

Design and Product Development

300 credits

Civilingenjör i design och produktutveckling

6CDPU

Valid from: 2015 Spring semester

Determined by Board of Studies for Mechanical Engineering and Design

Date determined

Entry requirements

Degree in Swedish Civilingenjör 300 hp och Teknologie master 120 hp



Curriculum

Semester 4 (Spring 2017)

Course code	Course name	Credits	Level	Timetable module	ECV
Period 1					
TAMS11	Probability and Statistics, first course	6	G2F	1	С
TMKT59	Computers as Design Tools	6*	G2X	3	С
TMKT97	Product Ergonomics	6	G2F	2	С
Period 2					
TEAE04	Industrial Economics and Organisation	6	G1X	2	С
TMHL07	Solid Mechanics, basic course	6	G2X	1	С
TMKT59	Computers as Design Tools	6*	G2X	3	С
TPTE06	Industrial Placement	6	G1X	-	E

Semester 5 (Autumn 2017)

Course code	Course name	Credits	Level	Timetable module	ECV
Period 1					
TEIM11	Industrial Marketing	6	G2X	3	С
TMKM11	Materials for Design	12*	G2X	2	С
TMPT06	Manufacturing Technology for Design and Product Development	6*	G1X	1	С
THFR05	Communicative French	6*	G1X	4	E
THSP05	Spanish	6*	G1X	4	E
THTY05	German	6*	G1X	4	E
Period 2					
TMKM11	Materials for Design	12*	G2X	3	С
TMKT39	Machine Elements	6	G2X	2	С
ТМРТ06	Manufacturing Technology for Design and Product Development	6*	G1X	1	С
THFR05	Communicative French	6*	G1X	4	E
THSP05	Spanish	6*	G1X	4	E
THTY05	German	6*	G1X	4	E
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Semester 6 (Spring 2018)

Course code	Course name	Credits	Level	Timetable module	ECV
Period 1					
TEIO47	Industrial Project Management	6*	G2X	3	С
TMKT82	Bachelor Thesis - Product Development	18*	G2X	1	С
TSRT21	Dynamical Systems and Control	6	G2X	2	С
THFR05	Communicative French	6*	G1X	4	E
THSP05	Spanish	6*	G1X	4	E
THTY05	German	6*	G1X	4	E
Period 2					_
TEIO47	Industrial Project Management	6*	G2X	3	С
TMKT82	Bachelor Thesis - Product Development	18*	G2X	1	С
THFR05	Communicative French	6*	G1X	4	E
THSP05	Spanish	6*	G1X	4	E
THTY05	German	6*	G1X	4	E

Semester 7 (Autumn 2018)

Course code	Course name	Credits	Level	Timetable module	ECV
Period 1					
TAOP88	Engineering Optimization	6	G2F	1	E
TDDD90	Interactive Products	6*	A1N	1	E
TEIE72	Corporate Strategies	6	A1X	4	E
TEIO19	Industrial Management	6	G2F	4	E
TEIO90	Innovation Management	6	A1N	2	E
TETS37	Basics in Logistics Management	6	G2X	4	Е
TFYA88	Additive Manufacturing: Tools, Materials and Methods	6	A1N	3	E
TKMJ31	Biofuels for Transportation	6	A1N	1	E
TMES09	Industrial Energy Systems	6	A1X	3	E
TMES27	Modelling of Energy Systems	6	A1N	3	E
TMKA01	Design Studio I	12*	A1X	3	E
TMKM16	Sustainable Material Selection	6	A1X	4	E



Course code	Course name	Credits	Level	Timetable module	ECV
TMKM17	Polymer Materials	6	A1X	2	E
TMKT69	Conceptual Design - Project Course	6	A1N	4	E
TMKT80	Wood - Material	6	G2X	2	E
TMME14	Machine Elements, Second Course	6	A1X	3	Е
TMMI68	CAD and Drafting Techniques, Continued Course	6*	G2X	2	E
TMPS33	Virtual Manufacturing	6	A1N	4	E
TMPT03	Production Engineering - Continuing Course	6	G2F	2	E
TMQU03	Quality Management and Engineering	6	G2X	2	Е
TPPE13	Production and Operations Management	6	G2X	1	E
TPPE16	Manufacturing Strategies	6	A1X	2	E
TMPP02	Project Course - Race Vehicle Engineering	6*	G1X	-	V
Period 2					
TDDD90	Interactive Products	6*	A1N	-	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
TGTU04	Leadership	6	G2X	2	E
TGTU49	History of Technology	6	G1F	3	E
TKMJ32	Integrated Product Service Engineering	6	A1N	3	E
TMHL63	Introduction to Computational Mechanics	6	G2X	3	E
TMHP03	Engineering Systems Design	6	A1X	4	E
TMKA01	Design Studio I	12*	A1X	2	E
TMKT81	Wood - Realisation	6	G2X	1	E
TMMI68	CAD and Drafting Techniques, Continued Course	6*	G2X	4	E
TMMS07	Biomechanics	6	A1X	4	Е
TMMV18	Fluid Mechanics	6	A1X	2	E
TMMV54	Computational Heat Transfer	6	A1X	1	E
TMPS31	Sustainable Manufacturing	6	A1X	1	E
TMQU12	Lean Production	6	A1X	2	E
TPPE76	Operations Planning and Control	6	A1X	4	E
TSIU02	Computer Hardware and Architecture	4	G1X	2	E



