



Qualification descriptor for Degree of Bachelor of Science in Fire Protection Engineering

Brandingenjörsexamen

Degree regulations of 2007
First cycle

Established

Qualification descriptor approved on 2005-12-14 by Tekniska fakultetsnämnden. Qualification descriptor updated on 2010-03-29 by Chef Utbildnings- och forskningsenhet.

Examination Objectives

Higher Education Act

English information is not available

Higher Education Ordinance

Annex 2

For a Bachelor of Science in Fire Protection Engineering the student shall have demonstrated the knowledge and skills required to work autonomously as a Fire Protection Engineer.

Knowledge and understanding

For a Bachelor of Science in Fire Protection Engineering the student shall have:

- * demonstrated knowledge of the disciplinary foundation of the field and best practice as well as awareness of current research and development work, and
- * demonstrated specialised knowledge in the field of fire protection engineering and relevant knowledge of mathematics and the natural sciences.

Competence and skills

For a Bachelor of Science in Fire Protection Engineering the student shall have:

- * demonstrated the ability to use and develop, autonomously and critically, methods and techniques relating to fire protection in buildings, community planning, risk and crisis management and the rescue services
- * demonstrated the ability to prevent accidents and damage and to provide a platform for effective rescue service measures
- * demonstrated the ability to identify, formulate and deal with complex issues autonomously and creatively and also to analyse and evaluate various technical solutions
- * demonstrated the ability to plan and with the use of appropriate measures to undertake tasks within predetermined parameters
- * demonstrated the ability to use knowledge critically and systematically to model, simulate, predict and evaluate series of events on the basis of relevant information
- * demonstrated the ability to design and manage processes and systems while taking into account the circumstances and needs of individuals and the sustainable development required by the community
- * demonstrated the capacity for teamwork and collaboration with various constellations, and
- * demonstrated the ability to present and discuss his or her conclusions and the knowledge and reasoning on which they are based in speech and writing and in dialogue with different audiences.

Judgement and approach

For a Bachelor of Science in Fire Protection Engineering the student shall have:

- * demonstrated the ability to make assessments informed by relevant disciplinary, social and ethical issues
- * demonstrated insight into the possibilities and limitations of fire protection engineering, its role in society and the responsibility of the individual for how it is used, including social and economic aspects as well as

environmental aspects

* demonstrated the ability to identify the need for further knowledge and undertake ongoing development of his or her skills.

Detailed objectives for this degree

After the education should the student

- be able to communicate and cooperate with different groups, search for and critically evaluate information using available technical literature and technical term
- have a comprehensive view of technology, environment, the need of the society and the collaboration between people
- show competence for assignments regarding fire protection and risk assessment within public and private business
- have developed skills to describe and analyse phenomena within fire protection in buildings, fire protection in general, extinguishing fire and risk assessment methods.

Credits

The programme requires 210 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 of Science in Fire Protection Engineering is completion by the student of an independent project (degree project) for at least 15 credits. (The Higher Education Ordinance, Annex 2 Qualifications ordinance)

Compulsory courses in professional degrees the equivalent of 210 credits may consist of courses at first and second cycle levels. Compulsory courses at second cycle level equal to a maximum of 30 credits may be included. (Riktlinjer för Bolognaanpassning (Guidelines for Bologna adaptation), LTU Dnr 783-06)

Detailed specific requirements for this degree

After their studies the student should show

- general knowledge of fire protection measures and methods
- the required knowledge for working independently as a fire protection engineer
- general knowledge of risks and assessments of risks

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

Syllabus - [Fire Protection Engineer](#) (*Utbildningsplan - Brandingenjör*)