

Electronics Design Engineering, M Sc in Engineering

300 credits

Civilingenjör i elektronikdesign

6CIEN

Valid from: 2015 Spring semester

Determined by

Board of Studies for Electrical
Engineering, Physics and Mathematics

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					
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	G1X	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 2017)

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 2018)

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	G2F	4	C
TEIE53	Industrial Economics	6	G1X	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 2018)

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 2019)

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*	G1X	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*	G1X	1	E
TSRT14	Sensor Fusion	6	A1X	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 2019)

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 2020)

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