18	-	-	1	2			
2D1385 Software Engineering	4	C	24	12	-	18				4	
2D1420 Computer Vision, Basic Course	5	D	46	6	-	12			3		

2D1426 Robotics and Autonomous Systems*	5	D	16	-	-	60			4	
2D1426 Robotics and Autonomous Systems*	5	D	16	-	-	60	1			
2D1432 Artificial Neural Networks and Other Learning Systems	4	D	26	-	-	16		3		
2D1520 Graphic Arts Technology, Minor Course	4	C	30	8	-	16	2			
2D1521 Communication and Information*	5	C	21	24	-	-		3		
2D1522 Computer Technology and Communication*	4	C	30	-	-	20			4	
2D1524 Image Processing and Reprographic Methods* <i>Limited number of participants</i>	6	C	50	16	-	24	1			
2E1242 Automatic Control, Project Course*	8	D	4	-	-	50			4	
2E1262 Nonlinear Control	5	D	28	28	-	8	2			
2E1291 Chemical Process Control	4	C	20	28	-	8		3		
2F1400 Electroacoustics	4	D	34	12	-	8	1			
3C1340 Environmental Technology, Advanced Course	4	C	36	6	-	-		3		
3C1350 Waste Management, Advanced Course <i>Study visit</i>	4	D	18	-	-	3			4	Project work 20h
3C1355 Ecology, Advanced Course	4	C	21	4	-	-		3	4	
3C1360 Environmental Consequences, Advanced Course	4	C	15	-	-	-	1			
3C1365 Environmental Consequences, Advanced Course II	4	D	15	15	-	40	1	2		Field exercises
3C1370 Applied Environmental Legislation	3	C	24	3	-	-		2		
3C1380 Environmental Management	4	C	21	3	-	8		3	4	Project work 8h
3C1385 Biology	4	C	30	6	-	6	1			Field exercise 8h
3C1387 Environmental Systems Analysis	4	C	16	8	-	6		2		
3C1395 Sustainable Development	4	C	10	9	-	-		2		
3E1360 Mechanical Properties of Polymers, Minor Course	4	D	24	16	-	12	1			
3E1361 Polymer Processing, Minor Course	4	D	24	8	-	18		2		
4A1140 Energy Systems and Models I	4	D	-	-	-	-			4	
4A1341 Introductory Airbreathing Propulsion	4	C	21	24	-	8		2		
4A1344 Airbreathing Propulsion, Intermediate Course I <i>Under bearbetning</i>	4	D	40	-	-	-			3	Project work 6h
4A1346 Rocket Propulsion <i>Under bearbetning</i>	4	D	36	10	-	-			4	Project work 6h
4A1347 Airbreathing Propulsion for High Speed Flight <i>Under bearbetning</i>	4	D	27	10	-	6			4	
4A1605 Sustainable Power Generation	6	D	30	48	-	18	1	2		
4A1607 Sustainable Energy Utilisation	6	D	-	-	72	16	1	2		
4A1609 Applied Energy Technology - Project Course	6	D	12	-	-	-			3	4
4A1610 Energy Management	4	D	50	-	-	-	1	2		

4A1611 Renewable Energy Technology	4	D	-	-	52	-	1				Study visit 8h
4A1613 Energy and Environment <i>Examinator: Björn Palm, Tel 790 7453</i>	4	D	50	-	-	-			3	4	Study visit 6h
4A1620 Combustion Theory	4	C	18	18	-	15	1	2			
4A1621 Modelling of Thermodynamic Systems	4	D	16	-	-	32	1	2	3	4	The course is given upon agreement
4A1623 Applied Refrigeration and Heat Pump Technology	4	D	24	24	-	16			3	4	
4A1625 Cooling of Electronics	4	D	-	-	48	-			3		
4A1626 Applied Heat and Power Technology	4	D	36	12	-	8			3	4	Project assignment 8h
4A1627 Applied Reactor Technology and Nuclear Power Safety	4	D	48	-	-	-			3	4	Study visits 12h
4A1628 Advanced Nuclear Reactor Engineering <i>Under bearbetning</i>	4	D	42	-	-	-				4	Study visits 18h
4A1629 Fluid Machinery	4	C	30	18	-	12	1	2			
4A1630 Thermal Fluid Machinery	4	D	36	12	-	12			3		
4B1127 Vibroacoustics	5	D	-	56	-	8	1	2			
4B1131 Experimental Structure Dynamics	5	D	-	58	-	12		2	3		
4B1136 Flow Acoustics	4	D	-	36	-	8			3		
4B1141 Sound and Vibration, Project Course	5	D	-	48	-	12			3	4	Study tour to industry 40h
4B1304 Railway Systems and Rail Vehicles	6	C	-	-	60	9	1	2			Project assignment 9h
4B1313 Rail Vehicle Dynamics	5	D	-	-	36	24			3		
4B1420 Ground Vehicle Engineering, Basic Course	6	C	36	36	-	-	1	2			
4B1424 Vehicle systems for a better environment*	5	C	26	26	-	8		2			
4B1425 Ground Vehicle Dynamics, Basic Course*	7	D	33	60	-	-			3	4	
4B1428 Environmental Friendly Vehicle - Project Course* <i>Under bearbetning</i>	5	D	10	-	-	-		2	3	4	
4C1110 Material Mechanics	4	D	52	-	-	3	1				
4C1111 Fracture Mechanics and Fatigue	4	D	48	-	-	4				4	
4C1116 Dynamic Problems in Solid Mechanics <i>Under bearbetning</i>	4	D	42	-	-	8			3	4	
4C1118 Non-linear Theory of Elasticity	2	D	12	12	-	-				4	
4C1119 Finite Element Method, Project Course <i>Under bearbetning</i>	2	D	8	-	-	-			3		
4C1120 Experimental methods in mechanics	4	D	20	-	-	20			3		Seminars 4h
4D1027 Industrial Economics and Management, Basic Course	4	A	20	16	-	-		2			4 h Seminars 4h 4 h Seminars
4D1032 Production <i>Replaces 4D1030 Industrial Production and 4D1136 Production</i>	4	B	36	12	-	-				4	10 h Study visit 10 h Study visit
4D1051 Commercial Law	4	B	18	14	-	-			3		
4D1057 Advanced Patent Law	4	C	4	14	-	-	1				Seminars 14h
4D1060 Industrial Development	4	B	40	8	-	-			3		

4D1062 Industrial Marketing <i>Replaces 4D1065 Industrial Marketing and 4D1151 Marketing</i>	4	B	36	12	-	-		3		
4D1075 Work Organization and Leadership* <i>Limited attendance, selection will be made</i>	4	B	24	24	-	-		3		
4D1092 Human - Machine System	4	B	24	6	-	3		3		
4D1093 Psychology for Engineers <i>Replaces 4D1088 Technical Work Psychology</i>	4	B	24	6	-	4		2		
4D1094 Work Science	2	A	12	-	-	-		2		
4E1124 Fibre Composites I: materials and processes	4	D	40	-	-	5	1			
4E1126 Structural Design and Optimisation	4	D	36	-	-	12		3		
4E1140 Flight Dynamics and Aeroelasticity	4	D	45	15	-	4		3		
4E1150 Biomechanics and Neurronics	4	D	36	-	-	6			4	
4E1230 Elements of Aeronautics	8	c	116	-	-	4		3	4	
4E1231 Flight Mechanics	4	D	28	18	-	4	1			
4F1131 Microcomputers in Embedded Systems* <i>Limited attendance: 25</i>	5	D	-	36	-	36		3		
4F1141 Project Work in Mechatronics* <i>Limited attendance due to limited number of available projects</i>	4	C	-	-	-	-	1	2	3	4
4F1244 Motion Control <i>The course will not be given until further notice.</i>	4	D	30	-	-	12			4	
4F1340 Introduction to Fluid Power	4	C	24	24	-	9		2		
4F1343 Fluid Systems and Machines	4	C	24	24	-	12	1			
4F1430 Combustion Engines, general course*	4	C	42	6	-	12	1			
4F1431 Combustion Engines, Advanced Course*	6	D	48	-	-	28		2	3	
4F1460 Combustion Engines, Project Course <i>The course is open only to students specializing in combustion engines. Open only for students with individual specialization of Combustion engines.</i>	6	D	-	-	18	-		3	4	
4F1540 Tribology	4	C	18	9	-	5			4	
4F1541 CAD 3D-modelling and Visualization for Personal Computers	4	C	8	36	-	-			4	
4F1630 Introduction to Machine Design	5	C	24	36	-	-	1	2		
4F1631 Intermediate Machine Design Course	7	D	4	84	-	-			3	4
4F1640 Industrial Design* <i>Limited number of participants.</i>	4	C	24	36	-	-		3		
4F1640 Industrial Design*	4	C	24	36	-	-		2		
4F1641 Environmentally Adapted Product Design <i>80% participation.</i>	4	C	-	-	42	-		2		
4F1643 Eco Design Project*	4	C	-	-	-	-	1	2	3	4
4G1230 Introductory Welding Technology	4	C	24	18	-	12	1			
4G1231 Intermediate Welding Technology	4	D	24	24	-	12	1	2		
4G1246 Enlarged Welding Technology for EWE <i>Course is given upon agreement</i>	4	D	25	25	-	10	1	2	3	4

4G1540 Laser Metrology Methods and Non Destructive Testing	4	C	28	22	-	4	2			
4G1541 Measurement Technology & Statistics f Manufact. Processes	4	D	30	-	-	8		3		
4G1634 Manufacturing Engineering, Basic Course	6	C	32	20	-	12	1	2		
4H1113 Powder Metallurgy	4	D	18	18	-	12	2			
4H1301 Material Design	4	D	-	2	-	10		3	4	
4H1404 Corrosion and Surface Protection, General Course	4	C	16	12	-	12	1			
4H1405 Corrosion Science, Advanced Course	4	D	16	-	-	-		3		
4H1505 Structure and Properties of Ceramic Materials	4	D	12	-	-	18	2			
4H1609 Functional Materials	4	D	18	-	-	6	2			Study visit 8h
4H1610 Advanced Materials	4	C	18	-	-	6		3		Study visit 8h Seminars 18h
4H1702 Current Research Topics in Materials Chemistry	4	D	20	4	-	8			4	
4H1703 Materials Chemistry	4	D	20	4	-	8			4	
4H1802 Artificial Materials	4	D	20	4	-	6	1			
4H1803 Physics of Nanostructured Materials	4	D	20	4	-	6			4	
4K1107 Production of Electronics I	4	C	36	-	-	8		3		
4K1109 Principles for Product Integrated Manufacturing Systems Design	4	C	12	12	-	4	1			
4K1131 Assembly Systems <i>Under bearbetning</i>	4	C	24	20	-	12	2			
4K1202 Modelling and Interaction in CAD/CAM* <i>Maximum of 20 participants. Students of "Computer Systems for Design and Manufacturing" will have priority.</i>	5	D	-	36	-	24	1			3 Programming tasks, periods 1, 2
4K1405 Environmental History	4	B	12	-	-	-			4	12 h Seminars12 h Seminars
4K1409 History of Industry	4	B	12	-	-	-	1	2		10 h Study visit10 h Study visit
4K1601 Wood Material Science, Basic Course	5	C	36	24	-	32		3	4	
4K1602 Industrial Wood Processing, Basic Course	4	C	26	16	-	16	1			
4M1051 Project	4	D	-	160	-	-	1	2		
4M1341 Foundry Processing	4	D	12	-	-	-		3		Seminarier 24h Other 28h
4M1342 Space Systems and Technology	4	D	36	-	-	-	2			
4M1343 Materials Processing, Project Support	4	D	72	48	-	40	1	2		
4M1344 Metrology in Materials Processing	4	D	16	-	-	80	1			Seminars 16h
4M1345 Powder Processing and Materials Forming	4	D	30	-	-	-			4	Home assignments 80h
4M1346 Simulation and Modelling	4	D	10	80	-	-	1	2		
4M1370 Solidification Processing	4	D	36	24	-	-	1	2		
5A1304 Mathematical Methods in Physics <i>Not given 03/ 04</i>	6	C	-	78	-	-				
5A1370 Solid State Theory	4	D	36	-	-	-	1			

5A1414 Radiation Detectors and Medical Imaging Systems <i>Under bearbetning</i>	5	D	24	6	-	20			3	4	
5A1416 Radiation Sources for Therapy <i>Under bearbetning</i>	2	D	8	-	-	-				4	2 compulsory studyvisits
5A1590 Technical Photography <i>Under bearbetning</i>	5	D	20	-	-	36			3	4	
5B1310 Applied and Industrial Mathematics	5	D	26	-	-	-	1	2			
5B1550 Applied Mathematical Statistics	5	D	-	-	60	-			3		
5B1555 Computer Intensive Methods in Mathematical Statistics	5	D	-	-	48	-				4	
5B1574 Portfolio Theory and Risk Management	4	D	30	12	-	-	1				
5B1742 Mathematical Systems Theory	4	D	32	16	-	-	1				
5B1814 Applied Mathematical Programming - Linear Problems	4	D	18	12	-	-		2			Projektuppgift 18h
5B1816 Applied Mathematical Programming - Nonlinear Problems	4	D	18	12	-	-			3		Projektuppgift 18h
5B1822 Mathematical Systems Theory, Advanced Course	4	D	24	24	-	6		2			
5B1852 Mathematical Economics	4	D	32	16	-	-		2			
5B1872 Optimal Control Theory	4	D	32	16	-	-			3		
5C1122 Continuum Mechanics	4	C	42	-	-	-	1				
5C1123 Mathematical Methods of Mechanics, General Course	4	D	36	-	-	-		2			
5C1125 Mathematical Methods of Mechanics, Intermediate Course	2	D	-	-	-	-			3		
5C1211 Vehicle Aerodynamics	4	C	16	-	-	4				4	4 h Seminars4 h Seminars
5C1213 Applied Computational Fluid Dynamics	2	D	-	-	10	14				4	
5C1400 Nonlinear Dynamics in Mechanics	5	C	24	-	-	-			3		
5C1860 FEM Modelling	5	D	33	-	-	-		2			44 h Workshop44 h Workshop
5C1904 Advanced Modern Mechanics	4	D	24	-	-	-		2			
5C1980 Mechanics in Research and Industry <i>The course runs the entire academic year. A few lectures during fall.</i>	4	C	24	-	-	37	1	2	3	4	
5C1992 Turbulence	4,5	D	-	-	36	3			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	40	-	-	-				4	
7E1115 Engineering in Intensive Care and Anesthesia*	4	D	12	-	-	-			3	4	30 + 10h (field work with oral and written report)
7E1120 Biomedical Engineering, Basic Course	5	C	30	-	-	-	1				
7E1200 Cellular and Molecular Biology*	10	C	80	-	-	8			3	4	
7E1202 Systems Biology*	5	C	32	-	-	25		2			24 h Seminars24 h Seminars

9E1131 Information Searching for B, I, M, T	1	B	-	-	-	-	1	2			3 laborations on all together 12 hours, 1 written examination and 1 written report. The course is given regularly throughout the academic year, please refer to the web page for the course.
9E1131 Information Searching for B, I, M, T	1	B	-	-	-	-			3	4	
9E1300 Technical English, Lower Intermediate Level*_	4	B	-	-	56	-	1	2			
9E1301 Technical English, Intermediate Level*_	6	B	-	-	56	-	1	2			
9E1304 Technical English, Advanced Level*_	6	C	-	-	56	-	1	2			
9E1304 Technical English, Advanced Level*_	6	C	-	-	56	-			3	4	
9E1320 German, Elementary Level*_	4	B	-	-	56	-	1	2			
9E1322 German, Advanced Beginner's Level*_	4	B	-	-	56	-	1	2			
9E1325 Technical German, Intermediate Level, E-learning	6	B	-	-	18	-	1	2			E-learning exercises
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			
9E1332 French, Advanced Beginner's Level*_	4	B	-	-	56	-	1	2			
9E1334 Technical French, Intermediate Level*_	6	B	-	-	56	-	1	2			
9E1342 Spanish, Elementary Level*_	4	B	-	-	56	-	1	2			
9E1346 Spanish, Advanced Beginner's Level*_	4	B	-	-	56	-	1	2			
9E1350 Italian, Elementary Level*_	4	B	-	-	56	-	1	2			
9E1352 Italian, Advanced Beginner's Level*_	4	B	-	-	56	-			3	4	
9E1360 Communicative Swedish*_	4	B	-	-	56	-	1	2			

*The course has limited participation

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Vehicle Engineering

Business Development and Media Technology T3

Code Name	Credits	Level	Lec	Tut	Le	Lab	Periods				Other
							1	2	3	4	
Elective Courses											
4D1026 Industrial Economy and Management, Basic Course	4	A	20	16	-	-		2			4 h Seminars4 h Seminars
9E1300 Technical English, Lower Intermediate Level*_	4	B	-	-	56	-			3	4	
9E1301 Technical English, Intermediate Level*_	6	B	-	-	56	-			3	4	
9E1304 Technical English, Advanced Level*_	6	C	-	-	56	-			3	4	

*The course has limited participation

Business Development and Media Technology T4

Code Name	Credits	Level	Lec	Tut	Le	Lab	Periods				Other
							1	2	3	4	
Compulsory Courses											
2D1521 Communication and Information*_	5	C	21	24	-	-			3		
2D1550 Market Systems	5	C	-	-	-	-	1				Seminars 40h
2D1551 Consumer Markets <i>Open only to AFM-students.</i>	5	C	-	-	-	-	1				Seminars 40h
2D1552 Media Management	10	C	72	56	-	-	1	2	3	4	Only open for AFM-students.
2D1553 Media Production*_ <i>Only open for AFM-students.</i>	10	C	52	-	-	88		2			Only open for AFM-students.
2D1555 Information Technology and Organizations*_	5	D	39	-	-	-				4	Open only to AMF-students.
Elective Courses											
2D1334 Database Technology	4	C	24	20	-	12			3	4	

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Advanced Materials T3

Code Name	Credits	Level	Lec	Tut	Le	Lab	Periods				Other	
							1	2	3	4		
Compulsory Courses												
4H1610 <u>Advanced Materials</u>	4	C	18	-	-	6			3		Study visit 8h Seminars 18h	
4H1611 <u>Materials Optimisation and Design</u>	5	C	18	18	-	12				4	Study visits 10h	
Elective Courses												
4H1504 <u>Processing of Ceramic Materials</u>	4	C	12	-	-	18			3			

Advanced Materials T4

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

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Vehicle Engineering

Biomedical Engineering T3

Code Name	Credits	Level	Lec	Tut	Le	Lab	Periods				Other
							1	2	3	4	
Compulsory Courses											
7E1200 Cellular and Molecular Biology*_	10	C	80	-	-	8			3	4	
7E1201 Neuroscience*_	5	C	60	-	-	30				4	

*The course has limited participation

Biomedical Engineering T4

Code Name	Credits	Level	Lec	Tut	Le	Lab	Periods				Other	
							1	2	3	4		
Compulsory Courses												
7E1120 Biomedical Engineering, Basic Course	5	C	30	-	-	-	1					
7E1202 Systems Biology*_	5	C	32	-	-	25		2				24 h Seminars 24 h Seminars
Elective Courses												
2D1435 Mathematical Modelling of Biological Systems <i>The course is given every second year and will be given in 03/04.</i>	6	D	26	-	-	20					4	

*The course has limited participation

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Computer Systems for Design and Manufacturing T3

Code Name	Credits	Level	Lec	Tut	Le	Lab	Periods				Other
							1	2	3	4	
Compulsory Courses											
2D1320 Applied Computer Science	4	B	30	14	-	20			3	4	
4K1201 Computer Aided Design and Manufacturing, Introductory course	5	C	48	-	-	24				4	Graded exercise

Computer Systems for Design and Manufacturing T4

Code Name	Credits	Level	Lec	Tut	Le	Lab	Periods				Other
							1	2	3	4	
Compulsory Courses											
<u>4F1630 Introduction to Machine Design</u>	5	C	24	36	-	-	1	2			
<u>4K1102 Manufacturing Automation I</u> <i>Under bearbetning</i>	4	C	20	24	-	12	1				
<u>4K1202 Modelling and Interaction in CAD/CAM*</u> <i>Maximum of 20 participants. Students of "Computer Systems for Design and Manufacturing" will have priority.</i>	5	D	-	36	-	24	1				3 Programming tasks, periods 1, 2
<u>4K1203 Computer Systems for Design and Manufacturing, advanced course*</u> <i>Maximum of 20 participants. Students of "Computer Systems for Design and Manufacturing" will have priority.</i> <i>Under bearbetning</i>	12	D	-	68	-	60		2	3	4	4 Programming Projects, periods 2, 3, 4
Elective Courses											
<u>4F1131 Microcomputers in Embedded Systems*</u>	5	D	-	36	-	36		2			
<u>4K1103 Manufacturing Automation II</u> <i>Under bearbetning</i>	6	C	28	32	-	17	1	2			

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Energy Technology 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			3		
4A1603 Energy Technology	4	C	48	12	-	-				4	

Energy Technology T4

Code Name	Credits	Level	Lec	Tut	Le	Lab	Periods				Other
							1	2	3	4	
Compulsory Courses											
4A1605 Sustainable Power Generation	6	D	30	48	-	18	1	2			
4A1607 Sustainable Energy Utilisation	6	D	-	-	72	16	1	2			
4A1609 Applied Energy Technology - Project Course	6	D	12	-	-	-			3	4	Project 78h
Elective Courses											
2A1151 Energy and Fusion Research	4	D	24	12	-	-				4	
4A1140 Energy Systems and Models I	4	D	-	-	-	-				4	
4A1610 Energy Management	4	D	50	-	-	-	1	2			
4A1611 Renewable Energy Technology	4	D	-	-	52	-	1				Study visit 8h
4A1613 Energy and Environment <i>Examinator: Björn Palm, Tel 790 7453</i>	4	D	50	-	-	-			3	4	Study visit 6h
4A1620 Combustion Theory	4	C	18	18	-	15	1	2			
4A1621 Modelling of Thermodynamic Systems	4	D	16	-	-	32	1	2	3	4	The course is given upon agreement
4A1622 Thermal Comfort and Indoor Climate	4	D	54	-	-	-			3	4	Study visits 6h
4A1623 Applied Refrigeration and Heat Pump Technology	4	D	24	24	-	16			3	4	
4A1624 Numerical Methods in Energy Technology	4	D	24	12	-	12	1	2			
4A1625 Cooling of Electronics	4	D	-	-	48	-			3		
4A1626 Applied Heat and Power Technology	4	D	36	12	-	8			3	4	Project assignment 8h
4A1627 Applied Reactor Technology and Nuclear Power Safety	4	D	48	-	-	-			3	4	Study visits 12h
4A1629 Fluid Machinery	4	C	30	18	-	12	1	2			

4A1630 Thermal Fluid Machinery	4	D	36	12	-	12			3		
5C1215 Compressible Flow	5	D	-	-	52	9		2			

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Aeronautics T4

Code Name	Credits	Level	Lec	Tut	Le	Lab	Periods				Other
							1	2	3	4	
Compulsory Courses											
4E1140 Flight Dynamics and Aeroelasticity	4	D	45	15	-	4			3		
4E1212 Aerodynamics	6	D	56	10	-	14	1	2			
4E1231 Flight Mechanics	4	D	28	18	-	4	1				
4E1233 Project in Aerinautics	6	D	28	-	-	48			3	4	
Conditionally Elective Courses											
2E1252 Control Theory and Practice, Advanced Course	5	D	28	26	-	8			3		
4A1341 Introductory Airbreathing Propulsion	4	C	21	24	-	8		2			
4B1131 Experimental Structure Dynamics	5	D	-	58	-	12		2	3		
4E1125 Fibre Comositer II, Analysis and Design	4	D	48	-	-	6		2			
9E1300 Technical English, Lower Intermediate Level*_	4	B	-	-	56	-	1	2			
9E1300 Technical English, Lower Intermediate Level*_	4	B	-	-	56	-			3	4	
9E1301 Technical English, Intermediate Level*_	6	B	-	-	56	-	1	2			
9E1301 Technical English, Intermediate Level*_	6	B	-	-	56	-			3	4	
9E1302 Technical English, Intermediate Level*_	6	B	-	-	56	-	1	2			
9E1302 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	
9E1325 Technical German, Intermediate Level, E-learning	6	B	-	-	18	-	1	2			E-learning exercises
9E1325 Technical German, Intermediate Level, E-learning	6	B	-	-	18	-			3	4	E-learning exercises
9E1326 Technical German, Advanced Level*_	6	C	-	-	56	-	1	2			
9E1326 Technical German, Advanced Level*_	6	C	-	-	56	-			3	4	

9E1334 <u>Technical French, Intermediate Level*</u>	6	B	-	-	56	-	1	2			
9E1336 <u>Technical French, Advanced Level*</u>	6	C	-	-	56	-	1	2			
9E1336 <u>Technical French, Advanced Level*</u>	6	C	-	-	56	-			3	4	
9E1348 <u>Technical Spanish, Intermediate Level*</u>	6	B	-	-	56	-			3	4	
9E1348 <u>Technical Spanish, Intermediate Level</u>	6	B	-	-	56	-	1	2			
Elective Courses											
1C1103 <u>Structural Mechanics III</u>	5	D	33	-	-	-			3		4 h Computer, 40 h Workshop 4 h Computer, 40 h Workshop
4A1346 <u>Rocket Propulsion</u> <i>Under bearbetning</i>	4	D	36	10	-	-			4		Project work 6h
4A1347 <u>Airbreathing Propulsion for High Speed Flight</u> <i>Under bearbetning</i>	4	D	27	10	-	6			4		
4B1131 <u>Experimental Structure Dynamics</u>	5	D	-	58	-	12		2	3		
5C1215 <u>Compressible Flow</u>	5	D	-	-	52	9		2			

*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											
4E1102 Lightweight Structures and FEM I	5	C	64	-	-	12			3	4	
4E1230 Elements of Aeronautics	8	c	116	-	-	4			3	4	

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Ground Vehicle Engineering T3

Code Name	Credits	Level	Lec	Tut	Le	Lab	Periods				Other
							1	2	3	4	
Compulsory Courses											
4B1120 Signal Analysis with Applications	5	D	-	24	-	22				4	
4F1242 Introduction to Microcomputer Systems	4	C	12	22	-	14				4	

Ground Vehicle Engineering T4

Code Name	Credits	Level	Lec	Tut	Le	Lab	Periods				Other
							1	2	3	4	
Compulsory Courses											
4D1026 Industrial Economy and Management, Basic Course	4	A	20	16	-	-		2			4 h Seminars4 h Seminars
Conditionally Elective Courses											
1C1206 Railway Track Engineering	5	D	33	-	-	-			3		44 h Workshop
1H1206 Planning of Railroad Traffic	5	C	-	-	72	-	1				
2C1149 Electric Traction	4	C	36	-	-	-				4	
4B1304 Railway Systems and Rail Vehicles	6	C	-	-	60	9	1	2			Project assignment 9h
4B1313 Rail Vehicle Dynamics	5	D	-	-	36	24			3		
4B1420 Ground Vehicle Engineering, Basic Course	6	C	36	36	-	-	1	2			
4B1425 Ground Vehicle Dynamics, Basic Course*	7	D	33	60	-	-			3	4	
4F1430 Combustion Engines, general course*	4	C	42	6	-	12	1				
Elective Courses											
4B1131 Experimental Structure Dynamics	5	D	-	58	-	12		2	3		
4C1096 Strength of Materials and Solid Mechanics, Advanced Course	4	C	36	14	-	4			3		
4C1114 Finite Element Method	4	D	-	49	-	8		2			
4E1102 Lightweight Structures and FEM I	5	C	64	-	-	12			3	4	
4F1131 Microcomputers in Embedded Systems*	5	D	-	36	-	36		2			
4F1640 Industrial Design* <i>Limited number of participants.</i>	4	C	24	36	-	-			3		

5C1121 Analytical Mechanics	4	C	48	-	-	-			3	
5C1211 Vehicle Aerodynamics	4	C	16	-	-	4			4	4 h Seminars4 h Seminars

*The course has limited participation

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Solid Mechanics T3

Code Name	Credits	Level	Lec	Tut	Le	Lab	Periods				Other	
							1	2	3	4		
Compulsory Courses												
4C1117 <u>Design Applications of Solid Mechanics*</u> <i>Under bearbetning</i>	4	D	16	6	-	-					4	Estimated time for project: 90h
Elective Courses												
4C1112 <u>Theory of Elasticity</u>	4	D	26	26	-	-				3		
4C1116 <u>Dynamic Problems in Solid Mechanics</u> <i>Under bearbetning</i>	4	D	42	-	-	8				3	4	

*The course has limited participation

Solid Mechanics T4

Code Name	Credits	Level	Lec	Tut	Le	Lab	Periods				Other
							1	2	3	4	
Compulsory Courses											
4C1114 <u>Finite Element Method</u>	4	D	-	49	-	8		2			
Elective Courses											
3E1324 <u>Polymer Materials - Properties and Applications</u>	4	C	30	12	-	10				4	
3E1360 <u>Mechanical Properties of Polymers, Minor Course</u>	4	D	24	16	-	12	1				
4B1420 <u>Ground Vehicle Engineering, Basic Course</u>	6	C	36	36	-	-	1	2			
4C1110 <u>Material Mechanics</u>	4	D	52	-	-	3	1				
4C1111 <u>Fracture Mechanics and Fatigue</u>	4	D	48	-	-	4				4	
4C1116 <u>Dynamic Problems in Solid Mechanics</u> <i>Under bearbetning</i>	4	D	42	-	-	8			3	4	
4C1118 <u>Non-linear Theory of Elasticity</u>	2	D	12	12	-	-				4	
4C1119 <u>Finite Element Method, Project Course</u> <i>Under bearbetning</i>	2	D	8	-	-	-			3		
4E1125 <u>Fibre Composites II, Analysis and Design</u>	4	D	48	-	-	6		2			
4F1540 <u>Tribology</u>	4	C	18	9	-	5				4	
4G1230 <u>Introductory Welding Technology</u>	4	C	24	18	-	12	1				

4H1202 Mechanical Metallurgy I	6	D	24	12	-	48			3	4	Home assignments
4H1203 Mechanical Metallurgy II	4,5	C	24	12	-	24			3	4	Home assignments
4H1205 Mechanical Properties of Materials	4	C	20	18	-	6		2			Study visit 4hStudy visit 4h Study visit 4h
4H1505 Structure and Properties of Ceramic Materials	4	D	12	-	-	18		2			
5A1301 Mathematical Methods in Physics, Course I <i>Under bearbetning</i>	4	C	-	54	-	-	1	2			
5C1122 Continuum Mechanics	4	C	42	-	-	-	1				
5C1123 Mathematical Methods of Mechanics, General Course	4	D	36	-	-	-		2			
5C1125 Mathematical Methods of Mechanics, Intermediate Course	2	D	-	-	-	-			3		
5C1214 Fluid Mechanics	5	C	-	30	30	3	1				
5C1902 Advanced Dynamics of Complex Systems	4	D	24	-	-	-	1				

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Industrial Economics and Management T3

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	26	18	-	-			3		4 h Seminars4 h Seminars
4D1028 Industrial Economics and Management, Advanced Course	4	B	26	20	-	-				4	
Conditionally Elective Courses											
4D1032 Production <i>Replaces 4D1030 Industrial Production and 4D1136 Production</i>	4	B	36	12	-	-				4	10 h Study visit10 h Study visit
4D1075 Work Organization and Leadership* <i>Limited attendance, selection will be made</i>	4	B	24	24	-	-			3		
4K1101 Control Systems	4	C	18	28	-	12				4	
Elective Courses											
4D1032 Production <i>Replaces 4D1030 Industrial Production and 4D1136 Production</i>	4	B	36	12	-	-				4	10 h Study visit10 h Study visit

*The course has limited participation

Industrial Economics and Management T4

Code Name	Credits	Level	Lec	Tut	Le	Lab	Periods				Other
							1	2	3	4	
Compulsory Courses											
4D1035 Advanced Industrial Economics and Management*	12	C	68	72	-	-		2	3	4	Roll-play 16h
Conditionally Elective Courses											
4D1062 Industrial Marketing <i>Replaces 4D1065 Industrial Marketing and 4D1151 Marketing</i>	4	B	36	12	-	-			3		
4D1071	4	B	36	12	-	-	1				
4F1630 Introduction to Machine Design	5	C	24	36	-	-	1	2			
4K1102 Manufacturing Automation I <i>Under bearbetning</i>	4	C	20	24	-	12	1				
Elective Courses											
4D1062 Industrial Marketing <i>Replaces 4D1065 Industrial Marketing and 4D1151 Marketing</i>	4	B	36	12	-	-			3		

4D1152 <u>Industrial Marketing, Advanced Course</u>	4	C	30	12	-	-	1				
4D1170 <u>Advanced Production and Product Development</u>	4	C	36	12	-	-		2			
4D1174 <u>Management and Analysis of Innovations and Technology</u>	4	C	38	-	-	-		2		10 h Seminars	10 h Seminars
4K1103 <u>Manufacturing Automation II</u> <i>Under bearbetning</i>	6	C	28	32	-	17	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	
Compulsory Courses											
<u>4D1032 Production</u> <i>Replaces 4D1030 Industrial Production and 4D1136 Production</i>	4	B	36	12	-	-				4	10 h Study visit10 h Study visit
<u>4G1160 Manufacturing Engineering, Intermediate Course I</u> <i>Under bearbetning</i>	5	C	42	42	-	-				4	
<u>4G1161 Quality</u>	6	C	40	16	-	-			3		
Elective Courses											
<u>4G1632 Materials Processing II</u> <i>Under bearbetning</i>	4	C	29	30	-	13				4	
<u>4G1635 Materials Processing II, Laboratory Course</u> <i>Under bearbetning</i>	5	D	29	30	-	37				4	
<u>4M1320 Manufacturing Technology</u>	4	C	26	22	-	20				4	Preparatory course 20h Computer work 20h Home assignments 20h Study visit 12h

Industrial Engineering T4

Code Name	Credits	Level	Lec	Tut	Le	Lab	Periods				Other
							1	2	3	4	
Compulsory Courses											
4G1146 Advanced Industrial Engineering* <i>Under bearbetning</i>	12	D	67	22	-	-	1	2			120 h Projektuppgift120 h Projektuppgift
Conditionally Elective Courses											
4G1634 Manufacturing Engineering, Basic Course	6	C	32	20	-	12	1	2			
Elective Courses											
3C1340 Environmental Technology, Advanced Course	4	C	36	6	-	-			3		
3C1360 Environmental Consequences, Advanced Course	4	C	15	-	-	-	1				
4D1062 Industrial Marketing <i>Replaces 4D1065 Industrial Marketing and 4D1151 Marketing</i>	4	B	36	12	-	-			3		
4D1093 Psychology for Engineers <i>Replaces 4D1088 Technical Work Psychology</i>	4	B	24	6	-	4		2			

4G1053 <u>Materials Processing, Project Support</u> <i>Under bearbetning</i>	4	D	72	48	-	40		2	3	4	Home assignments 48h
4G1170 <u>Intelligent Machining, Advanced Course</u> <i>Under bearbetning</i>	4	D	36	20	-	-		2	3	4	
4G1243 <u>Advanced Welding Technology, Modulus 1</u> <i>Under bearbetning</i>	4	D	20	20	-	20			3		
4G1244 <u>Advanced Welding Technology, Modulus 2</u> <i>Under bearbetning</i>	4	D	20	20	-	20			3		
4G1245 <u>Advanced Welding Technology, Modulus 3</u> <i>Under bearbetning</i>	4	D	20	20	-	20				4	
4G1246 <u>Enlarged Welding Technology for EWE</u> <i>Course is given upon agreement</i>	4	D	25	25	-	10	1	2	3	4	
4G1540 <u>Laser Metrology Methods and Non Destructive Testing</u>	4	C	28	22	-	4		2			
4K1102 <u>Manufacturing Automation I</u> <i>Under bearbetning</i>	4	C	20	24	-	12	1				
4M1320 <u>Manufacturing Technology</u>	4	C	26	22	-	20				4	Preparatory course 20h Computer work 20h Home assignments 20h Study visit 12h

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Integrated Product Development T3

Code Name	Credits	Level	Lec	Tut	Le	Lab	Periods				Other
							1	2	3	4	
Compulsory Courses											
4D1075 Work Organization and Leadership* <i>Limited attendance, selection will be made</i>	4	B	24	24	-	-			3		
Conditionally Elective Courses											
4F1541 CAD 3D-modelling and Visualization for Personal Computers	4	C	8	36	-	-				4	
Elective Courses											
4F1242 Introduction to Microcomputer Systems	4	C	12	22	-	14				4	

*The course has limited participation

Integrated Product Development T4

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

*The course has limited participation

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Sound and Vibrations T3

Code Name	Credits	Level	Lec	Tut	Le	Lab	Periods				Other
							1	2	3	4	
Compulsory Courses											
4B1120 Signal Analysis with Applications	5	D	-	24	-	22				4	

Sound and Vibrations T4

Code Name	Credits	Level	Lec	Tut	Le	Lab	Periods				Other
							1	2	3	4	
Compulsory Courses											
4B1127 Vibroacoustics	5	D	-	56	-	8	1	2			
4B1131 Experimental Structure Dynamics	5	D	-	58	-	12		2	3		
4B1136 Flow Acoustics	4	D	-	36	-	8			3		
4B1141 Sound and Vibration, Project Course	5	D	-	48	-	12			3	4	Study tour to industry 40h
9E1131 Information Searching for B, I, M, T	1	B	-	-	-	-			3	4	

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Lightweight Structures T3

Code Name	Credits	Level	Lec	Tut	Le	Lab	Periods				Other
							1	2	3	4	
Compulsory Courses											
4E1102 Lightweight Structures and FEM I	5	C	64	-	-	12			3	4	
Elective Courses											
4E1230 Elements of Aeronautics	8	c	116	-	-	4			3	4	

Lightweight Structures T4

Code Name	Credits	Level	Lec	Tut	Le	Lab	Periods				Other
							1	2	3	4	
Compulsory Courses											
4E1124 Fibre Composites I: materials and processes	4	D	40	-	-	5	1				
4E1125 Fibre Composites II, Analysis and Design	4	D	48	-	-	6		2			
4E1126 Structural Design and Optimisation	4	D	36	-	-	12			3		
4E1132 Lightweight Design* <i>Open only to students on the specialisation LKR.</i>	10	D	-	-	84	-	1	2	3	4	
4E1150 Biomechanics and Neuronics	4	D	36	-	-	6				4	
Elective Courses											
4B1304 Railway Systems and Rail Vehicles	6	C	-	-	60	9	1	2			Project assignment 9h
4B1420 Ground Vehicle Engineering, Basic Course	6	C	36	36	-	-	1	2			
4E1212 Aerodynamics	6	D	56	10	-	14	1	2			
4F1630 Introduction to Machine Design	5	C	24	36	-	-	1	2			
5B1722 Applied Optimization	4	C	28	14	-	9			3		
9E1300 Technical English, Lower Intermediate Level*	4	B	-	-	56	-	1	2			
9E1301 Technical English, Intermediate Level*	6	B	-	-	56	-	1	2			
9E1304 Technical English, Advanced Level*	6	C	-	-	56	-	1	2			
9E1325 Technical German, Intermediate Level, E-learning	6	B	-	-	18	-	1	2			E-learning exercises

9E1326 <u>Technical German, Advanced</u> Level*_	6	C	-	-	56	-	1	2			
9E1334 <u>Technical French, Intermediate</u> Level*_	6	B	-	-	56	-	1	2			
9E1348 <u>Technical Spanish, Intermediate</u> Level*_	6	B	-	-	56	-			3	4	

*The course has limited participation

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Naval systems T3

Code Name	Credits	Level	Lec	Tut	Le	Lab	Periods				Other
							1	2	3	4	
Compulsory Courses											
4E1102 Lightweight Structures and FEM I	5	C	64	-	-	12			3	4	
4E1401 Introduction to Naval Architecture	5	C	46	10	-	10			3	4	

Naval systems T4

Code Name	Credits	Level	Lec	Tut	Le	Lab	Periods				Other
							1	2	3	4	
Compulsory Courses											
4E1402 Naval design*_ <i>Only open to MSY students.</i>	10	D	-	84	-	-	1	2	3	4	
Conditionally Elective Courses											
2C1224 Management of Technology	5	D	32	20	-	-	1				
4E1124 Fibre Composites I: materials and processes	4	D	40	-	-	5	1				
4E1125 Fibre Composites II, Analysis and Design	4	D	48	-	-	6		2			
4E1126 Structural Design and Optimisation	4	D	36	-	-	12			3		
5C1212 Computational Fluid Dynamics	5	D	-	-	50	10			3		
5C1213 Applied Computational Fluid Dynamics	2	D	-	-	10	14				4	
5C1214 Fluid Mechanics	5	C	-	30	30	3	1				
Elective Courses											
4B1120 Signal Analysis with Applications	5	D	-	24	-	22				4	
4B1131 Experimental Structure Dynamics	5	D	-	58	-	12		2	3		
4E1140 Flight Dynamics and Aeroelasticity	4	D	45	15	-	4			3		
4E1150 Biomechanics and Neuronics	4	D	36	-	-	6				4	
4F1430 Combustion Engines, general course*_ <i></i>	4	C	42	6	-	12	1				
5B1722 Applied Optimization	4	C	28	14	-	9			3		
9E1300 Technical English, Lower Intermediate Level*_ <i></i>	4	B	-	-	56	-	1	2			

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Machine Elements T3

Code Name	Credits	Level	Lec	Tut	Le	Lab	Periods				Other
							1	2	3	4	
Compulsory Courses											
4F1530 Function Analysis and Optimization in Mechanical Engineering	5	C	-	60	-	-			3	4	One day field trip.

