

# Applied Physics and Electrical Engineering, M Sc in Engineering

300 credits

Civilingenjör i teknisk fysik och elektroteknik

6CYYY

Valid from:

**Determined by**

Board of Studies for Electrical  
Engineering, Physics and Mathematics

**Date determined**

## Entry requirements

x

### Degree in Swedish

Civilingenjör 300 hp och Teknologie master 120 hp

### Degree in English

Master of Science in Applied Physics and Electrical Engineering

## Curriculum

### Semester 8 (Spring 2017)

Course code	Course name	Credits	Level	Timetable module	ECV
<b>Period 1</b>					
TAMS29	Stochastic Processes Applied to Financial Models	6	A1X	3	E
TANA15	Numerical Linear Algebra	6	A1X	1	E
TATA27	Partial Differential Equations	6*	A1X	2	E
TATA53	Linear Algebra, Honours Course	6*	G2X	-	E
TATA54	Number Theory	6	G2X	2	E
TATA66	Fourier and Wavelet Analysis	6*	A1X	4	E
TATA78	Complex Analysis, second course	6*	A1X	2	E
TBMI26	Neural Networks and Learning Systems	6	A1X	2	E
TBMT02	Medical Imaging	6	A1F	3	E
TBMT09	Physiological Pressures and Flows	6	A1X	1	E
TDDD76	Software Engineering Project	8*	G2X	2	E
TDS07	System Design and Methodology	6	A1X	1	E
TEIO20	Entrepreneurship and New Business Development	6*	G2X	4	E
TFFM40	Analytical Methods in Materials Science	6*	A1X	1	E
TFYA04	Materials Optics	6	A1X	4	E
TFYA21	Physical Metallurgy	6	A1F	3	E
TFYA25	Physics of Condensed Matter part II	6	A1X	2	E
TFYA36	Chaos and Non-Linear Phenomena	6*	A1X	3	E
TFYA71	Cosmology	6*	A1X	3	E
TFYA85	Alternative Energy Sources and their Applications	6	G2X	4	E
TFYY67	Classical Electrodynamics	6	A1X	1	E
TGTU01	Technology and Ethics	6	G1X	1	E
TGTU91	Oral and Written Communication	6	G1X	2	E
THFR05	Communicative French	6*	G1X	4	E
THSP05	Spanish	6*	G1X	4	E
THTY05	German	6*	G1X	4	E

Course code	Course name	Credits	Level	Timetable module	ECV
TKMJ10	Industrial Ecology	6	A1X	1	E
TKMJ15	Environmental Management Strategies	6	G1X	3	E
TMME55	Flight Dynamics	6	A1X	1	E
TMMS30	Multi Body Dynamics and Robotics	6	A1X	3	E
TNM048	Information Visualisation	6	A1X	3	E
TPPE32	Financial Risk Management	6	A1X	2	E
TSBB15	Computer Vision	12*	A1X	1	E
TSBK07	Computer Graphics	6*	A1X	4	E
TSBK08	Data Compression	6	A1X	2	E
TSEK03	Radio Frequency Integrated Circuits	6	A1X	2	E
TSEK06	VLSI Design	12*	A1X	4	E
TSFS04	Electrical Drives	6	G2X	4	E
TSKS13	Wireless Communications	6	A1F	4	E
TSRT07	Industrial Control Systems	6	A1X	2	E
TSRT09	Control Theory	6	A1X	3	E
TSTE08	Analog and Discrete-Time Integrated Circuits	6	A1X	3	E
TSTE14	Analog Filters	6	A1X	2	E
TSTE93	Analog Circuits	6*	G2X	1	E
<b>Period 2</b>					
TANA31	Computational Methods for Ordinary and Partial Differential Equations	6	A1X	2	E
TAOP24	Optimization, Advanced Course	6	G2X	1	E
TATA27	Partial Differential Equations	6*	A1X	4	E
TATA53	Linear Algebra, Honours Course	6*	G2X	-	E
TATA66	Fourier and Wavelet Analysis	6*	A1X	2	E
TATA78	Complex Analysis, second course	6*	A1X	3	E
TBME08	Biomedical Modeling and Simulation	6	A1X	3	E
TBMT26	Technology in Intensive Care and Surgery	6	A1X	1	E
TDDC78	Programming of Parallel Computers - Methods and Tools	6	A1X	3	E
TDDD12	Database Technology	6	G2X	4	E
TDDD76	Software Engineering Project	8*	G2X	2	E
TEIE44	Intellectual Property Rights	4	G1X	1	E

