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Architecture

Architecture A3

Code Name	Credits	Ects Credits	Level	Lec	Less	Lab	Periods				Other
							1	2	3	4	
Elective											
1H1106 Planning for Housing, Workplaces and Services	5	7,5	C	-	66	-					
1H1141 Urban Infrastructure	5	7,5	D	-	60	-					
1H1151 Theory of Planning and Organization The course will be given twice during the academic year 1999/2000, period 1 and 4	5	7,5	D	-	66	-					


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Architecture

A4

Kod Namn	Poäng	Ects Poäng	Nivå	F	Ö	Lab	Perioder	Övrigt
Valfritt								
1H1141 Urban Infrastructure	5	7,5	D	35	25	-	4	
1H1157 Urban and Regional Economics	5	7,5	D	-	-	-	2	11 heldagar
1H1170 Spatial Planning and Sustainable Development Ges fr.o.m. 1998/99.	10	15	D	-	-	-	1	22 heldagar
1H1171 Governance and Spatial Planning Ges fr.o.m. 1998/99.	5	7,5	D	-	-	-	3	11 heldagar
1H1172 Fundamental Methods of Spatial Planning Ges fr.o.m. 1998/99.	5	7,5	D	-	-	-	2	11 heldagar
1H1174 Spatial Planning for Regional Development Ges fr.o.m. 1998/99.	10	15	D	-	-	-	4	22 heldagar
1H1183 Spatial Planning with GIS	5	7,5	D	-	-	-	3	11 heldagar
1H1192 Project Work in Urban and Regional Planning Kursen ges för sista gången 1998/99.	15	22,5	D	-	-	-	3, 4	55 heldagar
1U1026 ALV-Project	10	15	D	-	-	-	4	35 heldagar

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Biotechnology

Biotechnology BIO1

Code Name	Credits	Ects Credits	Level	Lec	Less	Lab	Periods				Other
							1	2	3	4	
Compulsory											
3A1501 General Biotechnology	4	6	B	26	30	-					inklusive studiebesök
3B1700	4	6	B	18	24	22					
3B1710 Chemical Equilibria and Analytical Chemistry	5	7,5	B	20	12	37					
3B1750 Organic Chemistry 1	5	7,5	B	12	10	60					
3C1456 Introduction to Chemical Engineering, Minor Course	4	6	B	30	14	-					1 heldag fältövning
5B1102 Calculus I	10	15	B	60	-	-					Gruppstudier 24 h/period
5B1108 Linear Algebra I	4	6	B	24	24	-					Gruppstudier 18h
5C1102 Mechanics, Smaller Course	4	6	B	30	15	-					

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Computer Science

Computer Science D1

Code Name	Credits	Ects Credits	Level	Lec	Less	Lab	Periods				Other
							1	2	3	4	
Compulsory											
2D1340 Introduction to Computer Science	8	12	B	60	36	36					
2D1347 Communication	4	6	B	18	24	12					
2D1350 Programming Paradigms	4	6	B	32	16	14					
2H1340 Electrical Circuits D	6	9	B	34	16	24					
5B1102 Calculus I	10	15	B	66	72	-					
5B1109 Linear Algebra II	5	7,5	B	30	-	-					Gruppstudier 18h
5B1928 Logics	4	6	D	24	24	-					


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Computer Science

Computer Science D2

Code Name	Credits	Ects Credits	Level	Lec	Less	Lab	Periods				Other
							1	2	3	4	
Compulsory											
2D1240 Numerical Methods, Basic Course II	4	6	B	26	16	18					
2D1352 Algorithms, Data Structures and Complexity	6	9	C	48	24	18					
2D1359 Object Oriented Modeling, Programming and Analysis	6	9	C	36	14	38					
5B1200 Differential Equations and Transforms I	4	6	C	24	30	-					
5B1204 Discrete Mathmatics	8	12	C	36	36	-					
5B1506 Mathematical Statistics, basic course	6	9	C	36	48	-					
5C1104 Insights in Mechanics; Orbits and Robots	4	6	B	24	10	-					

Elective

[5A1232 Optical Communication and Imaging](#)

4

6

B

24

18

10



[5A1242 Physics of Microcosmos](#)

4

6

B

24

18

-



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Computer Science

Computer Science D3

Code Name	Credits	Ects Credits	Level	Lec	Less	Lab	Periods				Other
							1	2	3	4	
Compulsory											
2D1954 Program Development Project	4	6	C	12	-	-					
2G1119 Computer Hardware Basics	4	6	C	18	18	20					
2I1100 Information Systems and Database Technology	6	9	C	12	12	80					
3C1315 Ecology and Environmental Technology	4	6	C	27	3	-					Fältövning 8h
4D1091 Work Environment, Computers and Economics	4	6	C	36	4	4					
Elective											
2D1432 Artificial neural networks and other learning systems	4	6	D	26	-	20					
2D1450 Algorithmic Bioinformatics	4	6	D	36	-	-					

2E1125 Measurement Systems Techniques	4	6	C	18	6	24					
2G1113 Operating Systems	4	6	C	24	18	-					
2I1130 Cognitive Psychology	4	6	B	30	12	-					
2I1140 Artificial Intelligence	6	9	C	36	16	80					
2I1223 Information Systems Development and CASE	5	7,5	D	30	11	40					Övrigt/ Other 120 h
2I1224 Information Systems for Strategic Management Max 40 students	4	6	D	15	10	30					Övrigt/ Other 105 h
2I1225 Object-Relational and Object Oriented Databases	4	6	C	10	12	60					Övrigt 80 h
2I1226	4			15	12	40					
2I1234 Machine Learning	4	6	D	36	-	-					
2I1235 Agent Programming	4	6	D	18	-	80					
2I1236 Intelligent Interfaces	4	6	D	27	-	9					Övrigt/ Other 130 h
2I1251 Theory of Software Metrics	4	6	D	21	-	80					Övrigt 60h
2I1253 Large-Scale Software Engineering	4	6	D	21	-	80					Övrigt 60h
2I1255 Quality Models and Standards	4	6	D	21	-	140					
2I1257 PSP - Personal Software Processes	4		D	30	-	130					
2I1262 Electronic Mail and Computer Mediated Communication	4	6	D	24	-	20					Övrigt 120 h
2I1263 Internet Application Protocols Standards and Tools	4	6	B	24	-	20					Övrigt 120 h
2I1264 Application Programming I	4	6	D	2	-	160					
2I1265 Application Programming II	4	6	D	2	-	160					

2I1272 Security Architecture for Open Distributed Systems	4	6	D	24	-	36					Övrigt 100 h
2I1273 Principles of Computer Security	4	5	D	24	-	36					Övrigt 100 h
2I1274 Security Protocols and Applications in Computer Network	4	6	D	24	-	36					Övrigt 100 h


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Computer Science

Computer Science D4

Code Name	Credits	Ects Credits	Level	Lec	Less	Lab	Periods				Other
							1	2	3	4	
Elective											
2C1222 Management of Technology The course is related to 2C1220 Industrial Control Systems, Introductory Course	4	6		30	20	-					
2D1225 Numerical Solutions of Differential Equations	4	6	C	26	18	8					
2D1250 Applied Numerical Methods II	6	9	C	60	-	24					
2D1255 Numerical Solutions of Differential Equations	5	7,5	C	36	-	20					
2D1257 Visualization The course will be given for the first time in 99/00.	4	6	C	20	-	8					
2D1258 Introduction to High Performance Computing	5	6	C	40	-	40					
2D1260 The Finite Element Method	4	6	D	18	14	12					

2D1263 Program Construction for Scientific Computing	4	6	D	24	-	12					
2D1266 Mathematical Models, Analysis and Simulation Part I	5	7,5	C	48	-	28					
2D1269 Mathematical Models, Analysis and Simulation, part II	5	7,5	C	48	-	28					
2D1272 Computational Physics	5	7,5	D	24	-	-					
2D1276 Computational Chemistry	5	7,5	C	28	-	-					Kursen ges ej 99/00
2D1285 Numerical Algorithms for Parallel Computers	4	6	D	24	-	-					
2D1290 Advanced Numerical Analysis	4	6	D	24	-	12					
2D1378 Text and Image Processing	4	6	B	28	28	-					
2D1400 Interactive Media for Computer Scientists	5	7,5	D	-	-	-					
2D1413 Advanced Graphics and Interaction	6	9	D	60	-	12					
2D1416 Computer Support for Cooperative Work	6	9	D	60	-	15					
2D1418 Language Engineering	4	6	D	42	-	12					
2D1420 Computer Vision, Basic Course	5	7,5	D	48	-	12					
2D1426 Robotics and Autonomous Systems	5	7,5	D	16	-	60					
2D1434 Mathematical modelling of biological systems	4	6	D	26	-	20					
2D1440 Advanced Algorithms	4	6	D	30	-	-					
2D1443 Parallel Computations	4	6	D	30	-	-					Kursen ges vartannat år. Ges ej 99/00.
2D1446 Complexity Theory Not given 99/00.	4	6	D	30	-	-					

2D1449 Foundations of Cryptography	4	6	D	30	-	-					Ges 99/00/ Given in 99/00
2D1465 Advanced, Individual Course in Computer Science	4	6	D	-	-	-					Ingen undervisning/ No instruction
2D1469 Database Theory	4	6	D	24	24	-					
2D1470 Object Oriented Database Systems	5	7,5	D	24	24	-					
2D1953 Graphics and Interaction Programming	4	6	C	30	18	16					
2E1125 Measurement Systems Techniques	4	6	C	18	6	24					
2E1340 Digital Signal Processing	5	7,5	C	30	24	4					
2E1421 Signal Theory	4	6	C	24	20	-					Datorövningar 12 h
2E1511 Radio Communication, Basic Course	4	6	D	24	24	8					
2E1512 Wireless Networks	8	12	D	30	24	12					160 h projekt / project
2F1111 Speech Technology	4	6	D	36	14	6					
2F1212 Music Acoustics	4	6	D	36	12	8					Projektarbete/ Project work
2F1400 Electroacoustics	4	6	D	34	12	8					
2F1520 Digital Speech Compression	4	6	D	24	24	-					
2F1530 Source Coding Theory	4	6	D	24	24	-					
2G1110 Modeling and Simulation The course will not be given during the academic year 1997/98.	5	7,5	D	24	12	12					
2G1114 Parallel Computer Systems	5	7,5	D	48	-	40					Ges ej 97/98
2G1116 Computer Systems	10	15	D	48	-	24					+ individuellt arbete. Kursens uppläggning varierar från år till år.
2G1117 Semantics for Programming Languages	4	6	D	18	18	-					

2G1118 Network Programming with Java	4	6		18	12	16					
2G1120 Computer Architecture Fundamentals	4	6	D	18	14	16					
2G1121 Logic programming	4	6	D	24	12	-					18h individual work on project
2G1301 Theory of Distributed Systems	4	6	C	20	20	40					
2G1303 Telecommunication Systems	10	15	D	50	20	20					80 h
2G1305 Internet Working	4	6	D	20	20	20					
2G1315 Global Project Coordination in Industrial Transformation	8	12	D	12	-	-					Projektarbete 300 h
2G1318 Queuing Theory and Teletraffic Systems	4	6	D	24	24	-					
2G1401 Innovation and Entrepreneurship	4	6	C	20	-	-					Övrigt/ Other 30 h
2G1915 Concurrent Programming	5	7,5	C	36	-	24					
2I1130 Cognitive Psychology	4	6	B	30	12	-					
2I1140 Artificial Intelligence	6	9	C	36	16	80					
2I1150 Theory of Knowledge and Philosophy of Science	4	6	B	30	12	80					
2I1223 Information Systems Development and CASE	5	7,5	D	30	11	40					Övrigt/ Other 120 h
2I1224 Information Systems for Strategic Management Max 40 students	4	6	D	15	10	30					Övrigt/ Other 105 h
2I1225 Object-Relational and Object Oriented Databases	4	6	C	10	12	60					Övrigt 80 h
2I1226	4			15	12	40					
2I1234 Machine Learning	4	6	D	36	-	-					
2I1235 Agent Programming	4	6	D	18	-	80					

2I1236 Intelligent Interfaces	4	6	D	27	-	9					Övrigt/ Other 130 h
2I1251 Theory of Software Metrics	4	6	D	21	-	80					Övrigt 60h
2I1253 Large-Scale Software Engineering	4	6	D	21	-	80					Övrigt 60h
2I1255 Quality Models and Standards	4	6	D	21	-	140					
2I1256 Current Problems in Software Engineering Individual course which can be studied any time of the year. Please contact course administrator for further information.	4		D	-	-	-					Övrigt 160 h
2I1257 PSP - Personal Software Processes	4		D	30	-	130					
2I1262 Electronic Mail and Computer Mediated Communication	4	6	D	24	-	20					Övrigt 120 h
2I1263 Internet Application Protocols Standards and Tools	4	6	B	24	-	20					Övrigt 120 h
2I1264 Application Programming I	4	6	D	2	-	160					
2I1265 Application Programming II	4	6	D	2	-	160					
2I1272 Security Architecture for Open Distributed Systems	4	6	D	24	-	36					Övrigt 100 h
2I1273 Principles of Computer Security	4	5	D	24	-	36					Övrigt 100 h
2I1274 Security Protocols and Applications in Computer Network	4	6	D	24	-	36					Övrigt 100 h
2I1275 Secure IT-Systems	5		C	24	-	-					Total tidåtgång 200 h
2I1276 Security for Java Environments and Electronic Commerce	4		D	12	8	-					Övrigt 130h
2U1500 Law and Information Technology	4	6	C	32	2	-					Projektuppgift/ Project assignment
2U1600 Environment and Technology	4	6	C	30	-	-					4 konsultationstimmar
4F1140 Design of Software for Embedded Real-time Control Systems	4	6	D	-	36	30					

4K1516 Audio, Video and Multimedia Production	6	9	C	48	12	24					
5A1210 Thermodynamics	4	6	B	30	16	10					
5A1361 Environmental Physics Not given 99/00.	4	6	C	32	-	-					Laborationer 3 st
5A1362 Environmental Physics for F	4	6	B	40	-	20					Projektuppgifter, studiebesök
5A1407 Accelerator Physics and Instrumentation at CERN The course is mainly given at CERN during summertime.	5	7,5	D	35	15	-					Laborationer och studiebesök
5B1202 Differential Equations and Transforms II	6	9	C	48	40	-					
5B1303 Analysis, Basic Course	6	9	D	-	-	-					
5B1305 Applied Combinatorics	4	6	D	-	-	-					
5B1455 Ordinary Differential Equations Not given 99/00.	4	6	D	36	-	-					
5B1456 Mathematics, Seminar Course I Not given 99/00.	5	7,5	D	36	-	-					
5B1457 Mathematics, Seminar Course II Not given 99/00.	5	7,5	D	36	-	-					
5B1464 Topology Not given 99/00.	5	7,5	D	36	-	-					
5B1473 Elementary Differential Geometry Not given 99/00.	5	7,5	D	36	-	-					
5B1475 Combinatorics, Advanced Course Not given 99/00.	5	7,5	D	36	-	-					
5B1479 Integration Theory Given 99/00.	5	7,5	D	36	-	-					
5B1490 Chaotic Dynamical Systems Not given 99/00.	5	7,5	D	36	-	-					

5B1491 Analytical and Numerical Methods for Partial Differential Equations Not given 99/00.	5	7,5	D	36	-	-					
5B1492 Linear Algebra, Advanced Course Not given 99/00.	5	7,5	D	36	-	-					
5B1750 Optimization for E and D	4	6	C	28	14	9					
7E1101 Medical Engineering, Basic Course	4	6	C	24	-	-					
7E1102 Medical Engineering, Advanced Course	10	15	D	70	30	10					
7E1110 Quality and Regulatory Aspects on Medical Devices	2	3	D	20	-	-					Studiebesök 5h
7E1111 Medical Imaging Systems	4	6	D	35	-	6					Studiebesök/ Study visit 6 h
7E1112 Implants and Biomaterials	4		D	25	-	-					3h (studiebesök)
7E1113 Medical Instrumentation and Signal Processing	4	6	D	30	-	6					
7E1114 Radiation Physics and Biology	4	6	D	40	-	-					Studiebesök/ Study visit 2 h
7E1115 Engineering in Intensive Care and Anesthesia	4	6	D	12	-	-					30 +10 h (projektarbete med muntlig och skriftlig redovisning)
7E1200 Cellular and Molecular Biology	10	15	C	80	-	8					
7E1202 Systems Biology	5	7,5	C	32	-	-					



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Computer Science

D3

Code Name	Credits	Ects Credits	Level	Lec	Less	Lab	Periods				Other
							1	2	3	4	
Compulsory											
2D1420 Computer Vision, Basic Course	5	7,5	D	48	-	12					
Elective											
2D1434 Mathematical modelling of biological systems	4	6	D	26	-	20					
2E1350 Adaptive Signal Processing	4	6	D	24	14	-					
2E1421 Signal Theory	4	6	C	24	20	-					Datorövningar 12 h
2I1140 Artificial Intelligence	6	9	C	36	16	80					
5B1750 Optimization for E and D	4	6	C	28	14	9					

D4

Code Name	Credits	Ects Credits	Level	Lec	Less	Lab	Periods				Other
							1	2	3	4	

							1	2	3	4	
Compulsory											
2D1426 Robotics and Autonomous Systems	5	7,5	D	16	-	60					
2D1432 Artificial neural networks and other learning systems	4	6	D	26	-	20					
Elective											
2D1220 Applied Numerical Methods I	4	6	C	42	-	18					
2D1365 Overview of Human-Computer Interaction	4	6	C	16	2	5					
2D1381 Industrial Applications of Artificial Intelligence	4	6	D	36	-	-					
2E1200 Automatic Control, General Course	4	6	C	24	26	12					
2E1340 Digital Signal Processing	5	7,5	C	30	24	4					
2G1915 Concurrent Programming	5	7,5	C	36	-	24					
2I1130 Cognitive Psychology	4	6	B	30	12	-					
7E1101 Medical Engineering, Basic Course	4	6	C	24	-	-					



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Computer Science

Biomedical Engineering D3

Code Name	Credits	Ects Credits	Level	Lec	Less	Lab	Periods				Other
							1	2	3	4	
Compulsory											
7E1200 Cellular and Molecular Biology	10	15	C	80	-	8					
7E1201 Neuroscience	5	7,5	C	60	-	30					

Biomedical Engineering D4

Code Name	Credits	Ects Credits	Level	Lec	Less	Lab	Periods				Other
							1	2	3	4	
Compulsory											
7E1101 Medical Engineering, Basic Course	4	6	C	24	-	-					
7E1202 Systems Biology	5	7,5	C	32	-	-					

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Computer Science

Datasäkerhet D3

Code Name	Credits	Ects Credits	Level	Lec	Less	Lab	Periods				Other	
							1	2	3	4		
Compulsory												
2I1273 Principles of Computer Security	4	5	D	24	-	36					Övrigt 100 h	
Elective												
2I1263 Internet Application Protocols Standards and Tools	4	6	B	24	-	20					Övrigt 120 h	

Datasäkerhet D4

Code Name	Credits	Ects Credits	Level	Lec	Less	Lab	Periods				Other
							1	2	3	4	
Compulsory											
2I1272 Security Architecture for Open Distributed Systems	4	6	D	24	-	36					Övrigt 100 h

2I1274 Security Protocols and Applications in Computer Network	4	6	D	24	-	36					Övrigt 100 h
Elective											
2D1440 Advanced Algorithms	4	6	D	30	-	-					
2G1301 Theory of Distributed Systems	4	6	C	20	20	40					
2I1262 Electronic Mail and Computer Mediated Communication	4	6	D	24	-	20					Övrigt 120 h

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Computer Science

D3

Code Name	Credits	Ects Credits	Level	Lec	Less	Lab	Periods				Other
							1	2	3	4	
Elective											
2D1373 Artificial Languages and Syntax Analysis	4	6	D	24	-	16					
2D1426 Robotics and Autonomous Systems	5	7,5	D	16	-	60					
2G1110 Modeling and Simulation The course will not be given during the academic year 1997/98.	5	7,5	D	24	12	12					
2G1113 Operating Systems	4	6	C	24	18	-					
2G1316 Computer communication and computer networks	4	6	C	24	18	4					

D4

Code Name	Credits	Ects	Level	Lec	Less	Lab	Periods	Other
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		Credits					1	2	3	4	
Compulsory											
2G1116 Computer Systems	10	15	D	48	-	24					+ individuellt arbete. Kursens uppläggning varierar från år till år.
Elective											
2D1263 Program Construction for Scientific Computing	4	6	D	24	-	12					
2D1375 Implementation of Programming Languages	4	6	D	28	-	24					
2D1432 Artificial neural networks and other learning systems	4	6	D	26	-	20					
2D1434 Mathematical modelling of biological systems	4	6	D	26	-	20					
2G1114 Parallel Computer Systems	5	7,5	D	48	-	40					Ges ej 97/98
2G1117 Semantics for Programming Languages	4	6	D	18	18	-					
2G1118 Network Programming with Java	4	6		18	12	16					
2G1120 Computer Architecture Fundamentals	4	6	D	18	14	16					
2G1121 Logic programming	4	6	D	24	12	-					18h individual work on project
2G1301 Theory of Distributed Systems	4	6	C	20	20	40					
2G1318 Queuing Theory and Teletraffic Systems	4	6	D	24	24	-					
2G1915 Concurrent Programming	5	7,5	C	36	-	24					



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Computer Science

D3

Code Name	Credits	Ects Credits	Level	Lec	Less	Lab	Periods				Other
							1	2	3	4	
Compulsory											
2I1223 Information Systems Development and CASE	5	7,5	D	30	11	40					Övrigt/ Other 120 h
2I1224 Information Systems for Strategic Management Max 40 students	4	6	D	15	10	30					Övrigt/ Other 105 h
2I1225 Object-Relational and Object Oriented Databases	4	6	C	10	12	60					Övrigt 80 h
2I1235 Agent Programming	4	6	D	18	-	80					
Elective											
2D1365 Overview of Human-Computer Interaction	4	6	C	16	2	5					
2D1410 User Centered Program Development	6	9	D	34	-	9					

2D1469 Database Theory	4	6	D	24	24	-					
2I1251 Theory of Software Metrics	4	6	D	21	-	80					Övrigt 60h
2I1253 Large-Scale Software Engineering	4	6	D	21	-	80					Övrigt 60h
2I1272 Security Architecture for Open Distributed Systems	4	6	D	24	-	36					Övrigt 100 h
2I1273 Principles of Computer Security	4	5	D	24	-	36					Övrigt 100 h
2I1274 Security Protocols and Applications in Computer Network	4	6	D	24	-	36					Övrigt 100 h

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Intelligenta interaktiva system D3

Code Name	Credits	Ects Credits	Level	Lec	Less	Lab	Periods				Other
							1	2	3	4	
Compulsory											
2I1140 Artificial Intelligence	6	9	C	36	16	80					
2I1235 Agent Programming	4	6	D	18	-	80					
2I1236 Intelligent Interfaces	4	6	D	27	-	9					Övrigt/ Other 130 h
Elective											
2D1432 Artificial neural networks and other learning systems	4	6	D	26	-	20					
2D1434 Mathematical modelling of biological systems	4	6	D	26	-	20					
2I1130 Cognitive Psychology	4	6	B	30	12	-					
2I1234 Machine Learning	4	6	D	36	-	-					
2I1263 Internet Application Protocols Standards and Tools	4	6	B	24	-	20					Övrigt 120 h

Intelligenta interaktiva system D4

Code Name	Credits	Ects Credits	Level	Lec	Less	Lab	Periods				Other
							1	2	3	4	
Elective											
2D1365 Overview of Human-Computer Interaction	4	6	C	16	2	5					
2I1150 Theory of Knowledge and Philosophy of Science	4	6	B	30	12	80					
2I1262 Electronic Mail and Computer Mediated Communication	4	6	D	24	-	20					Övrigt 120 h



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D3

Code Name	Credits	Ects Credits	Level	Lec	Less	Lab	Periods				Other
							1	2	3	4	
Compulsory											
2D1953 Graphics and Interaction Programming	4	6	C	30	18	16					
Elective											
2D1420 Computer Vision, Basic Course	5	7,5	D	48	-	12					
2F1111 Speech Technology	4	6	D	36	14	6					
4K1401 History of Technology, a General Survey	4	6	B	12	12	-					
4K1516 Audio, Video and Multimedia Production	6	9	C	48	12	24					

D4

Code Name	Credits	Ects	Level	Lec	Less	Lab	Periods	Other
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		Credits					1	2	3	4	
Compulsory											
2D1365 Overview of Human-Computer Interaction	4	6	C	16	2	5					
2D1410 User Centered Program Development	6	9	D	34	-	9					
2I1130 Cognitive Psychology	4	6	B	30	12	-					
Elective											
2D1378 Text and Image Processing	4	6	B	28	28	-					
2D1381 Industrial Applications of Artificial Intelligence	4	6	D	36	-	-					
2D1413 Advanced Graphics and Interaction	6	9	D	60	-	12					
2D1416 Computer Support for Cooperative Work	6	9	D	60	-	15					
2D1418 Language Engineering	4	6	D	42	-	12					
2I1150 Theory of Knowledge and Philosophy of Science	4	6	B	30	12	80					
4D1088 Technical Work Psychology	4	6	C	24	8	16					



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D3

Code Name	Credits	Ects Credits	Level	Lec	Less	Lab	Periods				Other
							1	2	3	4	
Elective											
2D1373 Artifical Languages and Syntax Analysis	4	6	D	24	-	16					
2D1470 Object Oriented Database Systems	5	7,5	D	24	24	-					
2G1113 Operating Systems	4	6	C	24	18	-					
2I1140 Artificial Intelligence	6	9	C	36	16	80					
5B1305 Applied Combinatorics	4	6	D	-	-	-					

D4

Code Name	Credits	Ects Credits	Level	Lec	Less	Lab	Periods				Other
							1	2	3	4	

Elective

2D1375 Implementation of Programming Languages	4	6	D	28	-	24					
2D1381 Industrial Applications of Artificial Intelligence	4	6	D	36	-	-					
2D1418 Language Engineering	4	6	D	42	-	12					
2D1440 Advanced Algorithms	4	6	D	30	-	-					
2D1469 Database Theory	4	6	D	24	24	-					
2G1117 Semantics for Programming Languages	4	6	D	18	18	-					
2G1301 Theory of Distributed Systems	4	6	C	20	20	40					
2G1915 Concurrent Programming	5	7,5	C	36	-	24					

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Programvaruteknik D3

Code Name	Credits	Ects Credits	Level	Lec	Less	Lab	Periods				Other
							1	2	3	4	
Compulsory											
2I1251 Theory of Software Metrics	4	6	D	21	-	80					Övrigt 60h
2I1253 Large-Scale Software Engineering	4	6	D	21	-	80					Övrigt 60h
2I1255 Quality Models and Standards	4	6	D	21	-	140					
2I1256 Current Problems in Software Engineering Individual course which can be studied any time of the year. Please contact course administrator for further information.	4		D	-	-	-					Övrigt 160 h
Elective											
2I1223 Information Systems Development and CASE	5	7,5	D	30	11	40					Övrigt/ Other 120 h

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Code Name	Credits	Ects Credits	Level	Lec	Less	Lab	Periods				Other
							1	2	3	4	
Compulsory											
2G1113 Operating Systems	4	6	C	24	18	-					
2G1305 Internet Working	4	6	D	20	20	20					
2G1316 Computer communication and computer networks	4	6	C	24	18	4					

D4

Code Name	Credits	Ects Credits	Level	Lec	Less	Lab	Periods				Other
							1	2	3	4	
Compulsory											
2G1303 Telecommunication Systems	10	15	D	50	20	20					80 h
Elective											

2G1120 Computer Architecture Fundamentals	4	6	D	18	14	16					
2G1301 Theory of Distributed Systems	4	6	C	20	20	40					
2G1318 Queuing Theory and Teletraffic Systems	4	6	D	24	24	-					
2G1401 Innovation and Entrepreneurship	4	6	C	20	-	-					Övrigt/ Other 30 h
2G1915 Concurrent Programming	5	7,5	C	36	-	24					

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D3

Code Name	Credits	Ects Credits	Level	Lec	Less	Lab	Periods				Other
							1	2	3	4	
Elective											
2D1373 Artifical Languages and Syntax Analysis	4	6	D	24	-	16					
2D1450 Algorithmic Bioinformatics	4	6	D	36	-	-					
2E1421 Signal Theory	4	6	C	24	20	-					Datorövningar 12 h
2I1140 Artificial Intelligence	6	9	C	36	16	80					
5B1305 Applied Combinatorics	4	6	D	-	-	-					

D4

Code Name	Credits	Ects Credits	Level	Lec	Less	Lab	Periods				Other
							1	2	3	4	
Elective											

2D1365 Overview of Human-Computer Interaction	4	6	C	16	2	5				
2D1440 Advanced Algorithms	4	6	D	30	-	-				
2D1443 Parallel Computations	4	6	D	30	-	-				Kursen ges vartannat år. Ges ej 99/00.
2D1446 Complexity Theory Not given 99/00.	4	6	D	30	-	-				
2D1449 Foundations of Cryptography	4	6	D	30	-	-				Ges 99/00/ Given in 99/00
2G1117 Semantics for Programming Languages	4	6	D	18	18	-				
2G1121 Logic programming	4	6	D	24	12	-				18h individual work on project
2G1301 Theory of Distributed Systems	4	6	C	20	20	40				
2G1915 Concurrent Programming	5	7,5	C	36	-	24				

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Electrical Engineering

Electrical Engineering E1

Code Name	Credits	Ects Credits	Level	Lec	Less	Lab	Periods				Other
							1	2	3	4	
Compulsory											
2D1343 Computer Science	8	12	B	44	28	28					
2E1111 Technical Writing and Electrical Measurements	4	6	B	26	-	12					
2H1208 Electromagnetic Theory and Vector Analysis	11	16,5	C	74	74	-					
2H1227 Electric Circuits	4	6	B	30	30	-					
5B1103 Calculus II	12	18	B	72	-	-					Gruppstudier 12+18+18h
5B1109 Linear Algebra II	5	7,5	B	30	-	-					Gruppstudier 18h
5C1103 Mechanics, Basic Course	6	9	B	48	27	-					Räknestugor 12 h/period

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Electrical Engineering

Electrical Engineering E2

Code Name	Credits	Ects Credits	Level	Lec	Less	Lab	Periods				Other
							1	2	3	4	
Compulsory											
2B1500 Digital Electronics	4	6	B	30	18	12					
2D1240 Numerical Methods, Basic Course II	4	6	B	26	16	16					
2D1343 Computer Science	8	12	B	44	28	28					
2H1208 Electromagnetic Theory and Vector Analysis	11	16,5	C	74	74	-					
5A1210 Thermodynamics	4	6	B	30	16	10					
5A1230 Wave Physics	4	6	B	28	16	15					
5A1240 Modern Physics	4	6	B	28	16	10					
5B1201 Complex Analysis	4	6	C	30	24	-					
5B1202 Differential Equations and Transforms II	6	9	C	48	40	-					

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Electrical Engineering

Electrical Engineering E3

Code Name	Credits	Ects Credits	Level	Lec	Less	Lab	Periods				Other
							1	2	3	4	
Compulsory											
2B1202 Semiconductor Devices, Basic Course	4	6	C	24	16	8					
2B1502 Analog Electronics	4	6	C	30	18	12					
2E1112 Electrical Measurements, Basic Course	4	6	C	28	10	24					
2E1310 Circuit Theory	4	6	C	24	18	4					Datorövningar 12
5B1504 Mathematical Statistics, Basic Course	6	9	C	36	48	-					
Elective											
2B1215 VLSI-technology	5	7,5	C	24	6	16					
2B1425 Concurrent Engineering of Electronic Systems	5	7,5	D	25	-	45					

2B1427 Design of Digital Integrated Circuits - VLSI	5	7,5	D	20	8	32					
2B1430 Design of Digital Integrated Circuits - LSI	5	7,5	C	20	8	32					
2B1511 Modern Digital Construction with VHDL	5	7,5		36	-	36					
2B1515 Analog Electronics, Advanced Course	5	7,5	C	30	14	20					
2C1050 High Power Electronics	4	6	C	30	24	16					
2C1110 Energy and Environment	4	6	C	52	10	4					
2C1111 System Planning	4	6	D	60	-	-					
2C1146 Power Electronics	4	6	D	28	20	12					Kursen ges på engelska i period 2 resp svenska i period 3.
2C1146 Power Electronics	4	6	D	28	20	12					Kursen ges på engelska i period 2 resp svenska i period 3.
2D1255 Numerical Solutions of Differential Equations	5	7,5	C	36	-	20					
2D1258 Introduction to High Performance Computing	5	6	C	40	-	40					
2D1260 The Finite Element Method	4	6	D	18	14	12					
2D1263 Program Construction for Scientific Computing	4	6	D	24	-	12					
2D1266 Mathematical Models, Analysis and Simulation Part I	5	7,5	C	48	-	28					
2D1269 Mathematical Models, Analysis and Simulation, part II	5	7,5	C	48	-	28					
2D1280 Computational Fluid Dynamics	4	6	D	24	-	14					
2D1358 Object Oriented Program Construction using C++	4	6	C	28	16	-					

2D1360 Object Oriented Modeling, Programming and Analysis	6	9	C	40	14	38					
2D1432 Artificial neural networks and other learning systems	4	6	D	26	-	20					
2E1125 Measurement Systems Techniques	4	6	C	18	6	24					
2E1200 Automatic Control, General Course	4	6	C	24	26	12					
2E1200 Automatic Control, General Course	4	6	C	24	26	12					
2E1280 Modelling of Industrial Processes	4	6	C	24	24	12					
2E1421 Signal Theory	4	6	C	24	20	-					Datorövningar 12 h
2G1110 Modeling and Simulation The course will not be given during the academic year 1997/98.	5	7,5	D	24	12	12					
2G1113 Operating Systems	4	6	C	24	18	-					
2G1129 Computer Hardware Basics	4	6	C	18	18	20					
2G1316 Computer communication and computer networks	4	6	C	24	18	4					
2U1201 Industrial Economics	4	6	B	34	-	-					
4D1091 Work Environment, Computers and Economics	4	6	C	36	4	4					
4K1107 Production of Electronics I	4	6	C	36	-	8					Studiebesök /Study visit 4 h
5A1301 Mathematical Methods in Physics, Course I	4	6	C	-	54	-					
5A1301 Mathematical Methods in Physics, Course I	4	6	C	-	54	-					
5A1320 Quantum Mechanics	4	6	C	30	24	-					

5A1340 Thermodynamics and Statistical Mechanics, Basic Course	4	6	C	30	24	-					
5A1400 Subatomic Physics	4	6	C	36	-	-					Demonstrationer
5A1402 Subatomic Physics, extended course The course can only be studied as a supplement to 5A1400.	2	3	D	4	-	20					
5A1800 Laser Physics I Given 99/00.	4	6	D	24	12	-					
5B1300 Algebra, E3	4	6	C	-	-	-					
5B1750 Optimization for E and D	4	6	C	28	14	9					



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Electrical Engineering

Electrical Engineering E4

Code Name	Credits	Ects Credits	Level	Lec	Less	Lab	Periods				Other
							1	2	3	4	
Elective											
2A1131 Plasma Physics	4	6	C	48	-	-					
2A1132 Electron Physics	4	6	C	36	-	4					
2A1133 Plasma Physics, Enlarged Course	6	9	C	60	-	-					
2A1134 Electron Physics, Enlarged Course	6	9	C	60	-	4					8h studiebesök
2A1136 Technical Plasma Physics	4	6	D	24	-	4					
2A1140 Accelerator and Radiation Technology	4	6	D	36	-	4					Studiebesök/ Studyvisits 10 h
2A1145 Electromagnetic Processes in Dispersive Media	4	6	D	24	-	-					
2A1150 Fusion Plasma Physics	4	6	D	24	12	-					
2A1160 Space Physics	3	4,5	D	12	-	-					

2B1211 Physics of Electronic Materials	5	7,5	C	40	24	8					
2B1230 Power Semiconductor Devices	5	7,5	D	40	-	-					Projekt 40h
2B1240 VLSI-technology II	5	7,5	D	18	-	32					
2B1245 Advanced-VLSI Devices	5	7,5	D	20	-	32					
2B1310 Microwave Engineering	5	7,5	C	36	18	10					
2B1322 Fibre optical Communication	5	7,5	D	28	14	8					
2B1325 Photonics	5	7,5	D	38	-	8					
2B1423 ASIC-design Methodology with High-level Languages	5	7,5	D	24	-	48					
2B1425 Concurrent Engineering of Electronic Systems	5	7,5	D	25	-	45					
2B1427 Design of Digital Integrated Circuits - VLSI	5	7,5	D	20	8	32					
2B1430 Design of Digital Integrated Circuits - LSI	5	7,5	C	20	8	32					
2B1511 Modern Digital Construction with VHDL	5	7,5		36	-	36					
2B1515 Analog Electronics, Advanced Course	5	7,5	C	30	14	20					
2B1600 Radio Electronics	5		D	26	16	12					hemuppgifter
2B1610 Low Power Analog and Mixed Signal IC`s	5			42	14	-					
2B1700 Advanced Semiconductor Materials	5	7,5		34	-	16					
2C1050 High Power Electronics	4	6	C	30	24	16					
2C1110 Energy and Environment	4	6	C	52	10	4					
2C1111 System Planning	4	6	D	60	-	-					

2C1112 Power Systems, Basic Course	4	6	C	32	32	4					
2C1113 Power Systems, Advanced Course	6	9	D	72	-	-					
2C1130 Electrotechnical Design, Basic Course	4	6	C	32	-	4					Projekt 16 h
2C1131 Electrotechnical Design, Advanced Course	5	7,5	C	20	-	8					Projekt 50 h
2C1132 High-voltage Engineering	5	7,5	C	20	-	8					Projekt 50 h
2C1140 Electrical Machines and Drives, Basic Course	4	6	C	28	20	16					
2C1146 Power Electronics	4	6	D	28	20	12					Kursen ges på engelska i period 2 resp svenska i period 3.
2C1146 Power Electronics	4	6	D	28	20	12					Kursen ges på engelska i period 2 resp svenska i period 3.
2C1147 Power Converter Control	5	7,5	D	28	20	8					
2C1148 Analysis of Electrical Machines	5	7,5	D	28	20	4					Projektuppgifter/ Project tasks 8 h
2C1149 Electric Traction	4	6	C	36	-	-					
2C1220 Industrial Control Systems, Introductory Course	4	6	C	38	10	4					
2C1222 Management of Technology The course is related to 2C1220 Industrial Control Systems, Introductory Course	4	6		30	20	-					
2C1226 Industrial Control Systems, Systems Engineering	5	7,5	D	24	-	-					
2C1227 Industrial Control Systems, Case Studies	5	7,5	D	16	-	-					
2D1255 Numerical Solutions of Differential Equations	5	7,5	C	36	-	20					

2D1257 Visualization The course will be given for the first time in 99/00.	4	6	C	20	-	8					
2D1258 Introduction to High Performance Computing	5	6	C	40	-	40					
2D1260 The Finite Element Method	4	6	D	18	14	12					
2D1263 Program Construction for Scientific Computing	4	6	D	24	-	12					
2D1266 Mathematical Models, Analysis and Simulation Part I	5	7,5	C	48	-	28					
2D1269 Mathematical Models, Analysis and Simulation, part II	5	7,5	C	48	-	28					
2D1272 Computational Physics	5	7,5	D	24	-	-					
2D1276 Computational Chemistry	5	7,5	C	28	-	-					Kursen ges ej 99/00
2D1280 Computational Fluid Dynamics	4	6	D	24	-	14					
2D1285 Numerical Algorithms for Parallel Computers	4	6	D	24	-	-					
2D1290 Advanced Numerical Analysis	4	6	D	24	-	12					
2D1323 Computer Graphics and Interaction	4	6	B	42	-	12					
2D1334 Database Technology	4	6	C	24	20	12					
2D1352 Algorithms, Data Structures and Complexity	6	9	C	48	24	18					
2D1354 Algorithms and Complexity	4	6	C	30	18	-					
2D1358 Object Oriented Program Construction using C++	4	6	C	28	16	22					
2D1360 Object Oriented Modeling, Programming and Analysis	6	9	C	40	14	38					

2D1365 Overview of Human-Computer Interaction	4	6	C	16	2	5					
2D1413 Advanced Graphics and Interaction	6	9	D	60	-	12					
2D1418 Language Engineering	4	6	D	42	-	12					
2D1420 Computer Vision, Basic Course	5	7,5	D	48	-	12					
2D1426 Robotics and Autonomous Systems	5	7,5	D	16	-	60					
2D1434 Mathematical modelling of biological systems	4	6	D	26	-	20					
2D1465 Advanced, Individual Course in Computer Science	4	6	D	-	-	-					Ingen undervisning/ No instruction
2D1953 Graphics and Interaction Programming	4	6	C	30	18	16					
2D1954 Program Development Project	4	6	C	12	-	-					
2E1125 Measurement Systems Techniques	4	6	C	18	6	24					
2E1131 Sensor Technology	5	7,5	D	28	-	40					Studiebesök 4 h
2E1241 Automatic Control, Project Course	5	7,5	D	4	-	50					
2E1252 Control Theory and Practice, Advanced Course	5	7,5	D	28	26	8					
2E1332 Analog and Digital Filter Technique	4	6	D	24	30	6					
2E1340 Digital Signal Processing	5	7,5	C	30	24	4					
2E1350 Adaptive Signal Processing	4	6	D	24	14	-					
2E1366 Project Course in Signal Processing/Digital Communication	6	9	D	12	-	50					

2E1421 Signal Theory	4	6	C	24	20	-					Datorövningar 12 h
2E1431 Communication Theory	6	9	C	40	40	8					
2E1435 Advanced Communication Theory	4	6	D	-	-	-					Lektioner/ Lessons 45 h
2E1511 Radio Communication, Basic Course	4	6	D	24	24	8					
2E1512 Wireless Networks	8	12	D	30	24	12					160 h projekt / project
2F1111 Speech Technology	4	6	D	36	14	6					
2F1212 Music Acoustics	4	6	D	36	12	8					Projektarbete/ Project work
2F1400 Electroacoustics	4	6	D	34	12	8					
2F1510 Pattern Recognition	4	6	D	24	24	-					
2F1520 Digital Speech Compression	4	6	D	24	24	-					
2F1530 Source Coding Theory	4	6	D	24	24	-					
2G1114 Parallel Computer Systems	5	7,5	D	48	-	40					Ges ej 97/98
2G1116 Computer Systems	10	15	D	48	-	24					+ individuellt arbete. Kursens uppläggnig varierar från år till år.
2G1118 Network Programming with Java	4	6		18	12	16					
2G1120 Computer Architecture Fundamentals	4	6	D	18	14	16					
2G1121 Logic programming	4	6	D	24	12	-					18h individual work on project
2G1303 Telecommunication Systems	10	15	D	50	20	20					80 h
2G1304 Theory of Distributed Systems	6	9	D	30	30	40					
2G1305 Internet Working	4	6	D	20	20	20					
2G1315 Global Project Coordination in Industrial Transformation	8	12	D	12	-	-					Projektarbete 300 h
2G1318 Queuing Theory and Teletraffic Systems	4	6	D	24	24	-					
2G1401 Innovation and Entrepreneurship	4	6	C	20	-	-					Övrigt/ Other 30 h

2G1915 Concurrent Programming	5	7,5	C	36	-	24					
2H1250 Electromagnetic Field Theory	5	7,5	C	36	30	-					
2H1255 Electromagnetic Wave Propagation	5	7,5	D	36	30	-					30 Project work
2H1260 Antenna Theory	5	7,5	D	36	30	12					
2I1100 Information Systems and Database Technology	6	9	C	12	12	80					
2I1130 Cognitive Psychology	4	6	B	30	12	-					
2I1140 Artificial Intelligence	6	9	C	36	16	80					
2I1150 Theory of Knowledge and Philosophy of Science	4	6	B	30	12	80					
2I1262 Electronic Mail and Computer Mediated Communication	4	6	D	24	-	20					Övrigt 120 h
2I1263 Internet Application Protocols Standards and Tools	4	6	B	24	-	20					Övrigt 120 h
2U1201 Industrial Economics	4	6	B	34	-	-					
2U1500 Law and Information Technology	4	6	C	32	2	-					Projektuppgift/ Project assignment
2U1600 Environment and Technology	4	6	C	30	-	-					4 konsultationstimmar
4B1304 Railway Systems and Rail Vehicles	6	9	C	49	10	7					
4C1072 Strength of Materials and Mechanical Design	4	6	B	26	26	2					3 Written assignments
4D1091 Work Environment, Computers and Economics	4	6	C	36	4	4					
4F1140 Design of Software for Embedded Real-time Control Systems	4	6	D	-	36	30					
4K1107 Production of Electronics I	4	6	C	36	-	8					Studiebesök /Study visit 4 h

4K1516 Audio, Video and Multimedia Production	6	9	C	48	12	24					
5A1361 Environmental Physics Not given 99/00.	4	6	C	32	-	-					Laborationer 3 st
5A1362 Environmental Physics for F	4	6	B	40	-	20					Projektuppgifter, studiebesök
5A1407 Accelerator Physics and Instrumentation at CERN The course is mainly given at CERN during summertime.	5	7,5	D	35	15	-					Laborationer och studiebesök
5A1416 Radiation Sources for Therapy	2	3	D	8	-	-					2 obligatoriska studiebesök
5A1420 Experimental Techniques for Nuclear and Particle Physics	4	6	D	36	-	8					
5A1425 Physics at Accelerators	4	6	D	35	-	16					
5A1510 Optical Measurement Techniques	4	6	D	36	-	-					En individuell uppgift, 3 studiebesök, laborationer 10h utanför KTH
5A1520 Problem Solving in Optics	4	6	D	-	-	-					Handledning av examinator
5A1521 Problem Solving in Optics, Advanced Course 1	2	3	D	-	-	-					Handledning av examinator
5A1522 Problem Solving in Optics, Advanced Course 2	2	3	D	-	-	-					Handledning av examinator
5A1552 Optronics	4	6	D	36	-	-					Studiebesök
5A1580 Physics of Biomedical Imaging	4	6	D	21	7	17					
5A1581 Physics of Biomedical Imaging; Project	2	3	D	2	-	-					Seminarier: 4 h
5A1600 Semiconductor Theory and Device Physics, General Course	5	7,5	D	30	-	10					Individuellt arbete 20h
5A1605 Semiconductor Theory and Device Physics, Advanced Course	4	6	D	-	36	-					Individuellt arbete 20h
5A1650 Smart Electronic Materials	4	6	C	18	10	8					Seminarier 4 h. Workshop 3 h.

