

# Industrial Engineering and Management - International, M Sc in Engineering

300 credits

Civilingenjör i industriell ekonomi - internationell

6CIEI

Valid from: 2014 Spring semester

**Determined by**

Board of Studies for Industrial  
Engineering and Logistics

**Date determined**

## Entry requirements

### Degree in Swedish

Civilingenjör 300 hp och Teknologie master 120 hp

# Curriculum

## Semester 6 (Spring 2017)

Course code	Course name	Credits	Level	Timetable module	ECV
<b>Period 1</b>					
TEIM32	Industrial Marketing	6	G2X	4	C
TDDD81	Database Technology	6*	G2X	2	E
TDDD83	Computer Engineering - Bachelor Project	18*	G2X	1/3	E
TDDE11	Object Oriented Programming in Java	4	G2X	2	E
TFBI23	Ecology and the Environment	6	G1X	3	E
TFBI24	Biotechnology - Bachelor Project	18*	G2X	2	E
TKMJ39	Resource Efficient Products and Production	6	G2X	1	E
TMKT14	CAD and Machine Elements	6	G2X	1	E
TMMV16	Energy Engineering - Bachelor Project	18*	G2X	3	E
TMPS32	Mechanical Engineering - Bachelor Project	18*	G2X	3	E
TSEA56	Electronics Engineering - Bachelor Project	16*	G2X	2	E
<b>Period 2</b>					
TDDD12	Database Technology	6	G2X	4	E
TDDD81	Database Technology	6*	G2X	4	E
TDDD83	Computer Engineering - Bachelor Project	18*	G2X	1/3	E
TFBI24	Biotechnology - Bachelor Project	18*	G2X	2/3/4	E
TMMV16	Energy Engineering - Bachelor Project	18*	G2X	3	E
TMPS32	Mechanical Engineering - Bachelor Project	18*	G2X	3	E
TSEA56	Electronics Engineering - Bachelor Project	16*	G2X	-	E
TSKS10	Signals, Information and Communication	4	G2X	3	E

### *Specialisation: Specialization Biotechnical Engineering*

Course code	Course name	Credits	Level	Timetable module	ECV
<b>Period 1</b>					
TFBI23	Ecology and the Environment	6	G1X	3	C
TFBI24	Biotechnology - Bachelor Project	18*	G2X	2	E
<b>Period 2</b>					
TFBI24	Biotechnology - Bachelor Project	18*	G2X	2/3/4	E

*Specialisation: Specialization Computer Science and Engineering*

Course code	Course name	Credits	Level	Timetable module	ECV
<b>Period 1</b>					
TDDD81	Database Technology	6*	G2X	2	E
TDDD83	Computer Engineering - Bachelor Project	18*	G2X	1/3	E
<b>Period 2</b>					
TDDD12	Database Technology	6	G2X	4	C
TDDD81	Database Technology	6*	G2X	4	E
TDDD83	Computer Engineering - Bachelor Project	18*	G2X	1/3	E

*Specialisation: Specialization Electrical Engineering*

Course code	Course name	Credits	Level	Timetable module	ECV
<b>Period 1</b>					
TDDE11	Object Oriented Programming in Java	4	G2X	2	C
TSEA56	Electronics Engineering - Bachelor Project	16*	G2X	2	E
<b>Period 2</b>					
TSKS10	Signals, Information and Communication	4	G2X	3	C
TSEA56	Electronics Engineering - Bachelor Project	16*	G2X	-	E

*Specialisation: Specialization Energy Engineering*

Course code	Course name	Credits	Level	Timetable module	ECV
<b>Period 1</b>					
TKMJ39	Resource Efficient Products and Production	6	G2X	1	C
TMMV16	Energy Engineering - Bachelor Project	18*	G2X	3	E
<b>Period 2</b>					
TMMV16	Energy Engineering - Bachelor Project	18*	G2X	3	E

*Specialisation: Specialization Mechanical Engineering*

Course code	Course name	Credits	Level	Timetable module	ECV
<b>Period 1</b>					
TMKT14	CAD and Machine Elements	6	G2X	1	C
TMPS32	Mechanical Engineering - Bachelor Project	18*	G2X	3	E
<b>Period 2</b>					
TMPS32	Mechanical Engineering - Bachelor Project	18*	G2X	3	E

**Semester 7 (Autumn 2017)**

Course code	Course name	Credits	Level	Timetable module	ECV
<b>Period 1</b>					
THY18	German for Engineers III	6*	G2X	-	C
TAMS32	Stochastic Processes	6	A1X	1	E
TAMS46	Probability Theory, Second Course	6	A1X	3	E
TANA21	Scientific Computing	6	G1X	3	E
TAOP34	Large Scale Optimization	6	A1X	3	E
TATA34	Real Analysis, Honours Course	6*	G2X	4	E
TATA44	Vector Analysis	4	G1X	1	E
TDDC17	Artificial Intelligence	6	G2X	3	E
TDDC88	Software Engineering	12*	A1X	1	E
TDDD23	Design and Programming of Computer Games	6	A1X	2	E
TDDD38	Advanced Programming in C++	6*	A1X	2	E
TDDD43	Advanced Data Models and Databases	6*	A1X	2	E
TDDE18	Programming C++	6*	G2X	4	E
TDEI09	Strategic Application of IT: E-business and Knowledge Management	6	A1X	4	E
TDEI13	Enterprise Resource Planning Systems: Process and Implementation	6	A1X	2	E
TEIE72	Corporate Strategies	6	A1X	4	E
TEIO07	Project Based Organization and Management	6	A1X	4	E
TEIO90	Innovation Management	6	A1X	2	E
TETS23	Purchasing	6	A1X	2	E
TETS37	Basics in Logistics Management	6	G2X	4	E

