



## Course syllabus

Faculty Board of Science and Engineering

School of Computer Science, Physics and Mathematics

1MD311 Matematikdidaktik – matematik från början, 7,5 högskolepoäng

1MD311 Mathematical Didactics - Starting with Mathematics, 7.5 credits

### **Main field of study**

Mathematics

### **Subject Group**

Mathematics

### **Level of classification**

First Level

### **Progression**

G1F

### **Date of Ratification**

Approved by Organisational Committee 2009-12-01

The course syllabus is valid from autumn semester 2010

### **Prerequisites**

This course is open to students who have completed The Pupil's Learning and Concept Development in Mathematics 7,5 hec (1MD301) or the equivalent.

## Objectives

Having completed the course the student is expected to be able to:

- present in writing and in words the development of young children's perception of numbers and space
- independently analyse and decide on the mathematical contents and design of the teaching
- analyse teaching aids used for mathematics that may function as educational tools in the classroom
- analyse computers used as educational tools in mathematics
- demonstrate an ability to deal didactical with important elements in early mathematics.

## Content

The course contains:

- young children's understanding of numbers and rooms
- work methods in mathematics for the primary years
- starting school with a focus on mathematics
- didactical approach to important elements in mathematics for the primary years
- analyses of teaching aids and computers in teaching
- learning mathematics from a gender perspective.

## Type of Instruction

Teaching consists of lectures, seminars and methodology sessions. The student's active participation is an important part of the teaching, individually and in groups, which requires obligatory attendance at seminars, methodology sessions and presentations. This course is also offered as a distance tuition course.

## Examination

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

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.

The course is examined through active participation at seminars, methodology sessions and presentations, as well as through a written exam and written and verbal presentations of individual tasks and group assignments.

## Course Evaluation

A written course evaluation will be carried out at the end of the course in accordance with the guidelines of the University. The course evaluation will be filed at the department.

## Other

Having completed the training the student will receive a degree certificate upon request from the Graduation Office at the Division of Student Affairs.

Students who receive a passing grade in the course may download a course certificate through the Student Portal. Otherwise they may request a course certificate from the school secretary.

## Required Reading and Additional Study Material

### Required reading

Emanuelsson, G m fl (red), *Matematik –ett kommunikationsämne*, Nämnaren Tema, NCM. Göteborgs universitet, 1996. Pages 50 (211).

Emanuelsson, G m fl (red), *Matematik från början*, Nämnaren Tema, NCM. Göteborgs universitet, 2000. Pages 247.

Emanuelsson, G m fl (red), *Tidskriften Nämnaren* NCM. Göteborgs universitet. Current year.

Kilborn W & Löving M, *Baskunskaper i matematik*, Studentlitteratur, 2002. Pages 130 (372).

PRIM-gruppen, *Analysschema i matematik för tidiga skolår*. Skolverket 2003. Pages 62.

*Compendiums* from DFM, Linneaus University, Current year. Pages app. 100.