



Programme syllabus

Degree Programme in Electrical Engineering
Högskoleingenjörsutbildning i elektroteknik, Södertälje
180.0 credits

Valid for students admitted to the education from autumn 08 (HT - Autumn term; VT - Spring term).

This is a translation of the Swedish, legally binding, programme syllabus.

Programme objectives

Knowledge and understanding

Skills and abilities

Ability to make judgements and adopt a standpoint

Extent and content of the programme

Eligibility and selection

Implementation of the education

Courses

The programme is course-based. Lists of courses are included in [appendix 1](#).

Grading system

Courses in the first and the second cycle are graded on a scale from A to F. A-E are passing grades, A is the highest grade. The grades pass (P) and fail (F) are used for courses under certain circumstances.

[Appendix 1 - Course list](#)

[Appendix 2 - Programme syllabus descriptions](#)



Appendix 1: Course list

Degree Programme in Electrical Engineering (TIELE), Programme syllabus for studies starting in autumn 2008

Electronics, Robotics and Mechatronics (EROS)

Year 1

Mandatory courses (60.0 Credits)

| Course code | Course name | Credits | Edu. level |
|------------------------|--|---------|-------------|
| HE1004 | Digital Electronics | 7.5 hp | First cycle |
| HE1005 | Computer Engineering | 7.5 hp | First cycle |
| HE1006 | Design Methods | 7.5 hp | First cycle |
| HE1007 | Mechatronics | 7.5 hp | First cycle |
| HI1900 | Computer Programming, Basic Course | 7.5 hp | First cycle |
| HN1001 | Applied Mathematics | 7.5 hp | First cycle |
| HN1900 | Engineering and Information Skills | 7.5 hp | First cycle |
| HN1901 | Mathematics I | 7.5 hp | First cycle |

Year 2

Mandatory courses (60.5 Credits)

| Course code | Course name | Credits | Edu. level |
|------------------------|---|---------|-------------|
| HE1008 | Analogue Technology | 7.5 hp | First cycle |
| HE1009 | Applied Electronics | 7.5 hp | First cycle |
| HE1010 | Sensors and Measurement Technology | 7.5 hp | First cycle |
| HE1011 | Control Systems | 7.5 hp | First cycle |
| HE1012 | Mechatronics 2, Project | 7.5 hp | First cycle |
| HE1017 | Dynamics | 7.5 hp | First cycle |
| HU1900 | Business Economics and Organizational Behaviour | 7.5 hp | First cycle |
| MJ1506 | Sustainable Development and Working Environment | 8.0 hp | First cycle |

Year 3

Mandatory courses (37.5 Credits)

| Course code | Course name | Credits | Edu. level |
|------------------------|--|----------------|-------------------|
| HE1015 | Robotics | 7.5 hp | First cycle |
| HE1024 | Real Time Systems | 7.5 hp | First cycle |
| HE102X | Degree Project in Mechatronics and Robotics, First Cycle | 15.0 hp | First cycle |
| HU1901 | Engineering Practice and Development | 7.5 hp | First cycle |

Conditionally elective courses

| Course code | Course name | Credits | Edu. level |
|------------------------|---|----------------|-------------------|
| HE1013 | EMC Electronics | 7.5 hp | First cycle |
| HE1014 | PLC Programming | 7.5 hp | First cycle |
| ML1301 | Object Oriented Programming | 7.5 hp | First cycle |



Appendix 2: Specialisations

Degree Programme in Electrical Engineering (TIELE), Programme syllabus for studies starting in autumn 2008

Electronics, Robotics and Mechatronics (EROS)