Course code	Course name	Credits	Level	Timetable module	ECV
TKMJ31	Biofuels for Transportation	6	A1X	1	E
TKMJ49	Environmentally Driven Business Development	6*	A1X	3	E
TMES09	Industrial Energy Systems	6	A1X	3	E
TMES27	Modelling of Energy Systems	6	A1X	3	E
TMKM16	Materials Selection and Optimization	6	A1X	4	E
TMKM90	Engineering Materials - Deformation and Fracture	6	A1X	4	E
TMKT80	Wood - Material	6	G2X	2	E
TMPS35	Emerging Factory Technologies	6	A1X	3	E
TMQU03	Quality Management and Engineering	6	G2X	2	E
TPPE16	Manufacturing Strategies	6	A1X	2	E
TPPE17	Corporate Finance	6	G2X	4	E
TSBB06	Multidimensional Signal Analysis	6*	A1X	2	E
TSBB08	Digital Image Processing	6	A1X	4	E
TSDT14	Signal Theory	6	A1X	1	E
TSKS01	Digital Communication	6*	A1X	4	E
TSKS15	Detection and Estimation of Signals	6	A1X	2	E
TSRT62	Modelling and Simulation	6	A1X	3	E
TSTE86	Digital Integrated Circuits	6	A1X	2	E
<b>Period 2</b>					
THTY18	German for Engineers III	6*	G2X	-	C
NBID31	Modelling of Biological Systems	6	A1X	3/4	E
TAOP04	Mathematical Optimization	6	A1X	4	E
TATA34	Real Analysis, Honours Course	6*	G2X	4	E
TATA45	Complex Analysis	6	G2X	1	E
TDDC88	Software Engineering	12*	A1X	1	E
TDDD07	Real Time Systems	6	A1X	4	E
TDDD38	Advanced Programming in C++	6*	A1X	-	E
TDDD43	Advanced Data Models and Databases	6*	A1X	2	E
TDDD55	Compilers and Interpreters	4	G2X	1	E
TDDD71	Data Structures and Algorithms	2	G2X	1	E
TDDE18	Programming C++	6*	G2X	3	E

Course code	Course name	Credits	Level	Timetable module	ECV
TDEI19	Management Control	6	A1X	2	E
TEIE42	Industrial Sales Management	6	A1X	4	E
TEIM10	Industrial Service Development	6	A1X	2	E
TETS27	Supply Chain Logistics	6	A1X	2	E
TKMJ35	Industrial Ecology	6	G2X	3	E
TKMJ49	Environmentally Driven Business Development	6*	A1X	3	E
TMHL63	Introduction to Computational Mechanics	6	G2X	3	E
TMKT71	Affective Engineering	6	A1X	2	E
TMKT81	Wood - Realisation	6	G2X	1	E
TMMV18	Fluid Mechanics	6	A1X	2	E
TMMV54	Computational Heat Transfer	6	A1X	1	E
TMPS18	Engineering Design and Product Development	6	A1X	3	E
TMPS22	Assembly Technology	6	A1X	3	E
TMQU12	Lean Production	6	A1X	2	E
TPPE21	Production Logistics	6	A1X	4	E
TPPE29	Financial Markets and Instruments	6	A1X	2	E
TSBB06	Multidimensional Signal Analysis	6*	A1X	3	E
TSBB09	Image Sensors	6	A1X	4	E
TSEA81	Computer Engineering and Real-time Systems	6	A1X	4	E
TSIT02	Computer Security	6	G2X	2	E
TSKS01	Digital Communication	6*	A1X	4	E
TSKS11	Networks: Models, Algorithms and Applications	6	G2X	3	E
TSRT78	Digital Signal Processing	6	A1X	2	E

*Specialisation: Master Profile Automatic Control*

Course code	Course name	Credits	Level	Timetable module	ECV
<b>Period 1</b>					
TSDT14	Signal Theory	6	A1X	1	C
TSRT62	Modelling and Simulation	6	A1X	3	C
<b>Period 2</b>					
TSEA81	Computer Engineering and Real-time Systems	6	A1X	4	E
TSRT78	Digital Signal Processing	6	A1X	2	E

*Specialisation: Master Profile Computer Science and Engineering*

Course code	Course name	Credits	Level	Timetable module	ECV
<b>Period 1</b>					
TDDC88	Software Engineering	12*	A1X	1	C
<b>Period 2</b>					
TDDC88	Software Engineering	12*	A1X	1	C

*Specialisation: Master Profile Economic Information Systems*

Course code	Course name	Credits	Level	Timetable module	ECV
<b>Period 1</b>					
TDEI09	Strategic Application of IT: E-business and Knowledge Management	6	A1X	4	C
TDEI13	Enterprise Resource Planning Systems: Process and Implementation	6	A1X	2	E
<b>Period 2</b>					
TDEI19	Management Control	6	A1X	2	C

*Specialisation: Master Profile Energy Engineering*

Course code	Course name	Credits	Level	Timetable module	ECV
<b>Period 1</b>					
TMES09	Industrial Energy Systems	6	A1X	3	E
TMES27	Modelling of Energy Systems	6	A1X	3	E
<b>Period 2</b>					
TMMV18	Fluid Mechanics	6	A1X	2	E
TMMV54	Computational Heat Transfer	6	A1X	1	E



*Specialisation: Master Profile Finance*

Course code	Course name	Credits	Level	Timetable module	ECV
<b>Period 1</b>					
TPPE17	Corporate Finance	6	G2X	4	E
<b>Period 2</b>					
TPPE29	Financial Markets and Instruments	6	A1X	2	C

*Specialisation: Master Profile Industrial Marketing*

Course code	Course name	Credits	Level	Timetable module	ECV
<b>Period 1</b>					
TEIE72	Corporate Strategies	6	A1X	4	E
<b>Period 2</b>					
TEIE42	Industrial Sales Management	6	A1X	4	C/E
TEIM10	Industrial Service Development	6	A1X	2	C/E

