

# Engineering Electronics, B Sc in Engineering

180 credits

Högskoleingenjör i elektronik

6IELK

Valid from: 2016 Autumn semester

**Determined by**

Board of Studies for Electrical  
Engineering, Physics and Mathematics

**Date determined**

2016-01-19

## Entry requirements

### Degree in Swedish

Högskoleingenjör och Teknologie kandidat, 180 hp

# Curriculum

## Semester 2 (Spring 2017)

Course code	Course name	Credits	Level	Timetable module	ECV
<b>Period 1</b>					
TAIU05	Linear Algebra	6	G1X	4	C
TDIU20	Object Oriented Programming	4	G1X	1	C
TSEI11	Circuit Theory and Transform Methods	10*	G1X	2	C
TSIU51	Project with Microcontroller	8*	G1X	3	C
TGTU35	Introduction to University Studies	2*	G1X	-	V
<b>Period 2</b>					
TSEI11	Circuit Theory and Transform Methods	10*	G1X	2	C
TSIU51	Project with Microcontroller	8*	G1X	-	C
TSRT04	Introduction in Matlab	2	G1X	1	C
TGTU35	Introduction to University Studies	2*	G1X	-	V

## Semester 3 (Autumn 2017)

Course code	Course name	Credits	Level	Timetable module	ECV
<b>Period 1</b>					
TFEI71	Electrical Measurement Systems	4	G1X	4	C
TSEI50	Linear Systems	6	G1X	1	C
TSIU61	Automatic Control	6	G1X	2	C
<b>Period 2</b>					
TEAE01	Industrial Economics, Basic Course	6	G1X	2	C
TSEI01	Analog Electronic Circuits	8	G1X	3	C
TDDI03	Advanced Computer Architecture	4	G2X	4	E

### *Specialisation: Embedded Systems*

Course code	Course name	Credits	Level	Timetable module	ECV
<b>Period 2</b>					
TDDI03	Advanced Computer Architecture	4	G2X	4	E

## Semester 4 (Spring 2018)

Course code	Course name	Credits	Level	Timetable module	ECV
<b>Period 1</b>					
TSTE93	Analog Circuits	6*	G2X	1	C
TBMT32	Perspectives on Biomedical Engineering	2*	G1X	3	E
TDIU11	Operating Systems	6	G2X	3	E
TMEI01	Electrical Engineering	6	G1X	3	E
TSEI10	Filters	6	G2X	2	E
TSIU04	Automatic Control, Advanced Course	4	G2X	4	E
<b>Period 2</b>					
TSTE93	Analog Circuits	6*	G2X	1	C
TBMT32	Perspectives on Biomedical Engineering	2*	G1X	3	E
TDDI11	Embedded Software	6	G2X	2	E
TDIU16	Concurrent and Operating Systems Programming	4	G2X	3	E
TFEI03	Wave Physics	6	G1X	4	E
THIU01	English	4	G1X	1	E
TPTE06	Industrial Placement	6	G1X	-	E
TSEI07	Digital Filters	6	G2X	3	E

### *Specialisation: Biomedical Engineering*

Course code	Course name	Credits	Level	Timetable module	ECV
<b>Period 1</b>					
TSEI10	Filters	6	G2X	2	E
<b>Period 2</b>					
TFEI03	Wave Physics	6	G1X	4	E

### *Specialisation: Electronic Design*

Course code	Course name	Credits	Level	Timetable module	ECV
<b>Period 1</b>					
TSEI10	Filters	6	G2X	2	E
<b>Period 2</b>					
TSEI07	Digital Filters	6	G2X	3	E

*Specialisation: Electronics and Energy*

Course code	Course name	Credits	Level	Timetable module	ECV
<b>Period 1</b>					
TMEI01	Electrical Engineering	6	G1X	3	E
TSIU04	Automatic Control, Advanced Course	4	G2X	4	E

*Specialisation: Embedded Systems*

Course code	Course name	Credits	Level	Timetable module	ECV
<b>Period 1</b>					
TDIU11	Operating Systems	6	G2X	3	E
TSIU04	Automatic Control, Advanced Course	4	G2X	4	E
<b>Period 2</b>					
TDDI11	Embedded Software	6	G2X	2	E