5A1651 Physics of Electronic Devices	4	6	D	12	6	-					Seminarie 2 h. Workshop 3 h.
5A1701 Superconductivity and its Applications	4	6	D	28	-	-					
5A1777 Reactor Physics, Minor Course	4	6	D	30	-	16					
5B1455 Ordinary Differential Equations Not given 99/00.	4	6	D	36	-	-					
5B1456 Mathematics, Seminar Course I Not given 99/00.	5	7,5	D	36	-	-					
5B1457 Mathematics, Seminar Course II Not given 99/00.	5	7,5	D	36	-	-					
5B1458 Mathematics, Seminar Course III Given 99/00.	5	7,5	D	36	-	-					
5B1459 Mathematics, Seminar Course IV Given 99/00.	5	7,5	D	36	-	-					
5B1464 Topology Not given 99/00.	5	7,5	D	36	-	-					
5B1466 Fourier Analysis Given 99/00.	5	7,5	D	36	-	-					
5B1467 Algebra, Advanced Course Given 99/00.	5	7,5	D	36	-	-					
5B1470 Analytic Functions Not given 99/00.	5	7,5	D	36	-	-					
5B1473 Elementary Differential Geometry Not given 99/00.	5	7,5	D	36	-	-					
5B1475 Combinatorics, Advanced Course Not given 99/00.	5	7,5	D	36	-	-					
5B1479 Integration Theory Given 99/00.	5	7,5	D	36	-	-					
5B1490 Chaotic Dynamical Systems Not given 99/00.	5	7,5	D	36	-	-					

5B1491 Analytical and Numerical Methods for Partial Differential Equations Not given 99/00.	5	7,5	D	36	-	-					
5B1492 Linear Algebra, Advanced Course Not given 99/00.	5	7,5	D	36	-	-					
5U1994 Astrophysics Given by the Department of Astronomy at Stockholm University.	3	4,5	C	18	-	-					Ett studiebesök
7E1101 Medical Engineering, Basic Course	4	6	C	24	-	-					
7E1102 Medical Engineering, Advanced Course	10	15	D	70	30	10					
7E1110 Quality and Regulatory Aspects on Medical Devices	2	3	D	20	-	-					Studiebesök 5h
7E1111 Medical Imaging Systems	4	6	D	35	-	6					Studiebesök/ Study visit 6 h
7E1112 Implants and Biomaterials	4		D	25	-	-					3h (studiebesök)
7E1113 Medical Instrumentation and Signal Processing	4	6	D	30	-	6					
7E1114 Radiation Physics and Biology	4	6	D	40	-	-					Studiebesök/ Study visit 2 h
7E1115 Engineering in Intensive Care and Anesthesia	4	6	D	12	-	-					30 +10 h (projektarbete med muntlig och skriftlig redovisning)
7E1200 Cellular and Molecular Biology	10	15	C	80	-	8					
7E1202 Systems Biology	5	7,5	C	32	-	-					



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Vehicle Engineering

Vehicle Engineering T1

Code Name	Credits	Ects Credits	Level	Lec	Less	Lab	Periods				Other
							1	2	3	4	
Compulsory											
2D1310 Programming Technique	4	6	B	26	16	26					
4B1050 Introduction to Vehicle Engineering	4	6	B	52	8	12					Studiebesök 8h i period 2
5A1205 Vector Analysis, Basic Course	4	6	B	24	24	-					
5A1225 Electromagnetism and Waves	5	7,5	B	38	18	20					
5B1103 Calculus II	12	18	B	72	-	-					Gruppstudier 12+18+18h
5B1108 Linear Algebra I	4	6	B	24	24	-					Gruppstudier 18h
5C1103 Mechanics, Basic Course	6	9	B	48	27	-					


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Vehicle Engineering

Vehicle Engineering T2

Code Name	Credits	Ects Credits	Level	Lec	Less	Lab	Periods				Other
							1	2	3	4	
Compulsory											
2D1240 Numerical Methods, Basic Course II	4	6	B	26	16	18					
4C1095 Strength of Materials and Solid Mechanics, basic course	8	12	B	52	52	2					3 written assignments in each part of the course
4C1096 Strength of Materials and Solid Mechanics, advanced course	4	6	C	36	14	4					2 written assignments
5B1201 Complex Analysis	4	6	C	30	24	-					
5B1202 Differential Equations and Transforms II	6	9	C	48	40	-					
5B1501 Probability Theory and Statistics	4	6	C	24	36	-					
5C1111 Mechanics, Continuation Course	4	6	C	30	15	-					
5C1201 Fluid Mechanics with Thermodynamics, for T	8	12	C	20	18	12					

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Vehicle Engineering

Vehicle Engineering T3

Code Name	Credits	Ects Credits	Level	Lec	Less	Lab	Periods				Other
							1	2	3	4	
Compulsory											
2E1200 Automatic Control, General Course	4	6	C	24	26	12					
4B1111 Fundamentals of Noise and Vibration Control T	4	6	C	25	30	4					Kontrollskr. 3h
4F1222 Basic Electrical Engineering	6	9	B	18	27	26					
4F1531 Machine Elements, basic course for I and T	4	6	B	24	40	-					
4H1057 Engineering Materials, for T	4	6	B	18	-	15					
Elective											
2C1110 Energy and Environment	4	6	C	52	10	4					
2C1111 System Planning	4	6	D	60	-	-					
2D1250 Applied Numerical Methods II	6	9	C	60	-	24					

2D1263 Program Construction for Scientific Computing	4	6	D	24	-	12					
2D1320 Applied Computer Science The course is given twice during Spring 2000: the first time in period 3 and a second time in period 4.	4	6	B	32	16	20					
2D1320 Applied Computer Science The course is given twice during Spring 2000: the first time in period 3 and a second time in period 4.	4	6	B	32	16	20					
2D1432 Artificial neural networks and other learning systems	4	6	D	26	-	20					
3C1100 Technical English, intermediate course	4	6	C	-	42	-					
3C1103 Technical English, Lover Intermediate	4	6	C	-	49	-					
3C1115 German, elementary course	4	6	B	-	49	-					
3C1116 German, advanced beginners	4	6	B	-	49	-					
3C1117 Technical German, intermediate course	4	6	C	-	42	-					
3C1130 French, elementary course	4	6	B	-	49	-					
3C1131 French, advanced beginners	4	6	B	-	49	-					
3C1132 Technical French, intermediate course	4	6	C	-	42	-					
3C1134 Français de technologie et des affaires, intermediate course The course is not given during 1999/2000	4	6	C	-	56	-					
3C1145 Spanish, elementary course	4	6	B	-	49	-					
3C1146 Spanish, advanced beginners	4	6	B	-	49	-					
3C1147 Technical Spanish, intermediate course	4	6	C	-	42	-					

3C1150 Italian, elementary course	4	6	B	-	49	-					
3C1155 Russian, elementary course The course is not given during 1999/2000	4	6	B	-	56	-					
3C1160 Swedish in Communication	4	6	C	-	42	-					
3C1169 Technical Swedish	4	6	C	-	42	-					
3C1305 Ecology and Environmental Technology One of 3C1305, 3C1310 is compulsory for the Vehicle Engineering program, T	4	6	C	27	3	8					
3C1310 Environmental Technology and Work Science One of 3C1305, 3C1310 is compulsory for the Vehicle Engineering program, T	6	9	C	36	9	8					Project studies
3C1395 Sustainable Development	4	6	C	18	9	-					
3E1324 Polymer Materials - Properties and Applications	4	6	C	30	12	10					
4A1130 Heat Transfer	4	6	C	24	18	20					
4B1120 Signal analysis with applications	5	7,5	D	-	28	28					
4B1502 Basic Ship Theory New course, replaces 4B1501.	4	6	C	48	12	-					
4D1026 Industrial Economics and Management, Basic Course	4	6	B	24	24	-					Seminarier 6h
4F1241 Microcomputer, Sensors and Actuators	6	9	C	18	26	29					
4F1244 Sensors and Actuators for Motion Control	4	6	D	30	-	12					
4F1530 Functional Analysis and Optimization in Mechanical Engineering	5	7,5	C	-	60	-					Studieresa, en dag
4F1642 Modeling and Computer Support in Mechanical Design	4	6	C	24	36	-					

4H1059 Engineering Materials, advanced course	6	9	C	10	15	15					
4K1107 Production of Electronics I	4	6	C	36	-	8					Studiebesök /Study visit 4 h
4K1109 Principles for Product Integrated Manufacturing Systems Design	4	6	C	12	12	4					Projektarbete 20 h
4K1201 Computer Aided Design and Manufacturing, Introductory course	5	7,5	C	48	-	24					Betygsatt inlämningsuppgift/ Graded exercise
4K1401 History of Technology, a General Survey	4	6	B	12	12	-					
4K1521 Communication and Information	5	7,5	C	21	24	-					
5B1538 Reliability Theory	6	9	D	-	-	-					
5B1540 Probability Theory	5	7,5	D	24	30	-					
5B1722 Applied Optimization	4	6	C	28	14	9					
5C1121 Analytical Mechanics	4	6	C	48	-	-					
5C1203 Fluid Mechanics, General Course	4	6	C	24	24	3					

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Vehicle Engineering

Vehicle Engineering T4

Code Name	Credits	Ects Credits	Level	Lec	Less	Lab	Periods				Other
							1	2	3	4	
Elective											
1C5049 FEM Modelling Will be given for the first time 1999/00	5	7,5	D	33	-	-					Workshops 44h
1E1810 Technical Photography	5	7,5	C	26	-	33					
2A1136 Technical Plasma Physics	4	6	D	24	-	4					
2A1140 Accelerator and Radiation Technology	4	6	D	36	-	4					Studiebesök/ Studyvisits 10 h
2A1160 Space Physics	3	4,5	D	12	-	-					
2C1110 Energy and Environment	4	6	C	52	10	4					
2C1111 System Planning	4	6	D	60	-	-					
2D1225 Numerical Solutions of Differential Equations	4	6	C	26	18	8					
2D1250 Applied Numerical Methods II	6	9	C	60	-	24					

2D1255 Numerical Solutions of Differential Equations	5	7,5	C	36	-	20					
2D1257 Visualization The course will be given for the first time in 99/00.	4	6	C	20	-	8					
2D1258 Introduction to High Performance Computing	5	6	C	40	-	40					
2D1260 The Finite Element Method	4	6	D	18	14	12					
2D1263 Program Construction for Scientific Computing	4	6	D	24	-	12					
2D1266 Mathematical Models, Analysis and Simulation Part I	5	7,5	C	48	-	28					
2D1269 Mathematical Models, Analysis and Simulation, part II	5	7,5	C	48	-	28					
2D1280 Computational Fluid Dynamics	4	6	D	24	-	14					
2D1320 Applied Computer Science The course is given twice during Spring 2000: the first time in period 3 and a second time in period 4.	4	6	B	32	16	20					
2D1323 Computer Graphics and Interaction	4	6	B	42	-	12					
2D1334 Database Technology	4	6	C	24	20	12					
2D1354 Algorithms and Complexity	4	6	C	30	18	-					
2D1358 Object Oriented Program Construction using C++	4	6	C	28	16	22					
2D1420 Computer Vision, Basic Course	5	7,5	D	48	-	12					
2D1434 Mathematical modelling of biological systems	4	6	D	26	-	20					
2E1241 Automatic Control, Project Course	5	7,5	D	4	-	50					

2E1252 Control Theory and Practice, Advanced Course	5	7,5	D	28	26	8					
2E1280 Modelling of Industrial Processes	4	6	C	24	24	12					
2E1291 Chemical Process Control	4	6	C	20	28	8					
2F1400 Electroacoustics	4	6	D	34	12	8					
2G1315 Global Project Coordination in Industrial Transformation	8	12	D	12	-	-					Projektarbete 300 h
3C1100 Technical English, intermediate course	4	6	C	-	42	-					
3C1102 Technical English, advanced course	4	6	D	-	56	-					
3C1102 Technical English, advanced course	4	6	D	-	56	-					
3C1103 Technical English, Lower Intermediate	4	6	C	-	49	-					
3C1115 German, elementary course	4	6	B	-	49	-					
3C1116 German, advanced beginners	4	6	B	-	49	-					
3C1117 Technical German, intermediate course	4	6	C	-	42	-					
3C1118 Technical German, advanced course	4	6	D	-	42	-					
3C1118 Technical German, advanced course	4	6	D	-	42	-					
3C1130 French, elementary course	4	6	B	-	49	-					
3C1131 French, advanced beginners	4	6	B	-	49	-					
3C1132 Technical French, intermediate course	4	6	C	-	42	-					

3C1133 Technical French, advanced course	4	6	D	-	42	-					
3C1133 Technical French, advanced course	4	6	D	-	42	-					
3C1145 Spanish, elementary course	4	6	B	-	49	-					
3C1146 Spanish, advanced beginners	4	6	B	-	56	-					
3C1150 Italian, elementary course	4	6	B	-	49	-					
3C1151 Italian, advanced beginners	4	6	B	-	56	-					
3C1155 Russian, elementary course The course is not given during 1999/2000	4	6	B	-	56	-					
3C1156 Russian, advanced beginners The course is not given during 1999/2000	4	6	B	-	56	-					
3C1160 Swedish in Communication	4	6	C	-	42	-					
3C1180 Japanese studies and elementary Japanese, elementary course	4	6	B	-	49	-					
3C1185 Chinese studies and elementary Chinese, elementary course The course is not given during 1999/2000	4	6	B	-	56	-					
3C1190 International engineering	4	6	D	49	-	-					3
3C1305 Ecology and Environmental Technology One of 3C1305, 3C1310 is compulsory for the Vehicle Engineering program, T	4	6	C	27	3	8					
3C1340 Environmental Technology, advanced course	4	6	C	36	9	-					Studiebesök 2x4 h Övningsuppgifter
3C1350 Waste Management, Advanced Course Project work and study visit	4	6	D	21	-	6					22 h projektarbete
3C1355 Ecology, Advanced Course	4	6	C	21	4	40					

3C1360 Environmental Consequences, Advanced Course	4	6	C	18	9	16					
3C1365 Environmental Consequences, Advanced Course II	4	6	D	10	10	40					Fältövningar enl överrensommelse
3C1370 Applied Environmental Legislation	3	4,5	C	28	6	-					
3C1380 Environmental Management	4	6	D	18	3	-					Projektarbete 8 h
3C1385 Biology	4	6	C	30	6	8					Literature assignment, Fältövning 8 h
3C1395 Sustainable Development	4	6	C	18	9	-					
3D1160 Pulp Mechanical Technology, Minor Course	4	6	D	30	-	-					4 h seminarier
3E1360 Mechanical Properties of Polymers, Minor Course	4	6	C	24	16	12					
3E1361 Polymer Processing, Minor Course	4	6	C	24	8	18					
3E1366 Polymers in engineering design	4	6	D	18	24	8					
4A1128 Applied Thermodynamics and Refrigerating Engineering, Intermediate course	6	9	D	24	60	18					
4A1216 Heating and Ventilation Technology, Intermediate course	4	6	D	48	40	-					
4A1313 Combustion Theory	4	6	C	18	18	3					Studiebesök 8h, Projekt 4h
4A1322 Thermal Turbomachinery	4	6	D	-	30	12					Studiebesök 8h, projektuppgift 12h
4A1323 Alternative Energy Sources	4	6	B	12	36	-					
4A1332 Thermal Engineering, Intermediate Course	4	6	C	24	-	12					
4A1341 Introductory Airbreathing Propulsion	4	6	C	21	24	8					

4A1344 Airbreathing Propulsion, Intermediate Course I	4	6	D	40	-	-					Projekt 6h
4A1346 Rocket Propulsion The course is given 1999/00, the course is alternated with 4A1347.	4	6	D	36	10	-					Projekt 6h
4A1347 Airbreathing Propulsion for High Speed Flight The course is given every 2nd year starting 98/99	4	6	D	27	10	6					
4A1406 Nuclear Reactor Engineering and Nuclear Power Safety, Intermediate course	4	6	C	44	8	8					
4A1500 Nuclear Power Safety	4	6	D	36	28	-					Projektuppgift 28h
4B1126 Dynamics of Structures	5	7,5	D	-	56	8					
4B1131 Experimental Structure Dynamics	5	7,5	D	-	58	12					Datorövn. 20h i period 2 (inräknade i "Övningar")
4B1136 Flow Acoustics	4	6	D	-	42	8					
4B1141 Sound and Vibration, Projekt Course	5	7,5	D	-	22	38					Sem./studieb. 40h
4B1304 Railway Systems and Rail Vehicles	6	9	C	49	10	7					
4B1313 Rail Vehicle Dynamics	5	7,5	D	30	12	24					
4B1420 Ground Vehicle Engineering, Basic Course	6	9	C	36	36	-					
4B1425 Ground Vehicle Dynamics, Basic Course	7	10,5	C	33	60	-					
4B1502 Basic Ship Theory New course, replaces 4B1501.	4	6	C	48	12	-					
4B1511 Ship Hydrodynamics New course from autumn 2000, replaces 4B1510.	5	7,5	D	48	12	12					

4C1110 Material Mechanics	4	6	D	52	-	2					2 written assignments
4C1111 Fracture Mechanics and Fatigue	4	6	D	48	-	4					2 written assignments
4C1114 Finite Element Method	4	6	D	-	49	8					Written assignments
4C1116 Dynamic problems in solid mechanics	4	6	D	42	-	8					Written assignments, computational assignments
4C1118 Non-linear Theory of Elasticity	2	3	D	12	12	-					2 written assignments
4C1119 Finite Element Method, project course	2	3	D	8	-	-					Estimated time for project: 30 h
4D1027 Industrial Economics and Management, Basic Course	4	6	B	30	24	-					Seminarier 6h
4D1030 Industrial Production	4	6	C	40	20	-					Plant visits (10 h)
4D1060 Industrial Development	4	6	C	50	8	-					
4D1065 Industrial Marketing	4	6	C	24	36	-					
4D1070 Industrial Project Management	4	6	C	30	18	-					
4D1075 Work Organization and Leadership Limited attendance, selection will be made	4	6	C	24	24	-					
4D1080 Multinational Enterprising	4	6	C	36	24	-					
4D1087 Industrial Change Management	4	6	D	18	8	8					
4D1088 Technical Work Psychology	4	6	C	24	8	16					
4D1089 Work Science, Advanced Course	4	6	C	24	12	-					Project work
4D1090 Work Science	4	6	B	-	-	-					Literature course
4D1092 Man - Machine System	4	6	C	24	24	12					
4D1095 Industrial Innovations and Entrepreneurship	4	6	C	24	-	4					8 h seminarier
4E1122 Manufacturing of Polymer Composites	4	6	D	40	-	5					Laborationer schemaläggs av institutionen

4E1123 Mechanics of Composites and Sandwich Constructions	4	6	D	48	-	6					Laborationer schemaläggs av institutionen
4E1127 Fatigue and Damage Tolerance	4	6	D	48	-	6					Laborationer schemaläggs av institutionen
4E1140 Flight Dynamics and Aeroelasticity	4	6	D	30	-	18					
4E1150 Biomechanics and Neurronics	4	6	D	36	-	6					
4E1201 Elements of Aeronautics	5	7,5	C	72	-	4					
4E1211 Aerodynamics	4	6	D	34	14	8					Laborationer schemaläggs av institutionen
4E1221 Advanced Aerodynamics	4	6	D	30	-	16					
4E1231 Flight Mechanics	4	6	D	30	-	18					
4E1251 Current Topics in Aeronautics	4	6	B	24	12	-					Studiebesök 12 h
4F1131 Microcomputers in Embedded Systems	5	7,5	D	-	36	36					Platsbegränsning/Limited attendance: 25
4F1131 Microcomputers in Embedded Systems	5	7,5	D	-	36	36					Platsbegränsning/Limited attendance: 25
4F1140 Design of Software for Embedded Real-time Control Systems	4	6	D	-	36	30					
4F1141 Project Work in Mechatronics Limited attendance due to limited number of available projects	4	6	C	-	-	-					Kursen schemalägges ej
4F1244 Sensors and Actuators for Motion Control	4	6	D	30	-	12					
4F1340 Introduction to Fluid Power	4	6	C	24	24	9					
4F1343 Fluid Systems and Machines	4	6	C	24	24	12					
4F1430 Combustion Engines, general course	4	6	C	48	-	12					
4F1540 Tribology	4	6	C	18	5	9					

4F1541 CAD 3D-modeling and Visualization for Personal Computers	4	6	C	12	36	-					
4F1630 Introduction to Machine Design	5	7,5	C	24	36	-					
4F1631 Machine Design, intermediate course	7	10,5	D	4	84	-					Schemaläggs enligt överenskommelse
4F1640 Industrial Design Limited number of participants	4	6	C	24	36	-					
4F1640 Industrial Design Limited number of participants	4	6	C	24	36	-					Platsbegränsning/Limited number of participants
4F1641 Environmentally Adapted Product Design	4	6	C	24	20	16					
4G1147 Quality	6	9	C	48	24	-					
4G1230 Introductory Welding Technology	4	6	C	24	18	12					
4G1231 Intermediate Welding Technology	4	6	D	24	24	12					
4G1246 Enlarged Welding Technology for EWE Course is given upon agreement	4	6	D	25	25	10					
4G1342 Space Systems and Technology	4	6	D	30	-	-					Övrigt/Other 10 h
4G1540 Laser Metrology Methods and Non Destructive Testing	4	6	C	28	22	4					
4G1541 Measurement Technology and Statistics for Manufacturing Processes	4	6	D	30	-	8					Projektuppgift
4G1634 Manufacturing Engineering	6	9	C	36	28	12					40 h
4G1646 Simulation and Modelling	4	6	D	10	80	-					Projektuppgift 70h
4K1107 Production of Electronics I	4	6	C	36	-	8					Studiebesök /Study visit 4 h
4K1109 Principles for Product Integrated Manufacturing Systems Design	4	6	C	12	12	4					Projektarbete 20 h

4K1131 Assembly Systems	4	6	C	24	20	12					
4K1202 Modelling and Interaction in CAD/CAM Maximum of 20 participants. Students of "Computer Systems for Design and Manufacturing" will have priority.	5	7,5	D	-	36	24					3 Programming tasks, period 1, 2
4K1404 History of Technology, suppl. course: Large Techn. Systems	4	6	C	12	12	-					
4K1405 Environmental History	4	6	B	12	12	-					
4K1406 History of Technology, Gender Perspectives	4	6	B	-	24	-					
4K1407 Processes of Innovation: Studies of Technological Projects	4	6	C	-	-	-					Seminarier 28 h
4K1408 History of Science	4	6	B	24	-	-					
4K1409 History of Industry	4	6	B	20	8	-					Studiebesök 8 h
4K1520 Graphic Arts Technology, Minor Course	4	6	C	30	8	16					
4K1601 Wood Material Science	5	7,5	C	36	24	32					
4K1602 Industrial Wood Processing	4	6	C	26	16	16					
5A1362 Environmental Physics for F	4	6	B	40	-	20					Projektuppgifter, studiebesök
5A1415 Environmental and Medical Physics	4	6	D	18	10	28					Seminarier och studiebesök
5A1416 Radiation Sources for Therapy	2	3	D	8	-	-					2 obligatoriska studiebesök
5B1550 Applied Mathematical Statistics	5	7,5	D	-	-	-					
5B1555 Computer Intensive Methods in Mathematical Statistics	5	7,5	D	-	-	-					Datoruppgifter
5B1574 Portfolio Theory and Risk Evaluation	4	6	D	30	12	-					
5B1742 Mathematical Systems Theory	4	6	D	28	14	6					

5B1810 Mathematical Programming	5	7,5	D	36	18	6					
5B1822 Mathematical Systems Theory, Advanced Course	4	6	D	24	24	6					
5B1852 Mathematical Economics	4	6	D	32	16	-					
5B1862 Stochastic Calculus and the Theory of Capital Markets	5	7,5	D	-	48	-					
5B1872 Optimal Control Theory	4	6	D	30	14	6					
5B1890 Optimization Modeling	4	6	D	24	-	18					
5C1122 Continuum Mechanics	4	6	C	42	-	-					
5C1123 Mathematical Methods of Mechanics, General Course	4	6	D	36	-	-					
5C1125 Mathematical Methods of Mechanics, Intermediate Course	2	3	D	-	-	-					Handledning 18 h
5C1205 Compressible Flow, General Course	4	6	D	-	-	6					
5C1207 Boundary Layer Theory and Thermal Convection	5	7,5	D	-	-	9					
5C1208 Fluid mechanics, continuation course	2	3	D	-	-	-					
5C1210 Experimental Methods in Fluid Mechanics	4	6	D	-	-	9					
5C1400 Nonlinear Dynamics in Mechanics	5	7,5	C	24	-	-					
5C1902 Advanced Dynamics of Complex Systems	4	6	D	24	-	-					
5C1904 Advanced Modern Mechanics	4	6	D	24	-	-					
5C1940 Computational Fluid Mechanics	4	6	D	-	-	6					3 st laborationer à 2 h

5C1980 Applied Mechanics, for (T) The course may not be given 99/00. (The course runs the entire academic year. A few lectures during fall.)	4	6	C	24	-	37					Övrigt 37 h
5C1992 Turbulence	4,5	7	D	36	-	3					
7E1101 Medical Engineering, Basic Course	4	6	C	24	-	-					
7E1102 Medical Engineering, Advanced Course	10	15	D	70	30	10					
7E1110 Quality and Regulatory Aspects on Medical Devices	2	3	D	20	-	-					Studiebesök 5h
7E1111 Medical Imaging Systems	4	6	D	35	-	6					Studiebesök/ Study visit 6 h
7E1112 Implants and Biomaterials	4		D	25	-	-					3h (studiebesök)
7E1113 Medical Instrumentation and Signal Processing	4	6	D	30	-	6					
7E1114 Radiation Physics and Biology	4	6	D	40	-	-					Studiebesök/ Study visit 2 h
7E1115 Engineering in Intensive Care and Anesthesia	4	6	D	12	-	-					30 +10 h (projektarbete med muntlig och skriftlig redovisning)
7E1200 Cellular and Molecular Biology	10	15	C	80	-	8					
7E1202 Systems Biology	5	7,5	C	32	-	-					



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Vehicle Engineering

Business Development and Media Technology T3

Code Name	Credits	Ects Credits	Level	Lec	Less	Lab	Periods				Other
							1	2	3	4	
Elective											
3C1100 Technical English, intermediate course	4	6	C	-	42	-					
3C1102 Technical English, advanced course	4	6	D	-	56	-					
3C1103 Technical English, Lover Intermediate	4	6	C	-	49	-					
3C1310 Environmental Technology and Work Science	6	9	C	36	9	8					Project studies
4D1026 Industrial Economics and Management, Basic Course	4	6	B	24	24	-					Seminarier 6h
4D1030 Industrial Production	4	6	C	40	20	-					Plant visits (10 h)

Business Development and Media Technology T4

Code Name	Credits	Ects Credits	Level	Lec	Less	Lab	Periods				Other
							1	2	3	4	
Compulsory											
4K1521 Communication and Information	5	7,5	C	21	24	-					
4K1552 Media Management	10	15	C	72	56	-					
4K1553 Media Production	10	15	C	40	28	24					
4K1554 Marketing Communication and the Consumer	5	7,5	D	39	-	-					
4K1555 Information Technology and Organisations	5	7,5	D	39	-	-					
Elective											
2D1334 Database Technology	4	6	C	24	20	12					
3C1305 Ecology and Environmental Technology	4	6	C	27	3	8					
4K1524 Reprographic Methods and Image Processing	6	9	C	72	16	24					



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Vehicle Engineering

Advanced Materials T3

Code Name	Credits	Ects Credits	Level	Lec	Less	Lab	Periods				Other
							1	2	3	4	
Compulsory											
4H1610 Advanced Materials	4	6	C	18	30	6					
4H1611 Materials Optimisation and Design	5	7,5	C	18	18	9					
Elective											
3C1310 Environmental Technology and Work Science	6	9	C	36	9	8					Project studies
4H1504 Synthesis and Processing of Ceramics	4	6	C	12	-	18					Studiebesök/Study visit 8 h

Advanced Materials T4

Code Name	Credits	Ects Credits	Level	Lec	Less	Lab	Periods				Other
							1	2	3	4	

Compulsory

4H1609 Functional Materials	4	6	D	18	18	12					Home assignments 12 h, Study visit 5 h
4H1612 High Temperature Materials	7	10,5	D	24	45	6					Presentation of project 6 h, study visit 16 h, project assignment 100 h

Elective

3C1305 Ecology and Environmental Technology	4	6	C	27	3	8					
4H1404 Corrosion and Surface Protection, General Course	4	6	C	16	12	12					
4H1405 Corrosion and surface protection, advanced course	4	6	D	16	-	-					Seminarier/Seminars 8 h
4H1505 Properties and Applications of Ceramics	4	6	D	12	12	18					

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Vehicle Engineering

Biomedical Engineering T3

Code Name	Credits	Ects Credits	Level	Lec	Less	Lab	Periods				Other
							1	2	3	4	
Compulsory											
7E1200 Cellular and Molecular Biology	10	15	C	80	-	8					
7E1201 Neuroscience	5	7,5	C	60	-	30					
Elective											
3C1310 Environmental Technology and Work Science	6	9	C	36	9	8					Project studies

Biomedical Engineering T4

Code Name	Credits	Ects Credits	Level	Lec	Less	Lab	Periods				Other
							1	2	3	4	
Compulsory											

7E1101 Medical Engineering, Basic Course	4	6	C	24	-	-				
7E1202 Systems Biology	5	7,5	C	32	-	-				
Elective										
3C1305 Ecology and Environmental Technology	4	6	C	27	3	8				



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Vehicle Engineering

Computer Systems for Design and Manufacturing T3

Code Name	Credits	Ects Credits	Level	Lec	Less	Lab	Periods				Other
							1	2	3	4	
Compulsory											
2D1320 Applied Computer Science The course is given twice during Spring 2000: the first time in period 3 and a second time in period 4.	4	6	B	32	16	20					
2D1320 Applied Computer Science The course is given twice during Spring 2000: the first time in period 3 and a second time in period 4.	4	6	B	32	16	20					
4K1201 Computer Aided Design and Manufacturing, Introductory course	5	7,5	C	48	-	24					Betygsatt inlämningsuppgift/ Graded exercise
Elective											
3C1310 Environmental Technology and Work Science	6	9	C	36	9	8					Project studies

Computer Systems for Design and Manufacturing T4

Code Name	Credits	Ects Credits	Level	Lec	Less	Lab	Periods				Other
							1	2	3	4	
Compulsory											
4F1630 Introduction to Machine Design	5	7,5	C	24	36	-					
4K1102 Manufacturing Automation, I	4	6	C	20	24	12					
4K1202 Modelling and Interaction in CAD/CAM Maximum of 20 participants. Students of "Computer Systems for Design and Manufacturing" will have priority.	5	7,5	D	-	36	24					3 Programming tasks, period 1, 2
4K1203 Computer Systems for Design and Manufacturing, advanced course Maximum of 20 participants. Students of "Computer Systems for Design and Manufacturing" will have priority.	12	18	D	-	68	60					2 Programming Projects, period 2, 3, 4
Elective											
3C1305 Ecology and Environmental Technology	4	6	C	27	3	8					
4K1103 Manufacturing Automation, II	6	9	C	28	32	17					



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Vehicle Engineering

Energy Technology T3

Code Name	Credits	Ects Credits	Level	Lec	Less	Lab	Periods				Other
							1	2	3	4	
Compulsory											
4A1130 Heat Transfer	4	6	C	24	18	20					
4A1207 Introductory Heating and Ventilation Technology	4	6	C	24	24	9					
4A1311 Thermal Engineering, General Course	4	6	C	30	36	20					Studiebesök 4h, projekt 10h
4F1341 Hydraulic Turbomachinery	2	3	C	12	24	6					
Elective											
3C1310 Environmental Technology and Work Science	6	9	C	36	9	8					Project studies

Energy Technology T4

Code Name	Credits	Ects	Level	Lec	Less	Lab	Periods	Other
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		Credits					1	2	3	4	
Compulsory											
4A1126 Introductory Refrigerating Engineering	4	6	C	-	48	14					5 h (field trip, one day)
4A1323 Alternative Energy Sources	4	6	B	12	36	-					
4A1404 Introductory Nuclear Reactor Engineering	4	6	C	44	16	-					
Elective											
3C1305 Ecology and Environmental Technology	4	6	C	27	3	8					
4A1127 Advanced Applied Thermodynamics and Refrigerating Engineering One of 4A1127, 4A1211, 4A1330, 4A1405 compulsory	12	18	D	24	96	22					72 h (the project)
4A1211 Advanced Heating and Ventilation Technology EGI: One of 4A1127, 4A1211, 4A1330, 4A1405 compulsory.	12	18	D	60	60	20					Seminarier/Seminars 40 h
4A1330 Advanced Thermal Engineering One of 4A1127, 4A1211, 4A1330, 4A1405 compulsory.	12	18	D	-	180	6					Studiebesök 20h
4A1405 Advanced Nuclear Reactor Engineering and Nuclear Power Safety One of 4A1127, 4A1211, 4A1330, 4A1405 compulsory.	12	18	D	88	24	8					
4A1710 Energy Management	4	6	D	50	-	-					
4A1712 Energy and Environment	6	9	D	45	-	-					

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Vehicle Engineering

Aeronautical Engineering T3

Code Name	Credits	Ects Credits	Level	Lec	Less	Lab	Periods				Other	
							1	2	3	4		
Compulsory												
4E1100 Lightweight Structures I	5	7,5	C	64	-	12					Laborationer schemaläggs av institutionen	
4E1201 Elements of Aeronautics	5	7,5	C	72	-	4						
Elective												
3C1310 Environmental Technology and Work Science	6	9	C	36	9	8					Project studies	

Aeronautical Engineering T4

Code Name	Credits	Ects Credits	Level	Lec	Less	Lab	Periods				Other
							1	2	3	4	
Compulsory											

4E1131 Aircraft and Lightweight Design	6	9	D	8	60	12					Laborationer schemaläggs av institutionen
4E1140 Flight Dynamics and Aeroelasticity	4	6	D	30	-	18					
4E1211 Aerodynamics	4	6	D	34	14	8					Laborationer schemaläggs av institutionen
4E1231 Flight Mechanics	4	6	D	30	-	18					
Elective											
3C1100 Technical English, intermediate course	4	6	C	-	42	-					
3C1102 Technical English, advanced course	4	6	D	-	56	-					
3C1103 Technical English, Lower Intermediate	4	6	C	-	49	-					
3C1117 Technical German, intermediate course	4	6	C	-	42	-					
3C1118 Technical German, advanced course	4	6	D	-	42	-					
3C1132 Technical French, intermediate course	4	6	C	-	42	-					
3C1133 Technical French, advanced course	4	6	D	-	42	-					
3C1147 Technical Spanish, intermediate course	4	6	C	-	42	-					
3C1305 Ecology and Environmental Technology	4	6	C	27	3	8					
4A1341 Introductory Airbreathing Propulsion	4	6	C	21	24	8					

4A1346 Rocket Propulsion The course is given 1999/00, the course is alternated with 4A1347.	4	6	D	36	10	-					Projekt 6h
4A1347 Airbreathing Propulsion for High Speed Flight The course is given every 2nd year starting 98/99	4	6	D	27	10	6					
4E1123 Mechanics of Composites and Sandwich Constructions	4	6	D	48	-	6					Laborationer schemaläggs av institutionen
4E1221 Advanced Aerodynamics	4	6	D	30	-	16					
5C1205 Compressible Flow, General Course	4	6	D	-	-	6					



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Vehicle Engineering

Automotive Engineering T3

Code Name	Credits	Ects Credits	Level	Lec	Less	Lab	Periods				Other
							1	2	3	4	
Compulsory											
4B1120 Signal analysis with applications	5	7,5	D	-	28	28					
4F1242 Introduction to Microcomputer Systems	4	6	C	12	22	14					
Elective											
3C1310 Environmental Technology and Work Science	6	9	C	36	9	8					Project studies
4E1100 Lightweight Structures I	5	7,5	C	64	-	12					Laborationer schemaläggs av institutionen

Automotive Engineering T4

Code Name	Credits	Ects Credits	Level	Lec	Less	Lab	Periods				Other
							1	2	3	4	

Compulsory

4B1420 Ground Vehicle Engineering, Basic Course	6	9	C	36	36	-					
4B1425 Ground Vehicle Dynamics, Basic Course	7	10,5	C	33	60	-					
4F1430 Combustion Engines, general course	4	6	C	48	-	12					

Elective

3C1305 Ecology and Environmental Technology	4	6	C	27	3	8					
4F1131 Microcomputers in Embedded Systems	5	7,5	D	-	36	36					Platsbegränsning/Limited attendance: 25
4F1131 Microcomputers in Embedded Systems	5	7,5	D	-	36	36					Platsbegränsning/Limited attendance: 25

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Vehicle Engineering

Internal Combustion Engines T3

Code Name	Credits	Ects Credits	Level	Lec	Less	Lab	Periods				Other
							1	2	3	4	
Elective											
3C1310 Environmental Technology and Work Science	6	9	C	36	9	8					Project studies
4A1130 Heat Transfer	4	6	C	24	18	20					
4A1311 Thermal Engineering, General Course	4	6	C	30	36	20					Studiebesök 4h, projekt 10h
4B1120 Signal analysis with applications	5	7,5	D	-	28	28					
4F1241 Microcomputer, Sensors and Actuators	6	9	C	18	26	29					
4F1242 Introduction to Microcomputer Systems	4	6	C	12	22	14					
4F1343 Fluid Systems and Machines	4	6	C	24	24	12					
4F1530 Functional Analysis and Optimization in Mechanical Engineering	5	7,5	C	-	60	-					Studieresa, en dag

Internal Combustion Engines T4

Code Name	Credits	Ects Credits	Level	Lec	Less	Lab	Periods				Other
							1	2	3	4	
Compulsory											
4B1420 Ground Vehicle Engineering, Basic Course	6	9	C	36	36	-					
4F1430 Combustion Engines, general course	4	6	C	48	-	12					
4F1431 Combustion Engines, Advanced Course	6	9	D	56	-	32					
4F1460 Combustion Engines, Project Course	6	9	D	-	18	-					
Elective											
3C1305 Ecology and Environmental Technology	4	6	C	27	3	8					
4B1131 Experimental Structure Dynamics	5	7,5	D	-	58	12					Datorövn. 20h i period 2 (inräknade i "Övningar")
4F1131 Microcomputers in Embedded Systems	5	7,5	D	-	36	36					Platsbegränsning/Limited attendance: 25
4F1131 Microcomputers in Embedded Systems	5	7,5	D	-	36	36					Platsbegränsning/Limited attendance: 25
4F1141 Project Work in Mechatronics Limited attendance due to limited number of available projects	4	6	C	-	-	-					Kursen schemalägges ej
4F1540 Tribology	4	6	C	18	5	9					
4F1630 Introduction to Machine Design	5	7,5	C	24	36	-					