Course code	Course name	Credits	Level	Timetable module	ECV
TEIE95	Civil and Commercial Law	4	G1X	2	E
TEIO20	Entrepreneurship and New Business Development	6*	G2X	4	E
TFM40	Analytical Methods in Materials Science	6*	A1X	1	E
TFKE52	Fundamentals of Chemistry	6	G1X	2	E
TFMT19	Chemical Sensor Systems	6	A1X	4	E
TFYA18	Mathematical Methods of Physics	6	A1X	3	E
TFYA19	Quantum Computers	6	A1X	4	E
TFYA36	Chaos and Non-Linear Phenomena	6*	A1X	2	E
TFYA38	Optoelectronics	6	A1X	3	E
TFYA41	Thin Film Physics	6	A1X	2	E
TFYA71	Cosmology	6*	A1X	2	E
TGTU76	Philosophy of Science	6	G1X	4	E
THFR05	Communicative French	6*	G1X	4	E
THSP05	Spanish	6*	G1X	4	E
THTY05	German	6*	G1X	4	E
TKMJ29	Resource Efficient Products	6	A1X	1	E
TMIA11	Work Science, basic course	6	G1X	1	E
TNM079	Modelling and Animation	6	A1X	2	E
TPPE33	Portfolio Management	6	A1X	2	E
TSBB15	Computer Vision	12*	A1X	3	E
TSBK02	Image and Audio Coding	6	A1X	4	E
TSBK07	Computer Graphics	6*	A1X	1	E
TSEK06	VLSI Design	12*	A1X	4	E
TSFS03	Vehicle Propulsion Systems	6	A1X	3	E
TSFS06	Diagnosis and Supervision	6	A1N	1	E
TSFS11	Electrical and Energy Technology	6	G2F	4	E
TSKS14	Multiple Antenna Communications	6	A1X	2	E
TSRT14	Sensor Fusion	6	A1X	2	E
TSTE06	Digital Filters	6	A1X	3	E
TSTE87	Application-Specific Integrated Circuits	6	A1X	2	E
TSTE93	Analog Circuits	6*	G2X	1	E

*Specialisation: Applied Mathematics*

Course code	Course name	Credits	Level	Timetable module	ECV
<b>Period 1</b>					
TANA15	Numerical Linear Algebra	6	A1X	1	C
TATA27	Partial Differential Equations	6*	A1X	2	E
TATA66	Fourier and Wavelet Analysis	6*	A1X	4	E
TSRT09	Control Theory	6	A1X	3	E
<b>Period 2</b>					
TAOP24	Optimization, Advanced Course	6	G2X	1	C
TATA27	Partial Differential Equations	6*	A1X	4	E
TATA66	Fourier and Wavelet Analysis	6*	A1X	2	E
TFYA18	Mathematical Methods of Physics	6	A1X	3	E

*Specialisation: Biomedical Engineering*

Course code	Course name	Credits	Level	Timetable module	ECV
<b>Period 1</b>					
TBMT02	Medical Imaging	6	A1F	3	C
TBMT09	Physiological Pressures and Flows	6	A1X	1	C
TBMI03	Medical Information Models and Ontologies	6	A1X	4	E
TBMI26	Neural Networks and Learning Systems	6	A1X	2	E
<b>Period 2</b>					
TBME08	Biomedical Modeling and Simulation	6	A1X	3	E
TBMT26	Technology in Intensive Care and Surgery	6	A1X	1	E

