

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

300 credits

Civilingenjör i industriell ekonomi - internationell

6CIEI

Valid from: 2016 Spring semester

**Determined by** Board of Studies for Industrial Engineering and Logistics

Date determined 2016-01-19

# Entry requirements

# Degree in Swedish

Civilingenjör 300 hp och Teknologie master 120 hp



# Curriculum

# Semester 2 (Spring 2017)

Course code	Course name	Credits	Level	Timetable module	ECV
Period 1					
TATA42	Calculus in One Variable 2	6	G1X	2	С
TDDD11	Introduction to Programming	8*	G1X	4	С
TEII22	Japanese for Engineers I, Part 2	6*	G1F	3	С
Period 2					
TAOP52	Introduction to Operations Research	4	G1X	3	С
TATA69	Calculus in Several Variables	6	G1X	2	С
TDDD11	Introduction to Programming	8*	G1X	4	С
TEII22	Japanese for Engineers I, Part 2	6*	G1F	1	С

# Semester 3 (Autumn 2017)

Course code	Course name	Credits	Level	Timetable module	ECV
Period 1					
TEII41	Japanese for Engineers II, Part 1	6*	G1N	4	С
TKMJ51	Corporate Sustainability Management	6	G1X	2	С
TMME27	Engineering Mechanics	10*	G1X	3	С
Period 2					
TAMS79	Mathematical Statistics, First Course	4	G1X	3	С
TEII41	Japanese for Engineers II, Part 1	6*	G1N	4	С
TMME27	Engineering Mechanics	10*	G1X	1	С
TPPE98	Economic Analysis: Economic Theory	4	G2X	2	С



# Semester 4 (Spring 2018)

Period 1TAMS65Mathematical Statistics, second course6*G2X4CTAOP62Operations Research, Extended Course6G2X3CTEII42Japanese for Engineers II, Part 22*G1F-CTDDE10Object Oriented Programming in Java6G2X1ETEIO61Industrial Management6G2X1ETFBI11Genetics and Evolution6G1X2ETMMV04Engineering Thermodynamics6G1X2ETMPT07Manufacturing Technology6G2X2ETSEA22Switching Theory and Logical Design6G1X2EPeriod 2TAMS65Mathematical Statistics, second course6*G2X2CTEII42Japanese for Engineers II, Part 22*G1F4CTPPE24Economic Analysis: Decision- and Financial Methodology6G2X3CTATA82Discrete Mathematics6G1X1ETKE52Fundamentals of Chemistry6G1X1ETME544Energy Systems - Supply and Demand6G2X1ETSRT04Introduction in Matlab2G1X4ETSEA82Computer Hardware and Architecture4G1X4E	Course code	Course name	Credits	Level	Timetable module	ECV
TAOP62Operations Research, Extended Course6G2X3CTEII42Japanese for Engineers II, Part 22*G1F-CTDDE10Object Oriented Programming in Java6G2X1ETEIO61Industrial Management6G2X1ETFB111Genetics and Evolution6G1X2ETMMV04Engineering Thermodynamics6G1X2ETMPT07Manufacturing Technology6G2X2ETSEA22Switching Theory and Logical Design6G1X2ETAMS65Mathematical Statistics, second course6*G2X2CTEII42Japanese for Engineers II, Part 22*G1F4CTPPE24Economic Analysis: Decision- and Financial Methodology6G2X3CTATA82Discrete Mathematics6G1X1ETKE52Fundamentals of Chemistry6G1X1ETMES44Energy Systems - Supply and Demand6G2F1ETMKT14CAD and Machine Elements6G2X1ETSEA82Computer Hardware and Architecture4G1X4E	Period 1					
TEII42Japanese for Engineers II, Part 22*G1F-CTDDE10Object Oriented Programming in Java6G2X1ETEIO61Industrial Management6G2X1ETFBI11Genetics and Evolution6G1X2ETMMV04Engineering Thermodynamics6G1X2ETMPT07Manufacturing Technology6G2X2ETSEA22Switching Theory and Logical Design6G1X2ETAMS65Mathematical Statistics, second course6*G2X2CTEII42Japanese for Engineers II, Part 22*G1F4CTPPE24Economic Analysis: Decision- and Financial Methodology6G1X1ETKE52Fundamentals of Chemistry6G1X1ETME544Energy Systems - Supply and Demand6G2F1ETMKT14CAD and Machine Elements6G2X1E	TAMS65	Mathematical Statistics, second course	6*	G2X	4	С
TDDE10Object Oriented Programming in Java6G2X1ETDDE10Object Oriented Programming in Java6G2X1ETEIO61Industrial Management6G2X1ETFBI11Genetics and Evolution6G1X2ETMMV04Engineering Thermodynamics6G1X2ETMPT07Manufacturing Technology6G2X2ETSEA22Switching Theory and Logical Design6G1X2ETSRT04Introduction in Matlab2G1X2EPeriod 2TTTECTPPE24Economic Analysis: Decision- and Financial Methodology6G1X1ETFK52Fundamentals of Chemistry6G1X1ETME544Energy Systems - Supply and Demand6G2X1ETME542Computer Hardware and Architecture4G1X4E	TAOP62	Operations Research, Extended Course	6	G2X	3	С
TEIO61Industrial Management6G2X1ETFBI11Genetics and Evolution6G1X2ETMMV04Engineering Thermodynamics6G1X2ETMPT07Manufacturing Technology6G2X2ETSEA22Switching Theory and Logical Design6G1X2ETSRT04Introduction in Matlab2G1X2EPeriod 2TAMS65Mathematical Statistics, second course6*G2X2CTEII42Japanese for Engineers II, Part 22*G1F4CTPPE24Economic Analysis: Decision- and Financial Methodology6G1X1ETFKE52Fundamentals of Chemistry6G1X1ETMES44Energy Systems - Supply and Demand6G2X1ETSEA82Computer Hardware and Architecture4G1X4E	TEII42	Japanese for Engineers II, Part 2	2*	G1F	-	С
TFBI11Genetics and Evolution6G1X2ETMMV04Engineering Thermodynamics6G1X2ETMPT07Manufacturing Technology6G2X2ETSEA22Switching Theory and Logical Design6G1X2ETSRT04Introduction in Matlab2G1X2EPeriod 2TAMS65Mathematical Statistics, second course6*G2X2CTEII42Japanese for Engineers II, Part 22*G1F4CTPPE24Economic Analysis: Decision- and Financial Methodology6G1X1ETFKE52Fundamentals of Chemistry6G1X1ETMES44Energy Systems - Supply and Demand6G2F1ETSEA82Computer Hardware and Architecture4G1X4E	TDDE10	Object Oriented Programming in Java	6	G2X	1	E
TMMV04Engineering Thermodynamics6G1X2ETMPT07Manufacturing Technology6G2X2ETSEA22Switching Theory and Logical Design6G1X2ETSRT04Introduction in Matlab2G1X2EPeriod 2TAMS65Mathematical Statistics, second course6*G2X2CTEII42Japanese for Engineers II, Part 22*G1F4CTPPE24Economic Analysis: Decision- and Financial Methodology6G1X1ETFKE52Fundamentals of Chemistry6G1X1ETMES44Energy Systems - Supply and Demand6G2X1ETSEA82Computer Hardware and Architecture4G1X4E	TEIO61	Industrial Management	6	G2X	1	E
TMPT07Manufacturing Technology6G2X2ETSEA22Switching Theory and Logical Design6G1X2ETSRT04Introduction in Matlab2G1X2EPeriod 2TAMS65Mathematical Statistics, second course6*G2X2CTEII42Japanese for Engineers II, Part 22*G1F4CTPPE24Economic Analysis: Decision- and Financial Methodology6G1X1ETFKE52Fundamentals of Chemistry6G1X1ETMES44Energy Systems - Supply and Demand6G2X1ETSEA82Computer Hardware and Architecture4G1X4E	TFBI11	Genetics and Evolution	6	G1X	2	E
TSEA22Switching Theory and Logical Design6G1X2ETSRT04Introduction in Matlab2G1X2EPeriod 2TAMS65Mathematical Statistics, second course6*G2X2CTEII42Japanese for Engineers II, Part 22*G1F4CTPPE24Economic Analysis: Decision- and Financial Methodology6G2X3CTATA82Discrete Mathematics6G1X1ETFKE52Fundamentals of Chemistry6G1X1ETMKT14CAD and Machine Elements6G2X1ETSEA82Computer Hardware and Architecture4G1X4E	TMMV04	Engineering Thermodynamics	6	G1X	2	E
TSRT04Introduction in Matlab2G1X2EPeriod 2TAMS65Mathematical Statistics, second course6*G2X2CTEII42Japanese for Engineers II, Part 22*G1F4CTPPE24Economic Analysis: Decision- and Financial Methodology6G2X3CTATA82Discrete Mathematics6G1X1ETFKE52Fundamentals of Chemistry6G1X1ETMES44Energy Systems - Supply and Demand6G2X1ETMKT14CAD and Machine Elements6G1X4E	TMPT07	Manufacturing Technology	6	G2X	2	E
Period 2TAMS65Mathematical Statistics, second course6*G2X2CTEII42Japanese for Engineers II, Part 22*G1F4CTPPE24Economic Analysis: Decision- and Financial Methodology6G2X3CTATA82Discrete Mathematics6G1X1ETFKE52Fundamentals of Chemistry6G1X1ETMES44Energy Systems - Supply and Demand6G2X1ETMKT14CAD and Machine Elements6G1X4ETSEA82Computer Hardware and Architecture4G1X4E	TSEA22	Switching Theory and Logical Design	6	G1X	2	E
TAMS65Mathematical Statistics, second course6*G2X2CTEII42Japanese for Engineers II, Part 22*G1F4CTPPE24Economic Analysis: Decision- and Financial Methodology6G2X3CTATA82Discrete Mathematics6G1X1ETFKE52Fundamentals of Chemistry6G1X1ETMES44Energy Systems - Supply and Demand6G2F1ETMKT14CAD and Machine Elements6G1X4E	TSRT04	Introduction in Matlab	2	G1X	2	E
TEII42Japanese for Engineers II, Part 22*G1F4CTPPE24Economic Analysis: Decision- and Financial Methodology6G2X3CTATA82Discrete Mathematics6G1X1ETFKE52Fundamentals of Chemistry6G1X1ETMES44Energy Systems - Supply and Demand6G2X1ETMKT14CAD and Machine Elements6G1X1ETSEA82Computer Hardware and Architecture4G1X4E	Period 2					
TPPE24Economic Analysis: Decision- and Financial Methodology6G2X3CTATA82Discrete Mathematics6G1X1ETFKE52Fundamentals of Chemistry6G1X1ETMES44Energy Systems - Supply and Demand6G2F1ETMKT14CAD and Machine Elements6G2X1ETSEA82Computer Hardware and Architecture4G1X4E	TAMS65	Mathematical Statistics, second course	6*	G2X	2	С
IPPE24Methodology6G2X3CTATA82Discrete Mathematics6G1X1ETFKE52Fundamentals of Chemistry6G1X1ETMES44Energy Systems - Supply and Demand6G2F1ETMKT14CAD and Machine Elements6G2X1ETSEA82Computer Hardware and Architecture4G1X4E	TEII42	Japanese for Engineers II, Part 2	2*	G1F	4	С
TFKE52Fundamentals of Chemistry6G1X1ETMES44Energy Systems - Supply and Demand6G2F1ETMKT14CAD and Machine Elements6G2X1ETSEA82Computer Hardware and Architecture4G1X4E	TPPE24		6	G2X	3	С
TMES44Energy Systems - Supply and Demand6G2F1ETMKT14CAD and Machine Elements6G2X1ETSEA82Computer Hardware and Architecture4G1X4E	TATA82	Discrete Mathematics	6	G1X	1	E
TMKT14CAD and Machine Elements6G2X1ETSEA82Computer Hardware and Architecture4G1X4E	TFKE52	Fundamentals of Chemistry	6	G1X	1	E
TSEA82Computer Hardware and Architecture4G1X4E	TMES44	Energy Systems - Supply and Demand	6	G2F	1	E
	TMKT14	CAD and Machine Elements	6	G2X	1	E
TSRT04 Introduction in Matlab 2 G1X 1 E	TSEA82	Computer Hardware and Architecture	4	G1X	4	E
	TSRT04	Introduction in Matlab	2	G1X	1	E
TPTE06Industrial Placement6G1X-V	TPTE06	Industrial Placement	6	G1X	-	V