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Vehicle Engineering

Graphic Technology T3

Code Name	Credits	Ects Credits	Level	Lec	Less	Lab	Periods				Other
							1	2	3	4	
Compulsory											
4K1521 Communication and Information	5	7,5	C	21	24	-					
4K1522 Computer Technology and Communication	4	6	C	30	4	14					
4K1523 Graphic Arts Technology and Media Production, general course	6	9	C	60	-	20					Övrigt 30 h; I kursen ingår en mindre studieresa 3-4 dagar i period 4.
4K1524 Reprographic Methods and Image Processing	6	9	C	72	16	24					
Elective											
3C1310 Environmental Technology and Work Science	6	9	C	36	9	8					Project studies

Graphic Technology T4

Code Name	Credits	Ects Credits	Level	Lec	Less	Lab	Periods				Other
							1	2	3	4	
Compulsory											
4D1070 Industrial Project Management	4	6	C	30	18	-					
4K1515 Machinery and Materials in Graphic Arts Technology	6	9	C	72	12	24					
4K1517 Advanced Graphic Arts Technology	12	18	D	160	-	32					Övrigt 30 h
Elective											
2D1334 Database Technology	4	6	C	24	20	12					
3C1305 Ecology and Environmental Technology	4	6	C	27	3	8					
3C1370 Applied Environmental Legislation	3	4,5	C	28	6	-					
4D1087 Industrial Change Management	4	6	D	18	8	8					
4G1147 Quality	6	9	C	48	24	-					
4K1102 Manufacturing Automation, I	4	6	C	20	24	12					



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Vehicle Engineering

Solid Mechanics T3

Code Name	Credits	Ects Credits	Level	Lec	Less	Lab	Periods				Other
							1	2	3	4	
Compulsory											
4C1117 Design Applications of Solid Mechanics	4	6	D	16	6	-					Estimated time for project: 90 h
Elective											
3C1310 Environmental Technology and Work Science	6	9	C	36	9	8					Project studies
3E1324 Polymer Materials - Properties and Applications	4	6	C	30	12	10					
4C1112 Theory of Elasticity	4	6	D	26	26	-					2 written assignments
4C1116 Dynamic problems in solid mechanics	4	6	D	42	-	8					Written assignments, computational assignments
4E1100 Lightweight Structures I	5	7,5	C	64	-	12					Laborationer schemaläggs av institutionen
4F1530 Functional Analysis and Optimization in Mechanical Engineering	5	7,5	C	-	60	-					Studieresa, en dag

5C1121 Analytical Mechanics	4	6	C	48	-	-					
5C1203 Fluid Mechanics, General Course	4	6	C	24	24	3					

Solid Mechanics T4

Code Name	Credits	Ects Credits	Level	Lec	Less	Lab	Periods				Other
							1	2	3	4	
Elective											
3C1305 Ecology and Environmental Technology	4	6	C	27	3	8					
3E1324 Polymer Materials - Properties and Applications	4	6	C	30	12	10					
3E1360 Mechanical Properties of Polymers, Minor Course	4	6	C	24	16	12					
4B1313 Rail Vehicle Dynamics	5	7,5	D	30	12	24					
4B1420 Ground Vehicle Engineering, Basic Course	6	9	C	36	36	-					
4C1110 Material Mechanics	4	6	D	52	-	2					2 written assignments
4C1111 Fracture Mechanics and Fatigue	4	6	D	48	-	4					2 written assignments
4C1114 Finite Element Method	4	6	D	-	49	8					Written assignments
4C1116 Dynamic problems in solid mechanics	4	6	D	42	-	8					Written assignments, computational assignments
4C1118 Non-linear Theory of Elasticity	2	3	D	12	12	-					2 written assignments
4C1119 Finite Element Method, project course	2	3	D	8	-	-					Estimated time for project: 30 h
4E1127 Fatigue and Damage Tolerance	4	6	D	48	-	6					Laborationer schemaläggs av institutionen
4F1540 Tribology	4	6	C	18	5	9					

4G1230 Introductory Welding Technology	4	6	C	24	18	12					
4H1202 Mechanical Metallurgy I	6	9	D	18	12	48					
4H1203 Mechanical Metallurgy II	4,5	6,75	C	18	12	24					Home assignments
4H1205 Mechanical Properties of Materials	4	6	C	18	18	-					
4H1505 Properties and Applications of Ceramics	4	6	D	12	12	18					
4L1103 Metal Forming I	6	9	C	27	36	18					3 hemuppgifter
4L1431 Computer Aid in Metal Forming	4	6	D	24	12	10					Projektuppgift. Seminarium.
5A1301 Mathematical Methods in Physics, Course I	4	6	C	-	54	-					
5C1122 Continuum Mechanics	4	6	C	42	-	-					
5C1123 Mathematical Methods of Mechanics, General Course	4	6	D	36	-	-					
5C1125 Mathematical Methods of Mechanics, Intermediate Course	2	3	D	-	-	-					Handledning 18 h
5C1902 Advanced Dynamics of Complex Systems	4	6	D	24	-	-					



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Industrial Economics and Management T3

Code Name	Credits	Ects Credits	Level	Lec	Less	Lab	Periods				Other
							1	2	3	4	
Compulsory											
4D1026 Industrial Economics and Management, Basic Course	4	6	B	24	24	-					Seminarier 6h
4D1030 Industrial Production	4	6	C	40	20	-					Plant visits (10 h)
4D1060 Industrial Development	4	6	C	50	8	-					
4D1075 Work Organization and Leadership Limited attendance, selection will be made	4	6	C	24	24	-					
Elective											
3C1310 Environmental Technology and Work Science	6	9	C	36	9	8					Project studies

Industrial Economics and Management T4

Code Name	Credits	Ects Credits	Level	Lec	Less	Lab	Periods				Other
							1	2	3	4	
Compulsory											
4D1035 Advanced Industrial Economics and Management	12	18	D	-	100	44					Buisness Game 16 h, Study Tour and Project Work.
4D1065 Industrial Marketing	4	6	C	24	36	-					
4D1070 Industrial Project Management	4	6	C	30	18	-					
4F1630 Introduction to Machine Design	5	7,5	C	24	36	-					
4K1102 Manufacturing Automation, I	4	6	C	20	24	12					
Elective											
3C1305 Ecology and Environmental Technology	4	6	C	27	3	8					
4K1103 Manufacturing Automation, II	6	9	C	28	32	17					



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Industrial Engineering T3

Code Name	Credits	Ects Credits	Level	Lec	Less	Lab	Periods				Other
							1	2	3	4	
Compulsory											
4D1030 Industrial Production	4	6	C	40	20	-					Plant visits (10 h)
Elective											
3C1310 Environmental Technology and Work Science	6	9	C	36	9	8					Project studies
4D1087 Industrial Change Management	4	6	D	18	8	8					
4G1332 Materials processing I	4	6	C	23	30	13					Hemuppgifter/Home Assignments 26 h
4G1335 Materials Processing I, Laboratory Course	5	7,5	D	23	30	37					34 h
4G1632 Materials Processing II	4	6	C	29	30	13					Hemuppgifter/Home work 25h
4G1635 Materials Processing II, Laboratory Course	5	7,5	D	29	30	37					33 h

Industrial Engineering T4

Code Name	Credits	Ects Credits	Level	Lec	Less	Lab	Periods				Other
							1	2	3	4	
Compulsory											
4G1145 Advanced Industrial Engineering	10	15	D	67	-	-					Seminar 22 h, Project 120 h
4G1147 Quality	6	9	C	48	24	-					
Elective											
3C1305 Ecology and Environmental Technology	4	6	C	27	3	8					
3C1340 Environmental Technology, advanced course	4	6	C	36	9	-					Studiebesök 2x4 h Övningsuppgifter
3C1360 Environmental Consequences, Advanced Course	4	6	C	18	9	16					
4D1065 Industrial Marketing	4	6	C	24	36	-					
4D1088 Technical Work Psychology	4	6	C	24	8	16					
4G1148 Advanced Production Engineering, Module 1	4	6	D	40	10	8					
4G1149 Advanced Production Engineering, Module 2	4	6	D	32	4	4					
4G1150 Advanced Production Engineering, Module 3	4	6	D	30	-	32					Seminar 10 h
4G1243 Advanced Welding Technology, Module 1	4	6	D	20	20	20					
4G1244 Advanced Welding Technology, Module 2	4	6	D	20	20	20					
4G1245 Advanced Welding Technology, Module 3	4	6	D	20	20	20					

4G1246 Enlarged Welding Technology for EWE Course is given upon agreement	4	6	D	25	25	10					
4G1343 Materials Processing, Design Project	4	6	D	-	24	-					
4G1540 Laser Metrology Methods and Non Destructive Testing	4	6	C	28	22	4					
4G1641 Metal Workshop Processes	4	6	D	36	-	15					
4K1102 Manufacturing Automation, I	4	6	C	20	24	12					

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Integrated Product Development T3

Code Name	Credits	Ects Credits	Level	Lec	Less	Lab	Periods				Other
							1	2	3	4	
Compulsory											
4D1075 Work Organization and Leadership Limited attendance, selection will be made	4	6	C	24	24	-					
Elective											
3C1310 Environmental Technology and Work Science	6	9	C	36	9	8					Project studies

Integrated Product Development T4

Code Name	Credits	Ects Credits	Level	Lec	Less	Lab	Periods				Other
							1	2	3	4	
Compulsory											

4F1541 CAD 3D-modeling and Visualization for Personal Computers	4	6	C	12	36	-					
4F1760 Integrated Product Development	20	30	D	-	180	-					
Elective											
3C1305 Ecology and Environmental Technology	4	6	C	27	3	8					


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Sound and Vibrations T3

Code Name	Credits	Ects Credits	Level	Lec	Less	Lab	Periods				Other
							1	2	3	4	
Compulsory											
4B1120 Signal analysis with applications	5	7,5	D	-	28	28					
Elective											
3C1310 Environmental Technology and Work Science	6	9	C	36	9	8					Project studies

Sound and Vibrations T4

Code Name	Credits	Ects Credits	Level	Lec	Less	Lab	Periods				Other
							1	2	3	4	
Compulsory											
4B1126 Dynamics of Structures	5	7,5	D	-	56	8					
4B1131 Experimental Structure Dynamics	5	7,5	D	-	58	12					Datorövn. 20h i period 2 (inräknade i "Övningar")

4B1136 Flow Acoustics	4	6	D	-	42	8					
4B1141 Sound and Vibration, Projekt Course	5	7,5	D	-	22	38					Sem./studieb. 40h
Elective											
3C1305 Ecology and Environmental Technology	4	6	C	27	3	8					



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Lightweight Structures T3

Code Name	Credits	Ects Credits	Level	Lec	Less	Lab	Periods				Other
							1	2	3	4	
Compulsory											
4E1100 Lightweight Structures I	5	7,5	C	64	-	12					Laborationer schemaläggs av institutionen
Elective											
3C1310 Environmental Technology and Work Science	6	9	C	36	9	8					Project studies
4E1201 Elements of Aeronautics	5	7,5	C	72	-	4					

Lightweight Structures T4

Code Name	Credits	Ects Credits	Level	Lec	Less	Lab	Periods				Other
							1	2	3	4	
Compulsory											

4E1122 Manufacturing of Polymer Composites	4	6	D	40	-	5					Laborationer schemaläggs av institutionen
4E1123 Mechanics of Composites and Sandwich Constructions	4	6	D	48	-	6					Laborationer schemaläggs av institutionen
4E1127 Fatigue and Damage Tolerance	4	6	D	48	-	6					Laborationer schemaläggs av institutionen
4E1131 Aircraft and Lightweight Design	6	9	D	8	60	12					Laborationer schemaläggs av institutionen
4E1150 Biomechanics and Neuronics	4	6	D	36	-	6					
Elective											
3C1100 Technical English, intermediate course	4	6	C	-	42	-					
3C1102 Technical English, advanced course	4	6	D	-	56	-					
3C1103 Technical English, Lower Intermediate	4	6	C	-	49	-					
3C1117 Technical German, intermediate course	4	6	C	-	42	-					
3C1118 Technical German, advanced course	4	6	D	-	42	-					
3C1132 Technical French, intermediate course	4	6	C	-	42	-					
3C1133 Technical French, advanced course	4	6	D	-	42	-					
3C1147 Technical Spanish, intermediate course	4	6	C	-	42	-					
3C1305 Ecology and Environmental Technology	4	6	C	27	3	8					
4B1304 Railway Systems and Rail Vehicles	6	9	C	49	10	7					

4B1420 Ground Vehicle Engineering, Basic Course	6	9	C	36	36	-					
4B1502 Basic Ship Theory New course, replaces 4B1501.	4	6	C	48	12	-					
4F1630 Introduction to Machine Design	5	7,5	C	24	36	-					
5B1722 Applied Optimization	4	6	C	28	14	9					

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Vehicle Engineering

Machine Elements T3

Code Name	Credits	Ects Credits	Level	Lec	Less	Lab	Periods				Other
							1	2	3	4	
Compulsory											
4F1530 Functional Analysis and Optimization in Mechanical Engineering	5	7,5	C	-	60	-					Studieresa, en dag
Elective											
3C1310 Environmental Technology and Work Science	6	9	C	36	9	8					Project studies

Machine Elements T4

Code Name	Credits	Ects Credits	Level	Lec	Less	Lab	Periods				Other
							1	2	3	4	
Compulsory											
4F1540 Tribology	4	6	C	18	5	9					

4F1560 Advanced Machine Elements	12	18	D	-	120	-					Kursen ges enligt överrensommelse
4F1630 Introduction to Machine Design	5	7,5	C	24	36	-					
Elective											
3C1305 Ecology and Environmental Technology	4	6	C	27	3	8					
4C1114 Finite Element Method	4	6	D	-	49	8					Written assignments



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Machine Design T3

Code Name	Credits	Ects Credits	Level	Lec	Less	Lab	Periods				Other
							1	2	3	4	
Compulsory											
4F1530 Functional Analysis and Optimization in Mechanical Engineering	5	7,5	C	-	60	-					Studieresa, en dag
Elective											
3C1310 Environmental Technology and Work Science	6	9	C	36	9	8					Project studies
4C1112 Theory of Elasticity	4	6	D	26	26	-					2 written assignments
4F1241 Microcomputer, Sensors and Actuators	6	9	C	18	26	29					
4F1242 Introduction to Microcomputer Systems	4	6	C	12	22	14					
4F1343 Fluid Systems and Machines	4	6	C	24	24	12					
4F1642 Modeling and Computer Support in Mechanical Design	4	6	C	24	36	-					

4K1201 Computer Aided Design and Manufacturing, Introductory course	5	7,5	C	48	-	24					Betygsatt inlämningsuppgift/ Graded exercise
5C1121 Analytical Mechanics	4	6	C	48	-	-					
5C1921 Fluid Mechanics for Engineers	4,5	7	C	-	66	6					2 st laborationer à 3 h

Machine Design T4

Code Name	Credits	Ects Credits	Level	Lec	Less	Lab	Periods				Other
							1	2	3	4	
Compulsory											
4F1630 Introduction to Machine Design	5	7,5	C	24	36	-					
4F1660 Advanced Machine Design	12	18	D	4	114	-					Schemaläggs enligt överrenskommelse
Elective											
3C1305 Ecology and Environmental Technology	4	6	C	27	3	8					
3E1360 Mechanical Properties of Polymers, Minor Course	4	6	C	24	16	12					
3E1361 Polymer Processing, Minor Course	4	6	C	24	8	18					
3E1366 Polymers in engineering design	4	6	D	18	24	8					
4C1114 Finite Element Method	4	6	D	-	49	8					Written assignments
4E1123 Mechanics of Composites and Sandwich Constructions	4	6	D	48	-	6					Laborationer schemaläggs av institutionen
4F1131 Microcomputers in Embedded Systems	5	7,5	D	-	36	36					Platsbegränsning/Limited attendance: 25
4F1131 Microcomputers in Embedded Systems	5	7,5	D	-	36	36					Platsbegränsning/Limited attendance: 25

4F1141 Project Work in Mechatronics Limited attendance due to limited number of available projects	4	6	C	-	-	-					Kursen schemalägges ej
4F1541 CAD 3D-modeling and Visualization for Personal Computers	4	6	C	12	36	-					
4F1640 Industrial Design Limited number of participants	4	6	C	24	36	-					
4F1641 Environmentally Adapted Product Design	4	6	C	24	20	16					
4K1102 Manufacturing Automation, I	4	6	C	20	24	12					

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Materials Science T3

Code Name	Credits	Ects Credits	Level	Lec	Less	Lab	Periods				Other
							1	2	3	4	
Compulsory											
4H1059 Engineering Materials, advanced course	6	9	C	10	15	15					
4H1202 Mechanical Metallurgy I	6	9	D	18	12	48					
4H1204 Experimental Techniques in Materials Science	5	7,5	D	10	10	48					
4H1504 Synthesis and Processing of Ceramics	4	6	C	12	-	18					Studiebesök/Study visit 8 h
Elective											
3C1310 Environmental Technology and Work Science	6	9	C	36	9	8					Project studies
4H1403 Physics and Chemistry of Solid Surfaces	4	6	D	18	8	10					

Materials Science T4

Code Name	Credits	Ects Credits	Level	Lec	Less	Lab	Periods				Other
							1	2	3	4	
Compulsory											
4H1104 Diffusion and Phase Equilibria	6	9	D	18	16	47					Home assignments
4H1113 Powder Metallurgy	4	6	D	18	18	12					
4H1301 Material Design	4	6	D	-	2	10					10 h computer lab
4H1404 Corrosion and Surface Protection, General Course	4	6	C	16	12	12					
Elective											
3C1305 Ecology and Environmental Technology	4	6	C	27	3	8					
4H1405 Corrosion and surface protection, advanced course	4	6	D	16	-	-					Seminarier/Seminars 8 h
4H1505 Properties and Applications of Ceramics	4	6	D	12	12	18					
4H1609 Functional Materials	4	6	D	18	18	12					Home assignments 12 h, Study visit 5 h



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Media Production T3

Code Name	Credits	Ects Credits	Level	Lec	Less	Lab	Periods				Other
							1	2	3	4	
Compulsory											
4K1521 Communication and Information	5	7,5	C	21	24	-					
4K1522 Computer Technology and Communication	4	6	C	30	4	14					
4K1523 Graphic Arts Technology and Media Production, general course	6	9	C	60	-	20					Övrigt 30 h; I kursen ingår en mindre studieresa 3-4 dagar i period 4.
4K1524 Reprographic Methods and Image Processing	6	9	C	72	16	24					
Elective											
3C1310 Environmental Technology and Work Science	6	9	C	36	9	8					Project studies

Media Production T4

Code Name	Credits	Ects Credits	Level	Lec	Less	Lab	Periods				Other
							1	2	3	4	
Compulsory											
4D1070 Industrial Project Management	4	6	C	30	18	-					
4K1516 Audio, Video and Multimedia Production	6	9	C	48	12	24					
4K1518 Advanced Media Production	12	18	D	160	-	32					Övrigt 30 h
4K1525 Programming for Interactive Media	4	6	C	48	14	24					
Elective											
2D1323 Computer Graphics and Interaction	4	6	B	42	-	12					
2D1334 Database Technology	4	6	C	24	20	12					
3C1305 Ecology and Environmental Technology	4	6	C	27	3	8					



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Mechanics T3

Code Name	Credits	Ects Credits	Level	Lec	Less	Lab	Periods				Other
							1	2	3	4	
Compulsory											
5C1121 Analytical Mechanics	4	6	C	48	-	-					
Elective											
3C1310 Environmental Technology and Work Science	6	9	C	36	9	8					Project studies
5C1203 Fluid Mechanics, General Course	4	6	C	24	24	3					

Mechanics T4

Code Name	Credits	Ects Credits	Level	Lec	Less	Lab	Periods				Other
							1	2	3	4	
Elective											

3C1305 Ecology and Environmental Technology	4	6	C	27	3	8					
5C1122 Continuum Mechanics	4	6	C	42	-	-					
5C1123 Mathematical Methods of Mechanics, General Course	4	6	D	36	-	-					
5C1125 Mathematical Methods of Mechanics, Intermediate Course	2	3	D	-	-	-					Handledning 18 h
5C1205 Compressible Flow, General Course	4	6	D	-	-	6					
5C1207 Boundary Layer Theory and Thermal Convection	5	7,5	D	-	-	9					
5C1208 Fluid mechanics, continuation course	2	3	D	-	-	-					
5C1209 Compressible flow, continuation course	2	3	D	-	-	6					
5C1210 Experimental Methods in Fluid Mechanics	4	6	D	-	-	9					
5C1902 Advanced Dynamics of Complex Systems	4	6	D	24	-	-					
5C1904 Advanced Modern Mechanics	4	6	D	24	-	-					
5C1940 Computational Fluid Mechanics	4	6	D	-	-	6					3 st laborationer à 2 h
5C1992 Turbulence	4,5	7	D	36	-	3					



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Mechatronics T3

Code Name	Credits	Ects Credits	Level	Lec	Less	Lab	Periods				Other
							1	2	3	4	
Compulsory											
2D1320 Applied Computer Science The course is given twice during Spring 2000: the first time in period 3 and a second time in period 4.	4	6	B	32	16	20					
2D1320 Applied Computer Science The course is given twice during Spring 2000: the first time in period 3 and a second time in period 4.	4	6	B	32	16	20					
4F1530 Functional Analysis and Optimization in Mechanical Engineering	5	7,5	C	-	60	-					Studieresa, en dag
Elective											
3C1310 Environmental Technology and Work Science	6	9	C	36	9	8					Project studies
4F1241 Microcomputer, Sensors and Actuators	6	9	C	18	26	29					

4F1242 Introduction to Microcomputer Systems	4	6	C	12	22	14					
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Mechatronics T4

Code Name	Credits	Ects Credits	Level	Lec	Less	Lab	Periods				Other
							1	2	3	4	
Compulsory											
4F1131 Microcomputers in Embedded Systems	5	7,5	D	-	36	36					Endast MTK
4F1140 Design of Software for Embedded Real-time Control Systems	4	6	D	-	36	30					
4F1162 Advanced Microcomputer Systems Design	15	22,5	D	-	116	80					Schemaläggs efter överenskommelse
Elective											
3C1305 Ecology and Environmental Technology	4	6	C	27	3	8					



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Environmental Management T3

Code Name	Credits	Ects Credits	Level	Lec	Less	Lab	Periods				Other
							1	2	3	4	
Compulsory											
3C1340 Environmental Technology, advanced course	4	6	C	36	9	-					Studiebesök 2x4 h Övningsuppgifter
4D1060 Industrial Development	4	6	C	50	8	-					
4D1087 Industrial Change Management	4	6	D	18	8	8					

Environmental Management T4

Code Name	Credits	Ects Credits	Level	Lec	Less	Lab	Periods				Other
							1	2	3	4	
Compulsory											
3C1360 Environmental Consequences, Advanced Course	4	6	C	18	9	16					

3C1370 Applied Environmental Legislation	3	4,5	C	28	6	-					
3C1390 Environmental Management, Larger Course	8	12	D	36	6	24					Projektarbete, fältövningar enl överrenskommelse
Elective											
3C1350 Waste Management, Advanced Course Project work and study visit	4	6	D	21	-	6					22 h projektarbete
3C1365 Environmental Consequences, Advanced Course II	4	6	D	10	10	40					Fältövningar enl överrenskommelse



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Vehicle Engineering

Paper Technology T3

Code Name	Credits	Ects Credits	Level	Lec	Less	Lab	Periods				Other
							1	2	3	4	
Compulsory											
3D1107 Paper Technology	6	9	D	42	-	56					
4A1311 Thermal Engineering, General Course	4	6	C	30	36	20					Studiebesök 4h, projekt 10h
Elective											
3C1310 Environmental Technology and Work Science	6	9	C	36	9	8					Project studies

Paper Technology T4

Code Name	Credits	Ects Credits	Level	Lec	Less	Lab	Periods				Other
							1	2	3	4	
Compulsory											

3D1103 Advanced Paper Technology	12	18	D	30	-	-					
3D1159 Pulp Mechanical Technology	6	9	D	30	-	52					Seminarier 4 h
4K1520 Graphic Arts Technology, Minor Course	4	6	C	30	8	16					
Elective											
3C1305 Ecology and Environmental Technology	4	6	C	27	3	8					



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Vehicle Engineering

Naval Architecture T3

Code Name	Credits	Ects Credits	Level	Lec	Less	Lab	Periods				Other
							1	2	3	4	
Compulsory											
4B1502 Basic Ship Theory New course, replaces 4B1501.	4	6	C	48	12	-					
Elective											
3C1310 Environmental Technology and Work Science	6	9	C	36	9	8					Project studies
4B1120 Signal analysis with applications	5	7,5	D	-	28	28					
4E1100 Lightweight Structures I	5	7,5	C	64	-	12					Laborationer schemaläggs av institutionen
5C1121 Analytical Mechanics	4	6	C	48	-	-					
5C1203 Fluid Mechanics, General Course	4	6	C	24	24	3					

Naval Architecture T4

Code Name	Credits	Ects Credits	Level	Lec	Less	Lab	Periods				Other
							1	2	3	4	
Compulsory											
4B1505 Ship Structural Design	6	9	D	60	40	-					2-3 days Study tour
4B1510 Ship Hydrodynamics	6	9	D	80	8	12					2-3 days Study tour
4B1511 Ship Hydrodynamics New course from autumn 2000, replaces 4B1510.	5	7,5	D	48	12	12					
4B1516 Ship Design	5	7,5	D	16	60	-					
Elective											
3C1305 Ecology and Environmental Technology	4	6	C	27	3	8					
4B1126 Dynamics of Structures	5	7,5	D	-	56	8					
4C1111 Fracture Mechanics and Fatigue	4	6	D	48	-	4					2 written assignments
4C1112 Theory of Elasticity	4	6	D	26	26	-					2 written assignments
4C1114 Finite Element Method	4	6	D	-	49	8					Written assignments
4C1116 Dynamic problems in solid mechanics	4	6	D	42	-	8					Written assignments, computational assignments
4C1117 Design Applications of Solid Mechanics	4	6	D	16	6	-					Estimated time for project: 90 h
4E1127 Fatigue and Damage Tolerance	4	6	D	48	-	6					Laborationer schemaläggs av institutionen
4F1430 Combustion Engines, general course	4	6	C	48	-	12					
4G1230 Introductory Welding Technology	4	6	C	24	18	12					
5A1301 Mathematical Methods in Physics, Course I	4	6	C	-	54	-					

5B1832 Systems Engineering	8	12	D	56	28	12					
5C1208 Fluid mechanics, continuation course	2	3	D	-	-	-					
5C1940 Computational Fluid Mechanics	4	6	D	-	-	6					3 st laborationer à 2 h



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Vehicle Engineering

Rail Vehicles and Railway Systems T3

Code Name	Credits	Ects Credits	Level	Lec	Less	Lab	Periods				Other
							1	2	3	4	
Compulsory											
4D1026 Industrial Economics and Management, Basic Course	4	6	B	24	24	-					Seminarier 6h
4F1244 Sensors and Actuators for Motion Control	4	6	D	30	-	12					
Elective											
3C1310 Environmental Technology and Work Science	6	9	C	36	9	8					Project studies
4B1120 Signal analysis with applications	5	7,5	D	-	28	28					
4E1100 Lightweight Structures I	5	7,5	C	64	-	12					Laborationer schemaläggs av institutionen
4F1242 Introduction to Microcomputer Systems	4	6	C	12	22	14					

Rail Vehicles and Railway Systems T4

Code Name	Credits	Ects Credits	Level	Lec	Less	Lab	Periods				Other
							1	2	3	4	
Compulsory											
4B1304 Railway Systems and Rail Vehicles	6	9	C	49	10	7					
4B1313 Rail Vehicle Dynamics	5	7,5	D	30	12	24					
Elective											
1C1206 Railway Track Engineering	5	7,5	D	33	-	-					Workshops 44h
1H1206 Planning of Railroad Traffic	5	7,5	C	-	77	-					
2C1149 Electric Traction	4	6	C	36	-	-					
3C1305 Ecology and Environmental Technology	4	6	C	27	3	8					
4B1126 Dynamics of Structures	5	7,5	D	-	56	8					
4C1116 Dynamic problems in solid mechanics	4	6	D	42	-	8					Written assignments, computational assignments
4F1540 Tribology	4	6	C	18	5	9					
4F1630 Introduction to Machine Design	5	7,5	C	24	36	-					
5B1722 Applied Optimization	4	6	C	28	14	9					



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Vehicle Engineering

Systems Engineering T3

Code Name	Credits	Ects Credits	Level	Lec	Less	Lab	Periods				Other
							1	2	3	4	
Compulsory											
2D1320 Applied Computer Science The course is given twice during Spring 2000: the first time in period 3 and a second time in period 4.	4	6	B	32	16	20					
2D1320 Applied Computer Science The course is given twice during Spring 2000: the first time in period 3 and a second time in period 4.	4	6	B	32	16	20					
4D1026 Industrial Economics and Management, Basic Course	4	6	B	24	24	-					Seminarier 6h
5B1538 Reliability Theory	6	9	D	-	-	-					
5B1722 Applied Optimization	4	6	C	28	14	9					
Elective											
2D1220 Applied Numerical Methods I	4	6	C	42	-	18					

2D1250 Applied Numerical Methods II	6	9	C	60	-	24					
3C1310 Environmental Technology and Work Science	6	9	C	36	9	8					Project studies

Systems Engineering T4

Code Name	Credits	Ects Credits	Level	Lec	Less	Lab	Periods				Other
							1	2	3	4	
Compulsory											
5B1832 Systems Engineering	8	12	D	56	28	12					
Elective											
1H1204 Logistics	5	7,5	C	12	-	-					Projektkurs, seminarium 7h
1H1212 Logistics, Advanced Course	5	7,5	D	3	8	-					Projektkurs
1H1401 Optimisation Models in Transport and Location Analysis The course will be given for the first time 1999/2000.	5	7,5	D	30	12	6					Seminarium 6h
3C1305 Ecology and Environmental Technology	4	6	C	27	3	8					



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Vehicle Engineering

Materials Processing T3

Code Name	Credits	Ects Credits	Level	Lec	Less	Lab	Periods				Other
							1	2	3	4	
Compulsory											
4G1134 Effective Production	6	9	D	25	35	-					
Elective											
3C1310 Environmental Technology and Work Science	6	9	C	36	9	8					Project studies
4G1332 Materials processing I	4	6	C	23	30	13					Hemuppgifter/Home Assignments 26 h
4G1335 Materials Processing I, Laboratory Course	5	7,5	D	23	30	37					34 h
4G1632 Materials Processing II	4	6	C	29	30	13					Hemuppgifter/Home work 25h
4G1635 Materials Processing II, Laboratory Course	5	7,5	D	29	30	37					33 h

Materials Processing T4

Code Name	Credits	Ects Credits	Level	Lec	Less	Lab	Periods				Other
							1	2	3	4	
Elective											
3C1305 Ecology and Environmental Technology	4	6	C	27	3	8					
4C1110 Material Mechanics	4	6	D	52	-	2					2 written assignments
4C1114 Finite Element Method	4	6	D	-	49	8					Written assignments
4F1630 Introduction to Machine Design	5	7,5	C	24	36	-					
4G1148 Advanced Production Engineering, Module 1	4	6	D	40	10	8					
4G1149 Advanced Production Engineering, Module 2	4	6	D	32	4	4					
4G1150 Advanced Production Engineering, Module 3	4	6	D	30	-	32					Seminar 10 h
4G1243 Advanced Welding Technology, Module 1	4	6	D	20	20	20					
4G1244 Advanced Welding Technology, Module 2	4	6	D	20	20	20					
4G1245 Advanced Welding Technology, Module 3	4	6	D	20	20	20					
4G1246 Enlarged Welding Technology for EWE Course is given upon agreement	4	6	D	25	25	10					
4G1340 Crystallisation Processing	4	6	D	12	24	18					
4G1341 Foundry Processing	4	6	D	12	24	-					Övrigt/Other 28 h
4G1343 Materials Processing, Design Project	4	6	D	-	24	-					
4G1541 Measurement Technology and Statistics for Manufacturing Processes	4	6	D	30	-	8					Projektuppgift

4G1641 Metal Workshop Processes	4	6	D	36	-	15					
4G1643 Powder Metallurgy and Plastic Forming	4	6	C	18	18	12					
4G1644 Engineering Plasticity	6	9	D	26	26	12					6 h
4G1645 Metal Forming, Fundamentals and Applications	4	6	D	18	12	18					
4L1103 Metal Forming I	6	9	C	27	36	18					3 hemuppgifter
4L1411 Workability of Metals	4	6	D	24	30	18					
4L1431 Computer Aid in Metal Forming	4	6	D	24	12	10					Projektuppgift. Seminarium.



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Vehicle Engineering

Assembly Systems T3

Code Name	Credits	Ects Credits	Level	Lec	Less	Lab	Periods				Other
							1	2	3	4	
Compulsory											
4D1026 Industrial Economics and Management, Basic Course	4	6	B	24	24	-					Seminarier 6h
4D1030 Industrial Production	4	6	C	40	20	-					Plant visits (10 h)
4K1201 Computer Aided Design and Manufacturing, Introductory course	5	7,5	C	48	-	24					Betygsatt inlämningsuppgift/ Graded exercise
Elective											
3C1310 Environmental Technology and Work Science	6	9	C	36	9	8					Project studies

Assembly Systems T4

Code Name	Credits	Ects Credits	Level	Lec	Less	Lab	Periods				Other
							1	2	3	4	

Compulsory

4G1148 Advanced Production Engineering, Module 1	4	6	D	40	10	8					
4G1634 Manufacturing Engineering	6	9	C	36	28	12					40 h
4K1102 Manufacturing Automation, I	4	6	C	20	24	12					
4K1104 Manufacturing Systems, advanced course	12	18	D	50	48	28					Project etc

Elective

3C1305 Ecology and Environmental Technology	4	6	C	27	3	8					
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Vehicle Engineering

Wood Technology T3

Code Name	Credits	Ects Credits	Level	Lec	Less	Lab	Periods				Other
							1	2	3	4	
Compulsory											
4K1601 Wood Material Science	5	7,5	C	36	24	32					
Elective											
3C1310 Environmental Technology and Work Science	6	9	C	36	9	8					Project studies
4D1030 Industrial Production	4	6	C	40	20	-					Plant visits (10 h)

Wood Technology T4

Code Name	Credits	Ects Credits	Level	Lec	Less	Lab	Periods				Other
							1	2	3	4	
Compulsory											
4D1070 Industrial Project Management	4	6	C	30	18	-					

4K1602 Industrial Wood Processing	4	6	C	26	16	16				
4K1603 Wood Technology, Advanced Course	10	15	D	48	24	36				
Elective										
3C1305 Ecology and Environmental Technology	4	6	C	27	3	8				
4D1065 Industrial Marketing	4	6	C	24	36	-				
4K1102 Manufacturing Automation, I	4	6	C	20	24	12				



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Industrial Engineering and Management

Industrial Engineering and Management I1

Code Name	Credits	Ects Credits	Level	Lec	Less	Lab	Periods				Other
							1	2	3	4	
Compulsory											
2D1310 Programming Technique	4	6	B	26	16	26					
4D1111 Engineering: Technology and Humanities	5	7,5	B	48	16	-					Plant visit (20 h)
4D1122 Industrial Economics and Management	10	15	B	54	-	-					6 poäng läses i årskurs 1 och 4 poäng i årskurs 2.
5B1102 Calculus I	10	15	B	66	72	-					
5B1109 Linear Algebra II	5	7,5	B	30	-	-					Gruppstudier 18h
5B1200 Differential Equations and Transforms I	4	6	C	24	30	-					
5C1103 Mechanics, Basic Course	6	9	B	48	27	-					

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Industrial Engineering and Management

Industrial Engineering and Management I2

Code Name	Credits	Ects Credits	Level	Lec	Less	Lab	Periods				Other
							1	2	3	4	
Compulsory											
2D1210 Numerical Methods, Basic Course I	4	6	B	24	24	18					
4D1122 Industrial Economics and Management	10	15	B	54	-	-					6 poäng läses i årskurs 1 och 4 poäng i årskurs 2.
4D1125 Industrial Economics and Management, Advanced Course	7	10,5	D	50	45	-					
5A1225 Electromagnetism and Waves	5	7,5	B	-	-	-					


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Industrial Engineering and Management

Industrial Engineering and Management I3

Code Name	Credits	Ects Credits	Level	Lec	Less	Lab	Periods				Other
							1	2	3	4	
Compulsory											
4D1116 Knowledge Formation I	6	9	C	42	60	24					
4D1131 Industrial Economics and Management, Advanced Course	7	10,5	D	70	30	-					
Elective											
2G1315 Global Project Coordination in Industrial Transformation	8	12	D	12	-	-					Projektarbete 300 h
5B1306 Introductory Financial Mathematics	5	7,5	D	-	-	-					


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Industrial Engineering and Management

Industrial Engineering and Management I4

Code Name	Credits	Ects Credits	Level	Lec	Less	Lab	Periods				Other
							1	2	3	4	
Compulsory											
4D1117 Knowledge Formation II	4	6	C	24	24	-					
4D1140 Leadership	6	9	C	24	24	12					
4D1145 Technology - Business - Leadership	12	18	D	24	24	4					
4D1150 Marketing	6	9	D	30	20	20					
Elective											
2G1315 Global Project Coordination in Industrial Transformation	8	12	D	12	-	-					Projektarbete 300 h
5B1306 Introductory Financial Mathematics	5	7,5	D	-	-	-					

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Industrial Engineering and Management

Energy Technology and Industrial Engineering I2

Code Name	Credits	Ects Credits	Level	Lec	Less	Lab	Periods				Other
							1	2	3	4	
Compulsory											
4A1112 Applied Thermodynamics	6	9	C	24	60	-					Räknest. (ej schemalagt) 24 h
4A1130 Heat Transfer	4	6	C	24	18	20					
4A1311 Thermal Engineering, General Course	4	6	C	30	36	20					Studiebesök 4h, projekt 10h
4C1035 Strength of Materials and Solid Mechanics, basic course	6	9	B	42	42	2					
5B1501 Probability Theory and Statistics	4	6	C	24	36	-					
5C1921 Fluid Mechanics for Engineers	4,5	7	C	-	66	6					2 st laborationer à 3 h

Energy Technology and Industrial Engineering I3

Code Name	Credits	Ects Credits	Level	Lec	Less	Lab	Periods	Other

							1	2	3	4	
Compulsory											
4A1130 Heat Transfer	4	6	C	24	18	20					
4A1311 Thermal Engineering, General Course	4	6	C	30	36	20					Studiebesök 4h, projekt 10h
4D1135 Production	6	9	C	86	10	20					
5C1921 Fluid Mechanics for Engineers	4,5	7	C	-	66	6					2 st laborationer à 3 h

Energy Technology and Industrial Engineering I4

Code Name	Credits	Ects Credits	Level	Lec	Less	Lab	Periods				Other
							1	2	3	4	
Compulsory											
4A1126 Introductory Refrigerating Engineering	4	6	C	-	48	14					5 h (field trip, one day)
4A1128 Applied Thermodynamics and Refrigerating Engineering, Intermediate course	6	9	D	24	60	18					



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Industrial Engineering and Management

Chemical Technology and Industrial Engineering I2

Code Name	Credits	Ects Credits	Level	Lec	Less	Lab	Periods				Other
							1	2	3	4	
Compulsory											
3B1700	4	6	B	18	24	22					
3B1710 Chemical Equilibria and Analytical Chemistry	5	7,5	B	20	12	37					
3B1750 Organic Chemistry 1	5	7,5	B	12	10	60					
3C1451 Introduction to Chemical Engineering	7	10,5	B	36	26	-					1 dag studiebesök och 1 dag fältövning
5B1501 Probability Theory and Statistics	4	6	C	24	36	-					

Chemical Technology and Industrial Engineering I3

Code Name	Credits	Ects Credits	Level	Lec	Less	Lab	Periods				Other
							1	2	3	4	

Compulsory

3B1281 Physical Chemistry	5	7,5	C	34	40	-					
3B1561 Basic Organic Chemistry	5	6,75	B	24	-	-					
3C1271 Chemical Technology	6	9	C	62	-	36					
3C1751 Chemical Engineering for Industrial Economy	9	13,5	C	50	56	29					
4D1030 Industrial Production	4	6	C	40	20	-					Plant visits (10 h)

Chemical Technology and Industrial Engineering I4

Code Name	Credits	Ects Credits	Level	Lec	Less	Lab	Periods				Other
							1	2	3	4	
Elective											
3C1422 Industrial Energy Processes	5	7,5	D	30	34	-					
3C1523 Chemical Engineering, Intermediate Course - Major	8	12	D	22	38	26					
3C1621 Process Chemistry	5	7,5	D	36	-	72					
3C1632 Chemical Reaction Engineering	5	7,5	D	16	24	34					Inklusive seminarium och datorprogramdemonstration

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Industrial Engineering and Management

Mechanical and Industrial Engineering I2

Code Name	Credits	Ects Credits	Level	Lec	Less	Lab	Periods				Other
							1	2	3	4	
Compulsory											
4A1112 Applied Thermodynamics	6	9	C	24	60	-					Räknest. (ej schemalagt) 24 h
4C1035 Strength of Materials and Solid Mechanics, basic course	6	9	B	42	42	2					
4F1531 Machine Elements, basic course for I and T	4	6	B	24	40	-					
5B1501 Probability Theory and Statistics	4	6	C	24	36	-					
5C1921 Fluid Mechanics for Engineers	4,5	7	C	-	66	6					2 st laborationer à 3 h

Mechanical and Industrial Engineering I3

Code Name	Credits	Ects Credits	Level	Lec	Less	Lab	Periods				Other
							1	2	3	4	

Compulsory

4B1421 Ground Vehicle Engineering, Basic Course	4	6	C	30	24	-					
4D1135 Production	6	9	C	86	10	20					
4F1430 Combustion Engines, general course	4	6	C	48	-	12					
5C1112 Mechanics, Continuation Course	4	6	C	30	15	-					

Mechanical and Industrial Engineering I4

Code Name	Credits	Ects Credits	Level	Lec	Less	Lab	Periods				Other
							1	2	3	4	
Compulsory											
4B1421 Ground Vehicle Engineering, Basic Course	4	6	C	30	24	-					
4F1431 Combustion Engines, Advanced Course	6	9	D	56	-	32					

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Industrial Engineering and Management

