

# Scientific Method in Programming

Programme course

6 credits

Vetenskaplig metod inom programmering

TDP026

Valid from: 2017 Spring semester

**Determined by**

Board of Studies for Computer Science  
and Media Technology

**Date determined**

2017-01-25

## Main field of study

Programming

## Course level

First cycle

## Advancement level

G2F

## Course offered for

•

## 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

Depth knowledge and skills in the subject area of Programming.

## Intended learning outcomes

After completing the course students will:

- Have knowledge of the basic concepts of scientific method
- Be able to write scientific and technical oriented text with good academic standards
- Be able to define and criticize a plan for a scientific study
- Independently assess scientific works
- Able to independently seek and critically examine sources
- Be able to collate scientific and technical information
- Independently assess and deal with ethical issues and societal aspects of scientific and technical work

## Course content

- Scientific method
- Scientific writing
- Literature search and compilation
- Criticism of sources
- Reference Management
- Research ethics
- Societal aspects of research and technological development

## Teaching and working methods

The course is organized in lectures, seminars and assignments.

In the course a preliminary study for a bachelor thesis will be carried out, including the formulation of research questions, literature search and compilation of a theoretical framework, and methodology description.

In the course, various scientific aspects of the thesis will be analyzed during the seminars.

## Examination

|      |                     |           |      |
|------|---------------------|-----------|------|
| SEM1 | Seminars            | 2 credits | U, G |
| UPG1 | Hand-in assignments | 4 credits | U, G |

The course is graded Fail / Pass.

## Grades

Two-grade scale, U, G

## Department

Institutionen för datavetenskap

## Director of Studies or equivalent

Jalal Maleki

## Examiner

Johan Åberg

## Course website and other links

## Education components

Preliminary scheduled hours: 0 h

Recommended self-study hours: 160 h

## Course literature

Anslås på kurswebbplatsen.

## 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).