#### Specialisation: Specialization Biotechnical Engineering

Course code	Course name	Credits	Level	Timetable module	ECV
Period 1					
TFBI11	Genetics and Evolution	6	G1X	2	С
Period 2					
TFKE52	Fundamentals of Chemistry	6	G1X	1	С



Course code	Course name	Credits	Level	Timetable module	ECV
Period 1					
TDDE10	Object Oriented Programming in Java	6	G2X	1	С
Period 2					
TATA82	Discrete Mathematics	6	G1X	1	С

#### Specialisation: Specialization Computer Science and Engineering

	Specialisation: Specialization Electrical Engineering					
Course code	Course name	Credits	Level	Timetable module	ECV	
Period 1						
TSEA22	Switching Theory and Logical Design	6	G1X	2	С	
Period 2						
TSEA82	Computer Hardware and Architecture	4	G1X	4	С	

#### Specialisation: Specialization Electrical Engineering

#### Specialisation: Specialization Energy Engineering

Course code	Course name	Credits	Level	Timetable module	ECV
Period 1					
TMMV04	Engineering Thermodynamics	6	G1X	2	С
Period 2					
TMES44	Energy Systems - Supply and Demand	6	G2F	1	С

#### Specialisation: Specialization Mechanical Engineering

Course code	Course name	Credits	Level	Timetable module	ECV
Period 1					
TMPT07	Manufacturing Technology	6	G2X	2	С
Period 2					
TMKT14	CAD and Machine Elements	6	G2X	1	С

# Semester 5 (Autumn 2018)



Course code	Course name	Credits	Level	Timetable module	ECV
Period 1					
TPPE13	Production and Operations Management	6	G2X	1	С
TSRT22	Automatic Control	6	G2X	4	С
TDDE18	Programming C++	6*	G2X	2	E
TDDE22	Data Structures and Algorithms	6	G2X	3	E
TEIO91	Project Management	6*	G2X	-	E
TFBI22	Cell Biology and Microbial Processes	6	G1X	3	E
TMHL22	Solid Mechanics	6	G2X	3	E
TMKM86	Engineering Materials	6*	G2X	4	E
TMMV11	Fluid Mechanics and Heat Transfer	6	G2X	2	E
TMMV57	Applied Energy Engineering	6*	G2X	3	E
TSDT84	Signals and Systems, and Transform Theory	8*	G2X	4	E
TSEA52	Switching Theory and Logical Design	6*	G1X	2	E
TSTE95	Electronics	4	G1X	3	E
Period 2					
TEIO04	Project Management	6	G2X	2	С
NBIB45	Principles in Physiology and Ethics	6	G1F	1	E
TDDE18	Programming C++	6*	G2X	1	E
TDTS10	Computer Architecture	6	G1X	3	E
TEIM03	Intercultural Communication	4	G1X	4	E
TEIO91	Project Management	6*	G2X	-	E
TKMJ35	Industrial Ecology	6	G2F	3	E
TKMJ39	Resource Efficient Products and Production	6	G2F	1	E
TMKM86	Engineering Materials	6*	G2X	4	E
TMMI46	Industrial Automation	6	G2F	3	E
TMMV57	Applied Energy Engineering	6*	G2X	3	E
TSDT84	Signals and Systems, and Transform Theory	8*	G2X	3	E
TSEA52	Switching Theory and Logical Design	6*	G1X	4	E



