



Qualification descriptor for Degree of Bachelor of Science - Major; Engineering Physics and Electrical Engineering

Teknologie Kandidatexamen - Huvudområde; Teknisk fysik och elektroteknik

Degree regulations of 2007
First cycle

Established

Qualification descriptor approved on 2009-02-18 by Ordförandebeslut, TFN. Qualification descriptor updated on 2016-08-26 by Enhetschef utbildnings- och forskningsenheten.

Examination Objectives

Higher Education Act

English information is not available

Higher Education Ordinance

Annex 2

Knowledge and understanding

For a Bachelor's degree the student shall have:

- * demonstrated knowledge and understanding in the main field of study, including knowledge of the disciplinary foundation of the field, understanding of applicable methodologies in the field, specialised study in some aspect of the field as well as awareness of current research issues.

Competence and skills

For a Bachelor's degree the student shall have:

- * demonstrated the ability to search for, gather, evaluate and critically interpret the relevant information for a formulated problem and also discuss phenomena, issues and situations critically
- * demonstrated the ability to identify, formulate and solve problems autonomously and to complete tasks within predetermined time frames
- * demonstrated the ability to present and discuss information, problems and solutions in speech and writing and in dialogue with different audiences, and
- * demonstrated the skills required to work autonomously in the main field of study.

Judgement and approach

For a Bachelor's degree the student shall have:

- * demonstrated the ability to make assessments in the main field of study informed by relevant disciplinary, social and ethical issues
- * demonstrated insight into the role of knowledge in society and the responsibility of the individual for how it is used, and
- * demonstrated the ability to identify the need for further knowledge and ongoing learning.

Detailed objectives for this degree

For a Bachelor's degree in Engineering Physics and Electrical Engineering, the student has to

- demonstrate knowledge of mathematics to the extent required to understand and apply basic mathematics within the chosen field of engineering
- have basic knowledge for further studies at advanced level in the subjects physics, mathematics, electronics and mechanics,
- demonstrate broad knowledge of physics and mathematics,
- demonstrate the skills to model, simulate, observe and regulate physical phenomena,

- demonstrate the ability to use computers, software and measuring instruments for experimental and scientific work, and
- demonstrate the ability to combine knowledge and skills from different disciplines

Credits

The programme requires 180 credits.

The credits stated indicate the total for all courses leading to the degree. All courses are to have been completed and passed.

Special requirements

Higher Education Ordinance and Luleå University of Technology

Independent project (degree project)

A requirement for the award of a Bachelor's degree is completion by the student of an independent project (degree project) for at least 15 credits in the main field of study. (The Higher Education Ordinance, Annex 2 Qualifications ordinance)

Compulsory courses included in degrees the equivalent of 180 credits are at first cycle level. Courses at second cycle level equal to at most 15 credits may be included in a degree the equivalent of 180 credits. (Guidelines for Bologna adaptation), LTU Dnr 783-06).

All course requirements for this degree are stated in the official syllabus.

Degree certificate

A degree certificate will be issued upon application to students who fulfil the requirements for a degree.

Course requirements for this degree

Course requirement list - [Bachelor of Science, Major Engineering Physics and Electrical Engineering](#)
(*Utbildningsplan - Teknologie kandidatexamen, huvudområde teknisk fysik och elektroteknik*)