*Specialisation: Master Profile Logistics Management*

Course code	Course name	Credits	Level	Timetable module	ECV
<b>Period 1</b>					
TETS37	Basics in Logistics Management	6	G2X	4	C
TETS23	Purchasing	6	A1X	2	E
<b>Period 2</b>					
TETS27	Supply Chain Logistics	6	A1X	2	C/E

*Specialisation: Master Profile Manufacturing*

Course code	Course name	Credits	Level	Timetable module	ECV
<b>Period 1</b>					
TMPS35	Emerging Factory Technologies	6	A1X	3	E
<b>Period 2</b>					
TMPS22	Assembly Technology	6	A1X	3	C

*Specialisation: Master Profile Manufacturing Management*

Course code	Course name	Credits	Level	Timetable module	ECV
<b>Period 1</b>					
TPPE16	Manufacturing Strategies	6	A1X	2	C
<b>Period 2</b>					
TPPE21	Production Logistics	6	A1X	4	E

*Specialisation: Master Profile Product Development*

Course code	Course name	Credits	Level	Timetable module	ECV
<b>Period 2</b>					
TMPS18	Engineering Design and Product Development	6	A1X	3	E

*Specialisation: Master Profile Project, Innovation and Entrepreneurship*

Course code	Course name	Credits	Level	Timetable module	ECV
<b>Period 1</b>					
TEIO90	Innovation Management	6	A1X	2	C
TEIO07	Project Based Organization and Management	6	A1X	4	E
TKMJ49	Environmentally Driven Business Development	6*	A1X	3	E
<b>Period 2</b>					
TKMJ49	Environmentally Driven Business Development	6*	A1X	3	E

*Specialisation: Master Profile Quality Technology and Management*

Course code	Course name	Credits	Level	Timetable module	ECV
<b>Period 1</b>					
TMQU03	Quality Management and Engineering	6	G2X	2	E
<b>Period 2</b>					
TMQU12	Lean Production	6	A1X	2	C

*Specialisation: Master Profile Signal and Image Processing*

Course code	Course name	Credits	Level	Timetable module	ECV
<b>Period 1</b>					
TSBB08	Digital Image Processing	6	A1X	4	C
TSDT14	Signal Theory	6	A1X	1	C
TSBB06	Multidimensional Signal Analysis	6*	A1X	2	E
<b>Period 2</b>					
TSBB06	Multidimensional Signal Analysis	6*	A1X	3	E
TSBB09	Image Sensors	6	A1X	4	E
TSRT78	Digital Signal Processing	6	A1X	2	E

*Specialisation: Master Profile Strategic Management and Control*

Course code	Course name	Credits	Level	Timetable module	ECV
<b>Period 1</b>					
TEIE72	Corporate Strategies	6	A1X	4	C
TEIO90	Innovation Management	6	A1X	2	E
TKMJ49	Environmentally Driven Business Development	6*	A1X	3	E
TPPE16	Manufacturing Strategies	6	A1X	2	E
<b>Period 2</b>					
TDEI19	Management Control	6	A1X	2	C
TEIE42	Industrial Sales Management	6	A1X	4	E
TKMJ49	Environmentally Driven Business Development	6*	A1X	3	E

*Specialisation: Master Profile Telecommunication*

Course code	Course name	Credits	Level	Timetable module	ECV
<b>Period 1</b>					
TSDT14	Signal Theory	6	A1X	1	C
TSKS01	Digital Communication	6*	A1X	4	C
TSKS15	Detection and Estimation of Signals	6	A1X	2	E
<b>Period 2</b>					
TSKS01	Digital Communication	6*	A1X	4	C
TSIT02	Computer Security	6	G2X	2	E
TSKS11	Networks: Models, Algorithms and Applications	6	G2X	3	E

*Specialisation: Master Profile Wood Technology*

Course code	Course name	Credits	Level	Timetable module	ECV
<b>Period 1</b>					
TMKT80	Wood - Material	6	G2X	2	C
TMKM16	Materials Selection and Optimization	6	A1X	4	E
<b>Period 2</b>					
TMKT81	Wood - Realisation	6	G2X	1	C

*Specialisation: Specialization Biotechnical Engineering*

Course code	Course name	Credits	Level	Timetable module	ECV
<b>Period 1</b>					
TKMJ31	Biofuels for Transportation	6	A1X	1	E
<b>Period 2</b>					
NBID31	Modelling of Biological Systems	6	A1X	3/4	C
TKMJ35	Industrial Ecology	6	G2X	3	E

*Specialisation: Specialization Computer Science and Engineering*

Course code	Course name	Credits	Level	Timetable module	ECV
<b>Period 1</b>					
TDDC88	Software Engineering	12*	A1X	1	C
TDDC17	Artificial Intelligence	6	G2X	3	E
TDDD23	Design and Programming of Computer Games	6	A1X	2	E
TDDD38	Advanced Programming in C++	6*	A1X	2	E
TDDE18	Programming C++	6*	G2X	4	E
TSTE86	Digital Integrated Circuits	6	A1X	2	E
<b>Period 2</b>					
TDDC88	Software Engineering	12*	A1X	1	C
TDDD71	Data Structures and Algorithms	2	G2X	1	C
TDDD38	Advanced Programming in C++	6*	A1X	-	E
TDDD55	Compilers and Interpreters	4	G2X	1	E
TDDE18	Programming C++	6*	G2X	3	E
TSEA81	Computer Engineering and Real-time Systems	6	A1X	4	E
TSIT02	Computer Security	6	G2X	2	E
TSKS11	Networks: Models, Algorithms and Applications	6	G2X	3	E