Machine Elements T4

Code Name	Credits	Level	Lec	Tut	Le	Lab	Periods				Other
							1	2	3	4	
Compulsory Courses											
4F1540 Tribology	4	C	18	9	-	5				4	
4F1560 Advanced Machine Elements*	12	D	-	120	-	-			3	4	
4F1630 Introduction to Machine Design	5	C	24	36	-	-	1	2			
4K1132 Modularisation of Products <i>Some parts of the course are outlined in 4K1131 Assembly Systems and 4K1104 Manufacturing Systems, advanced course.</i>	4	C	24	20	-	-			3		
Elective Courses											
4C1114 Finite Element Method	4	D	-	49	-	8		2			

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Machine Design T3

Code Name	Credits	Level	Lec	Tut	Le	Lab	Periods				Other
							1	2	3	4	
Compulsory Courses											
4F1530 <u>Function Analysis and Optimization in Mechanical Engineering</u>	5	C	-	60	-	-			3	4	One day field trip.
Elective Courses											
4C1112 <u>Theory of Elasticity</u>	4	D	26	26	-	-			3		
4F1241 <u>Microcomputer, Sensors and Actuators</u>	6	C	18	26	-	29				4	
4F1242 <u>Introduction to Microcomputer Systems</u>	4	C	12	22	-	14				4	
4F1343 <u>Fluid Systems and Machines</u>	4	C	24	24	-	12	1				
4F1642 <u>Modelling and Computer Support in Mechanical Design</u>	4	C	24	36	-	-			3		
4K1201 <u>Computer Aided Design and Manufacturing, Introductory course</u>	5	C	48	-	-	24				4	Graded exercise
5C1121 <u>Analytical Mechanics</u>	4	C	48	-	-	-			3		

Machine Design T4

Code Name	Credits	Level	Lec	Tut	Le	Lab	Periods				Other
							1	2	3	4	
Compulsory Courses											
4F1630 Introduction to Machine Design	5	C	24	36	-	-	1	2			
4F1644 Industrial Design*	4	C	24	36	-	-	1				
4F1660 Advanced Machine Design* <i>Under bearbetning</i>	12	D	4	114	-	-			3	4	
Elective Courses											
3E1360 Mechanical Properties of Polymers, Minor Course	4	D	24	16	-	12	1				
3E1361 Polymer Processing, Minor Course	4	D	24	8	-	18		2			
4C1114 Finite Element Method	4	D	-	49	-	8		2			
4F1131 Microcomputers in Embedded Systems*	5	D	-	36	-	36		2			
4F1131 Microcomputers in Embedded Systems* <i>Limited attendance: 25</i>	5	D	-	36	-	36			3		

4F1141 Project Work in Mechatronics* <i>Limited attendance due to limited number of available projects</i>	4	C	-	-	-	-	1	2	3	4	No scheduled hours
4F1541 CAD 3D-modelling and Visualization for Personal Computers	4	C	8	36	-	-				4	
4F1641 Environmentally Adapted Product Design <i>80% participation.</i>	4	C	-	-	42	-		2			
4K1102 Manufacturing Automation I <i>Under bearbetning</i>	4	C	20	24	-	12	1				

*The course has limited participation

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Mechanics T3

Code Name	Credits	Level	Lec	Tut	Le	Lab	Periods				Other
							1	2	3	4	
Compulsory Courses											
5C1121 Analytical Mechanics	4	C	48	-	-	-			3		
Conditionally Elective Courses											
5C1400 Nonlinear Dynamics in Mechanics	5	C	24	-	-	-			3		
5C1992 Turbulence	4,5	D	-	-	36	3			3	4	

Mechanics T4

Code Name	Credits	Level	Lec	Tut	Le	Lab	Periods				Other
							1	2	3	4	
Conditionally Elective Courses											
2D1225 Numerical Solutions of Differential Equations	4	C	26	4	-	18	1	2			
4C1120 Experimental methods in mechanics	4	D	20	-	-	20			3		Seminars 4h
5C1123 Mathematical Methods of Mechanics, General Course	4	D	36	-	-	-		2			
5C1125 Mathematical Methods of Mechanics, Intermediate Course	2	D	-	-	-	-			3		
5C1211 Vehicle Aerodynamics	4	C	16	-	-	4				4	4 h Seminars4 h Seminars
5C1212 Computational Fluid Dynamics	5	D	-	-	50	10			3		
5C1213 Applied Computational Fluid Dynamics	2	D	-	-	10	14				4	
5C1214 Fluid Mechanics	5	C	-	30	30	3	1				
5C1215 Compressible Flow	5	D	-	-	52	9		2			
5C1850 Finite Element Methods	5	D	33	-	-	-	1				44 h Workshop44 h Workshop
5C1860 FEM Modelling	5	D	33	-	-	-		2			44 h Workshop44 h Workshop
5C1902 Advanced Dynamics of Complex Systems	4	D	24	-	-	-	1				
5C1904 Advanced Modern Mechanics	4	D	24	-	-	-		2			
5C1980 Mechanics in Research and Industry <i>The course runs the entire academic year. A few lectures during fall.</i>	4	C	24	-	-	37	1	2	3	4	



Elective Courses										
5C1122 Continuum Mechanics	4	C	42	-	-	-	1			

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Mechatronics T3

Code Name	Credits	Level	Lec	Tut	Le	Lab	Periods				Other
							1	2	3	4	
Compulsory Courses											
2D1320 Applied Computer Science	4	B	30	14	-	20			3	4	
4F1530 Function Analysis and Optimization in Mechanical Engineering	5	C	-	60	-	-			3	4	One day field trip.
Elective Courses											
4F1241 Microcomputer, Sensors and Actuators	6	C	18	26	-	29				4	
4F1242 Introduction to Microcomputer Systems	4	C	12	22	-	14				4	

Mechatronics T4

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

*The course has limited participation

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Environmental Management T3

Code Name	Credits	Level	Lec	Tut	Le	Lab	Periods				Other	
							1	2	3	4		
Compulsory Courses												
3C1340 Environmental Technology, Advanced Course	4	C	36	6	-	-			3			
Elective Courses												
4D1060 Industrial Development	4	B	40	8	-	-			3			

Environmental Management T4

Code Name	Credits	Level	Lec	Tut	Le	Lab	Periods				Other
							1	2	3	4	
Compulsory Courses											
3C1360 Environmental Consequences, Advanced Course	4	C	15	-	-	-	1				
3C1370 Applied Environmental Legislation	3	C	24	3	-	-		2			
3C1387 Environmental Systems Analysis	4	C	16	8	-	6		2			
3C1390 Environmental Management, Larger Course	8	D	36	3	-	24			3	4	Project work, field exercise
Elective Courses											
3C1350 Waste Management, Advanced Course <i>Study visit</i>	4	D	18	-	-	3				4	Project work 20h
3C1365 Environmental Consequences, Advanced Course II	4	D	15	15	-	40	1	2			Field exercises

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Vehicle Engineering

Paper Technology T3

Code Name	Credits	Level	Lec	Tut	Le	Lab	Periods				Other	
							1	2	3	4		
Compulsory Courses												
3D1107 Paper Technology	6	D	42	-	-	56			3	4	2 days studytrip	
Elective Courses												
3D1112 Fiber Technology	4	C	26	-	-	15				4		

Paper Technology T4

Code Name	Credits	Level	Lec	Tut	Le	Lab	Periods				Other
							1	2	3	4	
Compulsory Courses											
2D1520 Graphic Arts Technology, Minor Course	4	C	30	8	-	16		2			
3D1113 Paper Physics	4	D	20	-	-	20		2			
3D1114 Paper Processes Technology	4	D	20	-	-	20			3		
3D1117 Paper Technology, project	4	D	-	-	-	-			3	4	Project work
3D1163 Pulp Technology	4	D	20	-	-	24	1				

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Vehicle Engineering

Publiceringsteknik T3

Code Name	Credits	Level	Lec	Tut	Le	Lab	Periods				Other
							1	2	3	4	
Compulsory Courses											
2D1521 Communication and Information*_	5	C	21	24	-	-			3		
2D1522 Computer Technology and Communication*_	4	C	30	-	-	20				4	
2D1526 Publishing Technology, General Course	6	C	60	-	-	20			3		30h; A one week study tour is made in period 4.

*The course has limited participation

Publiceringsteknik T4

Code Name	Credits	Level	Lec	Tut	Le	Lab	Periods				Other
							1	2	3	4	
Compulsory Courses											
2D1515 Machinery and Materials in Graphic Arts Technology	6	C	50	12	-	12		2			
2D1517 XML for Publishing*_	5	D	30	-	-	40	1	2			
2D1518 Audio, Video and Multimedia Production*_	5	C	30	-	-	40		2	3		
2D1524 Image Processing and Reprographic Methods*_ <i>Limited number of participants</i>	6	C	50	16	-	24	1				
2D1527 Publishing Technology, Advanced Course <i>Open only to students of the specialization Publishing Technology.</i>	10	D	100	80	-	32			3	4	
Elective Courses											
2D1323 Computer Graphics and Interaction	4	C	42	-	-	12				4	
2D1334 Database Technology	4	C	24	20	-	12			3	4	

*The course has limited participation

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Vehicle Engineering

Naval Architecture T4

Code Name	Credits	Level	Lec	Tut	Le	Lab	Periods				Other
							1	2	3	4	
Elective Courses											
4B1127 Vibroacoustics	5	D	-	56	-	8	1	2			
4C1111 Fracture Mechanics and Fatigue	4	D	48	-	-	4				4	
4C1112 Theory of Elasticity	4	D	26	26	-	-			3		
4C1114 Finite Element Method	4	D	-	49	-	8		2			
4C1116 Dynamic Problems in Solid Mechanics <i>Under bearbetning</i>	4	D	42	-	-	8			3	4	
4F1430 Combustion Engines, general course*	4	C	42	6	-	12	1				
4G1230 Introductory Welding Technology	4	C	24	18	-	12	1				
5A1301 Mathematical Methods in Physics, Course I <i>Under bearbetning</i>	4	C	-	54	-	-	1	2			
5B1832 Systems Engineering	8	D	56	28	-	12	1	2			
5C1212 Computational Fluid Dynamics	5	D	-	-	50	10			3		
5C1213 Applied Computational Fluid Dynamics	2	D	-	-	10	14				4	

*The course has limited participation

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Vehicle Engineering

Systems Engineering T3

Code Name	Credits	Level	Lec	Tut	Le	Lab	Periods				Other
							1	2	3	4	
Compulsory Courses											
2D1320 Applied Computer Science	4	B	30	14	-	20			3	4	
5B1538 Reliability Theory	6	D	-	-	72	-			3	4	
5B1722 Applied Optimization	4	C	28	14	-	9			3		
Elective Courses											
2D1220 Applied Numerical Methods I	4	C	40	-	-	20			3	4	
2D1250 Applied Numerical Methods II	6	C	-	-	56	24			3	4	

Systems Engineering T4

Code Name	Credits	Level	Lec	Tut	Le	Lab	Periods				Other
							1	2	3	4	
Compulsory Courses											
4D1026 Industrial Economy and Management, Basic Course	4	A	20	16	-	-		2			4 h Seminars4 h Seminars
5B1832 Systems Engineering	8	D	56	28	-	12	1	2			
Elective Courses											
1H1204 Logistics	5	C	6	-	-	-	1	2			15 h SeminarsProject-course, 15 h Seminars
1H1206 Planning of Railroad Traffic	5	C	-	-	72	-	1				
1H1212 Logistics, Advanced Course	5	D	4	-	-	-			3		12 h SeminarsProject-course, 12 h Seminars
1H1401 Optimisation Models in Transport and Location Analysis <i>Under bearbetning</i>	5	D	27	12	-	6			3		6 h Seminars
5B1550 Applied Mathematical Statistics	5	D	-	-	60	-			3		
5B1852 Mathematical Economics	4	D	32	16	-	-		2			

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Vehicle Engineering

Materials Processing T3

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

Code Name	Credits	Level	Lec	Tut	Le	Lab	Periods				Other
							1	2	3	4	
Compulsory Courses											
4G1134 <u>Effective Production</u>	6	D	25	35	-	-			3	4	
4G1160 <u>Manufacturing Engineering, Intermediate Course I</u> <i>Under bearbetning</i>	5	C	42	42	-	-				4	
4G1161 <u>Quality</u>	6	C	40	16	-	-			3		
Elective Courses											
4G1632 <u>Materials Processing II</u> <i>Under bearbetning</i>	4	C	29	30	-	13				4	
4G1635 <u>Materials Processing II, Laboratory Course</u> <i>Under bearbetning</i>	5	D	29	30	-	37				4	
4H1251 <u>Metal Forming - Fundamentals</u>	6	C	36	36	-	18			3	4	
4M1320 <u>Manufacturing Technology</u>	4	C	26	22	-	20				4	Preparatory course 20h Computer work 20h Home assignments 20h Study visit 12h

Materials Processing T4

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

Code Name	Credits	Level	Lec	Tut	Le	Lab	Periods				Other
							1	2	3	4	
Compulsory Courses											
4G1051 <u>Project Assignment, Materials Processing</u> <i>Under bearbetning</i>	4	D	-	160	-	-		2	3	4	Projektuppgift 160h Projektuppgift 160h
4G1053 <u>Materials Processing, Project Support</u> <i>Under bearbetning</i>	4	D	72	48	-	40		2	3	4	Home assignments 48h
Conditionally Elective Courses											
4G1170 <u>Intelligent Machining, Advanced Course</u> <i>Under bearbetning</i>	4	D	36	20	-	-		2	3	4	
4G1230 <u>Introductory Welding Technology</u>	4	C	24	18	-	12	1				
4G1570 <u>Metrology & Quality for the Manufacturing Industry</u> <i>Under bearbetning</i>	4	D	36	24	-	-		2	3		
4G1634 <u>Manufacturing Engineering, Basic Course</u>	6	C	32	20	-	12	1	2			

4G1670 Materials Forming <i>Under bearbetning</i>	4	D	18	12	-	18	2	3		
4M1346 Simulation and Modelling	4	D	10	80	-	-	1	2		
4M1370 Solidification Processing	4	D	36	24	-	-	1	2		
Elective Courses										
4C1110 Material Mechanics	4	D	52	-	-	3	1			
4F1630 Introduction to Machine Design	5	C	24	36	-	-	1	2		
4G1243 Advanced Welding Technology, Modulus 1 <i>Under bearbetning</i>	4	D	20	20	-	20			3	
4G1244 Advanced Welding Technology, Modulus 2 <i>Under bearbetning</i>	4	D	20	20	-	20			3	
4G1245 Advanced Welding Technology, Modulus 3 <i>Under bearbetning</i>	4	D	20	20	-	20				4
4G1246 Enlarged Welding Technology for EWE <i>Course is given upon agreement</i>	4	D	25	25	-	10	1	2	3	4
4G1541 Measurement Technology & Statistics f Manufact. Processes	4	D	30	-	-	8			3	
4M1320 Manufacturing Technology	4	C	26	22	-	20				4 Preparatory course 20h Computer work 20h Home assignments 20h Study visit 12h
4M1341 Foundry Processing	4	D	12	-	-	-			3	Seminarier 24h Other 28h

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Vehicle Engineering

Assembly Systems T3

Code Name	Credits	Level	Lec	Tut	Le	Lab	Periods				Other
							1	2	3	4	
Compulsory Courses											
4G1160 <u>Manufacturing Engineering, Intermediate Course I</u> <i>Under bearbetning</i>	5	C	42	42	-	-				4	
4G1161 <u>Quality</u>	6	C	40	16	-	-			3		
4K1201 <u>Computer Aided Design and Manufacturing, Introductory course</u>	5	C	48	-	-	24				4	Graded exercise

Assembly Systems T4

Code Name	Credits	Level	Lec	Tut	Le	Lab	Periods				Other
							1	2	3	4	
Compulsory Courses											
4D1026 Industrial Economy and Management, Basic Course	4	A	20	16	-	-		2			4 h Seminars4 h Seminars
4G1634 Manufacturing Engineering, Basic Course	6	C	32	20	-	12	1	2			
4K1102 Manufacturing Automation I <i>Under bearbetning</i>	4	C	20	24	-	12	1				
4K1104 Manufacturing Systems, advanced course*_ <i>Under bearbetning</i>	12	D	50	48	-	28		2	3	4	
4K1109 Principles for Product Integrated Manufacturing Systems Design	4	C	12	12	-	4	1				

*The course has limited participation

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Vehicle Engineering

Wood Technology T3

Code Name	Credits	Level	Lec	Tut	Le	Lab	Periods				Other
							1	2	3	4	
Compulsory Courses											
4K1601 Wood Material Science, Basic Course	5	C	36	24	-	32			3	4	

Wood Technology T4

Code Name	Credits	Level	Lec	Tut	Le	Lab	Periods				Other
							1	2	3	4	
Compulsory Courses											
4K1602 Industrial Wood Processing, Basic Course	4	C	26	16	-	16	1				
4K1603 Wood Technology, Advanced Course* <i>Under bearbetning</i>	10	D	48	24	-	36		2	3	4	
Elective Courses											
4D1062 Industrial Marketing <i>Replaces 4D1065 Industrial Marketing and 4D1151 Marketing</i>	4	B	36	12	-	-			3		
4K1102 Manufacturing Automation I <i>Under bearbetning</i>	4	C	20	24	-	12	1				

*The course has limited participation

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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											
2D1310 <u>Programming Technique</u>	4	A	26	16	-	36			3	4	
4D1111 <u>Engineering</u>	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>	6	A	46	27	-	8	1	2			
5B1135 <u>Mathematics I for I</u>	6	B	36	-	36	-	1				
5B1136 <u>Mathematics II for I</u>	6	B	36	-	36	-		2			
5B1230 <u>Mathematics IV</u>	6	C	36	36	-	-				4	
5C1103 <u>Mechanics, Basic Course</u>	6	B	48	27	-	-			3	4	
Recommended Courses											
5B1120 <u>Introductory Course in Mathematics I</u> <i>The course is taught during the introductory-period in August.</i>	1	A	-	-	-	-					

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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											
2D1210 Numerical Methods, Basic Course I	4	B	24	24	-	24			3	4	
4D1124 Industrial Economics and Management, Advanced Course	4	B	34	-	-	-	1				6 h Seminars6 h Seminars
4D1160 Economics With Focus on Microeconomic Theory	4	A	40	8	-	-		2			

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Industrial Engineering and Management

Industrial Engineering and Management I3

Code Name	Credits	Level	Lec	Tut	Le	Lab	Periods				Other
							1	2	3	4	
Compulsory Courses											
4D1113 Knowledge Formation in Technology and Natural Science	4	A	28	-	-	-			3		
Conditionally Elective Courses											
4D1032 Production <i>Replaces 4D1030 Industrial Production and 4D1136 Production</i>	4	B	36	12	-	-			4	10 h Study visit10 h Study visit	
4D1062 Industrial Marketing <i>Replaces 4D1065 Industrial Marketing and 4D1151 Marketing</i>	4	B	36	12	-	-			3		
4D1152 Industrial Marketing, Advanced Course	4	C	30	12	-	-	1				
4D1162 Management Control: Strategic and Behavioural Perspectives	4	B	32	-	-	-		2		6 h Seminars6 h Seminars	
4D1164 Cost Management and Performance Measurement	4	C	32	-	-	-			4	6 h Seminars6 h Seminars	
4D1166 Finance	4	B	30	18	-	-		2			
4D1168 Industrial Dynamics	4	B	40	-	-	-	1			8 h Seminars8 h Seminars	
4D1170 Advanced Production and Product Development	4	C	36	12	-	-		2			
4D1174 Management and Analysis of Innovations and Technology	4	C	38	-	-	-		2		10 h Seminars10 h Seminars	
4D1176 Internet Economics	4	C	30	12	-	-			4		
5B1306 Financial Mathematics, Basic Course	5	C	-	-	54	-			4		
5B1574 Portfolio Theory and Risk Management	4	D	30	12	-	-	1				

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Industrial Engineering and Management

Industrial Engineering and Management I4

Code Name	Credits	Level	Lec	Tut	Le	Lab	Periods				Other
							1	2	3	4	
Conditionally Elective Courses											
1H1212 Logistics, Advanced Course	5	D	4	-	-	-			3		12 h SeminarsProject-course, 12 h Seminars
3C1422 Industrial Energy Processes	5	D	20	20	-	-	1	2			
4D1032 Production <i>Replaces 4D1030 Industrial Production and 4D1136 Production</i>	4	B	36	12	-	-				4	10 h Study visit10 h Study visit
4D1042 Communication and Negotiation	4	C	10	10	-	-			3		20 h Seminars20 h Seminars
4D1051 Commercial Law	4	B	18	14	-	-			3		
4D1056 Intellectual Property Law	4	B	20	8	-	-				4	Seminars 6h
4D1057 Advanced Patent Law	4	C	4	14	-	-	1				Seminars 14h
4D1061 Strategic Management	4	B	20	-	-	-				4	
4D1062 Industrial Marketing <i>Replaces 4D1065 Industrial Marketing and 4D1151 Marketing</i>	4	B	36	12	-	-			3		
4D1063 Managing Innovation <i>Will be given in English.</i>	4	C	20	-	-	-			3		12 h Seminars12 h Seminars
4D1064 Management of Software Development Projects*	4	C	28	-	-	-				4	
4D1071	4	B	36	12	-	-				4	
4D1071	4	B	36	12	-	-	1				
4D1072 Industrial Project Management, Advanced Course	4	C	36	12	-	-				4	
4D1096 Human Resource Management	4	B	28	12	-	-				4	
4D1141 Leadership	4	B	16	12	-	-	1				12 h Seminars12 h Seminars
4D1152 Industrial Marketing, Advanced Course	4	C	30	12	-	-	1				
4D1153 Buyer Behavior and Consumer Culture	4	C	40	8	-	-		2			
4D1162 Management Control: Strategic and Behavioural Perspectives	4	B	32	-	-	-		2			6 h Seminars6 h Seminars
4D1164 Cost Management and Performance Measurement	4	C	32	-	-	-				4	6 h Seminars6 h Seminars
4D1166 Finance	4	B	30	18	-	-		2			
4D1168 Industrial Dynamics	4	B	40	-	-	-	1				8 h Seminars8 h Seminars

4D1170 Advanced Production and Product Development	4	C	36	12	-	-	2			
4D1174 Management and Analysis of Innovations and Technology	4	C	38	-	-	-	2			10 h Seminars10 h Seminars
4D1176 Internet Economics	4	C	30	12	-	-			4	
4D1178 Work Science and Economics	4	C	32	-	-	-	2			4 h SeminarsProjectwork 12h 4 h Seminars
4D1180 Knowledge Perspectives: Investigations in Ethics and Leadership	4	B	28	-	-	-	1			
4D1181 Knowledge Perspectives: Practice and Philosophy	4	B	28	-	-	-	1			
4D1182 Knowledge Perspectives: Images of Organization	4	B	28	-	-	-	1			
4D1183 Knowledge Perspectives: Value and Value Creation	4	B	28	-	-	-	1			
4D1184 Knowledge Perspectives: Judgement and disclosure	4	B	28	-	-	-	1			
4D1185 Knowledge Perspectives. Science and Technology	4	B	28	-	-	-	1			
4D1501 Creating Innovative Teams	5	C	16	10	-	-			4	
4D1506 Creating a Business Opportunity	5	C	34	-	-	-	1			
4G1161 Quality	6	C	40	16	-	-			3	
5B1306 Financial Mathematics, Basic Course	5	C	-	-	54	-			4	
5B1574 Portfolio Theory and Risk Management	4	D	30	12	-	-	1			

*The course has limited participation

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Biotechnology and Industrial Engineering I2

Final Curriculum yet to be decided, by the latest April 1st 2002

Code Name	Credits	Level	Lec	Tut	Le	Lab	Periods				Other
							1	2	3	4	
Compulsory Courses											
3A1501 <u>Introduction to Biotechnology</u>	4	AB	36	8	-	4	1	2			including visits for study purpose
3A1502 <u>Cellbiology with Immunology</u>	4	AB	42	-	-	-			3	4	
3B1700 <u>Introductory Chemistry</u>	4	AB	24	22	-	22	1				
3B1711 <u>Chemical Equilibria</u>	4	AB	12	22	-	25		2	3		
3B1750 <u>Organic Chemistry 1</u>	5	AB	20	14	-	42		2			
5A1227 <u>Physics II*</u>	4	A	38	-	-	15				4	

*The course has limited participation

Biotechnology and Industrial Engineering I3

Final Curriculum yet to be decided, by the latest April 1st 2002

Code Name	Credits	Level	Lec	Tut	Le	Lab	Periods				Other	
							1	2	3	4		
Compulsory Courses												
3A1115 <u>Biochemistry</u>	4	C	34	-	-	-				4		
3A1307 <u>Microbiology</u>	6	C	30	24	-	48	1	2	3			
3A1503 <u>Molecular Biotechnology</u>	5	C	36	-	-	15		2	3			
3A1509 <u>Bioinformatic</u>	4	D	32	16	-	-			3			
3B1725 <u>Chemical Thermodynamics</u>	4	AB	28	30	-	-	1					
3B1770 <u>Chemical Measuring Techniques</u>	5	AB	22	4	-	12	1					
3C1330 <u>Technology and Ecosystems</u>	4	AB	24	3	-	-		2				

Biotechnology and Industrial Engineering I4

Final Curriculum yet to be decided, by the latest April 1st 2002

Code Name	Credits	Level	Lec	Tut	Le	Lab	Periods				Other	
							1	2	3	4		
Compulsory Courses												
4D1144 Management in Technologyintensive Organizations	4	C	28	-	-	-		2			4 h Seminars4 h Seminars	
Recommended Courses												
3A1506 Drug Development	4	C	36	-	-	-			3		8 h Study visit8 h Study visit	



3A1507 Functional Genomics	4	D	24	-	-	15	1				
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Industrial Engineering and Management

Energy Systems and Industrial Engineering I2

Code Name	Credits	Level	Lec	Tut	Le	Lab	Periods				Other
							1	2	3	4	
Compulsory Courses											
3C1330 Technology and Ecosystems	4	AB	24	3	-	-		2			
4A1112 Applied Thermodynamics	6	C	48	48	-	-	1	2			Math exercises
4A1601 Heat Transfer	4	C	24	24	-	20			3		
4A1603 Energy Technology	4	C	48	12	-	-				4	
5A1225 Electromagnetism and Waves	5	B	38	18	-	20	1				
5B1501 Probability Theory and Statistics	4	C	24	36	-	-			3		

Energy Systems and Industrial Engineering I3

Code Name	Credits	Level	Lec	Tut	Le	Lab	Periods				Other
							1	2	3	4	
Compulsory Courses											
2C1111 System Planning	4	D	60	-	-	-			3		
4A1140 Energy Systems and Models I	4	D	-	-	-	-				4	
4A1607 Sustainable Energy Utilisation	6	D	-	-	72	16	1	2			
4F1221 Electrical Engineering, Basic Course, B	4	B	12	18	-	14		2			

Energy Systems and Industrial Engineering I4

Code Name	Credits	Level	Lec	Tut	Le	Lab	Periods				Other	
							1	2	3	4		
Compulsory Courses												
4A1145 Energysystems - Business - Leadership <i>The course will be given from 03/04</i>	8	D	24	24	-	4			3	4		
4D1144 Management in Technologyintensive Organizations	4	C	28	-	-	-		2			4 h Seminars4 h Seminars	

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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											
4C1035 <u>Strength of Materials and Solid Mechanics, Basic Course</u>	6	B	42	42	-	2		2	3		4 written assignments
4F1221 <u>Electrical Engineering, Basic Course, B</u>	4	B	12	18	-	14		2			
4F1531 <u>Machine Elements, basic course for I and T</u>	4	B	24	40	-	-				4	
4K1101 <u>Control Systems</u>	4	C	18	28	-	12				4	
5A1225 <u>Electromagnetism and Waves</u>	5	B	38	18	-	20	1				
5B1501 <u>Probability Theory and Statistics</u>	4	C	24	36	-	-			3		

Integrated Production and Industrial Engineering I3

Code Name	Credits	Level	Lec	Tut	Le	Lab	Periods				Other
							1	2	3	4	
Compulsory Courses											
3C1330 <u>Technology and Ecosystems</u>	4	AB	24	3	-	-		2			
4G1634 <u>Manufacturing Engineering, Basic Course</u>	6	C	32	20	-	12	1	2			
4H1057 <u>Engineering Materials</u>	4	B	24	-	-	15	1				
4K1111 <u>Production Automation</u>	5	C	44	-	-	-			3		
4K1211 <u>Computer Aided Design and Manufacturing, Introductory Course II</u> <i>Under bearbetning</i>	4	C	48	-	-	24				4	Graded exercise

Integrated Production and Industrial Engineering I4

Code Name	Credits	Level	Lec	Tut	Le	Lab	Periods				Other	
							1	2	3	4		
Compulsory Courses												
4D1144 Management in Technologyintensive Organizations	4	C	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 12

Code Name	Credits	Level	Lec	Tut	Le	Lab	Periods				Other
							1	2	3	4	
Compulsory Courses											
2D1320 Applied Computer Science	4	B	30	14	-	20	1	2			
2D1385 Software Engineering	4	C	24	12	-	18				4	
2G1317 Data and Computer Communication	5	D	34	18	-	34		2	3		
3C1330 Technology and Ecosystems	4	AB	24	3	-	-		2			
5A1225 Electromagnetism and Waves	5	B	38	18	-	20	1				

Communication Systems and Industrial Engineering 13

Code Name	Credits	Level	Lec	Tut	Le	Lab	Periods				Other
							1	2	3	4	
Compulsory Courses											
2B1540 Digital Electronics	6	C	28	18	-	24	1				
2G1305 Internetworking	4	D	20	20	-	26			3		
2G1318 Queuing Theory and Teletraffic Systems	4	D	24	24	-	-		2			
2G1502 Computer Hardware Basics <i>replaces 2G1119 and 2G1129</i>	4	B	18	18	-	20			3	4	
2G1504 Operating Systems <i>Replaces 2G1113</i>	4	C	24	18	-	12				4	
5B1506 Mathematical Statistics, Basic Course	6	C	36	48	-	-	1	2			

Communication Systems and Industrial Engineering 14

Code Name	Credits	Level	Lec	Tut	Le	Lab	Periods				Other	
							1	2	3	4		
Compulsory Courses												
2G1320 Communication - Business - Leadership <i>replaces 2G1303</i>	10	D	50	20	-	20			3	4	80 h Projektuppgift80 h Projektuppgift	
4D1144 Management in Technologyintensive Organizations	4	C	28	-	-	-		2			4 h Seminars4 h Seminars	
Recommended Courses												



2G1514 Distributed Artificial Intelligence and Intelligent Agents	4	D	24	10	-	-				4	
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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											
4C1035 <u>Strength of Materials and Solid Mechanics, Basic Course</u>	6	B	42	42	-	2		2	3		4 written assignments
4F1222 <u>Electrical Engineering, Basic Course T</u>	6	B	18	27	-	26		2	3		
4F1242 <u>Introduction to Microcomputer Systems</u>	4	C	12	22	-	14				4	
4F1531 <u>Machine Elements, basic course for I and T</u>	4	B	24	40	-	-				4	
5A1225 <u>Electromagnetism and Waves</u>	5	B	38	18	-	20	1				
5B1501 <u>Probability Theory and Statistics</u>	4	C	24	36	-	-			3		
Elective Courses											
4F1241 <u>Microcomputer, Sensors and Actuators</u>	6	C	18	26	-	29				4	

Mechatronics and Industrial Engineering I3

Code Name	Credits	Level	Lec	Tut	Le	Lab	Periods				Other	
							1	2	3	4		
Compulsory Courses												
2D1320 Applied Computer Science	4	B	30	14	-	20	1	2				
2E1200 Automatic Control, General Course	4	C	24	26	-	12	1					
3C1330 Technology and Ecosystems	4	AB	24	3	-	-		2				
4F1132 Microcomputers in Embedded Systems	5	D	-	36	-	36			3			
4F1142 Motion control and Real-time implementation*	5	D	22	10	-	30				4		
5C1112 Mechanics, Continuation Course	4	C	30	15	-	-		2				

*The course has limited participation

Mechatronics and Industrial Engineering I4

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

4F1161 Mechatronics-Economics-Leadership <i>Under bearbetning</i>	15	D	-	116	-	80	2	3	4	
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Industrial Engineering and Management

Program Design and Industrial Engineering I2

Code Name	Credits	Level	Lec	Tut	Le	Lab	Periods				Other
							1	2	3	4	
Compulsory Courses											
2D1320 Applied Computer Science	4	B	30	14	-	20	1	2			
2D1334 Database Technology	4	C	24	20	-	12			3	4	
2D1385 Software Engineering	4	C	24	12	-	18				4	
3C1330 Technology and Ecosystems	4	AB	24	3	-	-		2			
5A1225 Electromagnetism and Waves	5	B	38	18	-	20	1				
5B1501 Probability Theory and Statistics	4	C	24	36	-	-			3		

Program Design and Industrial Engineering I3

Code Name	Credits	Level	Lec	Tut	Le	Lab	Periods				Other
							1	2	3	4	
Compulsory Courses											
2B1540 Digital Electronics	6	C	28	18	-	24	1				
2D1362 Program Development Project with Software Engineering <i>The course will only be given in 03/ 04.</i>	6	C	30	-	-	-		2	3	4	
2D1620 Human-Computer Interaction, Introductory Course	4	C	18	2	-	5	1				
2D1622 Human-Computer Interaction, Second Course	4	C	18	2	-	5		2			
2D1953 Graphics and Interaction Programming	4	C	30	6	-	28			3		
2G1502 Computer Hardware Basics <i>replaces 2G1119 and 2G1129</i>	4	B	18	18	-	20			3	4	

Program Design and Industrial Engineering I4

Code Name	Credits	Level	Lec	Tut	Le	Lab	Periods				Other	
							1	2	3	4		
Compulsory Courses												
2D1460 Software Design - Business - Leadership	8	D	24	-	-	-			3	4	12 h Seminars12 h Seminars	
4D1144 Management in Technologyintensive Organizations	4	C	28	-	-	-		2			4 h Seminars4 h Seminars	

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Information and Communication Technology

Information and Communication Technology IT1

Code Name	Credits	Level	Lec	Tut	Le	Lab	Periods				Other
							1	2	3	4	
Compulsory Courses											
2B1115 Engineering Fundamentals	4	A	36	18	-	12	1				
2B1550 Digital Electronics	6	B	36	24	-	16			3	4	
2G1502 Computer Hardware Basics <i>replaces 2G1119 and 2G1129</i>	4	B	-	-	-	-				4	
2I1027 Computer Science, Basic Course	6	B	25	21	24	44	1	2	3		
5B1118 Discrete Mathematics	5	B	-	-	-	-		2			
5B1140 Analytical Methods and Linear Algebra I, IT	8	AB	-	-	-	-	1	2			
5B1141 Analytical Methods and Linear Algebra II, IT	8	AB	-	-	-	-			3	4	
Elective Courses											
5B1120 Introductory Course in Mathematics I	1	A	-	-	-	-					

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Information and Communication Technology

Information and Communication Technology IT2

Code Name	Credits	Level	Lec	Tut	Le	Lab	Periods				Other
							1	2	3	4	
Compulsory Courses											
2B1120 Introductory Physics	4	B	-	-	-	-		2			
2B1350 Electromagnetism and Waves	4	B	-	-	-	-			3		
2G1502 Computer Hardware Basics <i>replaces 2G1119 and 2G1129</i>	4	B	-	-	-	-	1				
2G1512 Computer Science II	6	C	30	30	-	30	1	2			+ individual work approximately 150h
5B1506 Mathematical Statistics, Basic Course	6	C	36	48	-	-	1	2			

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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	
Compulsory Courses											
6B3022 IT Project	5	C	16	18	-	-			3	4	
9E1363 Written and Spoken Communication	4	B	-	-	42	-			3	4	

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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											
2I1259 Value-Based Software Engineering	5	D	28	-	-	-				4	Seminar 14 h
3C1320 Environment and Technology	4	AB	24	3	-	-			3		
3C1330 Technology and Ecosystems	4	AB	24	3	-	-		2			
6B2913 Sustainable Technology	4	B	6	12	-	-			3	4	

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Information and Communication Technology

Electronic and Computer Systems - Computer Systems IT3

Code Name	Credits	Level	Lec	Tut	Le	Lab	Periods				Other
							1	2	3	4	
Conditionally Elective Courses											
2E1423 Signal Theory	5	C	24	22	-	10			3		
2G1505 Theory of Automata	4	D	18	12	-	-		2			
2G1507 Computer Communication, Advanced Course	6	C	20	20	-	26				4	
2G1510 Computer Architecture Fundamentals	5	C	18	12	-	4		2			Seminar 4h

Electronic and Computer Systems - Computer Systems IT4

Code Name	Credits	Level	Lec	Tut	Le	Lab	Periods				Other
							1	2	3	4	
Conditionally Elective Courses											
2B1445 Embedded Systems	5	D	-	-	24	20	1				10 h SeminarsSelf study 150 h 10 h Seminars
2D1373 Artificial Languages and Syntax Analysis	4	C	24	-	-	16			3		
2D1426 Robotics and Autonomous Systems*	5	D	16	-	-	60				4	
2E1423 Signal Theory	5	C	24	22	-	10			3		
2G1114 Parallel Computer Systems	5	D	-	-	24	-		2			Individual project guidance: 2-5 h/ student. Home study time: 150 h
2G1121 Logic Programming	4	D	16	8	-	-	1				Individual work on project
2G1505 Theory of Automata	4	D	18	12	-	-		2			
2G1507 Computer Communication, Advanced Course	6	C	20	20	-	26				4	
2G1510 Computer Architecture Fundamentals	5	C	18	12	-	4		2			Seminar 4h
2G1511 Computer Architecture	6	D	42	-	-	12			3	4	Individual project guidance: 2-5 h/ student Home study time: 180 h

*The course has limited participation

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Information and Communication Technology

Electronic and Computer Systems - Electronic Systems IT3

Code Name	Credits	Level	Lec	Tut	Le	Lab	Periods				Other
							1	2	3	4	
Conditionally Elective Courses											
2E1423 Signal Theory	5	C	24	22	-	10			3		
2G1505 Theory of Automata	4	D	18	12	-	-		2			
2G1507 Computer Communication, Advanced Course	6	C	20	20	-	26				4	
2G1510 Computer Architecture Fundamentals	5	C	18	12	-	4		2			Seminar 4h

Electronic and Computer Systems - Electronic Systems IT4

Code Name	Credits	Level	Lec	Tut	Le	Lab	Periods				Other
							1	2	3	4	
Conditionally Elective Courses											
2B1423 <u>ASIC-design Methodology with High-level Languages</u>	5	D	26	-	-	20				4	
2B1427 <u>Design of Digital Integrated Circuits - VLSI</u>	5	D	20	8	-	32			3		
2B1429 <u>System Modelling</u>	5	D	20	16	-	24			3		
2B1445 <u>Embedded Systems</u>	5	D	-	-	24	20	1				10 h SeminarsSelf study 150 h 10 h Seminars
2B1453 <u>Design of Fault-tolerant Systems</u>	4	D	24	6	-	-				4	
2B1455 <u>Anatomy of EDA CAD-tools</u>	5	D	24	6	-	-			3		
2E1423 <u>Signal Theory</u>	5	C	24	22	-	10			3		
2G1121 <u>Logic Programming</u>	4	D	16	8	-	-	1				Individual work on project
2G1505 <u>Theory of Automata</u>	4	D	18	12	-	-		2			
2G1507 <u>Computer Communication, Advanced Course</u>	6	C	20	20	-	26				4	
2G1510 <u>Computer Architecture Fundamentals</u>	5	C	18	12	-	4		2			Seminar 4h

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Electronic and Computer Systems - Embedded Systems IT3

Code Name	Credits	Level	Lec	Tut	Le	Lab	Periods				Other
							1	2	3	4	
Conditionally Elective Courses											
2E1423 Signal Theory	5	C	24	22	-	10			3		
2G1505 Theory of Automata	4	D	18	12	-	-		2			
2G1507 Computer Communication, Advanced Course	6	C	20	20	-	26				4	
2G1510 Computer Architecture Fundamentals	5	C	18	12	-	4		2			Seminar 4h

Electronic and Computer Systems - Embedded Systems IT4

Code Name	Credits	Level	Lec	Tut	Le	Lab	Periods				Other
							1	2	3	4	
Conditionally Elective Courses											
2B1423 <u>ASIC-design Methodology with High-level Languages</u>	5	D	26	-	-	20				4	
2B1429 <u>System Modelling</u>	5	D	20	16	-	24			3		
2B1445 <u>Embedded Systems</u>	5	D	-	-	24	20	1				10 h Seminars Self study 150 h 10 h Seminars
2B1453 <u>Design of Fault-tolerant Systems</u>	4	D	24	6	-	-				4	
2D1426 <u>Robotics and Autonomous Systems*</u>	5	D	16	-	-	60				4	
2E1423 <u>Signal Theory</u>	5	C	24	22	-	10			3		
2G1505 <u>Theory of Automata</u>	4	D	18	12	-	-		2			
2G1507 <u>Computer Communication, Advanced Course</u>	6	C	20	20	-	26				4	
2G1508 <u>Compilers and Virtual Machines</u>	4	C	24	24	-	16		2			
2G1510 <u>Computer Architecture Fundamentals</u>	5	C	18	12	-	4		2			Seminar 4h

*The course has limited participation

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Electronic and Computer Systems IT2

Code Name	Credits	Level	Lec	Tut	Le	Lab	Periods				Other
							1	2	3	4	
Compulsory Courses											
2B1552 Analog Electronics	6	C	-	-	-	-			3		
2G1503 System Modeling and Simulation	6	B	24	-	-	-				4	Project work 12 h
5B1209 Signals and Systems, part I	5	C	-	-	-	-				4	

Electronic and Computer Systems IT3

Code Name	Credits	Level	Lec	Tut	Le	Lab	Periods				Other
							1	2	3	4	
Compulsory Courses											
2B1430 Design of Digital Integrated Circuits - LSI <i>Given in Kista Given in Kista</i>	5	C	-	-	-	-	1	2			
2B1512 Digital Design with HDL	6	D	30	-	-	60	1	2			
2E1313 Signals and Systems, part II	5	C	-	-	-	-	1				
2G1504 Operating Systems <i>Replaces 2G1113</i>	4	C	24	18	-	-			3		

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Information and Communication Technology

Information Systems - Interactive Systems IT3

Code Name	Credits	Level	Lec	Tut	Le	Lab	Periods				Other
							1	2	3	4	
Conditionally Elective Courses											
2I1042 <u>Design and Construction of Interactive Systems</u>	5	C	-	-	-	-	1	2			
2I1235 <u>Agent Programming</u>	4	D	18	-	-	3				4	Other 80 hours
2I1236 <u>Intelligent Interfaces</u> <i>Replaced by 2I1237</i>	4	D	36	-	-	-			3	4	
2I1237 <u>Advanced Interactive Systems</u>	4	D	36	-	-	-			3	4	

Information Systems - 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	-	-	-	-	1	2			
2I1055 Methods for the Design of Multimedia & Interactive Systems	6	D	25	-	-	64				4	Seminars 24 hours. Project work 128 hours
2I1095 Cognitive Science	4	C	25	-	-	-			3		Course assignment work 120
2I1234 Machine Learning	4	D	36	-	-	-				4	
2I1235 Agent Programming	4	D	18	-	-	3				4	Other 80 hours
2I1236 Intelligent Interfaces <i>Replaced by 2I1237</i>	4	D	36	-	-	-			3	4	
2I1237 Advanced Interactive Systems	4	D	36	-	-	-			3	4	
2I1266 Internet Programming III <i>Replaced by 2I1803</i>	4	D	-	-	-	160				4	
2I1803 Internet Programming III <i>Replaces 2I1266 from VT04</i>	5	D	8	-	-	160				4	

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Information and Communication Technology

Information Systems - Management of Information Technology and Systems IT3

Code Name	Credits	Level	Lec	Tut	Le	Lab	Periods				Other
							1	2	3	4	
Conditionally Elective Courses											
2I1040 Knowledge and Software Reuse	4	C	18	18	-	40			3		
2I1053 Internet and ERP Systems	5	C	12	-	-	-		2			Project work 80 h
2I1224 Data Warehousing	4	D	15	10	-	30				4	
2I1242 Models and Languages for Object and Web Databases	5	D	21	15	70	70			3		