Course	Course name	Credits	Level	Timetable	ECV			
code	Course name	Credits	Level	module				
TMPP02	Project Course - Race Vehicle Engineering	6*	G1X	-	٧			
	Specialisation: Product Development - Design Engineering							
Course code	Course name	Credits	Level	Timetable module	ECV			
Period 1								
TDDD90	Interactive Products	6*	A1N	1	С			
TMKA01	Design Studio I	12*	A1X	3	С			
TEIO19	Industrial Management	6	G2F	4	Е			
Period 2								
TDDD90	Interactive Products	6*	A1N	-	С			
TMKA01	Design Studio I	12*	A1X	2	С			
TKMJ32	Integrated Product Service Engineering	6	A1N	3	E			
TMPS31	Sustainable Manufacturing	6	A1X	1	Е			
	Specialisation: Product Development -	Enginee	mina D	locian				
Course	Specialisation. Froduct Development -	Enginee	ning D	Timetable				
code	Course name	Credits	Level	module	ECV			
Period 1								
TDDD90	Interactive Products	6*	A1N	1	С			
TEIO19	Industrial Management	6	G2F	4	E			
TMKT69	Conceptual Design - Project Course	6	A1N	4	E			
TMME14	Machine Elements, Second Course	6	A1X	3	E			
Period 2								
TDDD90	Interactive Products	6*	A1N	-	С			
TMHL63	Introduction to Computational Mechanics	6	G2X	3	С			
TMHP03	Engineering Systems Design	6	A1X	4	Е			

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TMPS31

Sustainable Manufacturing

Specialisation: Product Development - Management

Course code	Course name	Credits	Level	Timetable module	ECV
Period 1					
TDDD90	Interactive Products	6*	A1N	1	С
TEIO19	Industrial Management	6	G2F	4	С
TEIO90	Innovation Management	6	A1N	2	С
TEIE72	Corporate Strategies	6	A1X	4	E
TMQU03	Quality Management and Engineering	6	G2X	2	E
Period 2					
TDDD90	Interactive Products	6*	A1N	-	С
TEIE42	Industrial Sales Management	6	A1X	4	E
TEIM10	Industrial Service Development	6	A1X	2	E
TMQU12	Lean Production	6	A1X	2	E

Semester 8 (Spring 2019)

Course code	Course name	Credits	Level	Timetable module	ECV
Period 1					
TDDD51	Service Design and Innovation	6	A1X	4	E
TDDD57	Physical Interaction and Game Programming	6	A1N	1	Е
TDDD97	Web Programming	6	G2F	3	Е
TDDE03	Design Studio II	12*	A1F	3	E
TDDE39	Physical Interaction Design and Prototyping	6*	A1F	4	E
TEIE06	Corporate Planning	6*	A1X	-	E
TEIM09	International Business	6	A1X	2	E
TEIO13	Leadership and Organizational Change	6	A1X	4	Е
TGTU01	Technology and Ethics	6	G1X	1	E
TGTU91	Oral and Written Communication	6	G1F	2	Е
TKMJ10	Industrial Ecology	6	A1X	1	E
TKMJ15	Environmental Management Strategies	6	G1F	3	E
TKMJ34	Product Development Methodology	6*	A1X	2	E
TMKA04	Wood - Innovation	6	A1X	1	E
TMKM40	Engineering Materials - New Materials	6	A1X	2	E



Course code	Course name	Credits	Level	Timetable module	ECV
TMKT48	Design Optimization	6	A1X	3	Е
TMKT74	Advanced CAD	6	A1X	1	Е
TMMS21	Mechatronics	6	G2X	1	Е
TPPE78	Quantitative Models and Analysis in Operations Management	6	A1X	1	E
TMPP02	Project Course - Race Vehicle Engineering	6*	G1X	-	V
Period 2					
TDDD12	Database Technology	6	G2F	4	E
TDDE03	Design Studio II	12*	A1F	3	E
TDDE39	Physical Interaction Design and Prototyping	6*	A1F	4	E
TEAE13	Civil and Commercial Law	6	G1X	2	E
TEIE06	Corporate Planning	6*	A1X	-	Е
TEIO06	Innovative Entrepreneurship	6	A1X	2	E
TGTU83	Philosophy of Science	6	G1X	4	Е
TKMJ29	Resource Efficient Products	6	A1N	1	E
TKMJ34	Product Development Methodology	6*	A1X	2	Е
TMKM18	Engineering Materials, Welding and Manufacturing Technology	6	G2X	2	E
TMKT57	Product Modelling	6	A1X	3	Е
TMKT77	System Safety	6	A1X	4	E
TMME19	Mechanics, second course	6	A1X	1	Е
TMPS27	Production Systems	6	A1X	3	E
TMQU13	Customer Focused Product and Service Development	6	A1X	4	E
TPPE74	Design and Development of Manufacturing Operations	6	A1X	4	E
TMPP02	Project Course - Race Vehicle Engineering	6*	G1X	-	V
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Specialisation: Product Development - Design Engineering