*Specialisation: Communication*

Course code	Course name	Credits	Level	Timetable module	ECV
<b>Period 1</b>					
TSBK08	Data Compression	6	A1X	2	E
TSEK03	Radio Frequency Integrated Circuits	6	A1X	2	E
TSKS13	Wireless Communications	6	A1F	4	E
<b>Period 2</b>					
TSBK02	Image and Audio Coding	6	A1X	4	E
TSKS14	Multiple Antenna Communications	6	A1X	2	E

*Specialisation: Control and Information Systems*

Course code	Course name	Credits	Level	Timetable module	ECV
<b>Period 1</b>					
TSRT07	Industrial Control Systems	6	A1X	2	C
TSRT09	Control Theory	6	A1X	3	C
<b>Period 2</b>					
TDDD12	Database Technology	6	G2X	4	C/E
TDDC78	Programming of Parallel Computers - Methods and Tools	6	A1X	3	E
TSFS06	Diagnosis and Supervision	6	A1N	1	E
TSRT14	Sensor Fusion	6	A1X	2	E

*Specialisation: Electronics*

Course code	Course name	Credits	Level	Timetable module	ECV
<b>Period 1</b>					
TSTE08	Analog and Discrete-Time Integrated Circuits	6	A1X	3	C
TSEK06	VLSI Design	12*	A1X	4	C/E
TSEK03	Radio Frequency Integrated Circuits	6	A1X	2	E
TSTE14	Analog Filters	6	A1X	2	E
TSTE93	Analog Circuits	6*	G2X	1	E
<b>Period 2</b>					
TSTE87	Application-Specific Integrated Circuits	6	A1X	2	C
TSEK06	VLSI Design	12*	A1X	4	C/E
TSTE06	Digital Filters	6	A1X	3	E
TSTE93	Analog Circuits	6*	G2X	1	E

*Specialisation: Financial Mathematics*

Course code	Course name	Credits	Level	Timetable module	ECV
<b>Period 1</b>					
TAMS29	Stochastic Processes Applied to Financial Models	6	A1X	3	C
TANA15	Numerical Linear Algebra	6	A1X	1	C
TPPE32	Financial Risk Management	6	A1X	2	E
<b>Period 2</b>					
TAOP24	Optimization, Advanced Course	6	G2X	1	E
TPPE33	Portfolio Management	6	A1X	2	E

*Specialisation: Materials and Nano Physics*

Course code	Course name	Credits	Level	Timetable module	ECV
<b>Period 1</b>					
TFFM40	Analytical Methods in Materials Science	6*	A1X	1	C
TFYA04	Materials Optics	6	A1X	4	E
TFYA21	Physical Metallurgy	6	A1F	3	E
TFYA25	Physics of Condensed Matter part II	6	A1X	2	E
<b>Period 2</b>					
TFFM40	Analytical Methods in Materials Science	6*	A1X	1	C
TFMT19	Chemical Sensor Systems	6	A1X	4	E
TFYA38	Optoelectronics	6	A1X	3	E
TFYA41	Thin Film Physics	6	A1X	2	E



*Specialisation: Mechatronics*

Course code	Course name	Credits	Level	Timetable module	ECV
<b>Period 1</b>					
TMME55	Flight Dynamics	6	A1X	1	E
TMMS30	Multi Body Dynamics and Robotics	6	A1X	3	E
TSFS04	Electrical Drives	6	G2X	4	E
TSRT07	Industrial Control Systems	6	A1X	2	E
TSRT09	Control Theory	6	A1X	3	E
<b>Period 2</b>					
TSFS03	Vehicle Propulsion Systems	6	A1X	3	E
TSFS06	Diagnosis and Supervision	6	A1N	1	E
TSRT14	Sensor Fusion	6	A1X	2	E