Information Systems - Management of Information Technology and Systems IT4

Code Name	Credits	Level	Lec	Tut	Le	Lab	Periods				Other
							1	2	3	4	
Conditionally Elective Courses											
2I1040 Knowledge and Software Reuse	4	C	18	18	-	40			3		
2I1052 Internet Information Search Techniques	4	C	21	-	-	80		2			6 h SeminarsReading 50 h 6 h Seminars
2I1053 Internet and ERP Systems	5	C	12	-	-	-		2			Project work 80 h
2I1054 Relational Database Management Systems	4	C	24	-	-	-	1	2			Seminars 10 h. Project work 80 h.
2I1056 Relational Database Design - Logical and Physical <i>Not given 2003/2004</i>	4	C	12	12	-	60		2			Computer tutorials and hand in assignments 80h
2I1190 Organisations, IT-Systems and Management	7	C	36	-	-	9			3	4	Seminars 6h
2I1191 IT-Platform: Strategy, Architecture and Design	5	C	30	-	-	2				4	Seminars 6h
2I1198 IT-Management	5	C	24	-	-	3				4	Seminars 3h
2I1224 Data Warehousing	4	D	15	10	-	30				4	
2I1228 Enterprise Computing and ERP Systems	5	D	14	12	-	60	1				80h
2I1229 Knowledge Management	4	D	28	-	-	18				4	70h
2I1242 Models and Languages for Object and Web Databases	5	D	21	15	70	70			3		

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Information Systems - Software Engineering and Security IT3

Code Name	Credits	Level	Lec	Tut	Le	Lab	Periods				Other
							1	2	3	4	
Conditionally Elective Courses											
<u>211041 Software Evolution and Maintenance</u> <i>This course is a part-time course (75%), meaning that you accomplish 4 credits within 6 weeks.</i>	4	C	21	16	-	9			3		group counselling 1h
<u>211258 Large-Scale Software Engineering</u>	5	D	20	-	-	100			3	4	
<u>211274 Security Protocols and Applications in Computer Network</u>	4	D	24	-	-	24				4	Extra reading material 36 hours

Information Systems - Software Engineering and Security IT4

Code Name	Credits	Level	Lec	Tut	Le	Lab	Periods				Other
							1	2	3	4	
Conditionally Elective Courses											
211041 Software Evolution and Maintenance <i>This course is a part-time course (75%), meaning that you accomplish 4 credits within 6 weeks.</i>	4	C	21	16	-	9			3		group counselling 1h
211050 Security Management	5	D	27	-	-	-				4	
211251 Theory of Software Metrics	4	D	13	-	-	60			3	4	
211255 Quality Models and Standards	4	D	-	-	-	-				4	4 seminars
211258 Large-Scale Software Engineering	5	D	20	-	-	100			3	4	
211272 Security Architecture for Open Distributed Systems	4	D	24	-	-	-				4	Research Assignment 24h, Extra Reading Materials 36h
211274 Security Protocols and Applications in Computer Network	4	D	24	-	-	24				4	Extra reading material 36 hours
211276 Security for Java Environment and Electronic Commerce	4	D	21	8	3	-		2			Extra Reading Materials 36h, Research Project 24h

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Information and Communication Technology

Information Systems IT2

Code Name	Credits	Level	Lec	Tut	Le	Lab	Periods				Other
							1	2	3	4	
Compulsory Courses											
211029 Human-Computer Interaction	4	B	-	-	-	-				4	
211030 Introduction to Computer Security	4	B	-	-	-	15			3		Other 100 hours
211034 Object Oriented Analysis and Design	4	C	-	-	-	-			3	4	
5B1928 Logic	4	D	-	-	-	-				4	

Information Systems IT3

Code Name	Credits	Level	Lec	Tut	Le	Lab	Periods				Other
							1	2	3	4	
Compulsory Courses											
211033 IT in Organisations and Databases	8	C	24	18	-	200	1	2			
211130 Cognitive Psychology	4	B	30	12	-	-	1				
211140 Artificial Intelligence	6	C	36	16	-	80			3		
211402 Processes for IT Project Management	4	D	24	-	-	-		2			9h

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Computer and Communication Systems - Computer Systems IT3

Code Name	Credits	Level	Lec	Tut	Le	Lab	Periods				Other
							1	2	3	4	
Conditionally Elective Courses											
2B1512 Digital Design with HDL	6	D	30	-	-	60	1	2			
2G1121 Logic Programming	4	D	16	8	-	-	1				Individual work on project
2G1505 Theory of Automata	4	D	18	12	-	-		2			

Computer and Communication Systems - Computer Systems IT4

Code Name	Credits	Level	Lec	Tut	Le	Lab	Periods				Other
							1	2	3	4	
Conditionally Elective Courses											
2B1445 Embedded Systems	5	D	-	-	24	20	1				10 h Seminars Self study 150 h 10 h Seminars
2B1512 Digital Design with HDL	6	D	30	-	-	60	1	2			
2D1426 Robotics and Autonomous Systems*	5	D	16	-	-	60				4	
2G1114 Parallel Computer Systems	5	D	-	-	24	-		2			Individual project guidance: 2-5 h/ student. Home study time: 150 h
2G1121 Logic Programming	4	D	16	8	-	-	1				Individual work on project
2G1505 Theory of Automata	4	D	18	12	-	-		2			
2G1511 Computer Architecture	6	D	42	-	-	12			3	4	Individual project guidance: 2-5 h/ student Home study time: 180 h

*The course has limited participation

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Computer and Communication Systems - Communication Systems IT3

Code Name	Credits	Level	Lec	Tut	Le	Lab	Periods				Other
							1	2	3	4	
Conditionally Elective Courses											
2G1318 <u>Queuing Theory and Teletraffic Systems</u>	4	D	24	24	-	-		2			
2G1332 <u>Management of Network and Networked Systems</u>	5	D	20	-	-	20	1				

Computer and Communication Systems - Communication Systems IT4

Code Name	Credits	Level	Lec	Tut	Le	Lab	Periods				Other
							1	2	3	4	
Conditionally Elective Courses											
2G1318 <u>Queuing Theory and Teletraffic Systems</u>	4	D	24	24	-	-		2			
2G1319 <u>Communication System Design</u> <i>Replaces 2G1303. Also given as 2G1711, 12 credits; 2G1712, 16 credits and 2G1713, 20 credits</i>	10	D	-	-	-	-			3	4	Project work 400h
2G1325 <u>Practical Voice Over IP (VoIP)</u>	5	D	-	-	-	-				4	
2G1330 <u>Wireless and Mobile Network Architectures</u>	5	D	10	-	-	-				4	Assigned paper 50h
2G1332 <u>Management of Network and Networked Systems</u>	5	D	20	-	-	20	1				
2G1509 <u>Distributed Systems, Basic Course</u>	5	D	24	-	-	-			3		Project work 5 hours
2G1511 <u>Computer Architecture</u>	6	D	42	-	-	12			3	4	Individual project guidance: 2-5 h/ student Home study time: 180 h
2G1703 <u>Inter Domain Routing</u>	5	D	10	-	-	20		2			Home assignment
2G1704 <u>Internet Security and Privacy</u>	5	D	30	10	-	-		2			

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Computer and Communication Systems - Parallel and Distributed Systems IT3

Code Name	Credits	Level	Lec	Tut	Le	Lab	Periods				Other	
							1	2	3	4		
Conditionally Elective Courses												
2G1121 Logic Programming	4	D	16	8	-	-	1				Individual work on project	
2G1505 Theory of Automata	4	D	18	12	-	-		2				
2I1235 Agent Programming	4	D	18	-	-	3				4	Other 80 hours	

Computer and Communication Systems - Parallel and Distributed Systems IT4

Code Name	Credits	Level	Lec	Tut	Le	Lab	Periods				Other
							1	2	3	4	
Conditionally Elective Courses											
2G1114 Parallel Computer Systems	5	D	-	-	24	-		2			Individual project guidance: 2-5 h/ student. Home study time: 150 h
2G1117 Semantics for Programming Languages	4	D	18	18	-	-	1				
2G1118 Network Programming with Java	4	D	20	10	-	8		2			
2G1121 Logic Programming	4	D	16	8	-	-	1				Individual work on project
2G1505 Theory of Automata	4	D	18	12	-	-		2			
2G1509 Distributed Systems, Basic Course	5	D	24	-	-	-			3		Project work 5 hours
2G1513 Distributed Systems, Advanced Course <i>Replaces 2G1126 from 2003/2004</i>	5	D	-	-	-	-				4	
2G1514 Distributed Artificial Intelligence and Intelligent Agents	4	D	24	10	-	-				4	
2G1515 Constraint Programming	5	D	24	-	-	-			3		Project work 10 hours
2G1516 Formal Methods <i>Replaces 2G1301 from 2003/2004</i>	5	D	24	24	-	18		2			
2G1517 Advanced System Modelling and Analysis Techniques	5	D	28	-	-	-				4	
2G1704 Internet Security and Privacy	5	D	30	10	-	-		2			
2I1235 Agent Programming	4	D	18	-	-	3				4	Other 80 hours

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Information and Communication Technology

Computer and Communication Systems - Wireless Systems IT2

Code Name	Credits	Level	Lec	Tut	Le	Lab	Periods				Other
							1	2	3	4	
Compulsory Courses											
2B1552 Analog Electronics	6	C	-	-	-	-			3		
2G1503 System Modeling and Simulation	6	B	24	-	-	-				4	Project work 12 h
5B1209 Signals and Systems, part I	5	C	-	-	-	-				4	

Computer and Communication Systems - Wireless Systems IT3

Code Name	Credits	Level	Lec	Tut	Le	Lab	Periods				Other
							1	2	3	4	
Compulsory Courses											
2E1313 Signals and Systems, part II	5	C	-	-	-	-	1				
2E1423 Signal Theory	5	C	24	22	-	10			3		
2G1507 Computer Communication, Advanced Course	6	C	20	20	-	26				4	
Conditionally Elective Courses											
2B1512 Digital Design with HDL	6	D	30	-	-	60	1	2			
2G1332 Management of Network and Networked Systems	5	D	20	-	-	20	1				
2G1510 Computer Architecture Fundamentals	5	C	18	12	-	4		2			Seminar 4h

Computer and Communication Systems - Wireless Systems IT4

Code Name	Credits	Level	Lec	Tut	Le	Lab	Periods				Other
							1	2	3	4	
Conditionally Elective Courses											
2B1512 Digital Design with HDL	6	D	30	-	-	60	1	2			
2B1600 Radio Electronics	5	D	26	12	-	16				4	
2E1340 Digital Signal Processing	5	C	26	24	-	3		2			
2E1350 Adaptive Signal Processing	4	D	24	14	-	-			3		
2E1400 Speech Signal Processing <i>Replaces 2F1521.</i>	4	D	24	24	-	-		2			

2E1410 Information Theory and Source Coding, Accel Program Course <i>Replaces 2F1532.</i>	5	D	36	12	-	-		3	
2E1511 Radio Communication, Basic Course	4	D	24	24	-	8	1		
2G1318 Queuing Theory and Teletraffic Systems	4	D	24	24	-	-		2	
2G1330 Wireless and Mobile Network Architectures	5	D	10	-	-	-			4 Assigned paper 50h
2G1332 Management of Network and Networked Systems	5	D	20	-	-	20	1		
2G1509 Distributed Systems, Basic Course	5	D	24	-	-	-		3	Project work 5 hours
2G1510 Computer Architecture Fundamentals	5	C	18	12	-	4		2	Seminar 4h
2G1514 Distributed Artificial Intelligence and Intelligent Agents	4	D	24	10	-	-			4

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Code Name	Credits	Level	Lec	Tut	Le	Lab	Periods				Other
							1	2	3	4	
Compulsory Courses											
2G1503 System Modeling and Simulation	6	B	24	-	-	-				4	Project work 12 h
2G1504 Operating Systems <i>Replaces 2G1113</i>	4	C	24	18	-	-			3		
5B1928 Logic	4	D	-	-	-	-				4	

Computer and Communication Systems IT3

Code Name	Credits	Level	Lec	Tut	Le	Lab	Periods				Other
							1	2	3	4	
Compulsory Courses											
2G1506 Programming with Processes <i>Is given for last time 2003/2004. The course 2G1915, Concurrent Programming, will replace.</i>	5	C	36	-	-	24	1				
2G1507 Computer Communication, Advanced Course	6	C	20	20	-	26				4	
2G1508 Compilers and Virtual Machines	4	C	24	24	-	16		2			
2G1510 Computer Architecture Fundamentals	5	C	18	12	-	4		2			Seminar 4h

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Microelectronics - Semiconductor technology IT3

Code Name	Credits	Level	Lec	Tut	Le	Lab	Periods				Other
							1	2	3	4	
Conditionally Elective Courses											
2B1240 VLSI-technology II	5	D	24	-	-	32				4	
2B1245 Advanced VLSI-Devices	5	D	20	-	-	32				4	
2B1450 Electronic System Packaging	5	D	-	-	-	-			3		
2B1512 Digital Design with HDL	6	D	30	-	-	60	1	2			

Microelectronics - Semiconductor technology IT4

Code Name	Credits	Level	Lec	Tut	Le	Lab	Periods				Other
							1	2	3	4	
Conditionally Elective Courses											
2B1230 Power Semiconductor Devices	5	D	40	-	-	-			3		Project 40h
2B1240 VLSI-technology II	5	D	24	-	-	32				4	
2B1245 Advanced VLSI-Devices	5	D	20	-	-	32				4	
2B1322 Fibre Optical Communication	5	D	28	14	-	8			3		
2B1325 Photonics	5	D	38	-	-	8				4	
2B1450 Electronic System Packaging	5	D	-	-	-	-			3		
2B1512 Digital Design with HDL	6	D	30	-	-	60	1	2			
2B1700 Advanced Semiconductor Materials	5	D	34	-	-	16			3		
2B1824 Optical Networking	5	D	28	-	-	-				4	

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Information and Communication Technology

Microelectronics - Circuit Design IT3

Code Name	Credits	Level	Lec	Tut	Le	Lab	Periods				Other	
							1	2	3	4		
Conditionally Elective Courses												
2B1450 Electronic System Packaging	5	D	-	-	-	-			3			
2B1512 Digital Design with HDL	6	D	30	-	-	60	1	2				
2G1507 Computer Communication, Advanced Course	6	C	20	20	-	26				4		

Microelectronics - Circuit Design IT4

Code Name	Credits	Level	Lec	Tut	Le	Lab	Periods				Other
							1	2	3	4	
Conditionally Elective Courses											
2B1427 <u>Design of Digital Integrated Circuits - VLSI</u>	5	D	20	8	-	32			3		
2B1450 <u>Electronic System Packaging</u>	5	D	-	-	-	-			3		
2B1512 <u>Digital Design with HDL</u>	6	D	30	-	-	60	1	2			
2B1600 <u>Radio Electronics</u>	5	D	26	12	-	16				4	
2B1610 <u>Low Power Analog and Mixed Signal IC's</u> <i>Replaced by 2B1611</i>	5	D	42	14	-	-				4	
2E1511 <u>Radio Communication, Basic Course</u>	4	D	24	24	-	8	1				
2G1507 <u>Computer Communication, Advanced Course</u>	6	C	20	20	-	26				4	

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Information and Communication Technology

Microelectronics IT2

Code Name	Credits	Level	Lec	Tut	Le	Lab	Periods				Other	
							1	2	3	4		
Compulsory Courses												
2B1252 Semiconductor Devices	6	C	-	-	-	-				4		
2B1552 Analog Electronics	6	C	-	-	-	-			3			
5B1209 Signals and Systems, part I	5	C	-	-	-	-				4		

Microelectronics IT3

Code Name	Credits	Level	Lec	Tut	Le	Lab	Periods				Other
							1	2	3	4	
Compulsory Courses											
2B1311 Microwave Engineering, Minor Course	4	C	-	-	-	-		2			
2B1430 Design of Digital Integrated Circuits - LSI <i>Given in Kista Given in Kista</i>	5	C	-	-	-	-	1	2			
2E1313 Signals and Systems, part II	5	C	-	-	-	-	1				
2E1423 Signal Theory	5	C	24	22	-	10			3		

Microelectronics IT4

Code Name	Credits	Level	Lec	Tut	Le	Lab	Periods				Other
							1	2	3	4	
Compulsory Courses											
2B1515 Analog Electronics, Advanced Course	5	C	30	14	-	20			3		Project work
2E1423 Signal Theory	5	C	24	22	-	10			3		

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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											
2D1310 Programming Technique	4	A	26	16	-	36		2	3		
3B1700 Introductory Chemistry	4	AB	24	22	-	22	1				
3B1711 Chemical Equilibria	4	AB	12	22	-	25		2	3		
3B1750 Organic Chemistry 1	5	AB	20	14	-	42		2			
3C1451 Introduction to Chemical Engineering	7	AB	36	26	-	-				4	Field Exercise 1 day, Plant Trip 1 day
5B1115 Mathematics I	6	B	-	-	-	-	1				
5B1116 Mathematics II	6	B	-	-	-	-			3		
5C1102 Mechanics, Smaller Course	4	B	30	15	-	-				4	
Elective Courses											
3B1705 Introductory Course in Chemistry	1	A	-	-	-	-					
5B1120 Introductory Course in Mathematics I	1	A	-	-	-	-					

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Chemical Engineering

Chemical Engineering K2

Code Name	Credits	Level	Lec	Tut	Le	Lab	Periods				Other
							1	2	3	4	
Compulsory Courses											
2D1210 Numerical Methods, Basic Course I	4	B	24	24	-	24		2	3		
3B1720 Chemical Thermodynamics	5	AB	28	30	-	15	1				
3B1730 Molecular Structure	5	AB	36	22	-	20		2	3		
3B1740 Chemical Dynamics	4	AB	20	20	-	15			3		
3B1760 Organic Chemistry 2	5	AB	12	22	-	54				4	
3E1200 Polymer Technology with Cellulose Technology	5	C	34	25	-	-				4	
5A1225 Electromagnetism and Waves	5	B	38	18	-	20		2			
5B1210 Mathematics IV	6	C	-	-	-	-	1				
Recommended Courses											
3C1921 Oral and Written Presentation for Chemists	4	AB	-	-	-	-				4	

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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											
3B1770 Chemical Measuring Techniques	5	AB	22	4	-	12	1				
3C1616 Reaction and Separation Engineering	7	C	28	30	-	36		2	3		16 h Seminars 16 h Seminars
3C1715 Transport Phenomena and Engineering Thermodynamics	7	C	28	40	-	12	1	2			6 h Seminars, 12 h Computer 6 h Seminars, 12 h Computer
3E1200 Polymer Technology with Cellulose Technology	5	C	34	25	-	-		2			
Elective Courses											
3B1242 Technical Surface and Colloid Chemistry	4	C	32	6	-	12			3		
3B1511 Organic Chemistry, Advanced Course 1	9	C	12	6	54	-	1			4	
3B1781 Inorganic Chemistry	4	C	20	6	-	16				4	
3C1340 Environmental Technology, Advanced Course	4	C	36	6	-	-			3		
3C1345 Environmental Technology and Environmental Impact Studies	4	D	32	4	-	-			3		8 h Projektuppgift 8 h Projektuppgift
3C1347 Env. Technology and Env. Impact Studies, Larger Course	8	D	32	16	-	24			3	4	
3C1355 Ecology, Advanced Course	4	C	21	4	-	-			3	4	
3C1360 Environmental Consequences, Advanced Course	4	C	15	-	-	-	1				
3C1370 Applied Environmental Legislation	3	C	24	3	-	-		2			
3C1383 Risk Management	4	C	16	30	-	-	1				
3C1387 Environmental Systems Analysis	4	C	16	8	-	6		2			
3C1395 Sustainable Development	4	C	10	9	-	-		2			
3C1626 Chemical Engineering, Laboratory Course	4	D	2	-	80	-			3		
3C1786 Pharmaceutical Bioscience	4	C	28	-	-	4			3		
3C1921 Oral and Written Presentation for Chemists	4	AB	4	12	2	2		2	3		
3D1058 Wood Chemistry and Wood Biotechnology	4	C	26	-	-	15			3		
3D1112 Fiber Technology	4	C	26	-	-	15				4	
3E1120 Mechanical Properties of Materials	5	C	30	15	-	12				4	

3E1142 Polymer Physics	5	D	18	18	-	45			3		
3U1101 Oral and Written Presentation for Chemists	4	B	-	-	-	-					
5B1301 Mathematics, Advanced Course, Partial Differential Equations	4	D	-	-	42	-				4	
9E1230 Information Searching	1	B	-	-	-	-	1	2	3	4	A total of 12h (3x4h), a written examination and a written report. The course is scheduled several times per year

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Chemical Engineering

Chemical Engineering K4

Code Name	Credits	Level	Lec	Tut	Le	Lab	Periods				Other
							1	2	3	4	
Elective Courses											
2B1263 Surface Physics, Basic Course	4	D	36	-	-	-		2			
2B1700 Advanced Semiconductor Materials	5	D	34	-	-	16			3		
2B1750 Smart Electronic Materials	4	C	18	10	-	8	1				
2D1320 Applied Computer Science	4	B	30	14	-	20			3	4	
2D1323 Computer Graphics and Interaction	4	C	42	-	-	12				4	
2D1334 Database Technology	4	C	24	20	-	12			3	4	
2D1354 Algorithms and Complexity	4	C	30	18	-	-	1	2			
2D1385 Software Engineering	4	C	24	12	-	18				4	
2E1200 Automatic Control, General Course	4	C	24	26	-	12		2			
2E1242 Automatic Control, Project Course*_	8	D	4	-	-	50				4	
2E1252 Control Theory and Practice, Advanced Course	5	D	28	26	-	8			3		
3A1104 Environmental Toxicology	6	C	36	14	-	-	1	2			
3A1111 Enzymatic Synthesis	5	D	20	12	-	20				4	
3B1122 Analytical Separation Methods	4	D	28	20	-	-				4	Literature study
3B1211 Quantum Chemistry and Spectroscopy	6	D	48	-	-	8	1				
3B1223 Molecular Thermodynamics	4	D	24	4	-	-			3		
3B1242 Technical Surface and Colloid Chemistry	4	C	32	6	-	12			3		
3B1301 Nuclear Chemistry	5	C	30	-	-	20		2			
3B1321 Radical Chemistry	5	C	30	-	-	-			3		
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	
3B1531 Organic Chemistry, lab, Advanced Course	4	D	-	-	-	54	1				
3B1542 Organic Chemistry, Intermediate Course II	5	D	24	-	-	40			3		

3B1650 Molecular Simulations Using a Computer	5	D	14	10	-	40		3		
3B1655 Optical Processes and Properties	5	D	10	10	-	-			4	
3C1340 Environmental Technology, Advanced Course	4	C	36	6	-	-		3		
3C1345 Environmental Technology and Environmental Impact Studies	4	D	32	4	-	-		3		8 h Projektuppgift8 h Projektuppgift
3C1347 Env. Technology and Env. Impact Studies, Larger Course	8	D	32	16	-	24		3	4	
3C1350 Waste Management, Advanced Course <i>Study visit</i>	4	D	18	-	-	3			4	Project work 20h
3C1355 Ecology, Advanced Course	4	C	21	4	-	-		3	4	
3C1360 Environmental Consequences, Advanced Course	4	C	15	-	-	-	1			
3C1370 Applied Environmental Legislation	3	C	24	3	-	-		2		
3C1370 Applied Environmental Legislation	3	C	24	3	-	-		2		
3C1383 Risk Management	4	C	16	30	-	-	1			
3C1387 Environmental Systems Analysis	4	C	16	8	-	6		2		
3C1395 Sustainable Development	4	C	10	9	-	-		2		
3C1524 Chemical Engineering	6	D	16	18	-	12	1	2		
3C1651 Environmental Catalysis	4	D	30	-	-	-			3	Seminars 18h
3D1059 The Chemistry of Pulping and Bleaching	5	D	26	-	-	-		2		24 h Seminars24 h Seminars
3D1115 Pulp and Paper Processes	6	D	40	-	-	48	1	2		
3D1116 Pulp and Paper Processes, Minor Course	4	D	20	-	-	-	1	2		
3D1118 Paper Chemistry	4	D	26	15	-	-			3	
3D1164 Pulp Technology	4	D	24	-	-	-			4	24 h Seminars24 h Seminars
4B1424 Vehicle systems for a better environment*	5	C	26	26	-	8		2		
4B1428 Environmental Friendly Vehicle - Project Course* <i>Under bearbetning</i>	5	D	10	-	-	-		2	3	4
4K1105 Manufacturing Systems and Automation	4	C	14	24	-	12		2		
5A1490 Laser Chemistry <i>Under bearbetning</i>	4	D	24	-	-	12		2		
5A1491 Femtochemistry <i>Under bearbetning</i>	5	D	36	-	-	-			3	
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	40	-	-	-				4
7E1115 Engineering in Intensive Care and Anesthesia*	4	D	12	-	-	-			3	4
7E1120 Biomedical Engineering, Basic Course	5	C	30	-	-	-	1			
7E1200 Cellular and Molecular Biology*	10	C	80	-	-	8			3	4

7E1202 Systems Biology*	5	C	32	-	-	25		2			24 h Seminars24 h Seminars
9E1230 Information Searching	1	B	-	-	-	-	1	2	3	4	A total of 12h (3x4h), a written examination and a written report. The course is scheduled several times per year

*The course has limited participation

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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											
2D1521 Communication and Information*_	5	C	21	24	-	-			3		
2D1550 Market Systems	5	C	-	-	-	-	1				Seminars 40h
2D1551 Consumer Markets <i>Open only to AFM-students.</i>	5	C	-	-	-	-	1				Seminars 40h
2D1552 Media Management	10	C	72	56	-	-	1	2	3	4	Only open for AFM-students.
2D1553 Media Production*_ <i>Only open for AFM-students.</i>	10	C	52	-	-	88		2			Only open for AFM-students.
2D1555 Information Technology and Organizations*_	5	D	39	-	-	-				4	Open only to AMF-students.

*The course has limited participation

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Biomedical Engineering K3

Code Name	Credits	Level	Lec	Tut	Le	Lab	Periods				Other
							1	2	3	4	
Compulsory Courses											
7E1200 Cellular and Molecular Biology*_	10	C	80	-	-	8			3	4	
7E1201 Neuroscience*_	5	C	60	-	-	30				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											
7E1120 Biomedical Engineering, Basic Course	5	C	30	-	-	-	1				
7E1202 Systems Biology*_	5	C	32	-	-	25		2			24 h Seminars 24 h Seminars
Recommended Courses											
3A1115 Biochemistry	4	C	34	-	-	-				4	

*The course has limited participation

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Chemical Engineering

Biomolecular technology K3

Code Name	Credits	Level	Lec	Tut	Le	Lab	Periods				Other
							1	2	3	4	
Compulsory Courses											
3A1109 Biochemistry	8	C	32	-	-	-				4	
3A1305 Microbiology, General Course	6	C	36	16	-	54			3	4	
3B1102 Analytical Chemistry	4	C	16	-	-	16			3		
3B1521 Organic Chemistry, Theory, Advanced Course 1	5	C	12	6	-	-				4	
Recommended Courses											
3A1111 Enzymatic Synthesis	5	D	20	12	-	20				4	
3A1504 Structure Biology	4	C	32	-	-	20				4	
3A1505 Biophysical Chemistry	4	D	30	20	-	-			3		
3B1321 Radical Chemistry	5	C	30	-	-	-			3		

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Chemical Engineering

K3

Code Name	Credits	Level	Lec	Tut	Le	Lab	Periods				Other
							1	2	3	4	
Compulsory Courses											
3B1770 Chemical Measuring Techniques	5	AB	22	4	-	12	1				
3C1616 Reaction and Separation Engineering	7	C	28	30	-	36		2	3		16 h Seminars16 hour 16 h Seminars
3C1715 Transport Phenomena and Engineering Thermodynamics	7	C	28	40	-	12	1	2			6 h Seminars, 12 h Computer6 h Seminars, 12 h Computer
3E1200 Polymer Technology with Cellulose Technology	5	C	34	25	-	-		2			
5A1225 Electromagnetism and Waves	5	B	38	18	-	20		2			

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Chemical Engineering

Industrial ecology K3

Code Name	Credits	Level	Lec	Tut	Le	Lab	Periods				Other
							1	2	3	4	
Compulsory Courses											
3C1347 Env. Technology and Env. Impact Studies, Larger Course	8	D	32	16	-	24			3	4	
3C1380 Environmental Management	4	C	21	3	-	8			3	4	Project work 8h
Recommended Courses											
3A1115 Biochemistry	4	C	34	-	-	-				4	
3A1305 Microbiology, General Course	6	C	36	16	-	54			3	4	
3B1102 Analytical Chemistry	4	C	16	-	-	16			3		
3B1443 Atmosphere, Aquatic and Terrestrial Chemistry	5	C	12	10	-	24				4	
3B1511 Organic Chemistry, Advanced Course 1	9	C	12	6	54	-	1			4	
3B1521 Organic Chemistry, Theory, Advanced Course 1	5	C	12	6	-	-				4	
3B1781 Inorganic Chemistry	4	C	20	6	-	16				4	
3C1651 Environmental Catalysis	4	D	30	-	-	-			3		Seminars 18h

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Chemical Engineering, start vt 03 K3

Code Name	Credits	Level	Lec	Tut	Le	Lab	Periods				Other
							1	2	3	4	
Conditionally Elective Courses											
2D1320 Applied Computer Science	4	B	30	14	-	20			3	4	
5B1301 Mathematics, Advanced Course, Partial Differential Equations	4	D	-	-	42	-				4	
5B1304 Mathematics, Extended Course	5	D	-	-	54	-			3	4	
Recommended Courses											
2D1263 Program Construction for Scientific Computing <i>Will not be on the central schedule.</i>	4	C	24	-	-	12			3	4	
3B1781 Inorganic Chemistry	4	C	20	6	-	16				4	
3E1120 Mechanical Properties of Materials	5	C	30	15	-	12				4	

Chemical Engineering, start vt 03 K4

Code Name	Credits	Level	Lec	Tut	Le	Lab	Periods				Other
							1	2	3	4	
Conditionally Elective Courses											
2E1291 Chemical Process Control	4	C	20	28	-	8			3		
3C1422 Industrial Energy Processes	5	D	20	20	-	-	1	2			
3C1524 Chemical Engineering	6	D	16	18	-	12	1	2			
3C1621 Process Chemistry	5	D	36	72	-	-			3		
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		Seminars 18h
3C1723 Transport Phenomena, Advanced Course	5	D	18	12	-	-			3		6 h Seminars, 12 h Computer6 h Seminars, 12 h Computer
3C1781 Chemical Engineering in Fine and Specialty Chemicals	5	D	20	12	56	27	1				8h industry visit
3C1823 Applied Electrochemistry	5	D	32	16	-	15			3		
3C1941 Chemical Engineering, Design Course	10	D	40	120	-	-				4	

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Chemical Engineering

Chemical engineering K3

Code Name	Credits	Level	Lec	Tut	Le	Lab	Periods				Other
							1	2	3	4	
Conditionally Elective Courses											
3C1524 <u>Chemical Engineering</u>	6	D	16	18	-	12				4	
3C1723 <u>Transport Phenomena, Advanced Course</u>	5	D	18	12	-	-			3		6 h Seminars, 12 h Computer 6 h Seminars, 12 h Computer
Recommended Courses											
3A1305 <u>Microbiology, General Course</u>	6	C	36	16	-	54			3	4	
3B1102 <u>Analytical Chemistry</u>	4	C	16	-	-	16			3		
3B1242 <u>Technical Surface and Colloid Chemistry</u>	4	C	32	6	-	12			3		
3B1521 <u>Organic Chemistry, Theory, Advanced Course 1</u>	5	C	12	6	-	-				4	
3B1781 <u>Inorganic Chemistry</u>	4	C	20	6	-	16				4	
3C1347 <u>Env. Technology and Env. Impact Studies, Larger Course</u>	8	D	32	16	-	24			3	4	
3C1621 <u>Process Chemistry</u>	5	D	36	72	-	-			3		
3C1626 <u>Chemical Engineering, Laboratory Course</u>	4	D	2	-	80	-			3		
3C1651 <u>Environmental Catalysis</u>	4	D	30	-	-	-			3		Seminars 18h
3C1823 <u>Applied Electrochemistry</u>	5	D	32	16	-	15			3		
3D1058 <u>Wood Chemistry and Wood Biotechnology</u>	4	C	26	-	-	15			3		
3D1112 <u>Fiber Technology</u>	4	C	26	-	-	15				4	
3E1120 <u>Mechanical Properties of Materials</u>	5	C	30	15	-	12				4	
5B1301 <u>Mathematics, Advanced Course, Partial Differential Equations</u>	4	D	-	-	42	-				4	
5B1304 <u>Mathematics, Extended Course</u>	5	D	-	-	54	-			3	4	
5C1212 <u>Computational Fluid Dynamics</u>	5	D	-	-	50	10			3		

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Chemical Engineering

Pharmaceuticals and Fine Chemicals Technology K4

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

For information about the courses or fees or other, please contact the Dept. of Chemical Engineering

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	56	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											
3A1115 Biochemistry	4	C	34	-	-	-				4	
3A1116 Biochemistry, Laboration Course	4	C	-	-	-	96	1				
3A1305 Microbiology, General Course	6	C	36	16	-	54	1	2			
3B1102 Analytical Chemistry	4	C	16	-	-	16			3		
3B1531 Organic Chemistry, lab, Advanced Course	4	D	-	-	-	54	1				
3C1626 Chemical Engineering, Laboratory Course	4	D	2	-	80	-			3		
4K1105 Manufacturing Systems and Automation	4	C	14	24	-	12		2			

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Pharmaceutical technology K3

Code Name	Credits	Level	Lec	Tut	Le	Lab	Periods				Other
							1	2	3	4	
Compulsory Courses											
3B1242 <u>Technical Surface and 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											
3A1305 <u>Microbiology, General Course</u>	6	C	36	16	-	54			3	4	
3A1504 <u>Structure Biology</u>	4	C	32	-	-	20				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		

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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	C	26	-	-	15			3		
3D1112 Fiber Technology	4	C	26	-	-	15				4	
3E1142 Polymer Physics	5	D	18	18	-	45			3		
Recommended Courses											
2B1216 Microelectronics <i>Replaced by 2B1252 from 2003/2004</i>	5	C	24	-	-	12			3		
3B1102 Analytical Chemistry	4	C	16	-	-	16			3		
3B1242 Technical Surface and Colloid Chemistry	4	C	32	6	-	12			3		
3B1321 Radical Chemistry	5	C	30	-	-	-			3		
3B1511 Organic Chemistry, Advanced Course 1	9	C	12	6	54	-	1			4	
3B1521 Organic Chemistry, Theory, Advanced Course 1	5	C	12	6	-	-				4	
3B1781 Inorganic Chemistry	4	C	20	6	-	16				4	
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
3C1823 Applied Electrochemistry	5	D	32	16	-	15			3		
3E1143 Surface Coatings Chemistry	5	D	30	-	-	28				4	
3E1146 Biopolymers	5	D	20	6	-	25			3		
4H1504 Processing of Ceramic Materials	4	C	12	-	-	18			3		
4H1610 Advanced Materials	4	C	18	-	-	6			3		Study visit 8h Seminars 18h
4H1703 Materials Chemistry	4	D	20	4	-	8				4	

Material Chemistry K4

Code Name	Credits	Level	Lec	Tut	Le	Lab	Periods	Other
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							1	2	3	4	
Recommended Courses											
2B1216 Microelectronics <i>Replaced by 2B1252 from 2003/2004</i>	5	C	24	-	-	12			3		
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		
2B1770 Solid State Physics, General Course	6	D	54	-	-	30			3	4	
2D1520 Graphic Arts Technology, Minor Course	4	C	30	8	-	16		2			
3B1102 Analytical Chemistry	4	C	16	-	-	16			3		
3B1242 Technical Surface and Colloid Chemistry	4	C	32	6	-	12			3		
3B1321 Radical Chemistry	5	C	30	-	-	-			3		
3B1482 Structural Chemistry	5	D	20	6	-	16	1				
3B1483 Nano-structured Materials	5	D	20	6	-	16		2			
3B1521 Organic Chemistry, Theory, Advanced Course 1	5	C	12	6	-	-				4	
3B1781 Inorganic Chemistry	4	C	20	6	-	16				4	
3C1422 Industrial Energy Processes	5	D	20	20	-	-	1	2			
3C1524 Chemical Engineering	6	D	16	18	-	12	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			
3D1164 Pulp Technology	4	D	24	-	-	-				4	24 h Seminars 24 h Seminars
3E1143 Surface Coatings Chemistry	5	D	30	-	-	28				4	
3E1144 Mechanical Properties and Testing of Polymers	5	D	30	12	-	12			3		
3E1145 Polymer Process Engineering I	5	D	30	10	-	28				4	
3E1146 Biopolymers	5	D	20	6	-	25			3		
3E1147 Polymeric Materials: Structure and Properties	5	D	18	18	-	45		2			
3E1362 Polymer Physics, Intermediate Course	5	D	36	9	-	20			3		
3E1370 Polymers in Engineering Design	4	D	18	24	-	8				4	
4H1504 Processing of Ceramic Materials	4	C	12	-	-	18			3		
4H1609 Functional Materials	4	D	18	-	-	6		2			Study visit 8h
4H1610 Advanced Materials	4	C	18	-	-	6			3		Study visit 8h Seminars 18h
4H1703 Materials Chemistry	4	D	20	4	-	8				4	
4H1805 Physics of Materials	5	C	40	20	-	20		2	3		Project work

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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											
3C1370 Applied Environmental Legislation	3	C	24	3	-	-		2			
3C1380 Environmental Management	4	C	21	3	-	8			3	4	Project work 8h
3C1387 Environmental Systems Analysis	4	C	16	8	-	6		2			
Recommended Courses											
3A1104 Environmental Toxicology	6	C	36	14	-	-	1	2			
3B1443 Atmosphere, Aquatic and Terrestrial Chemistry	5	C	12	10	-	24				4	
3C1350 Waste Management, Advanced Course <i>Study visit</i>	4	D	18	-	-	3				4	Project work 20h
3C1365 Environmental Consequences, Advanced Course II	4	D	15	15	-	40	1	2			Field exercises
3C1383 Risk Management	4	C	16	30	-	-	1				
3C1390 Environmental Management, Larger Course	8	D	36	3	-	24			3	4	Project work, field exercise
3C1651 Environmental Catalysis	4	D	30	-	-	-			3		Seminars 18h

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Chemical Engineering

Molecular Design K3

Code Name	Credits	Level	Lec	Tut	Le	Lab	Periods				Other
							1	2	3	4	
Conditionally Elective Courses											
3A1115 Biochemistry	4	C	34	-	-	-				4	
3B1102 Analytical Chemistry	4	C	16	-	-	16			3		
3B1223 Molecular Thermodynamics	4	D	24	4	-	-			3		
3B1242 Technical Surface and Colloid Chemistry	4	C	32	6	-	12			3		
3B1521 Organic Chemistry, Theory, Advanced Course 1	5	C	12	6	-	-				4	
3B1781 Inorganic Chemistry	4	C	20	6	-	16				4	
Recommended Courses											
2D1320 Applied Computer Science	4	B	30	14	-	20			3	4	
3A1111 Enzymatic Synthesis	5	D	20	12	-	20				4	
3A1305 Microbiology, General Course	6	C	36	16	-	54			3	4	
3A1504 Structure Biology	4	C	32	-	-	20				4	
3B1321 Radical Chemistry	5	C	30	-	-	-			3		
3B1443 Atmosphere, Aquatic and Terrestrial Chemistry	5	C	12	10	-	24				4	
3B1451 Bio-inorganic Chemistry	5	D	20	6	-	15				4	
3B1456 Inorganic Materials Chemistry	5	D	20	6	-	15				4	
3B1511 Organic Chemistry, Advanced Course 1	9	C	12	6	54	-	1			4	
3B1650 Molecular Simulations Using a Computer	5	D	14	10	-	40			3		
3C1345 Environmental Technology and Environmental Impact Studies	4	D	32	4	-	-			3		8 h Projektuppgift8 h Projektuppgift
3C1347 Env. Technology and Env. Impact Studies, Larger Course	8	D	32	16	-	24			3	4	
3C1784 Pharmaceutical Technology <i>Lectures are given in Stockholm (KTH) and laboratory work in Uppsala (Biomedical centre).</i>	5	D	32	10	-	25			3		
3C1823 Applied Electrochemistry	5	D	32	16	-	15			3		
3D1058 Wood Chemistry and Wood Biotechnology	4	C	26	-	-	15			3		
3E1142 Polymer Physics	5	D	18	18	-	45			3		

5A1351 Non-equilibrium Statistical Mechanics <i>Under bearbetning</i>	4	D	24	-	-	-			4	
5A1355 Molecular Biophysics <i>The course is given by the Department of Biochemistry and Biophysics, Stockholm University. The instruction takes place at the Arrhenius laboratories, Frescati.</i>	8	D	90	-	-	20			4	
5B1301 Mathematics, Advanced Course, Partial Differential Equations	4	D	-	-	42	-			4	
5B1550 Applied Mathematical Statistics	5	D	-	-	60	-			3	
Elective Courses										
3B1482 Structural Chemistry	5	D	20	6	-	16	1			
3B1483 Nano-structured Materials	5	D	20	6	-	16		2		

Molecular Design K4

Code Name	Credits	Level	Lec	Tut	Le	Lab	Periods				Other
							1	2	3	4	
Conditionally Elective Courses											
3A1115 Biochemistry	4	C	34	-	-	-				4	
3B1102 Analytical Chemistry	4	C	16	-	-	16			3		
3B1211 Quantum Chemistry and Spectroscopy	6	D	48	-	-	8	1				
3B1223 Molecular Thermodynamics	4	D	24	4	-	-			3		
3B1242 Technical Surface and Colloid Chemistry	4	C	32	6	-	12			3		
3B1521 Organic Chemistry, Theory, Advanced Course 1	5	C	12	6	-	-				4	
3B1781 Inorganic Chemistry	4	C	20	6	-	16				4	
Recommended Courses											
2B1263 Surface Physics, Basic Course	4	D	36	-	-	-		2			
2D1225 Numerical Solutions of Differential Equations	4	C	26	4	-	18	1	2			
2D1320 Applied Computer Science	4	B	30	14	-	20	1	2			
3A1110 Molecular Enzymology	5	D	20	-	-	24		2			6 h Seminars 6 h Seminars
3A1111 Enzymatic Synthesis	5	D	20	12	-	20				4	
3A1116 Biochemistry, Laboration Course	4	C	-	-	-	96	1				
3A1305 Microbiology, General Course	6	C	36	16	-	54	1	2			
3A1503 Molecular Biotechnology	5	C	36	-	-	15		2	3		
3A1504 Structure Biology	4	C	32	-	-	20				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	20	6	-	16	1			
3B1483 Nano-Structured Materials	5	D	20	6	-	16		2		
3B1531 Organic Chemistry, lab, Advanced Course	4	D	-	-	-	54	1			
3B1542 Organic Chemistry, Intermediate Course II	5	D	24	-	-	40			3	
3B1544 Applied Organic Molecular Spectroscopy	4	D	-	-	-	-	1			
3B1650 Molecular Simulations Using a Computer	5	D	14	10	-	40			3	
3C1345 Environmental Technology and Environmental Impact Studies	4	D	32	4	-	-			3	8 h Projektuppgift8 h Projektuppgift
3C1347 Env. Technology and Env. Impact Studies, Larger Course	8	D	32	16	-	24			3	4
3C1784 Pharmaceutical Technology <i>Lectures are given in Stockholm (KTH) and laboratory work in Uppsala (Biomedical centre).</i>	5	D	32	10	-	25			3	
3C1823 Applied Electrochemistry	5	D	32	16	-	15			3	
3D1058 Wood Chemistry and Wood Biotechnology	4	C	26	-	-	15			3	
3E1141 Polymer Chemistry	5	D	18	18	-	45	1			
3E1142 Polymer Physics	5	D	18	18	-	45			3	
5A1201 Physics, Basic Course I	7	B	52	14	-	30	1	2		
5A1351 Non-equilibrium Statistical Mechanics <i>Under bearbetning</i>	4	D	24	-	-	-				4
5A1354 Computational Physics	6	D	30	-	-	20	1	2		
5A1355 Molecular Biophysics <i>The course is given by the Department of Biochemistry and Biophysics, Stockholm University. The instruction takes place at the Arrhenius laboratories, Frescati.</i>	8	D	90	-	-	20				4
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	D	-	-	42	-				4
5B1550 Applied Mathematical Statistics	5	D	-	-	60	-			3	