Mechatronics and Industrial Engineering I2

Code Name	Credits	Ects Credits	Level	Lec	Less	Lab	Periods				Other
							1	2	3	4	
Compulsory											
2D1320 Applied Computer Science The course is given twice during Spring 2000: the first time in period 3 and a second time in period 4.	4	6	B	32	16	20					
2D1320 Applied Computer Science The course is given twice during Spring 2000: the first time in period 3 and a second time in period 4.	4	6	B	32	16	20					
3C1305 Ecology and Environmental Technology	4	6	C	27	3	8					
4C1035 Strength of Materials and Solid Mechanics, basic course	6	9	B	42	42	2					
4F1222 Basic Electrical Engineering	6	9	B	18	27	26					
4F1242 Introduction to Microcomputer Systems	4	6	C	12	22	14					

4F1531 Machine Elements, basic course for I and T	4	6	B	24	40	-					
5B1501 Probability Theory and Statistics	4	6	C	24	36	-					

Mechatronics and Industrial Engineering I3

Code Name	Credits	Ects Credits	Level	Lec	Less	Lab	Periods				Other
							1	2	3	4	
Compulsory											
2D1320 Applied Computer Science The course is given twice during Spring 2000: the first time in period 3 and a second time in period 4.	4	6	B	32	16	20					
2D1320 Applied Computer Science The course is given twice during Spring 2000: the first time in period 3 and a second time in period 4.	4	6	B	32	16	20					
2E1200 Automatic Control, General Course	4	6	C	24	26	12					
4F1131 Microcomputers in Embedded Systems	5	7,5	D	-	36	36					Platsbegränsning/Limited attendance: 25
4F1140 Design of Software for Embedded Real-time Control Systems	4	6	D	-	36	30					
5C1112 Mechanics, Continuation Course	4	6	C	30	15	-					

Mechatronics and Industrial Engineering I4

Code Name	Credits	Ects Credits	Level	Lec	Less	Lab	Periods				Other
							1	2	3	4	
Compulsory											

4F1161 No translation	15	22,5	D	-	116	80				
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Industrial Engineering and Management

Manufacturing and Industrial Engineering I2

Code Name	Credits	Ects Credits	Level	Lec	Less	Lab	Periods				Other
							1	2	3	4	
Compulsory											
3C1305 Ecology and Environmental Technology	4	6	C	27	3	8					
4C1035 Strength of Materials and Solid Mechanics, basic course	6	9	B	42	42	2					
4F1531 Machine Elements, basic course for I and T	4	6	B	24	40	-					
4K1211 Computer Aided Design and Manufacturing, Introductory Course II	4	6	C	48	-	24					
5B1501 Probability Theory and Statistics	4	6	C	24	36	-					

Manufacturing and Industrial Engineering I3

Code Name	Credits	Ects Credits	Level	Lec	Less	Lab	Periods				Other
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							1	2	3	4	
Compulsory											
4D1030 Industrial Production	4	6	C	40	20	-					Plant visits (10 h)
4F1221 Electrical Engineering, Basic Course	4	6	B	12	18	14					
4G1634 Manufacturing Engineering	6	9	C	36	28	12					40 h
4H1057 Engineering Materials, for T	4	6	B	18	-	15					
4K1101 Control Systems	4	6	C	18	28	12					

Manufacturing and Industrial Engineering I4

Code Name	Credits	Ects Credits	Level	Lec	Less	Lab	Periods				Other
							1	2	3	4	
Compulsory											
4K1102 Manufacturing Automation, I	4	6	C	20	24	12					
4K1108 Manufacturing Systems, intermediate course	5	7,5	D	30	30	17					



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Industrial Engineering and Management

Program Development and Industrial Engineering I2

Code Name	Credits	Ects Credits	Level	Lec	Less	Lab	Periods				Other
							1	2	3	4	
Compulsory											
2B1500 Digital Electronics	4	6	B	30	18	12					
2D1320 Applied Computer Science The course is given twice during Spring 2000: the first time in period 3 and a second time in period 4.	4	6	B	32	16	20					
2D1320 Applied Computer Science The course is given twice during Spring 2000: the first time in period 3 and a second time in period 4.	4	6	B	32	16	20					
2D1358 Object Oriented Program Construction using C++	4	6	C	28	16	22					
3C1305 Ecology and Environmental Technology	4	6	C	27	3	8					
5B1501 Probability Theory and Statistics	4	6	C	24	36	-					

Program Development and Industrial Engineering I3

Code Name	Credits	Ects Credits	Level	Lec	Less	Lab	Periods				Other
							1	2	3	4	
Compulsory											
2D1323 Computer Graphics and Interaction	4	6	B	42	-	12					
2D1334 Database Technology	4	6	C	24	20	12					
2D1406 Fundamentals of Human-Computer Interaction	4	6	D	18	5	-					
2D1410 User Centered Program Development	6	9	D	34	-	9					
2D1416 Computer Support for Cooperative Work	6	9	D	60	-	15					
2G1119 Computer Hardware Basics	4	6	C	18	18	20					
2I1130 Cognitive Psychology	4	6	B	30	12	-					
4D1135 Production	6	9	C	86	10	20					



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Industrial Engineering and Management

Radio Communication Systems and Industrial Engineering I2

Code Name	Credits	Ects Credits	Level	Lec	Less	Lab	Periods				Other
							1	2	3	4	
Compulsory											
2B1500 Digital Electronics	4	6	B	30	18	12					
2E1421 Signal Theory	4	6	C	24	20	-					Datorövningar 12 h
2G1317 Computer communication and computer networks	5	7,5	C	34	18	26					
2H1227 Electric Circuits	4	6	B	30	30	-					
5B1504 Mathematical Statistics, Basic Course	6	9	C	36	48	-					

Radio Communication Systems and Industrial Engineering I3

Code Name	Credits	Ects Credits	Level	Lec	Less	Lab	Periods				Other
							1	2	3	4	

Compulsory

2E1431 Communication Theory	6	9	C	40	40	8					
2E1435 Advanced Communication Theory	4	6	D	-	-	-					Lektioner/ Lessons 45 h
2E1511 Radio Communication, Basic Course	4	6	D	24	24	8					
2E1512 Wireless Networks	8	12	D	30	24	12					160 h projekt / project
2G1317 Computer communication and computer networks	5	7,5	C	34	18	26					
2G1318 Queuing Theory and Teletraffic Systems	4	6	D	24	24	-					

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Industrial Engineering and Management

Telecommunication Systems and Industrial Engineering I2

Code Name	Credits	Ects Credits	Level	Lec	Less	Lab	Periods				Other
							1	2	3	4	
Compulsory											
2B1500 Digital Electronics	4	6	B	30	18	12					
2D1320 Applied Computer Science The course is given twice during Spring 2000: the first time in period 3 and a second time in period 4.	4	6	B	32	16	20					
2D1320 Applied Computer Science The course is given twice during Spring 2000: the first time in period 3 and a second time in period 4.	4	6	B	32	16	20					
2D1358 Object Oriented Program Construction using C++	4	6	C	28	16	22					
2G1317 Computer communication and computer networks	5	7,5	C	34	18	26					
2H1227 Electric Circuits	4	6	B	30	30	-					

[5B1506 Mathematical Statistics, basic course](#)

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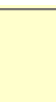
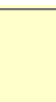
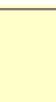
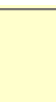
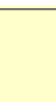
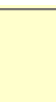
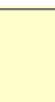
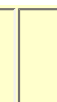
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Telecommunication Systems and Industrial Engineering I3

Code Name	Credits	Ects Credits	Level	Lec	Less	Lab	Periods				Other
							1	2	3	4	
Compulsory											
2G1113 Operating Systems	4	6	C	24	18	-					
2G1119 Computer Hardware Basics	4	6	C	18	18	20					
2G1303 Telecommunication Systems	10	15	D	50	20	20					80 h
2G1305 Internet Working	4	6	D	20	20	20					
2G1318 Queuing Theory and Teletraffic Systems	4	6	D	24	24	-					
3C1305 Ecology and Environmental Technology	4	6	C	27	3	8					



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Chemical Engineering

Chemical Engineering K1

Code Name	Credits	Ects Credits	Level	Lec	Less	Lab	Periods				Other
							1	2	3	4	
Compulsory											
3B1700	4	6	B	18	24	22					
3B1710 Chemical Equilibria and Analytical Chemistry	5	7,5	B	20	12	37					
3B1750 Organic Chemistry 1	5	7,5	B	12	10	60					
3C1451 Introduction to Chemical Engineering	7	10,5	B	36	26	-					1 dag studiebesök och 1 dag fältövning
5B1102 Calculus I	10	15	B	60	-	-					Gruppstudier 24 h/period
5B1108 Linear Algebra I	4	6	B	24	24	-					Gruppstudier 18h
5C1102 Mechanics, Smaller Course	4	6	B	30	15	-					
Elective											
3U1102 Oral and written presentation for chemists	4	4	B	-	-	-					

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Chemical Engineering

Chemical Engineering K2

Code Name	Credits	Ects Credits	Level	Lec	Less	Lab	Periods				Other
							1	2	3	4	
Compulsory											
2D1210 Numerical Methods, Basic Course I	4	6	B	24	24	18					
2D1310 Programming Technique	4	6	B	26	16	26					
3B1201 Physical Chemistry, Basic Course	10	15	C	54	50	50					
3B1501 Organic Chemistry with Biochemistry	10	15	C	38	20	120					
5A1225 Electromagnetism and Waves	5	7,5	B	38	18	20					
5B1200 Differential Equations and Transforms I	4	6	C	-	-	-					
5B1503 Statistics and Design of Experiments	4	6	C	24	36	-					
Elective											

[3U1101 Oral and written presentation for chemists](#)

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Chemical Engineering

Chemical Engineering K3

Code Name	Credits	Ects Credits	Level	Lec	Less	Lab	Periods				Other
							1	2	3	4	
Compulsory											
3B1101 Analytical Chemistry	5	7,5	C	24	-	24					
3C1300 Ecology and Environmental Technology	4	6	C	27	3	-					Fältövning 3x1/2 dag, 8 h
3C1512 Chemical Engineering, General Course	6	9	C	26	10	29					12 h seminarier
3C1612 Chemical Technology, General Course	11	16,5	C	44	34	80					80 h laboration per teknolog under per 3 och 4, individuell uppdelning
3C1712 Transport Phenomena, General Course	5	7,5	C	26	34	12					
3C1812 Electrochemistry and Corrosion	2	3	C	12	12	-					
3E1100 Polymer Technology, Minor Course	2	3	C	28	-	-					
Elective											

2E1291 Chemical Process Control	4	6	C	20	28	8					
3B1510 Organic Chemistry, Intermediate Course I	10	15	D	24	12	56					
3B1520 Organic Chemistry, Intermediate Course I, Theoretical Part	7	10,5	D	24	6	-					
3C1722 Transport Phenomena, Advanced Course	4	6	D	18	12	-					Seminarium 18 h varav 12 h datorlab.
3U1101 Oral and written presentation for chemists	4	4	B	-	-	-					
5B1301 Mathematics, Advanced Course, Partial Differential Equatio	4	6	D	-	-	-					



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Chemical Engineering

Chemical Engineering K4

Code Name	Credits	Ects Credits	Level	Lec	Less	Lab	Periods				Other
							1	2	3	4	
Elective											
2B1700 Advanced Semiconductor Materials	5	7,5		34	-	16					
2D1320 Applied Computer Science The course is given twice during Spring 2000: the first time in period 3 and a second time in period 4.	4	6	B	32	16	20					
2D1320 Applied Computer Science The course is given twice during Spring 2000: the first time in period 3 and a second time in period 4.	4	6	B	32	16	20					
2D1323 Computer Graphics and Interaction	4	6	B	42	-	12					
2D1334 Database Technology	4	6	C	24	20	12					
2D1354 Algorithms and Complexity	4	6	C	30	18	-					

2D1358 Object Oriented Program Construction using C++	4	6	C	28	16	22					
2D1434 Mathematical modelling of biological systems	4	6	D	26	-	20					
2E1200 Automatic Control, General Course	4	6	C	24	26	12					
2E1200 Automatic Control, General Course	4	6	C	24	26	12					
2E1200 Automatic Control, General Course	4	6	C	24	26	12					
2E1252 Control Theory and Practice, Advanced Course	5	7,5	D	28	26	8					
2G1315 Global Project Coordination in Industrial Transformation	8	12	D	12	-	-					Projektarbete 300 h
3A1104 Environmental Toxicology	6	9	D	36	14	-					
3A1106 Biochemistry, Advanced Course	9	13,5	D	54	-	90					
3B1301 Nuclear Chemistry English when needed	5	7,5	D	30	-	20					
3C1345 Environmental Technology and Environmental Impact Studies	4	6	D	24	6	-					Projektarbete 16h
3C1346 Env. Technology and Env. Impact Studies, Larger Course	6	9	D	24	10	-					Projektarbete 16 h
3C1350 Waste Management, Advanced Course Project work and study visit	4	6	D	21	-	6					22 h projektarbete
3C1370 Applied Environmental Legislation	3	4,5	C	28	6	-					
3C1523 Chemical Engineering, Intermediate Course - Major	8	12	D	22	38	26					

3C1533 Chemical Engineering, Intermediate Course - Minor	4	6	D	16	16	14					
3C1621 Process Chemistry	5	7,5	D	36	-	72					
3C1651 Environmental Catalysis	4	6	D	28	-	-					18 h seminarier
3C1781 Chemical Engineering in Fine and Specialty Chemicals	5	7,5	D	30	24	27					8 h industribesök
3C1832 Corrosion of Metals	5	7,5	D	14	8	-					Seminarier 14 h
3D1054 Wood Chemistry	6	9	D	30	60	-					
3D1055 Wood Chemistry, Minor Course	4	6	D	30	-	-					
3D1106 Paper Technology	6	9	D	42	-	56					2 dagars studiresa
3D1109 Paper Technology, Intermediate Course	4	6	D	30	-	10					
3D1157 Pulp Technology	6	9	D	42	-	52					4 h seminarier
3D1158 Pulp Technology, Minor Course	4	6	D	42	-	-					4 h seminarier
4K1105 Manufacturing Systems and Automation	4	6	C	14	24	12					
4K1516 Audio, Video and Multimedia Production	6	9	C	48	12	24					
5A1490 Laser Chemistry	4	6	D	24	-	12					
5A1491 Femtochemistry	5	7,5	D	36	-	-					
5A1630 Surface Physics, Basic Course	4	6	D	36	-	-					
5A1650 Smart Electronic Materials	4	6	C	18	10	8					Seminarier 4 h. Workshop 3 h.
7E1101 Medical Engineering, Basic Course	4	6	C	24	-	-					
7E1102 Medical Engineering, Advanced Course	10	15	D	70	30	10					

7E1110 Quality and Regulatory Aspects on Medical Devices	2	3	D	20	-	-						Studiebesök 5h
7E1111 Medical Imaging Systems	4	6	D	35	-	6						Studiebesök/ Study visit 6 h
7E1112 Implants and Biomaterials	4		D	25	-	-						3h (studiebesök)
7E1113 Medical Instrumentation and Signal Processing	4	6	D	30	-	6						
7E1114 Radiation Physics and Biology	4	6	D	40	-	-						Studiebesök/ Study visit 2 h
7E1115 Engineering in Intensive Care and Anesthesia	4	6	D	12	-	-						30 +10 h (projektarbete med muntlig och skriftlig redovisning)
7E1200 Cellular and Molecular Biology	10	15	C	80	-	8						
7E1202 Systems Biology	5	7,5	C	32	-	-						



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Chemical Engineering

Biotechnology K4

Code Name	Credits	Ects Credits	Level	Lec	Less	Lab	Periods				Other
							1	2	3	4	
Compulsory											
3A1106 Biochemistry, Advanced Course	9	13,5	D	54	-	90					
3A1201 Biotechnology, General Course	8	12	D	54	-	75					
3A1305 Microbiology, General Course	6	9	D	26	16	54					
4C1072 Strength of Materials and Mechanical Design	4	6	B	26	26	2					3 Written assignments
Elective											
2E1291 Chemical Process Control	4	6	C	20	28	8					
3A1304 Microbiology, Advanced Course	4	6	D	18	-	12					
3B1111 Industrial Analytical Chemistry	5	7,5	D	25	10	50					
3B1121 Organic and Biochemical Analytical Separations	5	7,5	D	28	20	36					

3B1231 NMR-spectroscopy, Application on Macromolecular English when needed	4	9	D	30	-	12					
3B1510 Organic Chemistry, Intermediate Course I	10	15	D	24	12	56					
3B1520 Organic Chemistry, Intermediate Course I, Theoretical Part	7	10,5	D	24	6	-					
3C1385 Biology	4	6	C	30	6	8					Literature assignment, Fältövning 8 h
3C1523 Chemical Engineering, Intermediate Course - Major	8	12	D	22	38	26					
3C1781 Chemical Engineering in Fine and Specialty Chemicals	5	7,5	D	30	24	27					8 h industribesök



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Chemical Engineering

Chemistry K4

At least two of the following courses must be selected: 3A1106, 3B1111, 3B1121, 3B1301, 3B1321, 3B1432 and 3B1510

Code Name	Credits	Ects Credits	Level	Lec	Less	Lab	Periods				Other
							1	2	3	4	
Compulsory											
3A1106 Biochemistry, Advanced Course	9	13,5	D	54	-	90					
3B1111 Industrial Analytical Chemistry	5	7,5	D	25	10	50					
3B1121 Organic and Biochemical Analytical Separations	5	7,5	D	28	20	36					
3B1211 Quantum Chemistry and Spectroscopy Quantum mechanics is fun!	6	6	D	48	8	8					
3B1301 Nuclear Chemistry English when needed	5	7,5	D	30	-	20					
3B1321 Radical Chemistry English when needed	5	7,5	D	30	-	-					
3B1432 Coordination Chemistry	5	7,5	D	20	24	12					
3B1510 Organic Chemistry, Intermediate Course I	10	15	D	24	12	56					

3B1541 New Trends in Organic Chemistry	5	7,5	D	24	10	36					
4C1072 Strength of Materials and Mechanical Design	4	6	B	26	26	2					3 Written assignments
Elective											
3B1222 Statistical Thermodynamics	4	6	D	24	4	12					
3B1231 NMR-spectroscopy, Application on Macromolecular English when needed	4	9	D	30	-	12					
3B1242 Technical Surface Colloid Chemistry	4	6	D	30	6	15					
3B1312 Nuclear Fuel Cycle English when needed	4	6	D	16	-	6					
3B1312 Nuclear Fuel Cycle English when needed	4	6	D	16	-	6					
3B1438 NMR in Inorganic Chemistry	6	9	D	28	24	12					
3B1441 Water Chemistry	5	7,5	D	12	10	24					
3E1141 Polymer Chemistry	5	7,5	D	18	18	45					
3E1142 Polymer Physics	5	7,5	D	18	18	45					
5B1301 Mathematics, Advanced Course, Partial Differential Equatio	4	6	D	-	-	-					

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Chemical Engineering

Chemical Engineering and Technology K4

At least two of the following courses must be selected: 3C1422, 3C1523, 3C1621, 3C1632, 3C1722, 3C1781 and 3C1823 and one of the following design courses: 3C1441, 3C1541 and 3C1641

Code Name	Credits	Ects Credits	Level	Lec	Less	Lab	Periods				Other
							1	2	3	4	
Compulsory											
3C1422 Industrial Energy Processes	5	7,5	D	30	34	-					
3C1441 Energy Processes, Design Course	10	15	D	40	120	-					
3C1523 Chemical Engineering, Intermediate Course - Major	8	12	D	22	38	26					
3C1541 Chemical Plant Design	10	15	D	40	120	-					
3C1621 Process Chemistry	5	7,5	D	36	-	72					
3C1632 Chemical Reaction Engineering	5	7,5	D	16	24	34					Inklusive seminarium och datorprogramdemonstration
3C1641 Chemical Plant Design	10	15	D	40	120	-					
3C1722 Transport Phenomena, Advanced Course	4	6	D	18	12	-					Seminarium 18 h varav 12 h datorlab.

3C1781 Chemical Engineering in Fine and Specialty Chemicals	5	7,5	D	30	24	27					8 h industribesök
3C1823 Applied Electrochemistry	5	7,5	D	36	18	20					
4C1072 Strength of Materials and Mechanical Design	4	6	B	26	26	2					3 Written assignments
Elective											
2E1291 Chemical Process Control	4	6	C	20	28	8					
3B1111 Industrial Analytical Chemistry	5	7,5	D	25	10	50					
3B1242 Technical Surface Colloid Chemistry	4	6	D	30	6	15					
3C1832 Corrosion of Metals	5	7,5	D	14	8	-					Seminarier 14 h
3D1157 Pulp Technology	6	9	D	42	-	52					4 h seminarier



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Chemical Engineering

Pharmaceutical and Fine Chemical Technology K4

For information about the courses 3FG150 Advanced drug formulation and pharmaceutical technology and 3FK070 Transport phenomena and polymer systems, please contact the Department of Chemical Engineering and Technology.

Code Name	Credits	Ects Credits	Level	Lec	Less	Lab	Periods				Other
							1	2	3	4	
Compulsory											
3C1781 Chemical Engineering in Fine and Specialty Chemicals	5	7,5	D	30	24	27					8 h industribesök
3C1784 Pharmaceutical Technology Lectures are given in Stockholm (KTH) and laboratory work in Uppsala (Biomedical centre).	5	7,5	D	35	10	25					
3C1786 Pharmaceutical Bioscience	4	6	C	26	4	12					
4C1072 Strength of Materials and Mechanical Design	4	6	B	26	26	2					3 Written assignments
4K1105 Manufacturing Systems and Automation	4	6	C	14	24	12					
Elective											
3A1106 Biochemistry, Advanced Course	9	13,5	D	54	-	90					
3A1107 Biochemistry, Advanced Course	5	7,5	D	54	-	-					

3A1201 Biotechnology, General Course	8	12	D	54	-	75					
3A1202 Environmental Biotechnology	4	6	D	30	12	-					
3A1305 Microbiology, General Course	6	9	D	26	16	54					
3B1113 Production and Utilization of Chemical Data	4	6	D	20	10	42					
3B1113 Production and Utilization of Chemical Data	4	6	D	20	10	42					
3B1242 Technical Surface Colloid Chemistry	4	6	D	30	6	15					
3B1520 Organic Chemistry, Intermediate Course I, Theoretical Part	7	10,5	D	24	6	-					
3C1632 Chemical Reaction Engineering	5	7,5	D	16	24	34					Inklusive seminarium och datorprogramdemonstration
3C1722 Transport Phenomena, Advanced Course	4	6	D	18	12	-					Seminarium 18 h varav 12 h datorlab.
3E1141 Polymer Chemistry	5	7,5	D	18	18	45					
3E1142 Polymer Physics	5	7,5	D	18	18	45					

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Chemical Engineering

Environmental Technology K4

Compulsory courses Environment Technology: 3C1346, 3C1350, 3C1360, 3C1370 Compulsory courses Environment Chemistry: 3A1104, 3C1346, 3C1370 Compulsory courses Environment Management: 3C1346, 3C1370, 3C1380 (or 3C1390) and 4D1087

Code Name	Credits	Ects Credits	Level	Lec	Less	Lab	Periods				Other
							1	2	3	4	
Compulsory											
3A1104 Environmental Toxicology	6	9	D	36	14	-					
3C1346 Env. Technology and Env. Impact Studies, Larger Course	6	9	D	24	10	-					Projektarbete 16 h
3C1365 Environmental Consequences, Advanced Course II	4	6	D	10	10	40					Fältövningar enl överrenskommelse
3C1370 Applied Environmental Legislation	3	4,5	C	28	6	-					
3C1380 Environmental Management	4	6	D	18	3	-					Projektarbete 8 h
3C1390 Environmental Management, Larger Course	8	12	D	36	6	24					Projektarbete, fältövningar enl överrenskommelse
4C1072 Strength of Materials and Mechanical Design	4	6	B	26	26	2					3 Written assignments

Elective

3A1104 Environmental Toxicology	6	9	D	36	14	-					
3A1106 Biochemistry, Advanced Course	9	13,5	D	54	-	90					
3A1107 Biochemistry, Advanced Course	5	7,5	D	54	-	-					
3A1202 Environmental Biotechnology	4	6	D	30	12	-					
3A1305 Microbiology, General Course	6	9	D	26	16	54					
3B1111 Industrial Analytical Chemistry	5	7,5	D	25	10	50					
3B1121 Organic and Biochemical Analytical Separations	5	7,5	D	28	20	36					
3B1441 Water Chemistry	5	7,5	D	12	10	24					
3B1520 Organic Chemistry, Intermediate Course I, Theoretical Part	7	10,5	D	24	6	-					
3C1350 Waste Management, Advanced Course Project work and study visit	4	6	D	21	-	6					22 h projektarbete
3C1365 Environmental Consequences, Advanced Course II	4	6	D	10	10	40					Fältövningar enl överenskommelse
3C1380 Environmental Management	4	6	D	18	3	-					Projektarbete 8 h
3C1422 Industrial Energy Processes	5	7,5	D	30	34	-					
3C1523 Chemical Engineering, Intermediate Course - Major	8	12	D	22	38	26					
3C1621 Process Chemistry	5	7,5	D	36	-	72					
3C1632 Chemical Reaction Engineering	5	7,5	D	16	24	34					Inklusive seminarium och datorprogramdemonstration
3C1722 Transport Phenomena, Advanced Course	4	6	D	18	12	-					Seminarium 18 h varav 12 h datorlab.

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Chemical Engineering

Cellulose and Paper Technology K4

Code Name	Credits	Ects Credits	Level	Lec	Less	Lab	Periods				Other
							1	2	3	4	
Compulsory											
3D1054 Wood Chemistry	6	9	D	30	60	-					
3D1106 Paper Technology	6	9	D	42	-	56					2 dagars studiresa
3D1157 Pulp Technology	6	9	D	42	-	52					4 h seminarier
4C1072 Strength of Materials and Mechanical Design	4	6	B	26	26	2					3 Written assignments
Elective											
3B1111 Industrial Analytical Chemistry	5	7,5	D	25	10	50					
3B1242 Technical Surface Colloid Chemistry	4	6	D	30	6	15					
3B1510 Organic Chemistry, Intermediate Course I	10	15	D	24	12	56					
3C1422 Industrial Energy Processes	5	7,5	D	30	34	-					

3C1523 Chemical Engineering, Intermediate Course - Major	8	12	D	22	38	26					
3C1722 Transport Phenomena, Advanced Course	4	6	D	18	12	-					Seminarium 18 h varav 12 h datorlab.
4K1520 Graphic Arts Technology, Minor Course	4	6	C	30	8	16					



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Chemical Engineering

Polymer Technology K4

Code Name	Credits	Ects Credits	Level	Lec	Less	Lab	Periods				Other
							1	2	3	4	
Compulsory											
3E1140 Polymer Technology, Intermediate Course	15	22,5	D	54	54	130					9 heldagar
4C1072 Strength of Materials and Mechanical Design	4	6	B	26	26	2					3 Written assignments
Elective											
3B1510 Organic Chemistry, Intermediate Course I	10	15	D	24	12	56					
3B1520 Organic Chemistry, Intermediate Course I, Theoretical Part	7	10,5	D	24	6	-					
3E1143 Surface Coatings Chemistry	5	7,5	D	30	-	28					9 heldagar
3E1144 Mechanical Properties and Testing of Polymers	5	7,5	D	30	-	28					
3E1145 Polymer Process Engineering I	5	7,5	D	30	-	28					

3E1146 Biopolymers	5	7,5	D	24	16	5				
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Surveying

Surveying L1

Code Name	Credits	Ects Credits	Level	Lec	Less	Lab	Periods				Other
							1	2	3	4	
Compulsory											
1B1032 Ecology	4	6	B	20	22	-					Fältövning/Excursions 1d
1F1335 Economic Analysis	5	7,5	B	24	36	-					
1F1440 Civil and Public Law	5	7,5	B	24	40	-					
1F1453 Real Estate Planning, Basic Course	5	7,5	B	42	22	-					Fältövning/Excursion 1d
2D1310 Programming Technique	4	6	B	26	16	26					
5B1102 Calculus I	10	15	B	60	-	-					Gruppstudier 24 h/period
5B1108 Linear Algebra I	4	6	B	24	24	-					Gruppstudier 18h
5B1200 Differential Equations and Transforms I	4	6	C	-	54	-					

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Surveying

Surveying L2

Code Name	Credits	Ects Credits	Level	Lec	Less	Lab	Periods				Other
							1	2	3	4	
Compulsory											
1B1034 Land Engineering and Construction	10	15	B	42	54	24					Fätövningar/Exkursions 3 d
1E1110 Surveying, Remote Sensing and Mapping	9	13,5	C	34	26	40					Fältövningar/Excursions 10d
1E1601 GIS, Databases and Cartography Will be given for the first time 1999/2000	8	12	C	42	18	46					
1F1386 Microeconomics	4	6	B	24	24	-					
2D1210 Numerical Methods, Basic Course I	4	6	B	24	24	24					
5B1501 Probability Theory and Statistics	4	6	C	24	36	-					

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Surveying

Surveying L4

Code Name	Credits	Ects Credits	Level	Lec	Less	Lab	Periods				Other
							1	2	3	4	
Elective											
1B1336 Geological Processes - Field Course on Iceland	5	7,5	C	-	-	-					Juli-Augusti, 5 veckor inkl. 10 dagars exkursion
1B1820 Risk in Technical Systems	5	7,5	D	-	-	-					Självstudier
1B1990 Developing Countries, Society and Technology	4	6	C	37	-	-					
1B1991 Management of Development Cooperation Projects	4	6	C	36	-	-					
1B1992 East- and Central Europe - Our Future Market	4	6	C	37	-	-					
1H1204 Logistics	5	7,5	C	12	-	-					Projektkurs, seminarium 7h
1H1212 Logistics, Advanced Course	5	7,5	D	3	8	-					Projektkurs
1K14LV Architecture for Engineers	5	7,5	D	32	-	-					

2D1320 Applied Computer Science The course is given twice during Spring 2000: the first time in period 3 and a second time in period 4.	4	6	B	32	16	20					
2D1320 Applied Computer Science The course is given twice during Spring 2000: the first time in period 3 and a second time in period 4.	4	6	B	32	16	20					
2D1323 Computer Graphics and Interaction	4	6	B	42	-	12					
2D1334 Database Technology	4	6	C	24	20	12					
2D1354 Algorithms and Complexity	4	6	C	30	18	-					
2D1358 Object Oriented Program Construction using C++	4	6	C	28	16	22					
2D1420 Computer Vision, Basic Course	5	7,5	D	48	-	12					
5B1306 Introductory Financial Mathematics	5	7,5	D	-	-	-					



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Surveying

Building and Real Estate Economics L3

Code Name	Credits	Ects Credits	Level	Lec	Less	Lab	Periods				Other
							1	2	3	4	
Compulsory											
1D1343 Operations, Maintenance and Modernisation Techniques	5	7,5	D	24	36	-					
1D1841 Buildings and Building Services Engineering	10	15	C	67	54	16					Studiebesök/Study visit 1d
1F1329 Business Cycles in Construction and Real Estate Market	5	7,5	D	30	30	-					
1F1332 Investment Analysis	5	7,5	C	30	30	-					
1F1337 Environmental Economics	5	7,5	C	30	30	-					
1F1394 Real Estate Economics	5	7,5	C	36	24	-					
1F1442 Law of Real Estate	5	7,5	C	30	30	-					

Building and Real Estate Economics L4

Code Name	Credits	Ects Credits	Level	Lec	Less	Lab	Periods				Other
							1	2	3	4	
Elective											
1F1327 Management	5	7,5	D	30	30	-					
1F1330 Financial Analysis	5	7,5	D	30	30	-					
1F1331 Real Estate Valuation	5	7,5	D	30	30	-					
1F1333 Market Analysis and Marketing	5	7,5	D	30	30	-					
1F1336 Real Estate Brokerage	5	7,5	D	30	30	-					
1F1339 Real Estate Finance and Economics Will be given for the first time 1999/2000 Will be given for the first time 1999/2000	5	7,5	D	30	30	-					
1F1395 Urban Land Economics	5	7,5	D	24	36	-					
1F1396 Management Control	5	7,5	D	30	30	-					
1F1398 Real Estate Management	5	7,5	D	30	30	-					
1F1444 Law of Leaseholds	5	7,5	D	30	30	-					
1F1540 Information Technology in Construction	5	7,5	D	30	30	-					
1F1562 Construction Management	5	7,5	D	30	30	-					
1F1565 Facilities Management	5	7,5	D	30	30	-					
1F1575 Construction Economics The course will be given from 1999/2000	5	7,5	D	30	30	-					
1U1026 ALV-Project	10	15	D	-	120	-					



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Surveying

Enviromental Engineering and Sustainable Infrastructure L4

Code Name	Credits	Ects Credits	Level	Lec	Less	Lab	Periods				Other
							1	2	3	4	
Compulsory											
1B1291 Environmental Dynamics/Chemical Processes Students following Environmental Engineering	5	7,5	D	52	9	-					Excursion 1d
1B1292 Environmental Dynamics/Physical Processes Students following Environmental Engineering	5	7,5	C	36	44	-					
1B1634 Environmental Impact Assessment	5	7,5	C	27	36	-					
1H1142 Political Economy for Environmental Planners	5	7,5	C	33	-	-					Seminars 24h
1H1501 Human Settlements and Housing Students following Sustainable Infrastructure	5	7,5	D	36	24	-					
1U1030 Theory of Science, Research Methodology and Excursions	5	7,5	D	30	-	-					Seminars 10h; Excursions 6d

Elective

1B1133 Applied Hydrology	5	7,5	D	22	29	-					
1B1233 Water and Waste Handling	5	7,5	C	-	70	-					
1B1333 Environmental Geology and Geophysics	5	7,5	D	32	30	-					
1B1635 Quantitative Hydrogeology	5	7,5	D	20	14	21					Field excercises 2,5d
1B1640 Natural Resources Management	5	7,5	D	12	40	-					Seminars 12 h
1E1610 Environmental Data	5	7,5	D	20	-	48					
1F1462 Management of Land and Water	5	7,5	D	20	39	-					
1H1141 Urban Infrastructure	5	7,5	D	-	60	-					
1H1143 Sustainable Rural and Urban Development	5	7,5	C	32	16	-					Seminars 24h, Excursion 1d
1H1144 Project Design and Implementation	5	7,5	D	45	24	-					Excursions 48h

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Surveying

Land Development and Management L3

Code Name	Credits	Ects Credits	Level	Lec	Less	Lab	Periods				Other
							1	2	3	4	
Compulsory											
1F1442 Law of Real Estate	5	7,5	C	30	30	-					
1F1451 Building and Environmental Law	5	7,5	C	30	30	-					
1F1460 Land Use and Land Policy	5	7,5	C	24	40	-					
1F1461 Land Use Planning	10	15	D	40	80	-					Fältövningar/Excursions 2d
Elective											
1B1637 Applied Geology and Hydrology	10	15	C	25	12	-					Fältövningar/Fieldwork 2d; Exkursioner/Excursions 3d
1B1639 Applied Geology and Hydrology	10	15	C	31	33	15					Exkursioner 3d Fältövningar/Fieldwork 3d; Exkursioner/Excursions 3d
1E1630 Remote Sensing Technology	5	7,5	C	20	-	40					Studiebesök/Study Visits 4h
1F1332 Investment Analysis	5	7,5	C	30	30	-					
1F1390 Fundamentals of Real Estate Valuation	5	7,5	C	24	36	-					Fältövningar/Excursions 1 d

[1F1470 Land Law](#)

5

7,5

D

30

30

-

**Land Development and Management L4**

Code Name	Credits	Ects Credits	Level	Lec	Less	Lab	Periods				Other
							1	2	3	4	
Compulsory											
1F1427 Compulsory Purchase and Compensation Will be given for the first time 1999/2000	5	7,5	D	30	35	-					
1F1430 Land Development	10	15	D	34	100	-					Seminarier/Seminars 6h Studiedagar/ Study Visits 3d
Elective											
1B1637 Applied Geology and Hydrology	10	15	C	20	25	-					Fältövningar/Fieldwork 3d; Exkursioner/Excursions 3d
1B1640 Natural Resources Management	5	7,5	D	12	40	-					Seminars 12 h
1F1336 Real Estate Brokerage	5	7,5	D	30	30	-					
1F1441 Civil and Public Law II	5	7,5	D	24	40	-					
1F1443 Environmental Law and Control Mechanisms	5	7,5	D	24	40	-					
1F1444 Law of Leaseholds	5	7,5	D	30	30	-					
1F1452 Law of Real Estate Formation	5	7,5	D	30	30	-					
1F1471 Real Estate Planning	10	15	D	40	90	-					Fältövning/Excursion 4d
1U1026 ALV-Project	10	15	D	-	120	-					

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Surveying

Spatial Planning L3

Code Name	Credits	Ects Credits	Level	Lec	Less	Lab	Periods				Other
							1	2	3	4	
Elective											
1H1106 Planning for Housing, Workplaces and Services	5	7,5	C	-	66	-					
1H1141 Urban Infrastructure	5	7,5	D	-	60	-					
1H1151 Theory of Planning and Organization The course will be given twice during the academic year 1999/2000, period 1 and 4	5	7,5	D	-	66	-					
1H1243 Traffic and Land-use Planning	5	7,5	C	-	77	-					

Spatial Planning L4

Code Name	Credits	Ects Credits	Level	Lec	Less	Lab	Periods				Other
							1	2	3	4	

Elective

1H1151 Theory of Planning and Organization The course will be given twice during the academic year 1999/2000, period 1 and 4	5	7,5	D	-	66	-					
1H1157 Urban and Regional Economics	5	7,5	D	-	66	-					
1H1160 Urban Ecology and Strategic Environmental Assessment The course will not be given during 1999/2000	5	7,5	D	-	66	-					
1H1161 European Planning System The course will be given from 1999/2000	5	7,5	D	-	-	-					Läs- och projektkurs, självstudier, efter överenskommelse
1H1162 Urban Center Planning Course cancelled, Dec 16th 1999	5	7,5	D	-	77	-					
1H1170 Spatial Planning and Sustainable Development	10	15	D	-	120	-					
1H1171 Governance and Spatial Planning	5	7,5	D	-	66	-					
1H1172 Fundamental Methods of Spatial Planning	5	7,5	D	30	-	36					
1H1174 Spatial Planning for Regional Development	10	15	D	-	120	-					
1H1183 Spatial Planning with GIS	5	7,5	D	33	-	42					
1H1193 Project Work in Urban Planning The course will be given from 1999/2000	10	15	D	-	120	-					
1H1214 Traffic in Urban Areas Will be given for the first time 1999/2000	5	7,5	C	-	77	-					
1H1401 Optimisation Models in Transport and Location Analysis The course will be given for the first time 1999/2000.	5	7,5	D	30	12	6					Seminarium 6h

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Surveying

Surveying and Mapping L3

Code Name	Credits	Ects Credits	Level	Lec	Less	Lab	Periods				Other
							1	2	3	4	
Compulsory											
1E1121 Theory of Errors	9	13,5	C	48	-	44					
1E1131 Geodetic Surveying	10	15	D	56	10	20					Fältövningar/Excursions 15d
1E1410 Analytical Photogrammetry	10	15	D	22	8	15					Fältövningar/Excursions 1d
1E1630 Remote Sensing Technology	5	7,5	C	20	-	40					Studiebesök/Study Visits 4h
1E1831 Image Physics and Photography Will be given for the first time 1999/2000	7	10,5	C	48	-	34					
5A1225 Electromagnetism and Waves	5	7,5	B	38	18	20					

Surveying and Mapping L4

Code Name	Credits	Ects Credits	Level	Lec	Less	Lab	Periods				Other
							1	2	3	4	

Compulsory

1E1131 Geodetic Surveying	10	15	D	12	20	8					
1E1410 Analytical Photogrammetry	10	15	D	28	22	20					Fältövningar/Excursions 1d

Elective

1E1141 Advanced Geodesy	7	10,5	D	44	-	40					
1E1160 Satellite Geodesy	5	7,5	D	22	-	40					Fältövningar/Excursions 5d
1E1170 Engineering Surveying	5	7,5	D	20	20	20					Fältövning 1 d
1E1430 Topographic Sensor Technology	5	7,5	D	24	16	32					
1E1440 Digital Photogrammetry	5	7,5	D	24	16	32					
1E1450 Integrated Project	5	7,5	D	24	-	48					
1E1640 Geoinformatics	10	15	D	40	-	100					
1E1650 Advanced Remote Sensing	5	7,5	D	20	-	48					
1U1026 ALV-Project	10	15	D	-	120	-					

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Mechanical Engineering

Mechanical Engineering M1

Code Name	Credits	Ects Credits	Level	Lec	Less	Lab	Periods				Other
							1	2	3	4	
Compulsory											
2D1310 Programming Technique	4	6	B	26	16	26					
4D1026 Industrial Economics and Management, Basic Course	4	6	B	24	24	-					Seminarier 6h
4F1511 Technical Communication and Modeling	4	6	B	8	36	18					
5A1225 Electromagnetism and Waves	5	7,5	B	38	18	20					
5B1102 Calculus I	10	15	B	60	-	-					Gruppstudier 24 h/period
5B1108 Linear Algebra I	4	6	B	24	24	-					Gruppstudier 18h
5B1501 Probability Theory and Statistics	4	6	C	24	36	-					
5C1103 Mechanics, Basic Course	6	9	B	48	27	-					

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Mechanical Engineering

Mechanical Engineering M2

Code Name	Credits	Ects Credits	Level	Lec	Less	Lab	Periods				Other
							1	2	3	4	
Compulsory											
2D1210 Numerical Methods, Basic Course I	4	6	B	24	24	24					
3C1310 Environmental Technology and Work Science	6	9	C	36	9	8					Project studies
4C1095 Strength of Materials and Solid Mechanics, basic course	8	12	B	52	52	2					3 written assignments in each part of the course
4F1521 Machine Elements, Basic Course	8	12	B	10	87	4					Studieresa 1 dag
4H1056 Structural Materials	6	9	B	24	-	27					
5B1200 Differential Equations and Transforms I	4	6	C	-	-	-					
5C1112 Mechanics, Continuation Course	4	6	C	30	15	-					

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Mechanical Engineering

Mechanical Engineering M3

Code Name	Credits	Ects Credits	Level	Lec	Less	Lab	Periods				Other
							1	2	3	4	
Compulsory											
4A1112 Applied Thermodynamics	6	9	C	24	60	-					Räknest. (ej schemalagt) 24 h
4B1112 Fundamentals of Noise and Vibration control M	4	6	C	-	57	4					Kontrollskr. 3h
4F1219 Basic Electrical Engineering for Mechanical Engineers	8	12	B	24	36	28					
4G1634 Manufacturing Engineering	6	9	C	36	28	12					40 h
Elective											
2C1111 System Planning	4	6	D	60	-	-					
2D1320 Applied Computer Science The course is given twice during Spring 2000: the first time in period 3 and a second time in period 4.	4	6	B	32	16	20					