Course code	Course name	Credits	Level	Timetable module	ECV
Period 1					
TFBI22	Cell Biology and Microbial Processes	6	G1X	3	С
Period 2					
NBIB45	Principles in Physiology and Ethics	6	G1F	1	С
TKMJ35	Industrial Ecology	6	G2F	3	E

#### Specialisation: Specialization Biotechnical Engineering

Specialisation: Specialization Computer Science and Engineering

Course code	Course name	Credits	Level	Timetable module	ECV
Period 1					
TSEA52	Switching Theory and Logical Design	6*	G1X	2	С
TDDE22	Data Structures and Algorithms	6	G2X	3	E
Period 2					
TDTS10	Computer Architecture	6	G1X	3	С
TSEA52	Switching Theory and Logical Design	6*	G1X	4	С

#### Specialisation: Specialization Electrical Engineering

Course code	Course name	Credits	Level	Timetable module	ECV
Period 1					
TDDE18	Programming C++	6*	G2X	2	С
TSDT84	Signals and Systems, and Transform Theory	8*	G2X	4	С
TSTE95	Electronics	4	G1X	3	E
Period 2					
TDDE18	Programming C++	6*	G2X	1	С
TSDT84	Signals and Systems, and Transform Theory	8*	G2X	3	С



Course code	Course name	Credits	Level	Timetable module	ECV
Period 1					
TMMV11	Fluid Mechanics and Heat Transfer	6	G2X	2	С
TMMV57	Applied Energy Engineering	6*	G2X	3	С
Period 2					
TMMV57	Applied Energy Engineering	6*	G2X	3	С
TKMJ39	Resource Efficient Products and Production	6	G2F	1	E

#### Specialisation: Specialization Energy Engineering

#### Specialisation: Specialization Mechanical Engineering

Course code	Course name	Credits	Level	Timetable module	ECV
Period 1					
TMHL22	Solid Mechanics	6	G2X	3	С
TMKM86	Engineering Materials	6*	G2X	4	С
Period 2					
TMKM86	Engineering Materials	6*	G2X	4	С
TMMI46	Industrial Automation	6	G2F	3	E

Semester 6 (Spring 2019)



Course code	Course name	Credits	Level	Timetable module	ECV
Period 1					
TEIM32	Industrial Marketing	6	G2X	4	С
TDDD81	Database Technology	6*	G2X	2	E
TDDD83	Computer Engineering - Bachelor Project	18*	G2X	1/3	E
TFBI23	Ecology and the Environment	6	G1X	3	E
TFBI24	Biotechnology - Bachelor Project	18*	G2X	2	E
TFYA89	Natural Sciences for Engineers - Principles and Applications	6*	G2X	-	E
TMMV04	Engineering Thermodynamics	6	G1X	2	E
TMMV16	Energy Engineering - Bachelor Project	18*	G2X	3	E
TMMV58	Modelling and Simulation of Energy and Heat Transfer Processes	6	G2X	1	E
TMPS32	Mechanical Engineering - Bachelor Project	18*	G2X	3	E
TSBB18	Embedded Perception Systems	6	G2X	3	E
TSEA56	Electronics Engineering - Bachelor Project	16*	G2X	2	E
Period 2					
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
TFYA89	Natural Sciences for Engineers - Principles and Applications	6*	G2X	-	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



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

#### Specialisation: Specialization Biotechnical Engineering

Specialisation:	Specialization	Computer	Science and	l Engineering
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Course code	Course name	Credits	Level	Timetable module	ECV
Period 1					
TDDD81	Database Technology	6*	G2X	2	E
TDDD83	Computer Engineering - Bachelor Project	18*	G2X	1/3	E
Period 2					
TDDD12	Database Technology	6	G2X	4	С
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
Period 1					
TSBB18	Embedded Perception Systems	6	G2X	3	С
TSEA56	Electronics Engineering - Bachelor Project	16*	G2X	2	E
Period 2					
TSKS10	Signals, Information and Communication	4	G2X	3	С
TSEA56	Electronics Engineering - Bachelor Project	16*	G2X	-	E



Course code	Course name	Credits	Level	Timetable module	ECV
Period 1					
TMMV58	Modelling and Simulation of Energy and Heat Transfer Processes	6	G2X	1	С
TMMV16	Energy Engineering - Bachelor Project	18*	G2X	3	E
Period 2					
TMMV16	Energy Engineering - Bachelor Project	18*	G2X	3	E

#### Specialisation: Specialization Energy Engineering

#### Specialisation: Specialization Mechanical Engineering

Course code	Course name	Credits	Level	Timetable module	ECV
Period 1					
TMMV04	Engineering Thermodynamics	6	G1X	2	С
TMPS32	Mechanical Engineering - Bachelor Project	18*	G2X	3	E
Period 2					
TMPS32	Mechanical Engineering - Bachelor Project	18*	G2X	3	E

# Semester 7 (Autumn 2019)

Course code	Course name	Credits	Level	Timetable module	ECV
Period 1					
TEII18	Japanese for Engineers III	6*	G2X	-	С
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
TATM38	Mathematical Models in Biology	6	A1X	3	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



Course code	Course name	Credits	Level	Timetable module	ECV
TDDE18	Programming C++	6*	G2X	2	E
TDEI13	Enterprise Resource Planning Systems: Process and Implementation	6	A1X	2	E
TDEI72	Strategy and Digitisation - Technology, Standards and Network Effects	6	A1X	4	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	A1N	2	E
TETS37	Basics in Logistics Management	6	G2X	4	E
TKMJ14	Large Technical Systems and the Environment	6	A1X	4	E
TKMJ31	Biofuels for Transportation	6	A1N	1	E
TKMJ49	Environmentally Driven Business Development	6*	A1N	3	E
TMES09	Industrial Energy Systems	6	A1X	3	E
TMES27	Modelling of Energy Systems	6	A1N	3	E
TMKM16	Sustainable Material Selection	6	A1X	4	E
TMKT80	Wood - Material	6	G2X	2	E
TMPS33	Virtual Manufacturing	6	A1N	4	E
TMPS35	Emerging Factory Technologies	6	A1N	3	E
ТМРТ03	Production Engineering - Continuing Course	6	G2F	2	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
Period 2					
TEII18	Japanese for Engineers III	6*	G2X	-	С
NBID31	Modelling of Biological Systems	6	A1X	3/4	E



Course code	Course name	Credits	Level	Timetable module	ECV
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
TDDE01	Machine Learning	6	A1X	1	E
TDDE18	Programming C++	6*	G2X	1	E
TDEI19	Management Control	6	A1X	2	E
TDEI21	Strategic Organisational Application of IT - Workflow and Knowledge Management	6	A1X	4	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
TFBI17	Advanced Project Course in Ecosystem Service Valuation	6	A1X	-	E
TFYA96	The physics behind technology	6	G2X	4	E
TKMJ35	Industrial Ecology	6	G2F	3	E
TKMJ49	Environmentally Driven Business Development	6*	A1N	3	E
TMES45	Energy Planning and Modelling of Communities	6	A1F	4	E
TMHL63	Introduction to Computational Mechanics	6	G2X	3	E
TMHP03	Engineering Systems Design	6	A1X	4	E
ТМКМ90	Engineering Materials - Deformation and Fracture	6	A1X	2	E
TMKT71	Affective Engineering	6	A1X	2	E
TMKT81	Wood - Realisation	6	G2X	1	E
TMKU02	Wood - Realisation	6	G2X	1	E
TMMV18	Fluid Mechanics	6	A1X	2	E
TMPS22	Assembly Technology	6	A1N	3	E
TMPS31	Sustainable Manufacturing	6	A1X	1	E
TMQU12	Lean Production	6	A1X	2	E



