Electronics Design Engineering, M Sc in Engineering

300 credits

Civilingenjör i elektronikdesign

6CIEN

Valid from: 2016 Spring semester

Determined by
Board of Studies for Electrical Engineering, Physics and Mathematics

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					
TNA003	Calculus I	6	G1X	2	C
TNA005	Applied Mathematics in Science and Technology	6*	G1X	4	C
TNGE37	Circuit Theory	6	G1X	1	C
Period 2					
TNA004	Calculus II	6	G1X	2	C
TNA005	Applied Mathematics in Science and Technology	6*	G1X	4	C
TNGE20	Introduction to Electronics	6	G1X	1	C

Semester 3 (Autumn 2017)

Course code	Course name	Credits	Level	Timetable module	ECV
Period 1					
TNA006	Calculus III	6	G1X	3	C
TNE043	Mechanics and Wave Physics	6	G2X	1	C
TNGE25	Electronics	6*	G2X	2	C
Period 2					
TNA007	Vector Analysis	6	G2X	4	C
TNE097	Micro Computer Systems	6	G2X	3	C
TNGE25	Electronics	6*	G2X	1	C

Semester 4 (Spring 2018)

Course code	Course name	Credits	Level	Timetable module	ECV
Period 1					
TNE056	Electromagnetic Field Theory and Electromagnetism	6*	G2X	3	C
TNE087	Electronics Manufacturing Methods and Processes	6	G1X	1	C
TNG032	Applied Transform Theory	6	G2X	4	C
TKMJ24	Environmental Engineering	6	G1N	2	E
Period 2					
TNE056	Electromagnetic Field Theory and Electromagnetism	6*	G2X	2	C
TNG006	Statistics	6	G2X	1	C
TNG015	Signals and Systems	6	G2X	3	C
TPTE06	Industrial Placement	6	G1X	-	E

Semester 5 (Autumn 2018)

Course code	Course name	Credits	Level	Timetable module	ECV
Period 1					
TNE088	RF Electronics	6*	G2X	4	C
TNE100	Microprocessor Project	2	G2X	3	C
TNE101	Circuit Theory, advanced course	4	G2X	1	C
TNG028	Automatic Control	6	G2X	2	C
Period 2					
TNE088	RF Electronics	6*	G2X	4	C
TNG022	Modelling and Simulation	6	G2X	1	C
TNG033	Programming in C++	6	G2X	3	C

Semester 6 (Spring 2019)

Course code	Course name	Credits	Level	Timetable module	ECV
Period 1					
TNE026	Analog/Digital System Design	6*	A1X	1	C
TNE041	Modern Physics	6	G2X	2	C
TNE095	Project - Electronic Design with Project Management	16*	G2X	3	C
TNG041	Scientific Methodology, Criticism of the Sources and Report Writing	2	G2X	4	C
TEIE53	Industrial Economics	6	G1N	1	E
Period 2					
TNE026	Analog/Digital System Design	6*	A1X	2	C
TNE095	Project - Electronic Design with Project Management	16*	G2X	1	C
TND004	Data Structures	6	G2X	3	E
TNG016	Engineering Applications Using Matlab	6	A1X	4	E

Semester 7 (Autumn 2019)

Course code	Course name	Credits	Level	Timetable module	ECV
Period 1					
TNE058	Semiconductor Technology	12*	A1X	3	C
TEIO87	Project Management	6*	G2X	1	E
TGTU01	Technology and Ethics	6	G1X	4	E
TNE064	Digital Communication Electronics	12*	A1X	2	E
TSDT14	Signal Theory	6	A1X	1	E
TSEA26	Design of Embedded DSP Processor	6	A1X	1	E
TSTE12	Design of Digital Systems	6	A1X	3	E
Period 2					
TNE058	Semiconductor Technology	12*	A1X	2	C
TEIO87	Project Management	6*	G2X	1	E
TGTU49	History of Technology	6	G1X	3	E
TNE024	Molecular Physics	6	A1X	3	E
TNE064	Digital Communication Electronics	12*	A1X	2	E

Specialisation: Emerging electronics

Course code	Course name	Credits	Level	Timetable module	ECV
Period 2					
TNE024	Molecular Physics	6	A1X	3	E

Specialisation: Wireless systems

Course code	Course name	Credits	Level	Timetable module	ECV
Period 1					
TNE064	Digital Communication Electronics	12*	A1X	2	E
Period 2					
TNE064	Digital Communication Electronics	12*	A1X	2	E

