

# Protein Engineering and Project Management, Bachelor Project

Programme course

16 credits

Protein Engineering med projektledning,  
kandidatprojekt

TFKE55

Valid from: 2017 Spring semester

**Determined by**  
Board of Studies for Chemistry, Biology  
and Biotechnology

**Date determined**  
2017-01-25

## Main field of study

Biotechnology

## Course level

First cycle

## Advancement level

G2X

## Course offered for

- Chemical Biology, M Sc in Engineering

## Entry requirements

Note: Admission requirements for non-programme students usually also include admission requirements for the programme and threshold requirements for progression within the programme, or corresponding.

## Prerequisites

For admission to the course, see the LiTH's general regulations for the candidate's work in the Master of Science in Engineering Program in the student handbook. In addition, TFKE36 Biokemi 2 is required.

## Intended learning outcomes

### Subject knowledge

The students are expected to

- systematically integrate knowledge acquired during the studies, especially in the field of protein engineering
- apply experimental knowledge and subject knowledge in the main field of study
- benefit from the content of relevant literature and relate their work to it

### Personal and professional skills

The students are expected to demonstrate an ability to

- plan, complete and report an independent work
- account for and explain general models and theories about organisation, management and control of projects
- formulate questions and set limitations within given time frames
- search for and evaluate scientific literature

### Working in groups and communicating

The students are expected to demonstrate an ability to

- professionally express themselves in writing and orally
- critically review and discuss an independent work presented in speech and writing
- use methods for planning, structuring, monitoring and evaluating projects
- understand the necessary conditions for constructive interaction between managers and participants in a project

### CDIO engineering skills

The students are expected to be able to

- create, analyse and/or evaluate technical solutions within the subject area of protein engineering
- make assessments with regard to relevant scientific, social and ethical aspects

## Course content

Physical / chemical properties of proteins are studied using biophysical methods such as fluorescence spectroscopy and circular dichroism. Specific course content is determined individually for each group in consultation with the examiner and supervisor. The work will be carried out in the main field of study.

The course also includes practical application of key concepts and methods in project management, eg group dynamics, project planning, project management role and project management and organization.

## Teaching and working methods

The course consists of independent work in project form where the project is planned, monitored and reported on a continuous basis. For each group of students, a supervisor and examiner are appointed. The course is taking place throughout the spring.

## Examination

UPG2	Opposition	1 credits	U, G
UPG1	Written Report	15 credits	U, G

The written examination includes that a report ready for publishing should be available and an individual reflection document on the work done is to be handed in.

Grades are given as "Pass" or "Fail".

## Grades

Two-grade scale, U, G

## Department

Institutionen för fysik, kemi och biologi

## Director of Studies or equivalent

Magdalena Svensson

## Examiner

Magdalena Svensson

## Education components

Preliminary scheduled hours: 377 h

Recommended self-study hours: 50 h

## Course literature

### Additional literature

#### Books

Tonnquist, (2010) *Projektledning*

## Common rules

Regulations (apply to LiU in its entirety)

The university is a government agency whose operations are regulated by legislation and ordinances, which include the Higher Education Act and the Higher Education Ordinance. In addition to legislation and ordinances, operations are subject to several policy documents. The Linköping University rule book collects currently valid decisions of a regulatory nature taken by the university board, the vice-chancellor and faculty/department boards.

LiU's rule book for education at first-cycle and second-cycle levels is available at [http://stydokument.liu.se/Regelsamling/Innehall/Utbildning\\_pa\\_grund-\\_och\\_avancerad\\_niva](http://stydokument.liu.se/Regelsamling/Innehall/Utbildning_pa_grund-_och_avancerad_niva).