2D1320 Applied Computer Science The course is given twice during Spring 2000: the first time in period 3 and a second time in period 4.	4	6	B	32	16	20					
2D1432 Artificial neural networks and other learning systems	4	6	D	26	-	20					
2E1200 Automatic Control, General Course	4	6	C	24	26	12					
3C1100 Technical English, intermediate course	4	6	C	-	42	-					
3C1103 Technical English, Lover Intermediate	4	6	C	-	49	-					
3C1115 German, elementary course	4	6	B	-	49	-					
3C1116 German, advanced beginners	4	6	B	-	49	-					
3C1117 Technical German, intermediate course	4	6	C	-	42	-					
3C1130 French, elementary course	4	6	B	-	49	-					
3C1131 French, advanced beginners	4	6	B	-	49	-					
3C1132 Technical French, intermediate course	4	6	C	-	42	-					
3C1134 Français de technologie et des affaires, intermediate course The course is not given during 1999/2000	4	6	C	-	56	-					
3C1145 Spanish, elementary course	4	6	B	-	49	-					
3C1146 Spanish, advanced beginners	4	6	B	-	49	-					
3C1147 Technical Spanish, intermediate course	4	6	C	-	42	-					
3C1150 Italian, elementary course	4	6	B	-	49	-					
3C1155 Russian, elementary course The course is not given during 1999/2000	4	6	B	-	56	-					

3C1160 Swedish in Communication	4	6	C	-	42	-					
3C1169 Technical Swedish	4	6	C	-	42	-					
3C1340 Environmental Technology, advanced course	4	6	C	36	9	-					Studiebesök 2x4 h Övningsuppgifter
3C1395 Sustainable Development	4	6	C	18	9	-					
3E1324 Polymer Materials - Properties and Applications	4	6	C	30	12	10					
4A1130 Heat Transfer	4	6	C	24	18	20					
4A1207 Introductory Heating and Ventilation Technology	4	6	C	24	24	9					
4A1311 Thermal Engineering, General Course	4	6	C	30	36	20					Studiebesök 4h, projekt 10h
4B1120 Signal analysis with applications	5	7,5	D	-	28	28					
4B1502 Basic Ship Theory New course, replaces 4B1501.	4	6	C	48	12	-					
4E1101 Lightweight Structures, course II	6,5	9,75	C	76	-	12					Laborationer schemaläggs av institutionen
4F1241 Microcomputer, Sensors and Actuators	6	9	C	18	26	29					
4F1242 Introduction to Microcomputer Systems	4	6	C	12	22	14					
4F1244 Sensors and Actuators for Motion Control	4	6	D	30	-	12					
4F1530 Functional Analysis and Optimization in Mechanical Engineering	5	7,5	C	-	60	-					Studieresa, en dag
4F1642 Modeling and Computer Support in Mechanical Design	4	6	C	24	36	-					
4H1059 Engineering Materials, advanced course	6	9	C	10	15	15					

4K1101 Control Systems	4	6	C	18	28	12					
4K1107 Production of Electronics I	4	6	C	36	-	8					Studiebesök /Study visit 4 h
4K1109 Principles for Product Integrated Manufacturing Systems Design	4	6	C	12	12	4					Projektarbete 20 h
4K1132 Modularisation of Products Some parts of the course are outlined in 4K1131 Assembly Systems and 4K1104 Manufacturing Systems, advanced course.	4	6	C	24	20	-					
4K1201 Computer Aided Design and Manufacturing, Introductory course	5	7,5	C	48	-	24					Betygsatt inlämningsuppgift/ Graded exercise
4K1401 History of Technology, a General Survey	4	6	B	12	12	-					
4K1521 Communication and Information	5	7,5	C	21	24	-					
5B1304 Mathematics, Extended Course	5	7,5	D	-	-	-					
5B1538 Reliability Theory	6	9	D	-	-	-					
5B1722 Applied Optimization	4	6	C	28	14	9					
5C1121 Analytical Mechanics	4	6	C	48	-	-					
5C1921 Fluid Mechanics for Engineers	4,5	7	C	-	66	6					2 st laborationer à 3 h

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Mechanical Engineering

Mechanical Engineering M4

Code Name	Credits	Ects Credits	Level	Lec	Less	Lab	Periods				Other
							1	2	3	4	
Elective											
1C5049 FEM Modelling Will be given for the first time 1999/00	5	7,5	D	33	-	-					Workshops 44h
1E1810 Technical Photography	5	7,5	C	26	-	33					
2A1136 Technical Plasma Physics	4	6	D	24	-	4					
2A1140 Accelerator and Radiation Technology	4	6	D	36	-	4					Studiebesök/ Studyvisits 10 h
2A1160 Space Physics	3	4,5	D	12	-	-					
2C1111 System Planning	4	6	D	60	-	-					
2D1225 Numerical Solutions of Differential Equations	4	6	C	26	18	8					
2D1320 Applied Computer Science The course is given twice during Spring 2000: the first time in period 3 and a second time in period 4.	4	6	B	32	16	20					

2D1323 Computer Graphics and Interaction	4	6	B	42	-	12					
2D1334 Database Technology	4	6	C	24	20	12					
2D1354 Algorithms and Complexity	4	6	C	30	18	-					
2D1358 Object Oriented Program Construction using C++	4	6	C	28	16	22					
2D1420 Computer Vision, Basic Course	5	7,5	D	48	-	12					
2D1426 Robotics and Autonomous Systems	5	7,5	D	16	-	60					
2D1434 Mathematical modelling of biological systems	4	6	D	26	-	20					
2E1200 Automatic Control, General Course	4	6	C	24	26	12					
2E1241 Automatic Control, Project Course	5	7,5	D	4	-	50					
2E1252 Control Theory and Practice, Advanced Course	5	7,5	D	28	26	8					
2E1280 Modelling of Industrial Processes	4	6	C	24	24	12					
2E1291 Chemical Process Control	4	6	C	20	28	8					
2F1111 Speech Technology	4	6	D	36	14	6					
2F1400 Electroacoustics	4	6	D	34	12	8					
2G1315 Global Project Coordination in Industrial Transformation	8	12	D	12	-	-					Projektarbete 300 h
3C1100 Technical English, intermediate course	4	6	C	-	42	-					
3C1102 Technical English, advanced course	4	6	D	-	56	-					

3C1102 Technical English, advanced course	4	6	D	-	56	-					
3C1103 Technical English, Lower Intermediate	4	6	C	-	49	-					
3C1115 German, elementary course	4	6	B	-	49	-					
3C1116 German, advanced beginners	4	6	B	-	49	-					
3C1117 Technical German, intermediate course	4	6	C	-	42	-					
3C1118 Technical German, advanced course	4	6	D	-	42	-					
3C1118 Technical German, advanced course	4	6	D	-	42	-					
3C1130 French, elementary course	4	6	B	-	49	-					
3C1131 French, advanced beginners	4	6	B	-	49	-					
3C1132 Technical French, intermediate course	4	6	C	-	42	-					
3C1133 Technical French, advanced course	4	6	D	-	42	-					
3C1133 Technical French, advanced course	4	6	D	-	42	-					
3C1145 Spanish, elementary course	4	6	B	-	49	-					
3C1146 Spanish, advanced beginners	4	6	B	-	56	-					
3C1150 Italian, elementary course	4	6	B	-	49	-					
3C1151 Italian, advanced beginners	4	6	B	-	56	-					
3C1155 Russian, elementary course The course is not given during 1999/2000	4	6	B	-	56	-					
3C1156 Russian, advanced beginners The course is not given during 1999/2000	4	6	B	-	56	-					

3C1160 Swedish in Communication	4	6	C	-	42	-					
3C1180 Japanese studies and elementary Japanese, elementary course	4	6	B	-	49	-					
3C1185 Chinese studies and elementary Chinese, elementary course The course is not given during 1999/2000	4	6	B	-	56	-					
3C1190 International engineering	4	6	D	49	-	-					3
3C1350 Waste Management, Advanced Course Project work and study visit	4	6	D	21	-	6					22 h projektarbete
3C1355 Ecology, Advanced Course	4	6	C	21	4	40					
3C1360 Environmental Consequences, Advanced Course	4	6	C	18	9	16					
3C1365 Environmental Consequences, Advanced Course II	4	6	D	10	10	40					Fältövningar enl överrenskommelse
3C1370 Applied Environmental Legislation	3	4,5	C	28	6	-					
3C1380 Environmental Management	4	6	D	18	3	-					Projektarbete 8 h
3C1385 Biology	4	6	C	30	6	8					Literature assignment, Fältövning 8 h
3C1395 Sustainable Development	4	6	C	18	9	-					
3D1108 Paper Technology, Minor Course	4	6	D	42	-	-					
3D1160 Pulp Mechanical Technology, Minor Course	4	6	D	30	-	-					4 h seminarier
3E1360 Mechanical Properties of Polymers, Minor Course	4	6	C	24	16	12					
3E1361 Polymer Processing, Minor Course	4	6	C	24	8	18					
3E1366 Polymers in engineering design	4	6	D	18	24	8					

4A1126 Introductory Refrigerating Engineering	4	6	C	-	48	14					5 h (field trip, one day)
4A1128 Applied Thermodynamics and Refrigerating Engineering, Intermediate course	6	9	D	24	60	18					
4A1216 Heating and Ventilation Technology, Intermediate course	4	6	D	48	40	-					
4A1223 Sanitary Engineering	4	6	C	20	30	8					
4A1313 Combustion Theory	4	6	C	18	18	3					Studiebesök 8h, Projekt 4h
4A1322 Thermal Turbomachinery	4	6	D	-	30	12					Studiebesök 8h, projektuppgift 12h
4A1323 Alternative Energy Sources	4	6	B	12	36	-					
4A1332 Thermal Engineering, Intermediate Course	4	6	C	24	-	12					
4A1341 Introductory Airbreathing Propulsion	4	6	C	21	24	8					
4A1344 Airbreathing Propulsion, Intermediate Course I	4	6	D	40	-	-					Projekt 6h
4A1346 Rocket Propulsion The course is given 1999/00, the course is alternated with 4A1347.	4	6	D	36	10	-					Projekt 6h
4A1347 Airbreathing Propulsion for High Speed Flight The course is given every 2nd year starting 98/99	4	6	D	27	10	6					
4A1404 Introductory Nuclear Reactor Engineering	4	6	C	44	16	-					
4A1406 Nuclear Reactor Engineering and Nuclear Power Safety, Intermediate course	4	6	C	44	8	8					
4A1500 Nuclear Power Safety	4	6	D	36	28	-					Projektuppgift 28h

4B1304 Railway Systems and Rail Vehicles	6	9	C	49	10	7					
4B1420 Ground Vehicle Engineering, Basic Course	6	9	C	36	36	-					
4B1425 Ground Vehicle Dynamics, Basic Course	7	10,5	C	33	60	-					
4B1502 Basic Ship Theory New course, replaces 4B1501.	4	6	C	48	12	-					
4B1511 Ship Hydrodynamics New course from autumn 2000, replaces 4B1510.	5	7,5	D	48	12	12					
4C1110 Material Mechanics	4	6	D	52	-	2					2 written assignments
4C1111 Fracture Mechanics and Fatigue	4	6	D	48	-	4					2 written assignments
4C1112 Theory of Elasticity	4	6	D	26	26	-					2 written assignments
4C1114 Finite Element Method	4	6	D	-	49	8					Written assignments
4C1116 Dynamic problems in solid mechanics	4	6	D	42	-	8					Written assignments, computational assignments
4C1118 Non-linear Theory of Elasticity	2	3	D	12	12	-					2 written assignments
4C1119 Finite Element Method, project course	2	3	D	8	-	-					Estimated time for project: 30 h
4D1030 Industrial Production	4	6	C	40	20	-					Plant visits (10 h)
4D1060 Industrial Development	4	6	C	50	8	-					
4D1065 Industrial Marketing	4	6	C	24	36	-					
4D1070 Industrial Project Management	4	6	C	30	18	-					
4D1075 Work Organization and Leadership Limited attendance, selection will be made	4	6	C	24	24	-					
4D1080 Multinational Enterprising	4	6	C	36	24	-					

4D1087 Industrial Change Management	4	6	D	18	8	8					
4D1088 Technical Work Psychology	4	6	C	24	8	16					
4D1089 Work Science, Advanced Course	4	6	C	24	12	-					Project work
4D1090 Work Science	4	6	B	-	-	-					Literature course
4D1092 Man - Machine System	4	6	C	24	24	12					
4D1095 Industrial Innovations and Entrepreneurship	4	6	C	24	-	4					8 h seminarier
4E1122 Manufacturing of Polymer Composites	4	6	D	40	-	5					Laborationer schemaläggs av institutionen
4E1127 Fatigue and Damage Tolerance	4	6	D	48	-	6					Laborationer schemaläggs av institutionen
4E1150 Biomechanics and Neurionics	4	6	D	36	-	6					
4E1251 Current Topics in Aeronautics	4	6	B	24	12	-					Studiebesök 12 h
4F1131 Microcomputers in Embedded Systems	5	7,5	D	-	36	36					Platsbegränsning/Limited attendance: 25
4F1131 Microcomputers in Embedded Systems	5	7,5	D	-	36	36					Platsbegränsning/Limited attendance: 25
4F1140 Design of Software for Embedded Real-time Control Systems	4	6	D	-	36	30					
4F1141 Project Work in Mechatronics Limited attendance due to limited number of available projects	4	6	C	-	-	-					Kursen schemalägges ej
4F1244 Sensors and Actuators for Motion Control	4	6	D	30	-	12					
4F1340 Introduction to Fluid Power	4	6	C	24	24	9					
4F1343 Fluid Systems and Machines	4	6	C	24	24	12					
4F1430 Combustion Engines, general course	4	6	C	48	-	12					

4F1540 Tribology	4	6	C	18	5	9					
4F1541 CAD 3D-modeling and Visualization for Personal Computers	4	6	C	12	36	-					
4F1630 Introduction to Machine Design	5	7,5	C	24	36	-					
4F1631 Machine Design, intermediate course	7	10,5	D	4	84	-					Schemaläggs enligt överrensommelse
4F1640 Industrial Design Limited number of participants	4	6	C	24	36	-					
4F1640 Industrial Design Limited number of participants	4	6	C	24	36	-					Platsbegränsning/Limited number of participants
4F1641 Environmentally Adapted Product Design	4	6	C	24	20	16					
4G1147 Quality	6	9	C	48	24	-					
4G1230 Introductory Welding Technology	4	6	C	24	18	12					
4G1231 Intermediate Welding Technology	4	6	D	24	24	12					
4G1246 Enlarged Welding Technology for EWE Course is given upon agreement	4	6	D	25	25	10					
4G1342 Space Systems and Technology	4	6	D	30	-	-					Övrigt/Other 10 h
4G1540 Laser Metrology Methods and Non Destructive Testing	4	6	C	28	22	4					
4G1541 Measurement Technology and Statistics for Manufacturing Processes	4	6	D	30	-	8					Projektuppgift
4G1646 Simulation and Modelling	4	6	D	10	80	-					Projektuppgift 70h
4K1102 Manufacturing Automation, I	4	6	C	20	24	12					
4K1103 Manufacturing Automation, II	6	9	C	28	32	17					
4K1107 Production of Electronics I	4	6	C	36	-	8					Studiebesök /Study visit 4 h

4K1109 Principles for Product Integrated Manufacturing Systems Design	4	6	C	12	12	4					Projektarbete 20 h
4K1131 Assembly Systems	4	6	C	24	20	12					
4K1132 Modularisation of Products Some parts of the course are outlined in 4K1131 Assembly Systems and 4K1104 Manufacturing Systems, advanced course.	4	6	C	24	20	-					
4K1202 Modelling and Interaction in CAD/CAM Maximum of 20 participants. Students of "Computer Systems for Design and Manufacturing" will have priority.	5	7,5	D	-	36	24					3 Programming tasks, period 1, 2
4K1404 History of Technology, suppl. course: Large Techn. Systems	4	6	C	12	12	-					
4K1405 Environmental History	4	6	B	12	12	-					
4K1406 History of Technology, Gender Perspectives	4	6	B	-	24	-					
4K1407 Processes of Innovation: Studies of Technological Projects	4	6	C	-	-	-					Seminarier 28 h
4K1408 History of Science	4	6	B	24	-	-					
4K1409 History of Industry	4	6	B	20	8	-					Studiebesök 8 h
4K1520 Graphic Arts Technology, Minor Course	4	6	C	30	8	16					
4K1601 Wood Material Science	5	7,5	C	36	24	32					
4K1602 Industrial Wood Processing	4	6	C	26	16	16					
5A1415 Environmental and Medical Physics	4	6	D	18	10	28					Seminarier och studiebesök
5A1416 Radiation Sources for Therapy	2	3	D	8	-	-					2 obligatoriska studiebesök
5B1555 Computer Intensive Methods in Mathematical Statistics	5	7,5	D	-	-	-					Datoruppgifter

5B1574 Portfolio Theory and Risk Evaluation	4	6	D	30	12	-					
5B1810 Mathematical Programming	5	7,5	D	36	18	6					
5B1852 Mathematical Economics	4	6	D	32	16	-					
5B1862 Stochastic Calculus and the Theory of Capital Markets	5	7,5	D	-	48	-					
5B1890 Optimization Modeling	4	6	D	24	-	18					
5C1122 Continuum Mechanics	4	6	C	42	-	-					
5C1123 Mathematical Methods of Mechanics, General Course	4	6	D	36	-	-					
5C1125 Mathematical Methods of Mechanics, Intermediate Course	2	3	D	-	-	-					Handledning 18 h
5C1210 Experimental Methods in Fluid Mechanics	4	6	D	-	-	9					
5C1400 Nonlinear Dynamics in Mechanics	5	7,5	C	24	-	-					
5C1980 Applied Mechanics, for (T) The course may not be given 99/00. (The course runs the entire academic year. A few lectures during fall.)	4	6	C	24	-	37					Övrigt 37 h
7E1101 Medical Engineering, Basic Course	4	6	C	24	-	-					
7E1102 Medical Engineering, Advanced Course	10	15	D	70	30	10					
7E1110 Quality and Regulatory Aspects on Medical Devices	2	3	D	20	-	-					Studiebesök 5h
7E1111 Medical Imaging Systems	4	6	D	35	-	6					Studiebesök/ Study visit 6 h
7E1112 Implants and Biomaterials	4		D	25	-	-					3h (studiebesök)
7E1113 Medical Instrumentation and Signal Processing	4	6	D	30	-	6					

7E1114 Radiation Physics and Biology	4	6	D	40	-	-					Studiebesök/ Study visit 2 h
7E1115 Engineering in Intensive Care and Anesthesia	4	6	D	12	-	-					30 +10 h (projektarbete med muntlig och skriftlig redovisning)
7E1200 Cellular and Molecular Biology	10	15	C	80	-	8					
7E1202 Systems Biology	5	7,5	C	32	-	-					



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Business Development and Media Technology M3

Code Name	Credits	Ects Credits	Level	Lec	Less	Lab	Periods				Other
							1	2	3	4	
Elective											
3C1100 Technical English, intermediate course	4	6	C	-	42	-					
3C1102 Technical English, advanced course	4	6	D	-	56	-					
3C1103 Technical English, Lower Intermediate	4	6	C	-	49	-					
4D1030 Industrial Production	4	6	C	40	20	-					Plant visits (10 h)

Business Development and Media Technology M4

Code Name	Credits	Ects Credits	Level	Lec	Less	Lab	Periods				Other
							1	2	3	4	
Compulsory											

4K1521 Communication and Information	5	7,5	C	21	24	-					
4K1552 Media Management	10	15	C	72	56	-					
4K1553 Media Production	10	15	C	40	28	24					
4K1554 Marketing Communication and the Consumer	5	7,5	D	39	-	-					
4K1555 Information Technology and Organisations	5	7,5	D	39	-	-					
Elective											
2D1334 Database Technology	4	6	C	24	20	12					
4K1524 Reprographic Methods and Image Processing	6	9	C	72	16	24					

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Advanced Materials M3

Code Name	Credits	Ects Credits	Level	Lec	Less	Lab	Periods				Other
							1	2	3	4	
Compulsory											
4H1610 Advanced Materials	4	6	C	18	30	6					
4H1611 Materials Optimisation and Design	5	7,5	C	18	18	9					
Elective											
4H1504 Synthesis and Processing of Ceramics	4	6	C	12	-	18					Studiebesök/Study visit 8 h

Advanced Materials M4

Code Name	Credits	Ects Credits	Level	Lec	Less	Lab	Periods				Other
							1	2	3	4	
Compulsory											

4H1609 Functional Materials	4	6	D	18	18	12					Home assignments 12 h, Study visit 5 h
4H1612 High Temperature Materials	7	10,5	D	24	45	6					Presentation of project 6 h, study visit 16 h, project assignment 100 h
Elective											
4H1404 Corrosion and Surface Protection, General Course	4	6	C	16	12	12					
4H1405 Corrosion and surface protection, advanced course	4	6	D	16	-	-					Seminarier/Seminars 8 h
4H1505 Properties and Applications of Ceramics	4	6	D	12	12	18					



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Biomedical Engineering M3

Code Name	Credits	Ects Credits	Level	Lec	Less	Lab	Periods				Other
							1	2	3	4	
Compulsory											
7E1200 Cellular and Molecular Biology	10	15	C	80	-	8					
7E1201 Neuroscience	5	7,5	C	60	-	30					

Biomedical Engineering M4

Code Name	Credits	Ects Credits	Level	Lec	Less	Lab	Periods				Other
							1	2	3	4	
Compulsory											
7E1101 Medical Engineering, Basic Course	4	6	C	24	-	-					
7E1202 Systems Biology	5	7,5	C	32	-	-					

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Computer Systems for Design and Manufacturing M3

Code Name	Credits	Ects Credits	Level	Lec	Less	Lab	Periods				Other
							1	2	3	4	
Compulsory											
2D1320 Applied Computer Science The course is given twice during Spring 2000: the first time in period 3 and a second time in period 4.	4	6	B	32	16	20					
2D1320 Applied Computer Science The course is given twice during Spring 2000: the first time in period 3 and a second time in period 4.	4	6	B	32	16	20					
4K1201 Computer Aided Design and Manufacturing, Introductory course	5	7,5	C	48	-	24					Betygsatt inlämningsuppgift/ Graded exercise

Computer Systems for Design and Manufacturing M4

Code Name	Credits	Ects Credits	Level	Lec	Less	Lab	Periods				Other
							1	2	3	4	

Compulsory

4F1630 Introduction to Machine Design	5	7,5	C	24	36	-					
4K1102 Manufacturing Automation, I	4	6	C	20	24	12					
4K1202 Modelling and Interaction in CAD/CAM Maximum of 20 participants. Students of "Computer Systems for Design and Manufacturing" will have priority.	5	7,5	D	-	36	24					3 Programming tasks, period 1, 2
4K1203 Computer Systems for Design and Manufacturing, advanced course Maximum of 20 participants. Students of "Computer Systems for Design and Manufacturing" will have priority.	12	18	D	-	68	60					2 Programming Projects, period 2, 3, 4

Elective

4K1103 Manufacturing Automation, II	6	9	C	28	32	17					
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Mechanical Engineering

Energy Technology M3

Code Name	Credits	Ects Credits	Level	Lec	Less	Lab	Periods				Other
							1	2	3	4	
Compulsory											
4A1130 Heat Transfer	4	6	C	24	18	20					
4A1207 Introductory Heating and Ventilation Technology	4	6	C	24	24	9					
4A1311 Thermal Engineering, General Course	4	6	C	30	36	20					Studiebesök 4h, projekt 10h
4F1341 Hydraulic Turbomachinery	2	3	C	12	24	6					
5C1921 Fluid Mechanics for Engineers	4,5	7	C	-	66	6					2 st laborationer à 3 h

Energy Technology M4

Code Name	Credits	Ects Credits	Level	Lec	Less	Lab	Periods				Other
							1	2	3	4	

Compulsory

4A1126 Introductory Refrigerating Engineering	4	6	C	-	48	14					5 h (field trip, one day)
4A1323 Alternative Energy Sources	4	6	B	12	36	-					
4A1404 Introductory Nuclear Reactor Engineering	4	6	C	44	16	-					

Elective

4A1127 Advanced Applied Thermodynamics and Refrigerating Engineering One of 4A1127, 4A1211, 4A1330, 4A1405 compulsory	12	18	D	24	96	22					72 h (the project)
4A1211 Advanced Heating and Ventilation Technology EGI: One of 4A1127, 4A1211, 4A1330, 4A1405 compulsory.	12	18	D	60	60	20					Seminarier/Seminars 40 h
4A1330 Advanced Thermal Engineering One of 4A1127, 4A1211, 4A1330, 4A1405 compulsory.	12	18	D	-	180	6					Studiebesök 20h
4A1405 Advanced Nuclear Reactor Engineering and Nuclear Power Safety One of 4A1127, 4A1211, 4A1330, 4A1405 compulsory.	12	18	D	88	24	8					
4A1710 Energy Management	4	6	D	50	-	-					
4A1712 Energy and Environment	6	9	D	45	-	-					

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Mechanical Engineering

Automotive Engineering M3

Code Name	Credits	Ects Credits	Level	Lec	Less	Lab	Periods				Other
							1	2	3	4	
Compulsory											
4B1120 Signal analysis with applications	5	7,5	D	-	28	28					
4F1242 Introduction to Microcomputer Systems	4	6	C	12	22	14					
5B1304 Mathematics, Extended Course	5	7,5	D	-	-	-					
Elective											
4E1101 Lightweight Structures, course II	6,5	9,75	C	76	-	12					Laborationer schemaläggs av institutionen

Automotive Engineering M4

Code Name	Credits	Ects Credits	Level	Lec	Less	Lab	Periods				Other
							1	2	3	4	
Compulsory											

4B1420 Ground Vehicle Engineering, Basic Course	6	9	C	36	36	-					
4B1425 Ground Vehicle Dynamics, Basic Course	7	10,5	C	33	60	-					
4F1430 Combustion Engines, general course	4	6	C	48	-	12					
Elective											
4F1131 Microcomputers in Embedded Systems	5	7,5	D	-	36	36					Platsbegränsning/Limited attendance: 25
4F1131 Microcomputers in Embedded Systems	5	7,5	D	-	36	36					Platsbegränsning/Limited attendance: 25

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Mechanical Engineering

Internal Combustion Engines M3

Code Name	Credits	Ects Credits	Level	Lec	Less	Lab	Periods				Other
							1	2	3	4	
Compulsory											
5C1921 Fluid Mechanics for Engineers	4,5	7	C	-	66	6					2 st laborationer à 3 h
Elective											
2E1200 Automatic Control, General Course	4	6	C	24	26	12					
4A1130 Heat Transfer	4	6	C	24	18	20					
4A1311 Thermal Engineering, General Course	4	6	C	30	36	20					Studiebesök 4h, projekt 10h
4B1120 Signal analysis with applications	5	7,5	D	-	28	28					
4F1241 Microcomputer, Sensors and Actuators	6	9	C	18	26	29					
4F1242 Introduction to Microcomputer Systems	4	6	C	12	22	14					
4F1343 Fluid Systems and Machines	4	6	C	24	24	12					

[4F1530 Functional Analysis and Optimization in Mechanical Engineering](#)

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Studieresa, en dag

Internal Combustion Engines M4

Code Name	Credits	Ects Credits	Level	Lec	Less	Lab	Periods				Other
							1	2	3	4	
Compulsory											
4B1420 Ground Vehicle Engineering, Basic Course	6	9	C	36	36	-					
4F1430 Combustion Engines, general course	4	6	C	48	-	12					
4F1431 Combustion Engines, Advanced Course	6	9	D	56	-	32					
4F1460 Combustion Engines, Project Course	6	9	D	-	18	-					
Elective											
2E1200 Automatic Control, General Course	4	6	C	24	26	12					
4B1131 Experimental Structure Dynamics	5	7,5	D	-	58	12					Datorövn. 20h i period 2 (inräknade i "Övningar")
4F1131 Microcomputers in Embedded Systems	5	7,5	D	-	36	36					Platsbegränsning/Limited attendance: 25
4F1131 Microcomputers in Embedded Systems	5	7,5	D	-	36	36					Platsbegränsning/Limited attendance: 25
4F1141 Project Work in Mechatronics Limited attendance due to limited number of available projects	4	6	C	-	-	-					Kursen schemalägges ej
4F1540 Tribology	4	6	C	18	5	9					

4F1630 Introduction to Machine Design	5	7,5	C	24	36	-					
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Mechanical Engineering

Graphic Arts Technology M3

Code Name	Credits	Ects Credits	Level	Lec	Less	Lab	Periods				Other
							1	2	3	4	
Compulsory											
4K1521 Communication and Information	5	7,5	C	21	24	-					
4K1522 Computer Technology and Communication	4	6	C	30	4	14					
4K1523 Graphic Arts Technology and Media Production, general course	6	9	C	60	-	20					Övrigt 30 h; I kursen ingår en mindre studieresa 3-4 dagar i period 4.
4K1524 Reprographic Methods and Image Processing	6	9	C	72	16	24					
Elective											
4K1101 Control Systems	4	6	C	18	28	12					

Graphic Arts Technology M4

Code Name	Credits	Ects	Level	Lec	Less	Lab	Periods	Other
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		Credits					1	2	3	4	
Compulsory											
4D1070 Industrial Project Management	4	6	C	30	18	-					
4K1515 Machinery and Materials in Graphic Arts Technology	6	9	C	72	12	24					
4K1517 Advanced Graphic Arts Technology	12	18	D	160	-	32					Övrigt 30 h
Elective											
2D1334 Database Technology	4	6	C	24	20	12					
3C1370 Applied Environmental Legislation	3	4,5	C	28	6	-					
4D1087 Industrial Change Management	4	6	D	18	8	8					
4G1147 Quality	6	9	C	48	24	-					
4K1102 Manufacturing Automation, I	4	6	C	20	24	12					



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Mechanical Engineering

Solid Mechanics M3

Code Name	Credits	Ects Credits	Level	Lec	Less	Lab	Periods				Other
							1	2	3	4	
Compulsory											
4C1096 Strength of Materials and Solid Mechanics, advanced course	4	6	C	36	14	4					2 written assignments
4C1117 Design Applications of Solid Mechanics	4	6	D	16	6	-					Estimated time for project: 90 h
5B1304 Mathematics, Extended Course	5	7,5	D	-	-	-					
Elective											
3E1324 Polymer Materials - Properties and Applications	4	6	C	30	12	10					
4E1100 Lightweight Structures I	5	7,5	C	64	-	12					Laborationer schemaläggs av institutionen
4F1530 Functional Analysis and Optimization in Mechanical Engineering	5	7,5	C	-	60	-					Studieresa, en dag
5C1121 Analytical Mechanics	4	6	C	48	-	-					

[5C1203 Fluid Mechanics, General Course](#)

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**Solid Mechanics M4**

Code Name	Credits	Ects Credits	Level	Lec	Less	Lab	Periods				Other
							1	2	3	4	
Elective											
3E1324 Polymer Materials - Properties and Applications	4	6	C	30	12	10					
3E1360 Mechanical Properties of Polymers, Minor Course	4	6	C	24	16	12					
4B1313 Rail Vehicle Dynamics	5	7,5	D	30	12	24					
4B1420 Ground Vehicle Engineering, Basic Course	6	9	C	36	36	-					
4C1110 Material Mechanics	4	6	D	52	-	2					2 written assignments
4C1111 Fracture Mechanics and Fatigue	4	6	D	48	-	4					2 written assignments
4C1112 Theory of Elasticity	4	6	D	26	26	-					2 written assignments
4C1114 Finite Element Method	4	6	D	-	49	8					Written assignments
4C1116 Dynamic problems in solid mechanics	4	6	D	42	-	8					Written assignments, computational assignments
4C1118 Non-linear Theory of Elasticity	2	3	D	12	12	-					2 written assignments
4C1119 Finite Element Method, project course	2	3	D	8	-	-					Estimated time for project: 30 h
4E1127 Fatigue and Damage Tolerance	4	6	D	48	-	6					Laborationer schemaläggs av institutionen
4F1540 Tribology	4	6	C	18	5	9					
4G1230 Introductory Welding Technology	4	6	C	24	18	12					

4H1202 Mechanical Metallurgy I	6	9	D	18	12	48					
4H1203 Mechanical Metallurgy II	4,5	6,75	C	18	12	24					Home assignments
4H1205 Mechanical Properties of Materials	4	6	C	18	18	-					
4H1505 Properties and Applications of Ceramics	4	6	D	12	12	18					
4L1103 Metal Forming I	6	9	C	27	36	18					3 hemuppgifter
4L1431 Computer Aid in Metal Forming	4	6	D	24	12	10					Projektuppgift. Seminarium.
5A1301 Mathematical Methods in Physics, Course I	4	6	C	-	54	-					
5C1122 Continuum Mechanics	4	6	C	42	-	-					
5C1123 Mathematical Methods of Mechanics, General Course	4	6	D	36	-	-					
5C1125 Mathematical Methods of Mechanics, Intermediate Course	2	3	D	-	-	-					Handledning 18 h
5C1902 Advanced Dynamics of Complex Systems	4	6	D	24	-	-					

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Mechanical Engineering

Industrial Economics and Management M3

Code Name	Credits	Ects Credits	Level	Lec	Less	Lab	Periods				Other
							1	2	3	4	
Compulsory											
4D1030 Industrial Production	4	6	C	40	20	-					Plant visits (10 h)
4D1060 Industrial Development	4	6	C	50	8	-					
4D1075 Work Organization and Leadership Limited attendance, selection will be made	4	6	C	24	24	-					
4K1101 Control Systems	4	6	C	18	28	12					

Industrial Economics and Management M4

Code Name	Credits	Ects Credits	Level	Lec	Less	Lab	Periods				Other
							1	2	3	4	
Compulsory											

4D1035 Advanced Industrial Economics and Management	12	18	D	-	100	44					Buisness Game 16 h, Study Tour and Project Work.
4D1065 Industrial Marketing	4	6	C	24	36	-					
4D1070 Industrial Project Management	4	6	C	30	18	-					
4F1630 Introduction to Machine Design	5	7,5	C	24	36	-					
4K1102 Manufacturing Automation, I	4	6	C	20	24	12					
Elective											
4K1103 Manufacturing Automation, II	6	9	C	28	32	17					



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Industrial Engineering M3

Code Name	Credits	Ects Credits	Level	Lec	Less	Lab	Periods				Other
							1	2	3	4	
Compulsory											
4D1030 Industrial Production	4	6	C	40	20	-					Plant visits (10 h)
Elective											
3C1340 Environmental Technology, advanced course	4	6	C	36	9	-					Studiebesök 2x4 h Övningsuppgifter
4D1087 Industrial Change Management	4	6	D	18	8	8					
4G1332 Materials processing I	4	6	C	23	30	13					Hemuppgifter/Home Assignments 26 h
4G1335 Materials Processing I, Laboratory Course	5	7,5	D	23	30	37					34 h
4G1632 Materials Processing II	4	6	C	29	30	13					Hemuppgifter/Home work 25h
4G1635 Materials Processing II, Laboratory Course	5	7,5	D	29	30	37					33 h

Industrial Engineering M4

Code Name	Credits	Ects Credits	Level	Lec	Less	Lab	Periods				Other
							1	2	3	4	
Compulsory											
4G1145 Advanced Industrial Engineering	10	15	D	67	-	-					Seminar 22 h, Project 120 h
4G1147 Quality	6	9	C	48	24	-					
Elective											
3C1360 Environmental Consequences, Advanced Course	4	6	C	18	9	16					
4D1065 Industrial Marketing	4	6	C	24	36	-					
4D1088 Technical Work Psychology	4	6	C	24	8	16					
4G1148 Advanced Production Engineering, Module 1	4	6	D	40	10	8					
4G1149 Advanced Production Engineering, Module 2	4	6	D	32	4	4					
4G1150 Advanced Production Engineering, Module 3	4	6	D	30	-	32					Seminar 10 h
4G1243 Advanced Welding Technology, Module 1	4	6	D	20	20	20					
4G1244 Advanced Welding Technology, Module 2	4	6	D	20	20	20					
4G1245 Advanced Welding Technology, Module 3	4	6	D	20	20	20					
4G1246 Enlarged Welding Technology for EWE	4	6	D	25	25	10					
Course is given upon agreement											
4G1343 Materials Processing, Design Project	4	6	D	-	24	-					

4G1540 Laser Metrology Methods and Non Destructive Testing	4	6	C	28	22	4					
4G1641 Metal Workshop Processes	4	6	D	36	-	15					
4K1102 Manufacturing Automation, I	4	6	C	20	24	12					

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Mechanical Engineering

Integrated Product Development M3

Code Name	Credits	Ects Credits	Level	Lec	Less	Lab	Periods				Other
							1	2	3	4	
Compulsory											
4D1075 Work Organization and Leadership Limited attendance, selection will be made	4	6	C	24	24	-					

Integrated Product Development M4

Code Name	Credits	Ects Credits	Level	Lec	Less	Lab	Periods				Other
							1	2	3	4	
Compulsory											
4F1541 CAD 3D-modeling and Visualization for Personal Computers	4	6	C	12	36	-					
4F1760 Integrated Product Development	20	30	D	-	180	-					

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Mechanical Engineering

Sound and Vibrations M3

Code Name	Credits	Ects Credits	Level	Lec	Less	Lab	Periods				Other
							1	2	3	4	
Compulsory											
4B1120 Signal analysis with applications	5	7,5	D	-	28	28					
5B1304 Mathematics, Extended Course	5	7,5	D	-	-	-					
5C1921 Fluid Mechanics for Engineers	4,5	7	C	-	66	6					2 st laborationer à 3 h

Sound and Vibrations M4

Code Name	Credits	Ects Credits	Level	Lec	Less	Lab	Periods				Other
							1	2	3	4	
Compulsory											
4B1126 Dynamics of Structures	5	7,5	D	-	56	8					
4B1131 Experimental Structure Dynamics	5	7,5	D	-	58	12					Datorövn. 20h i period 2 (inräknade i "Övningar")

4B1136 Flow Acoustics	4	6	D	-	42	8				
4B1141 Sound and Vibration, Projekt Course	5	7,5	D	-	22	38				Sem./studieb. 40h



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Mechanical Engineering

Lightweight Structures M3

Code Name	Credits	Ects Credits	Level	Lec	Less	Lab	Periods				Other
							1	2	3	4	
Compulsory											
4E1101 Lightweight Structures, course II	6,5	9,75	C	76	-	12					Laborationer schemaläggs av institutionen
Elective											
4E1201 Elements of Aeronautics	5	7,5	C	72	-	4					

Lightweight Structures M4

Code Name	Credits	Ects Credits	Level	Lec	Less	Lab	Periods				Other
							1	2	3	4	
Compulsory											
4E1122 Manufacturing of Polymer Composites	4	6	D	40	-	5					Laborationer schemaläggs av institutionen

4E1123 Mechanics of Composites and Sandwich Constructions	4	6	D	48	-	6					Laborationer schemaläggs av institutionen
4E1127 Fatigue and Damage Tolerance	4	6	D	48	-	6					Laborationer schemaläggs av institutionen
4E1131 Aircraft and Lightweight Design	6	9	D	8	60	12					Laborationer schemaläggs av institutionen
4E1150 Biomechanics and Neuronics	4	6	D	36	-	6					
Elective											
3C1100 Technical English, intermediate course	4	6	C	-	42	-					
3C1102 Technical English, advanced course	4	6	D	-	56	-					
3C1103 Technical English, Lower Intermediate	4	6	C	-	49	-					
3C1117 Technical German, intermediate course	4	6	C	-	42	-					
3C1118 Technical German, advanced course	4	6	D	-	42	-					
3C1132 Technical French, intermediate course	4	6	C	-	42	-					
3C1133 Technical French, advanced course	4	6	D	-	42	-					
3C1147 Technical Spanish, intermediate course	4	6	C	-	42	-					
4B1304 Railway Systems and Rail Vehicles	6	9	C	49	10	7					
4B1420 Ground Vehicle Engineering, Basic Course	6	9	C	36	36	-					
4B1502 Basic Ship Theory New course, replaces 4B1501.	4	6	C	48	12	-					

4F1630 Introduction to Machine Design	5	7,5	C	24	36	-					
5B1722 Applied Optimization	4	6	C	28	14	9					

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Mechanical Engineering

Machine Elements M3

Code Name	Credits	Ects Credits	Level	Lec	Less	Lab	Periods				Other
							1	2	3	4	
Compulsory											
4C1096 Strength of Materials and Solid Mechanics, advanced course	4	6	C	36	14	4					2 written assignments
4F1530 Functional Analysis and Optimization in Mechanical Engineering	5	7,5	C	-	60	-					Studieresa, en dag

Machine Elements M4

Code Name	Credits	Ects Credits	Level	Lec	Less	Lab	Periods				Other
							1	2	3	4	
Compulsory											
4F1540 Tribology	4	6	C	18	5	9					
4F1560 Advanced Machine Elements	12	18	D	-	120	-					Kursen ges enligt överrenskommelse

4F1630 Introduction to Machine Design	5	7,5	C	24	36	-					
Elective											
4C1114 Finite Element Method	4	6	D	-	49	8					Written assignments


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Mechanical Engineering

Machine Design M3

Code Name	Credits	Ects Credits	Level	Lec	Less	Lab	Periods				Other
							1	2	3	4	
Compulsory											
4C1096 Strength of Materials and Solid Mechanics, advanced course	4	6	C	36	14	4					2 written assignments
4F1530 Functional Analysis and Optimization in Mechanical Engineering	5	7,5	C	-	60	-					Studieresa, en dag
Elective											
4C1112 Theory of Elasticity	4	6	D	26	26	-					2 written assignments
4F1241 Microcomputer, Sensors and Actuators	6	9	C	18	26	29					
4F1242 Introduction to Microcomputer Systems	4	6	C	12	22	14					
4F1343 Fluid Systems and Machines	4	6	C	24	24	12					
4F1642 Modeling and Computer Support in Mechanical Design	4	6	C	24	36	-					

4K1201 Computer Aided Design and Manufacturing, Introductory course	5	7,5	C	48	-	24					Betygsatt inlämningsuppgift/ Graded exercise
5C1121 Analytical Mechanics	4	6	C	48	-	-					
5C1921 Fluid Mechanics for Engineers	4,5	7	C	-	66	6					2 st laborationer à 3 h