*Specialisation: Signal and Image Processing*

Course code	Course name	Credits	Level	Timetable module	ECV
<b>Period 1</b>					
TBMI26	Neural Networks and Learning Systems	6	A1X	2	E
TBMT02	Medical Imaging	6	A1F	3	E
TNM048	Information Visualisation	6	A1X	3	E
TSBB15	Computer Vision	12*	A1X	1	E
TSBK07	Computer Graphics	6*	A1X	4	E
TSBK08	Data Compression	6	A1X	2	E
<b>Period 2</b>					
TSBB15	Computer Vision	12*	A1X	3	E
TSBK02	Image and Audio Coding	6	A1X	4	E
TSBK07	Computer Graphics	6*	A1X	1	E
TSRT14	Sensor Fusion	6	A1X	2	E

*Specialisation: System-on-Chip*

Course code	Course name	Credits	Level	Timetable module	ECV
<b>Period 1</b>					
TDS07	System Design and Methodology	6	A1X	1	C
TSEK06	VLSI Design	12*	A1X	4	C/E
TSEK03	Radio Frequency Integrated Circuits	6	A1X	2	E
TSTE08	Analog and Discrete-Time Integrated Circuits	6	A1X	3	E
TSTE14	Analog Filters	6	A1X	2	E
<b>Period 2</b>					
TSEK06	VLSI Design	12*	A1X	4	C/E
TEIE44	Intellectual Property Rights	4	G1X	1	E
TSTE06	Digital Filters	6	A1X	3	E
TSTE87	Application-Specific Integrated Circuits	6	A1X	2	E

*Specialisation: Theory, Modelling and Visualization*

Course code	Course name	Credits	Level	Timetable module	ECV
<b>Period 1</b>					
TFYY67	Classical Electrodynamics	6	A1X	1	C
TATA27	Partial Differential Equations	6*	A1X	2	E
TFYA21	Physical Metallurgy	6	A1F	3	E
TFYA25	Physics of Condensed Matter part II	6	A1X	2	E
TFYA36	Chaos and Non-Linear Phenomena	6*	A1X	3	E
TFYA71	Cosmology	6*	A1X	3	E
TSBK07	Computer Graphics	6*	A1X	4	E
<b>Period 2</b>					
TFYA18	Mathematical Methods of Physics	6	A1X	3	C
TATA27	Partial Differential Equations	6*	A1X	4	E
TFYA19	Quantum Computers	6	A1X	4	E
TFYA36	Chaos and Non-Linear Phenomena	6*	A1X	2	E
TFYA71	Cosmology	6*	A1X	2	E
TSBK07	Computer Graphics	6*	A1X	1	E

**Semester 9 (Autumn 2017)**

Course code	Course name	Credits	Level	Timetable module	ECV
<b>Period 1</b>					
TAMS39	Multivariate Statistical Methods	6	A1X	4	E
TATA32	Discrete Mathematics	8*	G1X	3	E
TATA62	Project - Applied Mathematics	12*	A1X	4	E
TATA75	Theory of Relativity	6	A1X	-	E
TBMT14	Biomedical Engineering - Project Course	12*	A1X	4	E
TBMT36	Biomedical Optics	6	A1X	1	E
TDDC88	Software Engineering	12*	A1X	1	E
TFYA17	Advanced Project Work in Applied Physics	6*	A1X	-	E
TFYA50	Project course in Computational Physics CDIO	12*	A1X	4	E
TFYA51	Project Course in Physics - Design and Fabrication of Sensor Chip, CDIO	12*	A1X	4	E
TFYY47	Semiconductor Physics	6	A1X	1	E
TMES09	Industrial Energy Systems	6	A1X	3	E
TMMS11	Models of Mechanics	6*	A1X	3	E
TMMV01	Aerodynamics	6	A1X	2	E
TNE071	Microwave Engineering	6	A1X	1	E
TNE089	Electromagnetic Compatibility (EMC) and Printed Circuit Board (PCB) Design	6*	A1X	2	E
TNM067	Scientific Visualization	6	A1X	3	E
TPPE53	Financial Valuation Methodology	6	A1X	2	E
TSBB11	Images and Graphics, Project Course CDIO	12*	A1X	4	E
TSBB17	Visual Object Recognition and Detection	6	A1X	2	E
TSBK03	Advanced Game Programming	6*	A1X	1	E
TSEA26	Design of Embedded DSP Processor	6	A1X	1	E
TSEK11	Evaluation of an Integrated Circuit	2	A1X	4	E
TSEK38	Radio Frequency Transceiver Design	6	A1X	2	E
TSIN01	Information Networks	6	A1X	3	E
TSIT03	Cryptology	6	A1X	2	E
TSKS05	Communication Systems, Project Course	12*	A1X	4	E
TSKS12	Modern Channel Coding, Inference and Learning	6	A1X	1	E
TSRT10	Automatic Control - Project Course	12*	A1X	4	E