Course code	Course name	Credits	Level	Timetable module	ECV
TPPE29	Financial Markets and Instruments	6	A1X	2	E
TPPE76	Operations Planning and Control	6	A1X	4	Е
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	Е
TSIT02	Computer Security	6	G2F	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
Period 1					
TSDT14	Signal Theory	6	A1X	1	С
TSRT62	Modelling and Simulation	6	A1X	3	С
Period 2					
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
Period 1					
TDDC88	Software Engineering	12*	A1X	1	С
Period 2					
TDDC88	Software Engineering	12*	A1X	1	С



Course code	Course name	Credits	Level	Timetable module	ECV
Period 1					
TDEI72	Strategy and Digitisation - Technology, Standards and Network Effects	6	A1X	4	С
TDEI13	Enterprise Resource Planning Systems: Process and Implementation	6	A1X	2	E
Period 2					
TDEI21	Strategic Organisational Application of IT - Workflow and Knowledge Management	6	A1X	4	С
TDEI19	Management Control	6	A1X	2	E

#### Specialisation: Master Profile Digitisation and Management

#### Specialisation: Master Profile Energy Engineering

Course code	Course name	Credits	Level	Timetable module	ECV
Period 1					
TMES09	Industrial Energy Systems	6	A1X	3	Е
TMES27	Modelling of Energy Systems	6	A1N	3	E
Period 2					
TMMV18	Fluid Mechanics	6	A1X	2	E

#### Specialisation: Master Profile Finance

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

#### Specialisation: Master Profile Industrial Marketing

Course name	Credits	Level	Timetable module	ECV
Corporate Strategies	6	A1X	4	E
Industrial Sales Management	6	A1X	4	C/E
Industrial Service Development	6	A1X	2	C/E
	Corporate Strategies Industrial Sales Management	Corporate Strategies 6 Industrial Sales Management 6	Corporate Strategies   6   A1X     Industrial Sales Management   6   A1X	Course name   Credits   Level   Imodule     Corporate Strategies   6   A1X   4     Industrial Sales Management   6   A1X   4



Course code	Course name	Credits	Level	Timetable module	ECV
Period 1					
TETS37	Basics in Logistics Management	6	G2X	4	С
TETS23	Purchasing	6	A1N	2	E
Period 2					
TETS27	Supply Chain Logistics	6	A1X	2	C/E

#### Specialisation: Master Profile Logistics Management

Course code	Course name	Credits	Level	Timetable module	ECV
Period 1					
TMPS33	Virtual Manufacturing	6	A1N	4	E
TMPS35	Emerging Factory Technologies	6	A1N	3	E
TMPT03	Production Engineering - Continuing Course	6	G2F	2	E
Period 2					
TMPS22	Assembly Technology	6	A1N	3	С
TMPS31	Sustainable Manufacturing	6	A1X	1	E

#### Specialisation: Master Profile Manufacturing

#### Specialisation: Master Profile Operations Management

Course code	Course name	Credits	Level	Timetable module	ECV
Period 1					
TPPE16	Manufacturing Strategies	6	A1X	2	С
Period 2					
TPPE76	Operations Planning and Control	6	A1X	4	E

#### Specialisation: Master Profile Product Development

Course code	Course name	Credits	Level	Timetable module	ECV
Period 2					
TMHP03	Engineering Systems Design	6	A1X	4	E



Course code	Course name	Credits	Level	Timetable module	ECV
Period 1					
TEIO90	Innovation Management	6	A1X	2	С
TEIO07	Project Based Organization and Management	6	A1X	4	E
TKMJ49	Environmentally Driven Business Development	6*	A1N	3	E
Period 2					
TKMJ49	Environmentally Driven Business Development	6*	A1N	3	E

#### Specialisation: Master Profile Project, Innovation and Entrepreneurship

#### Specialisation: Master Profile Quality Technology and Management

Course code	Course name	Credits	Level	Timetable module	ECV
Period 1					
TMQU03	Quality Management and Engineering	6	G2X	2	С
Period 2					
TMQU12	Lean Production	6	A1X	2	E

#### Specialisation: Master Profile Signal and Image Processing

Course name	Credits	Level	Timetable	ECV
			module	
Digital Image Processing	6	A1X	4	С
Signal Theory	6	A1X	1	С
Multidimensional Signal Analysis	6*	A1X	2	E
Multidimensional Signal Analysis	6*	A1X	3	E
Image Sensors	6	A1X	4	E
Digital Signal Processing	6	A1X	2	E
	Digital Image Processing Signal Theory Multidimensional Signal Analysis Multidimensional Signal Analysis Image Sensors	Digital Image Processing     6       Signal Theory     6       Multidimensional Signal Analysis     6*       Multidimensional Signal Analysis     6*       Image Sensors     6	Digital Image Processing6A1XSignal Theory6A1XMultidimensional Signal Analysis6*A1XMultidimensional Signal Analysis6*A1XImage Sensors6A1X	Course nameCreditsLevelImmoduleDigital Image Processing6A1X4Signal Theory6A1X1Multidimensional Signal Analysis6*A1X2Multidimensional Signal Analysis6*A1X3Image Sensors6A1X4



Course code	Course name	Credits	Level	Timetable module	ECV
Period 1					
TEIE72	Corporate Strategies	6	A1X	4	С
TEIO90	Innovation Management	6	A1X	2	E
TKMJ49	Environmentally Driven Business Development	6*	A1N	3	E
TPPE16	Manufacturing Strategies	6	A1X	2	E
Period 2					
TDEI19	Management Control	6	A1X	2	С
TDEI21	Strategic Organisational Application of IT - Workflow and Knowledge Management	6	A1X	4	E
TEIE42	Industrial Sales Management	6	A1X	4	E
TKMJ49	Environmentally Driven Business Development	6*	A1N	3	E

#### Specialisation: Master Profile Strategic Management and Control

#### Specialisation: Master Profile Telecommunication

Course code	Course name	Credits	Level	Timetable module	ECV
Period 1					
TSDT14	Signal Theory	6	A1X	1	С
TSKS01	Digital Communication	6*	A1X	4	С
TSKS15	Detection and Estimation of Signals	6	A1X	2	E
Period 2					
TSKS01	Digital Communication	6*	A1X	4	С

#### Specialisation: Master Profile Wood Technology

Course code	Course name	Credits	Level	Timetable module	ECV
Period 1					
TMKT80	Wood - Material	6	G2X	2	С
TMKM16	Sustainable Material Selection	6	A1X	4	E
Period 2					
TMKT81	Wood - Realisation	6	G2X	1	С
TMKU02	Wood - Realisation	6	G2X	1	С



Course code	Course name	Credits	Level	Timetable module	ECV
Period 1					
TATM38	Mathematical Models in Biology	6	A1X	3	E
TKMJ31	Biofuels for Transportation	6	A1N	1	E
Period 2					
NBID31	Modelling of Biological Systems	6	A1X	3/4	С
TFBI17	Advanced Project Course in Ecosystem Service Valuation	6	A1X	-	E
TKMJ35	Industrial Ecology	6	G2F	3	E