Machine Design M4

Code Name	Credits	Ects Credits	Level	Lec	Less	Lab	Periods				Other
							1	2	3	4	
Compulsory											
4F1630 Introduction to Machine Design	5	7,5	C	24	36	-					
4F1660 Advanced Machine Design	12	18	D	4	114	-					Schemaläggs enligt överrenskommelse
Elective											
3E1360 Mechanical Properties of Polymers, Minor Course	4	6	C	24	16	12					
3E1361 Polymer Processing, Minor Course	4	6	C	24	8	18					
3E1366 Polymers in engineering design	4	6	D	18	24	8					
4C1114 Finite Element Method	4	6	D	-	49	8					Written assignments
4E1123 Mechanics of Composites and Sandwich Constructions	4	6	D	48	-	6					Laborationer schemaläggs av institutionen
4F1131 Microcomputers in Embedded Systems	5	7,5	D	-	36	36					Platsbegränsning/Limited attendance: 25
4F1131 Microcomputers in Embedded Systems	5	7,5	D	-	36	36					Platsbegränsning/Limited attendance: 25
4F1141 Project Work in Mechatronics Limited attendance due to limited number of available projects	4	6	C	-	-	-					Kursen schemalägges ej

4F1541 CAD 3D-modeling and Visualization for Personal Computers	4	6	C	12	36	-					
4F1640 Industrial Design Limited number of participants	4	6	C	24	36	-					
4F1641 Environmentally Adapted Product Design	4	6	C	24	20	16					
4K1102 Manufacturing Automation, I	4	6	C	20	24	12					



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Mechanical Engineering

Materials Science M3

Code Name	Credits	Ects Credits	Level	Lec	Less	Lab	Periods				Other
							1	2	3	4	
Compulsory											
4H1059 Engineering Materials, advanced course	6	9	C	10	15	15					
4H1202 Mechanical Metallurgy I	6	9	D	18	12	48					
4H1204 Experimental Techniques in Materials Science	5	7,5	D	10	10	48					
4H1504 Synthesis and Processing of Ceramics	4	6	C	12	-	18					Studiebesök/Study visit 8 h
Elective											
4H1403 Physics and Chemistry of Solid Surfaces	4	6	D	18	8	10					

Materials Science M4

Code Name	Credits	Ects Credits	Level	Lec	Less	Lab	Periods				Other
							1	2	3	4	
Compulsory											
4H1104 Diffusion and Phase Equilibria	6	9	D	18	16	47					Home assignments
4H1113 Powder Metallurgy	4	6	D	18	18	12					
4H1301 Material Design	4	6	D	-	2	10					10 h computer lab
4H1404 Corrosion and Surface Protection, General Course	4	6	C	16	12	12					
Elective											
4H1405 Corrosion and surface protection, advanced course	4	6	D	16	-	-					Seminarier/Seminars 8 h
4H1505 Properties and Applications of Ceramics	4	6	D	12	12	18					
4H1609 Functional Materials	4	6	D	18	18	12					Home assignments 12 h, Study visit 5 h



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Mechanical Engineering

Media Production M3

Code Name	Credits	Ects Credits	Level	Lec	Less	Lab	Periods				Other
							1	2	3	4	
Compulsory											
4K1521 Communication and Information	5	7,5	C	21	24	-					
4K1522 Computer Technology and Communication	4	6	C	30	4	14					
4K1523 Graphic Arts Technology and Media Production, general course	6	9	C	60	-	20					Övrigt 30 h; I kursen ingår en mindre studieresa 3-4 dagar i period 4.
4K1524 Reprographic Methods and Image Processing	6	9	C	72	16	24					

Media Production M4

Code Name	Credits	Ects Credits	Level	Lec	Less	Lab	Periods				Other
							1	2	3	4	
Compulsory											

4D1070 Industrial Project Management	4	6	C	30	18	-					
4K1516 Audio, Video and Multimedia Production	6	9	C	48	12	24					
4K1518 Advanced Media Production	12	18	D	160	-	32					Övrigt 30 h
4K1525 Programming for Interactive Media	4	6	C	48	14	24					
Elective											
2D1323 Computer Graphics and Interaction	4	6	B	42	-	12					
2D1334 Database Technology	4	6	C	24	20	12					



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Mechanical Engineering

Mechanics M3

Code Name	Credits	Ects Credits	Level	Lec	Less	Lab	Periods				Other
							1	2	3	4	
Compulsory											
5B1304 Mathematics, Extended Course	5	7,5	D	-	-	-					
5C1121 Analytical Mechanics	4	6	C	48	-	-					
5C1921 Fluid Mechanics for Engineers	4,5	7	C	-	66	6					2 st laborationer à 3 h
Elective											
5C1203 Fluid Mechanics, General Course	4	6	C	24	24	3					

Mechanics M4

Code Name	Credits	Ects Credits	Level	Lec	Less	Lab	Periods				Other
							1	2	3	4	
Elective											
5C1122 Continuum Mechanics	4	6	C	42	-	-					

5C1123 Mathematical Methods of Mechanics, General Course	4	6	D	36	-	-					
5C1125 Mathematical Methods of Mechanics, Intermediate Course	2	3	D	-	-	-					Handledning 18 h
5C1205 Compressible Flow, General Course	4	6	D	-	-	6					
5C1207 Boundary Layer Theory and Thermal Convection	5	7,5	D	-	-	9					
5C1208 Fluid mechanics, continuation course	2	3	D	-	-	-					
5C1209 Compressible flow, continuation course	2	3	D	-	-	6					
5C1210 Experimental Methods in Fluid Mechanics	4	6	D	-	-	9					
5C1902 Advanced Dynamics of Complex Systems	4	6	D	24	-	-					
5C1904 Advanced Modern Mechanics	4	6	D	24	-	-					
5C1940 Computational Fluid Mechanics	4	6	D	-	-	6					3 st laborationer à 2 h
5C1992 Turbulence	4,5	7	D	36	-	3					



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Mechanical Engineering

Mechatronics M3

Code Name	Credits	Ects Credits	Level	Lec	Less	Lab	Periods				Other
							1	2	3	4	
Compulsory											
2D1320 Applied Computer Science The course is given twice during Spring 2000: the first time in period 3 and a second time in period 4.	4	6	B	32	16	20					
2D1320 Applied Computer Science The course is given twice during Spring 2000: the first time in period 3 and a second time in period 4.	4	6	B	32	16	20					
2E1200 Automatic Control, General Course	4	6	C	24	26	12					
4F1530 Functional Analysis and Optimization in Mechanical Engineering	5	7,5	C	-	60	-					Studieresa, en dag
Elective											
4F1241 Microcomputer, Sensors and Actuators	6	9	C	18	26	29					

[4F1242 Introduction to Microcomputer Systems](#)

4

6

C

12

22

14



Mechatronics M4

Code Name	Credits	Ects Credits	Level	Lec	Less	Lab	Periods				Other
							1	2	3	4	
Compulsory											
4F1131 Microcomputers in Embedded Systems	5	7,5	D	-	36	36					Endast MTK
4F1140 Design of Software for Embedded Real-time Control Systems	4	6	D	-	36	30					
4F1162 Advanced Microcomputer Systems Design	15	22,5	D	-	116	80					Schemaläggs efter överenskommelse



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Mechanical Engineering

Environmental Management M3

Code Name	Credits	Ects Credits	Level	Lec	Less	Lab	Periods				Other
							1	2	3	4	
Compulsory											
3C1340 Environmental Technology, advanced course	4	6	C	36	9	-					Studiebesök 2x4 h Övningsuppgifter
4D1060 Industrial Development	4	6	C	50	8	-					
4D1087 Industrial Change Management	4	6	D	18	8	8					

Environmental Management M4

Code Name	Credits	Ects Credits	Level	Lec	Less	Lab	Periods				Other
							1	2	3	4	
Compulsory											
3C1360 Environmental Consequences, Advanced Course	4	6	C	18	9	16					

3C1370 Applied Environmental Legislation	3	4,5	C	28	6	-					
3C1390 Environmental Management, Larger Course	8	12	D	36	6	24					Projektarbete, fältövningar enl överrenskommelse
Elective											
3C1350 Waste Management, Advanced Course Project work and study visit	4	6	D	21	-	6					22 h projektarbete
3C1365 Environmental Consequences, Advanced Course II	4	6	D	10	10	40					Fältövningar enl överrenskommelse



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Mechanical Engineering

Paper Technology M3

Code Name	Credits	Ects Credits	Level	Lec	Less	Lab	Periods				Other
							1	2	3	4	
Compulsory											
3D1107 Paper Technology	6	9	D	42	-	56					
4A1311 Thermal Engineering, General Course	4	6	C	30	36	20					Studiebesök 4h, projekt 10h
5C1921 Fluid Mechanics for Engineers	4,5	7	C	-	66	6					2 st laborationer à 3 h

Paper Technology M4

Code Name	Credits	Ects Credits	Level	Lec	Less	Lab	Periods				Other
							1	2	3	4	
Compulsory											
3D1103 Advanced Paper Technology	12	18	D	30	-	-					
3D1159 Pulp Mechanical Technology	6	9	D	30	-	52					Seminarier 4 h

4K1520 Graphic Arts Technology, Minor Course	4	6	C	30	8	16				
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Naval Architecture M3

Code Name	Credits	Ects Credits	Level	Lec	Less	Lab	Periods				Other
							1	2	3	4	
Compulsory											
4B1502 Basic Ship Theory New course, replaces 4B1501.	4	6	C	48	12	-					
4C1096 Strength of Materials and Solid Mechanics, advanced course	4	6	C	36	14	4					2 written assignments
5B1304 Mathematics, Extended Course	5	7,5	D	-	-	-					
5C1921 Fluid Mechanics for Engineers	4,5	7	C	-	66	6					2 st laborationer à 3 h
Elective											
4B1120 Signal analysis with applications	5	7,5	D	-	28	28					
4E1100 Lightweight Structures I	5	7,5	C	64	-	12					Laborationer schemaläggs av institutionen
5C1203 Fluid Mechanics, General Course	4	6	C	24	24	3					

Naval Architecture M4

Code Name	Credits	Ects Credits	Level	Lec	Less	Lab	Periods				Other
							1	2	3	4	
Compulsory											
4B1505 Ship Structural Design	6	9	D	60	40	-					2-3 days Study tour
4B1510 Ship Hydrodynamics	6	9	D	80	8	12					2-3 days Study tour
4B1511 Ship Hydrodynamics New course from autumn 2000, replaces 4B1510.	5	7,5	D	48	12	12					
4B1516 Ship Design	5	7,5	D	16	60	-					
Elective											
4B1126 Dynamics of Structures	5	7,5	D	-	56	8					
4C1111 Fracture Mechanics and Fatigue	4	6	D	48	-	4					2 written assignments
4C1112 Theory of Elasticity	4	6	D	26	26	-					2 written assignments
4C1114 Finite Element Method	4	6	D	-	49	8					Written assignments
4C1116 Dynamic problems in solid mechanics	4	6	D	42	-	8					Written assignments, computational assignments
4C1117 Design Applications of Solid Mechanics	4	6	D	16	6	-					Estimated time for project: 90 h
4E1127 Fatigue and Damage Tolerance	4	6	D	48	-	6					Laborationer schemaläggs av institutionen
4F1430 Combustion Engines, general course	4	6	C	48	-	12					
4G1230 Introductory Welding Technology	4	6	C	24	18	12					
5A1301 Mathematical Methods in Physics, Course I	4	6	C	-	54	-					
5B1832 Systems Engineering	8	12	D	56	28	12					
5C1121 Analytical Mechanics	4	6	C	48	-	-					

5C1208 Fluid mechanics, continuation course	2	3	D	-	-	-					
5C1940 Computational Fluid Mechanics	4	6	D	-	-	6					3 st laborationer à 2 h



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Mechanical Engineering

Rail Vehicles and Railway Systems M3

Code Name	Credits	Ects Credits	Level	Lec	Less	Lab	Periods				Other
							1	2	3	4	
Compulsory											
2E1200 Automatic Control, General Course	4	6	C	24	26	12					
4C1096 Strength of Materials and Solid Mechanics, advanced course	4	6	C	36	14	4					2 written assignments
4F1244 Sensors and Actuators for Motion Control	4	6	D	30	-	12					
Elective											
4B1120 Signal analysis with applications	5	7,5	D	-	28	28					
4E1100 Lightweight Structures I	5	7,5	C	64	-	12					Laborationer schemaläggs av institutionen
4F1242 Introduction to Microcomputer Systems	4	6	C	12	22	14					

Rail Vehicles and Railway Systems M4

Code Name	Credits	Ects Credits	Level	Lec	Less	Lab	Periods				Other
							1	2	3	4	
Compulsory											
4B1304 Railway Systems and Rail Vehicles	6	9	C	49	10	7					
4B1313 Rail Vehicle Dynamics	5	7,5	D	30	12	24					
Elective											
1C1206 Railway Track Engineering	5	7,5	D	33	-	-					Workshops 44h
1H1206 Planning of Railroad Traffic	5	7,5	C	-	77	-					
2C1149 Electric Traction	4	6	C	36	-	-					
2E1200 Automatic Control, General Course	4	6	C	24	26	12					
4B1126 Dynamics of Structures	5	7,5	D	-	56	8					
4C1116 Dynamic problems in solid mechanics	4	6	D	42	-	8					Written assignments, computational assignments
4F1540 Tribology	4	6	C	18	5	9					
4F1630 Introduction to Machine Design	5	7,5	C	24	36	-					
5B1722 Applied Optimization	4	6	C	28	14	9					



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Mechanical Engineering

Systems Engineering M3

Code Name	Credits	Ects Credits	Level	Lec	Less	Lab	Periods				Other
							1	2	3	4	
Compulsory											
2D1320 Applied Computer Science The course is given twice during Spring 2000: the first time in period 3 and a second time in period 4.	4	6	B	32	16	20					
2D1320 Applied Computer Science The course is given twice during Spring 2000: the first time in period 3 and a second time in period 4.	4	6	B	32	16	20					
5B1538 Reliability Theory	6	9	D	-	-	-					
5B1722 Applied Optimization	4	6	C	28	14	9					
Elective											
2D1220 Applied Numerical Methods I	4	6	C	42	-	18					
2D1250 Applied Numerical Methods II	6	9	C	60	-	24					

Systems Engineering M4

Code Name	Credits	Ects Credits	Level	Lec	Less	Lab	Periods				Other
							1	2	3	4	
Compulsory											
2E1200 Automatic Control, General Course	4	6	C	24	26	12					
5B1832 Systems Engineering	8	12	D	56	28	12					
Elective											
1H1204 Logistics	5	7,5	C	12	-	-					Projektkurs, seminarium 7h
1H1212 Logistics, Advanced Course	5	7,5	D	3	8	-					Projektkurs
1H1401 Optimisation Models in Transport and Location Analysis The course will be given for the first time 1999/2000.	5	7,5	D	30	12	6					Seminarium 6h



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Mechanical Engineering

Materials Processing M3

Code Name	Credits	Ects Credits	Level	Lec	Less	Lab	Periods				Other
							1	2	3	4	
Compulsory											
4G1134 Effective Production	6	9	D	25	35	-					
Elective											
4G1332 Materials processing I	4	6	C	23	30	13					Hemuppgifter/Home Assignments 26 h
4G1335 Materials Processing I, Laboratory Course	5	7,5	D	23	30	37					34 h
4G1632 Materials Processing II	4	6	C	29	30	13					Hemuppgifter/Home work 25h
4G1635 Materials Processing II, Laboratory Course	5	7,5	D	29	30	37					33 h

Materials Processing M4

Code Name	Credits	Ects Credits	Level	Lec	Less	Lab	Periods				Other

							1	2	3	4	
Elective											
4C1110 Material Mechanics	4	6	D	52	-	2					2 written assignments
4C1114 Finite Element Method	4	6	D	-	49	8					Written assignments
4F1630 Introduction to Machine Design	5	7,5	C	24	36	-					
4G1148 Advanced Production Engineering, Module 1	4	6	D	40	10	8					
4G1149 Advanced Production Engineering, Module 2	4	6	D	32	4	4					
4G1150 Advanced Production Engineering, Module 3	4	6	D	30	-	32					Seminar 10 h
4G1243 Advanced Welding Technology, Module 1	4	6	D	20	20	20					
4G1244 Advanced Welding Technology, Module 2	4	6	D	20	20	20					
4G1245 Advanced Welding Technology, Module 3	4	6	D	20	20	20					
4G1246 Enlarged Welding Technology for EWE Course is given upon agreement	4	6	D	25	25	10					
4G1340 Crystallisation Processing	4	6	D	12	24	18					
4G1341 Foundry Processing	4	6	D	12	24	-					Övrigt/Other 28 h
4G1343 Materials Processing, Design Project	4	6	D	-	24	-					
4G1541 Measurement Technology and Statistics for Manufacturing Processes	4	6	D	30	-	8					Projektuppgift
4G1641 Metal Workshop Processes	4	6	D	36	-	15					

4G1643 Powder Metallurgy and Plastic Forming	4	6	C	18	18	12					
4G1644 Engineering Plasticity	6	9	D	26	26	12					6 h
4G1645 Metal Forming, Fundamentals and Applications	4	6	D	18	12	18					
4L1103 Metal Forming I	6	9	C	27	36	18					3 hemuppgifter
4L1411 Workability of Metals	4	6	D	24	30	18					
4L1431 Computer Aid in Metal Forming	4	6	D	24	12	10					Projektuppgift. Seminarium.



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Mechanical Engineering

Assembly Systems M3

Code Name	Credits	Ects Credits	Level	Lec	Less	Lab	Periods				Other
							1	2	3	4	
Compulsory											
4D1030 Industrial Production	4	6	C	40	20	-					Plant visits (10 h)
4K1101 Control Systems	4	6	C	18	28	12					
4K1201 Computer Aided Design and Manufacturing, Introductory course	5	7,5	C	48	-	24					Betygsatt inlämningsuppgift/ Graded exercise

Assembly Systems M4

Code Name	Credits	Ects Credits	Level	Lec	Less	Lab	Periods				Other
							1	2	3	4	
Compulsory											
4G1148 Advanced Production Engineering, Module 1	4	6	D	40	10	8					

4K1102 Manufacturing Automation, I	4	6	C	20	24	12				
4K1104 Manufacturing Systems, advanced course	12	18	D	50	48	28				Project etc



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Mechanical Engineering

Wood Technology M3

Code Name	Credits	Ects Credits	Level	Lec	Less	Lab	Periods				Other
							1	2	3	4	
Compulsory											
4K1601 Wood Material Science	5	7,5	C	36	24	32					
Elective											
4D1030 Industrial Production	4	6	C	40	20	-					Plant visits (10 h)
4K1101 Control Systems	4	6	C	18	28	12					

Wood Technology M4

Code Name	Credits	Ects Credits	Level	Lec	Less	Lab	Periods				Other
							1	2	3	4	
Compulsory											
4D1070 Industrial Project Management	4	6	C	30	18	-					
4K1602 Industrial Wood Processing	4	6	C	26	16	16					

4K1603 Wood Technology, Advanced Course	10	15	D	48	24	36					
Elective											
4D1065 Industrial Marketing	4	6	C	24	36	-					
4K1102 Manufacturing Automation, I	4	6	C	20	24	12					


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Materials Technology

Materials Technology B1

Code Name	Credits	Ects Credits	Level	Lec	Less	Lab	Periods				Other
							1	2	3	4	
Compulsory											
4D1027 Industrial Economics and Management, Basic Course	4	6	B	30	24	-					Seminarier 6h
4H1701 General Chemistry for Materials Students	5	7,5	B	28	24	25					
4I1113 Materials Thermodynamics	6	9	B	48	48	-					
5B1102 Calculus I	10	15	B	60	-	-					Gruppstudier 24 h/period
5B1108 Linear Algebra I	4	6	B	24	24	-					Gruppstudier 18h
5B1200 Differential Equations and Transforms I	4	6	C	-	54	-					
5C1103 Mechanics, Basic Course	6	9	B	48	27	-					Räknestugor 12 h/period

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Materials Technology

Materials Technology B2

Code Name	Credits	Ects Credits	Level	Lec	Less	Lab	Periods				Other
							1	2	3	4	
Compulsory											
2D1210 Numerical Methods, Basic Course I	4	6	B	24	24	18					
2D1310 Programming Technique	4	6	B	26	16	26					
3C1305 Ecology and Environmental Technology	4	6	C	27	3	8					
4C1035 Strength of Materials and Solid Mechanics, basic course	6	9	B	42	42	2					
4H1058 Foundations of Materials Science	5	7,5	B	32	-	27					
4I1211 Fundamentals of Process Metallurgy	4	6	C	24	24	-					Trip to plant 20h
5A1225 Electromagnetism and Waves	5	7,5	B	38	18	20					
5A1250 Material Physics	5	7,5	C	50	28	25					
Elective											

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Materials Technology

Materials Technology B3

Code Name	Credits	Ects Credits	Level	Lec	Less	Lab	Periods				Other
							1	2	3	4	
Compulsory											
3E1305 Polymer Materials, General Course	4	6	C	42	12	12					
4F1221 Electrical Engineering, Basic Course	4	6	B	12	18	14					
4G1320 Manufacturing Technology	4	6	C	22	20	20					Propedeutisk kurs 20 h, datoruppgift 20 h, hemuppgift 20 h.
4H1105 Phase Transformations in Materials	4	6	C	12	12	15					Home assignments.
4H1205 Mechanical Properties of Materials	4	6	C	18	18	-					
4I1118 Transport Phenomena	4	6	C	24	36	-					
5B1503 Statistics and Design of Experiments	4	6	C	24	36	-					
Elective											

2D1320 Applied Computer Science The course is given twice during Spring 2000: the first time in period 3 and a second time in period 4.	4	6	B	32	16	20					
2D1320 Applied Computer Science The course is given twice during Spring 2000: the first time in period 3 and a second time in period 4.	4	6	B	32	16	20					
2D1432 Artificial neural networks and other learning systems	4	6	D	26	-	20					
3C1100 Technical English, intermediate course	4	6	C	-	42	-					
3C1103 Technical English, Lower Intermediate	4	6	C	-	49	-					
3C1115 German, elementary course	4	6	B	-	49	-					
3C1116 German, advanced beginners	4	6	B	-	49	-					
3C1117 Technical German, intermediate course	4	6	C	-	42	-					
3C1130 French, elementary course	4	6	B	-	49	-					
3C1131 French, advanced beginners	4	6	B	-	49	-					
3C1132 Technical French, intermediate course	4	6	C	-	42	-					
3C1134 Français de technologie et des affaires, intermediate course The course is not given during 1999/2000	4	6	C	-	56	-					
3C1145 Spanish, elementary course	4	6	B	-	49	-					
3C1146 Spanish, advanced beginners	4	6	B	-	49	-					
3C1147 Technical Spanish, intermediate course	4	6	C	-	42	-					
3C1150 Italian, elementary course	4	6	B	-	49	-					

3C1155 Russian, elementary course The course is not given during 1999/2000	4	6	B	-	56	-						
3C1160 Swedish in Communication	4	6	C	-	42	-						
3C1169 Technical Swedish	4	6	C	-	42	-						
3C1340 Environmental Technology, advanced course	4	6	C	36	9	-						Studiebesök 2x4 h Övningsuppgifter
3C1395 Sustainable Development	4	6	C	18	9	-						
3E1324 Polymer Materials - Properties and Applications	4	6	C	30	12	10						
4B1120 Signal analysis with applications	5	7,5	D	-	28	28						
4E1101 Lightweight Structures, course II	6,5	9,75	C	76	-	12						Laborationer schemaläggs av institutionen
4F1244 Sensors and Actuators for Motion Control	4	6	D	30	-	12						
4F1531 Machine Elements, basic course for I and T	4	6	B	24	40	-						
4F1642 Modeling and Computer Support in Mechanical Design	4	6	C	24	36	-						
4H1202 Mechanical Metallurgy I	6	9	D	18	12	48						
4H1204 Experimental Techniques in Materials Science	5	7,5	D	10	10	48						
4H1403 Physics and Chemistry of Solid Surfaces	4	6	D	18	8	10						
4H1504 Synthesis and Processing of Ceramics	4	6	C	12	-	18						Studiebesök/Study visit 8 h
4H1610 Advanced Materials	4	6	C	18	30	6						
4H1611 Materials Optimisation and Design	5	7,5	C	18	18	9						

4I1116 Chemical Equilibria in Metallurgical Processes	10	15	C	36	36	28					Projektoppgift 120 h
4I1117 Advanced Transport Phenomena	6	9	C	16	24	16					Projektoppgift 136 h
4K1107 Production of Electronics I	4	6	C	36	-	8					Studiebesök /Study visit 4 h
4K1109 Principles for Product Integrated Manufacturing Systems Design	4	6	C	12	12	4					Projektarbete 20 h
4K1201 Computer Aided Design and Manufacturing, Introductory course	5	7,5	C	48	-	24					Betygsatt inlämningsuppgift/ Graded exercise
4K1401 History of Technology, a General Survey	4	6	B	12	12	-					
4K1521 Communication and Information	5	7,5	C	21	24	-					
4L1102 Metal Forming - Fundamentals	4	6	C	18	18	18					3 hemuppgifter
5A1304 Mathematical Methods in Physics	6	9	C	-	78	-					(Lektioner)
5A1324 Quantum Physics	8	12	C	60	48	-					
5B1304 Mathematics, Extended Course	5	7,5	D	-	-	-					



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Materials Technology

Materials Technology B4

Code Name	Credits	Ects Credits	Level	Lec	Less	Lab	Periods				Other
							1	2	3	4	
Elective											
1E1810 Technical Photography	5	7,5	C	26	-	33					
2A1136 Technical Plasma Physics	4	6	D	24	-	4					
2A1140 Accelerator and Radiation Technology	4	6	D	36	-	4					Studiebesök/ Studyvisits 10 h
2A1160 Space Physics	3	4,5	D	12	-	-					
2B1507 Semiconductor Electronics	6	9	C	36	22	8					
2B1700 Advanced Semiconductor Materials	5	7,5		34	-	16					
2C1110 Energy and Environment	4	6	C	52	10	4					
2C1111 System Planning	4	6	D	60	-	-					
2D1225 Numerical Solutions of Differential Equations	4	6	C	26	18	8					

2D1320 Applied Computer Science The course is given twice during Spring 2000: the first time in period 3 and a second time in period 4.	4	6	B	32	16	20					
2D1323 Computer Graphics and Interaction	4	6	B	42	-	12					
2D1334 Database Technology	4	6	C	24	20	12					
2D1354 Algorithms and Complexity	4	6	C	30	18	-					
2D1358 Object Oriented Program Construction using C++	4	6	C	28	16	22					
2D1434 Mathematical modelling of biological systems	4	6	D	26	-	20					
2E1200 Automatic Control, General Course	4	6	C	24	26	12					
2E1200 Automatic Control, General Course	4	6	C	24	26	12					
2F1400 Electroacoustics	4	6	D	34	12	8					
2G1315 Global Project Coordination in Industrial Transformation	8	12	D	12	-	-					Projektarbete 300 h
3C1100 Technical English, intermediate course	4	6	C	-	42	-					
3C1102 Technical English, advanced course	4	6	D	-	56	-					
3C1102 Technical English, advanced course	4	6	D	-	56	-					
3C1103 Technical English, Lover Intermediate	4	6	C	-	49	-					
3C1115 German, elementary course	4	6	B	-	49	-					
3C1116 German, advanced beginners	4	6	B	-	49	-					

3C1117 Technical German, intermediate course	4	6	C	-	42	-					
3C1118 Technical German, advanced course	4	6	D	-	42	-					
3C1118 Technical German, advanced course	4	6	D	-	42	-					
3C1130 French, elementary course	4	6	B	-	49	-					
3C1131 French, advanced beginners	4	6	B	-	49	-					
3C1132 Technical French, intermediate course	4	6	C	-	42	-					
3C1133 Technical French, advanced course	4	6	D	-	42	-					
3C1133 Technical French, advanced course	4	6	D	-	42	-					
3C1145 Spanish, elementary course	4	6	B	-	49	-					
3C1146 Spanish, advanced beginners	4	6	B	-	56	-					
3C1150 Italian, elementary course	4	6	B	-	49	-					
3C1151 Italian, advanced beginners	4	6	B	-	56	-					
3C1155 Russian, elementary course The course is not given during 1999/2000	4	6	B	-	56	-					
3C1156 Russian, advanced beginners The course is not given during 1999/2000	4	6	B	-	56	-					
3C1160 Swedish in Communication	4	6	C	-	42	-					
3C1180 Japanese studies and elementary Japanese, elementary course	4	6	B	-	49	-					
3C1185 Chinese studies and elementary Chinese, elementary course The course is not given during 1999/2000	4	6	B	-	56	-					
3C1190 International engineering	4	6	D	49	-	-					3

3C1350 Waste Management, Advanced Course Project work and study visit	4	6	D	21	-	6					22 h projektarbete
3C1355 Ecology, Advanced Course	4	6	C	21	4	40					
3C1360 Environmental Consequences, Advanced Course	4	6	C	18	9	16					
3C1365 Environmental Consequences, Advanced Course II	4	6	D	10	10	40					Fältövningar enl överrensommelse
3C1370 Applied Environmental Legislation	3	4,5	C	28	6	-					
3C1380 Environmental Management	4	6	D	18	3	-					Projektarbete 8 h
3C1385 Biology	4	6	C	30	6	8					Literature assignment, Fältövning 8 h
3C1395 Sustainable Development	4	6	C	18	9	-					
3D1160 Pulp Mechanical Technology, Minor Course	4	6	D	30	-	-					4 h seminarier
3E1354 Biopolymers	5	7,5	D	24	16	-					
3E1360 Mechanical Properties of Polymers, Minor Course	4	6	C	24	16	12					
3E1361 Polymer Processing, Minor Course	4	6	C	24	8	18					
3E1366 Polymers in engineering design	4	6	D	18	24	8					
4A1128 Applied Thermodynamics and Refrigerating Engineering, Intermediate course	6	9	D	24	60	18					
4A1216 Heating and Ventilation Technology, Intermediate course	4	6	D	48	40	-					
4A1322 Thermal Turbomachinery	4	6	D	-	30	12					Studiebesök 8h, projektuppgift 12h
4A1323 Alternative Energy Sources	4	6	B	12	36	-					

4A1332 Thermal Engineering, Intermediate Course	4	6	C	24	-	12					
4A1406 Nuclear Reactor Engineering and Nuclear Power Safety, Intermediate course	4	6	C	44	8	8					
4A1500 Nuclear Power Safety	4	6	D	36	28	-					Projektuppgift 28h
4B1304 Railway Systems and Rail Vehicles	6	9	C	49	10	7					
4C1110 Material Mechanics	4	6	D	52	-	2					2 written assignments
4C1114 Finite Element Method	4	6	D	-	49	8					Written assignments
4C1118 Non-linear Theory of Elasticity	2	3	D	12	12	-					2 written assignments
4D1030 Industrial Production	4	6	C	40	20	-					Plant visits (10 h)
4D1060 Industrial Development	4	6	C	50	8	-					
4D1065 Industrial Marketing	4	6	C	24	36	-					
4D1070 Industrial Project Management	4	6	C	30	18	-					
4D1075 Work Organization and Leadership Limited attendance, selection will be made	4	6	C	24	24	-					
4D1080 Multinational Enterprising	4	6	C	36	24	-					
4D1087 Industrial Change Management	4	6	D	18	8	8					
4D1088 Technical Work Psychology	4	6	C	24	8	16					
4D1089 Work Science, Advanced Course	4	6	C	24	12	-					Project work
4D1090 Work Science	4	6	B	-	-	-					Literature course
4D1092 Man - Machine System	4	6	C	24	24	12					
4D1095 Industrial Innovations and Entrepreneurship	4	6	C	24	-	4					8 h seminarier

4E1122 Manufacturing of Polymer Composites	4	6	D	40	-	5					Laborationer schemaläggs av institutionen
4E1127 Fatigue and Damage Tolerance	4	6	D	48	-	6					Laborationer schemaläggs av institutionen
4E1150 Biomechanics and Neuronics	4	6	D	36	-	6					
4E1251 Current Topics in Aeronautics	4	6	B	24	12	-					Studiebesök 12 h
4F1131 Microcomputers in Embedded Systems	5	7,5	D	-	36	36					Platsbegränsning/Limited attendance: 25
4F1131 Microcomputers in Embedded Systems	5	7,5	D	-	36	36					Platsbegränsning/Limited attendance: 25
4F1140 Design of Software for Embedded Real-time Control Systems	4	6	D	-	36	30					
4F1141 Project Work in Mechatronics Limited attendance due to limited number of available projects	4	6	C	-	-	-					Kursen schemalägges ej
4F1244 Sensors and Actuators for Motion Control	4	6	D	30	-	12					
4F1540 Tribology	4	6	C	18	5	9					
4F1541 CAD 3D-modeling and Visualization for Personal Computers	4	6	C	12	36	-					
4F1630 Introduction to Machine Design	5	7,5	C	24	36	-					
4F1631 Machine Design, intermediate course	7	10,5	D	4	84	-					Schemaläggs enligt överrenskommelse
4F1640 Industrial Design Limited number of participants	4	6	C	24	36	-					
4F1641 Environmentally Adapted Product Design	4	6	C	24	20	16					
4G1147 Quality	6	9	C	48	24	-					
4G1230 Introductory Welding Technology	4	6	C	24	18	12					

4G1231 Intermediate Welding Technology	4	6	D	24	24	12					
4G1246 Enlarged Welding Technology for EWE Course is given upon agreement	4	6	D	25	25	10					
4G1342 Space Systems and Technology	4	6	D	30	-	-					Övrigt/Other 10 h
4G1540 Laser Metrology Methods and Non Destructive Testing	4	6	C	28	22	4					
4G1541 Measurement Technology and Statistics for Manufacturing Processes	4	6	D	30	-	8					Projektuppgift
4G1634 Manufacturing Engineering	6	9	C	36	28	12					40 h
4G1646 Simulation and Modelling	4	6	D	10	80	-					Projektuppgift 70h
4H1104 Diffusion and Phase Equilibria	6	9	D	18	16	47					Home assignments
4H1113 Powder Metallurgy	4	6	D	18	18	12					
4H1203 Mechanical Metallurgy II	4,5	6,75	C	18	12	24					Home assignments
4H1301 Material Design	4	6	D	-	2	10					10 h computer lab
4H1404 Corrosion and Surface Protection, General Course	4	6	C	16	12	12					
4H1405 Corrosion and surface protection, advanced course	4	6	D	16	-	-					Seminarier/Seminars 8 h
4H1505 Properties and Applications of Ceramics	4	6	D	12	12	18					
4H1609 Functional Materials	4	6	D	18	18	12					Home assignments 12 h, Study visit 5 h
4H1612 High Temperature Materials	7	10,5	D	24	45	6					Presentation of project 6 h, study visit 16 h, project assignment 100 h
4I1109 Electrochemical Material and Energy Processes	4	6	D	18	18	12					

4I1110 Experimental Methods in Metallurgical Engineering	4	6	D	18	18	12					
4I1208 Energy and Environmental Issues within the Process Industry	4	6	C	24	24	-					
4I1209 Economical Process Analysis and Strategy	4	6	C	12	12	-					Litteraturuppgift 60 h
4K1107 Production of Electronics I	4	6	C	36	-	8					Studiebesök /Study visit 4 h
4K1109 Principles for Product Integrated Manufacturing Systems Design	4	6	C	12	12	4					Projektarbete 20 h
4K1202 Modelling and Interaction in CAD/CAM Maximum of 20 participants. Students of "Computer Systems for Design and Manufacturing" will have priority.	5	7,5	D	-	36	24					3 Programming tasks, period 1, 2
4K1404 History of Technology, suppl. course: Large Techn. Systems	4	6	C	12	12	-					
4K1405 Environmental History	4	6	B	12	12	-					
4K1406 History of Technology, Gender Perspectives	4	6	B	-	24	-					
4K1407 Processes of Innovation: Studies of Technological Projects	4	6	C	-	-	-					Seminarier 28 h
4K1408 History of Science	4	6	B	24	-	-					
4K1409 History of Industry	4	6	B	20	8	-					Studiebesök 8 h
4K1520 Graphic Arts Technology, Minor Course	4	6	C	30	8	16					
4K1601 Wood Material Science	5	7,5	C	36	24	32					
4K1602 Industrial Wood Processing	4	6	C	26	16	16					
4L1103 Metal Forming I	6	9	C	27	36	18					3 hemuppgifter
4L1401 Metal Forming Processes	4	6	C	24	12	10					

4L1411 Workability of Metals	4	6	D	24	30	18					
4L1431 Computer Aid in Metal Forming	4	6	D	24	12	10					Projektuppgift. Seminarium.
5A1362 Environmental Physics for F	4	6	B	40	-	20					Projektuppgifter, studiebesök
5A1415 Environmental and Medical Physics	4	6	D	18	10	28					Seminarier och studiebesök
5A1416 Radiation Sources for Therapy	2	3	D	8	-	-					2 obligatoriska studiebesök
5A1610 Functional Properties of Materials	4	6	D	32	-	-					Industrisem. och litt.uppg.
5A1650 Smart Electronic Materials	4	6	C	18	10	8					Seminarier 4 h. Workshop 3 h.
5A1651 Physics of Electronic Devices	4	6	D	12	6	-					Seminarie 2 h. Workshop 3 h.
5B1555 Computer Intensive Methods in Mathematical Statistics	5	7,5	D	-	-	-					Datoruppgifter
5C1122 Continuum Mechanics	4	6	C	42	-	-					
5C1980 Applied Mechanics, for (T) The course may not be given 99/00. (The course runs the entire academic year. A few lectures during fall.)	4	6	C	24	-	37					Övrigt 37 h
7E1101 Medical Engineering, Basic Course	4	6	C	24	-	-					
7E1102 Medical Engineering, Advanced Course	10	15	D	70	30	10					
7E1110 Quality and Regulatory Aspects on Medical Devices	2	3	D	20	-	-					Studiebesök 5h
7E1111 Medical Imaging Systems	4	6	D	35	-	6					Studiebesök/ Study visit 6 h
7E1112 Implants and Biomaterials	4		D	25	-	-					3h (studiebesök)
7E1113 Medical Instrumentation and Signal Processing	4	6	D	30	-	6					
7E1114 Radiation Physics and Biology	4	6	D	40	-	-					Studiebesök/ Study visit 2 h

7E1115 Engineering in Intensive Care and Anesthesia	4	6	D	12	-	-					30 +10 h (projektarbete med muntlig och skriftlig redovisning)
7E1200 Cellular and Molecular Biology	10	15	C	80	-	8					
7E1202 Systems Biology	5	7,5	C	32	-	-					

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Business Development and Media Technology B3

Code Name	Credits	Ects Credits	Level	Lec	Less	Lab	Periods				Other
							1	2	3	4	
Elective											
3C1100 Technical English, intermediate course	4	6	C	-	42	-					
3C1102 Technical English, advanced course	4	6	D	-	56	-					
3C1103 Technical English, Lover Intermediate	4	6	C	-	49	-					
4D1030 Industrial Production	4	6	C	40	20	-					Plant visits (10 h)

Business Development and Media Technology B4

Code Name	Credits	Ects Credits	Level	Lec	Less	Lab	Periods				Other
							1	2	3	4	
Compulsory											

4K1521 Communication and Information	5	7,5	C	21	24	-					
4K1552 Media Management	10	15	C	72	56	-					
4K1553 Media Production	10	15	C	40	28	24					
4K1554 Marketing Communication and the Consumer	5	7,5	D	39	-	-					
4K1555 Information Technology and Organisations	5	7,5	D	39	-	-					
Elective											
2D1334 Database Technology	4	6	C	24	20	12					
4K1524 Reprographic Methods and Image Processing	6	9	C	72	16	24					

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Advanced Materials B3

Code Name	Credits	Ects Credits	Level	Lec	Less	Lab	Periods				Other
							1	2	3	4	
Compulsory											
4H1610 Advanced Materials	4	6	C	18	30	6					
4H1611 Materials Optimisation and Design	5	7,5	C	18	18	9					
Elective											
4H1504 Synthesis and Processing of Ceramics	4	6	C	12	-	18					Studiebesök/Study visit 8 h

Advanced Materials B4

Code Name	Credits	Ects Credits	Level	Lec	Less	Lab	Periods				Other
							1	2	3	4	
Compulsory											

4H1609 Functional Materials	4	6	D	18	18	12					Home assignments 12 h, Study visit 5 h
4H1612 High Temperature Materials	7	10,5	D	24	45	6					Presentation of project 6 h, study visit 16 h, project assignment 100 h
Elective											
4H1404 Corrosion and Surface Protection, General Course	4	6	C	16	12	12					
4H1405 Corrosion and surface protection, advanced course	4	6	D	16	-	-					Seminarier/Seminars 8 h
4H1505 Properties and Applications of Ceramics	4	6	D	12	12	18					



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Biomedical Engineering B3

Code Name	Credits	Ects Credits	Level	Lec	Less	Lab	Periods				Other
							1	2	3	4	
Compulsory											
7E1200 Cellular and Molecular Biology	10	15	C	80	-	8					
7E1201 Neuroscience	5	7,5	C	60	-	30					

Biomedical Engineering B4

Code Name	Credits	Ects Credits	Level	Lec	Less	Lab	Periods				Other
							1	2	3	4	
Compulsory											
7E1101 Medical Engineering, Basic Course	4	6	C	24	-	-					
7E1202 Systems Biology	5	7,5	C	32	-	-					

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Computer Systems for Design and Manufacturing B3

Code Name	Credits	Ects Credits	Level	Lec	Less	Lab	Periods				Other
							1	2	3	4	
Compulsory											
2D1320 Applied Computer Science The course is given twice during Spring 2000: the first time in period 3 and a second time in period 4.	4	6	B	32	16	20					
2D1320 Applied Computer Science The course is given twice during Spring 2000: the first time in period 3 and a second time in period 4.	4	6	B	32	16	20					
4K1201 Computer Aided Design and Manufacturing, Introductory course	5	7,5	C	48	-	24					Betygsatt inlämningsuppgift/ Graded exercise

Computer Systems for Design and Manufacturing B4

Code Name	Credits	Ects Credits	Level	Lec	Less	Lab	Periods				Other
							1	2	3	4	

Compulsory

4F1630 Introduction to Machine Design	5	7,5	C	24	36	-					
4K1102 Manufacturing Automation, I	4	6	C	20	24	12					
4K1202 Modelling and Interaction in CAD/CAM Maximum of 20 participants. Students of "Computer Systems for Design and Manufacturing" will have priority.	5	7,5	D	-	36	24					3 Programming tasks, period 1, 2
4K1203 Computer Systems for Design and Manufacturing, advanced course Maximum of 20 participants. Students of "Computer Systems for Design and Manufacturing" will have priority.	12	18	D	-	68	60					2 Programming Projects, period 2, 3, 4