Course code	Course name	Credits	Level	Timetable module	ECV
TSTE17	System Design	12*	A1X	4	E
TSTE18	Digital Arithmetics	6*	A1X	3	E
TSTE25	Power Electronics	6	A1X	3	E
<b>Period 2</b>					
TATA32	Discrete Mathematics	8*	G1X	1	E
TATA62	Project - Applied Mathematics	12*	A1X	4	E
TBMI02	Medical Image Analysis	6	A1X	1	E
TBMT14	Biomedical Engineering - Project Course	12*	A1X	4	E
TDDC88	Software Engineering	12*	A1X	1	E
TDDD49	Programming in C# and .NET Framework	4	G2X	3	E
TDDD56	Multicore and GPU Programming	6	A1X	2	E
TFYA17	Advanced Project Work in Applied Physics	6*	A1X	-	E
TFYA27	Elementary Particle Physics	6	A1X	2	E
TFYA50	Project course in Computational Physics CDIO	12*	A1X	4	E
TFYA51	Project Course in Physics - Design and Fabrication of Sensor Chip, CDIO	12*	A1X	4	E
TFYA57	Relativistic Quantum Mechanics	6	A1X	3	E
TFYY54	Nano Physics	6	A1X	3	E
TMMS11	Models of Mechanics	6*	A1X	4	E
TNE083	Antenna Theory	6	A1X	2	E
TNE089	Electromagnetic Compatibility (EMC) and Printed Circuit Board (PCB) Design	6*	A1X	1	E
TPPE61	Financial Optimization	6	A1X	2	E
TSBB11	Images and Graphics, Project Course CDIO	12*	A1X	4	E
TSBK03	Advanced Game Programming	6*	A1X	-	E
TSEA44	Computer Hardware - a System on Chip	6	A1X	1	E
TSKS05	Communication Systems, Project Course	12*	A1X	4	E
TSRT08	Optimal Control	6	A1X	3	E
TSRT10	Automatic Control - Project Course	12*	A1X	4	E
TSTE17	System Design	12*	A1X	4	E
TSTE18	Digital Arithmetics	6*	A1X	3	E
TSTE26	Powergrid and Technology for Renewable Production	6	A1X	3	E

Course code	Course name	Credits	Level	Timetable module	ECV
TSTE85	Low Power Electronics	6	A1X	2	E

*Specialisation: Applied Mathematics*

Course code	Course name	Credits	Level	Timetable module	ECV
<b>Period 1</b>					
TATA62	Project - Applied Mathematics	12*	A1X	4	C/E
TSRT10	Automatic Control - Project Course	12*	A1X	4	C/E
TATA75	Theory of Relativity	6	A1X	-	E
TMMS11	Models of Mechanics	6*	A1X	3	E
TPPE53	Financial Valuation Methodology	6	A1X	2	E
<b>Period 2</b>					
TATA62	Project - Applied Mathematics	12*	A1X	4	C/E
TSRT10	Automatic Control - Project Course	12*	A1X	4	C/E
TFYA57	Relativistic Quantum Mechanics	6	A1X	3	E
TMMS11	Models of Mechanics	6*	A1X	4	E
TPPE61	Financial Optimization	6	A1X	2	E