*Specialisation: Specialization Electrical Engineering*

Course code	Course name	Credits	Level	Timetable module	ECV
<b>Period 1</b>					
TSBB06	Multidimensional Signal Analysis	6*	A1X	2	E
TSBB08	Digital Image Processing	6	A1X	4	E
TSDT14	Signal Theory	6	A1X	1	E
TSKS01	Digital Communication	6*	A1X	4	E
TSKS15	Detection and Estimation of Signals	6	A1X	2	E
TSRT62	Modelling and Simulation	6	A1X	3	E
TSTE86	Digital Integrated Circuits	6	A1X	2	E
<b>Period 2</b>					
TSBB06	Multidimensional Signal Analysis	6*	A1X	3	E
TSBB09	Image Sensors	6	A1X	4	E
TSEA81	Computer Engineering and Real-time Systems	6	A1X	4	E
TSIT02	Computer Security	6	G2X	2	E
TSKS01	Digital Communication	6*	A1X	4	E
TSKS11	Networks: Models, Algorithms and Applications	6	G2X	3	E
TSRT78	Digital Signal Processing	6	A1X	2	E

*Specialisation: Specialization Energy Engineering*

Course code	Course name	Credits	Level	Timetable module	ECV
<b>Period 1</b>					
TMES09	Industrial Energy Systems	6	A1X	3	E
TMES27	Modelling of Energy Systems	6	A1X	3	E
<b>Period 2</b>					
TMMV18	Fluid Mechanics	6	A1X	2	E
TMMV54	Computational Heat Transfer	6	A1X	1	E

*Specialisation: Specialization Mechanical Engineering*

Course code	Course name	Credits	Level	Timetable module	ECV
<b>Period 1</b>					
TANA21	Scientific Computing	6	G1X	3	E
TMKM16	Materials Selection and Optimization	6	A1X	4	E
TMKM90	Engineering Materials - Deformation and Fracture	6	A1X	4	E
TMKT80	Wood - Material	6	G2X	2	E
TMPS35	Emerging Factory Technologies	6	A1X	3	E
<b>Period 2</b>					
TMKT71	Affective Engineering	6	A1X	2	E
TMKT81	Wood - Realisation	6	G2X	1	E
TMPS18	Engineering Design and Product Development	6	A1X	3	E
TMPS22	Assembly Technology	6	A1X	3	E

**Semester 8 (Spring 2018)**

Course code	Course name	Credits	Level	Timetable module	ECV
<b>Period 1</b>					
TEIE06	Corporate Planning	6*	A1X	-	C
NBIC50	Ecotoxicology and Environmental Monitoring	6	G2X	1	E
TAMS29	Stochastic Processes Applied to Financial Models	6	A1X	3	E
TATA53	Linear Algebra, Honours Course	6*	G2X	-	E
TBMI26	Neural Networks and Learning Systems	6	A1X	2	E
TDDB68	Concurrent Programming and Operating Systems	6	G2X	3	E
TDDD17	Information Security, Second Course	6*	A1X	4	E
TDDD20	Design and Analysis of Algorithms	6	A1X	3	E
TDDD38	Advanced Programming in C++	6*	A1X	2	E
TDDD41	Data Mining - Clustering and Association Analysis	6	A1X	3	E
TDDD51	Service Design and Innovation	6	A1X	4	E
TDDD57	Physical Interaction and Game Programming	6	A1X	1	E

Course code	Course name	Credits	Level	Timetable module	ECV
TDDD75	Effect-Driven Development and Human-Centered Design of Interactive Systems	6	G2X	3	E
TDDD97	Web Programming	6	G2X	3	E
TDEI71	Digitisation, Business Ecologies and Business Models	6	A1X	4	E
TDS04	Computer Networks and Distributed Systems	8	G2X	2	E
TEIE88	Computer Law	4	G1X	1	E
TEIM09	International Business	6	A1X	2	E
TEIO13	Leadership and Organizational Change	6	A1X	4	E
TETS57	Logistics Analysis	6	A1X	2	E
TFYA45	Biotechnology Project	6*	A1X	-	E
TFYA62	Introduction to Biosensor Technology	6	G2X	4	E
TFYA85	Alternative Energy Sources and their Applications	6	G2X	4	E
TGTU01	Technology and Ethics	6	G1X	1	E
TGTU91	Oral and Written Communication	6	G1X	2	E
TKMJ10	Industrial Ecology	6	A1X	1	E
TKMJ47	Environmental Systems Analysis	6*	A1N	2	E
TMES17	Building Energy Systems	6	A1X	3	E
TMES43	Analysis and Modelling of Industrial Energy Systems	6	A1X	1	E
TMKA04	Wood - Innovation	6	A1X	1	E
TMKT48	Design Optimization	6	A1X	3	E
TMMS21	Mechatronics	6	G2X	1	E
TMPS42	Production System Automation	6	A1X	1	E
TMQU31	Statistical Quality Control	6	A1X	2	E
TPPE32	Financial Risk Management	6	A1X	2	E
TPPE78	Quantitative Models and Analysis in Operations Management	6	A1X	1	E
TSBB15	Computer Vision	12*	A1X	1	E
TSBK07	Computer Graphics	6*	A1X	4	E
TSBK08	Data Compression	6	A1X	2	E
TSKS13	Wireless Communications	6	A1X	4	E
TSRT07	Industrial Control Systems	6	A1X	2	E