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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	
Compulsory Courses											
3A1205 Biochemical Technology	7	D	40	-	-	60			3	4	
3A1305 Microbiology, General Course	6	C	36	16	-	54	1	2			
3A1308 Technical Microbiology 1	4	D	38	8	-	-			3		Study visit 8h
Recommended Courses											
2E1291 Chemical Process Control	4	C	20	28	-	8			3		
3A1104 Environmental Toxicology	6	C	36	14	-	-	1	2			
3A1112 Biochemical Analyses and Separation Techniques	5	D	32	-	-	30				4	
3A1116 Biochemistry, Laboration Course	4	C	-	-	-	96	1				
3A1309 Technical Microbiology 2	4	D	18	4	-	-				4	Seminars 20h
3A1503 Molecular Biotechnology	5	C	36	-	-	15		2	3		
3B1102 Analytical Chemistry	4	C	16	-	-	16			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	
3B1531 Organic Chemistry, lab, Advanced Course	4	D	-	-	-	54	1				
3C1345 Environmental Technology and Environmental Impact Studies	4	D	32	4	-	-			3		8 h Projektuppgift8 h Projektuppgift
3C1524 Chemical Engineering	6	D	16	18	-	12	1	2			
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	56	27	1				8h industry visit

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Surveying

Surveying L2

Code Name	Credits	Level	Lec	Tut	Le	Lab	Periods				Other
							1	2	3	4	
Compulsory Courses											
1B1034 <u>Land Engineering and Construction</u>	10	B	40	54	-	24	1	2			Field-exercises
1E1110 <u>Surveying, Remote Sensing and Mapping</u> <i>Field-exercises may be scheduled after the end of the term</i>	9	C	34	26	-	32			3	4	80 h Field excursions
1E1601 <u>GIS, Databases and Cartography</u>	8	C	38	16	-	46			3	4	
1F1386 <u>Microeconomics</u>	4	B	24	24	-	-		2			
2D1210 <u>Numerical Methods, Basic Course I</u>	4	B	24	24	-	24		2	3		
5B1501 <u>Probability Theory and Statistics</u>	4	C	24	36	-	-	1				
Elective Courses											
2D1468 <u>Supplementary Course in Database Technology</u>	1	C	-	4	-	-				4	

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Surveying

Surveying L3

Code Name	Credits	Level	Lec	Tut	Le	Lab	Periods				Other
							1	2	3	4	
Elective Courses											
1N1217 Logistics and Transportation	5	C	-	-	18	-				4	
2D1320 Applied Computer Science	4	B	30	14	-	20			3	4	
2D1468 Supplementary Course in Database Technology	1	C	-	4	-	-				4	

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Surveying

Surveying L4

Code Name	Credits	Level	Lec	Tut	Le	Lab	Periods				Other	
							1	2	3	4		
Elective Courses												
1A14TW Third World Housing <i>The course is given after agreement Under bearbetning</i>	10	D	-	-	-	-						
1B1336 Geological Processes - Field Course on Iceland	5	C	-	-	-	-						80 h ExkursionJuly-August, 5 weeks 80 h Exkursion
1B1820 Risk in Technical Systems	5	D	-	-	-	-	1	2	3	4		Project-course
1B1990 Developing Countries, Society and Technology	4	C	30	-	-	-	1	2				
1B1991 Management of Development Cooperation Projects	4	C	30	-	-	-			3	4		
1B1992 East- and Central Europe - Our Future Market	4	C	30	-	-	-	1	2				
1H1204 Logistics	5	C	6	-	-	-	1	2				15 h SeminarsProject-course, 15 h Seminars
1H1212 Logistics, Advanced Course	5	D	4	-	-	-			3			12 h SeminarsProject-course, 12 h Seminars
1H1601 Mathematics and Reality	5	C	20	10	-	-			3			
1H1602 Good and Bad Science	5	C	32	-	-	-			3	4		
1H1603 Technology and Ethics	5	C	24	-	-	-	1					8 h Seminars
1H1603 Technology and Ethics	5	C	24	-	-	-			3			8 h Seminars
1H1604 Philosophy of Risk	5	C	18	-	-	-		2				12 h Seminars
1K14LV Architecture, Basic Course* <i>First prio: 4th academic year students within L- and V-programs.</i>	5	D	-	36	-	-				4		Lectures, Study-visits, Seminars etc: 20h
1N1218 Logistics, Advanced Project Course	10	D	-	-	-	-			3	4		
1N1401 Applied Contract Law	5	B	-	-	-	-			3			60 h Seminars
1N1402 Civil and Public Law, Intermediate Course	5	B	24	24	-	-				4		
2D1220 Applied Numerical Methods I	4	C	40	-	-	20			3	4		
2D1225 Numerical Solutions of Differential Equations	4	C	26	4	-	18	1	2				
2D1320 Applied Computer Science	4	B	30	14	-	20	1	2				
2D1323 Computer Graphics and Interaction	4	C	42	-	-	12				4		
2D1334 Database Technology	4	C	24	20	-	12			3	4		

2D1378 Text and Image Processing	4	B	28	28	-	-	1				
5B1306 Financial Mathematics, Basic Course	5	C	-	-	54	-				4	

*The course has limited participation

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Surveying

Building and Real Estate Economics L3

Code Name	Credits	Level	Lec	Tut	Le	Lab	Periods				Other
							1	2	3	4	
Compulsory Courses											
1D1343 Operations, Maintenance and Modernisation Techniques	5	D	34	14	-	-				4	15 h Workshop, 17 h Study visit
1D1841 Buildings and Building Services Engineering	10	C	67	54	-	16		2	3		8 h Study visit
1F1329 Business Cycles in Construction and Real Estate Market	5	D	30	30	-	-	1				
1F1332 Investment Analysis	5	C	30	30	-	-		2			
1F1394 Real Estate Economics	5	C	36	24	-	-			3		
1F1442 Law of Real Estate	5	C	30	30	-	-	1				
Recommended Courses											
1F1337 Environmental Economics	5	C	30	30	-	-				4	

Building and Real Estate Economics L4

Code Name	Credits	Level	Lec	Tut	Le	Lab	Periods				Other
							1	2	3	4	
Recommended Courses											
1F1327 Management	5	D	30	30	-	-			3	4	
1F1330 Financial Analysis	5	D	30	30	-	-			3		
1F1333 Real Estate Market Analysis and Development	5	D	30	30	-	-			3		
1F1336 Real Estate Brokerage	5	D	30	30	-	-		2			
1F1339 Real Estate Finance and Economics	5	D	30	30	-	-				4	
1F1395 Urban Land Economics	5	D	24	36	-	-	1				
1F1396 Management Control	5	D	30	30	-	-		2			
1F1398 Real Estate Management	5	D	30	30	-	-	1				
1F1399 Real Estate Valuation	5	D	30	30	-	-				4	
1F1444 Law of Leaseholds	5	D	30	30	-	-		2	3		
1F1540 Information Technology in Construction	5	D	-	-	66	-		2			
1F1560 Project Management	5	D	-	-	66	-		2			
1F1565 Facilities Management	5	D	-	-	66	-				4	

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Surveying

Environmental Engineering and Sustainable Infrastructure L4

Code Name	Credits	Level	Lec	Tut	Le	Lab	Periods				Other
							1	2	3	4	
Recommended Courses											
1B1133 Applied Hydrology	5	D	29	29	-	-			3		
1B1233 Water and Waste Handling	5	C	-	-	77	-			3		
1B1291 Environmental Dynamics/Chemical Processes	5	D	30	8	-	16		2			8 h Exkursion
1B1292 Environmental Dynamics/Physical Processes	5	C	26	24	-	-		2			
1B1333 Environmental Geology and Geophysics	5	D	27	27	-	-				4	
1B1634 Environmental Impact Assessment* <i>First prio: Students within TESIM-, L- and V-programs. Second prio: Incoming exchange-students LV.</i>	5	C	30	26	-	-	1				8 h Exkursion8 h Exkursion
1B1635 Quantitative Hydrogeology	5	D	20	14	-	6				4	20 h Field excursions, 15 h Computer20 h Field excursions, 15 h Computer
1B1640 Natural Resources Management	5	D	19	-	-	36				4	
1E1610 Environmental Data* <i>First prio: Students within TESIM-, L- and V-programs. Second prio: Incoming exchange-students LV.</i>	5	D	18	2	-	38			3		
1F1462 Management of Land and Water	5	D	20	20	-	-				4	20 h Seminars
1H1141 Urban Infrastructure	5	D	-	-	56	-				4	
1H1142 Political Economy for Environmental Planners* <i>First prio: Students within TESIM-, L- and V-programs. Second prio: Incoming exchange-students LV.</i>	5	C	30	6	-	-	1				8 h Seminars
1H1143 Sustainable Rural and Urban Development* <i>First prio: Students within TESIM-, L- and V-programs. Second prio: Incoming exchange-students LV.</i>	5	C	32	-	16	-		2			24 h Seminars, 8 h Exkursion
1H1146 Sustainable Project Management	5	C	35	-	-	30			3		15 h Field excursions
1H1501 Human Settlements and Housing <i>Under bearbetning</i>	5	D	24	20	-	-		2			
1U1030 Theory of Science, Research Methodology and Excursions	5	D	29	-	-	-	1	2		4	Exkursion 40hSeminars Exkursion 40h
Elective Courses											



1H1004 Master's Project in Regional Planning	20	D	-	-	-	-					
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*The course has limited participation

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Land Development and Management L3

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	30	30	-	-	1				
1F1451 <u>Building and Environmental Law</u>	5	C	30	30	-	-	1				
1F1460 <u>Land Use and Land Use Policy</u>	5	C	40	28	-	-		2			
1F1461 <u>Land Use Planning</u>	10	D	40	80	-	-			3	4	16 h Field excursions
Recommended Courses											
1B1637 <u>Applied Geology and Hydrology</u> <i>The course begins in the 3rd academic year, period 3-4 and finishes in the 4th academic year, period 1</i>	10	C	24	25	-	-			3	4	12 h Seminars, 32 h Field excursions, 2 h Computer
1B1639 <u>Applied Geology and Hydrology</u>	10	C	29	36	-	15			3	4	3 h Seminars, 32 h Field excursions, 2 h Computer
1F1332 <u>Investment Analysis</u>	5	C	30	30	-	-		2			
1F1390 <u>Basic Real Estate Valuation</u>	5	C	24	36	-	-				4	Field-exercises 8h
1F1470 <u>Land Law</u> <i>Compulsory for students attending Land Development and Management during the 4th academic year</i>	5	D	30	30	-	-			3		

Land Development and Management L4

Code Name	Credits	Level	Lec	Tut	Le	Lab	Periods				Other
							1	2	3	4	
Compulsory Courses											
1F1427 <u>Compulsory Purchase and Compensation</u>	5	D	32	32	-	-		2			
1F1430 <u>Land Development</u>	10	D	-	-	142	-	1	2			
Recommended Courses											
1B1637 <u>Applied Geology and Hydrology</u> <i>The course begins in the 3rd academic year, period 3-4 and finishes in the 4th academic year, period 1</i>	10	C	-	-	-	-	1				
1B1640 <u>Natural Resources Management</u>	5	D	19	-	-	36				4	
1F1336 <u>Real Estate Brokerage</u>	5	D	30	30	-	-		2			
1F1441 <u>Civil and Public Law II</u>	5	D	24	40	-	-			3		
1F1444 <u>Law of Leaseholds</u>	5	D	30	30	-	-		2	3		

1F1445 Environmental Law	5	D	24	40	-	-				4	
1F1452 Law of Real Estate Formation	5	D	30	30	-	-	1				
1F1471 Real Estate Planning	10	D	40	90	-	-			3	4	32 h Field excursions

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Environmental Resources Engineering L2

Code Name	Credits	Level	Lec	Tut	Le	Lab	Periods				Other
							1	2	3	4	
Compulsory Courses											
1B1034 Land Engineering and Construction	10	B	40	54	-	24	1	2			Field-exercises
1E1110 Surveying, Remote Sensing and Mapping <i>Field-exercises may be scheduled after the end of the term</i>	9	C	34	26	-	32			3	4	80 h Field excursions
1E1601 GIS, Databases and Cartography	8	C	38	16	-	46			3	4	
1M1050 Environmental System Analysis	4	B	20	-	-	-		2			10 h Seminars
2D1210 Numerical Methods, Basic Course I	4	B	24	24	-	24		2	3		
5B1501 Probability Theory and Statistics	4	C	24	36	-	-	1				

Environmental Resources Engineering L3

Code Name	Credits	Level	Lec	Tut	Le	Lab	Periods				Other	
							1	2	3	4		
Compulsory Courses												
1M1055 <u>Resources Recycling and Management</u> <i>The course will be given from 03/04</i>	5	C	20	16	-	-	1				21 h Projektuppgift, 12 h Study visit	
1M1060 <u>Energy Supply</u> <i>The course will be given from 03/04</i>	5	C	22	30	-	-		2			4h Seminar, 4h Study-visit, Individual project work	
Recommended Courses												
1B1639 <u>Applied Geology and Hydrology</u>	10	C	29	36	-	15			3	4	3 h Seminars, 32 h Field excursions, 2 h Computer	
1D1801 <u>Building Materials and Building Physics</u>	10	C	84	78	-	10	1	2			10 h Computer, 18 h Workshop	
1D1804 <u>Buildings and Indoor Climate</u>	10	C	54	84	-	-			3	4	60 h Workshop, 12 h Study visit	
1F1451 <u>Building and Environmental Law</u>	5	C	30	30	-	-	1					
1F1460 <u>Land Use and Land Use Policy</u>	5	C	40	28	-	-		2				
1F1461 <u>Land Use Planning</u>	10	D	40	80	-	-			3	4	16 h Field excursions	

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Surveying

Urban Planning L3

Code Name	Credits	Level	Lec	Tut	Le	Lab	Periods				Other
							1	2	3	4	
Compulsory Courses											
1H1106 Planning for Housing, Workplaces and Services	5	C	-	-	30	-			3		36 h Seminars
1H1151 Theory of Planning and Organization	5	D	-	-	33	-				4	
Recommended Courses											
1F1451 Building and Environmental Law	5	C	30	30	-	-	1				
1F1460 Land Use and Land Use Policy	5	C	40	28	-	-		2			
1H1141 Urban Infrastructure	5	D	-	-	56	-				4	
1H1163 Social Planning	5	C	-	-	66	-				4	
1H1211 Road, Traffic and Urban Design	6	B	30	93	-	-	1				
1H1243 Traffic and Land-use Planning	5	C	21	55	-	-			3		5 h Exkursion5 h Exkursion
1H1501 Human Settlements and Housing <i>Under bearbetning</i>	5	D	24	20	-	-		2			

Urban Planning L4

Code Name	Credits	Level	Lec	Tut	Le	Lab	Periods				Other
							1	2	3	4	
Recommended Courses											
1H1157 Urban and Regional Economics	5	D	-	-	66	-		2			
1H1162 Urban Center Planning <i>The course is mainly carried out in Norrtelje</i>	5	D	-	-	-	-			3		77 h Seminars
1H1170 Sustainable Cities	10	D	-	-	120	-	1				
1H1171 Urban Governance	5	D	30	-	-	-			3		6 h Seminars6 h Seminars
1H1172 Futures Studies and Forecasts	5	D	-	-	36	-		2			30 h Computer
1H1174 Planning for Regional Development	10	D	27	26	-	-				4	Large Projecttask
1H1183 Spatial Planning with GIS	5	D	30	-	-	36			3		
1H1401 Optimisation Models in Transport and Location Analysis <i>Under bearbetning</i>	5	D	27	12	-	6			3		6 h Seminars

<u>1N1501</u> Territorial Strategies in a Networking Economy <i>The course will be taught in Västerås.</i> <i>Under bearbetning</i>	10	D	35	-	-	-			3	4	15 h Seminars, 10 h Workshop6h Tutorials 15 h Seminars, 10 h Workshop
Elective Courses											
<u>1H1004</u> Master's Project in Regional Planning	20	D	-	-	-	-					

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Surveying and Mapping L3

Code Name	Credits	Level	Lec	Tut	Le	Lab	Periods				Other
							1	2	3	4	
Compulsory Courses											
1E1121 Theory of Errors	9	C	48	-	-	44	1	2			
1E1131 Geodetic Surveying <i>Field-exercises may be scheduled after the end of the term</i>	10	D	70	40	-	16			3	4	120 h Field excursions
1E1410 Analytical Photogrammetry	10	D	48	36	-	36			3	4	
5A1225 Electromagnetism and Waves	5	B	38	18	-	20	1				
5A1591 Image Physics and Photography <i>Under bearbetning</i>	7	C	48	-	-	34		2	3		

Surveying and Mapping L4

Code Name	Credits	Level	Lec	Tut	Le	Lab	Periods				Other
							1	2	3	4	
Recommended Courses											
1E1142 <u>Advanced Geodesy</u>	9	D	66	10	-	56	1	2			
1E1160 <u>Satellite Geodesy</u>	5	D	20	-	-	40			3		40 h Field excursions
1E1170 <u>Engineering Surveying</u>	5	D	20	20	-	20				4	Field-exercise
1E1430 <u>Topographic Sensor Technology</u>	5	D	24	16	-	32				4	
1E1440 <u>Digital Photogrammetry</u>	5	D	24	-	-	32	1				
1E1450 <u>Integrated Project</u>	5	D	-	-	-	-				4	Project
1E1630 <u>Remote Sensing Technology</u>	5	C	18	-	-	36		2			4 h Study visit
1E1640 <u>Geoinformatics</u>	10	D	44	-	-	100		2	3		Study-visits
1E1650 <u>Advanced Remote Sensing</u>	5	D	20	-	-	48				4	

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Mechanical Engineering

Mechanical Engineering M1

Code Name	Credits	Level	Lec	Tut	Le	Lab	Periods				Other
							1	2	3	4	
Compulsory Courses											
2D1212 Numerical Methods and Fundamentals of Programming	6	AB	36	36	-	36			3	4	
4A1101 <i>Under bearbetning</i>	6	A	38	60	-	-	1	2			
5A1226 Physics I	6	AB	38	-	-	30	1	2			
5B1132 Analytical methods and linear algebra I	8	AB	80	40	-	-	1	2			
5B1133 Analytical methods and linear algebra II	8	AB	80	40	-	-			3	4	
5C1130 Mechanics I	6	AB	48	-	27	-			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											
2D1210 Numerical Methods, Basic Course I	4	B	24	24	-	24			3	4	
3C1330 Technology and Ecosystems	4	AB	24	-	-	-			3	4	
4C1095 Strength of Materials and Solid Mechanics, Basic Course <i>Under bearbetning</i>	8	B	52	52	-	2	1	2			
4D1094 Work Science	2	A	12	-	-	-		2			
4F1521 Machine Elements, Basic Course	8	B	10	52	-	6			3	4	Workshops 46h Study visit 1 day, period 1
4H1056 Structural Materials	6	B	30	-	-	27			3	4	
5B1210 Mathematics IV	6	C	-	-	-	-	1				
5C1112 Mechanics, Continuation Course	4	C	30	15	-	-		2			

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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											
4A1112 Applied Thermodynamics	6	C	48	48	-	-	1	2			Math exercises
4B1112 Fundamentals of Noise and Vibration Control M	4	C	31	30	-	4	1				
4F1219 Basic Electrical Engineering for Mechanical Engineers	8	B	24	36	-	28		2	3		
4G1634 Manufacturing Engineering, Basic Course	6	C	32	20	-	12	1	2			
Elective Courses											
2C1111 System Planning	4	D	60	-	-	-			3		
2D1320 Applied Computer Science	4	B	30	14	-	20			3	4	
2D1522 Computer Technology and Communication*	4	C	30	-	-	20				4	
2E1212 Automatic Control, General Course	4	C	24	26	-	12			3		
3C1340 Environmental Technology, Advanced Course	4	C	36	6	-	-			3		
3C1395 Sustainable Development	4	C	10	9	-	-		2			
3D1112 Fiber Technology	4	C	26	-	-	15				4	
3E1324 Polymer Materials - Properties and Applications	4	C	30	12	-	10				4	
4A1601 Heat Transfer	4	C	24	24	-	20			3		
4A1603 Energy Technology	4	C	48	12	-	-				4	
4B1120 Signal Analysis with Applications	5	D	-	24	-	22				4	
4C1096 Strength of Materials and Solid Mechanics, Advanced Course	4	C	36	14	-	4			3		
4D1051 Commercial Law	4	B	18	14	-	-			3		
4E1102 Lightweight Structures and FEM I	5	C	64	-	-	12			3	4	
4E1103 Lightweight Structures and FEM II	6,5	C	76	-	-	12			3	4	
4E1401 Introduction to Naval Architecture	5	C	46	10	-	10			3	4	
4F1241 Microcomputer, Sensors and Actuators	6	C	18	26	-	29				4	
4F1242 Introduction to Microcomputer Systems	4	C	12	22	-	14				4	
4F1244 Motion Control <i>The course will not be given until further notice.</i>	4	D	30	-	-	12				4	

4F1530 Function Analysis and Optimization in Mechanical Engineering	5	C	-	60	-	-			3	4	One day field trip.
4F1541 CAD 3D-modelling and Visualization for Personal Computers	4	C	8	36	-	-				4	
4F1642 Modelling and Computer Support in Mechanical Design	4	C	24	36	-	-			3		
4G1134 Effective Production	6	D	25	35	-	-			3	4	
4K1101 Control Systems	4	C	18	28	-	12				4	
4K1107 Production of Electronics I	4	C	36	-	-	8			3		
4K1132 Modularisation of Products <i>Some parts of the course are outlined in 4K1131 Assembly Systems and 4K1104 Manufacturing Systems, advanced course.</i>	4	C	24	20	-	-			3		
4K1201 Computer Aided Design and Manufacturing, Introductory course	5	C	48	-	-	24				4	Graded exercise
4K1401 History of Technology, a General Survey	4	B	12	-	-	-			3		12 h Seminars 12 h Seminars
4M1335 Materials Processing, Laboratory Course	5	D	26	32	-	47			3	4	
4M1336 Physics for Materials Processing	5	C	16	16	-	-			3		Home assignments 60h
4M1345 Powder Processing and Materials Forming	4	D	30	-	-	-				4	Home assignments 80h
5B1304 Mathematics, Extended Course	5	D	-	-	54	-			3	4	
5B1538 Reliability Theory	6	D	-	-	72	-			3	4	
5B1722 Applied Optimization	4	C	28	14	-	9			3		
5C1121 Analytical Mechanics	4	C	48	-	-	-			3		
5C1211 Vehicle Aerodynamics	4	C	16	-	-	4				4	4 h Seminars 4 h Seminars
5C1214 Fluid Mechanics	5	C	-	30	30	3	1				
5C1921 Fluid Mechanics for Engineers	4,5	C	28	30	-	6			3	4	
9E1131 Information Searching for B, I, M, T	1	B	-	-	-	-			3	4	
9E1300 Technical English, Lower Intermediate Level*	4	B	-	-	56	-			3	4	
9E1301 Technical English, Intermediate Level*	6	B	-	-	56	-			3	4	
9E1320 German, Elementary Level*	4	B	-	-	56	-			3	4	
9E1322 German, Advanced Beginner's Level*	4	B	-	-	56	-			3	4	
9E1325 Technical German, Intermediate Level, E-learning	6	B	-	-	18	-			3	4	E-learning exercises
9E1330 French, Elementary Level*	4	B	-	-	56	-			3	4	
9E1332 French, Advanced Beginner's Level*	4	B	-	-	56	-			3	4	
9E1334 Technical French, Intermediate Level*	6	B	-	-	56	-			3	4	
9E1342 Spanish, Elementary Level*	4	B	-	-	56	-			3	4	
9E1346 Spanish, Advanced Beginner's Level*	4	B	-	-	56	-			3	4	
9E1348 Technical Spanish, Intermediate Level*	6	B	-	-	56	-			3	4	
9E1350 Italian, Elementary Level*	4	B	-	-	56	-			3	4	

*The course has limited participation

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Mechanical Engineering

Mechanical Engineering M4

Code Name	Credits	Level	Lec	Tut	Le	Lab	Periods				Other
							1	2	3	4	
Elective Courses											
2A1140 Accelerator and Radiation Technology	4	D	36	-	-	4			3		
2A1151 Energy and Fusion Research	4	D	24	12	-	-				4	
2A1160 Space Physics	3	D	14	-	4	-	1				
2C1111 System Planning	4	D	60	-	-	-			3		
2C1243 Hybrid Drive Systems	5	C	-	-	-	-			3		
2D1225 Numerical Solutions of Differential Equations	4	C	26	4	-	18	1	2			
2D1320 Applied Computer Science	4	B	30	14	-	20			3	4	
2D1323 Computer Graphics and Interaction	4	C	42	-	-	12				4	
2D1334 Database Technology	4	C	24	20	-	12			3	4	
2D1354 Algorithms and Complexity	4	C	30	18	-	-	1	2			
2D1385 Software Engineering	4	C	24	12	-	18				4	
2D1420 Computer Vision, Basic Course	5	D	46	6	-	12			3		
2D1426 Robotics and Autonomous Systems*_	5	D	16	-	-	60				4	
2D1426 Robotics and Autonomous Systems*_	5	D	16	-	-	60	1				
2D1432 Artificial Neural Networks and Other Learning Systems	4	D	26	-	-	16			3		
2D1520 Graphic Arts Technology, Minor Course	4	C	30	8	-	16		2			
2D1521 Communication and Information*_	5	C	21	24	-	-			3		
2D1522 Computer Technology and Communication*_	4	C	30	-	-	20				4	
2D1524 Image Processing and Reprographic Methods*_ <i>Limited number of participants</i>	6	C	50	16	-	24	1				
2E1212 Automatic Control, General Course	4	C	24	26	-	12			3		
2E1242 Automatic Control, Project Course*_	8	D	4	-	-	50				4	
2E1252 Control Theory and Practice, Advanced Course	5	D	28	26	-	8			3		
2E1262 Nonlinear Control	5	D	28	28	-	8		2			

2E1291 Chemical Process Control	4	C	20	28	-	8		3			
2F1111 Speech Technology	4	D	36	14	-	6		3			
2F1400 Electroacoustics	4	D	34	12	-	8	1				
3C1350 Waste Management, Advanced Course <i>Study visit</i>	4	D	18	-	-	3			4	Project work 20h	
3C1355 Ecology, Advanced Course	4	C	21	4	-	-		3	4		
3C1360 Environmental Consequences, Advanced Course	4	C	15	-	-	-	1				
3C1365 Environmental Consequences, Advanced Course II	4	D	15	15	-	40	1	2		Field exercises	
3C1370 Applied Environmental Legislation	3	C	24	3	-	-		2			
3C1380 Environmental Management	4	C	21	3	-	8			3	4	Project work 8h
3C1383 Risk Management	4	C	16	30	-	-	1				
3C1385 Biology	4	C	30	6	-	6	1			Field exercise 8h	
3C1387 Environmental Systems Analysis	4	C	16	8	-	6		2			
3C1395 Sustainable Development	4	C	10	9	-	-		2			
3E1360 Mechanical Properties of Polymers, Minor Course	4	D	24	16	-	12	1				
3E1361 Polymer Processing, Minor Course	4	D	24	8	-	18		2			
4A1140 Energy Systems and Models I	4	D	-	-	-	-				4	
4A1341 Introductory Airbreathing Propulsion	4	C	21	24	-	8		2			
4A1344 Airbreathing Propulsion, Intermediate Course I <i>Under bearbetning</i>	4	D	40	-	-	-			3	Project work 6h	
4A1346 Rocket Propulsion <i>Under bearbetning</i>	4	D	36	10	-	-				4	Project work 6h
4A1347 Airbreathing Propulsion for High Speed Flight <i>Under bearbetning</i>	4	D	27	10	-	6				4	
4A1605 Sustainable Power Generation	6	D	30	48	-	18	1	2			
4A1607 Sustainable Energy Utilisation	6	D	-	-	72	16	1	2			
4A1609 Applied Energy Technology - Project Course	6	D	12	-	-	-			3	4	Project 78h
4A1610 Energy Management	4	D	50	-	-	-	1	2			
4A1611 Renewable Energy Technology	4	D	-	-	52	-	1			Study visit 8h	
4A1613 Energy and Environment <i>Examinator: Björn Palm, Tel 790 7453</i>	4	D	50	-	-	-			3	4	Study visit 6h
4A1620 Combustion Theory	4	C	18	18	-	15	1	2			
4A1621 Modelling of Thermodynamic Systems	4	D	16	-	-	32	1	2	3	4	The course is given upon agreement
4A1622 Thermal Comfort and Indoor Climate	4	D	54	-	-	-			3	4	Study visits 6h
4A1623 Applied Refrigeration and Heat Pump Technology	4	D	24	24	-	16			3	4	
4A1625 Cooling of Electronics	4	D	-	-	48	-			3		
4A1626 Applied Heat and Power Technology	4	D	36	12	-	8			3	4	Project assignment 8h
4A1627 Applied Reactor Technology and Nuclear Power Safety	4	D	48	-	-	-			3	4	Study visits 12h
4A1629 Fluid Machinery	4	C	30	18	-	12	1	2			

4A1630 Thermal Fluid Machinery	4	D	36	12	-	12		3		
4B1131 Experimental Structure Dynamics	5	D	-	58	-	12	2	3		
4B1304 Railway Systems and Rail Vehicles	6	C	-	-	60	9	1	2		Project assignment 9h
4B1313 Rail Vehicle Dynamics	5	D	-	-	36	24		3		
4B1420 Ground Vehicle Engineering, Basic Course	6	C	36	36	-	-	1	2		
4B1424 Vehicle systems for a better environment*	5	C	26	26	-	8		2		
4B1425 Ground Vehicle Dynamics, Basic Course*	7	D	33	60	-	-		3	4	
4B1428 Environmental Friendly Vehicle - Project Course* <i>Under bearbetning</i>	5	D	10	-	-	-		2	3	4
4C1110 Material Mechanics	4	D	52	-	-	3	1			
4C1111 Fracture Mechanics and Fatigue	4	D	48	-	-	4			4	
4C1112 Theory of Elasticity	4	D	26	26	-	-		3		
4C1114 Finite Element Method	4	D	-	49	-	8	2			
4C1116 Dynamic Problems in Solid Mechanics <i>Under bearbetning</i>	4	D	42	-	-	8		3	4	
4C1118 Non-linear Theory of Elasticity	2	D	12	12	-	-			4	
4C1119 Finite Element Method, Project Course <i>Under bearbetning</i>	2	D	8	-	-	-		3		
4C1120 Experimental methods in mechanics	4	D	20	-	-	20		3		Seminars 4h
4D1026 Industrial Economy and Management, Basic Course	4	A	20	16	-	-		2		4 h Seminars4 h Seminars
4D1027 Industrial Economics and Management, Basic Course	4	A	20	16	-	-		2		4 h SeminarsSeminars 4h 4 h Seminars
4D1032 Production <i>Replaces 4D1030 Industrial Production and 4D1136 Production</i>	4	B	36	12	-	-			4	10 h Study visit10 h Study visit
4D1051 Commercial Law	4	B	18	14	-	-		3		
4D1057 Advanced Patent Law	4	C	4	14	-	-	1			Seminars 14h
4D1060 Industrial Development	4	B	40	8	-	-		3		
4D1062 Industrial Marketing <i>Replaces 4D1065 Industrial Marketing and 4D1151 Marketing</i>	4	B	36	12	-	-		3		
4D1075 Work Organization and Leadership* <i>Limited attendance, selection will be made</i>	4	B	24	24	-	-		3		
4D1092 Human - Machine System	4	B	24	6	-	3		3		
4D1093 Psychology for Engineers <i>Replaces 4D1088 Technical Work Psychology</i>	4	B	24	6	-	4	2			
4E1124 Fibre Composites I: materials and processes	4	D	40	-	-	5	1			
4E1126 Structural Design and Optimisation	4	D	36	-	-	12		3		
4E1150 Biomechanics and Neurronics	4	D	36	-	-	6			4	
4F1131 Microcomputers in Embedded Systems*	5	D	-	36	-	36	2			
4F1131 Microcomputers in Embedded Systems* <i>Limited attendance: 25</i>	5	D	-	36	-	36		3		

4F1141 Project Work in Mechatronics* <i>Limited attendance due to limited number of available projects</i>	4	C	-	-	-	-	1	2	3	4	No scheduled hours
4F1244 Motion Control <i>The course will not be given until further notice.</i>	4	D	30	-	-	12				4	
4F1340 Introduction to Fluid Power	4	C	24	24	-	9		2			
4F1343 Fluid Systems and Machines	4	C	24	24	-	12	1				
4F1430 Combustion Engines, general course*	4	C	42	6	-	12	1				
4F1431 Combustion Engines, Advanced Course*	6	D	48	-	-	28		2	3		
4F1460 Combustion Engines, Project Course <i>The course is open only to students specializing in combustion engines. Open only for students with individual specialization of Combustion engines.</i>	6	D	-	-	18	-			3	4	
4F1540 Tribology	4	C	18	9	-	5				4	
4F1541 CAD 3D-modelling and Visualization for Personal Computers	4	C	8	36	-	-				4	
4F1630 Introduction to Machine Design	5	C	24	36	-	-	1	2			
4F1631 Intermediate Machine Design Course	7	D	4	84	-	-			3	4	
4F1640 Industrial Design* <i>Limited number of participants.</i>	4	C	24	36	-	-			3		
4F1640 Industrial Design*	4	C	24	36	-	-		2			
4F1641 Environmentally Adapted Product Design <i>80% participation.</i>	4	C	-	-	42	-		2			
4F1643 Eco Design Project*	4	C	-	-	-	-	1	2	3	4	
4G1230 Introductory Welding Technology	4	C	24	18	-	12	1				
4G1231 Intermediate Welding Technology	4	D	24	24	-	12	1	2			
4G1246 Enlarged Welding Technology for EWE <i>Course is given upon agreement</i>	4	D	25	25	-	10	1	2	3	4	
4G1540 Laser Metrology Methods and Non-Destructive Testing	4	C	28	22	-	4		2			
4G1541 Measurement Technology & Statistics f Manufact. Processes	4	D	30	-	-	8			3		
4H1113 Powder Metallurgy	4	D	18	18	-	12		2			
4H1301 Material Design	4	D	-	2	-	10			3	4	
4H1404 Corrosion and Surface Protection, General Course	4	C	16	12	-	12	1				
4H1405 Corrosion Science, Advanced Course	4	D	16	-	-	-			3		
4H1505 Structure and Properties of Ceramic Materials	4	D	12	-	-	18		2			
4H1609 Functional Materials	4	D	18	-	-	6		2			Study visit 8h
4H1610 Advanced Materials	4	C	18	-	-	6			3		Study visit 8h Seminars 18h
4H1702 Current Research Topics in Materials Chemistry	4	D	20	4	-	8				4	
4H1703 Materials Chemistry	4	D	20	4	-	8				4	
4H1802 Artificial Materials	4	D	20	4	-	6	1				

4H1803 Physics of Nanostructured Materials	4	D	20	4	-	6			4	
4K1102 Manufacturing Automation I <i>Under bearbetning</i>	4	C	20	24	-	12	1			
4K1103 Manufacturing Automation II <i>Under bearbetning</i>	6	C	28	32	-	17	1	2		
4K1107 Production of Electronics I	4	C	36	-	-	8			3	
4K1109 Principles for Product Integrated Manufacturing Systems Design	4	C	12	12	-	4	1			
4K1131 Assembly Systems <i>Under bearbetning</i>	4	C	24	20	-	12		2		
4K1132 Modularisation of Products <i>Some parts of the course are outlined in 4K1131 Assembly Systems and 4K1104 Manufacturing Systems, advanced course.</i>	4	C	24	20	-	-			3	
4K1202 Modelling and Interaction in CAD/CAM* <i>Maximum of 20 participants. Students of "Computer Systems for Design and Manufacturing" will have priority.</i>	5	D	-	36	-	24	1			3 Programming tasks, periods 1, 2
4K1405 Environmental History	4	B	12	-	-	-			4	12 h Seminars12 h Seminars
4K1409 History of Industry	4	B	12	-	-	-	1	2		10 h Study visit10 h Study visit
4K1601 Wood Material Science, Basic Course	5	C	36	24	-	32			3	4
4K1602 Industrial Wood Processing, Basic Course	4	C	26	16	-	16	1			
4M1051 Project	4	D	-	160	-	-	1	2		
4M1341 Foundry Processing	4	D	12	-	-	-			3	Seminarier 24h Other 28h
4M1342 Space Systems and Technology	4	D	36	-	-	-		2		
4M1343 Materials Processing, Project Support	4	D	72	48	-	40	1	2		
4M1344 Metrology in Materials Processing	4	D	16	-	-	80	1			Seminars 16h
4M1345 Powder Processing and Materials Forming	4	D	30	-	-	-			4	Home assignments 80h
4M1346 Simulation and Modelling	4	D	10	80	-	-	1	2		
4M1370 Solidification Processing	4	D	36	24	-	-	1	2		
5A1260 Modern Physics <i>Not sure that the course is given 03/ 04.</i> <i>Under bearbetning</i>	5	C	24	12	-	10	1	2		
5A1304 Mathematical Methods in Physics <i>Not given 03/ 04</i>	6	C	-	78	-	-				
5A1370 Solid State Theory	4	D	36	-	-	-	1			
5A1414 Radiation Detectors and Medical Imaging Systems <i>Under bearbetning</i>	5	D	24	6	-	20			3	4
5A1416 Radiation Sources for Therapy <i>Under bearbetning</i>	2	D	8	-	-	-			4	2 compulsory studyvisits
5A1590 Technical Photography <i>Under bearbetning</i>	5	D	20	-	-	36			3	4
5B1310 Applied and Industrial Mathematics	5	D	26	-	-	-	1	2		
5B1555 Computer Intensive Methods in Mathematical Statistics	5	D	-	-	48	-				4
5B1574 Portfolio Theory and Risk Management	4	D	30	12	-	-	1			

5B1814 Applied Mathematical Programming - Linear Problems	4	D	18	12	-	-	2			Projektuppgift 18h
5B1816 Applied Mathematical Programming - Nonlinear Problems	4	D	18	12	-	-		3		Projektuppgift 18h
5B1852 Mathematical Economics	4	D	32	16	-	-	2			
5C1122 Continuum Mechanics	4	C	42	-	-	-	1			
5C1123 Mathematical Methods of Mechanics, General Course	4	D	36	-	-	-	2			
5C1125 Mathematical Methods of Mechanics, Intermediate Course	2	D	-	-	-	-		3		
5C1211 Vehicle Aerodynamics	4	C	16	-	-	4			4	4 h Seminars4 h Seminars
5C1214 Fluid Mechanics	5	C	-	30	30	3	1			
5C1400 Nonlinear Dynamics in Mechanics	5	C	24	-	-	-		3		
5C1860 FEM Modelling	5	D	33	-	-	-		2		44 h Workshop44 h Workshop
5C1980 Mechanics in Research and Industry <i>The course runs the entire academic year. A few lectures during fall.</i>	4	C	24	-	-	37	1	2	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	40	-	-	-				4
7E1115 Engineering in Intensive Care and Anesthesia*	4	D	12	-	-	-			3	4
7E1120 Biomedical Engineering, Basic Course	5	C	30	-	-	-	1			
7E1200 Cellular and Molecular Biology*	10	C	80	-	-	8			3	4
7E1202 Systems Biology*	5	C	32	-	-	25		2		24 h Seminars24 h Seminars
9E1131 Information Searching for B, I, M, T	1	B	-	-	-	-	1	2		3 laborations on all together 12 hours, 1 written examination and 1 written report. The course is given regularly throughout the academic year, please refer to the web page for the course.
9E1131 Information Searching for B, I, M, T	1	B	-	-	-	-			3	4
9E1300 Technical English, Lower Intermediate Level*	4	B	-	-	56	-	1	2		
9E1301 Technical English, Intermediate Level*	6	B	-	-	56	-	1	2		
9E1304 Technical English, Advanced Level*	6	C	-	-	56	-			3	4
9E1304 Technical English, Advanced Level*	6	C	-	-	56	-	1	2		
9E1320 German, Elementary Level*	4	B	-	-	56	-	1	2		
9E1322 German, Advanced Beginner's Level*	4	B	-	-	56	-	1	2		
9E1325 Technical German, Intermediate Level, E-learning	6	B	-	-	18	-	1	2		E-learning exercises

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			
9E1332 French, Advanced Beginner's Level*_	4	B	-	-	56	-	1	2			
9E1334 Technical French, Intermediate Level*_	6	B	-	-	56	-	1	2			
9E1342 Spanish, Elementary Level*_	4	B	-	-	56	-	1	2			
9E1346 Spanish, Advanced Beginner's Level*_	4	B	-	-	56	-	1	2			
9E1350 Italian, Elementary Level*_	4	B	-	-	56	-	1	2			
9E1352 Italian, Advanced Beginner's Level*_	4	B	-	-	56	-			3	4	
9E1360 Communicative Swedish*_	4	B	-	-	56	-	1	2			

*The course has limited participation

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Business Development and Media Technology M3

Code Name	Credits	Level	Lec	Tut	Le	Lab	Periods				Other
							1	2	3	4	
Elective Courses											
9E1300 <u>Technical English, Lower Intermediate Level*_</u>	4	B	-	-	56	-			3	4	
9E1301 <u>Technical English, Intermediate Level*_</u>	6	B	-	-	56	-			3	4	
9E1304 <u>Technical English, Advanced Level*_</u>	6	C	-	-	56	-			3	4	

*The course has limited participation

Business Development and Media Technology M4

Code Name	Credits	Level	Lec	Tut	Le	Lab	Periods				Other
							1	2	3	4	
Compulsory Courses											
2D1521 Communication and Information*_	5	C	21	24	-	-			3		
2D1550 Market Systems	5	C	-	-	-	-	1				Seminars 40h
2D1551 Consumer Markets <i>Open only to AFM-students.</i>	5	C	-	-	-	-	1				Seminars 40h
2D1552 Media Management	10	C	72	56	-	-	1	2	3	4	Only open for AFM-students.
2D1553 Media Production*_ <i>Only open for AFM-students.</i>	10	C	52	-	-	88		2			Only open for AFM-students.
2D1555 Information Technology and Organizations*_	5	D	39	-	-	-				4	Open only to AMF-students.
Elective Courses											
2D1334 Database Technology	4	C	24	20	-	12			3	4	