#### Specialisation: Specialization Biotechnical Engineering

Specialisation: Specialization Computer Science and Engineering

Course code	Course name	Credits	Level	Timetable module	ECV
Period 1					
TDDC88	Software Engineering	12*	A1X	1	С
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	2	E
Period 2					
TDDC88	Software Engineering	12*	A1X	1	С
TDDD38	Advanced Programming in C++	6*	A1X	-	E
TDDE01	Machine Learning	6	A1X	1	E
TDDE18	Programming C++	6*	G2X	1	E
TSIT02	Computer Security	6	G2F	2	E
TSKS11	Networks: Models, Algorithms and Applications	6	G2X	3	E



Course code	Course name	Credits	Level	Timetable module	ECV
Period 1					
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
Period 2					
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	G2F	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 Electrical Engineering

## Specialisation: Specialization Energy Engineering

Course code	Course name	Credits	Level	Timetable module	ECV
Period 1					
TKMJ14	Large Technical Systems and the Environment	6	A1X	4	E
TMES09	Industrial Energy Systems	6	A1X	3	E
TMES27	Modelling of Energy Systems	6	A1N	3	E
Period 2					
TMES45	Energy Planning and Modelling of Communities	6	A1F	4	E
TMMV18	Fluid Mechanics	6	A1X	2	E



Course name	Credits	Level	Timetable module	ECV
Scientific Computing	6	G1X	3	E
Sustainable Material Selection	6	A1X	4	E
Wood - Material	6	G2X	2	E
Virtual Manufacturing	6	A1N	4	E
Emerging Factory Technologies	6	A1N	3	E
Production Engineering - Continuing Course	6	G2F	2	E
Engineering Systems Design	6	A1X	4	E
Engineering Materials - Deformation and Fracture	6	A1X	2	E
Affective Engineering	6	A1X	2	E
Wood - Realisation	6	G2X	1	E
Wood - Realisation	6	G2X	1	E
Assembly Technology	6	A1N	3	E
Sustainable Manufacturing	6	A1X	1	E
	Scientific Computing Sustainable Material Selection Wood - Material Virtual Manufacturing Emerging Factory Technologies Production Engineering - Continuing Course Engineering Systems Design Engineering Materials - Deformation and Fracture Affective Engineering Wood - Realisation Wood - Realisation Assembly Technology	Scientific Computing6Sustainable Material Selection6Wood - Material6Virtual Manufacturing6Emerging Factory Technologies6Production Engineering - Continuing Course6Engineering Systems Design6Engineering Materials - Deformation and Fracture6Affective Engineering6Wood - Realisation6Wood - Realisation6Assembly Technology6	Scientific Computing6G1XSustainable Material Selection6A1XWood - Material6G2XVirtual Manufacturing6A1NEmerging Factory Technologies6A1NProduction Engineering - Continuing Course6G2FEngineering Systems Design6A1XEngineering Materials - Deformation and Fracture6A1XMood - Realisation6G2XWood - Realisation6G2XMood - Realisation6G2XAssembly Technology6A1N	Course nameCreditsLevelmoduleScientific Computing6G1X3Sustainable Material Selection6A1X4Wood - Material6G2X2Virtual Manufacturing6A1N4Emerging Factory Technologies6A1N3Production Engineering - Continuing Course6G2F2Engineering Materials - Deformation and Fracture6A1X4Mood - Realisation6A1X2Wood - Realisation6G2X1Mood - Realisation6G2X1Assembly Technology6A1N3

#### Specialisation: Specialization Mechanical Engineering

# Semester 8 (Spring 2020)

Course code	Course name	Credits	Level	Timetable module	ECV
Period 1					
TEIE06	Corporate Planning	6*	A1X	-	С
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
TATA53 TBMI26 TDDB68 TDDD17 TDDD20	ModelsLinear Algebra, Honours CourseNeural Networks and Learning SystemsConcurrent Programming and Operating SystemsInformation Security, Second CourseDesign and Analysis of Algorithms	6* 6 6 6* 6 6	G2X A1X G2X A1X A1X A1X	- 2 3 4 3	E E E E



Course code	Course name	Credits	Level	Timetable module	ECV
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
TDDD75	Effect-Driven Development and Human- Centered Design of Interactive Systems	6	G2X	3	E
TDDD97	Web Programming	6	G2X	3	E
TDDE46	Software Quality	6*	A1N	2	E
TDEI71	Digitisation, Business Ecologies and Business Models	6	A1N	4	E
TDTS04	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
TGTU91	Oral and Written Communication	6	G1X	2	E
TGTU94	Technology and Ethics	6	G1X	1	E
TKMJ10	Industrial Ecology	6	A1X	1	E
TKMJ47	Environmental Systems Analysis	6*	A1N	3	E
TMES17	Building Energy Systems	6	A1N	3	E
TMES43	Analysis and Modelling of Industrial Energy Systems	6	A1F	1	E
TMKA04	Wood - Innovation	6	A1X	1	E
TMKT48	Design Optimization	6	A1X	3	Е
TMKT74	Advanced CAD	6	A1X	4	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



