



## Course syllabus

Faculty of Technology

Department of Mathematical Education

4GN02E Matematik och matematikdidaktik, Självständigt arbete I (grundlärare), 15 högskolepoäng

Mathematics and Mathematics Education, Independent Project (Primary Teachers), 15 credits

### **Main field of study**

Mathematics

### **Subject Group**

Mathematics

### **Level of classification**

Second Level

### **Progression**

A1F

### **Date of Ratification**

Approved by Faculty of Technology 2013-12-16

The course syllabus is valid from autumn semester 2014

### **Prerequisites**

Core education subjects: Theory of Science and Research Methodology, Primary Teachers (7.5 credits), or equivalent.

## Objectives

After completing the course students should be able to:

- formulate a scientific and surveyable problem in a mathematics education, with relevance to the profession
- search and respond to research and theory in mathematics education
- apply relevant research methods and demonstrate ethical awareness
- critically examine and discuss their own and others' results
- present their results in a linguistically correct and well structured way
- formulate and present their results in the form of a written report, including a popular summary of the independent work in Swedish or another relevant language for teacher education.

## Content

The independent project is a research-oriented work that should have a clear connection to the teaching profession and is linked to the scientific theories and concepts which the students become familiar with during their education.

The independent project will give students the opportunity to ask questions about and problematize the phenomenon that has relevance in everyday school life and knowledge in mathematics education.

The Independent project I shall consist of an empirical study. If the Independent Project II are also done in mathematics education the Independent work I can take the form of a literature review.

### **Profession basis and professional progression**

The student is taught how to problematize and analyze important aspects of the teaching assignment and reason based on relevant theories of learning and knowledge.

### **Scientific approach and scientific progression**

The student is taught how to produce a larger work of a scientific nature and critical approach to knowledge and theories appropriated during the education.

### **Type of Instruction**

The independent project is planned and implemented individually or in pairs, in consultation with the supervisor and examiner.

The course also includes mandatory seminars where elements of the thesis are discussed and presented.

### **Examination**

The course is assessed with the grades Fail (U), Pass (G) or Pass with Distinction (VG).

For a Passing grade, the course objectives has to be achieved. The Independent project is assessed in the form of a written report and an opposition of another project. Where students have worked together on a project the individual contribution and performance must be distinguishable and assessed separately.

### **Course Evaluation**

A course evaluation will be carried out and compiled after the course is completed. The compilation will be presented to the current board, concerned program council as well as to the students and filed.

### **Other**

This course is included in the Primary Teacher Programme.

### **Required Reading and Additional Study Material**

Johansson, Bo., Svedner, Per-Olov. Examensarbetet i lärarutbildningen. Uppsala: Kunskapsföretaget, latest edition. PAGES 136.

Refero - antiplagieringsguiden. Elektronisk resurs. [www.bi.hik.se/Refero/1intro.phpn](http://www.bi.hik.se/Refero/1intro.phpn)

Strömquist, Siv. Skrivboken. Skrivprocess, skrivråd och skrivstrategier. Malmö: Gleerups, latest edition. 32 pages.

In addition to these, the student chooses in consultation with the supervisor and examiner, relevant literature for the thesis.