Semester 8 (Spring 2020)

Course code	Course name	Credits	Level	Timetable module	ECV
Period 1					
TEIO05	Basic Entrepreneurship and Idea Feasibility Analysis	6*	G2F	2	E
TKMJ15	Environmental Management Strategies	6	G1F	3	E
TNE062	RF System Design	12*	A1X	2	E
TNE090	Wireless Sensor Networks	6	A1X	4	E
TNE102	Applied Power Electronics	8*	G2X	1	E
TNE103	Organic Electronics 1	6	A1X	4	E
TNKA10	Rethoric in Speech, Texts and Images	6*	G1F	1	E
TSRT09	Control Theory	6	A1X	3	E
Period 2					
TEIO05	Basic Entrepreneurship and Idea Feasibility Analysis	6*	G2F	3	E
TFYA38	Optoelectronics	6	A1X	3	E
TNE062	RF System Design	12*	A1X	4	E
TNE093	Solar Cell Technology	6	A1X	3	E
TNE102	Applied Power Electronics	8*	G2X	2	E
TNK116	Internet of Things	6	A1X	1	E
TNKA10	Rethoric in Speech, Texts and Images	6*	G1F	1	E
TSRT14	Sensor Fusion	6	A1N	2	E
TSTE06	Digital Filters	6	A1X	3	E
TSTE87	Application-Specific Integrated Circuits	6	A1X	2	E

Specialisation: Emerging electronics

Course code	Course name	Credits	Level	Timetable module	ECV
Period 1					
TNE102	Applied Power Electronics	8*	G2X	1	E
TNE103	Organic Electronics 1	6	A1X	4	E
Period 2					
TNE093	Solar Cell Technology	6	A1X	3	E
TNE102	Applied Power Electronics	8*	G2X	2	E

Specialisation: Wireless systems

Course code	Course name	Credits	Level	Timetable module	ECV
Period 1					
TNE062	RF System Design	12*	A1X	2	E
TNE090	Wireless Sensor Networks	6	A1X	4	E
Period 2					
TNE062	RF System Design	12*	A1X	4	E
TNK116	Internet of Things	6	A1X	1	E

Semester 9 (Autumn 2020)

Course code	Course name	Credits	Level	Timetable module	ECV
Period 1					
TNE085	Project Course CDIO	12*	A1X	3	C
THEN09	Advanced English	6*	G2X	4	E
TNE071	Microwave Engineering	6	A1X	1	E
TNE089	Electromagnetic Compatibility (EMC) and Printed Circuit Board (PCB) Design	6*	A1X	2	E
TNE104	Organic Electronics 2	6	A1X	4	E
Period 2					
TNE085	Project Course CDIO	12*	A1X	3	C
TEAE11	Intellectual Property Rights	6	G1X	2	E
THEN09	Advanced English	6*	G2X	4	E
TNE083	Antenna Theory	6	A1X	2	E
TNE089	Electromagnetic Compatibility (EMC) and Printed Circuit Board (PCB) Design	6*	A1X	1	E
TSEA81	Computer Engineering and Real-time Systems	6	A1X	4	E
TSTE85	Low Power Electronics	6	A1X	2	E

Specialisation: Emerging electronics

Course code	Course name	Credits	Level	Timetable module	ECV
Period 1					
TNE089	Electromagnetic Compatibility (EMC) and Printed Circuit Board (PCB) Design	6*	A1X	2	E
TNE104	Organic Electronics 2	6	A1X	4	E
Period 2					
TNE089	Electromagnetic Compatibility (EMC) and Printed Circuit Board (PCB) Design	6*	A1X	1	E

Specialisation: Wireless systems

Course code	Course name	Credits	Level	Timetable module	ECV
Period 1					
TNE071	Microwave Engineering	6	A1X	1	E
TNE089	Electromagnetic Compatibility (EMC) and Printed Circuit Board (PCB) Design	6*	A1X	2	E
Period 2					
TNE083	Antenna Theory	6	A1X	2	E
TNE089	Electromagnetic Compatibility (EMC) and Printed Circuit Board (PCB) Design	6*	A1X	1	E

Semester 10 (Spring 2021)

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

ECV = Elective / Compulsory /Voluntary
*The course is divided into several semesters and/or periods