Elective

4K1103 Manufacturing Automation, II	6	9	C	28	32	17					
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Energy Technology B3

Code Name	Credits	Ects Credits	Level	Lec	Less	Lab	Periods				Other
							1	2	3	4	
Compulsory											
4A1130 Heat Transfer	4	6	C	24	18	20					
4A1207 Introductory Heating and Ventilation Technology	4	6	C	24	24	9					
4A1311 Thermal Engineering, General Course	4	6	C	30	36	20					Studiebesök 4h, projekt 10h
4F1341 Hydraulic Turbomachinery	2	3	C	12	24	6					
5C1921 Fluid Mechanics for Engineers	4,5	7	C	-	66	6					2 st laborationer à 3 h

Energy Technology B4

Code Name	Credits	Ects Credits	Level	Lec	Less	Lab	Periods				Other
							1	2	3	4	

Compulsory

4A1126 Introductory Refrigerating Engineering	4	6	C	-	48	14					5 h (field trip, one day)
4A1323 Alternative Energy Sources	4	6	B	12	36	-					
4A1404 Introductory Nuclear Reactor Engineering	4	6	C	44	16	-					

Elective

4A1127 Advanced Applied Thermodynamics and Refrigerating Engineering One of 4A1127, 4A1211, 4A1330, 4A1405 compulsory	12	18	D	24	96	22					72 h (the project)
4A1211 Advanced Heating and Ventilation Technology EGI: One of 4A1127, 4A1211, 4A1330, 4A1405 compulsory.	12	18	D	60	60	20					Seminarier/Seminars 40 h
4A1330 Advanced Thermal Engineering One of 4A1127, 4A1211, 4A1330, 4A1405 compulsory.	12	18	D	-	180	6					Studiebesök 20h
4A1405 Advanced Nuclear Reactor Engineering and Nuclear Power Safety One of 4A1127, 4A1211, 4A1330, 4A1405 compulsory.	12	18	D	88	24	8					
4A1710 Energy Management	4	6	D	50	-	-					
4A1712 Energy and Environment	6	9	D	45	-	-					

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Internal Combustion Engines B3

Code Name	Credits	Ects Credits	Level	Lec	Less	Lab	Periods				Other
							1	2	3	4	
Compulsory											
5C1921 Fluid Mechanics for Engineers	4,5	7	C	-	66	6					2 st laborationer à 3 h
Elective											
4A1130 Heat Transfer	4	6	C	24	18	20					
4A1311 Thermal Engineering, General Course	4	6	C	30	36	20					Studiebesök 4h, projekt 10h
4B1120 Signal analysis with applications	5	7,5	D	-	28	28					
4F1241 Microcomputer, Sensors and Actuators	6	9	C	18	26	29					
4F1242 Introduction to Microcomputer Systems	4	6	C	12	22	14					
4F1343 Fluid Systems and Machines	4	6	C	24	24	12					
4F1530 Functional Analysis and Optimization in Mechanical Engineering	5	7,5	C	-	60	-					Studieresa, en dag

Internal Combustion Engines B4

Code Name	Credits	Ects Credits	Level	Lec	Less	Lab	Periods				Other
							1	2	3	4	
Compulsory											
4B1420 Ground Vehicle Engineering, Basic Course	6	9	C	36	36	-					
4F1430 Combustion Engines, general course	4	6	C	48	-	12					
4F1431 Combustion Engines, Advanced Course	6	9	D	56	-	32					
4F1460 Combustion Engines, Project Course	6	9	D	-	18	-					
Elective											
4B1131 Experimental Structure Dynamics	5	7,5	D	-	58	12					Datorövn. 20h i period 2 (inräknade i "Övningar")
4F1131 Microcomputers in Embedded Systems	5	7,5	D	-	36	36					Platsbegränsning/Limited attendance: 25
4F1131 Microcomputers in Embedded Systems	5	7,5	D	-	36	36					Platsbegränsning/Limited attendance: 25
4F1141 Project Work in Mechatronics Limited attendance due to limited number of available projects	4	6	C	-	-	-					Kursen schemalägges ej
4F1540 Tribology	4	6	C	18	5	9					
4F1630 Introduction to Machine Design	5	7,5	C	24	36	-					

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Graphic Technology B3

Code Name	Credits	Ects Credits	Level	Lec	Less	Lab	Periods				Other
							1	2	3	4	
Compulsory											
4K1521 Communication and Information	5	7,5	C	21	24	-					
4K1522 Computer Technology and Communication	4	6	C	30	4	14					
4K1523 Graphic Arts Technology and Media Production, general course	6	9	C	60	-	20					Övrigt 30 h; I kursen ingår en mindre studieresa 3-4 dagar i period 4.
4K1524 Reprographic Methods and Image Processing	6	9	C	72	16	24					
Elective											
4K1101 Control Systems	4	6	C	18	28	12					

Graphic Technology B4

Code Name	Credits	Ects	Level	Lec	Less	Lab	Periods	Other
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		Credits					1	2	3	4	
Compulsory											
4D1070 Industrial Project Management	4	6	C	30	18	-					
4K1515 Machinery and Materials in Graphic Arts Technology	6	9	C	72	12	24					
4K1517 Advanced Graphic Arts Technology	12	18	D	160	-	32					Övrigt 30 h
Elective											
2D1334 Database Technology	4	6	C	24	20	12					
3C1370 Applied Environmental Legislation	3	4,5	C	28	6	-					
4D1087 Industrial Change Management	4	6	D	18	8	8					
4G1147 Quality	6	9	C	48	24	-					
4K1102 Manufacturing Automation, I	4	6	C	20	24	12					



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Solid Mechanics B3

Code Name	Credits	Ects Credits	Level	Lec	Less	Lab	Periods				Other
							1	2	3	4	
Compulsory											
4C1096 Strength of Materials and Solid Mechanics, advanced course	4	6	C	36	14	4					2 written assignments
4C1117 Design Applications of Solid Mechanics	4	6	D	16	6	-					Estimated time for project: 90 h
5B1304 Mathematics, Extended Course	5	7,5	D	-	-	-					
Elective											
3E1324 Polymer Materials - Properties and Applications	4	6	C	30	12	10					
4E1100 Lightweight Structures I	5	7,5	C	64	-	12					Laborationer schemaläggs av institutionen
4F1530 Functional Analysis and Optimization in Mechanical Engineering	5	7,5	C	-	60	-					Studieresa, en dag
4F1531 Machine Elements, basic course for I and T	4	6	B	24	40	-					

5C1121 Analytical Mechanics	4	6	C	48	-	-					
5C1203 Fluid Mechanics, General Course	4	6	C	24	24	3					

Solid Mechanics B4

Code Name	Credits	Ects Credits	Level	Lec	Less	Lab	Periods				Other
							1	2	3	4	
Elective											
3E1324 Polymer Materials - Properties and Applications	4	6	C	30	12	10					
3E1360 Mechanical Properties of Polymers, Minor Course	4	6	C	24	16	12					
4B1111 Fundamentals of Noise and Vibration Control T	4	6	C	25	30	4					Kontrollskr. 3h
4B1112 Fundamentals of Noise and Vibration control M	4	6	C	-	57	4					Kontrollskr. 3h
4B1420 Ground Vehicle Engineering, Basic Course	6	9	C	36	36	-					
4C1110 Material Mechanics	4	6	D	52	-	2					2 written assignments
4C1111 Fracture Mechanics and Fatigue	4	6	D	48	-	4					2 written assignments
4C1112 Theory of Elasticity	4	6	D	26	26	-					2 written assignments
4C1114 Finite Element Method	4	6	D	-	49	8					Written assignments
4C1116 Dynamic problems in solid mechanics	4	6	D	42	-	8					Written assignments, computational assignments
4C1118 Non-linear Theory of Elasticity	2	3	D	12	12	-					2 written assignments
4C1119 Finite Element Method, project course	2	3	D	8	-	-					Estimated time for project: 30 h

4E1127 Fatigue and Damage Tolerance	4	6	D	48	-	6					Laborationer schemaläggs av institutionen
4F1540 Tribology	4	6	C	18	5	9					
4G1230 Introductory Welding Technology	4	6	C	24	18	12					
4H1202 Mechanical Metallurgy I	6	9	D	18	12	48					
4H1203 Mechanical Metallurgy II	4,5	6,75	C	18	12	24					Home assignments
4H1505 Properties and Applications of Ceramics	4	6	D	12	12	18					
4L1103 Metal Forming I	6	9	C	27	36	18					3 hemuppgifter
4L1431 Computer Aid in Metal Forming	4	6	D	24	12	10					Projektuppgift. Seminarium.
5A1301 Mathematical Methods in Physics, Course I	4	6	C	-	54	-					
5C1122 Continuum Mechanics	4	6	C	42	-	-					
5C1123 Mathematical Methods of Mechanics, General Course	4	6	D	36	-	-					
5C1125 Mathematical Methods of Mechanics, Intermediate Course	2	3	D	-	-	-					Handledning 18 h
5C1902 Advanced Dynamics of Complex Systems	4	6	D	24	-	-					



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Industrial Economics and Management B3

Code Name	Credits	Ects Credits	Level	Lec	Less	Lab	Periods				Other
							1	2	3	4	
Compulsory											
4D1030 Industrial Production	4	6	C	40	20	-					Plant visits (10 h)
4D1060 Industrial Development	4	6	C	50	8	-					
4D1075 Work Organization and Leadership Limited attendance, selection will be made	4	6	C	24	24	-					
4K1101 Control Systems	4	6	C	18	28	12					

Industrial Economics and Management B4

Code Name	Credits	Ects Credits	Level	Lec	Less	Lab	Periods				Other
							1	2	3	4	
Compulsory											

4D1035 Advanced Industrial Economics and Management	12	18	D	-	100	44					Buisness Game 16 h, Study Tour and Project Work.
4D1065 Industrial Marketing	4	6	C	24	36	-					
4D1070 Industrial Project Management	4	6	C	30	18	-					
4F1630 Introduction to Machine Design	5	7,5	C	24	36	-					
4K1102 Manufacturing Automation, I	4	6	C	20	24	12					
Elective											
4K1103 Manufacturing Automation, II	6	9	C	28	32	17					



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Industrial Engineering B3

Code Name	Credits	Ects Credits	Level	Lec	Less	Lab	Periods				Other
							1	2	3	4	
Compulsory											
4D1030 Industrial Production	4	6	C	40	20	-					Plant visits (10 h)
Elective											
3C1340 Environmental Technology, advanced course	4	6	C	36	9	-					Studiebesök 2x4 h Övningsuppgifter
4D1087 Industrial Change Management	4	6	D	18	8	8					
4G1332 Materials processing I	4	6	C	23	30	13					Hemuppgifter/Home Assignments 26 h
4G1335 Materials Processing I, Laboratory Course	5	7,5	D	23	30	37					34 h
4G1632 Materials Processing II	4	6	C	29	30	13					Hemuppgifter/Home work 25h
4G1635 Materials Processing II, Laboratory Course	5	7,5	D	29	30	37					33 h

Industrial Engineering B4

Code Name	Credits	Ects Credits	Level	Lec	Less	Lab	Periods				Other
							1	2	3	4	
Compulsory											
4G1145 Advanced Industrial Engineering	10	15	D	67	-	-					Seminar 22 h, Project 120 h
4G1147 Quality	6	9	C	48	24	-					
Elective											
3C1360 Environmental Consequences, Advanced Course	4	6	C	18	9	16					
4D1065 Industrial Marketing	4	6	C	24	36	-					
4D1088 Technical Work Psychology	4	6	C	24	8	16					
4G1148 Advanced Production Engineering, Module 1	4	6	D	40	10	8					
4G1149 Advanced Production Engineering, Module 2	4	6	D	32	4	4					
4G1150 Advanced Production Engineering, Module 3	4	6	D	30	-	32					Seminar 10 h
4G1243 Advanced Welding Technology, Module 1	4	6	D	20	20	20					
4G1244 Advanced Welding Technology, Module 2	4	6	D	20	20	20					
4G1245 Advanced Welding Technology, Module 3	4	6	D	20	20	20					
4G1246 Enlarged Welding Technology for EWE	4	6	D	25	25	10					
Course is given upon agreement											
4G1343 Materials Processing, Design Project	4	6	D	-	24	-					

4G1540 Laser Metrology Methods and Non Destructive Testing	4	6	C	28	22	4					
4G1641 Metal Workshop Processes	4	6	D	36	-	15					
4K1102 Manufacturing Automation, I	4	6	C	20	24	12					

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Integrated Product Development B3

Code Name	Credits	Ects Credits	Level	Lec	Less	Lab	Periods				Other	
							1	2	3	4		
Compulsory												
4D1075 Work Organization and Leadership Limited attendance, selection will be made	4	6	C	24	24	-						

Integrated Product Development B4

Code Name	Credits	Ects Credits	Level	Lec	Less	Lab	Periods				Other
							1	2	3	4	
Compulsory											
4F1541 CAD 3D-modeling and Visualization for Personal Computers	4	6	C	12	36	-					
4F1760 Integrated Product Development	20	30	D	-	180	-					

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Sound and Vibrations B3

Code Name	Credits	Ects Credits	Level	Lec	Less	Lab	Periods				Other
							1	2	3	4	
Compulsory											
4B1120 Signal analysis with applications	5	7,5	D	-	28	28					
5B1304 Mathematics, Extended Course	5	7,5	D	-	-	-					
5C1921 Fluid Mechanics for Engineers	4,5	7	C	-	66	6					2 st laborationer à 3 h

Sound and Vibrations B4

Code Name	Credits	Ects Credits	Level	Lec	Less	Lab	Periods				Other
							1	2	3	4	
Compulsory											
4B1126 Dynamics of Structures	5	7,5	D	-	56	8					
4B1131 Experimental Structure Dynamics	5	7,5	D	-	58	12					Datorövn. 20h i period 2 (inräknade i "Övningar")

4B1136 Flow Acoustics	4	6	D	-	42	8					
4B1141 Sound and Vibration, Projekt Course	5	7,5	D	-	22	38					Sem./studieb. 40h
Elective											
4B1111 Fundamentals of Noise and Vibration Control T	4	6	C	25	30	4					Kontrollskr. 3h
4B1112 Fundamentals of Noise and Vibration control M	4	6	C	-	57	4					Kontrollskr. 3h

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Lightweight Structures B3

Code Name	Credits	Ects Credits	Level	Lec	Less	Lab	Periods				Other
							1	2	3	4	
Compulsory											
4E1101 Lightweight Structures, course II	6,5	9,75	C	76	-	12					Laborationer schemaläggs av institutionen
Elective											
4E1201 Elements of Aeronautics	5	7,5	C	72	-	4					

Lightweight Structures B4

Code Name	Credits	Ects Credits	Level	Lec	Less	Lab	Periods				Other
							1	2	3	4	
Compulsory											
4E1122 Manufacturing of Polymer Composites	4	6	D	40	-	5					Laborationer schemaläggs av institutionen

4E1123 Mechanics of Composites and Sandwich Constructions	4	6	D	48	-	6					Laborationer schemaläggs av institutionen
4E1127 Fatigue and Damage Tolerance	4	6	D	48	-	6					Laborationer schemaläggs av institutionen
4E1131 Aircraft and Lightweight Design	6	9	D	8	60	12					Laborationer schemaläggs av institutionen
4E1150 Biomechanics and Neuronics	4	6	D	36	-	6					
Elective											
3C1100 Technical English, intermediate course	4	6	C	-	42	-					
3C1102 Technical English, advanced course	4	6	D	-	56	-					
3C1103 Technical English, Lower Intermediate	4	6	C	-	49	-					
3C1117 Technical German, intermediate course	4	6	C	-	42	-					
3C1118 Technical German, advanced course	4	6	D	-	42	-					
3C1132 Technical French, intermediate course	4	6	C	-	42	-					
3C1133 Technical French, advanced course	4	6	D	-	42	-					
3C1147 Technical Spanish, intermediate course	4	6	C	-	42	-					
4B1304 Railway Systems and Rail Vehicles	6	9	C	49	10	7					
4B1420 Ground Vehicle Engineering, Basic Course	6	9	C	36	36	-					
4B1502 Basic Ship Theory New course, replaces 4B1501.	4	6	C	48	12	-					

4F1630 Introduction to Machine Design	5	7,5	C	24	36	-					
5B1722 Applied Optimization	4	6	C	28	14	9					


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Machine Elements B3

Code Name	Credits	Ects Credits	Level	Lec	Less	Lab	Periods				Other
							1	2	3	4	
Compulsory											
4C1096 Strength of Materials and Solid Mechanics, advanced course	4	6	C	36	14	4					2 written assignments
4F1530 Functional Analysis and Optimization in Mechanical Engineering	5	7,5	C	-	60	-					Studieresa, en dag

Machine Elements B4

Code Name	Credits	Ects Credits	Level	Lec	Less	Lab	Periods				Other
							1	2	3	4	
Compulsory											
4F1540 Tribology	4	6	C	18	5	9					
4F1560 Advanced Machine Elements	12	18	D	-	120	-					Kursen ges enligt överrenskommelse

4F1630 Introduction to Machine Design	5	7,5	C	24	36	-					
Elective											
4C1114 Finite Element Method	4	6	D	-	49	8					Written assignments


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Machine Design B3

Code Name	Credits	Ects Credits	Level	Lec	Less	Lab	Periods				Other
							1	2	3	4	
Compulsory											
4C1096 Strength of Materials and Solid Mechanics, advanced course	4	6	C	36	14	4					2 written assignments
4F1530 Functional Analysis and Optimization in Mechanical Engineering	5	7,5	C	-	60	-					Studieresa, en dag
Elective											
4F1241 Microcomputer, Sensors and Actuators	6	9	C	18	26	29					
4F1242 Introduction to Microcomputer Systems	4	6	C	12	22	14					
4F1343 Fluid Systems and Machines	4	6	C	24	24	12					
4F1642 Modeling and Computer Support in Mechanical Design	4	6	C	24	36	-					

4K1201 Computer Aided Design and Manufacturing, Introductory course	5	7,5	C	48	-	24					Betygsatt inlämningsuppgift/ Graded exercise
5C1121 Analytical Mechanics	4	6	C	48	-	-					
5C1921 Fluid Mechanics for Engineers	4,5	7	C	-	66	6					2 st laborationer à 3 h

Machine Design B4

Code Name	Credits	Ects Credits	Level	Lec	Less	Lab	Periods				Other
							1	2	3	4	
Compulsory											
4F1630 Introduction to Machine Design	5	7,5	C	24	36	-					
4F1660 Advanced Machine Design	12	18	D	4	114	-					Schemaläggs enligt överrenskommelse
Elective											
3E1360 Mechanical Properties of Polymers, Minor Course	4	6	C	24	16	12					
3E1361 Polymer Processing, Minor Course	4	6	C	24	8	18					
3E1366 Polymers in engineering design	4	6	D	18	24	8					
4C1114 Finite Element Method	4	6	D	-	49	8					Written assignments
4E1123 Mechanics of Composites and Sandwich Constructions	4	6	D	48	-	6					Laborationer schemaläggs av institutionen
4F1131 Microcomputers in Embedded Systems	5	7,5	D	-	36	36					Platsbegränsning/Limited attendance: 25
4F1131 Microcomputers in Embedded Systems	5	7,5	D	-	36	36					Platsbegränsning/Limited attendance: 25
4F1141 Project Work in Mechatronics Limited attendance due to limited number of available projects	4	6	C	-	-	-					Kursen schemalägges ej

4F1541 CAD 3D-modeling and Visualization for Personal Computers	4	6	C	12	36	-					
4F1640 Industrial Design Limited number of participants	4	6	C	24	36	-					
4F1641 Environmentally Adapted Product Design	4	6	C	24	20	16					
4K1102 Manufacturing Automation, I	4	6	C	20	24	12					



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Mateials Physics B4

Code Name	Credits	Ects Credits	Level	Lec	Less	Lab	Periods				Other
							1	2	3	4	
Compulsory											
5A1710 Experimental Methods in Material Physics	5	7,5	D	26	22	30					Seminarier 4h. Fältresa 7 h. Workshop 4 h
Elective											
4C1110 Material Mechanics	4	6	D	52	-	2					2 written assignments
4C1111 Fracture Mechanics and Fatigue	4	6	D	48	-	4					2 written assignments
4C1112 Theory of Elasticity	4	6	D	26	26	-					2 written assignments
4C1114 Finite Element Method	4	6	D	-	49	8					Written assignments
4G1340 Crystallisation Processing	4	6	D	12	24	18					
4G1342 Space Systems and Technology	4	6	D	30	-	-					Övrigt/Other 10 h
4H1104 Diffusion and Phase Equilibria	6	9	D	18	16	47					Home assignments
4H1202 Mechanical Metallurgy I	6	9	D	18	12	48					
4H1203 Mechanical Metallurgy II	4,5	6,75	C	18	12	24					Home assignments

4H1403 Physics and Chemistry of Solid Surfaces	4	6	D	18	8	10					
4H1404 Corrosion and Surface Protection, General Course	4	6	C	16	12	12					
4H1505 Properties and Applications of Ceramics	4	6	D	12	12	18					
4H1609 Functional Materials	4	6	D	18	18	12					Home assignments 12 h, Study visit 5 h
4H1610 Advanced Materials	4	6	C	18	30	6					
4H1611 Materials Optimisation and Design	5	7,5	C	18	18	9					
4H1612 High Temperature Materials	7	10,5	D	24	45	6					Presentation of project 6 h, study visit 16 h, project assignment 100 h
5A1332 Advanced Quantum Mechanics, Course I	5	7,5	D	36	-	-					
5A1354 Computational Physics	6	9	D	24	-	20					12h Ö e.ö.
5A1370 Solid State Theory	4	6	D	36	-	-					
5A1502 Quantum Electronics with Electro Optics	8	12	D	48	-	-					
5A1503 Electro Optics	4	6	D	24	-	-					
5A1505 Optics, General Course	4	6	D	26	14	25					
5A1600 Semiconductor Theory and Device Physics, General Course	5	7,5	D	30	-	10					Individuellt arbete 20h
5A1605 Semiconductor Theory and Device Physics, Advanced Course	4	6	D	-	36	-					Individuellt arbete 20h
5A1610 Functional Properties of Materials	4	6	D	32	-	-					Industrisem. och litt.uppg.
5A1630 Surface Physics, Basic Course	4	6	D	36	-	-					
5A1701 Superconductivity and its Applications	4	6	D	28	-	-					

5A1775 Nuclear Reactor Physics, Major Course	6	9	D	36	-	24				
5A1777 Reactor Physics, Minor Course	4	6	D	30	-	16				

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Materials Technology

Materials Science B3

Code Name	Credits	Ects Credits	Level	Lec	Less	Lab	Periods				Other
							1	2	3	4	
Compulsory											
4H1202 Mechanical Metallurgy I	6	9	D	18	12	48					
4H1204 Experimental Techniques in Materials Science	5	7,5	D	10	10	48					
4H1504 Synthesis and Processing of Ceramics	4	6	C	12	-	18					Studiebesök/Study visit 8 h
Elective											
4H1403 Physics and Chemistry of Solid Surfaces	4	6	D	18	8	10					

Materials Science B4

Code Name	Credits	Ects Credits	Level	Lec	Less	Lab	Periods				Other
							1	2	3	4	

Compulsory

4H1104 Diffusion and Phase Equilibria	6	9	D	18	16	47					Home assignments
4H1113 Powder Metallurgy	4	6	D	18	18	12					
4H1301 Material Design	4	6	D	-	2	10					10 h computer lab
4H1404 Corrosion and Surface Protection, General Course	4	6	C	16	12	12					

Elective

4H1405 Corrosion and surface protection, advanced course	4	6	D	16	-	-					Seminarier/Seminars 8 h
4H1505 Properties and Applications of Ceramics	4	6	D	12	12	18					
4H1609 Functional Materials	4	6	D	18	18	12					Home assignments 12 h, Study visit 5 h

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Materials Technology

Media Production B3

Code Name	Credits	Ects Credits	Level	Lec	Less	Lab	Periods				Other
							1	2	3	4	
Compulsory											
4K1521 Communication and Information	5	7,5	C	21	24	-					
4K1522 Computer Technology and Communication	4	6	C	30	4	14					
4K1523 Graphic Arts Technology and Media Production, general course	6	9	C	60	-	20					Övrigt 30 h; I kursen ingår en mindre studieresa 3-4 dagar i period 4.
4K1524 Reprographic Methods and Image Processing	6	9	C	72	16	24					

Media Production B4

Code Name	Credits	Ects Credits	Level	Lec	Less	Lab	Periods				Other
							1	2	3	4	
Compulsory											

4D1070 Industrial Project Management	4	6	C	30	18	-					
4K1516 Audio, Video and Multimedia Production	6	9	C	48	12	24					
4K1518 Advanced Media Production	12	18	D	160	-	32					Övrigt 30 h
4K1525 Programming for Interactive Media	4	6	C	48	14	24					
Elective											
2D1323 Computer Graphics and Interaction	4	6	B	42	-	12					
2D1334 Database Technology	4	6	C	24	20	12					



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Materials Technology

Mechatronics B3

Code Name	Credits	Ects Credits	Level	Lec	Less	Lab	Periods				Other
							1	2	3	4	
Compulsory											
2D1320 Applied Computer Science The course is given twice during Spring 2000: the first time in period 3 and a second time in period 4.	4	6	B	32	16	20					
2D1320 Applied Computer Science The course is given twice during Spring 2000: the first time in period 3 and a second time in period 4.	4	6	B	32	16	20					
2E1200 Automatic Control, General Course	4	6	C	24	26	12					
4F1530 Functional Analysis and Optimization in Mechanical Engineering	5	7,5	C	-	60	-					Studieresa, en dag
4F1531 Machine Elements, basic course for I and T	4	6	B	24	40	-					
Elective											

4F1241 Microcomputer, Sensors and Actuators	6	9	C	18	26	29					
4F1242 Introduction to Microcomputer Systems	4	6	C	12	22	14					

Mechatronics B4

Code Name	Credits	Ects Credits	Level	Lec	Less	Lab	Periods				Other
							1	2	3	4	
Compulsory											
4F1131 Microcomputers in Embedded Systems	5	7,5	D	-	36	36					Endast MTK
4F1140 Design of Software for Embedded Real-time Control Systems	4	6	D	-	36	30					
4F1162 Advanced Microcomputer Systems Design	15	22,5	D	-	116	80					Schemaläggs efter överenskommelse



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Metallurgy and Processes of Manufacture B3

Code Name	Credits	Ects Credits	Level	Lec	Less	Lab	Periods				Other
							1	2	3	4	
Compulsory											
4G1334 Casting Processing	4	6	D	12	24	18					
4I1116 Chemical Equilibria in Metallurgical Processes	10	15	C	36	36	28					Projektuppgift 120 h
4I1117 Advanced Transport Phenomena	6	9	C	16	24	16					Projektuppgift 136 h

Metallurgy and Processes of Manufacture B4

Code Name	Credits	Ects Credits	Level	Lec	Less	Lab	Periods				Other
							1	2	3	4	
Compulsory											
4I1120 International Seminar in Material Processes	4	6	D	2	-	-					Projektarbete

4I1121 Theory of High Temperature Processes	6	9	D	12	12	8					
4I1208 Energy and Environmental Issues within the Process Industry	4	6	C	24	24	-					
4I1213 Reactor and Process Technology	6	9	D	24	24	16					Studiebesök 40 h, kontrollskrivning 2 h
4I1214 Metallurgical Process Simulation	6	9	D	2	-	-					Projektarbete
4I1308 Combustion in Industrial Processes	6	9	D	24	24	12					Seminarium 4 h, Kontrollskrivningar 3 h
Elective											
2E1200 Automatic Control, General Course	4	6	C	24	26	12					
2E1200 Automatic Control, General Course	4	6	C	24	26	12					
2E1200 Automatic Control, General Course	4	6	C	24	26	12					
2E1280 Modelling of Industrial Processes	4	6	C	24	24	12					
4G1340 Crystallisation Processing	4	6	D	12	24	18					
4G1341 Foundry Processing	4	6	D	12	24	-					Övrigt/Other 28 h
4H1203 Mechanical Metallurgy II	4,5	6,75	C	18	12	24					Home assignments
4I1119 Thermochemical Modelling of Metallurgical Processes	4	6	D	2	-	-					
4I1209 Economical Process Analysis and Strategy	4	6	C	12	12	-					Litteraturuppgift 60 h
4L1102 Metal Forming - Fundamentals	4	6	C	18	18	18					3 hemuppgifter

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Environmental Management B3

Code Name	Credits	Ects Credits	Level	Lec	Less	Lab	Periods				Other
							1	2	3	4	
Compulsory											
3C1340 Environmental Technology, advanced course	4	6	C	36	9	-					Studiebesök 2x4 h Övningsuppgifter
4D1060 Industrial Development	4	6	C	50	8	-					
4D1087 Industrial Change Management	4	6	D	18	8	8					

Environmental Management B4

Code Name	Credits	Ects Credits	Level	Lec	Less	Lab	Periods				Other
							1	2	3	4	
Compulsory											
3C1360 Environmental Consequences, Advanced Course	4	6	C	18	9	16					

3C1370 Applied Environmental Legislation	3	4,5	C	28	6	-					
3C1390 Environmental Management, Larger Course	8	12	D	36	6	24					Projektarbete, fältövningar enl överrenskommelse
Elective											
3C1350 Waste Management, Advanced Course Project work and study visit	4	6	D	21	-	6					22 h projektarbete
3C1365 Environmental Consequences, Advanced Course II	4	6	D	10	10	40					Fältövningar enl överrenskommelse



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Paper Technology B3

Code Name	Credits	Ects Credits	Level	Lec	Less	Lab	Periods				Other
							1	2	3	4	
Compulsory											
3D1107 Paper Technology	6	9	D	42	-	56					
4A1311 Thermal Engineering, General Course	4	6	C	30	36	20					Studiebesök 4h, projekt 10h
5C1921 Fluid Mechanics for Engineers	4,5	7	C	-	66	6					2 st laborationer à 3 h

Paper Technology B4

Code Name	Credits	Ects Credits	Level	Lec	Less	Lab	Periods				Other
							1	2	3	4	
Compulsory											
3D1103 Advanced Paper Technology	12	18	D	30	-	-					
3D1159 Pulp Mechanical Technology	6	9	D	30	-	52					Seminarier 4 h

4K1520 Graphic Arts Technology, Minor Course	4	6	C	30	8	16				
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Polymer Materials B3

Code Name	Credits	Ects Credits	Level	Lec	Less	Lab	Periods				Other
							1	2	3	4	
Compulsory											
3E1320 Polymer Chemistry, General Course	5	7,5	C	24	18	30					
3E1323 Polymer Physics, General Course	4	6	C	36	9	-					
3E1324 Polymer Materials - Properties and Applications	4	6	C	30	12	10					

Polymer Materials B4

Code Name	Credits	Ects Credits	Level	Lec	Less	Lab	Periods				Other
							1	2	3	4	
Compulsory											
3E1360 Mechanical Properties of Polymers, Minor Course	4	6	C	24	16	12					

3E1361 Polymer Processing, Minor Course	4	6	C	24	8	18					
3E1363 Coating Technology	4	6	D	30	-	24					
4C1110 Material Mechanics	4	6	D	52	-	2					2 written assignments
4E1122 Manufacturing of Polymer Composites	4	6	D	40	-	5					Laborationer schemaläggs av institutionen
Elective											
3E1362 Polymer physics, intermediate course	5	7,5	D	36	9	20					
3E1366 Polymers in engineering design	4	6	D	18	24	8					
3E1367 Mechanical Properties of Polymers, Intermediate Course	4	6	D	24	24	-					
3E1368 Polymer Processing, Intermediate Course	4	6	D	24	-	24					



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Materials Processing B3

Code Name	Credits	Ects Credits	Level	Lec	Less	Lab	Periods				Other
							1	2	3	4	
Compulsory											
4G1134 Effective Production	6	9	D	25	35	-					
Elective											
4G1332 Materials processing I	4	6	C	23	30	13					Hemuppgifter/Home Assignments 26 h
4G1335 Materials Processing I, Laboratory Course	5	7,5	D	23	30	37					34 h
4G1632 Materials Processing II	4	6	C	29	30	13					Hemuppgifter/Home work 25h
4G1635 Materials Processing II, Laboratory Course	5	7,5	D	29	30	37					33 h

Materials Processing B4

Code Name	Credits	Ects Credits	Level	Lec	Less	Lab	Periods	Other

							1	2	3	4	
Elective											
4C1110 Material Mechanics	4	6	D	52	-	2					2 written assignments
4C1114 Finite Element Method	4	6	D	-	49	8					Written assignments
4F1630 Introduction to Machine Design	5	7,5	C	24	36	-					
4G1148 Advanced Production Engineering, Module 1	4	6	D	40	10	8					
4G1149 Advanced Production Engineering, Module 2	4	6	D	32	4	4					
4G1150 Advanced Production Engineering, Module 3	4	6	D	30	-	32					Seminar 10 h
4G1243 Advanced Welding Technology, Module 1	4	6	D	20	20	20					
4G1244 Advanced Welding Technology, Module 2	4	6	D	20	20	20					
4G1245 Advanced Welding Technology, Module 3	4	6	D	20	20	20					
4G1246 Enlarged Welding Technology for EWE Course is given upon agreement	4	6	D	25	25	10					
4G1340 Crystallisation Processing	4	6	D	12	24	18					
4G1341 Foundry Processing	4	6	D	12	24	-					Övrigt/Other 28 h
4G1343 Materials Processing, Design Project	4	6	D	-	24	-					
4G1541 Measurement Technology and Statistics for Manufacturing Processes	4	6	D	30	-	8					Projektuppgift
4G1641 Metal Workshop Processes	4	6	D	36	-	15					

4G1643 Powder Metallurgy and Plastic Forming	4	6	C	18	18	12					
4G1644 Engineering Plasticity	6	9	D	26	26	12					6 h
4G1645 Metal Forming, Fundamentals and Applications	4	6	D	18	12	18					
4L1103 Metal Forming I	6	9	C	27	36	18					3 hemuppgifter
4L1411 Workability of Metals	4	6	D	24	30	18					
4L1431 Computer Aid in Metal Forming	4	6	D	24	12	10					Projektuppgift. Seminarium.



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Materials Technology

Assembly Systems B3

Code Name	Credits	Ects Credits	Level	Lec	Less	Lab	Periods				Other
							1	2	3	4	
Compulsory											
4D1030 Industrial Production	4	6	C	40	20	-					Plant visits (10 h)
4K1101 Control Systems	4	6	C	18	28	12					
4K1201 Computer Aided Design and Manufacturing, Introductory course	5	7,5	C	48	-	24					Betygsatt inlämningsuppgift/ Graded exercise

Assembly Systems B4

Code Name	Credits	Ects Credits	Level	Lec	Less	Lab	Periods				Other
							1	2	3	4	
Compulsory											
4F1531 Machine Elements, basic course for I and T	4	6	B	24	40	-					

4G1148 Advanced Production Engineering, Module 1	4	6	D	40	10	8					
4K1102 Manufacturing Automation, I	4	6	C	20	24	12					
4K1104 Manufacturing Systems, advanced course	12	18	D	50	48	28					Project etc


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Materials Technology

Wood Technology B3

Code Name	Credits	Ects Credits	Level	Lec	Less	Lab	Periods				Other
							1	2	3	4	
Compulsory											
4K1601 Wood Material Science	5	7,5	C	36	24	32					
Elective											
4D1030 Industrial Production	4	6	C	40	20	-					Plant visits (10 h)
4K1101 Control Systems	4	6	C	18	28	12					

Wood Technology B4

Code Name	Credits	Ects Credits	Level	Lec	Less	Lab	Periods				Other
							1	2	3	4	
Compulsory											
4D1070 Industrial Project Management	4	6	C	30	18	-					
4K1602 Industrial Wood Processing	4	6	C	26	16	16					

4K1603 Wood Technology, Advanced Course	10	15	D	48	24	36					
Elective											
4D1065 Industrial Marketing	4	6	C	24	36	-					
4K1102 Manufacturing Automation, I	4	6	C	20	24	12					


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Media Technology

Media Technology MEDIA1

Code Name	Credits	Ects Credits	Level	Lec	Less	Lab	Periods				Other
							1	2	3	4	
Compulsory											
2D1310 Programming Technique	4	6	B	26	16	26					
2D1348 Communication and Information	5	7,5	B	26	20	12					
2G1316 Computer communication and computer networks	4	6	C	24	18	4					
4K1571 No translation	4	6	B	24	12	12					
4K1572 No translation	4	6	C	20	20	8					
5A1230 Wave Physics	4	6	B	28	14	15					
5B1102 Calculus I	10	15	B	60	-	-					Gruppstudier 24 h/period
5B1109 Linear Algebra II	5	7,5	B	30	-	-					Gruppstudier 18h

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Engineering Physics

Engineering Physics F1

Code Name	Credits	Ects Credits	Level	Lec	Less	Lab	Periods				Other
							1	2	3	4	
Compulsory											
2D1342 Program Construction	4	6	B	24	24	24					
5A1205 Vector Analysis, Basic Course	4	6	B	24	24	-					
5A1210 Thermodynamics	4	6	B	26	14	10					
5A1230 Wave Physics	4	6	B	28	14	15					
5A1362 Environmental Physics for F	4	6	B	40	-	20					Projektuppgifter, studiebesök
5B1103 Calculus II	12	18	B	72	-	-					Gruppstudier 12+18+18h
5B1109 Linear Algebra II	5	7,5	B	30	-	-					Gruppstudier 18h
5C1103 Mechanics, Basic Course	6	9	B	48	27	-					Räknestugor 12 h/period


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Engineering Physics

Engineering Physics F2

Code Name	Credits	Ects Credits	Level	Lec	Less	Lab	Periods				Other
							1	2	3	4	
Compulsory											
2D1240 Numerical Methods, Basic Course II	4	6	B	26	16	18					
2H1308 Electromagnetic Theory	6	9	C	44	44	-					22h (Voluntary problem solving)
4C1055 Strength of Materials and Solid Mechanics, basic course	6	9	B	42	40	2					4 written assignments
5A1245 Modern Physics	4	6	B	28	14	-					
5B1201 Complex Analysis	4	6	C	30	24	-					
5B1202 Differential Equations and Transforms II	6	9	C	48	40	-					
5B1506 Mathematical Statistics, basic course	6	9	C	36	48	-					
5C1113 Mechanics, Continuation Course	4	6	C	30	15	-					

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Engineering Physics

Engineering Physics F3

Code Name	Credits	Ects Credits	Level	Lec	Less	Lab	Periods				Other
							1	2	3	4	
Compulsory											
2B1507 Semiconductor Electronics	6	9	C	36	22	8					
2D1344 Fundamentals of Computer Science	4	6	B	24	24	24					Ges första gången hösten 1999.
2E1200 Automatic Control, General Course	4	6	C	24	26	12					
5A1301 Mathematical Methods in Physics, Course I	4	6	C	-	54	-					
5A1450 Quantum Physics	11	16,5	C	60	48	40					
Elective											
5A1326 Theory of Relativity	4	6	C	24	20	-					
5A1350 Statistical Mechanics	4	6	C	24	24	-					
5A1400 Subatomic Physics	4	6	C	36	-	-					Demonstrationer

5B1712 Optimization	4	6	C	30	12	6				
5C1202 Fluid Mechanics, Introductory Course	4	6	C	-	-	6				


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Engineering Physics

Biofysik F4

Code Name	Credits	Ects Credits	Level	Lec	Less	Lab	Periods				Other
							1	2	3	4	
Elective											
3B1231 NMR-spectroscopy, Application on Macromolecular English when needed	4	9	D	30	-	12					
3B1242 Technical Surface Colloid Chemistry	4	6	D	30	6	15					
3E1600 Polymer physics	4,5	6,75	D	21	9	16					
5A1351 Non-equilibrium Statistical Mechanics	4	6	D	24	-	-					
5A1352 Complex Systems	4	6	D	24	-	-					
5A1353 Macromolecular Conformations Given 99/00.	4	6	D	24	-	-					
5A1354 Computational Physics	6	9	D	24	-	20					12h Ö e.ö.

5A1355 Molecular Biophysics The course is given by the Department of Biophysics, Stockholm University. The instruction takes place at the Arrhenius laboratories, Frescati.	8	12	D	60	24	-					Litteraturseminarium
5A1415 Environmental and Medical Physics	4	6	D	18	10	28					Seminarier och studiebesök
5A1455 Atomic/Molecular Physics with Laser and Synchrotron Light	6	9	D	24	-	25					
5A1490 Laser Chemistry	4	6	D	24	-	12					
5A1505 Optics, General Course	4	6	D	26	14	25					
5A1507 Optics, extended course The course can only be studied as a supplement to 5A1505.	2	3	D	12	6	10					
5A1580 Physics of Biomedical Imaging	4	6	D	21	7	17					



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Engineering Physics

Elektrofysik F4

Code Name	Credits	Ects Credits	Level	Lec	Less	Lab	Periods				Other
							1	2	3	4	
Elective											
2B1211 Physics of Electronic Materials	5	7,5	C	40	24	8					
2B1215 VLSI-technology	5	7,5	C	24	6	16					
2B1310 Microwave Engineering	5	7,5	C	36	18	10					
2B1322 Fibre optical Communication	5	7,5	D	28	14	8					
2B1325 Photonics	5	7,5	D	38	-	8					
2E1340 Digital Signal Processing	5	7,5	C	30	24	4					
2E1421 Signal Theory	4	6	C	24	20	-					Datorövningar 12 h
2H1250 Electromagnetic Field Theory	5	7,5	C	36	30	-					
5A1505 Optics, General Course	4	6	D	26	14	25					
5A1507 Optics, extended course The course can only be studied as a supplement to 5A1505.	2	3	D	12	6	10					

[5A1600 Semiconductor Theory and Device Physics, General Course](#)

5

7,5

D

30

-

10



Individuellt arbete 20h

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Matematisk fysik F4

Code Name	Credits	Ects Credits	Level	Lec	Less	Lab	Periods				Other
							1	2	3	4	
Elective											
5A1310 Elementary Particle Physics	4	6	D	36	-	-					
5A1312 Astroparticle Physics	4	6	D	28	-	-					
5A1329 Quantum Mechanics, Intermediate Course	5	7,5	D	24	18	-					
5A1331 Classical Dynamical Systems	4	6	D	28	-	-					
5A1332 Advanced Quantum Mechanics, Course I	5	7,5	D	36	-	-					
5A1333 Advanced Quantum Mechanics, Course II	4	6	D	30	-	-					
5A1334 Differential Geometry in Physics	4	6	D	36	-	-					
5A1335 Symmetries in Physics	4	6	D	30	-	-					
5A1336 Quantum Dynamical Systems	4	6	D	30	-	-					

5A1337 Integrable Nonlinear Systems and Solitons Not given 99/00.	4	6	D	20	-	-					
5A1351 Non-equilibrium Statistical Mechanics	4	6	D	24	-	-					
5A1352 Complex Systems	4	6	D	24	-	-					
5A1354 Computational Physics	6	9	D	24	-	20					12h Ö e.ö.