Course code	Course name	Credits	Level	Timetable module	ECV
TSRT09	Control Theory	6	A1X	3	E
TSTE08	Analog and Discrete-Time Integrated Circuits	6	A1X	3	E
TVCB11	Cellbiological Methodology	6	G2X	1/4	E
<b>Period 2</b>					
TEIE06	Corporate Planning	6*	A1X	-	C
TATA53	Linear Algebra, Honours Course	6*	G2X	-	E
TDDC78	Programming of Parallel Computers - Methods and Tools	6	A1X	3	E
TDDD05	Component Based Software	6	A1X	1	E
TDDD14	Formal Languages and Automata Theory	6	G2X	2	E
TDDD17	Information Security, Second Course	6*	A1X	4	E
TDDD27	Advanced Web Programming	6	A1X	3	E
TDDD38	Advanced Programming in C++	6*	A1X	-	E
TDEI21	Strategic Organisational Application of IT - Workflow and Knowledge Management	6	A1X	4	E
TDEI35	Strategy and Management Control	6	A1X	2	E
TEAE13	Civil and Commercial Law	6	G1X	2	E
TEIM07	Industrial Market Research	6	A1X	2	E
TEIO06	Innovative Entrepreneurship	6	A1X	2	E
TEIO41	Corporate Social Responsibility	6	A1X	3	E
TETS36	Sustainable Logistics Systems	6	A1X	4	E
TETS56	Logistics and Quality in Health Care	6	A1X	4	E
TFYA45	Biotechnology Project	6*	A1X	-	E
TGTU76	Philosophy of Science	6	G1X	4	E
TKMJ47	Environmental Systems Analysis	6*	A1N	2	E
TMES21	Industrial Energy Systems	6	A1X	3	E
TMHL61	Damage Mechanics and Life Analysis	6	A1X	2	E
TMKT57	Product Modelling	6	A1X	3	E
TMKT83	Small Scale Renewable Energy Conversion	6	A1X	4	E
TMME11	Road Vehicle Dynamics	6	A1X	1	E
TMPS27	Production Systems	6	A1X	3	E
TMQU04	Six Sigma Quality	6	A1X	2	E
TPPE33	Portfolio Management	6	A1X	2	E

Course code	Course name	Credits	Level	Timetable module	ECV
TPPE74	Design and Development of Manufacturing Operations	6	A1X	4	E
TSBB15	Computer Vision	12*	A1X	3	E
TSBK02	Image and Audio Coding	6	A1X	4	E
TSBK07	Computer Graphics	6*	A1X	1	E
TSFS06	Diagnosis and Supervision	6	A1X	1	E
TSKS14	Multiple Antenna Communications	6	A1X	2	E
TSRT14	Sensor Fusion	6	A1X	2	E
TSTE06	Digital Filters	6	A1X	3	E

*Specialisation: Master Profile Automatic Control*

Course code	Course name	Credits	Level	Timetable module	ECV
<b>Period 1</b>					
TSRT07	Industrial Control Systems	6	A1X	2	E
TSRT09	Control Theory	6	A1X	3	E
<b>Period 2</b>					
TSFS06	Diagnosis and Supervision	6	A1X	1	E
TSRT14	Sensor Fusion	6	A1X	2	E

*Specialisation: Master Profile Computer Science and Engineering*

Course code	Course name	Credits	Level	Timetable module	ECV
<b>Period 2</b>					
TDDD05	Component Based Software	6	A1X	1	C

*Specialisation: Master Profile Economic Information Systems*

Course code	Course name	Credits	Level	Timetable module	ECV
<b>Period 1</b>					
TDEI71	Digitisation, Business Ecologies and Business Models	6	A1X	4	E
<b>Period 2</b>					
TDEI21	Strategic Organisational Application of IT - Workflow and Knowledge Management	6	A1X	4	E
TDEI35	Strategy and Management Control	6	A1X	2	E

*Specialisation: Master Profile Energy Engineering*

Course code	Course name	Credits	Level	Timetable module	ECV
<b>Period 1</b>					
TMES17	Building Energy Systems	6	A1X	3	E
TMES43	Analysis and Modelling of Industrial Energy Systems	6	A1X	1	E
<b>Period 2</b>					
TMES21	Industrial Energy Systems	6	A1X	3	E
TMKT83	Small Scale Renewable Energy Conversion	6	A1X	4	E

*Specialisation: Master Profile Finance*

Course code	Course name	Credits	Level	Timetable module	ECV
<b>Period 1</b>					
TPPE32	Financial Risk Management	6	A1X	2	C
<b>Period 2</b>					
TPPE33	Portfolio Management	6	A1X	2	E

*Specialisation: Master Profile Industrial Marketing*

Course code	Course name	Credits	Level	Timetable module	ECV
<b>Period 1</b>					
TEIM09	International Business	6	A1X	2	C/E
<b>Period 2</b>					
TEIM07	Industrial Market Research	6	A1X	2	C

*Specialisation: Master Profile Logistics Management*

Course code	Course name	Credits	Level	Timetable module	ECV
<b>Period 1</b>					
TETS57	Logistics Analysis	6	A1X	2	C/E
<b>Period 2</b>					
TETS36	Sustainable Logistics Systems	6	A1X	4	E
TETS56	Logistics and Quality in Health Care	6	A1X	4	E

*Specialisation: Master Profile Manufacturing*

Course code	Course name	Credits	Level	Timetable module	ECV
<b>Period 1</b>					
TMPS42	Production System Automation	6	A1X	1	E
<b>Period 2</b>					
TMPS27	Production Systems	6	A1X	3	C

*Specialisation: Master Profile Manufacturing Management*

Course code	Course name	Credits	Level	Timetable module	ECV
<b>Period 1</b>					
TPPE78	Quantitative Models and Analysis in Operations Management	6	A1X	1	E
<b>Period 2</b>					
TPPE74	Design and Development of Manufacturing Operations	6	A1X	4	E

*Specialisation: Master Profile Product Development*

Course code	Course name	Credits	Level	Timetable module	ECV
<b>Period 1</b>					
TMKT48	Design Optimization	6	A1X	3	C
<b>Period 2</b>					
TMKT57	Product Modelling	6	A1X	3	C

*Specialisation: Master Profile Project, Innovation and Entrepreneurship*

Course code	Course name	Credits	Level	Timetable module	ECV
<b>Period 1</b>					
TEIO13	Leadership and Organizational Change	6	A1X	4	E
<b>Period 2</b>					
TEIO06	Innovative Entrepreneurship	6	A1X	2	E
TEIO41	Corporate Social Responsibility	6	A1X	3	E