TPPE78Quantitative Models and Analysis in Operations Management6A1X1ETSBK07Computer Graphics6*A1X4ETSBK08Data Compression6A1N2ETSK513Wireless Communications6A1F4ETSRT07Industrial Control Systems6A1N2ETSRT09Control Theory6A1N3ETSTE08Analog and Discrete-Time Integrated Circuits6A1X3ETVCB11Cellbiological Methodology6G2X1/4EPeriod 2CTELE06Corporate Planning6*A1X-CTDDC78Programming of Parallel Computers - Methods and Tools6*A1X3ETDDD17Information Security, Second Course6*A1X4ETDDD27Advanced Web Programming in C+++6*A1X-E	Course code	Course name	Credits	Level	Timetable module	ECV
TSBK08Data Compression6A1N2ETSKS13Wireless Communications6A1F4ETSRT07Industrial Control Systems6A1N2ETSRT09Control Theory6A1N3ETSTE08Analog and Discrete-Time Integrated Circuits6A1X3ETVCB11Cellbiological Methodology6G2X1/4EPeriod 2TTEIE06Corporate Planning6*A1X-CTATA53Linear Algebra, Honours Course6*G2X-ETDDC78Programming of Parallel Computers - Methods and Tools6*A1X3ETDDD17Information Security, Second Course6*A1X4ETDDD27Advanced Web Programming6A1N3E	TPPE78		6	A1X	1	E
TSKS13Wireless Communications6A1F4ETSRT07Industrial Control Systems6A1N2ETSRT09Control Theory6A1N3ETSTE08Analog and Discrete-Time Integrated Circuits6A1X3ETVCB11Cellbiological Methodology6G2X1/4EPeriod 2TEIE06Corporate Planning6*A1X-CTATA53Linear Algebra, Honours Course6*G2X-ETDDC78Programming of Parallel Computers - Methods and Tools6*A1X3ETDDD17Information Security, Second Course6*A1X4ETDDD27Advanced Web Programming6A1N3E	TSBK07	Computer Graphics	6*	A1X	4	E
TSRT07Industrial Control Systems6A1N2ETSRT09Control Theory6A1N3ETSTE08Analog and Discrete-Time Integrated Circuits6A1X3ETVCB11Cellbiological Methodology6G2X1/4EPeriod 2TEIE06Corporate Planning6*A1X-CTATA53Linear Algebra, Honours Course6*G2X-ETDDC78Programming of Parallel Computers - Methods and Tools6*A1X3ETDDD17Information Security, Second Course6*A1X4ETDDD27Advanced Web Programming6A1N3E	TSBK08	Data Compression	6	A1N	2	Е
TSRT09Control Theory6A1N3ETSTE08Analog and Discrete-Time Integrated Circuits6A1X3ETVCB11Cellbiological Methodology6G2X1/4EPeriod 2TEIE06Corporate Planning6*A1X-CTATA53Linear Algebra, Honours Course6*G2X-ETDDC78Programming of Parallel Computers - Methods and Tools6A1X3ETDDD17Information Security, Second Course6*A1X4ETDDD27Advanced Web Programming6A1N3E	TSKS13	Wireless Communications	6	A1F	4	E
TSTE08Analog and Discrete-Time Integrated Circuits6A1X3ETVCB11Cellbiological Methodology6G2X1/4EPeriod 2TEIE06Corporate Planning6*A1X-CTATA53Linear Algebra, Honours Course6*G2X-ETDDC78Programming of Parallel Computers - Methods and Tools6*A1X3ETDDD17Information Security, Second Course6*A1X4ETDDD27Advanced Web Programming6A1N3E	TSRT07	Industrial Control Systems	6	A1N	2	Е
TVCB11Cellbiological Methodology6G2X1/4EPeriod 2TEIE06Corporate Planning6*A1X-CTATA53Linear Algebra, Honours Course6*G2X-ETDDC78Programming of Parallel Computers - Methods and Tools6*A1X3ETDDD17Information Security, Second Course6*A1X4ETDDD27Advanced Web Programming6A1N3E	TSRT09	Control Theory	6	A1N	3	Е
Period 2TEIE06Corporate Planning6*A1X-CTATA53Linear Algebra, Honours Course6*G2X-ETDDC78Programming of Parallel Computers - Methods and Tools6A1X3ETDDD17Information Security, Second Course6*A1X4ETDDD27Advanced Web Programming6A1N3E	TSTE08	Analog and Discrete-Time Integrated Circuits	6	A1X	3	E
TEIE06Corporate Planning6*A1X-CTATA53Linear Algebra, Honours Course6*G2X-ETDDC78Programming of Parallel Computers - Methods and Tools6A1X3ETDDD17Information Security, Second Course6*A1X4ETDDD27Advanced Web Programming6A1N3E	TVCB11	Cellbiological Methodology	6	G2X	1/4	E
TATA53Linear Algebra, Honours Course6*G2X-ETDDC78Programming of Parallel Computers - Methods and Tools6A1X3ETDDD17Information Security, Second Course6*A1X4ETDDD27Advanced Web Programming6A1N3E	Period 2					
TDDC78Programming of Parallel Computers - Methods and Tools6A1X3ETDDD17Information Security, Second Course6*A1X4ETDDD27Advanced Web Programming6A1N3E	TEIE06	Corporate Planning	6*	A1X	-	С
IDDC/8and Tools6AIX3ETDDD17Information Security, Second Course6*AIX4ETDDD27Advanced Web Programming6AIN3E	TATA53	Linear Algebra, Honours Course	6*	G2X	-	E
TDDD27   Advanced Web Programming   6   A1N   3   E	TDDC78		6	A1X	3	E
	TDDD17	Information Security, Second Course	6*	A1X	4	E
TDDD38 Advanced Programming in C++ 6* A1X - E	TDDD27	Advanced Web Programming	6	A1N	3	E
	TDDD38	Advanced Programming in C++	6*	A1X	-	E
TDDE07Bayesian Learning6A1F2E	TDDE07	Bayesian Learning	6	A1F	2	E
TDDE31Big Data Analytics6A1X3E	TDDE31	Big Data Analytics	6	A1X	3	E
TDDE41Software Architectures6A1X1E	TDDE41	Software Architectures	6	A1X	1	E
TDDE46Software Quality6*A1N2E	TDDE46	Software Quality	6*	A1N	2	E
TDEI35Strategy and Management Control6A1X2E	TDEI35	Strategy and Management Control	6	A1X	2	E
TEAE13Civil and Commercial Law6G1X2E	TEAE13	Civil and Commercial Law	6	G1X	2	E
TEIM07Industrial Market Research6A1X2E	TEIM07	Industrial Market Research	6	A1X	2	E
TEIO06Innovative Entrepreneurship6A1X2E	TEIO06	Innovative Entrepreneurship	6	A1X	2	E
TEIO41   Corporate Social Responsibility   6   A1X   3   E	TEIO41	Corporate Social Responsibility	6	A1X	3	E
TETS36 Sustainable Logistics Systems 6 A1X 4 E	TETS36	Sustainable Logistics Systems	6	A1X	4	E
TETS56Logistics and Quality in Health Care6A1X2E	TETS56	Logistics and Quality in Health Care	6	A1X	2	E
TFYA45Biotechnology Project6*A1X-E	TFYA45	Biotechnology Project	6*	A1X	-	E
TGTU95Philosophy of Science and Technology6G1X4E	TGTU95	Philosophy of Science and Technology	6	G1X	4	E
TKMJ47Environmental Systems Analysis6*A1N2E	TKMJ47	Environmental Systems Analysis	6*	A1N	2	E
TMES21Industrial Energy Systems6A1F3E	TMES21	Industrial Energy Systems	6	A1F	3	E



Course code	Course name	Credits	Level	Timetable module	ECV
TMES41	Strategic Development of Sustainable Energy Systems	6	A1F	2	E
TMKT57	Product Modelling	6	A1X	3	E
TMKT77	System Safety	6	A1X	4	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
TMQU13	Customer Focused Product and Service Development	6	A1N	4	E
TPPE33	Portfolio Management	6	A1X	2	E
TPPE74	Design and Development of Manufacturing Operations	6	A1F	4	E
TSBK02	Image and Audio Coding	6	A1X	4	E
TSBK07	Computer Graphics	6*	A1X	1	E
TSFS06	Diagnosis and Supervision	6	A1N	1	E
TSKS14	Multiple Antenna Communications	6	A1X	3	E
TSKS16	Signal Processing for Communications	6	A1N	1	E
TSRT14	Sensor Fusion	6	A1N	2	E

#### Specialisation: Master Profile Automatic Control

Course code	Course name	Credits	Level	Timetable module	ECV
Period 1					
TSRT07	Industrial Control Systems	6	A1N	2	E
TSRT09	Control Theory	6	A1N	3	E
Period 2					
TSFS06	Diagnosis and Supervision	6	A1N	1	E
TSRT14	Sensor Fusion	6	A1N	2	E

### Specialisation: Master Profile Computer Science and Engineering

Course code	Course name	Credits	Level	Timetable module	ECV
Period 2					
TDDE41	Software Architectures	6	A1X	1	С



Course code	Course name	Credits	Level	Timetable module	ECV	
Period 1						
TDEI71	Digitisation, Business Ecologies and Business Models	6	A1N	4	С	
Period 2						
TDEI35	Strategy and Management Control	6	A1X	2	С	

#### Specialisation: Master Profile Digitisation and Management

#### Specialisation: Master Profile Energy Engineering

Course code	Course name	Credits	Level	Timetable module	ECV
Period 1					
TMES17	Building Energy Systems	6	A1N	3	E
TMES43	Analysis and Modelling of Industrial Energy Systems	6	A1F	1	E
Period 2					
TMES21	Industrial Energy Systems	6	A1F	3	E
TMKT83	Small Scale Renewable Energy Conversion	6	A1X	4	E

#### Specialisation: Master Profile Finance

Course name	Credits	Level	Timetable module	ECV
Financial Risk Management	6	A1X	2	С
Portfolio Management	6	A1X	2	E
	Financial Risk Management	Financial Risk Management 6	Financial Risk Management 6 A1X	Course name   Credits   Level   module     Financial Risk Management   6   A1X   2