*Specialisation: Biomedical Engineering*

Course code	Course name	Credits	Level	Timetable module	ECV
<b>Period 1</b>					
TBMT14	Biomedical Engineering - Project Course	12*	A1X	4	C
TAMS39	Multivariate Statistical Methods	6	A1X	4	E
TBMT36	Biomedical Optics	6	A1X	1	E
<b>Period 2</b>					
TBMT14	Biomedical Engineering - Project Course	12*	A1X	4	C
TBMI02	Medical Image Analysis	6	A1X	1	E

*Specialisation: Communication*

Course code	Course name	Credits	Level	Timetable module	ECV
<b>Period 1</b>					
TSIN01	Information Networks	6	A1X	3	C
TSKS05	Communication Systems, Project Course	12*	A1X	4	C
TSEK38	Radio Frequency Transceiver Design	6	A1X	2	E
TSIT03	Cryptology	6	A1X	2	E
TSKS12	Modern Channel Coding, Inference and Learning	6	A1X	1	E
<b>Period 2</b>					
TSKS05	Communication Systems, Project Course	12*	A1X	4	C

*Specialisation: Control and Information Systems*

Course code	Course name	Credits	Level	Timetable module	ECV
<b>Period 1</b>					
TATA62	Project - Applied Mathematics	12*	A1X	4	C/E
TSRT10	Automatic Control - Project Course	12*	A1X	4	C/E
TDTS06	Computer Networks	6	G2X	1	E
<b>Period 2</b>					
TATA62	Project - Applied Mathematics	12*	A1X	4	C/E
TSRT10	Automatic Control - Project Course	12*	A1X	4	C/E
TSKS11	Networks: Models, Algorithms and Applications	6	G2X	3	E
TSRT08	Optimal Control	6	A1X	3	E

*Specialisation: Electronics*

Course code	Course name	Credits	Level	Timetable module	ECV
<b>Period 1</b>					
TSTE17	System Design	12*	A1X	4	C/E
TNE071	Microwave Engineering	6	A1X	1	E
TNE089	Electromagnetic Compatibility (EMC) and Printed Circuit Board (PCB) Design	6*	A1X	2	E
TSEA26	Design of Embedded DSP Processor	6	A1X	1	E
TSEK11	Evaluation of an Integrated Circuit	2	A1X	4	E
TSEK38	Radio Frequency Transceiver Design	6	A1X	2	E
TSTE18	Digital Arithmetics	6*	A1X	3	E
TSTE25	Power Electronics	6	A1X	3	E
<b>Period 2</b>					
TSTE17	System Design	12*	A1X	4	C/E
TNE083	Antenna Theory	6	A1X	2	E
TNE089	Electromagnetic Compatibility (EMC) and Printed Circuit Board (PCB) Design	6*	A1X	1	E
TSEA44	Computer Hardware - a System on Chip	6	A1X	1	E
TSTE18	Digital Arithmetics	6*	A1X	3	E
TSTE26	Powergrid and Technology for Renewable Production	6	A1X	3	E
TSTE85	Low Power Electronics	6	A1X	2	E

*Specialisation: Financial Mathematics*

Course code	Course name	Credits	Level	Timetable module	ECV
<b>Period 1</b>					
TATA62	Project - Applied Mathematics	12*	A1X	4	C
TPPE53	Financial Valuation Methodology	6	A1X	2	C
<b>Period 2</b>					
TATA62	Project - Applied Mathematics	12*	A1X	4	C
TPPE61	Financial Optimization	6	A1X	2	C

