



Course syllabus

Faculty Board of Science and Engineering
School of Computer Science, Physics and Mathematics

OX7161 Förskolebarns lärande i matematik och svenska, 30
högskolepoäng

Mathematics and Swedish for Pre-school Children, 30 credits

Main field of study

Mathematics, Swedish Language

Subject Group

Educational Sciences/Theoretical Subjects

Level of classification

First Level

Progression

GIN

Date of Ratification

Approved by the Board of the School of Computer Science, Physics and Mathematics
2009-08-11

Revised 2010-08-04. Revision of literature list, prerequisites and course evaluation.

The course syllabus is valid from spring semester 2011

Prerequisites

General entry requirements.

Expected learning outcomes

Having completed the course the students should:

- be able to analyze observed situations and from these observations be able to come to their own conclusions about how children learn mathematics and language
- be able to explain children's development of concepts and demonstrate the ability to use this knowledge in didactical situations
- be able to give an account orally and in writing of young children's development of speech and sense of space
- be able to give an account orally and in writing of the theories and ideas concerning the way in which Swedish and mathematics are dealt with in pre-school and pre-school-class
- demonstrate didactical proficiency in discussion and narration
- be able to give an account of the importance of the forms of esthetical expression as a part of children's understanding of the concepts of mathematics and speech as well as show the ability to use this knowledge in didactical situations
- be able to exemplify how children's literature can be conveyed to children and

- how it can be used as a starting point for work in mathematics.
- be able to use written and spoken Swedish correctly.

Content

The course is intended to draw attention to the connection between children's development of speech and the development of their concept of mathematics as well as the different ways of stimulating these developments.

The following areas are covered:

- theories and analytical methods for personal research purposes
- children's development of speech and mathematics
- children's literature and drama
- stimulation of speech for different ages
- the meeting between young children and mathematics.

Field studies are an important part of this specialization. Didactical theories that are dealt with in this specialization are connected to pre-school activities through field studies. In a similar way the problems that arise during field studies illustrate the central elements in the didactical theories that are dealt with.

The students must also document and evaluate the teaching situations, study the local governing documents and starting from their own observations problematize the pedagogical work.

The course is in three parts: Swedish Language, 10.5 credits; Literary Studies, 9 credits; the Didactics of Mathematics, 10.5 credits.

Type of Instruction

Teaching is conducted in the form of lectures, field studies, seminars/internet discussions 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/internet discussions, teaching methods sessions and presentations.

The course is a distance course.

Examination

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

A translation of the grade to the ECTS 7-point scale may be obtained upon request. The request for a translation should be made before the final grade for the course is awarded.

The students are examined partly through their active participation in seminars/internet discussions, teaching methods sessions and presentations and partly through written and oral presentations of individual and group assignments.

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.

Other

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

Required Reading and Additional Study Material

Textbooks

Analysschema för åren före skolår 6, Skolverket, 2000. Pages 45 (45).

Andersson, M. & Druker, E. (red) *Barnlitteraturanalyser*, Studentlitteratur, 2008. Pages 100 (213).

Auraldsson, m.fl. *Börja berätta! Om sagor och berättande och sagotips i olika genrer*, Bibliotekstjänst, 2009. Pages 291 (291).

- Björklund, C. *En, Två, många. -Om barns tidiga matematiska tänkande*. Liber 2009
174 pages.
- DFM, *Stenciler*, Linnéuniversitetet, aktuellt år. Pages 50.
- Edwards, A. *Bilderbokens mångfald och möjligheter*, Natur och Kultur, 2008. Pages
160 (160).
- Emanuelsson, G. & Doverborg E, *Små barns matematik*, NCM, 2006. Pages 190 (190).
- Fast, C, *Berätta! Inspiration och teknik*, Natur och Kultur, 2001. Pages 134
(134).
- Fickla, avloppsrör och stjärnprickig*, En Bok För Alla, 2002. Pages 94 (94).
- Granberg, A, *Småbarns sagostund: kultur, språk och lek*, Liber, 2006. Pages 144
(144).
- Hagtvet, B, *Språkstimulering. Del 1: Tal och skrift i förskoleåldern*, Natur &
Kultur, 2004. Pages 224 (224).
- HeidbergSolem, I.& LieReikerås, E-K. *Det matematiska barnet*, Natur och Kultur,
2004. Pages 260 (345).
- Henriksson, L, *Nya Bokpuffar*, En Bok För Alla, 2006. Pages 102 (102).
- Håkansson, G, *Språkinläring hos barn*, Studentlitteratur, 1998. Pages 132 (132).
- Kjærsen Edman, L, *Barn- och ungdomsböcker genom tiderna*, Natur och kultur, 2002.
Pages 227 (227).
- Nya Språket lyfter*, Skolverket, 2009. Pages 86 (86).
- Stensson, B, *Mellan raderna: strategier för en tolkande läsundervisning*, Daidalos,
2006. Pages 160 (160).
- Svensson, A-K, *Barnet, språket och miljön: från ord till mening*, Studentlitteratur,
2009. Pages 231 (231).
- Fiction is chosen in consultation with the course coordinator.

Reference Literature

- Emanuelsson, G. & Doverborg E, *Matematik i förskolan*, Nämnaren Tema NCM,
2006. Pages 109 (109).