*Specialisation: Master Profile Quality Technology and Management*

Course code	Course name	Credits	Level	Timetable module	ECV
<b>Period 1</b>					
TEIO13	Leadership and Organizational Change	6	A1X	4	E
TMQU31	Statistical Quality Control	6	A1X	2	E
<b>Period 2</b>					
TDEI35	Strategy and Management Control	6	A1X	2	E
TETS56	Logistics and Quality in Health Care	6	A1X	4	E
TMQU04	Six Sigma Quality	6	A1X	2	E
TPPE74	Design and Development of Manufacturing Operations	6	A1X	4	E

*Specialisation: Master Profile 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
TSBB15	Computer Vision	12*	A1X	1	E
TSBK07	Computer Graphics	6*	A1X	4	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

*Specialisation: Master Profile Strategic Management and Control*

Course code	Course name	Credits	Level	Timetable module	ECV
<b>Period 1</b>					
TEIM09	International Business	6	A1X	2	E
TEIO13	Leadership and Organizational Change	6	A1X	4	E
<b>Period 2</b>					
TDEI21	Strategic Organisational Application of IT - Workflow and Knowledge Management	6	A1X	4	E
TEIM07	Industrial Market Research	6	A1X	2	E
TETS36	Sustainable Logistics Systems	6	A1X	4	E

*Specialisation: Master Profile Telecommunication*

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

*Specialisation: Master Profile Wood Technology*

Course code	Course name	Credits	Level	Timetable module	ECV
<b>Period 1</b>					
TMKA04	Wood - Innovation	6	A1X	1	C
<b>Period 2</b>					
TMKT57	Product Modelling	6	A1X	3	E
TMPS27	Production Systems	6	A1X	3	E

*Specialisation: Specialization Biotechnical Engineering*

Course code	Course name	Credits	Level	Timetable module	ECV
<b>Period 1</b>					
NBIC50	Ecotoxicology and Environmental Monitoring	6	G2X	1	E
TFYA45	Biotechnology Project	6*	A1X	-	E
TFYA85	Alternative Energy Sources and their Applications	6	G2X	4	E
TKMJ47	Environmental Systems Analysis	6*	A1N	2	E
<b>Period 2</b>					
TFYA45	Biotechnology Project	6*	A1X	-	E
TKMJ47	Environmental Systems Analysis	6*	A1N	2	E

*Specialisation: Specialization Computer Science and Engineering*

Course code	Course name	Credits	Level	Timetable module	ECV
<b>Period 1</b>					
Tddb68	Concurrent Programming and Operating Systems	6	G2X	3	E
TDDD17	Information Security, Second Course	6*	A1X	4	E
TDDD20	Design and Analysis of Algorithms	6	A1X	3	E
TDDD38	Advanced Programming in C++	6*	A1X	2	E
TDDD41	Data Mining - Clustering and Association Analysis	6	A1X	3	E
TDDD75	Effect-Driven Development and Human-Centered Design of Interactive Systems	6	G2X	3	E
TDS04	Computer Networks and Distributed Systems	8	G2X	2	E
<b>Period 2</b>					
TDDD05	Component Based Software	6	A1X	1	E
TDDD14	Formal Languages and Automata Theory	6	G2X	2	E
TDDD17	Information Security, Second Course	6*	A1X	4	E
TDDD27	Advanced Web Programming	6	A1X	3	E
TDDD38	Advanced Programming in C++	6*	A1X	-	E

*Specialisation: Specialization Electrical Engineering*

Course code	Course name	Credits	Level	Timetable module	ECV
<b>Period 1</b>					
TBMI26	Neural Networks and Learning Systems	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
TSKS13	Wireless Communications	6	A1X	4	E
TSRT07	Industrial Control Systems	6	A1X	2	E
TSRT09	Control Theory	6	A1X	3	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
TSFS06	Diagnosis and Supervision	6	A1X	1	E
TSKS14	Multiple Antenna Communications	6	A1X	2	E
TSRT14	Sensor Fusion	6	A1X	2	E
TSTE06	Digital Filters	6	A1X	3	E

*Specialisation: Specialization Energy Engineering*

Course code	Course name	Credits	Level	Timetable module	ECV
<b>Period 1</b>					
TKMJ10	Industrial Ecology	6	A1X	1	E
TMES17	Building Energy Systems	6	A1X	3	E
TMES43	Analysis and Modelling of Industrial Energy Systems	6	A1X	1	E
<b>Period 2</b>					
TMES21	Industrial Energy Systems	6	A1X	3	E
TMKT83	Small Scale Renewable Energy Conversion	6	A1X	4	E



*Specialisation: Specialization Mechanical Engineering*

Course code	Course name	Credits	Level	Timetable module	ECV
<b>Period 1</b>					
TMKA04	Wood - Innovation	6	A1X	1	E
TMKT48	Design Optimization	6	A1X	3	E
TMMS21	Mechatronics	6	G2X	1	E
TMPS42	Production System Automation	6	A1X	1	E
<b>Period 2</b>					
TMHL61	Damage Mechanics and Life Analysis	6	A1X	2	E
TMKT57	Product Modelling	6	A1X	3	E
TMME11	Road Vehicle Dynamics	6	A1X	1	E
TMPS27	Production Systems	6	A1X	3	E

**Semester 9 (Autumn 2018)**

Course code	Course name	Credits	Level	Timetable module	ECV
<b>Period 1</b>					
TAMS39	Multivariate Statistical Methods	6	A1X	4	E
TAMS46	Probability Theory, Second Course	6	A1X	3	E
TATM38	Mathematical Models in Biology	6	A1X	3	E
TDD884	Design Patterns	6	A1X	4	E
TDDC34	Technical, Economic and Societal Evaluation of IT-products	6	A1X	3	E
TDDD04	Software Testing	6	A1X	2	E
TDEI72	Strategy and Digitisation - Technology, Standards and Network Effects	6	A1X	4	E
TEAE12	Strategic Analysis and Methods for Strategic Change	12*	A1X	2	E
TEIM04	Industrial Market and Technology Strategies	12*	A1X	2	E
TEIO89	Innovation and Entrepreneurship - Project Course	12*	A1X	4	E
TETS38	Logistics Project	12*	A1X	4	E
TKMJ31	Biofuels for Transportation	6	A1N	1	E
TMME40	Vibration Analysis of Structures	6	A1X	3	E
TMMS11	Models of Mechanics	6*	A1X	3	E