*Specialisation: Materials and Nano Physics*

Course code	Course name	Credits	Level	Timetable module	ECV
<b>Period 1</b>					
TFYA50	Project course in Computational Physics CDIO	12*	A1X	4	C/E
TFYA51	Project Course in Physics - Design and Fabrication of Sensor Chip, CDIO	12*	A1X	4	C/E
TFYA17	Advanced Project Work in Applied Physics	6*	A1X	-	E
TFYY47	Semiconductor Physics	6	A1X	1	E
<b>Period 2</b>					
TFYY54	Nano Physics	6	A1X	3	C
TFYA50	Project course in Computational Physics CDIO	12*	A1X	4	C/E
TFYA51	Project Course in Physics - Design and Fabrication of Sensor Chip, CDIO	12*	A1X	4	C/E
TFYA17	Advanced Project Work in Applied Physics	6*	A1X	-	E

*Specialisation: Mechatronics*

Course code	Course name	Credits	Level	Timetable module	ECV
<b>Period 1</b>					
TSRT10	Automatic Control - Project Course	12*	A1X	4	C
TFYA40	Analytical Mechanics	6	A1X	4	E
<b>Period 2</b>					
TSRT10	Automatic Control - Project Course	12*	A1X	4	C
TSRT08	Optimal Control	6	A1X	3	E



*Specialisation: Signal and Image Processing*

Course code	Course name	Credits	Level	Timetable module	ECV
<b>Period 1</b>					
TSBB11	Images and Graphics, Project Course CDIO	12*	A1X	4	C
TNM067	Scientific Visualization	6	A1X	3	E
TSBB17	Visual Object Recognition and Detection	6	A1X	2	E
TSBK03	Advanced Game Programming	6*	A1X	1	E
TSKS15	Detection and Estimation of Signals	6	A1X	2	E
<b>Period 2</b>					
TSBB11	Images and Graphics, Project Course CDIO	12*	A1X	4	C
TBMI02	Medical Image Analysis	6	A1X	1	E
TDDD56	Multicore and GPU Programming	6	A1X	2	E
TNM086	Virtual Reality Techniques	6	A1X	2	E
TSBK03	Advanced Game Programming	6*	A1X	-	E

*Specialisation: System-on-Chip*

Course code	Course name	Credits	Level	Timetable module	ECV
<b>Period 1</b>					
TSTE17	System Design	12*	A1X	4	C/E
TSEA26	Design of Embedded DSP Processor	6	A1X	1	E
TSEK11	Evaluation of an Integrated Circuit	2	A1X	4	E
TSTE18	Digital Arithmetics	6*	A1X	3	E
<b>Period 2</b>					
TSTE17	System Design	12*	A1X	4	C/E
TSEA44	Computer Hardware - a System on Chip	6	A1X	1	E
TSTE18	Digital Arithmetics	6*	A1X	3	E
TSTE85	Low Power Electronics	6	A1X	2	E

*Specialisation: Theory, Modelling and Visualization*

Course code	Course name	Credits	Level	Timetable module	ECV
<b>Period 1</b>					
TFYA50	Project course in Computational Physics CDIO	12*	A1X	4	C
TFYA17	Advanced Project Work in Applied Physics	6*	A1X	-	E
TFYY47	Semiconductor Physics	6	A1X	1	E
<b>Period 2</b>					
TFYA50	Project course in Computational Physics CDIO	12*	A1X	4	C
TFYA17	Advanced Project Work in Applied Physics	6*	A1X	-	E
TFYA27	Elementary Particle Physics	6	A1X	2	E
TFYY54	Nano Physics	6	A1X	3	E

**Semester 10 (Spring 2018)**

Course code	Course name	Credits	Level	Timetable module	ECV
<b>Period 1</b>					
TQXX33	Degree project - Master's Thesis	30*	A1X	-	C
<b>Period 2</b>					
TQXX33	Degree project - Master's Thesis	30*	A1X	-	C

ECV = Elective / Compulsory / Voluntary

\*The course is divided into several semesters and/or periods