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Materialfysik F4

Code Name	Credits	Ects Credits	Level	Lec	Less	Lab	Periods				Other
							1	2	3	4	
Elective											
3E1323 Polymer Physics, General Course	4	6	C	36	9	-					
3E1362 Polymer physics, intermediate course	5	7,5	D	36	9	20					
3E1600 Polymer physics	4,5	6,75	D	21	9	16					
4C1110 Material Mechanics	4	6	D	52	-	2					2 written assignments
4C1111 Fracture Mechanics and Fatigue	4	6	D	48	-	4					2 written assignments
4C1112 Theory of Elasticity	4	6	D	26	26	-					2 written assignments
4C1114 Finite Element Method	4	6	D	-	49	8					Written assignments
4G1340 Crystallisation Processing	4	6	D	12	24	18					
4G1342 Space Systems and Technology	4	6	D	30	-	-					Övrigt/Other 10 h
4H1104 Diffusion and Phase Equilibria	6	9	D	18	16	47					Home assignments
4H1202 Mechanical Metallurgy I	6	9	D	18	12	48					

4H1203 Mechanical Metallurgy II	4,5	6,75	C	18	12	24					Home assignments
4H1403 Physics and Chemistry of Solid Surfaces	4	6	D	18	8	10					
4H1404 Corrosion and Surface Protection, General Course	4	6	C	16	12	12					
4H1504 Synthesis and Processing of Ceramics	4	6	C	12	-	18					Studiebesök/Study visit 8 h
4H1505 Properties and Applications of Ceramics	4	6	D	12	12	18					
4H1609 Functional Materials	4	6	D	18	18	12					Home assignments 12 h, Study visit 5 h
5A1329 Quantum Mechanics, Intermediate Course	5	7,5	D	24	18	-					
5A1354 Computational Physics	6	9	D	24	-	20					12h Ö e.ö.
5A1370 Solid State Theory	4	6	D	36	-	-					
5A1502 Quantum Electronics with Electro Optics	8	12	D	48	-	-					
5A1503 Electro Optics	4	6	D	24	-	-					
5A1505 Optics, General Course	4	6	D	26	14	25					
5A1507 Optics, extended course The course can only be studied as a supplement to 5A1505.	2	3	D	12	6	10					
5A1600 Semiconductor Theory and Device Physics, General Course	5	7,5	D	30	-	10					Individuellt arbete 20h
5A1605 Semiconductor Theory and Device Physics, Advanced Course	4	6	D	-	36	-					Individuellt arbete 20h
5A1610 Functional Properties of Materials	4	6	D	32	-	-					Industrisem. och litt.uppg.
5A1630 Surface Physics, Basic Course	4	6	D	36	-	-					
5A1650 Smart Electronic Materials	4	6	C	18	10	8					Seminarier 4 h. Workshop 3 h.

5A1651 Physics of Electronic Devices	4	6	D	12	6	-					Seminarie 2 h. Workshop 3 h.
5A1701 Superconductivity and its Applications	4	6	D	28	-	-					
5A1710 Experimental Methods in Material Physics	5	7,5	D	26	22	30					Seminarier 4h. Fältresa 7 h. Workshop 4 h
5A1711 Experimental Methods in Material Physics, extended course The course can only be studied as a supplement to 5A1710.	3	4,5	D	-	-	10					Projekt
5A1775 Nuclear Reactor Physics, Major Course	6	9	D	36	-	24					
5A1777 Reactor Physics, Minor Course	4	6	D	30	-	16					



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Optisk fysik F4

Code Name	Credits	Ects Credits	Level	Lec	Less	Lab	Periods				Other
							1	2	3	4	
Elective											
5A1502 Quantum Electronics with Electro Optics	8	12	D	48	-	-					
5A1503 Electro Optics	4	6	D	24	-	-					
5A1505 Optics, General Course	4	6	D	26	14	25					
5A1507 Optics, extended course The course can only be studied as a supplement to 5A1505.	2	3	D	12	6	10					
5A1510 Optical Measurement Techniques	4	6	D	36	-	-					En individuell uppgift, 3 studiebesök, laborationer 10h utanför KTH
5A1515 Optics, Advanced Course	4	6	D	24	8	-					
5A1520 Problem Solving in Optics	4	6	D	-	-	-					Handledning av examinerator
5A1521 Problem Solving in Optics, Advanced Course 1	2	3	D	-	-	-					Handledning av examinerator

5A1522 Problem Solving in Optics, Advanced Course 2	2	3	D	-	-	-					Handledning av examinator
5A1552 Optronics	4	6	D	36	-	-					Studiebesök
5A1580 Physics of Biomedical Imaging	4	6	D	21	7	17					
5A1581 Physics of Biomedical Imaging; Project	2	3	D	2	-	-					Seminarier: 4 h
5A1600 Semiconductor Theory and Device Physics, General Course	5	7,5	D	30	-	10					Individuellt arbete 20h
5A1605 Semiconductor Theory and Device Physics, Advanced Course	4	6	D	-	36	-					Individuellt arbete 20h
5A1802 Laser Physics II	4	6	D	36	-	-					



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Strålningsfysik F4

Code Name	Credits	Ects Credits	Level	Lec	Less	Lab	Periods				Other
							1	2	3	4	
Elective											
2A1131 Plasma Physics	4	6	C	48	-	-					
5A1310 Elementary Particle Physics	4	6	D	36	-	-					
5A1312 Astroparticle Physics	4	6	D	28	-	-					
5A1329 Quantum Mechanics, Intermediate Course	5	7,5	D	24	18	-					
5A1332 Advanced Quantum Mechanics, Course I	5	7,5	D	36	-	-					
5A1405 Experimental Particle Physics	4	6	D	24	6	5					
5A1410 Nuclear Physics	4	6	D	24	-	25					
5A1415 Environmental and Medical Physics	4	6	D	18	10	28					Seminarier och studiebesök
5A1416 Radiation Sources for Therapy	2	3	D	8	-	-					2 obligatoriska studiebesök

5A1455 Atomic/Molecular Physics with Laser and Synchrotron Light	6	9	D	24	-	25					
5A1802 Laser Physics II	4	6	D	36	-	-					



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Code Name	Credits	Ects Credits	Level	Lec	Less	Lab	Periods				Other
							1	2	3	4	
Elective											
2D1255 Numerical Solutions of Differential Equations	5	7,5	C	36	-	20					
2D1260 The Finite Element Method	4	6	D	18	14	12					
2D1263 Program Construction for Scientific Computing	4	6	D	24	-	12					
2D1266 Mathematical Models, Analysis and Simulation Part I	5	7,5	C	48	-	28					
2D1269 Mathematical Models, Analysis and Simulation, part II	5	7,5	C	48	-	28					
2D1280 Computational Fluid Dynamics	4	6	D	24	-	14					
2D1285 Numerical Algorithms for Parallel Computers	4	6	D	24	-	-					
2D1290 Advanced Numerical Analysis	4	6	D	24	-	12					

5B1458 Mathematics, Seminar Course III Given 99/00.	5	7,5	D	36	-	-					
5B1466 Fourier Analysis Given 99/00.	5	7,5	D	36	-	-					
5B1490 Chaotic Dynamical Systems Not given 99/00.	5	7,5	D	36	-	-					
5B1491 Analytical and Numerical Methods for Partial Differential Equations Not given 99/00.	5	7,5	D	36	-	-					
5B1545 Time Series Analysis	4	6	D	24	24	-					
5B1550 Applied Mathematical Statistics	5	7,5	D	-	-	-					
5B1555 Computer Intensive Methods in Mathematical Statistics	5	7,5	D	-	-	-					Datoruppgifter
5B1560 Statistical Theory The course is given by the Mathematical Department at Stockholms University.	4	6	D	-	-	-					
5B1570 Martingales and Stochastic Integrals	4	6	D	-	-	-					
5B1574 Portfolio Theory and Risk Evaluation	4	6	D	30	12	-					
5B1852 Mathematical Economics	4	6	D	32	16	-					
5B1862 Stochastic Calculus and the Theory of Capital Markets	5	7,5	D	-	48	-					



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Diskret matematik och datalogi F4

Code Name	Credits	Ects Credits	Level	Lec	Less	Lab	Periods				Other
							1	2	3	4	
Elective											
2D1323 Computer Graphics and Interaction	4	6	B	42	-	12					
2D1334 Database Technology	4	6	C	24	20	12					
2D1354 Algorithms and Complexity	4	6	C	30	18	-					
2D1358 Object Oriented Program Construction using C++	4	6	C	28	16	22					
2D1365 Overview of Human-Computer Interaction	4	6	C	16	2	5					
2D1373 Artifical Languages and Syntax Analysis	4	6	D	24	-	16					
2D1375 Implementation of Programming Languages	4	6	D	28	-	24					
2D1378 Text and Image Processing	4	6	B	28	28	-					

2D1381 Industrial Applications of Artificial Intelligence	4	6	D	36	-	-					
2D1406 Fundamentals of Human-Computer Interaction	4	6	D	18	5	-					
2D1410 User Centered Program Development	6	9	D	34	-	9					
2D1420 Computer Vision, Basic Course	5	7,5	D	48	-	12					
2D1426 Robotics and Autonomous Systems	5	7,5	D	16	-	60					
2D1432 Artificial neural networks and other learning systems	4	6	D	26	-	20					
2D1434 Mathematical modelling of biological systems	4	6	D	26	-	20					
2D1440 Advanced Algorithms	4	6	D	30	-	-					
2D1443 Parallel Computations	4	6	D	30	-	-					Kursen ges vartannat år. Ges ej 99/00.
2D1446 Complexity Theory Not given 99/00.	4	6	D	30	-	-					
2D1449 Foundations of Cryptography	4	6	D	30	-	-					Ges 99/00/ Given in 99/00
2D1450 Algorithmic Bioinformatics	4	6	D	36	-	-					
2D1469 Database Theory	4	6	D	24	24	-					
2D1470 Object Oriented Database Systems	5	7,5	D	24	24	-					
2D1953 Graphics and Interaction Programming	4	6	C	30	18	16					
2D1954 Program Development Project	4	6	C	12	-	-					
2E1421 Signal Theory	4	6	C	24	20	-					Datorövningar 12 h
2G1119 Computer Hardware Basics	4	6	C	18	18	20					
2G1915 Concurrent Programming	5	7,5	C	36	-	24					

2I1130 Cognitive Psychology	4	6	B	30	12	-					
5B1455 Ordinary Differential Equations Not given 99/00.	4	6	D	36	-	-					
5B1456 Mathematics, Seminar Course I Not given 99/00.	5	7,5	D	36	-	-					
5B1457 Mathematics, Seminar Course II Not given 99/00.	5	7,5	D	36	-	-					
5B1458 Mathematics, Seminar Course III Given 99/00.	5	7,5	D	36	-	-					
5B1459 Mathematics, Seminar Course IV Given 99/00.	5	7,5	D	36	-	-					
5B1464 Topology Not given 99/00.	5	7,5	D	36	-	-					
5B1466 Fourier Analysis Given 99/00.	5	7,5	D	36	-	-					
5B1467 Algebra, Advanced Course Given 99/00.	5	7,5	D	36	-	-					
5B1470 Analytic Functions Not given 99/00.	5	7,5	D	36	-	-					
5B1472 Functional Analysis	5	7,5	D	36	-	-					
5B1473 Elementary Differential Geometry Not given 99/00.	5	7,5	D	36	-	-					
5B1475 Combinatorics, Advanced Course Not given 99/00.	5	7,5	D	36	-	-					
5B1479 Integration Theory Given 99/00.	5	7,5	D	36	-	-					
5B1490 Chaotic Dynamical Systems Not given 99/00.	5	7,5	D	36	-	-					
5B1491 Analytical and Numerical Methods for Partial Differential Equations Not given 99/00.	5	7,5	D	36	-	-					

5B1492 Linear Algebra, Advanced Course Not given 99/00.	5	7,5	D	36	-	-					
5B1810 Mathematical Programming	5	7,5	D	36	18	6					

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Matematik F4

Code Name	Credits	Ects Credits	Level	Lec	Less	Lab	Periods				Other
							1	2	3	4	
Elective											
5B1456 Mathematics, Seminar Course I Not given 99/00.	5	7,5	D	36	-	-					
5B1457 Mathematics, Seminar Course II Not given 99/00.	5	7,5	D	36	-	-					
5B1458 Mathematics, Seminar Course III Given 99/00.	5	7,5	D	36	-	-					
5B1459 Mathematics, Seminar Course IV Given 99/00.	5	7,5	D	36	-	-					
5B1464 Topology Not given 99/00.	5	7,5	D	36	-	-					
5B1466 Fourier Analysis Given 99/00.	5	7,5	D	36	-	-					
5B1467 Algebra, Advanced Course Given 99/00.	5	7,5	D	36	-	-					

5B1470 Analytic Functions Not given 99/00.	5	7,5	D	36	-	-					
5B1472 Functional Analysis	5	7,5	D	36	-	-					
5B1473 Elementary Differential Geometry Not given 99/00.	5	7,5	D	36	-	-					
5B1475 Combinatorics, Advanced Course Not given 99/00.	5	7,5	D	36	-	-					
5B1479 Integration Theory Given 99/00.	5	7,5	D	36	-	-					
5B1490 Chaotic Dynamical Systems Not given 99/00.	5	7,5	D	36	-	-					
5B1491 Analytical and Numerical Methods for Partial Differential Equations Not given 99/00.	5	7,5	D	36	-	-					
5B1492 Linear Algebra, Advanced Course Not given 99/00.	5	7,5	D	36	-	-					
5B1712 Optimization	4	6	C	30	12	6					
5B1862 Stochastic Calculus and the Theory of Capital Markets	5	7,5	D	-	48	-					



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Optimeringslära och systemteori F4

Code Name	Credits	Ects Credits	Level	Lec	Less	Lab	Periods				Other
							1	2	3	4	
Elective											
1H1401 Optimisation Models in Transport and Location Analysis The course will be given for the first time 1999/2000.	5	7,5	D	30	12	6					Seminarium 6h
2D1334 Database Technology	4	6	C	24	20	12					
2D1358 Object Oriented Program Construction using C++	4	6	C	28	16	22					
2E1252 Control Theory and Practice, Advanced Course	5	7,5	D	28	26	8					
5B1550 Applied Mathematical Statistics	5	7,5	D	-	-	-					
5B1742 Mathematical Systems Theory	4	6	D	28	14	6					
5B1810 Mathematical Programming	5	7,5	D	36	18	6					

5B1822 Mathematical Systems Theory, Advanced Course	4	6	D	24	24	6					
5B1842 Operations Research Methods	4	6	D	32	16	-					
5B1846 Applied Systems Engineering	4	6	D	24	12	12					
5B1852 Mathematical Economics	4	6	D	32	16	-					
5B1862 Stochastic Calculus and the Theory of Capital Markets	5	7,5	D	-	48	-					
5B1872 Optimal Control Theory	4	6	D	30	14	6					
5B1890 Optimization Modeling	4	6	D	24	-	18					



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Hållfasthetslära F4

Code Name	Credits	Ects Credits	Level	Lec	Less	Lab	Periods				Other
							1	2	3	4	
Elective											
4C1110 Material Mechanics	4	6	D	52	-	2					2 written assignments
4C1111 Fracture Mechanics and Fatigue	4	6	D	48	-	4					2 written assignments
4C1112 Theory of Elasticity	4	6	D	26	26	-					2 written assignments
4C1114 Finite Element Method	4	6	D	-	49	8					Written assignments
4C1116 Dynamic problems in solid mechanics	4	6	D	42	-	8					Written assignments, computational assignments
4C1117 Design Applications of Solid Mechanics	4	6	D	16	6	-					Estimated time for project: 90 h
4C1118 Non-linear Theory of Elasticity	2	3	D	12	12	-					2 written assignments
4C1119 Finite Element Method, project course	2	3	D	8	-	-					Estimated time for project: 30 h

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Ljud och vibrationslära F4

Code Name	Credits	Ects Credits	Level	Lec	Less	Lab	Periods				Other
							1	2	3	4	
Elective											
4B1126 Dynamics of Structures	5	7,5	D	-	56	8					
4B1131 Experimental Structure Dynamics	5	7,5	D	-	58	12					Datorövn. 20h i period 2 (inräknade i "Övningar")
4B1136 Flow Acoustics	4	6	D	-	42	8					
4B1141 Sound and Vibration, Projekt Course	5	7,5	D	-	22	38					Sem./studieb. 40h


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Strömmningsmekanik F4

Code Name	Credits	Ects Credits	Level	Lec	Less	Lab	Periods				Other
							1	2	3	4	
Elective											
2D1260 The Finite Element Method	4	6	D	18	14	12					
2D1263 Program Construction for Scientific Computing	4	6	D	24	-	12					
5C1122 Continuum Mechanics	4	6	C	42	-	-					
5C1123 Mathematical Methods of Mechanics, General Course	4	6	D	36	-	-					
5C1125 Mathematical Methods of Mechanics, Intermediate Course	2	3	D	-	-	-					Handledning 18 h
5C1205 Compressible Flow, General Course	4	6	D	-	-	6					
5C1207 Boundary Layer Theory and Thermal Convection	5	7,5	D	-	-	9					

5C1208 Fluid mechanics, continuation course	2	3	D	-	-	-					
5C1209 Compressible flow, continuation course	2	3	D	-	-	6					
5C1210 Experimental Methods in Fluid Mechanics	4	6	D	-	-	9					
5C1940 Computational Fluid Mechanics	4	6	D	-	-	6					3 st laborationer à 2 h
5C1980 Applied Mechanics, for (T) The course may not be given 99/00. (The course runs the entire academic year. A few lectures during fall.)	4	6	C	24	-	37					Övrigt 37 h
5C1992 Turbulence	4,5	7	D	36	-	3					

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Teoretisk mekanik och tillämpad mekanik F4

Code Name	Credits	Ects Credits	Level	Lec	Less	Lab	Periods				Other
							1	2	3	4	
Elective											
2D1260 The Finite Element Method	4	6	D	18	14	12					
2D1263 Program Construction for Scientific Computing	4	6	D	24	-	12					
5C1122 Continuum Mechanics	4	6	C	42	-	-					
5C1123 Mathematical Methods of Mechanics, General Course	4	6	D	36	-	-					
5C1125 Mathematical Methods of Mechanics, Intermediate Course	2	3	D	-	-	-					Handledning 18 h
5C1400 Nonlinear Dynamics in Mechanics	5	7,5	C	24	-	-					
5C1902 Advanced Dynamics of Complex Systems	4	6	D	24	-	-					
5C1904 Advanced Modern Mechanics	4	6	D	24	-	-					

[5C1980 Applied Mechanics, for \(T\)](#)

The course may not be given 99/00. (The course runs the entire academic year. A few lectures during fall.)

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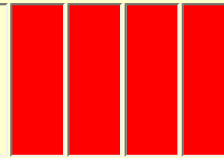
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Civil Engineering

Civil Engineering V1

Code Name	Credits	Ects Credits	Level	Lec	Less	Lab	Periods				Other
							1	2	3	4	
Compulsory											
1B1031 Ecology	4	6	B	20	22	-					Fältövningar 1d
1C1201 Basic Engineering Tools	4	6	B	27	45	-					Datorlaborationer
2D1310 Programming Technique	4	6	B	26	16	26					
3B1470 General Chemistry, Basic Course I	5	7,5	B	24	24	20					
5B1102 Calculus I	10	15	B	60	-	-					Gruppstudier 24 h/period
5B1108 Linear Algebra I	4	6	B	24	24	-					Gruppstudier 18h
5B1200 Differential Equations and Transforms I	4	6	C	24	30	-					
5C1103 Mechanics, Basic Course	6	9	B	48	27	-					



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Civil Engineering

Civil Engineering V2

Code Name	Credits	Ects Credits	Level	Lec	Less	Lab	Periods				Other
							1	2	3	4	
Compulsory											
1B1035 Geosciences, part 1	5	7,5	C	33	15	-					3 Fältdagar, Workshop 18h
1C1109 Structural Mechanics I	5	7,5	B	39	-	-					Workshops 52h
1C1115 Structural Mechanics II	5	7,5	C	42	-	-					Workshops 56h
1F1530 Construction Economics and Management	8	12	C	68	68	-					
2D1210 Numerical Methods, Basic Course I	4	6	B	24	24	24					
5A1215 Electricity and Heat	5	7,5	B	30	24	20					Räknestuga 24 h
5B1501 Probability Theory and Statistics	4	6	C	24	36	-					
5C1114 Mechanics, Continuation Course	4	6	C	30	15	-					



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Civil Engineering

Civil Engineering V3

Code Name	Credits	Ects Credits	Level	Lec	Less	Lab	Periods				Other
							1	2	3	4	
Compulsory											
1B1045 Geosciences, part 2	5	7,5	C	45	-	16					Workshop 39h
1D1801 Building Materials and Building Physics	10	15	C	84	75	16					Datorlab 8h
1F1532 Construction Economics and Management For students who has followed the first two years in Borlänge	6	9	C	52	52	-					
1H1211 Road, Traffic and Urban Design For students who has followed the first two years in Stockholm	6	9	B	36	73	-					


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Civil Engineering

Civil Engineering V4

Code Name	Credits	Ects Credits	Level	Lec	Less	Lab	Periods				Other
							1	2	3	4	
Elective											
1B1336 Geological Processes - Field Course on Iceland	5	7,5	C	-	-	-					Juli-Augusti, 5 veckor inkl. 10 dagars exkursion
1B1820 Risk in Technical Systems	5	7,5	D	-	-	-					Självstudier
1B1990 Developing Countries, Society and Technology	4	6	C	37	-	-					
1B1991 Management of Development Cooperation Projects	4	6	C	36	-	-					
1B1992 East- and Central Europe - Our Future Market	4	6	C	37	-	-					
1E1200 Surveying and Photogrammetry	5	7,5	C	20	-	45					
1H1204 Logistics	5	7,5	C	12	-	-					Projektkurs, seminarium 7h
1H1212 Logistics, Advanced Course	5	7,5	D	3	8	-					Projektkurs

1K14LV Architecture for Engineers	5	7,5	D	32	-	-					
2D1320 Applied Computer Science The course is given twice during Spring 2000: the first time in period 3 and a second time in period 4.	4	6	B	32	16	20					
2D1320 Applied Computer Science The course is given twice during Spring 2000: the first time in period 3 and a second time in period 4.	4	6	B	32	16	20					
2D1323 Computer Graphics and Interaction	4	6	B	42	-	12					
2D1334 Database Technology	4	6	C	24	20	12					
2D1354 Algorithms and Complexity	4	6	C	30	18	-					
2D1358 Object Oriented Program Construction using C++	4	6	C	28	16	22					
4B1304 Railway Systems and Rail Vehicles	6	9	C	49	10	7					
4B1313 Rail Vehicle Dynamics	5	7,5	D	30	12	24					
5B1306 Introductory Financial Mathematics	5	7,5	D	-	-	-					



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Civil Engineering

Civic Construction Engineering V3

Code Name	Credits	Ects Credits	Level	Lec	Less	Lab	Periods				Other
							1	2	3	4	
Elective											
1B1431 Soil Mechanics and Foundation Engineering	5	7,5	B	46	-	-					Workshops 32h
1B1432 Rock Mechanics and Rock Engineering	5	7,5	C	49	-	-					Workshops 18h
1C1103 Structural Mechanics III	5	7,5	D	33	-	4					Workshops 40h
1C1305 Design of Building Structures	5	7,5	C	33	-	-					Workshops 44h
1D1804 Buildings and Indoor Climate	10	15	C	66	88	-					Räknestugor 28h/period
1H1203 Traffic Forecasting	5	7,5	C	-	77	-					
1H1213 Design of Traffic Facilities	5	7,5	C	-	77	-					
1H1243 Traffic and Land-use Planning	5	7,5	C	-	77	-					
1H1308 Road and Street Engineering	5	7,5	C	33	44	-					

Civic Construction Engineering V4

Code Name	Credits	Ects Credits	Level	Lec	Less	Lab	Periods				Other
							1	2	3	4	
Elective											
1B1131 Hydraulic Engineering	5	7,5	D	33	-	-					Workshop 33h
1B1134 Water Resources Development	5	7,5	D	33	-	-					Workshop 33h
1B1234 Water Supply and Waste Water Handling	5	7,5	C	33	-	-					Workshop 33h
1B1334 Engineering Geology	5	7,5	D	27	-	-					Workshops 27h, 3 Fältdagar
1B1335 Advanced Engineering Geology	5	7,5	D	33	-	-					Workshops 33h
1B1434 Soil - Structure Interaction	5	7,5	C	33	-	-					Workshops 33h
1B1435 Soil and Rock Dynamics	5	7,5	D	33	-	-					Workshops 33h
1E1621 Geographic Information Technology for Civil Engineers	5	7,5	C	24	-	16					
1U1026 ALV-Project	10	15	D	-	120	-					



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Civil Engineering

Construction Management V3

Code Name	Credits	Ects Credits	Level	Lec	Less	Lab	Periods				Other
							1	2	3	4	
Elective											
1B1431 Soil Mechanics and Foundation Engineering	5	7,5	B	46	-	-					Workshops 32h
1B1432 Rock Mechanics and Rock Engineering	5	7,5	C	49	-	-					Workshops 18h
1C1103 Structural Mechanics III	5	7,5	D	33	-	4					Workshops 40h
1C1305 Design of Building Structures	5	7,5	C	33	-	-					Workshops 44h
1D1804 Buildings and Indoor Climate	10	15	C	66	88	-					Räknestugor 28h/period
1H1203 Traffic Forecasting	5	7,5	C	-	77	-					
1H1213 Design of Traffic Facilities	5	7,5	C	-	77	-					
1H1243 Traffic and Land-use Planning	5	7,5	C	-	77	-					
1H1308 Road and Street Engineering	5	7,5	C	33	44	-					

Construction Management V4

Code Name	Credits	Ects Credits	Level	Lec	Less	Lab	Periods				Other
							1	2	3	4	
Elective											
1F1538 Management of People and Organizations	5	7,5	D	30	30	-					
1F1540 Information Technology in Construction	5	7,5	D	30	30	-					
1F1547 Project Law	5	7,5	D	30	30	-					
1F1560 Project Management	5	7,5	D	30	30	-					
1F1562 Construction Management	5	7,5	D	30	30	-					
1F1565 Facilities Management	5	7,5	D	30	30	-					
1F1575 Construction Economics The course will be given from 1999/2000	5	7,5	D	30	30	-					
1U1026 ALV-Project	10	15	D	-	120	-					



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Civil Engineering

Buildings and Buildings Services V3

Code Name	Credits	Ects Credits	Level	Lec	Less	Lab	Periods				Other
							1	2	3	4	
Compulsory											
1D1804 Buildings and Indoor Climate	10	15	C	66	88	-					Räknestugor 28h/period
Elective											
1B1431 Soil Mechanics and Foundation Engineering	5	7,5	B	46	-	-					Workshops 32h
1B1432 Rock Mechanics and Rock Engineering	5	7,5	C	49	-	-					Workshops 18h
1C1103 Structural Mechanics III	5	7,5	D	33	-	4					Workshops 40h
1C1305 Design of Building Structures	5	7,5	C	33	-	-					Workshops 44h

Buildings and Buildings Services V4

Code Name	Credits	Ects Credits	Level	Lec	Less	Lab	Periods				Other

							1	2	3	4	
Elective											
1D1111 Building Materials, Advanced Course	5	7,5	D	-	99	-					
1D1112 Fire in Buildings	5	7,5	C	-	88	-					
1D1113 Life Cycle Analysis and Environmental Impact in Building	5	7,5	C	-	88	-					
1D1211 Building Technology, Advanced Course	5	7,5	D	33	33	-					
1D1243 Building Acoustics	5	7,5	C	33	33	-					
1D1311 Building Services Engineering, Advanced Course	5	7,5	D	33	33	-					
1D1313 Indoor Climate	5	7,5	C	-	88	-					
1D1314 Simulation	5	7,5	D	-	88	-					
1D1806 Building Operation and Maintenance	5	7,5	D	-	88	-					
1D1808 Building Damages	5	7,5	C	-	88	-					
1U1026 ALV-Project	10	15	D	-	120	-					

Buildings and Buildings Services V5

Code Name	Credits	Ects Credits	Level	Lec	Less	Lab	Periods				Other
							1	2	3	4	
Elective											
1D1316 Industrial Ventilation	5	7,5	C	-	42	-					



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Civil Engineering

Building Engineers V2

Code Name	Credits	Ects Credits	Level	Lec	Less	Lab	Periods				Other
							1	2	3	4	
Compulsory											
1B1031 Ecology	4	6	B	20	22	-					Fältövningar 1d
1C1115 Structural Mechanics II	5	7,5	C	42	-	-					Workshops 56h
5A1215 Electricity and Heat	5	7,5	B	30	24	20					Räknestuga 24 h
5B1102 Calculus I	10	15	B	60	-	-					Gruppstudier 24 h/period
5B1108 Linear Algebra I	4	6	B	24	24	-					Gruppstudier 18h
5B1200 Differential Equations and Transforms I	4	6	C	24	30	-					
5C1103 Mechanics, Basic Course	6	9	B	-	48	-					
5C1114 Mechanics, Continuation Course	4	6	C	-	30	-					
Elective											
1B1035 Geosciences, part 1	5	7,5	C	33	15	-					3 Fälldagar, Workshop 18h
1C1109 Structural Mechanics I	5	7,5	B	39	-	-					Workshops 52h

2D1310 Programming Technique	4	6	B	26	16	26					
3B1470 General Chemistry, Basic Course I	5	7,5	B	24	24	20					

Building Engineers V3

Code Name	Credits	Ects Credits	Level	Lec	Less	Lab	Periods				Other
							1	2	3	4	
Compulsory											
2D1210 Numerical Methods, Basic Course I	4	6	B	24	24	24					
5B1501 Probability Theory and Statistics	4	6	C	24	36	-					
Elective											
1B1045 Geosciences, part 2	5	7,5	C	45	-	16					Workshop 39h
1D1801 Building Materials and Building Physics	10	15	C	84	75	16					Datorlab 8h
1H1211 Road, Traffic and Urban Design For students who has followed the first two years in Stockholm	6	9	B	36	73	-					



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Civil Engineering

Structural Engineering V3

Code Name	Credits	Ects Credits	Level	Lec	Less	Lab	Periods				Other
							1	2	3	4	
Compulsory											
1C1103 Structural Mechanics III	5	7,5	D	33	-	4					Workshops 40h
1C1305 Design of Building Structures	5	7,5	C	33	-	-					Workshops 44h
Elective											
1B1431 Soil Mechanics and Foundation Engineering	5	7,5	B	46	-	-					Workshops 32h
1B1432 Rock Mechanics and Rock Engineering	5	7,5	C	49	-	-					Workshops 18h
1D1804 Buildings and Indoor Climate	10	15	C	66	88	-					Räknestugor 28h/period

Structural Engineering V4

Code Name	Credits	Ects Credits	Level	Lec	Less	Lab	Periods				Other

							1	2	3	4	
Elective											
1C1116 Structural Dynamics	5	7,5	D	33	-	-					Workshops 44h
1C1117 Finite Element Methods	5	7,5	D	33	-	-					Workshops 44h
1C1204 Structural Design of Bridges	5	7,5	D	33	-	-					Workshops 44h
1C1205 Bridge Structures	5	7,5	D	33	-	-					Workshops 44h
1C1206 Railway Track Engineering	5	7,5	D	33	-	-					Workshops 44h
1C1302 Light-weight Structures	5	7,5	D	33	-	-					Workshops 44h
1C1304 Steel Structures	5	7,5	D	33	-	-					Workshops 44h
1C1401 Concrete Structures	5	7,5	D	33	-	-					Workshops 44h
1C1402 Concrete Infrastructures The course will not be given 1999/2000	5	7,5	D	-	-	-					11 heldagar
1C5020 Finite Element Methods, Advanced Course The course will not be given 1999/2000	5	7,5	D	-	-	-					11 heldagar
1C5024 Stability of Structures The course will not be given 1999/2000	5	7,5	D	-	-	-					11 heldagar
1C5032 Structural Dynamics, Advanced Course The course will not be given 1999/2000	5	7,5	D	-	-	-					11 heldagar
1C5048 Fracture Mechanics of Concrete and Steel Will be given for the first time 1999/2000	5	7,5	D	33	-	-					Workshops 44h
1C5049 FEM Modelling Will be given for the first time 1999/00	5	7,5	D	33	-	-					Workshops 44h
1U1026 ALV-Project	10	15	D	-	120	-					



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Civil Engineering

Environmental Engineering V3

Code Name	Credits	Ects Credits	Level	Lec	Less	Lab	Periods				Other
							1	2	3	4	
Elective											
1B1431 Soil Mechanics and Foundation Engineering	5	7,5	B	46	-	-					Workshops 32h
1B1432 Rock Mechanics and Rock Engineering	5	7,5	C	49	-	-					Workshops 18h
1C1103 Structural Mechanics III	5	7,5	D	33	-	4					Workshops 40h
1C1305 Design of Building Structures	5	7,5	C	33	-	-					Workshops 44h
1D1804 Buildings and Indoor Climate	10	15	C	66	88	-					Räknestugor 28h/period
1H1106 Planning for Housing, Workplaces and Services	5	7,5	C	-	66	-					
1H1151 Theory of Planning and Organization The course will be given twice during the academic year 1999/2000, period 1 and 4	5	7,5	D	-	66	-					

1H1203 Traffic Forecasting	5	7,5	C	-	77	-					
1H1213 Design of Traffic Facilities	5	7,5	C	-	77	-					
1H1243 Traffic and Land-use Planning	5	7,5	C	-	77	-					
1H1308 Road and Street Engineering	5	7,5	C	33	44	-					

Environmental Engineering V4

Code Name	Credits	Ects Credits	Level	Lec	Less	Lab	Periods				Other
							1	2	3	4	
Compulsory											
1B1291 Environmental Dynamics/Chemical Processes	5	7,5	D	52	9	-					Excursion 1d
1B1292 Environmental Dynamics/Physical Processes	5	7,5	C	36	44	-					
1B1634 Environmental Impact Assessment	5	7,5	C	27	36	-					
1H1142 Political Economy for Environmental Planners	5	7,5	C	33	-	-					Seminars 24h
1U1030 Theory of Science, Research Methodology and Excursions	5	7,5	D	30	-	-					Seminars 10h; Excursions 6d
Elective											
1B1133 Applied Hydrology	5	7,5	D	22	29	-					
1B1233 Water and Waste Handling	5	7,5	C	-	70	-					
1B1333 Environmental Geology and Geophysics	5	7,5	D	32	30	-					
1B1635 Quantitative Hydrogeology	5	7,5	D	20	14	21					Field excercises 2,5d
1B1640 Natural Resources Management	5	7,5	D	12	40	-					Seminars 12 h

1E1610 Environmental Data	5	7,5	D	20	-	48					
1F1462 Management of Land and Water	5	7,5	D	20	39	-					
1H1141 Urban Infrastructure	5	7,5	D	-	60	-					
1H1143 Sustainable Rural and Urban Development	5	7,5	C	32	16	-					Seminars 24h, Excursion 1d
1H1144 Project Design and Implementation	5	7,5	D	45	24	-					Excursions 48h
1H1501 Human Settlements and Housing	5	7,5	D	36	24	-					



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Civil Engineering

Urban Planning V3

Code Name	Credits	Ects Credits	Level	Lec	Less	Lab	Periods				Other
							1	2	3	4	
Elective											
1H1106 Planning for Housing, Workplaces and Services	5	7,5	C	-	66	-					
1H1141 Urban Infrastructure	5	7,5	D	-	60	-					
1H1151 Theory of Planning and Organization The course will be given twice during the academic year 1999/2000, period 1 and 4	5	7,5	D	-	66	-					
1H1243 Traffic and Land-use Planning	5	7,5	C	-	77	-					

Urban Planning V4

Code Name	Credits	Ects Credits	Level	Lec	Less	Lab	Periods				Other
							1	2	3	4	

Elective

1H1151 Theory of Planning and Organization The course will be given twice during the academic year 1999/2000, period 1 and 4	5	7,5	D	-	66	-					
1H1157 Urban and Regional Economics	5	7,5	D	-	66	-					
1H1160 Urban Ecology and Strategic Environmental Assessment The course will not be given during 1999/2000	5	7,5	D	-	66	-					
1H1161 European Planning System The course will be given from 1999/2000	5	7,5	D	-	-	-					Läs- och projektkurs, självstudier, efter överenskommelse
1H1162 Urban Center Planning Course cancelled, Dec 16th 1999	5	7,5	D	-	77	-					
1H1170 Spatial Planning and Sustainable Development	10	15	D	-	120	-					
1H1171 Governance and Spatial Planning	5	7,5	D	-	66	-					
1H1172 Fundamental Methods of Spatial Planning	5	7,5	D	30	-	36					
1H1174 Spatial Planning for Regional Development	10	15	D	-	120	-					
1H1183 Spatial Planning with GIS	5	7,5	D	33	-	42					
1H1193 Project Work in Urban Planning The course will be given from 1999/2000	10	15	D	-	120	-					
1H1214 Traffic in Urban Areas Will be given for the first time 1999/2000	5	7,5	C	-	77	-					
1H1401 Optimisation Models in Transport and Location Analysis The course will be given for the first time 1999/2000.	5	7,5	D	30	12	6					Seminarium 6h



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Sustainable Infrastructure V3

Code Name	Credits	Ects Credits	Level	Lec	Less	Lab	Periods				Other
							1	2	3	4	
Elective											
1B1431 Soil Mechanics and Foundation Engineering	5	7,5	B	46	-	-					Workshops 32h
1B1432 Rock Mechanics and Rock Engineering	5	7,5	C	49	-	-					Workshops 18h
1C1103 Structural Mechanics III	5	7,5	D	33	-	4					Workshops 40h
1C1305 Design of Building Structures	5	7,5	C	33	-	-					Workshops 44h
1D1804 Buildings and Indoor Climate	10	15	C	66	88	-					Räknestugor 28h/period
1H1106 Planning for Housing, Workplaces and Services	5	7,5	C	-	66	-					
1H1151 Theory of Planning and Organization The course will be given twice during the academic year 1999/2000, period 1 and 4	5	7,5	D	-	66	-					

1H1203 Traffic Forecasting	5	7,5	C	-	77	-					
1H1213 Design of Traffic Facilities	5	7,5	C	-	77	-					
1H1243 Traffic and Land-use Planning	5	7,5	C	-	77	-					
1H1308 Road and Street Engineering	5	7,5	C	33	44	-					

Sustainable Infrastructure V4

Code Name	Credits	Ects Credits	Level	Lec	Less	Lab	Periods				Other
							1	2	3	4	
Compulsory											
1B1634 Environmental Impact Assessment	5	7,5	C	27	36	-					
1H1142 Political Economy for Environmental Planners	5	7,5	C	33	-	-					Seminars 24h
1H1143 Sustainable Rural and Urban Development	5	7,5	C	32	16	-					Seminars 24h, Excursion 1d
1H1501 Human Settlements and Housing	5	7,5	D	36	24	-					
1U1030 Theory of Science, Research Methodology and Excursions	5	7,5	D	30	-	-					Seminars 10h; Excursions 6d
Elective											
1B1133 Applied Hydrology	5	7,5	D	22	29	-					
1B1233 Water and Waste Handling	5	7,5	C	-	70	-					
1B1291 Environmental Dynamics/Chemical Processes	5	7,5	D	52	9	-					Excursion 1d
1B1292 Environmental Dynamics/Physical Processes	5	7,5	C	36	44	-					

1B1333 Environmental Geology and Geophysics	5	7,5	D	32	30	-					
1B1635 Quantitative Hydrogeology	5	7,5	D	20	14	21					Field excercises 2,5d
1B1640 Natural Resources Management	5	7,5	D	12	40	-					Seminars 12 h
1E1610 Environmental Data	5	7,5	D	20	-	48					
1F1462 Management of Land and Water	5	7,5	D	20	39	-					
1H1141 Urban Infrastructure	5	7,5	D	-	60	-					
1H1144 Project Design and Implementation	5	7,5	D	45	24	-					Excursions 48h



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Civil Engineering

Traffic and Transport Infrastructure V3

Code Name	Credits	Ects Credits	Level	Lec	Less	Lab	Periods				Other
							1	2	3	4	
Compulsory											
1H1203 Traffic Forecasting	5	7,5	C	-	77	-					
1H1213 Design of Traffic Facilities	5	7,5	C	-	77	-					
1H1308 Road and Street Engineering	5	7,5	C	33	44	-					
Elective											
1B1431 Soil Mechanics and Foundation Engineering	5	7,5	B	46	-	-					Workshops 32h
1B1432 Rock Mechanics and Rock Engineering	5	7,5	C	49	-	-					Workshops 18h
1H1106 Planning for Housing, Workplaces and Services	5	7,5	C	-	66	-					
1H1141 Urban Infrastructure	5	7,5	D	-	60	-					

1H1151 Theory of Planning and Organization The course will be given twice during the academic year 1999/2000, period 1 and 4	5	7,5	D	-	66	-					
1H1243 Traffic and Land-use Planning	5	7,5	C	-	77	-					

Traffic and Transport Infrastructure V4

Code Name	Credits	Ects Credits	Level	Lec	Less	Lab	Periods				Other
							1	2	3	4	
Elective											
1H1162 Urban Center Planning Course cancelled, Dec 16th 1999	5	7,5	D	-	77	-					
1H1206 Planning of Railroad Traffic	5	7,5	C	-	77	-					
1H1214 Traffic in Urban Areas Will be given for the first time 1999/2000	5	7,5	C	-	77	-					
1H1215 Impact Analysis of Road Traffic Facilities Will be given for the first time 1999/2000	5	7,5	C	-	77	-					
1H1240 Procedure in Physical Infrastructure The course is to be completed after the practical trainee period.	5	7,5	C	-	-	-					Kvällsstudier, självstudier.
1H1306 Management and Maintenance of Traffic Channels The course will be given in concentrated form.	5	7,5	D	-	80	-					
1H1307 Computer-aided Highway Design	5	7,5	D	18	-	-					Projekt
1H1401 Optimisation Models in Transport and Location Analysis The course will be given for the first time 1999/2000.	5	7,5	D	30	12	6					Seminarium 6h
1U1026 ALV-Project	10	15	D	-	120	-					



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