Course code	Course name	Credits	Level	Timetable module	ECV
TMMV01	Aerodynamics	6	A1X	2	E
TMMV12	Gas Turbine Engines	6	A1X	4	E
TMPE01	Project Course Advanced - Energy Engineering	12*	A1X	-	E
TMPM05	Project Course Advanced - Design Engineering and Product Development	12*	A1X	-	E
TMPM08	Project Course Advanced - Manufacturing Engineering	12*	A1X	-	E
TMQU13	Customer Focused Product and Service Development	6	A1X	4	E
TMQU27	Quality Management - Project Course	12*	A1X	2	E
TPPE53	Financial Valuation Methodology	6	A1X	2	E
TPPE66	Investment Valuation	6*	A1X	4	E
TPPE73	Operations Management - Project Course	12*	A1X	4	E
TPPE99	Simulation in Production and Logistics	6	A1X	3	E
TSIN01	Information Networks	6	A1X	3	E
TSIT03	Cryptology	6	A1X	2	E
TSKS12	Modern Channel Coding, Inference and Learning	6	A1X	1	E
<b>Period 2</b>					
TAOP18	Supply Chain Optimization	6	A1X	1	E
Tddb44	Compiler Construction	6	A1X	1	E
TDdc90	Software Security	6	A1X	1	E
TDDD30	Advanced Software Engineering	6	A1X	4	E
TDDD56	Multicore and GPU Programming	6	A1X	2	E
TDDD89	Scientific Method	6	A1X	3	E
TEAE12	Strategic Analysis and Methods for Strategic Change	12*	A1X	2	E
TEIM04	Industrial Market and Technology Strategies	12*	A1X	2	E
TEIM10	Industrial Service Development	6	A1X	2	E
TEIO89	Innovation and Entrepreneurship - Project Course	12*	A1X	4	E
TETS31	Logistics Strategies	6	A1X	4	E
TETS38	Logistics Project	12*	A1X	2	E

Course code	Course name	Credits	Level	Timetable module	ECV
TFBI17	Advanced Project Course in Ecosystem Service Valuation	6	A1X	-	E
TKMJ32	Integrated Product Service Engineering	6	A1N	3	E
TMES51	International Energy Markets	6	A1X	1	E
TMKA03	Industrial Design	6	G2X	1	E
TMMS11	Models of Mechanics	6*	A1X	4	E
TMMS20	Structural Optimization	6	A1X	1	E
TMPE01	Project Course Advanced - Energy Engineering	12*	A1X	-	E
TMPM05	Project Course Advanced - Design Engineering and Product Development	12*	A1X	-	E
TMPM08	Project Course Advanced - Manufacturing Engineering	12*	A1X	-	E
TMQU12	Lean Production	6	A1X	2	E
TMQU27	Quality Management - Project Course	12*	A1X	4	E
TPPE61	Financial Optimization	6	A1X	2	E
TPPE66	Investment Valuation	6*	A1X	4	E
TPPE73	Operations Management - Project Course	12*	A1X	4	E
TSRT08	Optimal Control	6	A1X	3	E

*Specialisation: Master Profile Automatic Control*

Course code	Course name	Credits	Level	Timetable module	ECV
<b>Period 2</b>					
TSRT08	Optimal Control	6	A1X	3	E

*Specialisation: Master Profile Computer Science and Engineering*

Course code	Course name	Credits	Level	Timetable module	ECV
<b>Period 1</b>					
Tddb84	Design Patterns	6	A1X	4	C
TDDD04	Software Testing	6	A1X	2	C
<b>Period 2</b>					
TDDD89	Scientific Method	6	A1X	3	C

*Specialisation: Master Profile Economic Information Systems*

Course code	Course name	Credits	Level	Timetable module	ECV
<b>Period 1</b>					
TDDC34	Technical, Economic and Societal Evaluation of IT-products	6	A1X	3	E

*Specialisation: Master Profile Energy Engineering*

Course code	Course name	Credits	Level	Timetable module	ECV
<b>Period 1</b>					
TKMJ31	Biofuels for Transportation	6	A1N	1	E
TMMV12	Gas Turbine Engines	6	A1X	4	E
TMPE01	Project Course Advanced - Energy Engineering	12*	A1X	-	E
<b>Period 2</b>					
TMPE01	Project Course Advanced - Energy Engineering	12*	A1X	-	E

*Specialisation: Master Profile Finance*

Course code	Course name	Credits	Level	Timetable module	ECV
<b>Period 1</b>					
TPPE53	Financial Valuation Methodology	6	A1X	2	E
TPPE66	Investment Valuation	6*	A1X	4	E
<b>Period 2</b>					
TPPE61	Financial Optimization	6	A1X	2	E
TPPE66	Investment Valuation	6*	A1X	4	E

*Specialisation: Master Profile Industrial Marketing*

Course code	Course name	Credits	Level	Timetable module	ECV
<b>Period 1</b>					
TEIM04	Industrial Market and Technology Strategies	12*	A1X	2	C
<b>Period 2</b>					
TEIM04	Industrial Market and Technology Strategies	12*	A1X	2	C

*Specialisation: Master Profile Logistics Management*

Course code	Course name	Credits	Level	Timetable module	ECV
<b>Period 1</b>					
TETS38	Logistics Project	12*	A1X	4	C
TPPE99	Simulation in Production and Logistics	6	A1X	3	E
<b>Period 2</b>					
TETS38	Logistics Project	12*	A1X	2	C
TETS31	Logistics Strategies	6	A1X	4	E