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Advanced Materials M3

Code Name	Credits	Level	Lec	Tut	Le	Lab	Periods				Other	
							1	2	3	4		
Compulsory Courses												
4H1610 <u>Advanced Materials</u>	4	C	18	-	-	6			3		Study visit 8h Seminars 18h	
4H1611 <u>Materials Optimisation and Design</u>	5	C	18	18	-	12				4	Study visits 10h	
Elective Courses												
4H1504 <u>Processing of Ceramic Materials</u>	4	C	12	-	-	18			3			

Advanced Materials M4

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

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Biomedical Engineering M3

Code Name	Credits	Level	Lec	Tut	Le	Lab	Periods				Other
							1	2	3	4	
Compulsory Courses											
7E1200 Cellular and Molecular Biology*_	10	C	80	-	-	8			3	4	
7E1201 Neuroscience*_	5	C	60	-	-	30				4	

*The course has limited participation

Biomedical Engineering M4

Code Name	Credits	Level	Lec	Tut	Le	Lab	Periods				Other
							1	2	3	4	
Compulsory Courses											
7E1120 Biomedical Engineering, Basic Course	5	C	30	-	-	-	1				
7E1202 Systems Biology*_	5	C	32	-	-	25		2			24 h Seminars 24 h Seminars
Elective Courses											
2D1435 Mathematical Modelling of Biological Systems <i>The course is given every second year and will be given in 03/04.</i>	6	D	26	-	-	20				4	

*The course has limited participation

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Computer Systems for Design and Manufacturing M3

Code Name	Credits	Level	Lec	Tut	Le	Lab	Periods				Other
							1	2	3	4	
Compulsory Courses											
2D1320 Applied Computer Science	4	B	30	14	-	20			3	4	
4K1201 Computer Aided Design and Manufacturing, Introductory course	5	C	48	-	-	24				4	Graded exercise

Computer Systems for Design and Manufacturing M4

Code Name	Credits	Level	Lec	Tut	Le	Lab	Periods				Other
							1	2	3	4	
Compulsory Courses											
<u>4F1630 Introduction to Machine Design</u>	5	C	24	36	-	-	1	2			
<u>4K1102 Manufacturing Automation I</u> <i>Under bearbetning</i>	4	C	20	24	-	12	1				
<u>4K1202 Modelling and Interaction in CAD/CAM*</u> <i>Maximum of 20 participants. Students of "Computer Systems for Design and Manufacturing" will have priority.</i>	5	D	-	36	-	24	1				3 Programming tasks, periods 1, 2
<u>4K1203 Computer Systems for Design and Manufacturing, advanced course*</u> <i>Maximum of 20 participants. Students of "Computer Systems for Design and Manufacturing" will have priority.</i> <i>Under bearbetning</i>	12	D	-	68	-	60		2	3	4	4 Programming Projects, periods 2, 3, 4
Elective Courses											
<u>4F1131 Microcomputers in Embedded Systems*</u>	5	D	-	36	-	36		2			
<u>4K1103 Manufacturing Automation II</u> <i>Under bearbetning</i>	6	C	28	32	-	17	1	2			

*The course has limited participation

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Energy Technology M3

Code Name	Credits	Level	Lec	Tut	Le	Lab	Periods				Other
							1	2	3	4	
Compulsory Courses											
4A1601 Heat Transfer	4	C	24	24	-	20			3		
4A1603 Energy Technology	4	C	48	12	-	-				4	
5C1921 Fluid Mechanics for Engineers	4,5	C	28	30	-	6			3	4	

Energy Technology M4

Code Name	Credits	Level	Lec	Tut	Le	Lab	Periods				Other
							1	2	3	4	
Compulsory Courses											
4A1605 Sustainable Power Generation	6	D	30	48	-	18	1	2			
4A1607 Sustainable Energy Utilisation	6	D	-	-	72	16	1	2			
4A1609 Applied Energy Technology - Project Course	6	D	12	-	-	-			3	4	Project 78h
Elective Courses											
4A1140 Energy Systems and Models I	4	D	-	-	-	-				4	
4A1610 Energy Management	4	D	50	-	-	-	1	2			
4A1611 Renewable Energy Technology	4	D	-	-	52	-	1				Study visit 8h
4A1613 Energy and Environment <i>Examinator: Björn Palm, Tel 790 7453</i>	4	D	50	-	-	-			3	4	Study visit 6h
4A1620 Combustion Theory	4	C	18	18	-	15	1	2			
4A1621 Modelling of Thermodynamic Systems	4	D	16	-	-	32	1	2	3	4	The course is given upon agreement
4A1622 Thermal Comfort and Indoor Climate	4	D	54	-	-	-			3	4	Study visits 6h
4A1623 Applied Refrigeration and Heat Pump Technology	4	D	24	24	-	16			3	4	
4A1624 Numerical Methods in Energy Technology	4	D	24	12	-	12	1	2			
4A1625 Cooling of Electronics	4	D	-	-	48	-			3		
4A1626 Applied Heat and Power Technology	4	D	36	12	-	8			3	4	Project assignment 8h
4A1627 Applied Reactor Technology and Nuclear Power Safety	4	D	48	-	-	-			3	4	Study visits 12h

4A1628 <u>Advanced Nuclear Reactor Engineering</u> <i>Under bearbetning</i>	4	D	42	-	-	-				4	Study visits 18h
4A1629 <u>Fluid Machinery</u>	4	C	30	18	-	12	1	2			
4A1630 <u>Thermal Fluid Machinery</u>	4	D	36	12	-	12			3		
5C1215 <u>Compressible Flow</u>	5	D	-	-	52	9		2			

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Aeronautics M4

Code Name	Credits	Level	Lec	Tut	Le	Lab	Periods				Other
							1	2	3	4	
Compulsory Courses											
4E1140 Flight Dynamics and Aeroelasticity	4	D	45	15	-	4			3		
4E1212 Aerodynamics	6	D	56	10	-	14	1	2			
4E1231 Flight Mechanics	4	D	28	18	-	4	1				
4E1233 Project in Aerinautics	6	D	28	-	-	48			3	4	
Conditionally Elective Courses											
2E1252 Control Theory and Practice, Advanced Course	5	D	28	26	-	8			3		
4A1341 Introductory Airbreathing Propulsion	4	C	21	24	-	8		2			
4B1131 Experimental Structure Dynamics	5	D	-	58	-	12		2	3		
4E1125 Fibre Composites II, Analysis and Design	4	D	48	-	-	6		2			
9E1300 Technical English, Lower Intermediate Level*	4	B	-	-	56	-	1	2			
9E1300 Technical English, Lower Intermediate Level*	4	B	-	-	56	-			3	4	
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	
9E1325 Technical German, Intermediate Level, E-learning	6	B	-	-	18	-	1	2			E-learning exercises
9E1325 Technical German, Intermediate Level, E-learning	6	B	-	-	18	-			3	4	E-learning exercises
9E1326 Technical German, Advanced Level*	6	C	-	-	56	-	1	2			
9E1326 Technical German, Advanced Level*	6	C	-	-	56	-			3	4	
9E1334 Technical French, Intermediate Level*	6	B	-	-	56	-	1	2			
9E1336 Technical French, Advanced Level*	6	C	-	-	56	-	1	2			

9E1348 <u>Technical Spanish, Intermediate Level</u>	6	B	-	-	56	-	1	2			
Elective Courses											
1C1103 <u>Structural Mechanics III</u>	5	D	33	-	-	-			3		4 h Computer, 40 h Workshop 4 h Computer, 40 h Workshop
4A1346 <u>Rocket Propulsion</u> <i>Under bearbetning</i>	4	D	36	10	-	-				4	Project work 6h
4A1347 <u>Airbreathing Propulsion for High Speed Flight</u> <i>Under bearbetning</i>	4	D	27	10	-	6				4	
4B1131 <u>Experimental Structure Dynamics</u>	5	D	-	58	-	12		2	3		
5C1215 <u>Compressible Flow</u>	5	D	-	-	52	9		2			

*The course has limited participation

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Code Name	Credits	Level	Lec	Tut	Le	Lab	Periods				Other
							1	2	3	4	
Compulsory Courses											
2E1212 Automatic Control, General Course	4	C	24	26	-	12			3		
4E1103 Lightweight Structures and FEM II	6,5	C	76	-	-	12			3	4	
4E1230 Elements of Aeronautics	8	c	116	-	-	4			3	4	
5B1304 Mathematics, Extended Course	5	D	-	-	54	-			3	4	
5C1921 Fluid Mechanics for Engineers	4,5	C	28	30	-	6			3	4	

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Automotive Engineering M3

Code Name	Credits	Level	Lec	Tut	Le	Lab	Periods				Other	
							1	2	3	4		
Compulsory Courses												
2E1212 Automatic Control, General Course	4	C	24	26	-	12			3			
4B1120 Signal Analysis with Applications	5	D	-	24	-	22				4		
4F1242 Introduction to Microcomputer Systems	4	C	12	22	-	14				4		
5B1304 Mathematics, Extended Course	5	D	-	-	54	-			3	4		
Elective Courses												
4E1103 Lightweight Structures and FEM II	6,5	C	76	-	-	12			3	4		

Automotive Engineering M4

Code Name	Credits	Level	Lec	Tut	Le	Lab	Periods				Other
							1	2	3	4	
Conditionally Elective Courses											
1C1206 <u>Railway Track Engineering</u>	5	D	33	-	-	-			3		44 h Workshop
1H1206 <u>Planning of Railroad Traffic</u>	5	C	-	-	72	-	1				
2C1149 <u>Electric Traction</u>	4	C	36	-	-	-				4	
4B1304 <u>Railway Systems and Rail Vehicles</u>	6	C	-	-	60	9	1	2			Project assignment 9h
4B1313 <u>Rail Vehicle Dynamics</u>	5	D	-	-	36	24			3		
4B1420 <u>Ground Vehicle Engineering, Basic Course</u>	6	C	36	36	-	-	1	2			
4B1425 <u>Ground Vehicle Dynamics, Basic Course*</u>	7	D	33	60	-	-			3	4	
4F1430 <u>Combustion Engines, general course*</u>	4	C	42	6	-	12	1				
Elective Courses											
4B1131 <u>Experimental Structure Dynamics</u>	5	D	-	58	-	12		2	3		
4C1096 <u>Strength of Materials and Solid Mechanics, Advanced Course</u>	4	C	36	14	-	4			3		
4C1114 <u>Finite Element Method</u>	4	D	-	49	-	8		2			
4E1103 <u>Lightweight Structures and FEM II</u>	6,5	C	76	-	-	12			3	4	
4F1131 <u>Microcomputers in Embedded Systems*</u>	5	D	-	36	-	36		2			

4F1640 Industrial Design*_ <i>Limited number of participants.</i>	4	C	24	36	-	-			3		
5C1121 Analytical Mechanics	4	C	48	-	-	-			3		
5C1211 Vehicle Aerodynamics	4	C	16	-	-	4			4	4 h Seminars	4 h Seminars

*The course has limited participation

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Solid Mechanics M3

Code Name	Credits	Level	Lec	Tut	Le	Lab	Periods				Other
							1	2	3	4	
Compulsory Courses											
4C1096 <u>Strength of Materials and Solid Mechanics, Advanced Course</u>	4	C	36	14	-	4			3		
4C1117 <u>Design Applications of Solid Mechanics*</u> <i>Under bearbetning</i>	4	D	16	6	-	-				4	Estimated time for project: 90h
5B1304 <u>Mathematics, Extended Course</u>	5	D	-	-	54	-			3	4	

*The course has limited participation

Solid Mechanics M4

Code Name	Credits	Level	Lec	Tut	Le	Lab	Periods				Other
							1	2	3	4	
Compulsory Courses											
4C1114 <u>Finite Element Method</u>	4	D	-	49	-	8		2			
Elective Courses											
3E1324 <u>Polymer Materials - Properties and Applications</u>	4	C	30	12	-	10				4	
3E1360 <u>Mechanical Properties of Polymers, Minor Course</u>	4	D	24	16	-	12	1				
4B1420 <u>Ground Vehicle Engineering, Basic Course</u>	6	C	36	36	-	-	1	2			
4C1110 <u>Material Mechanics</u>	4	D	52	-	-	3	1				
4C1111 <u>Fracture Mechanics and Fatigue</u>	4	D	48	-	-	4				4	
4C1112 <u>Theory of Elasticity</u>	4	D	26	26	-	-			3		
4C1116 <u>Dynamic Problems in Solid Mechanics</u> <i>Under bearbetning</i>	4	D	42	-	-	8			3	4	
4C1118 <u>Non-linear Theory of Elasticity</u>	2	D	12	12	-	-				4	
4C1119 <u>Finite Element Method, Project Course</u> <i>Under bearbetning</i>	2	D	8	-	-	-			3		
4E1125 <u>Fibre Composites II, Analysis and Design</u>	4	D	48	-	-	6		2			
4F1540 <u>Tribology</u>	4	C	18	9	-	5				4	
4G1230 <u>Introductory Welding Technology</u>	4	C	24	18	-	12	1				

4H1202 Mechanical Metallurgy I	6	D	24	12	-	48			3	4	Home assignments
4H1203 Mechanical Metallurgy II	4,5	C	24	12	-	24			3	4	Home assignments
4H1205 Mechanical Properties of Materials	4	C	20	18	-	6		2			Study visit 4hStudy visit 4h Study visit 4h
4H1505 Structure and Properties of Ceramic Materials	4	D	12	-	-	18		2			
5A1301 Mathematical Methods in Physics, Course I <i>Under bearbetning</i>	4	C	-	54	-	-	1	2			
5C1122 Continuum Mechanics	4	C	42	-	-	-	1				
5C1123 Mathematical Methods of Mechanics, General Course	4	D	36	-	-	-		2			
5C1125 Mathematical Methods of Mechanics, Intermediate Course	2	D	-	-	-	-			3		
5C1214 Fluid Mechanics	5	C	-	30	30	3	1				
5C1902 Advanced Dynamics of Complex Systems	4	D	24	-	-	-	1				

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Mechanical Engineering

Industrial Economics and Management M3

Code Name	Credits	Level	Lec	Tut	Le	Lab	Periods				Other	
							1	2	3	4		
Compulsory Courses												
4D1028 Industrial Economics and Management, Advanced Course	4	B	26	20	-	-					4	
Conditionally Elective Courses												
4D1032 Production <i>Replaces 4D1030 Industrial Production and 4D1136 Production</i>	4	B	36	12	-	-					4	10 h Study visit10 h Study visit
4D1075 Work Organization and Leadership* <i>Limited attendance, selection will be made</i>	4	B	24	24	-	-				3		
4K1101 Control Systems	4	C	18	28	-	12					4	
Elective Courses												
4D1032 Production <i>Replaces 4D1030 Industrial Production and 4D1136 Production</i>	4	B	36	12	-	-					4	10 h Study visit10 h Study visit

*The course has limited participation

Industrial Economics and Management M4

Code Name	Credits	Level	Lec	Tut	Le	Lab	Periods				Other
							1	2	3	4	
Compulsory Courses											
4D1035 Advanced Industrial Economics and Management*_	12	C	68	72	-	-		2	3	4	Roll-play 16h
Conditionally Elective Courses											
4D1062 Industrial Marketing <i>Replaces 4D1065 Industrial Marketing and 4D1151 Marketing</i>	4	B	36	12	-	-			3		
4D1071	4	B	36	12	-	-	1				
4F1630 Introduction to Machine Design	5	C	24	36	-	-	1	2			
4K1102 Manufacturing Automation I <i>Under bearbetning</i>	4	C	20	24	-	12	1				
Elective Courses											
4D1062 Industrial Marketing <i>Replaces 4D1065 Industrial Marketing and 4D1151 Marketing</i>	4	B	36	12	-	-			3		
4D1152 Industrial Marketing, Advanced Course	4	C	30	12	-	-	1				

4D1170 Advanced Production and Product Development	4	C	36	12	-	-	2			
4D1174 Management and Analysis of Innovations and Technology	4	C	38	-	-	-	2			10 h Seminars10 h Seminars
4K1103 Manufacturing Automation II <i>Under bearbetning</i>	6	C	28	32	-	17	1	2		

*The course has limited participation

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Industrial Engineering M3

Code Name	Credits	Level	Lec	Tut	Le	Lab	Periods				Other	
							1	2	3	4		
Compulsory Courses												
4D1032 Production <i>Replaces 4D1030 Industrial Production and 4D1136 Production</i>	4	B	36	12	-	-				4	10 h Study visit10 h Study visit	
4G1160 Manufacturing Engineering, Intermediate Course I <i>Under bearbetning</i>	5	C	42	42	-	-				4		
4G1161 Quality	6	C	40	16	-	-			3			
Elective Courses												
3C1340 Environmental Technology, Advanced Course	4	C	36	6	-	-			3			
4G1632 Materials Processing II <i>Under bearbetning</i>	4	C	29	30	-	13				4		
4G1635 Materials Processing II, Laboratory Course <i>Under bearbetning</i>	5	D	29	30	-	37				4		

Industrial Engineering M4

Code Name	Credits	Level	Lec	Tut	Le	Lab	Periods				Other
							1	2	3	4	
Compulsory Courses											
<u>4G1146 Advanced Industrial Engineering*</u> <i>Under bearbetning</i>	12	D	67	22	-	-	1	2			120 h Projektuppgift120 h Projektuppgift
Elective Courses											
<u>3C1360 Environmental Consequences, Advanced Course</u>	4	C	15	-	-	-	1				
<u>4D1062 Industrial Marketing</u> <i>Replaces 4D1065 Industrial Marketing and 4D1151 Marketing</i>	4	B	36	12	-	-			3		
<u>4D1093 Psychology for Engineers</u> <i>Replaces 4D1088 Technical Work Psychology</i>	4	B	24	6	-	4		2			
<u>4G1053 Materials Processing, Project Support</u> <i>Under bearbetning</i>	4	D	72	48	-	40		2	3	4	Home assignments 48h
<u>4G1170 Intelligent Machining, Advanced Course</u> <i>Under bearbetning</i>	4	D	36	20	-	-		2	3	4	

<u>4G1243 Advanced Welding Technology, Modulus 1</u> <i>Under bearbetning</i>	4	D	20	20	-	20			3		
<u>4G1244 Advanced Welding Technology, Modulus 2</u> <i>Under bearbetning</i>	4	D	20	20	-	20			3		
<u>4G1245 Advanced Welding Technology, Modulus 3</u> <i>Under bearbetning</i>	4	D	20	20	-	20				4	
<u>4G1246 Enlarged Welding Technology for EWE</u> <i>Course is given upon agreement</i>	4	D	25	25	-	10	1	2	3	4	
<u>4G1540 Laser Metrology Methods and Non Destructive Testing</u>	4	C	28	22	-	4		2			
<u>4K1102 Manufacturing Automation I</u> <i>Under bearbetning</i>	4	C	20	24	-	12	1				

*The course has limited participation

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Mechanical Engineering

Integrated Product Development M3

Code Name	Credits	Level	Lec	Tut	Le	Lab	Periods				Other
							1	2	3	4	
Compulsory Courses											
4D1075 <u>Work Organization and Leadership*</u> <i>Limited attendance, selection will be made</i>	4	B	24	24	-	-			3		
Conditionally Elective Courses											
4F1541 <u>CAD 3D-modelling and Visualization for Personal Computers</u>	4	C	8	36	-	-			4		
Elective Courses											
4F1242 <u>Introduction to Microcomputer Systems</u>	4	C	12	22	-	14			4		

*The course has limited participation

Integrated Product Development M4

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

*The course has limited participation

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Sound and Vibrations M3

Code Name	Credits	Level	Lec	Tut	Le	Lab	Periods				Other
							1	2	3	4	
Compulsory Courses											
4B1120 Signal Analysis with Applications	5	D	-	24	-	22				4	
5B1304 Mathematics, Extended Course	5	D	-	-	54	-			3	4	
5C1921 Fluid Mechanics for Engineers	4,5	C	28	30	-	6			3	4	

Sound and Vibrations M4

Code Name	Credits	Level	Lec	Tut	Le	Lab	Periods				Other
							1	2	3	4	
Compulsory Courses											
4B1127 <u>Vibroacoustics</u>	5	D	-	56	-	8	1	2			
4B1131 <u>Experimental Structure Dynamics</u>	5	D	-	58	-	12		2	3		
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
9E1131 <u>Information Searching for B, I, M, T</u>	1	B	-	-	-	-			3	4	

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Lightweight Structures M3

Code Name	Credits	Level	Lec	Tut	Le	Lab	Periods				Other	
							1	2	3	4		
Compulsory Courses												
4E1103 <u>Lightweight Structures and FEM II</u>	6,5	C	76	-	-	12			3	4		
Elective Courses												
4E1230 <u>Elements of Aeronautics</u>	8	c	116	-	-	4			3	4		

Lightweight Structures M4

Code Name	Credits	Level	Lec	Tut	Le	Lab	Periods				Other
							1	2	3	4	
Compulsory Courses											
4E1124 Fibre Composites I: materials and processes	4	D	40	-	-	5	1				
4E1125 Fibre Composites II, Analysis and Design	4	D	48	-	-	6		2			
4E1126 Structural Design and Optimisation	4	D	36	-	-	12			3		
4E1132 Lightweight Design* <i>Open only to students on the specialisation LKR.</i>	10	D	-	-	84	-	1	2	3	4	
4E1150 Biomechanics and Neuronics	4	D	36	-	-	6				4	
Elective Courses											
4B1304 Railway Systems and Rail Vehicles	6	C	-	-	60	9	1	2			Project assignment 9h
4B1420 Ground Vehicle Engineering, Basic Course	6	C	36	36	-	-	1	2			
4F1630 Introduction to Machine Design	5	C	24	36	-	-	1	2			
5B1722 Applied Optimization	4	C	28	14	-	9			3		
9E1300 Technical English, Lower Intermediate Level*	4	B	-	-	56	-	1	2			
9E1301 Technical English, Intermediate Level*	6	B	-	-	56	-	1	2			
9E1304 Technical English, Advanced Level*	6	C	-	-	56	-	1	2			
9E1325 Technical German, Intermediate Level, E-learning	6	B	-	-	18	-	1	2			E-learning exercises
9E1326 Technical German, Advanced Level*	6	C	-	-	56	-	1	2			

9E1334 <u>Technical French, Intermediate</u> Level*_	6	B	-	-	56	-	1	2			
9E1348 <u>Technical Spanish, Intermediate</u> Level*_	6	B	-	-	56	-			3	4	

*The course has limited participation

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Machine Elements M3

Code Name	Credits	Level	Lec	Tut	Le	Lab	Periods				Other
							1	2	3	4	
Compulsory Courses											
4C1096 Strength of Materials and Solid Mechanics, Advanced Course	4	C	36	14	-	4			3		
4F1530 Function Analysis and Optimization in Mechanical Engineering	5	C	-	60	-	-			3	4	One day field trip.

Machine Elements M4

Code Name	Credits	Level	Lec	Tut	Le	Lab	Periods				Other
							1	2	3	4	
Compulsory Courses											
4F1540 Tribology	4	C	18	9	-	5				4	
4F1560 Advanced Machine Elements*	12	D	-	120	-	-			3	4	
4F1630 Introduction to Machine Design	5	C	24	36	-	-	1	2			
4K1132 Modularisation of Products <i>Some parts of the course are outlined in 4K1131 Assembly Systems and 4K1104 Manufacturing Systems, advanced course.</i>	4	C	24	20	-	-			3		
Elective Courses											
4C1114 Finite Element Method	4	D	-	49	-	8		2			

*The course has limited participation

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Machine Design M3

Code Name	Credits	Level	Lec	Tut	Le	Lab	Periods				Other
							1	2	3	4	
Compulsory Courses											
4C1096 Strength of Materials and Solid Mechanics, Advanced Course	4	C	36	14	-	4			3		
4F1530 Function Analysis and Optimization in Mechanical Engineering	5	C	-	60	-	-			3	4	One day field trip.
Elective Courses											
4C1112 Theory of Elasticity	4	D	26	26	-	-			3		
4F1241 Microcomputer, Sensors and Actuators	6	C	18	26	-	29				4	
4F1242 Introduction to Microcomputer Systems	4	C	12	22	-	14				4	
4F1343 Fluid Systems and Machines	4	C	24	24	-	12	1				
4F1642 Modelling and Computer Support in Mechanical Design	4	C	24	36	-	-			3		
4K1201 Computer Aided Design and Manufacturing, Introductory course	5	C	48	-	-	24				4	Graded exercise
5C1121 Analytical Mechanics	4	C	48	-	-	-			3		

Machine Design M4

Code Name	Credits	Level	Lec	Tut	Le	Lab	Periods				Other
							1	2	3	4	
Compulsory Courses											
4F1630 Introduction to Machine Design_	5	C	24	36	-	-	1	2			
4F1644 Industrial Design*_	4	C	24	36	-	-	1				
4F1660 Advanced Machine Design*_ <i>Under bearbetning</i>	12	D	4	114	-	-			3	4	
Elective Courses											
3E1360 Mechanical Properties of Polymers, Minor Course_	4	D	24	16	-	12	1				
3E1361 Polymer Processing, Minor Course_	4	D	24	8	-	18		2			
4C1114 Finite Element Method_	4	D	-	49	-	8		2			
4F1131 Microcomputers in Embedded Systems*_	5	D	-	36	-	36		2			

<u>4F1131 Microcomputers in Embedded Systems*</u> <i>Limited attendance: 25</i>	5	D	-	36	-	36			3		
<u>4F1141 Project Work in Mechatronics*</u> <i>Limited attendance due to limited number of available projects</i>	4	C	-	-	-	-	1	2	3	4	No scheduled hours
<u>4F1541 CAD 3D-modelling and Visualization for Personal Computers</u>	4	C	8	36	-	-				4	
<u>4F1641 Environmentally Adapted Product Design</u> <i>80% participation.</i>	4	C	-	-	42	-		2			
<u>4K1102 Manufacturing Automation I</u> <i>Under bearbetning</i>	4	C	20	24	-	12	1				

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Materials Science M3

Code Name	Credits	Level	Lec	Tut	Le	Lab	Periods				Other
							1	2	3	4	
Compulsory Courses											
4H1059 Engineering Materials, Advanced Course	6	C	10	15	-	15			3		
4H1202 Mechanical Metallurgy I	6	D	24	12	-	48			3	4	Home assignments
4H1204 Experimental Methods in Materials Science	5	D	10	10	-	48			3	4	
4H1504 Processing of Ceramic Materials	4	C	12	-	-	18			3		

Materials Science M4

Code Name	Credits	Level	Lec	Tut	Le	Lab	Periods				Other
							1	2	3	4	
Compulsory Courses											
4H1104 Diffusion and Phase Equilibria	6	D	18	18	-	42	1	2			
4H1113 Powder Metallurgy	4	D	18	18	-	12		2			
4H1301 Material Design	4	D	-	2	-	10			3	4	
4H1404 Corrosion and Surface Protection, General Course	4	C	16	12	-	12	1				
Conditionally Elective Courses											
4H1405 Corrosion Science, Advanced Course	4	D	16	-	-	-			3		
4H1505 Structure and Properties of Ceramic Materials	4	D	12	-	-	18		2			
4H1609 Functional Materials	4	D	18	-	-	6		2			Study visit 8h
4H1610 Advanced Materials	4	C	18	-	-	6			3		Study visit 8h Seminars 18h
4H1702 Current Research Topics in Materials Chemistry	4	D	20	4	-	8				4	
4H1703 Materials Chemistry	4	D	20	4	-	8				4	
4H1802 Artificial Materials	4	D	20	4	-	6	1				
5A1304 Mathematical Methods in Physics Not given 03/ 04	6	C	-	78	-	-					
5A1370 Solid State Theory	4	D	36	-	-	-	1				

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Mechanics M3

Code Name	Credits	Level	Lec	Tut	Le	Lab	Periods				Other
							1	2	3	4	
Compulsory Courses											
5B1304 Mathematics, Extended Course	5	D	-	-	54	-			3	4	
5C1121 Analytical Mechanics	4	C	48	-	-	-			3		
5C1921 Fluid Mechanics for Engineers	4,5	C	28	30	-	6			3	4	
Conditionally Elective Courses											
5C1400 Nonlinear Dynamics in Mechanics	5	C	24	-	-	-			3		
5C1840 Structural Dynamics	5	D	33	-	-	-				4	44 h Workshop44 h Workshop
5C1992 Turbulence	4,5	D	-	-	36	3			3	4	
Elective Courses											
5C1921 Fluid Mechanics for Engineers	4,5	C	28	30	-	6			3	4	

Mechanics M4

Code Name	Credits	Level	Lec	Tut	Le	Lab	Periods				Other
							1	2	3	4	
Conditionally Elective Courses											
2D1225 Numerical Solutions of Differential Equations	4	C	26	4	-	18	1	2			
2D1255 Numerical Solutions of Differential Equations	5	D	36	-	-	20			3	4	
4C1120 Experimental methods in mechanics	4	D	20	-	-	20			3		Seminars 4h
5C1122 Continuum Mechanics	4	C	42	-	-	-	1				
5C1123 Mathematical Methods of Mechanics, General Course	4	D	36	-	-	-		2			
5C1125 Mathematical Methods of Mechanics, Intermediate Course	2	D	-	-	-	-			3		
5C1211 Vehicle Aerodynamics	4	C	16	-	-	4				4	4 h Seminars4 h Seminars
5C1212 Computational Fluid Dynamics	5	D	-	-	50	10			3		
5C1213 Applied Computational Fluid Dynamics	2	D	-	-	10	14				4	
5C1214 Fluid Mechanics	5	C	-	30	30	3	1				
5C1215 Compressible Flow	5	D	-	-	52	9		2			

5C1850 Finite Element Methods	5	D	33	-	-	-	1				44 h Workshop44 h Workshop
5C1860 FEM Modelling	5	D	33	-	-	-		2			44 h Workshop44 h Workshop
5C1902 Advanced Dynamics of Complex Systems	4	D	24	-	-	-	1				
5C1904 Advanced Modern Mechanics	4	D	24	-	-	-		2			
5C1980 Mechanics in Research and Industry <i>The course runs the entire academic year. A few lectures during fall.</i>	4	C	24	-	-	37	1	2	3	4	
Elective Courses											
5C1400 Nonlinear Dynamics in Mechanics	5	C	24	-	-	-			3		

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Mechatronics M3

Code Name	Credits	Level	Lec	Tut	Le	Lab	Periods				Other
							1	2	3	4	
Compulsory Courses											
2D1320 Applied Computer Science	4	B	30	14	-	20			3	4	
2E1212 Automatic Control, General Course	4	C	24	26	-	12			3		
4F1530 Function Analysis and Optimization in Mechanical Engineering	5	C	-	60	-	-			3	4	One day field trip.
Elective Courses											
4F1241 Microcomputer, Sensors and Actuators	6	C	18	26	-	29				4	
4F1242 Introduction to Microcomputer Systems	4	C	12	22	-	14				4	

Mechatronics M4

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

*The course has limited participation

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Environmental Management M3

Code Name	Credits	Level	Lec	Tut	Le	Lab	Periods				Other
							1	2	3	4	
Compulsory Courses											
3C1340 Environmental Technology, Advanced Course	4	C	36	6	-	-			3		
Elective Courses											
4D1060 Industrial Development	4	B	40	8	-	-			3		

Environmental Management M4

Code Name	Credits	Level	Lec	Tut	Le	Lab	Periods				Other
							1	2	3	4	
Compulsory Courses											
3C1360 Environmental Consequences, Advanced Course	4	C	15	-	-	-	1				
3C1370 Applied Environmental Legislation	3	C	24	3	-	-		2			
3C1387 Environmental Systems Analysis	4	C	16	8	-	6		2			
3C1390 Environmental Management, Larger Course	8	D	36	3	-	24			3	4	Project work, field exercise
Elective Courses											
3C1350 Waste Management, Advanced Course <i>Study visit</i>	4	D	18	-	-	3				4	Project work 20h
3C1365 Environmental Consequences, Advanced Course II	4	D	15	15	-	40	1	2			Field exercises

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Paper Technology M3

Code Name	Credits	Level	Lec	Tut	Le	Lab	Periods				Other	
							1	2	3	4		
Compulsory Courses												
3D1107 Paper Technology	6	D	42	-	-	56			3	4	2 days studytrip	
Elective Courses												
3D1112 Fiber Technology	4	C	26	-	-	15				4		
5C1921 Fluid Mechanics for Engineers	4,5	C	28	30	-	6			3	4		

Paper Technology M4

Code Name	Credits	Level	Lec	Tut	Le	Lab	Periods				Other
							1	2	3	4	
Compulsory Courses											
2D1520 <u>Graphic Arts Technology, Minor Course</u>	4	C	30	8	-	16		2			
3D1113 <u>Paper Physics</u>	4	D	20	-	-	20		2			
3D1114 <u>Paper Processes Technology</u>	4	D	20	-	-	20			3		
3D1117 <u>Paper Technology, project</u>	4	D	-	-	-	-			3	4	Project work
3D1163 <u>Pulp Technology</u>	4	D	20	-	-	24	1				

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Mechanical Engineering

Publiceringsteknik M3

Code Name	Credits	Level	Lec	Tut	Le	Lab	Periods				Other	
							1	2	3	4		
Compulsory Courses												
2D1521 Communication and Information*_	5	C	21	24	-	-			3			
2D1522 Computer Technology and Communication*_	4	C	30	-	-	20				4		
2D1526 Publishing Technology, General Course	6	C	60	-	-	20			3		30h; A one week study tour is made in period 4.	

*The course has limited participation

Publiceringsteknik M4

Code Name	Credits	Level	Lec	Tut	Le	Lab	Periods				Other
							1	2	3	4	
Compulsory Courses											
2D1515 Machinery and Materials in Graphic Arts Technology	6	C	50	12	-	12		2			
2D1517 XML for Publishing*_	5	D	30	-	-	40	1	2			
2D1518 Audio, Video and Multimedia Production*_	5	C	30	-	-	40		2	3		
2D1524 Image Processing and Reprographic Methods*_ <i>Limited number of participants</i>	6	C	50	16	-	24	1				
2D1527 Publishing Technology, Advanced Course <i>Open only to students of the specialization Publishing Technology.</i>	10	D	100	80	-	32			3	4	
Elective Courses											
2D1323 Computer Graphics and Interaction	4	C	42	-	-	12				4	
2D1334 Database Technology	4	C	24	20	-	12			3	4	

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Mechanical Engineering

Naval Architecture M4

Code Name	Credits	Level	Lec	Tut	Le	Lab	Periods				Other
							1	2	3	4	
Elective Courses											
4B1127 Vibroacoustics	5	D	-	56	-	8	1	2			
4C1111 Fracture Mechanics and Fatigue	4	D	48	-	-	4				4	
4C1112 Theory of Elasticity	4	D	26	26	-	-			3		
4C1114 Finite Element Method	4	D	-	49	-	8		2			
4C1116 Dynamic Problems in Solid Mechanics <i>Under bearbetning</i>	4	D	42	-	-	8			3	4	
4F1430 Combustion Engines, general course*	4	C	42	6	-	12	1				
4G1230 Introductory Welding Technology	4	C	24	18	-	12	1				
5A1301 Mathematical Methods in Physics, Course I <i>Under bearbetning</i>	4	C	-	54	-	-	1	2			
5B1832 Systems Engineering	8	D	56	28	-	12	1	2			
5C1212 Computational Fluid Dynamics	5	D	-	-	50	10			3		
5C1213 Applied Computational Fluid Dynamics	2	D	-	-	10	14				4	

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Mechanical Engineering

Systems Engineering M3

Code Name	Credits	Level	Lec	Tut	Le	Lab	Periods				Other
							1	2	3	4	
Compulsory Courses											
2D1320 Applied Computer Science	4	B	30	14	-	20			3	4	
2E1212 Automatic Control, General Course	4	C	24	26	-	12			3		
5B1538 Reliability Theory	6	D	-	-	72	-			3	4	
5B1722 Applied Optimization	4	C	28	14	-	9			3		
Elective Courses											
2D1220 Applied Numerical Methods I	4	C	40	-	-	20			3	4	
2D1250 Applied Numerical Methods II	6	C	-	-	56	24			3	4	

Systems Engineering M4

Code Name	Credits	Level	Lec	Tut	Le	Lab	Periods				Other
							1	2	3	4	
Compulsory Courses											
5B1832 Systems Engineering	8	D	56	28	-	12	1	2			
Elective Courses											
1H1204 Logistics	5	C	6	-	-	-	1	2			15 h SeminarsProject-course, 15 h Seminars
1H1206 Planning of Railroad Traffic	5	C	-	-	72	-	1				
1H1212 Logistics, Advanced Course	5	D	4	-	-	-			3		12 h SeminarsProject-course, 12 h Seminars
1H1401 Optimisation Models in Transport and Location Analysis <i>Under bearbetning</i>	5	D	27	12	-	6			3		6 h Seminars
2E1252 Control Theory and Practice, Advanced Course	5	D	28	26	-	8			3		
5B1550 Applied Mathematical Statistics	5	D	-	-	60	-			3		
5B1814 Applied Mathematical Programming - Linear Problems	4	D	18	12	-	-		2			Projektuppgift 18h
5B1816 Applied Mathematical Programming - Nonlinear Problems	4	D	18	12	-	-			3		Projektuppgift 18h
5B1852 Mathematical Economics	4	D	32	16	-	-		2			

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Mechanical Engineering

Materials Processing M3

Code Name	Credits	Level	Lec	Tut	Le	Lab	Periods				Other
							1	2	3	4	
Compulsory Courses											
4G1134 Effective Production	6	D	25	35	-	-			3	4	
4G1160 Manufacturing Engineering, Intermediate Course I <i>Under bearbetning</i>	5	C	42	42	-	-				4	
4G1161 Quality	6	C	40	16	-	-			3		
Conditionally Elective Courses											
4D1032 Production <i>Replaces 4D1030 Industrial Production and 4D1136 Production</i>	4	B	36	12	-	-				4	10 h Study visit10 h Study visit
Elective Courses											
4G1632 Materials Processing II <i>Under bearbetning</i>	4	C	29	30	-	13				4	
4G1635 Materials Processing II, Laboratory Course <i>Under bearbetning</i>	5	D	29	30	-	37				4	
4H1251 Metal Forming - Fundamentals	6	C	36	36	-	18			3	4	

Materials Processing M4

Code Name	Credits	Level	Lec	Tut	Le	Lab	Periods				Other
							1	2	3	4	
Compulsory Courses											
<u>4G1051 Project Assignment, Materials Processing</u> <i>Under bearbetning</i>	4	D	-	160	-	-		2	3	4	Projektuppgift 160hProjektuppgift 160h
<u>4G1053 Materials Processing, Project Support</u> <i>Under bearbetning</i>	4	D	72	48	-	40		2	3	4	Home assignments 48h
Conditionally Elective Courses											
<u>4D1071</u>	4	B	36	12	-	-	1				
<u>4G1170 Intelligent Machining, Advanced Course</u> <i>Under bearbetning</i>	4	D	36	20	-	-		2	3	4	
<u>4G1541 Measurement Technology & Statistics f Manufact. Processes</u>	4	D	30	-	-	8			3		

4G1570 Metrology & Quality for the Manufacturing Industry <i>Under bearbetning</i>	4	D	36	24	-	-	2	3		
4G1670 Materials Forming <i>Under bearbetning</i>	4	D	18	12	-	18	2	3		
4H1251 Metal Forming - Fundamentals	6	C	36	36	-	18		3	4	
4H1255 Metal Forming Processes	6	C	18	18	-	-		3	4	Projektuppgift 60h
4M1334 Casting Processing	4	D	12	24	-	18			4	
4M1346 Simulation and Modelling	4	D	10	80	-	-	1	2		
4M1370 Solidification Processing	4	D	36	24	-	-	1	2		
Elective Courses										
4C1110 Material Mechanics	4	D	52	-	-	3	1			
4C1114 Finite Element Method	4	D	-	49	-	8		2		
4F1630 Introduction to Machine Design	5	C	24	36	-	-	1	2		
4G1243 Advanced Welding Technology, Modulus 1 <i>Under bearbetning</i>	4	D	20	20	-	20			3	
4G1244 Advanced Welding Technology, Modulus 2 <i>Under bearbetning</i>	4	D	20	20	-	20			3	
4G1245 Advanced Welding Technology, Modulus 3 <i>Under bearbetning</i>	4	D	20	20	-	20				4
4G1246 Enlarged Welding Technology for EWE <i>Course is given upon agreement</i>	4	D	25	25	-	10	1	2	3	4
4M1341 Foundry Processing	4	D	12	-	-	-			3	Seminarier 24h Other 28h

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Assembly Systems M3

Code Name	Credits	Level	Lec	Tut	Le	Lab	Periods				Other
							1	2	3	4	
Compulsory Courses											
4G1160 <u>Manufacturing Engineering, Intermediate Course I</u> <i>Under bearbetning</i>	5	C	42	42	-	-				4	
4G1161 <u>Quality</u>	6	C	40	16	-	-			3		
4K1101 <u>Control Systems</u>	4	C	18	28	-	12				4	
4K1201 <u>Computer Aided Design and Manufacturing, Introductory course</u>	5	C	48	-	-	24				4	Graded exercise

Assembly Systems M4

Code Name	Credits	Level	Lec	Tut	Le	Lab	Periods				Other
							1	2	3	4	
Compulsory Courses											
4K1102 Manufacturing Automation I <i>Under bearbetning</i>	4	C	20	24	-	12	1				
4K1104 Manufacturing Systems, advanced course*_ <i>Under bearbetning</i>	12	D	50	48	-	28		2	3	4	
4K1109 Principles for Product Integrated Manufacturing Systems Design	4	C	12	12	-	4	1				

*The course has limited participation

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Mechanical Engineering

Wood Technology M3

Code Name	Credits	Level	Lec	Tut	Le	Lab	Periods				Other	
							1	2	3	4		
Compulsory Courses												
4K1601 Wood Material Science, Basic Course	5	C	36	24	-	32			3	4		
Elective Courses												
4K1101 Control Systems	4	C	18	28	-	12				4		

Wood Technology M4

Code Name	Credits	Level	Lec	Tut	Le	Lab	Periods				Other
							1	2	3	4	
Compulsory Courses											
4K1602 Industrial Wood Processing, Basic Course	4	C	26	16	-	16	1				
4K1603 Wood Technology, Advanced Course* <i>Under bearbetning</i>	10	D	48	24	-	36		2	3	4	
Elective Courses											
4D1062 Industrial Marketing <i>Replaces 4D1065 Industrial Marketing and 4D1151 Marketing</i>	4	B	36	12	-	-			3		
4K1102 Manufacturing Automation I <i>Under bearbetning</i>	4	C	20	24	-	12	1				

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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 material design	6	AB	34	40	-	28	1	2			16 h Study visitSeminar 4h Written test 2h 16 h Study visit
4H1705 Materials chemistry for materials design	8	A	40	60	-	27	1	2	3		
5A1227 Physics II⁺	4	A	38	-	-	15				4	
5B1132 Analytical methods and linear algebra I	8	AB	80	40	-	-	1	2			
5B1133 Analytical methods and linear algebra II	8	AB	80	40	-	-			3	4	
5C1130 Mechanics I	6	AB	48	-	27	-			3	4	
Recommended Courses											
5B1120 Introductory Course in Mathematics I	1	A	-	-	-	-					

*The course has limited participation

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Materials Technology

Materials Technology B2

Code Name	Credits	Level	Lec	Tut	Le	Lab	Periods				Other
							1	2	3	4	
Compulsory Courses											
2D1210 Numerical Methods, Basic Course I	4	B	24	24	-	24	1	2			
4C1035 Strength of Materials and Solid Mechanics, Basic Course	6	B	42	42	-	2		2	3		4 written assignments
4H1060 Foundations of Materials Science	6	C	36	-	-	27			3	4	
4H1805 Physics of Materials	5	C	40	20	-	20		2	3		Project work
4H1901 Thermodynamics of Materials	6	B	48	48	-	-	1	2			
4H1902 Fundamentals of Process Metallurgy	4	C	24	24	-	-				4	Plant visits 20h
4M1320 Manufacturing Technology	4	C	26	22	-	20				4	Preparatory course 20h Computer work 20h Home assignments 20h Study visit 12h
5B1210 Mathematics IV	6	C	-	-	-	-	1				

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Materials Technology B3

Code Name	Credits	Level	Lec	Tut	Le	Lab	Periods				Other
							1	2	3	4	
Compulsory Courses											
3E1305 <u>Polymer Materials, General Course</u>	4	C	32	8	-	12	1				
4F1221 <u>Electrical Engineering, Basic Course, B</u>	4	B	12	18	-	14		2			
4H1105 <u>Phase Transformations in Materials</u>	4	C	12	12	-	15	1				
4H1205 <u>Mechanical Properties of Materials</u>	4	C	20	18	-	6		2			Study visit 4hStudy visit 4h Study visit 4h
4H1903 <u>Transport Phenomena</u>	4	C	24	24	-	-		2			
5B1501 <u>Probability Theory and Statistics</u>	4	C	24	36	-	-			3		
Elective Courses											
2D1522 <u>Computer Technology and Communication*</u>	4	C	30	-	-	20				4	
2D1526 <u>Publishing Technology, General Course</u>	6	C	60	-	-	20			3		30h; A one week study tour is made in period 4.
3C1340 <u>Environmental Technology, Advanced Course</u>	4	C	36	6	-	-			3		
3C1395 <u>Sustainable Development</u>	4	C	10	9	-	-		2			
3D1112 <u>Fiber Technology</u>	4	C	26	-	-	15				4	
3E1323 <u>Polymer Physics, General Course</u>	4	C	36	9	-	-			3		
3E1324 <u>Polymer Materials - Properties and Applications</u>	4	C	30	12	-	10				4	
4A1601 <u>Heat Transfer</u>	4	C	24	24	-	20			3		
4A1603 <u>Energy Technology</u>	4	C	48	12	-	-				4	
4B1120 <u>Signal Analysis with Applications</u>	5	D	-	24	-	22				4	
4C1096 <u>Strength of Materials and Solid Mechanics, Advanced Course</u>	4	C	36	14	-	4			3		
4D1051 <u>Commercial Law</u>	4	B	18	14	-	-			3		
4E1103 <u>Lightweight Structures and FEM II</u>	6,5	C	76	-	-	12			3	4	
4F1242 <u>Introduction to Microcomputer Systems</u>	4	C	12	22	-	14				4	
4F1244 <u>Motion Control</u> <i>The course will not be given until further notice.</i>	4	D	30	-	-	12				4	
4F1530 <u>Function Analysis and Optimization in Mechanical Engineering</u>	5	C	-	60	-	-			3	4	One day field trip.

