

# Electronics Engineering, Master's programme

120 credits

Electronics Engineering, masterprogram

6MELE

Valid from:

**Determined by** 

Faculty Board of Institute of Technology

**Date determined** 

2015-01-16

#### Introduction

For the complete syllabus, also see "Tekniska högskolans studiehandbok": https://kdb.it.liu.se/KDB/kdb-5.liu.se/liu/lith/studiehandboken/enutbplana1bc-2016.html? &up\_year=2016&up\_ladokkod=6MELE

## **Entry requirements**

# Degree in Swedish

Master of Science (120 credits) with a major in Electrical Engineering

## Degree in English

Master of Science (two years) with a major in Electrical Engineering



# Curriculum

## Semester 2 (Spring 2017)

 $Specialisation: Analogue/Digital\ and\ RF\ IC\ Design$ 

Course code	Course name	Credits	Level	Timetable module	ECV
Period 1					
THEN24	Communication, Ethics and Sustainable Development	6*	G1X	-	С
TSEK03	Radio Frequency Integrated Circuits	6	A1X	2	С
TSEK06	VLSI Design	12*	A1X	4	С
TDTS07	System Design and Methodology	6	A1N	1	E
TSKS13	Wireless Communications	6	A1F	4	E
TSTE08	Analog and Discrete-Time Integrated Circuits	6	A1X	3	Е
TSTE14	Analog Filters	6	A1X	2	E
Period 2					
THEN24	Communication, Ethics and Sustainable Development	6*	G1X	-	С
TSEK06	VLSI Design	12*	A1X	4	С
TSKS14	Multiple Antenna Communications	6	A1F	2	E
TSTE06	Digital Filters	6	A1X	3	E
TSTE87	Application-Specific Integrated Circuits	6	A1X	2	Е



#### Specialisation: System-on-Chip

Course code	Course name	Credits	Level	Timetable module	ECV
Period 1					
TDTS07	System Design and Methodology	6	A1N	1	С
THEN24	Communication, Ethics and Sustainable Development	6*	G1X	-	С
TSEK06	VLSI Design	12*	A1X	4	С
TDDD25	Distributed Systems	6	A1N	2	Е
TSEK03	Radio Frequency Integrated Circuits	6	A1X	2	Е
TSTE08	Analog and Discrete-Time Integrated Circuits	6	A1X	3	E
Period 2					
THEN24	Communication, Ethics and Sustainable Development	6*	G1X	-	С
TSEK06	VLSI Design	12*	A1X	4	С
TDDC78	Programming of Parallel Computers - Methods and Tools	6	A1X	3	E
TSKS14	Multiple Antenna Communications	6	A1F	2	Е
TSTE06	Digital Filters	6	A1X	3	E
TSTE87	Application-Specific Integrated Circuits	6	A1X	2	E



# Semester 3 (Autumn 2017)

Specialisation: Analogue/Digital and RF IC Design

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Course code	Course name	Credits	Level	Timetable module	ECV
Period 1					
TSEK11	Evaluation of an Integrated Circuit	2	A1X	4	С
TSEK38	Radio Frequency Transceiver Design	6	A1X	2	С
TNE071	Microwave Engineering	6	A1X	1	E
TSEA26	Design of Embedded DSP Processor	6	A1X	1	Е
TSTE18	Digital Arithmetics	6*	A1X	3	Е
TSTE25	Power Electronics	6	A1X	3	Е
Period 2					
TFYA39	Semiconductor Technology	6	A1X	3	Е
TNE083	Antenna Theory	6	A1X	2	Е
TSTE18	Digital Arithmetics	6*	A1X	3	E
TSTE26	Powergrid and Technology for Renewable Production	6	A1X	3	E
TSTE85	Low Power Electronics	6	A1X	2	E



#### Specialisation: System-on-Chip

Course code	Course name	Credits	Level	Timetable module	ECV
Period 1					
TSEA26	Design of Embedded DSP Processor	6	A1X	1	С
TSEK11	Evaluation of an Integrated Circuit	2	A1X	4	С
TSTE17	System Design	12*	A1F	4	E
TSTE18	Digital Arithmetics	6*	A1X	3	E
Period 2					
TDDD07	Real Time Systems	6	A1N	4	E
TDDD56	Multicore and GPU Programming	6	A1N	2	E
TDTS08	Advanced Computer Architecture	6	A1N	2	E
TFYA39	Semiconductor Technology	6	A1X	3	E
TSEA44	Computer Hardware - a System on Chip	6	A1F	1	E
TSTE17	System Design	12*	A1F	4	E
TSTE18	Digital Arithmetics	6*	A1X	3	E
TSTE85	Low Power Electronics	6	A1X	2	E

# Semester 4 (Spring 2018)

Course code	Course name	Credits	Level	Timetable module	ECV
Period 1					
TQXX30	Degree project - Master's Thesis	30*	A1X	-	С
Period 2					
TQXX30	Degree project - Master's Thesis	30*	A1X	-	С



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