*Specialisation: Master Profile Manufacturing*

Course code	Course name	Credits	Level	Timetable module	ECV
<b>Period 1</b>					
TMPM08	Project Course Advanced - Manufacturing Engineering	12*	A1X	-	C
<b>Period 2</b>					
TMPM08	Project Course Advanced - Manufacturing Engineering	12*	A1X	-	C

*Specialisation: Master Profile Manufacturing Management*

Course code	Course name	Credits	Level	Timetable module	ECV
<b>Period 1</b>					
TPPE73	Operations Management - Project Course	12*	A1X	4	C
TPPE99	Simulation in Production and Logistics	6	A1X	3	E
<b>Period 2</b>					
TPPE73	Operations Management - Project Course	12*	A1X	4	C

*Specialisation: Master Profile Product Development*

Course code	Course name	Credits	Level	Timetable module	ECV
<b>Period 1</b>					
TMPM05	Project Course Advanced - Design Engineering and Product Development	12*	A1X	-	C
<b>Period 2</b>					
TMPM05	Project Course Advanced - Design Engineering and Product Development	12*	A1X	-	C

*Specialisation: Master Profile Project, Innovation and Entrepreneurship*

Course code	Course name	Credits	Level	Timetable module	ECV
<b>Period 1</b>					
TEIO89	Innovation and Entrepreneurship - Project Course	12*	A1X	4	C
<b>Period 2</b>					
TEIO89	Innovation and Entrepreneurship - Project Course	12*	A1X	4	C

*Specialisation: Master Profile Quality Technology and Management*

Course code	Course name	Credits	Level	Timetable module	ECV
<b>Period 1</b>					
TMQU27	Quality Management - Project Course	12*	A1X	2	C
TMQU13	Customer Focused Product and Service Development	6	A1X	4	E
<b>Period 2</b>					
TMQU27	Quality Management - Project Course	12*	A1X	4	C

*Specialisation: Master Profile Strategic Management and Control*

Course code	Course name	Credits	Level	Timetable module	ECV
<b>Period 1</b>					
TEAE12	Strategic Analysis and Methods for Strategic Change	12*	A1X	2	C
TDEI72	Strategy and Digitisation - Technology, Standards and Network Effects	6	A1X	4	E
<b>Period 2</b>					
TEAE12	Strategic Analysis and Methods for Strategic Change	12*	A1X	2	C
TEIM10	Industrial Service Development	6	A1X	2	E
TMQU12	Lean Production	6	A1X	2	E

*Specialisation: Master Profile Telecommunication*

Course code	Course name	Credits	Level	Timetable module	ECV
<b>Period 1</b>					
TSIN01	Information Networks	6	A1X	3	E
TSIT03	Cryptology	6	A1X	2	E
TSKS12	Modern Channel Coding, Inference and Learning	6	A1X	1	E

*Specialisation: Master Profile Wood Technology*

Course code	Course name	Credits	Level	Timetable module	ECV
<b>Period 1</b>					
TMPM05	Project Course Advanced - Design Engineering and Product Development	12*	A1X	-	C
<b>Period 2</b>					
TMPM05	Project Course Advanced - Design Engineering and Product Development	12*	A1X	-	C

*Specialisation: Specialization Biotechnical Engineering*

Course code	Course name	Credits	Level	Timetable module	ECV
<b>Period 1</b>					
TATM38	Mathematical Models in Biology	6	A1X	3	E
<b>Period 2</b>					
TFBI17	Advanced Project Course in Ecosystem Service Valuation	6	A1X	-	E

*Specialisation: Specialization Computer Science and Engineering*

Course code	Course name	Credits	Level	Timetable module	ECV
<b>Period 1</b>					
Tddb84	Design Patterns	6	A1X	4	E
TDDD04	Software Testing	6	A1X	2	E
TSIT03	Cryptology	6	A1X	2	E

*Specialisation: Specialization Electrical Engineering*

Course code	Course name	Credits	Level	Timetable module	ECV
<b>Period 1</b>					
TSIN01	Information Networks	6	A1X	3	E
TSIT03	Cryptology	6	A1X	2	E
TSKS12	Modern Channel Coding, Inference and Learning	6	A1X	1	E
<b>Period 2</b>					
TSRT08	Optimal Control	6	A1X	3	E

*Specialisation: Specialization Energy Engineering*

Course code	Course name	Credits	Level	Timetable module	ECV
<b>Period 1</b>					
TKMJ31	Biofuels for Transportation	6	A1N	1	E
TMMV12	Gas Turbine Engines	6	A1X	4	E
TMPE01	Project Course Advanced - Energy Engineering	12*	A1X	-	E
<b>Period 2</b>					
TKMJ32	Integrated Product Service Engineering	6	A1N	3	E
TMES51	International Energy Markets	6	A1X	1	E
TMPE01	Project Course Advanced - Energy Engineering	12*	A1X	-	E



*Specialisation: Specialization Mechanical Engineering*

Course code	Course name	Credits	Level	Timetable module	ECV
<b>Period 1</b>					
TMME40	Vibration Analysis of Structures	6	A1X	3	E
TMMS11	Models of Mechanics	6*	A1X	3	E
TMMV01	Aerodynamics	6	A1X	2	E
TMPM05	Project Course Advanced - Design Engineering and Product Development	12*	A1X	-	E
TMPM08	Project Course Advanced - Manufacturing Engineering	12*	A1X	-	E
<b>Period 2</b>					
TKMJ32	Integrated Product Service Engineering	6	A1N	3	E
TMKA03	Industrial Design	6	G2X	1	E
TMMS11	Models of Mechanics	6*	A1X	4	E
TMMS20	Structural Optimization	6	A1X	1	E
TMPM05	Project Course Advanced - Design Engineering and Product Development	12*	A1X	-	E
TMPM08	Project Course Advanced - Manufacturing Engineering	12*	A1X	-	E

**Semester 10 (Spring 2019)**

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