



## Course syllabus

Faculty Board of Science and Engineering

School of Computer Science, Physics and Mathematics

1MD304 Små barn och matematik, 7,5 högskolepoäng

1MD304 Small Children and Mathematics, 7.5 credits

### **Main field of study**

Mathematics

### **Subject Group**

Mathematics

### **Level of classification**

First Level

### **Progression**

G1N

### **Date of Ratification**

Approved 2009-08-11

Revised 2010-08-04 by School of Computer Science, Physics and Mathematics.

Revision of prerequisites, literature list and course evaluation.

The course syllabus is valid from spring semester 2011

### **Prerequisites**

Teacher's certificate or equivalent.

## Objectives

Having completed the course the students should:

- be able to give an account orally and in writing of young children's development of speech and sense of space as well as demonstrate the ability to use this knowledge in didactical situations
- be able to explain young children's development of concepts and demonstrate the ability to use this knowledge in didactical situations
- have developed knowledge of the ideas concerning the way in which mathematics are dealt with in pre-school and pre-school classes
- be able to observe, document and analyse young children's learning processes in the context of mathematics and from these observations be able to come to conclusions concerning their own actions as teachers.

## Content

The following topics are examined:

- children's concept development
- early development of the ability to count and number understanding
- children's development of a sense of space
- the meeting between young children and mathematics
- working methods and ways of working in pre-schools
- governing documents.

## Type of Instruction

Teaching is conducted in the form of lectures, seminars and consideration of teaching methods. The teaching is to a large extent based on the students' active participation individually and in groups, which demands attendance at seminars, teaching methods sessions and presentations.

The content of the course is to a considerable extent closely connected to field studies.

The course is also offered as a distance 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 partly through the students' active participation in seminars, teaching methods sessions and presentations and partly through written and oral presentations of individual and group assignments. The course is taught in such a way that attendance is obligatory.

## Course Evaluation

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

## Required Reading and Additional Study Material

### Required reading

Björklund, C. *En, Två, många. -Om barns tidiga matematiska tänkande*. Liber 2009  
174 sidor.

Emanuelsson, G. & Doverborg E. *Små barns matematik*, NCM, 2006. 190 pages.

Heidberg-Solem, I. & Lie-Reikerås, E-K. *Det matematiska barnet*, Natur och Kultur, 2004. 260 (345) pages.

*Analysschema för åren före skolår 6*, Skolverket, 2000. 45 pages.

Stencils, Linnæus University, current year. 50 pages.

### Reference Literature

Emanuelsson, G. & Dover-borg E. *Matematik i förskolan*, Nämnaren Tema NCM, 2006. 109 pages.