#### Specialisation: Master Profile Industrial Marketing

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



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

#### Specialisation: Master Profile Logistics Management

Specialisation: Master Profile Manufacturing	
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Course name	Credits	Level	Timetable module	ECV
Production System Automation	6	A1X	1	E
Production Systems	6	A1X	3	С
	Production System Automation	Production System Automation 6	Production System Automation 6 A1X	Course name   Credits   Level module     Production System Automation   6   A1X   1

#### Specialisation: Master Profile Operations Management

Course code	Course name	Credits	Level	Timetable module	ECV
Period 1					
TPPE78	Quantitative Models and Analysis in Operations Management	6	A1X	1	E
Period 2					
TPPE74	Design and Development of Manufacturing Operations	6	A1F	4	С

#### Specialisation: Master Profile Product Development

Course code	Course name	Credits	Level	Timetable module	ECV
Period 1					
TMKT48	Design Optimization	6	A1X	3	С
Period 2					
TMKT57	Product Modelling	6	A1X	3	С



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

#### Specialisation: Master Profile Project, Innovation and Entrepreneurship

#### Specialisation: Master Profile Quality Technology and Management

Course code	Course name	Credits	Level	Timetable module	ECV
Period 1					
TMQU31	Statistical Quality Control	6	A1X	2	Е
Period 2					
TMQU04	Six Sigma Quality	6	A1X	2	C/E
TMQU13	Customer Focused Product and Service Development	6	A1N	4	C/E
TETS56	Logistics and Quality in Health Care	6	A1X	2	E

#### Specialisation: Master Profile Signal and Image Processing

Course code	Course name	Credits	Level	Timetable module	ECV
Period 1					
TBMI26	Neural Networks and Learning Systems	6	A1X	2	E
TSBK07	Computer Graphics	6*	A1X	4	E
Period 2					
TSBK02	Image and Audio Coding	6	A1X	4	E
TSBK07	Computer Graphics	6*	A1X	1	E



Course code	Course name	Credits	Level	Timetable module	ECV
Period 1					
TEIM09	International Business	6	A1X	2	E
TEIO13	Leadership and Organizational Change	6	A1X	4	E
Period 2					
TEIM07	Industrial Market Research	6	A1X	2	E
TETS36	Sustainable Logistics Systems	6	A1X	4	E

#### Specialisation: Master Profile Strategic Management and Control

### Specialisation: Master Profile Telecommunication

	-I				
Course code	Course name	Credits	Level	Timetable module	ECV
Period 1					
TSBK08	Data Compression	6	A1N	2	E
TSKS13	Wireless Communications	6	A1F	4	E
Period 2					
TSBK02	Image and Audio Coding	6	A1X	4	E
TSKS14	Multiple Antenna Communications	6	A1X	3	E
	•				

#### Specialisation: Master Profile Wood Technology

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



Course code	Course name	Credits	Level	Timetable module	ECV
Period 1					
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	3	E
Period 2					
TFYA45	Biotechnology Project	6*	A1X	-	E
TKMJ47	Environmental Systems Analysis	6*	A1N	2	E

#### Specialisation: Specialization Biotechnical Engineering

#### Specialisation: Specialization Computer Science and Engineering

Course code	Course name	Credits	Level	Timetable module	ECV
Period 1					
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
TDDD75	Effect-Driven Development and Human- Centered Design of Interactive Systems	6	G2X	3	E
TDTS04	Computer Networks and Distributed Systems	8	G2X	2	E
Period 2					
TDDD17	Information Security, Second Course	6*	A1X	4	E
TDDD27	Advanced Web Programming	6	A1N	3	E
TDDD38	Advanced Programming in C++	6*	A1X	-	E
TDDE07	Bayesian Learning	6	A1F	2	E
TDDE31	Big Data Analytics	6	A1X	3	E
TDDE41	Software Architectures	6	A1X	1	E



Course name	Credits	Level	Timetable module	ECV
Neural Networks and Learning Systems	6	A1X	2	E
Computer Graphics	6*	A1X	4	E
Data Compression	6	A1N	2	E
Wireless Communications	6	A1F	4	E
Industrial Control Systems	6	A1N	2	E
Control Theory	6	A1N	3	E
Image and Audio Coding	6	A1X	4	E
Computer Graphics	6*	A1X	1	E
Diagnosis and Supervision	6	A1N	1	E
Multiple Antenna Communications	6	A1X	3	E
Signal Processing for Communications	6	A1N	1	E
Sensor Fusion	6	A1N	2	E
	Neural Networks and Learning Systems Computer Graphics Data Compression Wireless Communications Industrial Control Systems Control Theory Image and Audio Coding Computer Graphics Diagnosis and Supervision Multiple Antenna Communications Signal Processing for Communications	Neural Networks and Learning Systems6Computer Graphics6*Data Compression6Wireless Communications6Industrial Control Systems6Control Theory6Image and Audio Coding6Computer Graphics6*Diagnosis and Supervision6Multiple Antenna Communications6Signal Processing for Communications6	Neural Networks and Learning Systems6A1XComputer Graphics6*A1XData Compression6A1NWireless Communications6A1FIndustrial Control Systems6A1NControl Theory6A1NImage and Audio Coding6*A1XComputer Graphics6*A1XDiagnosis and Supervision6A1NMultiple Antenna Communications6A1N	Course nameCreditsLevelmoduleNeural Networks and Learning Systems6A1X2Computer Graphics6*A1X4Data Compression6A1N2Wireless Communications6A1F4Industrial Control Systems6A1N2Control Theory6A1N3Image and Audio Coding6*A1X4Computer Graphics6*A1X1Diagnosis and Supervision6A1N1Multiple Antenna Communications6A1N3Signal Processing for Communications6A1N1

#### Specialisation: Specialization Electrical Engineering

#### Specialisation: Specialization Energy Engineering

Course code	Course name	Credits	Level	Timetable module	ECV
Period 1					
TKMJ10	Industrial Ecology	6	A1X	1	E
TMES17	Building Energy Systems	6	A1N	3	E
TMES43	Analysis and Modelling of Industrial Energy Systems	6	A1F	1	E
Period 2					
TMES21	Industrial Energy Systems	6	A1F	3	E
TMES41	Strategic Development of Sustainable Energy Systems	6	A1F	2	E
TMKT83	Small Scale Renewable Energy Conversion	6	A1X	4	E



Course code	Course name	Credits	Level	Timetable module	ECV
Period 1					
TMKA04	Wood - Innovation	6	A1X	1	E
TMKT48	Design Optimization	6	A1X	3	E
TMKT74	Advanced CAD	6	A1X	4	E
TMMS21	Mechatronics	6	G2X	1	E
TMPS42	Production System Automation	6	A1X	1	E
Period 2					
TMKT57	Product Modelling	6	A1X	3	E
TMKT77	System Safety	6	A1X	4	E
TMME11	Road Vehicle Dynamics	6	A1X	1	E
TMPS27	Production Systems	6	A1X	3	E

#### Specialisation: Specialization Mechanical Engineering

# Semester 9 (Autumn 2020)

Course code	Course name	Credits	Level	Timetable module	ECV
Period 1					
TAMS39	Multivariate Statistical Methods	6	A1X	4	E
TATM38	Mathematical Models in Biology	6	A1X	3	E
TDDC34	Technical, Economic and Societal Evaluation of IT-products	6	A1X	3	E
TDDD04	Software Testing	6	A1X	2	E
TDDE15	Advanced Machine Learning	6	A1X	1	E
TDDE45	Software Design and Construction	6	A1X	4	E
TDEI72	Strategy and Digitisation - Technology, Standards and Network Effects	6	A1X	4	E
TEAE12	Strategic Analysis and Methods for Strategic Change	12*	A1F	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