4F1531 Machine Elements, basic course for I and T	4	B	24	40	-	-			4	
4F1541 CAD 3D-modelling and Visualization for Personal Computers	4	C	8	36	-	-			4	
4F1642 Modelling and Computer Support in Mechanical Design	4	C	24	36	-	-			3	
4G1134 Effective Production	6	D	25	35	-	-			3	4
4H1202 Mechanical Metallurgy I	6	D	24	12	-	48			3	4 Home assignments
4H1204 Experimental Methods in Materials Science	5	D	10	10	-	48			3	4
4H1251 Metal Forming - Fundamentals	6	C	36	36	-	18			3	4
4H1504 Processing of Ceramic Materials	4	C	12	-	-	18			3	
4H1610 Advanced Materials	4	C	18	-	-	6			3	Study visit 8h Seminars 18h
4H1611 Materials Optimisation and Design	5	C	18	18	-	12			4	Study visits 10h
4H1803 Physics of Nanostructured Materials	4	D	20	4	-	6			4	
4H1921 Advanced Transport Phenomena	6	C	20	20	-	16			3	4 Projektuppgift 136hProjektuppgift 136h
4H1922 Chemical Equilibria in Metallurgical Processes	10	C	72	72	-	28			3	4 Projektuppgift 120h
4K1101 Control Systems	4	C	18	28	-	12			4	
4K1107 Production of Electronics I	4	C	36	-	-	8			3	
4K1201 Computer Aided Design and Manufacturing, Introductory course	5	C	48	-	-	24			4	Graded exercise
4K1401 History of Technology, a General Survey	4	B	12	-	-	-			3	12 h Seminars12 h Seminars
4M1334 Casting Processing	4	D	12	24	-	18			4	
4M1335 Materials Processing, Laboratory Course	5	D	26	32	-	47			3	4
4M1336 Physics for Materials Processing	5	C	16	16	-	-			3	Home assignments 60h
4M1341 Foundry Processing	4	D	12	-	-	-			3	Seminarier 24h Other 28h
4M1345 Powder Processing and Materials Forming	4	D	30	-	-	-			4	Home assignments 80h
4M1347 Metal Forming	4	D	8	28	-	-	1	2		
5A1304 Mathematical Methods in Physics <i>Not given 03/ 04</i>	6	C	-	78	-	-				
5A1324 Quantum Physics	8	C	60	48	-	-			2	3
5B1304 Mathematics, Extended Course	5	D	-	-	54	-			3	4
5C1211 Vehicle Aerodynamics	4	C	16	-	-	4			4	4 h Seminars4 h Seminars
5C1921 Fluid Mechanics for Engineers	4,5	C	28	30	-	6			3	4
9E1131 Information Searching for B, I, M, T	1	B	-	-	-	-			3	4
9E1300 Technical English, Lower Intermediate Level*	4	B	-	-	56	-			3	4
9E1301 Technical English, Intermediate Level*	6	B	-	-	56	-			3	4
9E1320 German, Elementary Level*	4	B	-	-	56	-			3	4
9E1322 German, Advanced Beginner's Level*	4	B	-	-	56	-			3	4
9E1325 Technical German, Intermediate Level, E-learning	6	B	-	-	18	-			3	4 E-learning exercises

9E1330 French, Elementary Level*_	4	B	-	-	56	-			3	4	
9E1332 French, Advanced Beginner's Level*_	4	B	-	-	56	-			3	4	
9E1334 Technical French, Intermediate Level*_	6	B	-	-	56	-			3	4	
9E1342 Spanish, Elementary Level*_	4	B	-	-	56	-			3	4	
9E1346 Spanish, Advanced Beginner's Level*_	4	B	-	-	56	-			3	4	
9E1348 Technical Spanish, Intermediate Level*_	6	B	-	-	56	-			3	4	
9E1350 Italian, Elementary Level*_	4	B	-	-	56	-			3	4	

*The course has limited participation

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Materials Technology

Materials Technology B4

Code Name	Credits	Level	Lec	Tut	Le	Lab	Periods				Other
							1	2	3	4	
Elective Courses											
2A1140 Accelerator and Radiation Technology	4	D	36	-	-	4			3		
2A1151 Energy and Fusion Research	4	D	24	12	-	-				4	
2A1160 Space Physics	3	D	14	-	4	-	1				
2B1260 Semiconductor Theory and Device Physics, General Course	5	D	30	-	-	10	1				Individual assignments 20h
2B1261 Semiconductor Theory and Device Physics, Advanced Course <i>Under bearbetning</i>	4	D	-	36	-	-			3		
2B1262 The Nature of Materials <i>Under bearbetning</i>	4	C	32	-	-	-				4	
2B1263 Surface Physics, Basic Course	4	D	36	-	-	-		2			
2B1380 Optics, General Course	4	D	26	14	-	25	1				
2B1507 Semiconductor Electronics <i>Replaced by 2B1508 from 2003/2004</i>	6	C	36	22	-	8	1	2			
2B1700 Advanced Semiconductor Materials	5	D	34	-	-	16			3		
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		
2B1771 Superconductivity and Applications	4	D	28	-	-	-		2			
2C1111 System Planning	4	D	60	-	-	-			3		
2C1114 Wind Power Systems	4	C	58	-	-	-			3	4	
2D1225 Numerical Solutions of Differential Equations	4	C	26	4	-	18	1	2			
2D1320 Applied Computer Science	4	B	30	14	-	20			3	4	
2D1323 Computer Graphics and Interaction	4	C	42	-	-	12				4	
2D1334 Database Technology	4	C	24	20	-	12			3	4	
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	30	8	-	16	2			
2D1521 Communication and Information*_	5	C	21	24	-	-		3		
2D1522 Computer Technology and Communication*_	4	C	30	-	-	20			4	
2D1524 Image Processing and Reprographic Methods*_ <i>Limited number of participants</i>	6	C	50	16	-	24	1			
2E1212 Automatic Control, General Course	4	C	24	26	-	12		3		
2E1242 Automatic Control, Project Course*_	8	D	4	-	-	50			4	
2F1400 Electroacoustics	4	D	34	12	-	8	1			
3C1350 Waste Management, Advanced Course <i>Study visit</i>	4	D	18	-	-	3			4	Project work 20h
3C1355 Ecology, Advanced Course	4	C	21	4	-	-		3	4	
3C1360 Environmental Consequences, Advanced Course	4	C	15	-	-	-	1			
3C1365 Environmental Consequences, Advanced Course II	4	D	15	15	-	40	1	2		Field exercises
3C1370 Applied Environmental Legislation	3	C	24	3	-	-		2		
3C1380 Environmental Management	4	C	21	3	-	8			3	4
3C1385 Biology	4	C	30	6	-	6	1			Field exercise 8h
3C1387 Environmental Systems Analysis	4	C	16	8	-	6		2		
3C1395 Sustainable Development	4	C	10	9	-	-		2		
3E1354 Biopolymers	5	D	24	10	-	25			3	5h Study visit
3E1360 Mechanical Properties of Polymers, Minor Course	4	D	24	16	-	12	1			
3E1361 Polymer Processing, Minor Course	4	D	24	8	-	18		2		
4A1140 Energy Systems and Models I	4	D	-	-	-	-				4
4A1605 Sustainable Power Generation	6	D	30	48	-	18	1	2		
4A1607 Sustainable Energy Utilisation	6	D	-	-	72	16	1	2		
4A1609 Applied Energy Technology - Project Course	6	D	12	-	-	-			3	4
4A1610 Energy Management	4	D	50	-	-	-	1	2		
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
4A1621 Modelling of Thermodynamic Systems	4	D	16	-	-	32	1	2	3	4
4A1623 Applied Refrigeration and Heat Pump Technology	4	D	24	24	-	16			3	4
4A1625 Cooling of Electronics	4	D	-	-	48	-			3	
4A1626 Applied Heat and Power Technology	4	D	36	12	-	8			3	4
4A1627 Applied Reactor Technology and Nuclear Power Safety	4	D	48	-	-	-			3	4
4A1629 Fluid Machinery	4	C	30	18	-	12	1	2		
4A1630 Thermal Fluid Machinery	4	D	36	12	-	12			3	
4B1131 Experimental Structure Dynamics	5	D	-	58	-	12		2	3	
4B1304 Railway Systems and Rail Vehicles	6	C	-	-	60	9	1	2		Project assignment 9h

4C1110 Material Mechanics	4	D	52	-	-	3	1				
4C1111 Fracture Mechanics and Fatigue	4	D	48	-	-	4				4	
4C1112 Theory of Elasticity	4	D	26	26	-	-			3		
4C1114 Finite Element Method	4	D	-	49	-	8	2				
4C1118 Non-linear Theory of Elasticity	2	D	12	12	-	-				4	
4C1120 Experimental methods in mechanics	4	D	20	-	-	20			3		Seminars 4h
4D1026 Industrial Economy and Management, Basic Course	4	A	20	16	-	-	2				4 h Seminars4 h Seminars
4D1027 Industrial Economics and Management, Basic Course	4	A	20	16	-	-	2				4 h SeminarsSeminars 4h 4 h Seminars
4D1032 Production <i>Replaces 4D1030 Industrial Production and 4D1136 Production</i>	4	B	36	12	-	-				4	10 h Study visit10 h Study visit
4D1051 Commercial Law	4	B	18	14	-	-			3		
4D1057 Advanced Patent Law	4	C	4	14	-	-	1				Seminars 14h
4D1060 Industrial Development	4	B	40	8	-	-			3		
4D1062 Industrial Marketing <i>Replaces 4D1065 Industrial Marketing and 4D1151 Marketing</i>	4	B	36	12	-	-			3		
4D1075 Work Organization and Leadership* <i>Limited attendance, selection will be made</i>	4	B	24	24	-	-			3		
4D1092 Human - Machine System	4	B	24	6	-	3			3		
4D1093 Psychology for Engineers <i>Replaces 4D1088 Technical Work Psychology</i>	4	B	24	6	-	4	2				
4E1124 Fibre Composites I: materials and processes	4	D	40	-	-	5	1				
4E1126 Structural Design and Optimisation	4	D	36	-	-	12			3		
4E1150 Biomechanics and Neurronics	4	D	36	-	-	6				4	
4F1131 Microcomputers in Embedded Systems*	5	D	-	36	-	36	2				
4F1131 Microcomputers in Embedded Systems* <i>Limited attendance: 25</i>	5	D	-	36	-	36			3		
4F1141 Project Work in Mechatronics* <i>Limited attendance due to limited number of available projects</i>	4	C	-	-	-	-	1	2	3	4	No scheduled hours
4F1244 Motion Control <i>The course will not be given until further notice.</i>	4	D	30	-	-	12				4	
4F1460 Combustion Engines, Project Course <i>The course is open only to students specializing in combustion engines. Open only for students with individual specialization of Combustion engines.</i>	6	D	-	-	18	-			3	4	
4F1531 Machine Elements, basic course for I and T	4	B	24	40	-	-	1				
4F1540 Tribology	4	C	18	9	-	5				4	
4F1541 CAD 3D-modelling and Visualization for Personal Computers	4	C	8	36	-	-				4	
4F1630 Introduction to Machine Design	5	C	24	36	-	-	1	2			
4F1631 Intermediate Machine Design Course	7	D	4	84	-	-			3	4	
4F1640 Industrial Design*	4	C	24	36	-	-	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	4
4G1230 Introductory Welding Technology	4	C	24	18	-	12	1			
4G1231 Intermediate Welding Technology	4	D	24	24	-	12	1	2		
4G1246 Enlarged Welding Technology for EWE <i>Course is given upon agreement</i>	4	D	25	25	-	10	1	2	3	4
4G1540 Laser Metrology Methods and Non Destructive Testing	4	C	28	22	-	4		2		
4G1541 Measurement Technology & Statistics f Manufact. Processes	4	D	30	-	-	8			3	
4G1634 Manufacturing Engineering, Basic Course	6	C	32	20	-	12	1	2		
4H1104 Diffusion and Phase Equilibria	6	D	18	18	-	42	1	2		
4H1113 Powder Metallurgy	4	D	18	18	-	12		2		
4H1202 Mechanical Metallurgy I	6	D	24	12	-	48			3	4
4H1203 Mechanical Metallurgy II	4,5	C	24	12	-	24			3	4
4H1255 Metal Forming Processes	6	C	18	18	-	-			3	4
4H1301 Material Design	4	D	-	2	-	10			3	4
4H1404 Corrosion and Surface Protection, General Course	4	C	16	12	-	12	1			
4H1405 Corrosion Science, Advanced Course	4	D	16	-	-	-			3	
4H1505 Structure and Properties of Ceramic Materials	4	D	12	-	-	18		2		
4H1609 Functional Materials	4	D	18	-	-	6		2		Study visit 8h
4H1610 Advanced Materials	4	C	18	-	-	6			3	Study visit 8h Seminars 18h
4H1611 Materials Optimisation and Design	5	C	18	18	-	12				4
4H1612 High Temperature Materials	7	D	18	12	-	6	1			Study visit 8h Seminars 10h Project assignment 100h
4H1702 Current Research Topics in Materials Chemistry	4	D	20	4	-	8				4
4H1703 Materials Chemistry	4	D	20	4	-	8				4
4H1802 Artificial Materials	4	D	20	4	-	6	1			
4H1803 Physics of Nanostructured Materials	4	D	20	4	-	6				4
4H1941 Electrochemical Material and Energy Processes	4	D	18	18	-	12				4
4H1942 Experimental Methods in Metallurgical Engineering	4	D	2	-	-	-			3	4
4H1945 Economical Process Analysis and Strategy	4	C	12	12	-	-				4
4H1946 Combustion in Industrial Processes	6	D	24	24	-	12				4
4H1948 Process Metallurgy II	4	C	24	24	-	-		2		
4K1107 Production of Electronics I	4	C	36	-	-	8			3	
4K1109 Principles for Product Integrated Manufacturing Systems Design	4	C	12	12	-	4	1			

4K1202 Modelling and Interaction in CAD/CAM* <i>Maximum of 20 participants. Students of "Computer Systems for Design and Manufacturing" will have priority.</i>	5	D	-	36	-	24	1				3 Programming tasks, periods 1, 2
4K1405 Environmental History	4	B	12	-	-	-				4	12 h Seminars 12 h Seminars
4K1409 History of Industry	4	B	12	-	-	-	1	2			10 h Study visit 10 h Study visit
4K1601 Wood Material Science, Basic Course	5	C	36	24	-	32			3	4	
4K1602 Industrial Wood Processing, Basic Course	4	C	26	16	-	16	1				
4M1051 Project	4	D	-	160	-	-	1	2			
4M1341 Foundry Processing	4	D	12	-	-	-			3		Seminarier 24h Other 28h
4M1342 Space Systems and Technology	4	D	36	-	-	-		2			
4M1343 Materials Processing, Project Support	4	D	72	48	-	40	1	2			
4M1344 Metrology in Materials Processing	4	D	16	-	-	80	1				Seminars 16h
4M1345 Powder Processing and Materials Forming	4	D	30	-	-	-				4	Home assignments 80h
4M1346 Simulation and Modelling	4	D	10	80	-	-	1	2			
4M1347 Metal Forming	4	D	8	28	-	-	1	2			
4M1370 Solidification Processing	4	D	36	24	-	-	1	2			
5A1304 Mathematical Methods in Physics <i>Not given 03/ 04</i>	6	C	-	78	-	-					
5A1332 Advanced Quantum Mechanics, Course I <i>Under bearbetning</i>	5	D	36	-	-	-	1	2			
5A1354 Computational Physics	6	D	30	-	-	20	1	2			
5A1370 Solid State Theory	4	D	36	-	-	-	1				
5A1414 Radiation Detectors and Medical Imaging Systems <i>Under bearbetning</i>	5	D	24	6	-	20			3	4	
5A1416 Radiation Sources for Therapy <i>Under bearbetning</i>	2	D	8	-	-	-				4	2 compulsory studyvisits
5A1502 Quantum Electronics with Electro Optics <i>Under bearbetning</i>	8	D	48	-	-	-		2			
5A1590 Technical Photography <i>Under bearbetning</i>	5	D	20	-	-	36			3	4	
5A1775 Nuclear Reactor Physics, Major Course <i>Under bearbetning</i>	6	D	36	-	-	24		2			
5A1777 Reactor Physics, Minor Course	4	D	30	-	-	16		2			
5B1310 Applied and Industrial Mathematics	5	D	26	-	-	-	1	2			
5B1555 Computer Intensive Methods in Mathematical Statistics	5	D	-	-	48	-				4	
5C1122 Continuum Mechanics	4	C	42	-	-	-	1				
5C1211 Vehicle Aerodynamics	4	C	16	-	-	4				4	4 h Seminars 4 h Seminars
5C1980 Mechanics in Research and Industry <i>The course runs the entire academic year. A few lectures during fall.</i>	4	C	24	-	-	37	1	2	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	40	-	-	-				4	
7E1115 Engineering in Intensive Care and Anesthesia*	4	D	12	-	-	-			3	4	30 + 10h (field work with oral and written report)
7E1120 Biomedical Engineering, Basic Course	5	C	30	-	-	-	1				
7E1200 Cellular and Molecular Biology*	10	C	80	-	-	8			3	4	
7E1202 Systems Biology*	5	C	32	-	-	25		2			24 h Seminars 24 h Seminars
9E1131 Information Searching for B, I, M, T	1	B	-	-	-	-	1	2			3 laborations on all together 12 hours, 1 written examination and 1 written report. The course is given regularly throughout the academic year, please refer to the web page for the course.
9E1131 Information Searching for B, I, M, T	1	B	-	-	-	-			3	4	
9E1300 Technical English, Lower Intermediate Level*	4	B	-	-	56	-	1	2			
9E1301 Technical English, Intermediate Level*	6	B	-	-	56	-	1	2			
9E1304 Technical English, Advanced Level*	6	C	-	-	56	-	1	2			
9E1304 Technical English, Advanced Level*	6	C	-	-	56	-			3	4	
9E1320 German, Elementary Level*	4	B	-	-	56	-	1	2			
9E1322 German, Advanced Beginner's Level*	4	B	-	-	56	-	1	2			
9E1325 Technical German, Intermediate Level, E-learning	6	B	-	-	18	-	1	2			E-learning exercises
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			
9E1332 French, Advanced Beginner's Level*	4	B	-	-	56	-	1	2			
9E1334 Technical French, Intermediate Level*	6	B	-	-	56	-	1	2			
9E1342 Spanish, Elementary Level*	4	B	-	-	56	-	1	2			
9E1346 Spanish, Advanced Beginner's Level*	4	B	-	-	56	-	1	2			
9E1350 Italian, Elementary Level*	4	B	-	-	56	-	1	2			
9E1352 Italian, Advanced Beginner's Level*	4	B	-	-	56	-			3	4	
9E1360 Communicative Swedish*	4	B	-	-	56	-	1	2			

*The course has limited participation

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Materials Technology

Business Development and Media Technology B3

Code Name	Credits	Level	Lec	Tut	Le	Lab	Periods				Other
							1	2	3	4	
Elective Courses											
9E1300 <u>Technical English, Lower Intermediate Level*</u>	4	B	-	-	56	-			3	4	
9E1301 <u>Technical English, Intermediate Level*</u>	6	B	-	-	56	-			3	4	
9E1304 <u>Technical English, Advanced Level*</u>	6	C	-	-	56	-			3	4	

*The course has limited participation

Business Development and Media Technology B4

Code Name	Credits	Level	Lec	Tut	Le	Lab	Periods				Other
							1	2	3	4	
Compulsory Courses											
2D1550 <u>Market Systems</u>	5	C	-	-	-	-	1				Seminars 40h
2D1551 <u>Consumer Markets</u> <i>Open only to AFM-students.</i>	5	C	-	-	-	-	1				Seminars 40h
2D1552 <u>Media Management</u>	10	C	72	56	-	-	1	2	3	4	Only open for AFM-students.
2D1553 <u>Media Production*</u> <i>Only open for AFM-students.</i>	10	C	52	-	-	88		2			Only open for AFM-students.
2D1555 <u>Information Technology and Organizations*</u>	5	D	39	-	-	-				4	Open only to AMF-students.
Elective Courses											
2D1334 <u>Database Technology</u>	4	C	24	20	-	12			3	4	

*The course has limited participation

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Advanced Materials B3

Code Name	Credits	Level	Lec	Tut	Le	Lab	Periods				Other	
							1	2	3	4		
Compulsory Courses												
4H1610 <u>Advanced Materials</u>	4	C	18	-	-	6			3		Study visit 8h Seminars 18h	
4H1611 <u>Materials Optimisation and Design</u>	5	C	18	18	-	12				4	Study visits 10h	
Elective Courses												
4H1504 <u>Processing of Ceramic Materials</u>	4	C	12	-	-	18			3			

Advanced Materials B4

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

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Biomedical Engineering B3

Code Name	Credits	Level	Lec	Tut	Le	Lab	Periods				Other
							1	2	3	4	
Compulsory Courses											
7E1200 Cellular and Molecular Biology*_	10	C	80	-	-	8			3	4	
7E1201 Neuroscience*_	5	C	60	-	-	30				4	

*The course has limited participation

Biomedical Engineering B4

Code Name	Credits	Level	Lec	Tut	Le	Lab	Periods				Other	
							1	2	3	4		
Compulsory Courses												
7E1120 Biomedical Engineering, Basic Course	5	C	30	-	-	-	1					
7E1202 Systems Biology*_	5	C	32	-	-	25		2			24 h Seminars	24 h Seminars
Elective Courses												
2D1435 Mathematical Modelling of Biological Systems <i>The course is given every second year and will be given in 03/04.</i>	6	D	26	-	-	20				4		

*The course has limited participation

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Computer Systems for Design and Manufacturing B3

Code Name	Credits	Level	Lec	Tut	Le	Lab	Periods				Other
							1	2	3	4	
Compulsory Courses											
2D1320 Applied Computer Science	4	B	30	14	-	20			3	4	
4K1201 Computer Aided Design and Manufacturing, Introductory course	5	C	48	-	-	24				4	Graded exercise

Computer Systems for Design and Manufacturing B4

Code Name	Credits	Level	Lec	Tut	Le	Lab	Periods				Other
							1	2	3	4	
Compulsory Courses											
<u>4F1630 Introduction to Machine Design</u>	5	C	24	36	-	-	1	2			
<u>4K1102 Manufacturing Automation I</u> <i>Under bearbetning</i>	4	C	20	24	-	12	1				
<u>4K1202 Modelling and Interaction in CAD/CAM*</u> <i>Maximum of 20 participants. Students of "Computer Systems for Design and Manufacturing" will have priority.</i>	5	D	-	36	-	24	1				3 Programming tasks, periods 1, 2
<u>4K1203 Computer Systems for Design and Manufacturing, advanced course*</u> <i>Maximum of 20 participants. Students of "Computer Systems for Design and Manufacturing" will have priority.</i> <i>Under bearbetning</i>	12	D	-	68	-	60		2	3	4	4 Programming Projects, periods 2, 3, 4
Elective Courses											
<u>4F1131 Microcomputers in Embedded Systems*</u>	5	D	-	36	-	36		2			
<u>4K1103 Manufacturing Automation II</u> <i>Under bearbetning</i>	6	C	28	32	-	17	1	2			

*The course has limited participation

Kungl Tekniska Högskolan

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Materials Technology

Energy Technology B3

Code Name	Credits	Level	Lec	Tut	Le	Lab	Periods				Other
							1	2	3	4	
Compulsory Courses											
4A1601 Heat Transfer	4	C	24	24	-	20			3		
4A1603 Energy Technology	4	C	48	12	-	-				4	
5C1921 Fluid Mechanics for Engineers	4,5	C	28	30	-	6			3	4	

Energy Technology B4

Code Name	Credits	Level	Lec	Tut	Le	Lab	Periods				Other
							1	2	3	4	
Compulsory Courses											
4A1605 Sustainable Power Generation	6	D	30	48	-	18	1	2			
4A1607 Sustainable Energy Utilisation	6	D	-	-	72	16	1	2			
4A1609 Applied Energy Technology - Project Course	6	D	12	-	-	-			3	4	Project 78h
Elective Courses											
2A1151 Energy and Fusion Research	4	D	24	12	-	-				4	
4A1140 Energy Systems and Models I	4	D	-	-	-	-				4	
4A1610 Energy Management	4	D	50	-	-	-	1	2			
4A1611 Renewable Energy Technology	4	D	-	-	52	-	1				Study visit 8h
4A1613 Energy and Environment <i>Examinator: Björn Palm, Tel 790 7453</i>	4	D	50	-	-	-			3	4	Study visit 6h
4A1620 Combustion Theory	4	C	18	18	-	15	1	2			
4A1621 Modelling of Thermodynamic Systems	4	D	16	-	-	32	1	2	3	4	The course is given upon agreement
4A1622 Thermal Comfort and Indoor Climate	4	D	54	-	-	-			3	4	Study visits 6h
4A1623 Applied Refrigeration and Heat Pump Technology	4	D	24	24	-	16			3	4	
4A1624 Numerical Methods in Energy Technology	4	D	24	12	-	12	1	2			
4A1625 Cooling of Electronics	4	D	-	-	48	-			3		
4A1626 Applied Heat and Power Technology	4	D	36	12	-	8			3	4	Project assignment 8h
4A1627 Applied Reactor Technology and Nuclear Power Safety	4	D	48	-	-	-			3	4	Study visits 12h

4A1628 <u>Advanced Nuclear Reactor Engineering</u> <i>Under bearbetning</i>	4	D	42	-	-	-				4	Study visits 18h
4A1629 <u>Fluid Machinery</u>	4	C	30	18	-	12	1	2			
4A1630 <u>Thermal Fluid Machinery</u>	4	D	36	12	-	12			3		
5C1215 <u>Compressible Flow</u>	5	D	-	-	52	9		2			

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Solid Mechanics B3

Code Name	Credits	Level	Lec	Tut	Le	Lab	Periods				Other	
							1	2	3	4		
Compulsory Courses												
4C1096 <u>Strength of Materials and Solid Mechanics, Advanced Course</u>	4	C	36	14	-	4			3			
4C1117 <u>Design Applications of Solid Mechanics*</u> <i>Under bearbetning</i>	4	D	16	6	-	-				4	Estimated time for project: 90h	
4F1531 <u>Machine Elements, basic course for I and T</u>	4	B	24	40	-	-				4		
5B1304 <u>Mathematics, Extended Course</u>	5	D	-	-	54	-			3	4		

*The course has limited participation

Solid Mechanics B4

Code Name	Credits	Level	Lec	Tut	Le	Lab	Periods				Other
							1	2	3	4	
Compulsory Courses											
4C1114 <u>Finite Element Method</u>	4	D	-	49	-	8		2			
Elective Courses											
3E1324 <u>Polymer Materials - Properties and Applications</u>	4	C	30	12	-	10				4	
3E1360 <u>Mechanical Properties of Polymers, Minor Course</u>	4	D	24	16	-	12	1				
4B1111 <u>Fundamentals of Noise and Vibration Control T</u>	4	C	31	32	-	4		2			
4B1112 <u>Fundamentals of Noise and Vibration Control M</u>	4	C	31	30	-	4	1				
4B1420 <u>Ground Vehicle Engineering, Basic Course</u>	6	C	36	36	-	-	1	2			
4C1110 <u>Material Mechanics</u>	4	D	52	-	-	3	1				
4C1111 <u>Fracture Mechanics and Fatigue</u>	4	D	48	-	-	4				4	
4C1112 <u>Theory of Elasticity</u>	4	D	26	26	-	-			3		
4C1116 <u>Dynamic Problems in Solid Mechanics</u> <i>Under bearbetning</i>	4	D	42	-	-	8			3	4	
4C1118 <u>Non-linear Theory of Elasticity</u>	2	D	12	12	-	-				4	

4C1119 Finite Element Method, Project Course <i>Under bearbetning</i>	2	D	8	-	-	-		3		
4E1125 Fibre Composites II, Analysis and Design	4	D	48	-	-	6		2		
4F1540 Tribology	4	C	18	9	-	5			4	
4G1230 Introductory Welding Technology	4	C	24	18	-	12	1			
4H1202 Mechanical Metallurgy I	6	D	24	12	-	48		3	4	Home assignments
4H1203 Mechanical Metallurgy II	4,5	C	24	12	-	24		3	4	Home assignments
4H1505 Structure and Properties of Ceramic Materials	4	D	12	-	-	18		2		
5A1301 Mathematical Methods in Physics, Course I <i>Under bearbetning</i>	4	C	-	54	-	-	1	2		
5C1122 Continuum Mechanics	4	C	42	-	-	-	1			
5C1123 Mathematical Methods of Mechanics, General Course	4	D	36	-	-	-		2		
5C1125 Mathematical Methods of Mechanics, Intermediate Course	2	D	-	-	-	-			3	
5C1214 Fluid Mechanics	5	C	-	30	30	3	1			
5C1902 Advanced Dynamics of Complex Systems	4	D	24	-	-	-	1			

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Industrial Economics and Management B3

Code Name	Credits	Level	Lec	Tut	Le	Lab	Periods				Other
							1	2	3	4	
Compulsory Courses											
4D1028 Industrial Economics and Management, Advanced Course	4	B	26	20	-	-				4	
Conditionally Elective Courses											
4D1032 Production <i>Replaces 4D1030 Industrial Production and 4D1136 Production</i>	4	B	36	12	-	-				4	10 h Study visit10 h Study visit
4D1075 Work Organization and Leadership* <i>Limited attendance, selection will be made</i>	4	B	24	24	-	-			3		
Elective Courses											
4D1032 Production <i>Replaces 4D1030 Industrial Production and 4D1136 Production</i>	4	B	36	12	-	-				4	10 h Study visit10 h Study visit

*The course has limited participation

Industrial Economics and Management B4

Code Name	Credits	Level	Lec	Tut	Le	Lab	Periods				Other
							1	2	3	4	
Compulsory Courses											
4D1035 <u>Advanced Industrial Economics and Management*</u>	12	C	68	72	-	-		2	3	4	Roll-play 16h
Conditionally Elective Courses											
4D1062 <u>Industrial Marketing</u> <i>Replaces 4D1065 Industrial Marketing and 4D1151 Marketing</i>	4	B	36	12	-	-			3		
4D1071	4	B	36	12	-	-	1				
4F1630 <u>Introduction to Machine Design</u>	5	C	24	36	-	-	1	2			
4K1101 <u>Control Systems</u>	4	C	18	28	-	12				4	
4K1102 <u>Manufacturing Automation I</u> <i>Under bearbetning</i>	4	C	20	24	-	12	1				
Elective Courses											
4D1062 <u>Industrial Marketing</u> <i>Replaces 4D1065 Industrial Marketing and 4D1151 Marketing</i>	4	B	36	12	-	-			3		
4D1152 <u>Industrial Marketing, Advanced Course</u>	4	C	30	12	-	-	1				

4D1170 <u>Advanced Production and Product Development</u>	4	C	36	12	-	-	2			
4D1174 <u>Management and Analysis of Innovations and Technology</u>	4	C	38	-	-	-	2			10 h Seminars10 h Seminars
4K1103 <u>Manufacturing Automation II</u> <i>Under bearbetning</i>	6	C	28	32	-	17	1	2		

*The course has limited participation

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Materials Technology

Industrial Engineering B3

Code Name	Credits	Level	Lec	Tut	Le	Lab	Periods				Other
							1	2	3	4	
Compulsory Courses											
4D1032 <u>Production</u> <i>Replaces 4D1030 Industrial Production and 4D1136 Production</i>	4	B	36	12	-	-				4	10 h Study visit10 h Study visit
4G1160 <u>Manufacturing Engineering, Intermediate Course I</u> <i>Under bearbetning</i>	5	C	42	42	-	-				4	
4G1161 <u>Quality</u>	6	C	40	16	-	-			3		
Elective Courses											
3C1340 <u>Environmental Technology, Advanced Course</u>	4	C	36	6	-	-			3		
4G1632 <u>Materials Processing II</u> <i>Under bearbetning</i>	4	C	29	30	-	13				4	
4G1635 <u>Materials Processing II, Laboratory Course</u> <i>Under bearbetning</i>	5	D	29	30	-	37				4	

Industrial Engineering B4

Code Name	Credits	Level	Lec	Tut	Le	Lab	Periods				Other
							1	2	3	4	
Compulsory Courses											
4G1146 <u>Advanced Industrial Engineering*</u> <i>Under bearbetning</i>	12	D	67	22	-	-	1	2			120 h Projektuppgift120 h Projektuppgift
Elective Courses											
3C1360 <u>Environmental Consequences, Advanced Course</u>	4	C	15	-	-	-	1				
4D1062 <u>Industrial Marketing</u> <i>Replaces 4D1065 Industrial Marketing and 4D1151 Marketing</i>	4	B	36	12	-	-			3		
4D1093 <u>Psychology for Engineers</u> <i>Replaces 4D1088 Technical Work Psychology</i>	4	B	24	6	-	4		2			
4G1053 <u>Materials Processing, Project Support</u> <i>Under bearbetning</i>	4	D	72	48	-	40		2	3	4	Home assignments 48h
4G1170 <u>Intelligent Machining, Advanced Course</u> <i>Under bearbetning</i>	4	D	36	20	-	-		2	3	4	

<u>4G1243 Advanced Welding Technology, Modulus 1</u> <i>Under bearbetning</i>	4	D	20	20	-	20			3		
<u>4G1244 Advanced Welding Technology, Modulus 2</u> <i>Under bearbetning</i>	4	D	20	20	-	20			3		
<u>4G1245 Advanced Welding Technology, Modulus 3</u> <i>Under bearbetning</i>	4	D	20	20	-	20				4	
<u>4G1246 Enlarged Welding Technology for EWE</u> <i>Course is given upon agreement</i>	4	D	25	25	-	10	1	2	3	4	
<u>4G1540 Laser Metrology Methods and Non Destructive Testing</u>	4	C	28	22	-	4		2			
<u>4K1102 Manufacturing Automation I</u> <i>Under bearbetning</i>	4	C	20	24	-	12	1				

*The course has limited participation

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Integratd Product Development B3

Code Name	Credits	Level	Lec	Tut	Le	Lab	Periods				Other
							1	2	3	4	
Compulsory Courses											
4D1075 <u>Work Organization and Leadership*_</u> <i>Limited attendance, selection will be made</i>	4	B	24	24	-	-			3		
Conditionally Elective Courses											
4F1541 <u>CAD 3D-modelling and Visualization for Personal Computers</u>	4	C	8	36	-	-				4	

*The course has limited participation

Integratd Product Development B4

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

*The course has limited participation

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Sound and Vibrations B3

Code Name	Credits	Level	Lec	Tut	Le	Lab	Periods				Other
							1	2	3	4	
Compulsory Courses											
4B1120 Signal Analysis with Applications	5	D	-	24	-	22				4	
5B1304 Mathematics, Extended Course	5	D	-	-	54	-			3	4	
5C1921 Fluid Mechanics for Engineers	4,5	C	28	30	-	6			3	4	

Sound and Vibrations B4

Code Name	Credits	Level	Lec	Tut	Le	Lab	Periods				Other
							1	2	3	4	
Compulsory Courses											
4B1127 Vibroacoustics	5	D	-	56	-	8	1	2			
4B1131 Experimental Structure Dynamics	5	D	-	58	-	12		2	3		
4B1136 Flow Acoustics	4	D	-	36	-	8			3		
4B1141 Sound and Vibration, Project Course	5	D	-	48	-	12			3	4	Study tour to industry 40h
9E1131 Information Searching for B, I, M, T	1	B	-	-	-	-			3	4	

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Lightweight Structures B3

Code Name	Credits	Level	Lec	Tut	Le	Lab	Periods				Other	
							1	2	3	4		
Compulsory Courses												
4E1103 <u>Lightweight Structures and FEM II</u>	6,5	C	76	-	-	12			3	4		
Elective Courses												
4E1230 <u>Elements of Aeronautics</u>	8	c	116	-	-	4			3	4		

Lightweight Structures B4

Code Name	Credits	Level	Lec	Tut	Le	Lab	Periods				Other
							1	2	3	4	
Compulsory Courses											
4E1124 Fibre Composites I: materials and processes	4	D	40	-	-	5	1				
4E1125 Fibre Composites II, Analysis and Design	4	D	48	-	-	6		2			
4E1126 Structural Design and Optimisation	4	D	36	-	-	12			3		
4E1132 Lightweight Design* <i>Open only to students on the specialisation LKR.</i>	10	D	-	-	84	-	1	2	3	4	
4E1150 Biomechanics and Neuronics	4	D	36	-	-	6				4	
Elective Courses											
4B1304 Railway Systems and Rail Vehicles	6	C	-	-	60	9	1	2			Project assignment 9h
4B1420 Ground Vehicle Engineering, Basic Course	6	C	36	36	-	-	1	2			
4F1630 Introduction to Machine Design	5	C	24	36	-	-	1	2			
5B1722 Applied Optimization	4	C	28	14	-	9			3		
9E1300 Technical English, Lower Intermediate Level*	4	B	-	-	56	-	1	2			
9E1301 Technical English, Intermediate Level*	6	B	-	-	56	-	1	2			
9E1304 Technical English, Advanced Level*	6	C	-	-	56	-	1	2			
9E1325 Technical German, Intermediate Level, E-learning	6	B	-	-	18	-	1	2			E-learning exercises
9E1326 Technical German, Advanced Level*	6	C	-	-	56	-	1	2			

9E1334 <u>Technical French, Intermediate</u> Level*_	6	B	-	-	56	-	1	2			
9E1348 <u>Technical Spanish, Intermediate</u> Level*_	6	B	-	-	56	-			3	4	

*The course has limited participation

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Materials Technology

Machine Design B3

Code Name	Credits	Level	Lec	Tut	Le	Lab	Periods				Other
							1	2	3	4	
Compulsory Courses											
4C1096 Strength of Materials and Solid Mechanics, Advanced Course	4	C	36	14	-	4			3		
4F1530 Function Analysis and Optimization in Mechanical Engineering	5	C	-	60	-	-			3	4	One day field trip.
Elective Courses											
4C1112 Theory of Elasticity	4	D	26	26	-	-			3		
4F1241 Microcomputer, Sensors and Actuators	6	C	18	26	-	29				4	
4F1242 Introduction to Microcomputer Systems	4	C	12	22	-	14				4	
4F1343 Fluid Systems and Machines	4	C	24	24	-	12	1				
4F1642 Modelling and Computer Support in Mechanical Design	4	C	24	36	-	-			3		
4K1201 Computer Aided Design and Manufacturing, Introductory course	5	C	48	-	-	24				4	Graded exercise
5C1121 Analytical Mechanics	4	C	48	-	-	-			3		

Machine Design B4

Code Name	Credits	Level	Lec	Tut	Le	Lab	Periods				Other
							1	2	3	4	
Compulsory Courses											
4F1630 Introduction to Machine Design_	5	C	24	36	-	-	1	2			
4F1644 Industrial Design*_	4	C	24	36	-	-	1				
4F1660 Advanced Machine Design*_ <i>Under bearbetning</i>	12	D	4	114	-	-			3	4	
Elective Courses											
3E1360 Mechanical Properties of Polymers, Minor Course_	4	D	24	16	-	12	1				
3E1361 Polymer Processing, Minor Course_	4	D	24	8	-	18		2			
4C1114 Finite Element Method_	4	D	-	49	-	8		2			
4F1131 Microcomputers in Embedded Systems*_	5	D	-	36	-	36		2			

<u>4F1131 Microcomputers in Embedded Systems*</u> <i>Limited attendance: 25</i>	5	D	-	36	-	36			3		
<u>4F1141 Project Work in Mechatronics*</u> <i>Limited attendance due to limited number of available projects</i>	4	C	-	-	-	-	1	2	3	4	No scheduled hours
<u>4F1541 CAD 3D-modelling and Visualization for Personal Computers</u>	4	C	8	36	-	-				4	
<u>4F1641 Environmentally Adapted Product Design</u> <i>80% participation.</i>	4	C	-	-	42	-		2			
<u>4K1102 Manufacturing Automation I</u> <i>Under bearbetning</i>	4	C	20	24	-	12	1				

*The course has limited participation

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Materials Science B3

Code Name	Credits	Level	Lec	Tut	Le	Lab	Periods				Other	
							1	2	3	4		
Compulsory Courses												
4H1202 Mechanical Metallurgy I	6	D	24	12	-	48			3	4	Home assignments	
4H1204 Experimental Methods in Materials Science	5	D	10	10	-	48			3	4		
4H1504 Processing of Ceramic Materials	4	C	12	-	-	18			3			

Materials Science B4

Code Name	Credits	Level	Lec	Tut	Le	Lab	Periods				Other
							1	2	3	4	
Compulsory Courses											
4H1104 Diffusion and Phase Equilibria	6	D	18	18	-	42	1	2			
4H1113 Powder Metallurgy	4	D	18	18	-	12		2			
4H1301 Material Design	4	D	-	2	-	10			3	4	
4H1404 Corrosion and Surface Protection, General Course	4	C	16	12	-	12	1				
Conditionally Elective Courses											
4H1405 Corrosion Science, Advanced Course	4	D	16	-	-	-			3		
4H1505 Structure and Properties of Ceramic Materials	4	D	12	-	-	18		2			
4H1609 Functional Materials	4	D	18	-	-	6		2			Study visit 8h
4H1610 Advanced Materials	4	C	18	-	-	6			3		Study visit 8h Seminars 18h
4H1702 Current Research Topics in Materials Chemistry	4	D	20	4	-	8				4	
4H1703 Materials Chemistry	4	D	20	4	-	8				4	
4H1802 Artificial Materials	4	D	20	4	-	6	1				
5A1304 Mathematical Methods in Physics <i>Not given 03/ 04</i>	6	C	-	78	-	-					
5A1370 Solid State Theory	4	D	36	-	-	-	1				

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Mechatronics B3

Code Name	Credits	Level	Lec	Tut	Le	Lab	Periods				Other
							1	2	3	4	
Compulsory Courses											
2D1320 Applied Computer Science	4	B	30	14	-	20			3	4	
2E1212 Automatic Control, General Course	4	C	24	26	-	12			3		
4F1530 Function Analysis and Optimization in Mechanical Engineering	5	C	-	60	-	-			3	4	One day field trip.
Elective Courses											
4F1241 Microcomputer, Sensors and Actuators	6	C	18	26	-	29				4	
4F1242 Introduction to Microcomputer Systems	4	C	12	22	-	14				4	

Mechatronics B4

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

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Metallurgy and Processes of Manufacture B3

Code Name	Credits	Level	Lec	Tut	Le	Lab	Periods				Other	
							1	2	3	4		
Compulsory Courses												
4H1921 Advanced Transport Phenomena	6	C	20	20	-	16			3	4	Projektuppgift 136hProjektuppgift 136h	
4H1922 Chemical Equilibria in Metallurgical Processes	10	C	72	72	-	28			3	4	Projektuppgift 120h	
4M1334 Casting Processing	4	D	12	24	-	18				4		

Metallurgy and Processes of Manufacture B4

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

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Environmental Management B3

Code Name	Credits	Level	Lec	Tut	Le	Lab	Periods				Other	
							1	2	3	4		
Compulsory Courses												
3C1340 Environmental Technology, Advanced Course	4	C	36	6	-	-			3			
Elective Courses												
4D1060 Industrial Development	4	B	40	8	-	-			3			

Environmental Management B4

Code Name	Credits	Level	Lec	Tut	Le	Lab	Periods				Other
							1	2	3	4	
Compulsory Courses											
3C1360 Environmental Consequences, Advanced Course	4	C	15	-	-	-	1				
3C1370 Applied Environmental Legislation	3	C	24	3	-	-		2			
3C1387 Environmental Systems Analysis	4	C	16	8	-	6		2			
3C1390 Environmental Management, Larger Course	8	D	36	3	-	24			3	4	Project work, field exercise
Elective Courses											
3C1350 Waste Management, Advanced Course <i>Study visit</i>	4	D	18	-	-	3				4	Project work 20h
3C1365 Environmental Consequences, Advanced Course II	4	D	15	15	-	40	1	2			Field exercises

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Paper Technology B3

Code Name	Credits	Level	Lec	Tut	Le	Lab	Periods				Other	
							1	2	3	4		
Compulsory Courses												
3D1107 Paper Technology	6	D	42	-	-	56			3	4	2 days studytrip	
Elective Courses												
3D1112 Fiber Technology	4	C	26	-	-	15				4		
5C1921 Fluid Mechanics for Engineers	4,5	C	28	30	-	6			3	4		

Paper Technology B4

Code Name	Credits	Level	Lec	Tut	Le	Lab	Periods				Other
							1	2	3	4	
Compulsory Courses											
2D1520 <u>Graphic Arts Technology, Minor Course</u>	4	C	30	8	-	16		2			
3D1113 <u>Paper Physics</u>	4	D	20	-	-	20		2			
3D1114 <u>Paper Processes Technology</u>	4	D	20	-	-	20			3		
3D1117 <u>Paper Technology, project</u>	4	D	-	-	-	-			3	4	Project work
3D1163 <u>Pulp Technology</u>	4	D	20	-	-	24	1				

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Polymer Materials B3

Code Name	Credits	Level	Lec	Tut	Le	Lab	Periods				Other	
							1	2	3	4		
Compulsory Courses												
3E1320 Polymer Chemistry, General Course	5	C	24	18	-	30			3			
3E1323 Polymer Physics, General Course	4	C	36	9	-	-			3			
3E1324 Polymer Materials - Properties and Applications	4	C	30	12	-	10				4		

Polymer Materials B4

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

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Publiceringsteknik B3

Code Name	Credits	Level	Lec	Tut	Le	Lab	Periods				Other
							1	2	3	4	
Compulsory Courses											
2D1521 Communication and Information*_	5	C	21	24	-	-			3		
2D1522 Computer Technology and Communication*_	4	C	30	-	-	20				4	
2D1526 Publishing Technology, General Course	6	C	60	-	-	20			3		30h; A one week study tour is made in period 4.