Course code	Course name	Credits	Level	Timetable module	ECV
Period 1					
TDDE03	Design Studio II	12*	A1F	3	С
TKMJ34	Product Development Methodology	6*	A1X	2	С
Period 2					
TDDE03	Design Studio II	12*	A1F	3	С
TKMJ34	Product Development Methodology	6*	A1X	2	С
TKMJ29	Resource Efficient Products	6	A1N	1	E

Specialisation: Product Development - Engineering Design

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Course code	Course name	Credits	Level	Timetable module	ECV
Period 1					
TMMS21	Mechatronics	6	G2X	1	С
TKMJ34	Product Development Methodology	6*	A1X	2	E
TMKT48	Design Optimization	6	A1X	3	E
TMKT74	Advanced CAD	6	A1X	1	E
Period 2					
TKMJ34	Product Development Methodology	6*	A1X	2	E
TMKT57	Product Modelling	6	A1X	3	E
TMKT77	System Safety	6	A1X	4	E
TMPS27	Production Systems	6	A1X	3	E



Specialisation: Product Development - Management

Course code	Course name	Credits	Level	Timetable module	ECV
Period 1					
TEIE06	Corporate Planning	6*	A1X	-	Е
TEIM09	International Business	6	A1X	2	E
TEIO13	Leadership and Organizational Change	6	A1X	4	E
Period 2					
TEIE06	Corporate Planning	6*	A1X	-	Е
TEIM07	Industrial Market Research	6	A1X	2	Е
TEIO06	Innovative Entrepreneurship	6	A1X	2	Е
TMQU13	Customer Focused Product and Service Development	6	A1X	4	E



Semester 9 (Autumn 2019)

Course code	Course name	Credits	Level	Timetable module	ECV
Period 1					
TEIM04	Industrial Market and Technology Strategies	12*	A1X	2	E
TEIO07	Project Based Organization and Management	6	A1X	4	E
TETS23	Purchasing	6	A1N	2	E
TKMJ46	Advanced Ecodesign	6	A1F	1	E
TMKT79	Collaborative Multidisciplinary Design Optimization	6	A1X	2	E
ТМКТ96	Product Visualization	6*	A1X	3	E
TMMV01	Aerodynamics	6	A1X	2	E
Period 2					
TAOP18	Supply Chain Optimization	6	A1F	1	E
TDDD61	Design - Strategy and Management	6	A1X	1	E
TDEI21	Strategic Organisational Application of IT - Workflow and Knowledge Management	6	A1X	4	E
TEIM04	Industrial Market and Technology Strategies	12*	A1X	2	E
TETS31	Logistics Strategies	6	A1X	4	E
TMKT71	Affective Engineering	6	A1X	2	E
TMKT96	Product Visualization	6*	A1X	3	E
TMPS22	Assembly Technology	6	A1N	3	E
TMKT96	Product Visualization	6*	A1X	3	E

Specialisation: Product Development - Design Engineering

Course code	Course name	Credits	Level	Timetable module	ECV
Period 1					
TMPP03	Project Course Advanced - Design Engineering	12*	A1X	3	С
TKMJ46	Advanced Ecodesign	6	A1F	1	E
ТМКТ96	Product Visualization	6*	A1X	3	E
Period 2					
TMPP03	Project Course Advanced - Design Engineering	12*	A1X	-	С
TDDD61	Design - Strategy and Management	6	A1X	1	Е
TMKT71	Affective Engineering	6	A1X	2	E
ТМКТ96	Product Visualization	6*	A1X	3	Е



Specialisation: Product Development - Engineering Design

Course code	Course name	Credits	Level	Timetable module	ECV
Period 1					
TMPM03	Project Course Advanced - Design and Manufacturing Engineering	12*	A1X	3	С
TMKT79	Collaborative Multidisciplinary Design Optimization	6	A1X	2	E
Period 2					
TMPM03	Project Course Advanced - Design and Manufacturing Engineering	12*	A1X	-	С
TMPS22	Assembly Technology	6	A1N	3	E

$Specialisation: Product\ Development-Management$

Course code	Course name	Credits	Level	Timetable module	ECV
Period 1					
TEIM04	Industrial Market and Technology Strategies	12*	A1X	2	C/E
TMPI02	Project Course Advanced - Management	12*	A1F	3	C/E
TEIO07	Project Based Organization and Management	6	A1X	4	E
Period 2					
TEIM04	Industrial Market and Technology Strategies	12*	A1X	2	C/E
TMPI02	Project Course Advanced - Management	12*	A1F	-	C/E
TDEI19	Management Control	6	A1X	2	E

Semester 10 (Spring 2020)

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