Course code	Course name	Credits	Level	Timetable module	ECV
TMKT79	Collaborative Multidisciplinary Design Optimization	6	A1X	2	E
TMPE01	Project Course Advanced - Energy Engineering	12*	A1X	-	Е
TMPM08	Project Course Advanced - Manufacturing Engineering	12*	A1F	-	E
TMQU27	Quality Management - Project Course	12*	A1X	2	E
TMQU47	Quality Engineering and Design	6	A1X	4	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
TSFS12	Autonomous Vehicles - Planning, Control, and Learning Systems	6	A1X	1	E
TSIT03	Cryptology	6	A1X	2	E
TSKS12	Modern Channel Coding, Inference and Learning	6	A1X	1	E
Period 2					
TAOP18	Supply Chain Optimization	6	A1X	1	E
TDDB44	Compiler Construction	6	A1X	1	Е
TDDC90	Software Security	6	A1X	1	E
TDDD89	Scientific Method	6	A1X	3	Е
TEAE12	Strategic Analysis and Methods for Strategic Change	12*	A1F	2	E
TEAE18	Sustainable Value Chain Strategies	6	A1X	4	E
TEIM04	Industrial Market and Technology Strategies	12*	A1X	2	Е
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
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	A1N	1	E



Course code	Course name	Credits	Level	Timetable module	ECV
TMKA03	Industrial Design	6	G2X	1	E
TMPE01	Project Course Advanced - Energy Engineering	12*	A1X	-	E
TMPM08	Project Course Advanced - Manufacturing Engineering	12*	A1F	-	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	<b>Operations Management - Project Course</b>	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
Period 2					
TSRT08	Optimal Control	6	A1X	3	E

#### Specialisation: Master Profile Computer Science and Engineering

Course code	Course name	Credits	Level	Timetable module	ECV
Period 1					
TDDD04	Software Testing	6	A1X	2	С
TDDE45	Software Design and Construction	6	A1X	4	С
Period 2					
TDDD89	Scientific Method	6	A1X	3	С

#### Specialisation: Master Profile Digitisation and Management

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



Course code	Course name	Credits	Level	Timetable module	ECV
Period 1					
TKMJ31	Biofuels for Transportation	6	A1N	1	E
TMPE01	Project Course Advanced - Energy Engineering	12*	A1X	-	E
Period 2					
TMPE01	Project Course Advanced - Energy Engineering	12*	A1X	-	E

#### Specialisation: Master Profile Energy Engineering

#### Specialisation: Master Profile Finance

Course code	Course name	Credits	Level	Timetable module	ECV
Period 1					
TPPE53	Financial Valuation Methodology	6	A1X	2	E
TPPE66	Investment Valuation	6*	A1X	4	E
Period 2					
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
Period 1					
TEIM04	Industrial Market and Technology Strategies	12*	A1X	2	С
Period 2					
TEIM04	Industrial Market and Technology Strategies	12*	A1X	2	С

#### Specialisation: Master Profile Logistics Management

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



Course code	Course name	Credits	Level	Timetable module	ECV
Period 1					
TMPM08	Project Course Advanced - Manufacturing Engineering	12*	A1F	-	С
Period 2					
TMPM08	Project Course Advanced - Manufacturing Engineering	12*	A1F	-	с

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

#### Specialisation: Master Profile Product Development

Course code	Course name	Credits	Level	Timetable module	ECV
Period 1					
TMPM05	Project Course Advanced - Design Engineering and Product Development	12*	A1X	-	С
Period 2					
TMPM05	Project Course Advanced - Design Engineering and Product Development	12*	A1X	-	С

#### Specialisation: Master Profile Project, Innovation and Entrepreneurship

Course code	Course name	Credits	Level	Timetable module	ECV
Period 1					
TEIO89	Innovation and Entrepreneurship - Project Course	12*	A1X	4	С
Period 2					
TEIO89	Innovation and Entrepreneurship - Project Course	12*	A1X	4	С



Course code	Course name	Credits	Level	Timetable module	ECV
Period 1					
TMQU27	Quality Management - Project Course	12*	A1X	2	С
TMQU47	Quality Engineering and Design	6	A1X	4	E
Period 2					
TMQU27	Quality Management - Project Course	12*	A1X	4	С

#### Specialisation: Master Profile Quality Technology and Management

Specialisation. Musice Profile Strategie Management and Control					
Course code	Course name	Credits	Level	Timetable module	ECV
Period 1					
TEAE12	Strategic Analysis and Methods for Strategic Change	12*	A1F	2	С
TDEI72	Strategy and Digitisation - Technology, Standards and Network Effects	6	A1X	4	E
Period 2					
TEAE12	Strategic Analysis and Methods for Strategic Change	12*	A1F	2	С
TEAE18	Sustainable Value Chain Strategies	6	A1X	4	Е
TEIM10	Industrial Service Development	6	A1X	2	Е
TMQU12	Lean Production	6	A1X	2	E

#### Specialisation: Master Profile Strategic Management and Control

#### Specialisation: Master Profile Telecommunication

Course code	Course name	Credits	Level	Timetable module	ECV
Period 1					
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
Period 1					
TMPM05	Project Course Advanced - Design Engineering and Product Development	12*	A1X	-	С
Period 2					
TMPM05	Project Course Advanced - Design Engineering and Product Development	12*	A1X	-	С



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

#### Specialisation: Specialization Biotechnical Engineering

#### Specialisation: Specialization Computer Science and Engineering

Course code	Course name	Credits	Level	Timetable module	ECV
Period 1					
TDDD04	Software Testing	6	A1X	2	E
TDDE15	Advanced Machine Learning	6	A1X	1	E
TDDE45	Software Design and Construction	6	A1X	4	E
TSFS12	Autonomous Vehicles - Planning, Control, and Learning Systems	6	A1X	1	E
TSIT03	Cryptology	6	A1X	2	E

#### Specialisation: Specialization Electrical Engineering

Course code	Course name	Credits	Level	Timetable module	ECV
Period 1					
TSFS12	Autonomous Vehicles - Planning, Control, and Learning Systems	6	A1X	1	E
TSIT03	Cryptology	6	A1X	2	E
TSKS12	Modern Channel Coding, Inference and Learning	6	A1X	1	E
Period 2					
TSRT08	Optimal Control	6	A1X	3	E



Course code	Course name	Credits	Level	Timetable module	ECV
Period 1					
TKMJ31	Biofuels for Transportation	6	A1N	1	E
TMPE01	Project Course Advanced - Energy Engineering	12*	A1X	-	E
Period 2					
TMPE01	Project Course Advanced - Energy Engineering	12*	A1X	-	E

#### Specialisation: Specialization Energy Engineering

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Course code	Course name	Credits	Level	Timetable module	ECV
Period 1					
TMKT79	Collaborative Multidisciplinary Design Optimization	6	A1X	2	E
TMPM08	Project Course Advanced - Manufacturing Engineering	12*	A1F	-	E
Period 2					
TKMJ32	Integrated Product Service Engineering	6	A1N	3	E
TMKA03	Industrial Design	6	G2X	1	E
TMPM08	Project Course Advanced - Manufacturing Engineering	12*	A1F	-	E

## Semester 10 (Spring 2021)

Course code	Course name	Credits	Level	Timetable module	ECV
Period 1					
TQXX33	Degree project - Master's Thesis	30*	A1X	-	С
Period 2					
TQXX33	Degree project - Master's Thesis	30*	A1X	-	С

ECV = Elective / Compulsory /Voluntary

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