*The course has limited participation

Publiceringsteknik B4

Code Name	Credits	Level	Lec	Tut	Le	Lab	Periods				Other
							1	2	3	4	
Compulsory Courses											
2D1515 Machinery and Materials in Graphic Arts Technology	6	C	50	12	-	12		2			
2D1517 XML for Publishing*_	5	D	30	-	-	40	1	2			
2D1518 Audio, Video and Multimedia Production*_	5	C	30	-	-	40		2	3		
2D1524 Image Processing and Reprographic Methods*_ <i>Limited number of participants</i>	6	C	50	16	-	24	1				
2D1527 Publishing Technology, Advanced Course <i>Open only to students of the specialization Publishing Technology.</i>	10	D	100	80	-	32			3	4	
Elective Courses											
2D1323 Computer Graphics and Interaction	4	C	42	-	-	12				4	
2D1334 Database Technology	4	C	24	20	-	12			3	4	

*The course has limited participation

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Materials Processing B3

Code Name	Credits	Level	Lec	Tut	Le	Lab	Periods				Other
							1	2	3	4	
Compulsory Courses											
4G1134 Effective Production	6	D	25	35	-	-			3	4	
4G1160 Manufacturing Engineering, Intermediate Course I <i>Under bearbetning</i>	5	C	42	42	-	-				4	
4G1161 Quality	6	C	40	16	-	-			3		
Elective Courses											
4G1632 Materials Processing II <i>Under bearbetning</i>	4	C	29	30	-	13				4	
4G1635 Materials Processing II, Laboratory Course <i>Under bearbetning</i>	5	D	29	30	-	37				4	
4H1251 Metal Forming - Fundamentals	6	C	36	36	-	18			3	4	

Materials Processing B4

Code Name	Credits	Level	Lec	Tut	Le	Lab	Periods				Other
							1	2	3	4	
Compulsory Courses											
4G1051 Project Assignment, Materials Processing <i>Under bearbetning</i>	4	D	-	160	-	-		2	3	4	Projektuppgift 160h Projektuppgift 160h
4G1053 Materials Processing, Project Support <i>Under bearbetning</i>	4	D	72	48	-	40		2	3	4	Home assignments 48h
Conditionally Elective Courses											
4G1170 Intelligent Machining, Advanced Course <i>Under bearbetning</i>	4	D	36	20	-	-		2	3	4	
4G1230 Introductory Welding Technology	4	C	24	18	-	12	1				
4G1570 Metrology & Quality for the Manufauacturing Industry <i>Under bearbetning</i>	4	D	36	24	-	-		2	3		
4G1670 Materials Forming <i>Under bearbetning</i>	4	D	18	12	-	18		2	3		
4M1346 Simulation and Modelling	4	D	10	80	-	-	1	2			
4M1370 Solidification Processing	4	D	36	24	-	-	1	2			

Elective Courses											
4C1110 Material Mechanics	4	D	52	-	-	3	1				
4F1630 Introduction to Machine Design	5	C	24	36	-	-	1	2			
4G1243 Advanced Welding Technology, Modulus 1 <i>Under bearbetning</i>	4	D	20	20	-	20			3		
4G1244 Advanced Welding Technology, Modulus 2 <i>Under bearbetning</i>	4	D	20	20	-	20			3		
4G1245 Advanced Welding Technology, Modulus 3 <i>Under bearbetning</i>	4	D	20	20	-	20				4	
4G1246 Enlarged Welding Technology for EWE <i>Course is given upon agreement</i>	4	D	25	25	-	10	1	2	3	4	
4G1541 Measurement Technology & Statistics f Manufact. Processes	4	D	30	-	-	8			3		
4M1341 Foundry Processing	4	D	12	-	-	-			3		Seminarier 24h Other 28h

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Assembly Systems B3

Code Name	Credits	Level	Lec	Tut	Le	Lab	Periods				Other
							1	2	3	4	
Compulsory Courses											
4G1160 <u>Manufacturing Engineering, Intermediate Course I</u> <i>Under bearbetning</i>	5	C	42	42	-	-				4	
4G1161 <u>Quality</u>	6	C	40	16	-	-			3		
4K1101 <u>Control Systems</u>	4	C	18	28	-	12				4	
4K1201 <u>Computer Aided Design and Manufacturing, Introductory course</u>	5	C	48	-	-	24				4	Graded exercise

Assembly Systems B4

Code Name	Credits	Level	Lec	Tut	Le	Lab	Periods				Other	
							1	2	3	4		
Compulsory Courses												
4F1531 Machine Elements, basic course for I and T	4	B	24	40	-	-	1					
4K1102 Manufacturing Automation I <i>Under bearbetning</i>	4	C	20	24	-	12	1					
4K1104 Manufacturing Systems, advanced course*_ <i>Under bearbetning</i>	12	D	50	48	-	28		2	3	4		
4K1109 Principles for Product Integrated Manufacturing Systems Design	4	C	12	12	-	4	1					

*The course has limited participation

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Materials Technology

Wood Technology B3

Code Name	Credits	Level	Lec	Tut	Le	Lab	Periods				Other	
							1	2	3	4		
Compulsory Courses												
4K1601 Wood Material Science, Basic Course	5	C	36	24	-	32			3	4		
Elective Courses												
4K1101 Control Systems	4	C	18	28	-	12				4		

Wood Technology B4

Code Name	Credits	Level	Lec	Tut	Le	Lab	Periods				Other
							1	2	3	4	
Compulsory Courses											
4K1602 Industrial Wood Processing, Basic Course	4	C	26	16	-	16	1				
4K1603 Wood Technology, Advanced Course* <i>Under bearbetning</i>	10	D	48	24	-	36		2	3	4	
Elective Courses											
4D1062 Industrial Marketing <i>Replaces 4D1065 Industrial Marketing and 4D1151 Marketing</i>	4	B	36	12	-	-			3		
4K1102 Manufacturing Automation I <i>Under bearbetning</i>	4	C	20	24	-	12	1				

*The course has limited participation

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Media Technology

Media Technology MEDIA1

Code Name	Credits	Level	Lec	Tut	Le	Lab	Periods				Other
							1	2	3	4	
Compulsory Courses											
2D1310 Programming Technique	4	A	26	16	-	36		2	3		
2D1348 Communication and Information	5	B	40	20	-	-		2	3		
2D1571 Introduction to Media Technology	4	B	54	15	8	-	1				
2D1572 Creation and Design	4	C	30	18	-	-			3	4	
2D1575 Media Technology Programme Summary Course	4	B	16	-	-	-	1	2	3	4	
4F1224 Electrical Engineering, Basic Course Media	4	B	12	21	-	13				4	
5A1230 Waves	4	B	28	14	-	15			3		
5B1115 Mathematics I	6	B	-	-	-	-	1				
5B1116 Mathematics II	6	B	-	-	-	-		2			
5B1118 Discrete Mathematics	5	B	-	-	-	-				4	
Elective Courses											
5B1120 Introductory Course in Mathematics I	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 Communicative Spaces*_	4	C	-	-	-	-		2			160 h Workshop
2D1320 Applied Computer Science	4	B	30	14	-	20	1	2			
2D1334 Database Technology	4	C	24	20	-	12			3	4	
2D1574 Media Technology, Basic Course	12	C	64	6	-	38	1	2			Study visit 12h
2D1575 Media Technology Programme Summary Course	4	B	16	-	-	-	1	2	3	4	
2G1316 Data and Computer Communication	4	C	24	18	-	12			3		
4D1200 Industrial Economics for Media Technology, Basic Course	4	A	26	16	-	-				4	Seminars 4h
5B1501 Probability Theory and Statistics	4	C	24	36	-	-			3		

*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	4	B	16	-	-	-	1	2	3	4	
2D1620 Human-Computer Interaction, Introductory Course	4	C	18	2	-	5	1				
4D1215 Media from Technology to Culture	4	B	30	-	-	-	1				15 h Seminars15 h Seminars
Elective Courses											
2D1323 Computer Graphics and Interaction	4	C	42	-	-	12				4	
2D1573 Telepresence Production	4	C	20	-	10	-			3	4	
2D1591 Production Techniques for Moving Images	6	C	40	16	-	16				4	
2D1592 Processing of Moving Pictures	6	D	40	-	-	20	1				
2D1593 Display and Projection Technology	4	C	20	-	-	10		2			
2D1622 Human-Computer Interaction, Second Course	4	C	18	2	-	5		2			
2F1111 Speech Technology	4	D	36	14	-	6			3		
2F1112 Speech Technology, Extended Course	5	D	36	14	-	6			3		
2F1212 Music Acoustics	4	D	-	-	48	8				4	
2F1213 Musical Communication and Music Technology	5	D	28	8	-	12				4	Project assignment 30h
2F1300 Perception of Sound	5	D	24	12	-	12	1				
2F1410 Audio Technology	5	D	30	12	-	12		2			20 h Projektuppgift20 h Projektuppgift
3C1320 Environment and Technology	4	AB	24	3	-	-			3		
3C1330 Technology and Ecosystems	4	AB	24	3	-	-		2			

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Media Technology

Media Technology MEDIA4

Code Name	Credits	Level	Lec	Tut	Le	Lab	Periods				Other
							1	2	3	4	
Compulsory Courses											
2D1576 Media Management	6	C	40	50	-	-				4	
2D1577 Content and expression in media	6	D	30	60	-	-			3	4	
4K1575 Media Technology Programme Summary Course	1	B	16	-	-	-	1	2	3	4	
Elective Courses											
2D1323 Computer Graphics and Interaction	4	C	42	-	-	12				4	
2D1410 User Centered Program Development	6	D	30	-	-	-			3	4	14 h Seminars 14 h Seminars
2D1591 Production Techniques for Moving Images	6	C	40	16	-	16				4	
2D1592 Processing of Moving Pictures	6	D	40	-	-	20	1				
2D1593 Display and Projection Technology	4	C	20	-	-	10		2			
2D1622 Human-Computer Interaction, Second Course	4	C	18	2	-	5		2			
2F1111 Speech Technology	4	D	36	14	-	6			3		
2F1112 Speech Technology, Extended Course	5	D	36	14	-	6			3		
2F1212 Music Acoustics	4	D	-	-	48	8				4	
2F1213 Musical Communication and Music Technology	5	D	28	8	-	12				4	Project assignment 30h
2F1300 Perception of Sound	5	D	24	12	-	12	1				
2F1410 Audio Technology	5	D	30	12	-	12		2			20 h Projektuppgift 20 h Projektuppgift
3C1320 Environment and Technology	4	AB	24	3	-	-			3		
3C1330 Technology and Ecosystems	4	AB	24	3	-	-		2			

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Interactive Media Technology MEDIA3

Code Name	Credits	Level	Lec	Tut	Le	Lab	Periods				Other
							1	2	3	4	
Compulsory Courses											
2D1323 Computer Graphics and Interaction	4	C	42	-	-	12				4	
2D1385 Software Engineering	4	C	24	12	-	18			3		
2D1573 Telepresence Production	4	C	20	-	10	-			3	4	
Elective Courses											
2D1953 Graphics and Interaction Programming	4	C	30	6	-	28			3		

Interactive Media Technology MEDIA4

Code Name	Credits	Level	Lec	Tut	Le	Lab	Periods				Other	
							1	2	3	4		
Compulsory Courses												
2D1390 Internet Programming	4	C	28	-	-	26		2				
2D1590 Media Perception	4	C	20	-	-	24			3			
Elective Courses												
2D1953 Graphics and Interaction Programming	4	C	30	6	-	28			3			

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Information System Management MEDIA3

Code Name	Credits	Level	Lec	Tut	Le	Lab	Periods				Other
							1	2	3	4	
Compulsory Courses											
2I1190 Organisations, IT-Systems and Management	7	C	36	-	-	9			3	4	Seminars 6h
2I1191 IT-Platform: Strategy, Architecture and Design	5	C	30	-	-	2				4	Seminars 6h
2I1197 Systems Theory	3	C	21	-	3	3			3		
2I1198 IT-Management	5	C	24	-	-	3				4	Seminars 3h

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Journalism MEDIA3

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

Journalism MEDIA4

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

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MEDIA4

Code Name	Credits	Level	Lec	Tut	Le	Lab	Periods				Other
							1	2	3	4	
Compulsory Courses											
2G1322 Communication System Design	16	D	-	-	-	-			3	4	Project plan P3 Project report P3 and P4

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Audio Technology MEDIA4

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

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Man-Machine Interaction MEDIA3

Code Name	Credits	Level	Lec	Tut	Le	Lab	Periods				Other
							1	2	3	4	
Compulsory Courses											
2D1385 Software Engineering	4	C	24	12	-	18			3		
2D1412 Coordination Course in HCI for Media Technology	2	C	28	-	-	-		2	3		
2D1622 Human-Computer Interaction, Second Course	4	C	18	2	-	5		2			

Man-Machine Interaction MEDIA4

Code Name	Credits	Level	Lec	Tut	Le	Lab	Periods				Other	
							1	2	3	4		
Compulsory Courses												
2D1410 User Centered Program Development	6	D	30	-	-	-			3	4	14 h Seminars	14 h Seminars

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Media Technology

Video and Film Production MEDIA3

Code Name	Credits	Level	Lec	Tut	Le	Lab	Periods				Other
							1	2	3	4	
Compulsory Courses											
2D1590 Media Perception	4	C	20	-	-	24			3		
2D1591 Production Techniques for Moving Images	6	C	40	16	-	16				4	

Video and Film Production MEDIA4

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

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Media Technology

Printed communication MEDIA3

Code Name	Credits	Level	Lec	Tut	Le	Lab	Periods				Other
							1	2	3	4	
Compulsory Courses											
2D1515 Machinery and Materials in Graphic Arts Technology	6	C	50	12	-	12		2			
2D1517 XML for Publishing*	5	D	30	-	-	40	1	2			
2D1524 Image Processing and Reprographic Methods* <i>Limited number of participants</i>	6	C	50	16	-	24	1				
4D1071	4	B	36	12	-	-	1				

*The course has limited participation

Printed communication MEDIA4

Code Name	Credits	Level	Lec	Tut	Le	Lab	Periods				Other
							1	2	3	4	
Compulsory Courses											
2D1515 Machinery and Materials in Graphic Arts Technology	6	C	50	12	-	12		2			
2D1517 XML for Publishing*	5	D	30	-	-	40	1	2			
2D1524 Image Processing and Reprographic Methods* <i>Limited number of participants</i>	6	C	50	16	-	24	1				
4D1071	4	B	36	12	-	-	1				

*The course has limited participation

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Mikroelektronik ME1

Code Name	Credits	Level	Lec	Tut	Le	Lab	Periods				Other
							1	2	3	4	
Compulsory Courses											
2B1111 <u>Applied Physics, Thermodynamics and Waves</u>	6	B	42	28	-	-			3	4	
2B1112 <u>Project Course in Microelectronics</u>	5	B	12	-	-	50				4	
2B1115 <u>Engineering Fundamentals</u>	4	A	36	18	-	12	1				
2I1035 <u>Computer Science, Basic Course</u>	4	B	14	21	24	26	1	2			
5B1116 <u>Mathematics II</u>	6	B	-	-	-	-		2			
5B1117 <u>Mathematics III</u>	6	B	-	-	-	-			3	4	
5B1135 <u>Mathematics I for I</u>	6	B	36	-	36	-	1				
5C1106 <u>Applied Physics, Mechanics</u>	4	B	30	15	-	-		2	3		
Elective Courses											
5B1120 <u>Introductory Course in Mathematics I</u>	1	A	-	-	-	-					

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Mikroelektronik ME2

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

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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 <u>Introduction to the Planning and Building Process</u>	8	AB	60	50	-	-	1	2			25h study-visits besides seminars, debate and presentations totalling 25h
2D1311 <u>Programming Technique with PBL</u>	4	AB	20	-	-	26			3	4	
5A1216 <u>Physical principles and processes</u>	8	AB	48	40	-	-			3	4	40 h Project-tutorials
5B1130 <u>Mathematical Methods I</u>	8	AB	24	96	-	-		2			
5B1131 <u>Mathematical Methods II</u>	8	AB	24	96	-	-			3	4	
5B1134 <u>Mathematics and Models</u>	4	AB	12	48	-	-	1				
Recommended Courses											
1U1012 <u>Introduction to Civil Engineering and Urban Management</u>	1	AB	9	-	15	-					8 h Project, 1 day study-visit

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Engineering Physics

Engineering Physics F1

Code Name	Credits	Level	Lec	Tut	Le	Lab	Periods				Other
							1	2	3	4	
Compulsory Courses											
2D1339 <u>Program Construction</u>	5	B	30	24	-	34	1	2	3		
5A1201 <u>Physics, Basic Course I</u>	7	B	52	14	-	30	1	2			
5A1202 <u>Physics, Basic Course Part II</u>	8	B	42	32	-	25			3	4	
5B1106 <u>Calculus II, part 1</u>	6	B	-	-	-	-	1	2			
5B1107 <u>Calculus II, part 2</u>	6	B	-	-	-	-			3	4	
5B1109 <u>Linear Algebra II</u>	5	B	-	-	-	-	1				
5C1103 <u>Mechanics, Basic Course</u>	6	B	48	27	-	-			3	4	
Elective Courses											
5B1120 <u>Introductory Course in Mathematics I</u>	1	A	-	-	-	-					

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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 F	6	C	52	52	-	-	1	2			
2D1240 Numerical Methods, Basic Course II	4	B	28	14	-	18			3	4	
4C1055 Strength of Materials and Solid Mechanics, Basic Course <i>Under bearbetning</i>	6	B	42	40	-	2			3	4	
5A1246 Modern Physics	6	B	30	14	-	20		2	3	4	
5B1201 Complex Analysis	4	C	48	-	-	-	1				
5B1202 Differential Equations and Transforms II	6	C	72	-	-	-		2		4	
5B1506 Mathematical Statistics, Basic Course	6	C	36	48	-	-			3	4	
5C1113 Mechanics, Continuation Course	4	C	30	15	-	-	1				
Elective Courses											
2A6840 Electromagnetic Theory - with Honours	0	C	-	-	-	-			3		
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											
2B1508 Semiconductor Electronics, Special Course	4	C	24	16	-	-	1				
2D1344 Fundamentals of Computer Science	4	B	24	24	-	24		2	3		
2E1200 Automatic Control, General Course	4	C	24	26	-	12	1				
5A1301 Mathematical Methods in Physics, Course I <i>Under bearbetning</i>	4	C	-	54	-	-	1	2			
5A1450 Quantum Physics <i>Under bearbetning</i>	11	C	60	48	-	40	1	2	3		
Conditionally Elective Courses											
5A1326 Relativity <i>Under bearbetning</i>	4	C	28	20	-	-			3		
5A1350 Statistical Mechanics <i>Under bearbetning</i>	4	C	24	24	-	-				4	
5A1400 Subatomic Physics	4	C	36	-	-	-				4	
5B1712 Optimization	4	C	28	14	-	6			3		
5C1202 Fluid Mechanics, Introductory Course <i>Compulsory within competenceprogram Mechanics and Fluid mechanics.</i>	4	C	-	-	42	6			3		
Elective											
5U1201 Advanced Problems A <i>Under bearbetning</i>	4	C	-	48	-	-	1	2	3	4	
5U1202 Advanced Problems B <i>Under bearbetning</i>	4	D	-	36	-	-	1	2	3		

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Engineering Physics

Atomic and subatomic physics F3

Code Name	Credits	Level	Lec	Tut	Le	Lab	Periods				Other
							1	2	3	4	
Elective Courses											
5A1326 Relativity <i>Under bearbetning</i>	4	C	28	20	-	-			3		
5A1400 Subatomic Physics	4	C	36	-	-	-				4	
5A1402 Subatomic Physics, Extended Course <i>The course can only be studied as a supplement to 5A1400.</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			
2A1133 Plasma Physics, Enlarged Course	6	C	60	-	-	-	1	2	3		
2A1151 Energy and Fusion Research	4	D	24	12	-	-				4	
2A1160 Space Physics	3	D	14	-	4	-	1				
5A1310 Elementary Particle Physics <i>Under bearbetning</i>	4	D	36	-	-	-				4	
5A1312 Astroparticle Physics <i>Under bearbetning</i>	4	D	28	-	-	-		2			
5A1329 Quantum Mechanics, Intermediate Course <i>Under bearbetning</i>	5	D	34	28	-	-	1	2			
5A1335 Symmetries in Physics <i>Under bearbetning</i>	4	D	30	-	-	-	1	2			
5A1405 Experimental Particle Physics <i>Under bearbetning</i>	4	D	26	-	-	4			3		
5A1410 Nuclear Physics <i>Under bearbetning</i>	4	D	24	-	-	25	1	2			
5A1412 Atomic Nuclei - Radiation - Energy <i>Under bearbetning</i>	5	B	24	-	-	15			3		
5A1414 Radiation Detectors and Medical Imaging Systems <i>Under bearbetning</i>	5	D	24	6	-	20			3	4	
5A1425 Physics at Accelerators <i>Given if there are enough interest. Please contact course administrator.</i> <i>Under bearbetning</i>	4	D	35	-	-	16			3		

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>	2	D	4	-	-	20		2			
5A1460 Synchrotron Radiation Based Atomic and Molecular Physics	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	5	D	34	10	-	-			3		
5A1510 Optical Measurement Techniques <i>Under bearbetning</i>	4	D	36	-	-	-			3	4	One individual task. Study visits.
5A1775 Nuclear Reactor Physics, Major Course <i>Under bearbetning</i>	6	D	36	-	-	24		2			
5A1802 Laser Physics II	4	D	36	-	-	-			3		

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Biological Physics and Medical Technology F3

Code Name	Credits	Level	Lec	Tut	Le	Lab	Periods				Other
							1	2	3	4	
Elective Courses											
5A1350 Statistical Mechanics <i>Under bearbetning</i>	4	C	24	24	-	-				4	
5A1372 Condensed Matter Physics	4	D	36	-	-	10				4	

Biological Physics and Medical Technology F4

Code Name	Credits	Level	Lec	Tut	Le	Lab	Periods				Other	
							1	2	3	4		
Compulsory Courses												
5A1356 Computational Physics, Additional Course	3	D	-	-	-	-			3			
Elective Courses												
2D1432 Artificial Neural Networks and Other Learning Systems	4	D	26	-	-	16			3			
2D1435 Mathematical Modelling of Biological Systems <i>The course is given every second year and will be given in 03/04.</i>	6	D	26	-	-	20				4		
5A1329 Quantum Mechanics, Intermediate Course <i>Under bearbetning</i>	5	D	34	28	-	-	1	2				
5A1351 Non-equilibrium Statistical Mechanics <i>Under bearbetning</i>	4	D	24	-	-	-				4		
5A1352 Complex Systems <i>Under bearbetning</i>	4	D	24	-	-	-	1					
5A1353 Macromolecular Conformations <i>Under bearbetning</i>	4	D	24	-	-	-			3			
5A1354 Computational Physics	6	D	30	-	-	20	1	2				
5A1355 Molecular Biophysics <i>The course is given by the Department of Biochemistry and Biophysics, Stockholm University. The instruction takes place at the Arrhenius laboratories, Frescati.</i>	8	D	90	-	-	20				4		
5A1414 Radiation Detectors and Medical Imaging Systems <i>Under bearbetning</i>	5	D	24	6	-	20			3	4		
5A1416 Radiation Sources for Therapy <i>Under bearbetning</i>	2	D	8	-	-	-				4	2 compulsory studyvisits	

5A1490 Laser Chemistry <i>Under bearbetning</i>	4	D	24	-	-	12	2		
5A1491 Femtochemistry <i>Under bearbetning</i>	5	D	36	-	-	-		3	
5A1511 Optical Physics <i>Under bearbetning</i>	4	D	26	14	-	25	1		
5A1512 Optical Physics, Extended Course <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>The course replaces 5A1580 + 5A1581.</i>	4	D	28	-	-	20	2		
5A1584 Cellular Biophysics <i>Under bearbetning</i>	5	D	20	-	-	24		3	
5A1586 Experimental Biomolecular Physics	4	D	34	-	-	15			4 5 h Study visit5 h Study visit
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	40	-	-	-			4
7E1115 Engineering in Intensive Care and Anesthesia*	4	D	12	-	-	-		3	4 30 + 10h (field work with oral and written report)
7E1120 Biomedical Engineering, Basic Course	5	C	30	-	-	-	1		
7E1200 Cellular and Molecular Biology*	10	C	80	-	-	8		3	4
7E1201 Neuroscience*	5	C	60	-	-	30			4
7E1202 Systems Biology*	5	C	32	-	-	25	2		24 h Seminars24 h Seminars

*The course has limited participation

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Engineering Physics

Physics F3

Code Name	Credits	Level	Lec	Tut	Le	Lab	Periods				Other
							1	2	3	4	
Elective Courses											
2B1770 Solid State Physics, General Course	6	D	54	-	-	30			3	4	
5A1372 Condensed Matter Physics	4	D	36	-	-	10				4	
5A1402 Subatomic Physics, Extended Course <i>The course can only be studied as a supplement to 5A1400.</i>	2	D	4	-	-	20				4	
5A1800 Laser Physics I <i>Under bearbetning</i>	4	D	24	12	-	-				4	

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Condensed matter physics F3

Code Name	Credits	Level	Lec	Tut	Le	Lab	Periods				Other
							1	2	3	4	
Elective Courses											
5A1326 Relativity <i>Under bearbetning</i>	4	C	28	20	-	-			3		
5A1350 Statistical Mechanics <i>Under bearbetning</i>	4	C	24	24	-	-				4	
5A1372 Condensed Matter Physics	4	D	36	-	-	10				4	
5B1303 Analysis, Basic Course	6	D	-	-	66	-			3	4	

Condensed matter physics F4

Code Name	Credits	Level	Lec	Tut	Le	Lab	Periods				Other
							1	2	3	4	
Elective Courses											
2B1771 Superconductivity and Applications	4	D	28	-	-	-		2			
5A1329 Quantum Mechanics, Intermediate Course <i>Under bearbetning</i>	5	D	34	28	-	-	1	2			
5A1351 Non-equilibrium Statistical Mechanics <i>Under bearbetning</i>	4	D	24	-	-	-				4	
5A1370 Solid State Theory	4	D	36	-	-	-	1				
5A1374 Many Particle Physics	4	D	24	-	-	-		2			
5A1376 Strongly Correlated Systems <i>Under bearbetning</i>	4	D	24	-	-	-			3		
5A1378 Mesoscopic Physics <i>Under bearbetning</i>	4	D	36	-	-	10		2			
5A1379 Spin Electronics	4	D	24	-	-	4				4	

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Engineering Physics

Laser Physics and Quantum Optics F3

Code Name	Credits	Level	Lec	Tut	Le	Lab	Periods				Other
							1	2	3	4	
Elective Courses											
5A1372 Condensed Matter Physics	4	D	36	-	-	10				4	
5A1800 Laser Physics I	4	D	24	12	-	-				4	
Under bearbetning											

Laser Physics and Quantum Optics F4

Code Name	Credits	Level	Lec	Tut	Le	Lab	Periods				Other
							1	2	3	4	
Elective Courses											
2B1325 Photonics	5	D	38	-	-	8				4	
2B1750 Smart Electronic Materials	4	C	18	10	-	8	1				
2B1751 Physics of Electronic Devices	4	D	12	6	-	-				4	
5A1329 Quantum Mechanics, Intermediate Course <i>Under bearbetning</i>	5	D	34	28	-	-	1	2			
5A1336 Quantum Dynamical Systems <i>Under bearbetning</i>	4	D	30	-	-	-			3		
5A1378 Mesoscopic Physics <i>Under bearbetning</i>	4	D	36	-	-	10		2			
5A1379 Spin Electronics	4	D	24	-	-	4				4	
5A1502 Quantum Electronics with Electro Optics <i>Under bearbetning</i>	8	D	48	-	-	-		2			
5A1503 Electro Optics <i>Under bearbetning</i>	4	D	24	-	-	-		2			
5A1510 Optical Measurement Techniques <i>Under bearbetning</i>	4	D	36	-	-	-			3	4	One individual task. Study visits.
5A1511 Optical Physics <i>Under bearbetning</i>	4	D	26	14	-	25	1				
5A1512 Optical Physics, Extended Course <i>Can only be studied together with 5A1511.</i> <i>Under bearbetning</i>	2	D	12	6	-	10	1				
5A1520 Problem Solving in Optics <i>Under bearbetning</i>	4	D	-	-	-	-	1	2	3	4	
5A1521 Problem Solving in Optics, Continuation Course 1 <i>Under bearbetning</i>	2	D	-	-	-	-			3	4	

5A1523 Optical Systems Design	4	D	12	-	-	5			4	10 h Projektuppgift10 h Projektuppgift
5A1582 Physics of Biomedical Microscopy <i>The course replaces 5A1580 + 5A1581.</i>	4	D	28	-	-	20		2		
5A1802 Laser Physics II	4	D	36	-	-	-			3	

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Mathematical Physics F3

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

Mathematical Physics F4

Code Name	Credits	Level	Lec	Tut	Le	Lab	Periods				Other
							1	2	3	4	
Compulsory Courses											
5A1356 Computational Physics, Additional Course	3	D	-	-	-	-			3		
Elective Courses											
5A1310 Elementary Particle Physics <i>Under bearbetning</i>	4	D	36	-	-	-				4	
5A1332 Advanced Quantum Mechanics, Course I <i>Under bearbetning</i>	5	D	36	-	-	-	1	2			
5A1333 Advanced Quantum Mechanics, Course II <i>Under bearbetning</i>	4	D	32	-	-	-			3		
5A1334 Differential Geometry in Physics <i>Under bearbetning</i>	4	D	34	-	-	-			3		
5A1335 Symmetries in Physics <i>Under bearbetning</i>	4	D	30	-	-	-	1	2			
5A1336 Quantum Dynamical Systems <i>Under bearbetning</i>	4	D	30	-	-	-			3		
5A1337 Integrable Nonlinear Systems and Solitons <i>Under bearbetning</i>	4	D	20	-	-	-			3		
5A1351 Non-equilibrium Statistical Mechanics <i>Under bearbetning</i>	4	D	24	-	-	-				4	
5A1352 Complex Systems <i>Under bearbetning</i>	4	D	24	-	-	-	1				
5A1354 Computational Physics	6	D	30	-	-	20	1	2			
5A1802 Laser Physics II	4	D	36	-	-	-			3		

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Engineering Physics

Material Physics F3

Code Name	Credits	Level	Lec	Tut	Le	Lab	Periods				Other
							1	2	3	4	
Elective Courses											
2B1770 Solid State Physics, General Course	6	D	54	-	-	30			3	4	
5A1350 Statistical Mechanics <i>Under bearbetning</i>	4	C	24	24	-	-				4	

Material Physics F4

Code Name	Credits	Level	Lec	Tut	Le	Lab	Periods				Other
							1	2	3	4	
Compulsory Courses											
5A1356 Computational Physics, Additional Course	3	D	-	-	-	-			3		
Elective Courses											
2B1260 Semiconductor Theory and Device Physics, General Course	5	D	30	-	-	10	1				Individual assignments 20h
2B1261 Semiconductor Theory and Device Physics, Advanced Course <i>Under bearbetning</i>	4	D	-	36	-	-			3		
2B1262 The Nature of Materials <i>Under bearbetning</i>	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 studied as a supplement to 2B1760.</i>	3	D	-	-	-	10			3		
2B1771 Superconductivity and Applications	4	D	28	-	-	-		2			
4C1110 Material Mechanics	4	D	52	-	-	3	1				
4C1111 Fracture Mechanics and Fatigue	4	D	48	-	-	4				4	

4C1112 Theory of Elasticity	4	D	26	26	-	-		3		
4C1114 Finite Element Method	4	D	-	49	-	8	2			
4H1104 Diffusion and Phase Equilibria	6	D	18	18	-	42	1	2		
4H1203 Mechanical Metallurgy II	4,5	C	24	12	-	24		3	4	Home assignments
4M1342 Space Systems and Technology	4	D	36	-	-	-	2			
5A1332 Advanced Quantum Mechanics, Course I <i>Under bearbetning</i>	5	D	36	-	-	-	1	2		
5A1354 Computational Physics	6	D	30	-	-	20	1	2		
5A1370 Solid State Theory	4	D	36	-	-	-	1			
5A1502 Quantum Electronics with Electro Optics <i>Under bearbetning</i>	8	D	48	-	-	-	2			
5A1503 Electro Optics <i>Under bearbetning</i>	4	D	24	-	-	-	2			
5A1523 Optical Systems Design	4	D	12	-	-	5			4	10 h Projektuppgift10 h Projektuppgift
5A1552 Optronics	4	D	20	-	-	10		3	4	
5A1775 Nuclear Reactor Physics, Major Course <i>Under bearbetning</i>	6	D	36	-	-	24	2			

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Engineering Physics

Micro Electronics F3

Code Name	Credits	Level	Lec	Tut	Le	Lab	Periods				Other
							1	2	3	4	
Elective Courses											
2B1770 Solid State Physics, General Course	6	D	54	-	-	30			3	4	
2D1250 Applied Numerical Methods II	6	C	-	-	56	24			3	4	

Micro Electronics F4

Code Name	Credits	Level	Lec	Tut	Le	Lab	Periods				Other
							1	2	3	4	
Elective Courses											
2B1211 Physics of Electronic Materials	5	C	40	24	-	8	1				
2B1230 Power Semiconductor Devices	5	D	40	-	-	-			3		Project 40h
2B1240 VLSI-technology II	5	D	24	-	-	32				4	
2B1245 Advanced VLSI-Devices	5	D	20	-	-	32				4	
2B1252 Semiconductor Devices	6	C	-	-	-	-				4	
2B1260 Semiconductor Theory and Device Physics, General Course	5	D	30	-	-	10	1				Individual assignments 20h
2B1310 Microwave Engineering	5	C	36	18	-	10		2			
2B1322 Fibre Optical Communication	5	D	28	14	-	8			3		
2B1325 Photonics	5	D	38	-	-	8				4	
2B1380 Optics, General Course	4	D	26	14	-	25	1				
2B1515 Analog Electronics, Advanced Course	5	C	30	14	-	20			3		Project work
2B1600 Radio Electronics	5	D	26	12	-	16				4	
2B1700 Advanced Semiconductor Materials	5	D	34	-	-	16			3		
2E1423 Signal Theory	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 F4

Code Name	Credits	Level	Lec	Tut	Le	Lab	Periods				Other
							1	2	3	4	
Elective Courses											
2D1220 Applied Numerical Methods I	4	C	40	-	-	20			3	4	
2D1257 Visualization	4	C	20	-	-	10			3		
2D1323 Computer Graphics and Interaction	4	C	42	-	-	12				4	
2D1334 Database Technology	4	C	24	20	-	12			3	4	
2D1354 Algorithms and Complexity	4	C	30	18	-	-	1	2			
2D1373 Artificial Languages and Syntax Analysis	4	C	24	-	-	16			3		
2D1375 Implementation of Programming Languages	4	D	2	-	-	-	1	2			
2D1381 Industrial Applications of Artificial Intelligence	4	C	36	-	-	-			3	4	
2D1385 Software Engineering	4	C	24	12	-	18				4	
2D1387 Program System Construction Using C++	4	C	18	6	-	30	1	2			
2D1390 Internet Programming	4	C	28	-	-	26		2			
2D1408 Evaluation Methods in Human-Computer Interaction*	4	D	10	19	-	-			3	4	2 h Seminars 2 h Seminars
2D1410 User Centered Program Development	6	D	30	-	-	-			3	4	14 h Seminars 14 h Seminars
2D1413 Advanced Graphics and Interaction	6	D	50	-	-	12	1	2			
2D1416 Computer Supported Cooperative Work <i>Given every second year. Not given 03/ 04.</i>	6	D	30	-	-	15					
2D1418 Language Engineering	4	D	42	-	-	12	1				
2D1420 Computer Vision, Basic Course	5	D	46	6	-	12			3		
2D1424 Geometric Computing in Image Analysis and Visualization	4	D	28	-	-	8				4	
2D1426 Robotics and Autonomous Systems*	5	D	16	-	-	60				4	
2D1426 Robotics and Autonomous Systems*	5	D	16	-	-	60	1				
2D1431 Machine Learning	4	C	32	-	-	20		2			
2D1432 Artificial Neural Networks and Other Learning Systems	4	D	26	-	-	16			3		