**Semester 5 (Autumn 2018)**

Course code	Course name	Credits	Level	Timetable module	ECV
<b>Period 1</b>					
TSIU03	System Design	8	G2X	4	C
TADI02	Numerical Algorithms	6	G2X	2	E
TAIU08	Calculus in Several Variables	6	G1X	3	E
TBME04	Anatomy and Physiology	6	G2X	3	E
TFMT08	Measurement Technology	6	G2X	3	E
TMMI44	Thermodynamics	6	G1X	2	E
TMMI69	Fluid Mechanics and Heat Transfer	6	G1X	3	E
TSEA29	Microcomputer, Project Laboratory	8*	G2X	3	E
TSEI03	Digital Circuits	4	G2X	2	E
TSKS02	Telecommunication	6*	G2X	1	E
TSTE25	Power Electronics	6	A1X	3	E
<b>Period 2</b>					
TAMS11	Probability and Statistics, first course	6	G2X	4	E
TBME03	Biochemistry and Cell Biology	6	G2X	2	E
TDDI07	Distributed Embedded Software and Networks	4	G2X	1	E
TEIO29	Leadership and Organisation	6	G1X	4	E
TGTU49	History of Technology	6	G1X	3	E
TKMJ24	Environmental Engineering	6	G1N	3	E
TSEA29	Microcomputer, Project Laboratory	8*	G2X	-	E
TSKS02	Telecommunication	6*	G2X	2	E
TSTE26	Powergrid and Technology for Renewable Production	6	A1X	3	E

*Specialisation: Biomedical Engineering*

Course code	Course name	Credits	Level	Timetable module	ECV
<b>Period 1</b>					
TBME04	Anatomy and Physiology	6	G2X	3	E
<b>Period 2</b>					
TBME03	Biochemistry and Cell Biology	6	G2X	2	E

*Specialisation: Electronic Design*

Course code	Course name	Credits	Level	Timetable module	ECV
<b>Period 1</b>					
TSEI03	Digital Circuits	4	G2X	2	E
TSTE25	Power Electronics	6	A1X	3	E
<b>Period 2</b>					
TSTE26	Powergrid and Technology for Renewable Production	6	A1X	3	E

*Specialisation: Electronics and Energy*

Course code	Course name	Credits	Level	Timetable module	ECV
<b>Period 1</b>					
TFMT08	Measurement Technology	6	G2X	3	E
TMMI44	Thermodynamics	6	G1X	2	E
TMMI69	Fluid Mechanics and Heat Transfer	6	G1X	3	E
TSTE25	Power Electronics	6	A1X	3	E
<b>Period 2</b>					
TSTE26	Powergrid and Technology for Renewable Production	6	A1X	3	E

*Specialisation: Embedded Systems*

Course code	Course name	Credits	Level	Timetable module	ECV
<b>Period 1</b>					
TSEA29	Microcomputer, Project Laboratory	8*	G2X	3	E
TSKS02	Telecommunication	6*	G2X	1	E
TSTE25	Power Electronics	6	A1X	3	E
<b>Period 2</b>					
TDDI07	Distributed Embedded Software and Networks	4	G2X	1	E
TSEA29	Microcomputer, Project Laboratory	8*	G2X	-	E
TSKS02	Telecommunication	6*	G2X	2	E
TSTE26	Powergrid and Technology for Renewable Production	6	A1X	3	E

## Semester 6 (Spring 2019)

Course code	Course name	Credits	Level	Timetable module	ECV
<b>Period 1</b>					
TSIU09	Introduction to Bachelor Thesis	4	G2X	2	C
TAMS11	Probability and Statistics, first course	6	G2X	1	E
TATA83	Calculus, several variables	6	G1X	1	E
TBMT09	Physiological Pressures and Flows	6	A1X	1	E
TDDI08	Embedded Systems Design	4	G2X	1	E
TGTU01	Technology and Ethics	6	G1X	1	E
TKMJ15	Environmental Management Strategies	6	G1F	3	E
TSEI12	Analog Circuits, second course	6	G2X	3	E
TSFS04	Electrical Drives	6	G2X	4	E
<b>Period 2</b>					
TQXX11	Degree project - Bachelor's Thesis	16	G2X	-	C

### *Specialisation: Biomedical Engineering*

Course code	Course name	Credits	Level	Timetable module	ECV
<b>Period 1</b>					
TBMT09	Physiological Pressures and Flows	6	A1X	1	E

### *Specialisation: Electronic Design*

Course code	Course name	Credits	Level	Timetable module	ECV
<b>Period 1</b>					
TSEI12	Analog Circuits, second course	6	G2X	3	E
TSFS04	Electrical Drives	6	G2X	4	E

### *Specialisation: Electronics and Energy*

Course code	Course name	Credits	Level	Timetable module	ECV
<b>Period 1</b>					
TSFS04	Electrical Drives	6	G2X	4	E



*Specialisation: Embedded Systems*

Course code	Course name	Credits	Level	Timetable module	ECV
<b>Period 1</b>					
TDDI08	Embedded Systems Design	4	G2X	1	E

ECV = Elective / Compulsory / Voluntary

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