



## Course syllabus

Faculty of Technology

Department of Mathematical Education

4MD104 Interaktion och kommunikation i matematikklassrummet, 7,5 högskolepoäng

Interaction and communication in mathematics classroom, 7.5 credits

### **Main field of study**

Mathematics Education

### **Subject Group**

Educational Sciences/Theoretical Subjects

### **Level of classification**

Second Level

### **Progression**

A1N

### **Date of Ratification**

Approved by Faculty of Technology 2014-12-09

The course syllabus is valid from autumn semester 2015

### **Prerequisites**

Basic eligibility for second level studies and English course B/English 6, teachers certificate with specialization mathematics or equivalent. Admitted to the master's degree program in mathematics education (or degree of at least 180 credits, including courses of at least 60 credits in mathematics education)

## Objectives

After completing the course, the student should be able to:

- identify mathematics education issues and explain, discuss and problematize theories of communication and interaction in the mathematics classroom (at individual, group and organizational level)
- demonstrate advanced knowledge regarding the group and of the social contexts importance for learning mathematics
- show increased ability to communicate and interact mathematical concepts in a variety of contexts
- describe didactic issues with a focus on planning, implementation, documentation and evaluation of teaching mathematics
- show deeper insight regarding the different forms of assessment of students' communication and interaction in the mathematics classroom
- able to reflect on and problematize ICT as mediating tools of interaction, communication and learning in the mathematics classroom

## Content

The course content is divided into five parts:

- theories of communication and interaction in Mathematics Education and its organization
- analysis and formulation of didactic issues focused on communication and interaction in Mathematics Education and its organization
- reflections of Social Context, organizations and groups' interaction and communication between different parts of the education system and its impact on learning and work in the mathematics classroom
- teachers 'and students' communication skills and how they can be assessed
- conduct a survey focused on interpersonal communication and interaction in or in relation to mathematics teaching.

### Type of Instruction

Lectures, field studies, seminars, presentations, tutorials, and exchange of experience in online education platform. The teaching is to a significant extent based on the students' active participation individually and in groups, which requires mandatory attendance at seminars and presentations.

The course is also offered online.

### Examination

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

The examination consist of written and oral presentations

On request, students may have their credits translated to ECTS-marks. Such a request must be sent to the examiner before the grading process starts.

### 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 as well as to the students and filed by the coordinating department.

### Required Reading and Additional Study Material

#### **Required reading**