

Electronics Design Engineering, M Sc in Engineering

300 credits

Civilingenjör i elektronikdesign

6CIEN

Valid from: 2014 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 6 (Spring 2017)

| 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 | 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 2017)

| 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 | G1F | 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 2018)

| 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 |
| TNKA08 | Rhetoric | 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 |
| TNK080 | Wireless Communication Systems | 6 | A1X | 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 |
| TNK080 | Wireless Communication Systems | 6 | A1X | 1 | E |

Semester 9 (Autumn 2018)

| 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 2019)

| 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