2D1440 Advanced Algorithms	4	D	30	-	-	-	2			
2D1441 Seminars on Theoretical Computer Science <i>The course is given every second year and will not be given in 03/04.</i>	4	D	30	-	-	-				
2D1446 Complexity Theory <i>The course is given every second year and will be given in 03/04.</i>	4	D	30	-	-	-			4	
2D1449 Foundations of Cryptography	4	D	30	-	-	-		3		
2D1450 Algorithmic Bioinformatics	4	D	36	-	-	-			4	
2D1458 Problem Solving and Programming under Pressure	6	C	24	-	-	52	1	2		
2D1465 Advanced, Individual Course in Computer Science <i>The course can be studied any time during the semesters.</i>	4	D	-	-	-	-				
2D1469 Database Theory	4	D	24	24	-	-	1			
2D1470 Object Oriented Database Systems	5	D	24	24	-	-			4	
2D1482 Programming of Web Server Applications*	4	D	12	-	-	26			4	
2D1490 IP Routing in Simple Computer Networks*	5	D	32	8	-	32			3	
2D1491 IP-routing in Internet and Other Complex Networks*	5	D	32	8	-	32			4	
2D1620 Human-Computer Interaction, Introductory Course	4	C	18	2	-	5	1			
2D1622 Human-Computer Interaction, Second Course	4	C	18	2	-	5		2		
2E1423 Signal Theory	5	C	24	22	-	10			3	
2G1316 Data and Computer Communication	4	C	24	18	-	12			3	
2G1502 Computer Hardware Basics <i>replaces 2G1119 and 2G1129</i>	4	B	18	18	-	20	1	2		
2G1506 Programming with Processes <i>Is given for last time 2003/2004. The course 2G1915, Concurrent Programming, will replace.</i>	5	C	36	-	-	24	1			
2I1130 Cognitive Psychology	4	B	30	12	-	-	1			
5B1309 Algebra, Basic Course	4	C	42	-	-	-			3	
5B1456 Seminar Course in Mathematics I <i>Not given 03/04.</i>	5	D	36	-	-	-				
5B1457 Seminar Course in Mathematics II <i>Not given 03/04.</i>	5	D	36	-	-	-				
5B1458 Seminar Course in Mathematics III <i>Given 03/04.</i>	5	D	36	-	-	-	1	2		
5B1459 Seminar Course in Mathematics IV <i>Given 03/04.</i>	5	D	36	-	-	-			3	4
5B1466 Fourier Analysis <i>Given 03/04.</i>	5	D	36	-	-	-			3	4
5B1475 Combinatorics, Advanced Course <i>Given 03/04.</i>	5	D	36	-	-	-	1	2		
5B1492 Linear Algebra, Advanced Course <i>Not given 03/04.</i>	5	D	36	-	-	-				
5B1814 Applied Mathematical Programming - Linear Problems	4	D	18	12	-	-		2		Projektuppgift 18h
5B1928 Logic	4	D	-	-	-	-			4	

*The course has limited participation

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Mathematics and Computer Science F3

Code Name	Credits	Level	Lec	Tut	Le	Lab	Periods				Other
							1	2	3	4	
Elective Courses											
2D1250 <u>Applied Numerical Methods II</u>	6	C	-	-	56	24			3	4	
2D1385 <u>Software Engineering</u>	4	C	24	12	-	18				4	
5B1203 <u>Discrete Mathematics</u>	6	C	-	-	-	-			3	4	
5B1303 <u>Analysis, Basic Course</u>	6	D	-	-	66	-			3	4	
5B1306 <u>Financial Mathematics, Basic Course</u>	5	C	-	-	54	-				4	
5B1309 <u>Algebra, Basic Course</u>	4	C	42	-	-	-			3		
5B1538 <u>Reliability Theory</u>	6	D	-	-	72	-			3	4	
5B1540 <u>Probability Theory</u>	5	D	24	30	-	-				4	

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Mathematics F4

Code Name	Credits	Level	Lec	Tut	Le	Lab	Periods				Other
							1	2	3	4	
Elective Courses											
5B1307 Linear Algebra, Basic Course	4	D	48	14	-	-	1				
5B1309 Algebra, Basic Course	4	C	42	-	-	-			3		
5B1455 Ordinary Differential Equations <i>Not given 03/ 04.</i>	4	D	36	-	-	-					
5B1456 Seminar Course in Mathematics I <i>Not given 03/04.</i>	5	D	36	-	-	-					
5B1457 Seminar Course in Mathematics II <i>Not given 03/04.</i>	5	D	36	-	-	-					
5B1458 Seminar Course in Mathematics III <i>Given 03/04.</i>	5	D	36	-	-	-	1	2			
5B1459 Seminar Course in Mathematics IV <i>Given 03/04.</i>	5	D	36	-	-	-			3	4	
5B1464 Topology <i>Not given 03/04.</i>	5	D	36	-	-	-					
5B1466 Fourier Analysis <i>Given 03/04.</i>	5	D	36	-	-	-			3	4	
5B1470 Analytic Functions <i>Not given 03/04.</i>	5	D	36	-	-	-					
5B1472 Functional Analysis <i>Given 03/04.</i>	5	D	36	-	-	-			3	4	
5B1473 Elementary Differential Geometry <i>Not given 03/04.</i>	5	D	36	-	-	-					
5B1475 Combinatorics, Advanced Course <i>Given 03/04.</i>	5	D	36	-	-	-	1	2			
5B1479 Integration Theory <i>Given 03/04.</i>	5	D	36	-	-	-	1	2			
5B1490 Chaotic Dynamical Systems <i>Not given 03/04.</i>	5	D	36	-	-	-					
5B1491 Analytical and Numerical Methods for Partial Differential Equations <i>Not given 03/04.</i>	5	D	36	-	-	-					
5B1492 Linear Algebra, Advanced Course <i>Not given 03/04.</i>	5	D	36	-	-	-					
5B1712 Optimization	4	C	28	14	-	6			3		

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Optimization and Systems Theory F4

Code Name	Credits	Level	Lec	Tut	Le	Lab	Periods				Other
							1	2	3	4	
Elective Courses											
1H1401 <u>Optimisation Models in Transport and Location Analysis</u> <i>Under bearbetning</i>	5	D	27	12	-	6			3		6 h Seminars
2D1334 <u>Database Technology</u>	4	C	24	20	-	12			3	4	
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		
2E1262 <u>Nonlinear Control</u>	5	D	28	28	-	8		2			
5B1538 <u>Reliability Theory</u>	6	D	-	-	72	-			3	4	
5B1545 <u>Time Series Analysis</u>	4	D	24	24	-	-		2			
5B1550 <u>Applied Mathematical Statistics</u>	5	D	-	-	60	-			3		
5B1570 <u>Martingales and Stochastic Integrals</u>	4	D	-	-	48	-	1				
5B1574 <u>Portfolio Theory and Risk Management</u>	4	D	30	12	-	-	1				
5B1575 <u>Financial Derivatives</u>	5	D	-	-	48	-			3	4	
5B1742 <u>Mathematical Systems Theory</u>	4	D	32	16	-	-				4	
5B1742 <u>Mathematical Systems Theory</u>	4	D	32	16	-	-	1				
5B1814 <u>Applied Mathematical Programming - Linear Problems</u>	4	D	18	12	-	-		2			Projektuppgift 18h
5B1816 <u>Applied Mathematical Programming - Nonlinear Problems</u>	4	D	18	12	-	-			3		Projektuppgift 18h
5B1822 <u>Mathematical Systems Theory, Advanced Course</u>	4	D	24	24	-	6		2			
5B1842 <u>Operations Research Methods</u>	4	D	32	16	-	-	1				
5B1846 <u>Applied Systems Engineering</u>	4	D	24	12	-	12		2			
5B1852 <u>Mathematical Economics</u>	4	D	32	16	-	-		2			
5B1872 <u>Optimal Control Theory</u>	4	D	32	16	-	-			3		

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Engineering Physics

Applied Mathematics F4

Code Name	Credits	Level	Lec	Tut	Le	Lab	Periods				Other
							1	2	3	4	
Elective Courses											
2D1255 Numerical Solutions of Differential Equations	5	D	36	-	-	20			3	4	
2D1257 Visualization	4	C	20	-	-	10			3		
2D1258 Introduction to High Performance Computing* <i>Please note that the course starts in August. Will not be on the central schedule.</i>	5	C	40	-	-	40	1				
2D1260 The Finite Element Method	4	C	18	14	-	12		2			
2D1263 Program Construction for Scientific Computing <i>Will not be on the central schedule.</i>	4	C	24	-	-	12			3	4	
2D1269 Mathematical Models, Analysis and Simulation, part II	5	D	48	-	-	28			3	4	
2D1272 Computational Physics <i>The course will not be on the central schedule.</i>	5	D	24	-	-	-				4	
2D1274 Computational Electromagnetics <i>Not on the central schedule. May not be given in 03/ 04.</i>	5	D	24	-	-	12	1	2			
2D1285 Numerical Algorithms for Parallel Computers <i>The course will not be on the central schedule. Not given 03/ 04.</i>	4	D	24	-	-	-					
2D1290 Advanced Numerical Analysis <i>The course will not be on the central schedule.</i>	4	D	28	-	-	14				4	
2D1297 Advanced Individual Course in Scientific Computing <i>Course may start any time during the semester.</i>	4	D	-	-	-	-					
5B1306 Financial Mathematics, Basic Course	5	C	-	-	54	-				4	
5B1455 Ordinary Differential Equations <i>Not given 03/ 04.</i>	4	D	36	-	-	-					
5B1466 Fourier Analysis <i>Given 03/04.</i>	5	D	36	-	-	-			3	4	
5B1491 Analytical and Numerical Methods for Partial Differential Equations <i>Not given 03/04.</i>	5	D	36	-	-	-					
5B1545 Time Series Analysis	4	D	24	24	-	-		2			
5B1550 Applied Mathematical Statistics	5	D	-	-	60	-			3		

5B1555 Computer Intensive Methods in Mathematical Statistics	5	D	-	-	48	-			4	
5B1560 Statistical Theory <i>The course is given by the Mathematical Department at Stockholms University.</i>	4	D	-	-	48	-		2		
5B1570 Martingales and Stochastic Integrals	4	D	-	-	48	-	1			
5B1574 Portfolio Theory and Risk Management	4	D	30	12	-	-	1			
5B1575 Financial Derivatives	5	D	-	-	48	-		3	4	
5B1580 Risk Management	5	D	24	24	-	-	2			
5B1814 Applied Mathematical Programming - Linear Problems	4	D	18	12	-	-	2			Projektuppgift 18h
5B1852 Mathematical Economics	4	D	32	16	-	-	2			
5C1212 Computational Fluid Dynamics	5	D	-	-	50	10		3		

*The course has limited participation

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Solid Mechanics F4

Code Name	Credits	Level	Lec	Tut	Le	Lab	Periods				Other
							1	2	3	4	
Elective Courses											
4C1110 <u>Material Mechanics</u>	4	D	52	-	-	3	1				
4C1111 <u>Fracture Mechanics and Fatigue</u>	4	D	48	-	-	4				4	
4C1112 <u>Theory of Elasticity</u>	4	D	26	26	-	-			3		
4C1114 <u>Finite Element Method</u>	4	D	-	49	-	8		2			
4C1116 <u>Dynamic Problems in Solid Mechanics</u> <i>Under bearbetning</i>	4	D	42	-	-	8			3	4	
4C1118 <u>Non-linear Theory of Elasticity</u>	2	D	12	12	-	-				4	
4C1119 <u>Finite Element Method, Project Course</u> <i>Under bearbetning</i>	2	D	8	-	-	-			3		

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Engineering Physics

Noise and Vibration Control F4

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

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Engineering Physics

Mechanics F3

Code Name	Credits	Level	Lec	Tut	Le	Lab	Periods				Other
							1	2	3	4	
Elective Courses											
2D1250 Applied Numerical Methods II	6	C	-	-	56	24			3	4	
2D1255 Numerical Solutions of Differential Equations	5	D	36	-	-	20			3	4	
4B1111 Fundamentals of Noise and Vibration Control T	4	C	31	32	-	4		2			
4B1120 Signal Analysis with Applications	5	D	-	24	-	22				4	
4C1112 Theory of Elasticity	4	D	26	26	-	-			3		
4C1118 Non-linear Theory of Elasticity	2	D	12	12	-	-				4	

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Fluid Mechanics F4

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

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Theoretical and Applied Mechanics F4

Code Name	Credits	Level	Lec	Tut	Le	Lab	Periods				Other
							1	2	3	4	
Elective Courses											
5C1122 Continuum Mechanics	4	C	42	-	-	-	1				
5C1123 Mathematical Methods of Mechanics, General Course	4	D	36	-	-	-		2			
5C1125 Mathematical Methods of Mechanics, Intermediate Course	2	D	-	-	-	-			3		
5C1400 Nonlinear Dynamics in Mechanics	5	C	24	-	-	-			3		
5C1902 Advanced Dynamics of Complex Systems	4	D	24	-	-	-	1				
5C1904 Advanced Modern Mechanics	4	D	24	-	-	-		2			
5C1980 Mechanics in Research and Industry <i>The course runs the entire academic year. A few lectures during fall.</i>	4	C	24	-	-	37	1	2	3	4	

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Engineering 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			
2A1133 Plasma Physics, Enlarged Course	6	C	60	-	-	-	1	2	3		
2A1140 Accelerator and Radiation Technology	4	D	36	-	-	4			3		
2A1141 Accelerator and Radiation Technology, Enlarged Course	6	D	48	-	-	4			3	4	
2A1145 Electromagnetic Processes in Dispersive Media	4	D	24	6	-	-			3		
2A1151 Energy and Fusion Research	4	D	24	12	-	-				4	
2A1160 Space Physics	3	D	14	-	4	-	1				
2A1170 Chaos and Self-organization <i>The course can not be given 03/ 04.</i>	4	D	32	17	-	-					
2A1830 Applied Antenna Theory	5	D	-	-	54	14			3	4	
2D1020 Master Project in Numerical Analysis	20	D	-	-	-	-					
2D1021 Master Project in Computer Science	20	D	-	-	-	-					
2D1024 Master Project in Human - Computer Interaction	20	D	-	-	-	-					
2D1025 Master Project in Biomedical Engineering	20	D	-	-	-	-					
2D1257 Visualization	4	C	20	-	-	10			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				
2D1272 Computational Physics <i>The course will not be on the central schedule.</i>	5	D	24	-	-	-				4	
2D1297 Advanced Individual Course in Scientific Computing <i>Course may start any time during the semester.</i>	4	D	-	-	-	-					
2D1385 Software Engineering	4	C	24	12	-	18				4	
2D1387 Program System Construction Using C++	4	C	18	6	-	30	1	2			
2D1390 Internet Programming	4	C	28	-	-	26		2			

2D1413 Advanced Graphics and Interaction	6	D	50	-	-	12	1	2			
2D1418 Language Engineering	4	D	42	-	-	12	1				
2D1441 Seminars on Theoretical Computer Science <i>The course is given every second year and will not be given in 03/ 04.</i>	4	D	30	-	-	-					
2D1464 Bigger Advanced, Individual Course in Computer Science <i>The course can be studied any time during the semesters.</i>	6	D	-	-	-	-					
2D1465 Advanced, Individual Course in Computer Science <i>The course can be studied any time during the semesters.</i>	4	D	-	-	-	-					
2D1490 IP Routing in Simple Computer Networks*	5	D	32	8	-	32			3		
2D1491 IP-routing in Internet and Other Complex Networks*	5	D	32	8	-	32				4	
2E1252 Control Theory and Practice, Advanced Course	5	D	28	26	-	8			3		
2E1262 Nonlinear Control	5	D	28	28	-	8		2			
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
2F1300 Perception of Sound	5	D	24	12	-	12	1				
2F1400 Electroacoustics	4	D	34	12	-	8	1				
2F1410 Audio Technology	5	D	30	12	-	12		2			20 h Projektuppgift20 h Projektuppgift
2G1316 Data and Computer Communication	4	C	24	18	-	12			3		
2G1510 Computer Architecture Fundamentals	5	C	18	12	-	4		2			Seminar 4h
2H1255 Electromagnetic Wave Propagation	5	D	36	30	-	-			3	4	
2H1260 Antenna Theory	5	D	26	24	-	18			3		
2I1150 Theory of Knowledge and Philosophy of Science <i>not given 03/04</i>	4	B	30	12	-	80					
2I1263 Internet Application Protocols and Standards	4	B	24	-	-	20			3		120h
4B1304 Railway Systems and Rail Vehicles	6	C	-	-	60	9	1	2			Project assignment 9h
4B1313 Rail Vehicle Dynamics	5	D	-	-	36	24			3		
4B1425 Ground Vehicle Dynamics, Basic Course*	7	D	33	60	-	-			3	4	
4D1026 Industrial Economy and Management, Basic Course	4	A	20	16	-	-		2			4 h Seminars4 h Seminars
4D1062 Industrial Marketing <i>Replaces 4D1065 Industrial Marketing and 4D1151 Marketing</i>	4	B	36	12	-	-			3		
4K1401 History of Technology, a General Survey	4	B	12	-	-	-			3		12 h Seminars12 h Seminars
4K1408 History of Science	4	B	-	-	-	-			3	4	20 h Seminars20 h Seminars

5A1407 Accelerator Physics and Instrumentation at CERN <i>Not given 03/ 04. The course is mainly given at CERN during summertime. Under bearbetning</i>	5	D	35	15	-	-						Laboratory work and study visits
5A1418 Physics Simulation	5	B	-	-	-	-				3		
5A1440 Astrophysics <i>Given by the Department of Astronomy at Stockholm University. Under bearbetning</i>	4	D	18	-	-	-				3		
5A1441 Stellar Structure and Evolution <i>Given by the Department of Astronomy at Stockholm University. Under bearbetning</i>	4	D	22	8	-	-				3	4	
5A1491 Femtochemistry <i>Under bearbetning</i>	5	D	36	-	-	-				3		
5A1492 Femtophysics <i>Not sure that the course is given 03/ 04.</i>	4	D	24	-	-	-					4	
5A1584 Cellular Biophysics <i>Under bearbetning</i>	5	D	20	-	-	24				3		
5A1586 Experimental Biomolecular Physics	4	D	34	-	-	15					4	5 h Study visit5 h Study visit
5A1590 Technical Photography <i>Under bearbetning</i>	5	D	20	-	-	36				3	4	
5B1306 Financial Mathematics, Basic Course	5	C	-	-	54	-					4	
5B1307 Linear Algebra, Basic Course	4	D	48	14	-	-	1					
5B1308 Wavelets	4	D	24	-	-	-	1	2				
5B1310 Applied and Industrial Mathematics	5	D	26	-	-	-	1	2				
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			
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	40	-	-	-					4	
7E1115 Engineering in Intensive Care and Anesthesia*	4	D	12	-	-	-				3	4	30 + 10h (field work with oral and written report)
7E1120 Biomedical Engineering, Basic Course	5	C	30	-	-	-	1					
7E1202 Systems Biology*	5	C	32	-	-	25		2				24 h Seminars24 h Seminars

*The course has limited participation

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Civil Engineering V2

Code Name	Credits	Level	Lec	Tut	Le	Lab	Periods				Other	
							1	2	3	4		
Compulsory Courses												
1B1035 Geosciences, part 1 <i>The course will be given for the last time spring-term 2004</i>	5	C	36	-	-	-				4	36 h WorkshopField-trips 2d 36 h Workshop	
1C1109 Structural Mechanics I <i>The course will be given for the last time spring-term 2004</i>	5	B	39	-	-	-			3		52 h Workshop52 h Workshop	
1C1115 Structural Mechanics II <i>The course will be given for the last time spring-term 2004</i>	5	C	45	-	-	-				4	60 h Workshop60 h Workshop	
1F1530 Construction Economics and Management <i>The course will be given for the last time autumn-term 2003</i>	8	B	51	68	-	-	1	2				
2D1210 Numerical Methods, Basic Course I	4	B	24	24	-	24	1	2				
5A1215 Electricity and Heat <i>The course will be given for the last time spring-term 2004</i> <i>Under bearbetning</i>	5	B	30	24	-	20			3		Workshop 24h	
5B1501 Probability Theory and Statistics	4	C	24	36	-	-		2				
5C1114 Mechanics, Continuation Course	4	C	30	15	-	-	1					

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Civil Engineering

Civil Engineering V3

Code Name	Credits	Level	Lec	Tut	Le	Lab	Periods				Other
							1	2	3	4	
Compulsory Courses											
1B1045 <u>Geosciences, part 2</u>	5	C	49	-	-	16		2			42 h Workshop
1D1801 <u>Building Materials and Building Physics</u>	10	C	84	78	-	10	1	2			10 h Computer, 18 h Workshop
1H1211 <u>Road, Traffic and Urban Design</u>	6	B	30	93	-	-	1				
Elective Courses											
1N1217 <u>Logistics and Transportation</u>	5	C	-	-	18	-				4	
2D1320 <u>Applied Computer Science</u>	4	B	30	14	-	20			3	4	

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Civil Engineering

Civil Engineering V4

Code Name	Credits	Level	Lec	Tut	Le	Lab	Periods				Other
							1	2	3	4	
Elective Courses											
1A14TW <u>Third World Housing</u> <i>The course is given after agreement Under bearbetning</i>	10	D	-	-	-	-					
1B1336 <u>Geological Processes - Field Course on Iceland</u>	5	C	-	-	-	-					80 h ExkursionJuly-August, 5 weeks 80 h Exkursion
1B1820 <u>Risk in Technical Systems</u>	5	D	-	-	-	-	1	2	3	4	Project-course
1B1990 <u>Developing Countries, Society and Technology</u>	4	C	30	-	-	-	1	2			
1B1991 <u>Management of Development Cooperation Projects</u>	4	C	30	-	-	-			3	4	
1B1992 <u>East- and Central Europe - Our Future Market</u>	4	C	30	-	-	-	1	2			
1F1327 <u>Management</u>	5	D	30	30	-	-			3	4	
1F1385 <u>Economics</u>	5	B	33	27	-	-	1	2			
1F1446 <u>Civil and Public Law</u>	5	B	24	40	-	-		2	3		
1H1204 <u>Logistics</u>	5	C	6	-	-	-	1	2			15 h SeminarsProject-course, 15 h Seminars
1H1212 <u>Logistics, Advanced Course</u>	5	D	4	-	-	-			3		12 h SeminarsProject-course, 12 h Seminars
1H1601 <u>Mathematics and Reality</u>	5	C	20	10	-	-			3		
1H1602 <u>Good and Bad Science</u>	5	C	32	-	-	-			3	4	
1H1603 <u>Technology and Ethics</u>	5	C	24	-	-	-			3		8 h Seminars
1H1603 <u>Technology and Ethics</u>	5	C	24	-	-	-	1				8 h Seminars
1H1604 <u>Philosophy of Risk</u>	5	C	18	-	-	-		2			12 h Seminars
1K14LV <u>Architecture, Basic Course*</u> <i>First prio: 4th academic year students within L- and V-programs.</i>	5	D	-	36	-	-				4	Lectures, Study-visits, Seminars etc: 20h
1N1218 <u>Logistics, Advanced Project Course</u>	10	D	-	-	-	-			3	4	
1N1401 <u>Applied Contract Law</u>	5	B	-	-	-	-			3		60 h Seminars
1N1402 <u>Civil and Public Law, Intermediate Course</u>	5	B	24	24	-	-				4	
2D1220 <u>Applied Numerical Methods I</u>	4	C	40	-	-	20			3	4	
2D1225 <u>Numerical Solutions of Differential Equations</u>	4	C	26	4	-	18	1	2			
2D1320 <u>Applied Computer Science</u>	4	B	30	14	-	20	1	2			

2D1323 Computer Graphics and Interaction	4	C	42	-	-	12				4	
2D1378 Text and Image Processing	4	B	28	28	-	-	1				
4B1304 Railway Systems and Rail Vehicles	6	C	-	-	60	9	1	2			Project assignment 9h
4B1313 Rail Vehicle Dynamics	5	D	-	-	36	24			3		
5B1306 Financial Mathematics, Basic Course	5	C	-	-	54	-				4	

*The course has limited participation

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Civic Construction Engineering V3

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

Code Name	Credits	Level	Lec	Tut	Le	Lab	Periods				Other
							1	2	3	4	
Compulsory Courses											
1B1431 Soil Mechanics and Foundation Engineering	5	C	43	-	-	4			3		34 h Workshop
Recommended Courses											
1B1432 Rock Mechanics and Rock Engineering	5	C	33	22	-	-			4		22 h Workshop
1C1103 Structural Mechanics III	5	D	33	-	-	-			3		4 h Computer, 40 h Workshop 4 h Computer, 40 h Workshop
1C1305 Design of Building Structures	5	C	33	-	-	-			4		44 h Workshop
1D1804 Buildings and Indoor Climate	10	C	54	84	-	-			3	4	60 h Workshop, 12 h Study visit
1H1213 Analysis and Design of Traffic Facilities	5	C	33	44	-	-			4		
1H1243 Traffic and Land-use Planning	5	C	21	55	-	-			3		5 h Exkursion 5 h Exkursion
1H1308 Road and Street Engineering	5	C	33	44	-	-			4		
1H1402 Travel Demand Forecasting <i>Under bearbetning</i>	5	C	28	-	-	-			3		4 h Seminars, 56 h Computer

Civic Construction Engineering V4

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

Code Name	Credits	Level	Lec	Tut	Le	Lab	Periods				Other
							1	2	3	4	
Recommended Courses											
1B1131 Hydraulic Engineering	5	D	33	-	-	-		2			33 h Workshop
1B1134 Water Resources Development	5	D	33	-	-	-			3		33 h Workshop
1B1234 Water Supply and Waste Water Handling	5	C	33	-	-	-				4	33 h Workshop
1B1334 Engineering Geology	5	D	27	-	-	-	1				27 h WorkshopField-trips 3d 27 h Workshop
1B1335 Advanced Engineering Geology	5	D	33	-	-	-			3		33 h Workshop
1B1434 Soil - Structure Interaction	5	C	33	-	-	-				4	33 h Workshop
1B1435 Soil and Rock Dynamics	5	D	33	-	-	-		2			33 h Workshop
1E1621 Geographic Information Technology for Civil Engineers	5	C	22	-	-	48	1				

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Construction Management V3

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

Code Name	Credits	Level	Lec	Tut	Le	Lab	Periods				Other
							1	2	3	4	
Recommended Courses											
1B1431 Soil Mechanics and Foundation Engineering	5	C	43	-	-	4			3		34 h Workshop
1B1432 Rock Mechanics and Rock Engineering	5	C	33	22	-	-				4	22 h Workshop
1C1103 Structural Mechanics III	5	D	33	-	-	-			3		4 h Computer, 40 h Workshop 4 h Computer, 40 h Workshop
1C1305 Design of Building Structures	5	C	33	-	-	-				4	44 h Workshop
1D1804 Buildings and Indoor Climate	10	C	54	84	-	-			3	4	60 h Workshop, 12 h Study visit
1H1213 Analysis and Design of Traffic Facilities	5	C	33	44	-	-				4	
1H1243 Traffic and Land-use Planning	5	C	21	55	-	-			3		5 h Exkursion 5 h Exkursion
1H1308 Road and Street Engineering	5	C	33	44	-	-				4	
1H1402 Travel Demand Forecasting <i>Under bearbetning</i>	5	C	28	-	-	-			3		4 h Seminars, 56 h Computer

Construction Management V4

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

Code Name	Credits	Level	Lec	Tut	Le	Lab	Periods				Other
							1	2	3	4	
Recommended Courses											
1F1536 Leadership	5	D	-	-	66	-	1				
1F1540 Information Technology in Construction	5	D	-	-	66	-		2			
1F1547 Project Law	5	D	-	-	66	-			3		
1F1560 Project Management	5	D	-	-	66	-		2			
1F1563 Construction Management	5	D	-	-	66	-			3		
1F1565 Facilities Management	5	D	-	-	66	-				4	
1F1580 Construction Economics	5	D	-	-	66	-				4	

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Buildings and Buildings Services V3

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

Code Name	Credits	Level	Lec	Tut	Le	Lab	Periods				Other	
							1	2	3	4		
Compulsory Courses												
1D1804 Buildings and Indoor Climate	10	C	54	84	-	-				3	4	60 h Workshop, 12 h Study visit
Recommended Courses												
1B1431 Soil Mechanics and Foundation Engineering	5	C	43	-	-	4				3		34 h Workshop
1B1432 Rock Mechanics and Rock Engineering	5	C	33	22	-	-					4	22 h Workshop
1C1103 Structural Mechanics III	5	D	33	-	-	-				3		4 h Computer, 40 h Workshop 4 h Computer, 40 h Workshop
1C1305 Design of Building Structures	5	C	33	-	-	-					4	44 h Workshop

Buildings and Buildings Services V4

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

Code Name	Credits	Level	Lec	Tut	Le	Lab	Periods				Other
							1	2	3	4	
Recommended Courses											
1D1111 Building Materials, Advanced Course	5	D	33	-	-	-	1				21 h Seminars, 8 h Workshop, 20 h Study visit
1D1112 Fire in Buildings	5	C	21	-	-	1			3		9 h Seminars, 8 h Computer, 15 h Workshop, 2 h Study visit
1D1113 Life Cycle Analysis and Environmental Impact in Building <i>The course will not be given the academic year 03/04</i>	5	C	54	-	-	-				4	12 h Seminars, 4 h Workshop
1D1211 Building Technology, Advanced Course	5	D	33	44	-	-		2			
1D1243 Building Acoustics	5	C	29	-	-	4	1				31 h Workshop
1D1311 Building Services Engineering, Advanced Course	5	D	33	31	-	9		2			4 h Study visit
1D1313 Indoor Climate	5	C	20	-	-	8			3		24 h Workshop, 20 h Study visit
1D1314 Simulation	5	D	22	-	-	-				4	55 h Computer
1D1316 Industrial Ventilation	5	C	36	24	-	-	1	2			12 h Study visit

1D1806 Building Operation and Maintenance	5	D	40	12	-	-				4	8 h Seminars, 8 h Study visit
1D1808 Building Damages	5	C	32	-	-	-				4	18 h Seminars, 6 h Workshop, 8 h Study visit

Buildings and Buildings Services V5

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

Code Name	Credits	Level	Lec	Tut	Le	Lab	Periods				Other	
							1	2	3	4		
Recommended Courses												
1D1316 Industrial Ventilation	5	C	36	24	-	-	1	2			12 h Study visit	

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Structural Engineering V3

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

Code Name	Credits	Level	Lec	Tut	Le	Lab	Periods				Other
							1	2	3	4	
Compulsory Courses											
1C1103 <u>Structural Mechanics III</u>	5	D	33	-	-	-			3		4 h Computer, 40 h Workshop 4 h Computer, 40 h Workshop
1C1305 <u>Design of Building Structures</u>	5	C	33	-	-	-			4		44 h Workshop
Recommended Courses											
1B1431 <u>Soil Mechanics and Foundation Engineering</u>	5	C	43	-	-	4			3		34 h Workshop
1B1432 <u>Rock Mechanics and Rock Engineering</u>	5	C	33	22	-	-			4		22 h Workshop
1D1804 <u>Buildings and Indoor Climate</u>	10	C	54	84	-	-			3	4	60 h Workshop, 12 h Study visit

Structural Engineering V4

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

Code Name	Credits	Level	Lec	Tut	Le	Lab	Periods				Other	
							1	2	3	4		
Recommended Courses												
1C1204 Structural Design of Bridges	5	D	33	-	-	-				4	44 h Workshop	
1C1205 Bridge Structures	5	D	33	-	-	-			3		44 h Workshop	
1C1206 Railway Track Engineering	5	D	33	-	-	-			3		44 h Workshop	
1C1302 Light-weight Structures	5	D	33	-	-	-				4	44 h Workshop	
1C1304 Steel Structures	5	D	33	-	-	-			3		44 h Workshop	
1C1401 Concrete Structures	5	D	33	-	-	-	1				44 h Workshop	
1C1402 Concrete Infrastructures	5	D	33	-	-	-		2			44 h Workshop	
1C5032 Structural Dynamics, Advanced Course <i>The course will not be given 2003/2004</i>	5	D	33	-	-	-					44 h Workshop	
1C5048 Fracture Mechanics of Concrete and Steel <i>The course will not be given 2003/2004</i>	5	D	33	-	-	-					44 h Workshop	
5C1840 Structural Dynamics	5	D	33	-	-	-				4	44 h Workshop44 h Workshop	
5C1850 Finite Element Methods	5	D	33	-	-	-	1				44 h Workshop44 h Workshop	
5C1860 FEM Modelling	5	D	33	-	-	-		2			44 h Workshop44 h Workshop	

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Environmental Engineering and Sustainable Infrastructure V3

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

Code Name	Credits	Level	Lec	Tut	Le	Lab	Periods				Other
							1	2	3	4	
Recommended Courses											
1B1431 Soil Mechanics and Foundation Engineering	5	C	43	-	-	4			3		34 h Workshop
1B1432 Rock Mechanics and Rock Engineering	5	C	33	22	-	-				4	22 h Workshop
1C1103 Structural Mechanics III	5	D	33	-	-	-			3		4 h Computer, 40 h Workshop 4 h Computer, 40 h Workshop
1C1305 Design of Building Structures	5	C	33	-	-	-				4	44 h Workshop
1D1804 Buildings and Indoor Climate	10	C	54	84	-	-			3	4	60 h Workshop, 12 h Study visit
1H1106 Planning for Housing, Workplaces and Services	5	C	-	-	30	-			3		36 h Seminars
1H1151 Theory of Planning and Organization	5	D	-	-	33	-				4	
1H1163 Social Planning	5	C	-	-	66	-				4	
1H1213 Analysis and Design of Traffic Facilities	5	C	33	44	-	-				4	
1H1243 Traffic and Land-use Planning	5	C	21	55	-	-			3		5 h Exkursion 5 h Exkursion
1H1308 Road and Street Engineering	5	C	33	44	-	-				4	
1H1402 Travel Demand Forecasting <i>Under bearbetning</i>	5	C	28	-	-	-			3		4 h Seminars, 56 h Computer

Environmental Engineering and Sustainable Infrastructure V4

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

Code Name	Credits	Level	Lec	Tut	Le	Lab	Periods				Other
							1	2	3	4	
Recommended Courses											
1B1133 <u>Applied Hydrology</u>	5	D	29	29	-	-			3		
1B1233 <u>Water and Waste Handling</u>	5	C	-	-	77	-			3		
1B1291 <u>Environmental Dynamics/Chemical Processes</u>	5	D	30	8	-	16		2			8 h Exkursion
1B1292 <u>Environmental Dynamics/Physical Processes</u>	5	C	26	24	-	-		2			
1B1333 <u>Environmental Geology and Geophysics</u>	5	D	27	27	-	-				4	

<u>1B1634 Environmental Impact Assessment*</u> <i>First prio: Students within TESIM-, L- and V-programs. Second prio: Incoming exchange-students LV.</i>	5	C	30	26	-	-	1				8 h Exkursion8 h Exkursion
<u>1B1635 Quantitative Hydrogeology</u>	5	D	20	14	-	6				4	20 h Field excursions, 15 h Computer20 h Field excursions, 15 h Computer
<u>1B1640 Natural Resources Management</u>	5	D	19	-	-	36				4	
<u>1E1610 Environmental Data*</u> <i>First prio: Students within TESIM-, L- and V-programs. Second prio: Incoming exchange-students LV.</i>	5	D	18	2	-	38			3		
<u>1F1462 Management of Land and Water</u>	5	D	20	20	-	-				4	20 h Seminars
<u>1H1141 Urban Infrastructure</u>	5	D	-	-	56	-				4	
<u>1H1142 Political Economy for Environmental Planners*</u> <i>First prio: Students within TESIM-, L- and V-programs. Second prio: Incoming exchange-students LV.</i>	5	C	30	6	-	-	1				8 h Seminars
<u>1H1143 Sustainable Rural and Urban Development*</u> <i>First prio: Students within TESIM-, L- and V-programs. Second prio: Incoming exchange-students LV.</i>	5	C	32	-	16	-		2			24 h Seminars, 8 h Exkursion
<u>1H1146 Sustainable Project Management</u>	5	C	35	-	-	30			3		15 h Field excursions
<u>1H1501 Human Settlements and Housing</u> <i>Under bearbetning</i>	5	D	24	20	-	-		2			
<u>1U1030 Theory of Science, Research Methodology and Excursions</u>	5	D	29	-	-	-	1	2		4	Exkursion 40hSeminars Exkursion 40h
Elective Courses											
<u>1H1004 Master's Project in Regional Planning</u>	20	D	-	-	-	-					

*The course has limited participation

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Civil Engineering

Environmental Resources Engineering V2

Code Name	Credits	Level	Lec	Tut	Le	Lab	Periods				Other	
							1	2	3	4		
Compulsory Courses												
1B1035 Geosciences, part 1 <i>The course will be given for the last time spring-term 2004</i>	5	C	36	-	-	-				4	36 h WorkshopField-trips 2d 36 h Workshop	
1C1109 Structural Mechanics I <i>The course will be given for the last time spring-term 2004</i>	5	B	39	-	-	-			3		52 h Workshop52 h Workshop	
1C1115 Structural Mechanics II <i>The course will be given for the last time spring-term 2004</i>	5	C	45	-	-	-				4	60 h Workshop60 h Workshop	
1F1530 Construction Economics and Management <i>The course will be given for the last time autumn-term 2003</i>	8	B	51	68	-	-	1	2				
1M1050 Environmental System Analysis	4	B	20	-	-	-		2			10 h Seminars	
2D1210 Numerical Methods, Basic Course I	4	B	24	24	-	24	1	2				
5A1215 Electricity and Heat <i>The course will be given for the last time spring-term 2004</i> <i>Under bearbetning</i>	5	B	30	24	-	20			3		Workshop 24h	
5B1501 Probability Theory and Statistics	4	C	24	36	-	-	1					

Environmental Resources Engineering V3

Code Name	Credits	Level	Lec	Tut	Le	Lab	Periods				Other
							1	2	3	4	
Compulsory Courses											
1M1055 Resources Recycling and Management <i>The course will be given from 03/04</i>	5	C	20	16	-	-	1				21 h Projektuppgift, 12 h Study visit
1M1060 Energy Supply <i>The course will be given from 03/04</i>	5	C	22	30	-	-		2			4h Seminar, 4h Study-visit, Individual project work
Recommended Courses											
1B1639 Applied Geology and Hydrology	10	C	29	36	-	15			3	4	3 h Seminars, 32 h Field excursions, 2 h Computer
1D1801 Building Materials and Building Physics	10	C	84	78	-	10	1	2			10 h Computer, 18 h Workshop
1D1804 Buildings and Indoor Climate	10	C	54	84	-	-			3	4	60 h Workshop, 12 h Study visit

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Urban Planning V3

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

Code Name	Credits	Level	Lec	Tut	Le	Lab	Periods				Other
							1	2	3	4	
Compulsory Courses											
1H1106 Planning for Housing, Workplaces and Services	5	C	-	-	30	-			3		36 h Seminars
1H1151 Theory of Planning and Organization	5	D	-	-	33	-				4	
Recommended Courses											
1H1141 Urban Infrastructure	5	D	-	-	56	-				4	
1H1163 Social Planning	5	C	-	-	66	-				4	
1H1243 Traffic and Land-use Planning	5	C	21	55	-	-			3		5 h Exkursion5 h Exkursion
Elective Courses											
1H1213 Analysis and Design of Traffic Facilities	5	C	33	44	-	-				4	
1H1402 Travel Demand Forecasting <i>Under bearbetning</i>	5	C	28	-	-	-			3		4 h Seminars, 56 h Computer

Urban Planning V4

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

Code Name	Credits	Level	Lec	Tut	Le	Lab	Periods				Other
							1	2	3	4	
Recommended Courses											
1H1157 Urban and Regional Economics	5	D	-	-	66	-		2			
1H1162 Urban Center Planning <i>The course is mainly carried out in Norrtelje</i>	5	D	-	-	-	-			3		77 h Seminars
1H1170 Sustainable Cities	10	D	-	-	120	-	1				
1H1171 Urban Governance	5	D	30	-	-	-			3		6 h Seminars6 h Seminars
1H1172 Futures Studies and Forecasts	5	D	-	-	36	-		2			30 h Computer
1H1174 Planning for Regional Development	10	D	27	26	-	-				4	Large Projecttask
1H1183 Spatial Planning with GIS	5	D	30	-	-	36			3		
1H1401 Optimisation Models in Transport and Location Analysis <i>Under bearbetning</i>	5	D	27	12	-	6			3		6 h Seminars

<u>1N1501</u> Territorial Strategies in a Networking Economy <i>The course will be taught in Västerås.</i> <i>Under bearbetning</i>	10	D	35	-	-	-			3	4	15 h Seminars, 10 h Workshop6h Tutorials 15 h Seminars, 10 h Workshop
Elective Courses											
<u>1H1004</u> Master's Project in Regional Planning	20	D	-	-	-	-					

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Traffic and Transport Infrastructure V3

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

Code Name	Credits	Level	Lec	Tut	Le	Lab	Periods				Other
							1	2	3	4	
Compulsory Courses											
1H1213 <u>Analysis and Design of Traffic Facilities</u>	5	C	33	44	-	-				4	
1H1308 <u>Road and Street Engineering</u>	5	C	33	44	-	-				4	
Recommended Courses											
1B1431 <u>Soil Mechanics and Foundation Engineering</u>	5	C	43	-	-	4			3		34 h Workshop
1B1432 <u>Rock Mechanics and Rock Engineering</u>	5	C	33	22	-	-				4	22 h Workshop
1H1106 <u>Planning for Housing, Workplaces and Services</u>	5	C	-	-	30	-			3		36 h Seminars
1H1141 <u>Urban Infrastructure</u>	5	D	-	-	56	-				4	
1H1151 <u>Theory of Planning and Organization</u>	5	D	-	-	33	-				4	
1H1163 <u>Social Planning</u>	5	C	-	-	66	-				4	
1H1243 <u>Traffic and Land-use Planning</u>	5	C	21	55	-	-			3		5 h Exkursion5 h Exkursion
1H1402 <u>Travel Demand Forecasting</u> <i>Under bearbetning</i>	5	C	28	-	-	-			3		4 h Seminars, 56 h Computer

Traffic and Transport Infrastructure V4

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

Code Name	Credits	Level	Lec	Tut	Le	Lab	Periods				Other	
							1	2	3	4		
Recommended Courses												
1H1162 Urban Center Planning <i>The course is mainly carried out in Norrtelje</i>	5	D	-	-	-	-			3		77 h Seminars	
1H1206 Planning of Railroad Traffic	5	C	-	-	72	-	1					
1H1214 Traffic in Urban Areas	5	C	-	-	84	-	1					
1H1215 Impact Analysis of Road Traffic Facilities	5	C	-	-	84	-		2				
1H1240 Procedure in Physical Infrastructure <i>The course is to be completed after the practical trainee period.</i>	5	C	-	-	-	-					Project	
1H1307 Computer-aided Highway Design	5	D	15	36	-	-			3		21 h Computer	

1H1401 <u>Optimisation Models in Transport and Location Analysis</u> <i>Under bearbetning</i>	5	D	27	12	-	6			3	6 h Seminars
1L1912 <u>Maintenance Management of Traffic Tunnels</u>	5	D	-	-	80	-		2		Taught full-time weeks 45, 48
Elective Courses										
1H1005 <u>Master's Project in Traffic and Transport Planning</u>	20	D	-	-	-	-	1	2	3	4
1N1002 <u>Master's Project in Logistics</u>	20	D	-	-	-	-	1	2	3	4

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							1	2	3	4	
Compulsory Courses											
2D1310 <u>Programming Technique</u>	4	A	26	16	-	36	1	2			
5A1363 <u>Environmental Physics and Chemistry</u>	6	B	54	-	-	35	1	2			
5B1121 <u>Mathematic, Basic Course</u>	4	A	16	-	32	-	1				
5B1135 <u>Mathematics I for I</u>	6	B	36	18	36	-		2			
5B1136 <u>Mathematics II for I</u>	6	B	36	18	36	-			3		
5C1102 <u>Mechanics, Smaller Course</u>	4	B	30	15	-	-			3		
Elective Courses											
5B1120 <u>Introductory Course in Mathematics I</u>	1	A	-	-	-	-					

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