Linnæus University

Course syllabus

Faculty Board of Science and Engineering

School of Computer Science, Physics and Mathematics

2MD32U Att analysera lärande i matematik i klassrummet, åk 1-9, 7,5 högskolepoäng

2MD32U To analyse learning in mathematics in the classrooms - years 1-9 of compulsory school, 7.5 credits

Main field of study
Mathematics

Subject Group
Mathematics

Level of classification
First Level

Progression
G2F

Date of Ratification
Approved by School of Computer Science, Physics and Mathematics 2011-05-27
The course syllabus is valid from autumn semester 2011

Prerequisites
Teaching degree or equivalent.

Objectives

After completing the course the student should be able to:

- know the underlying ideas and principles of variation theory to develop students' learning
- have knowledge of the main features of variation theory, and how these can be used as guiding principles for designing and analyzing teaching
- in their own activities to implement and document the teaching of mathematics and student learning
- apply the theory of variation in the planning, implementation and analysis of their own teaching
- to demonstrate how the principles of discernment, variation and critical aspects can serve as guiding principles to design and analyze teaching.

Content

The course will address the variation theory of the development work directly in the

classroom, its traits, and how teaching and student learning can be implemented and documented. Experience with the use of variation theory in Sweden and internationally is reported. It also looks at some of the principles of the underlying theoretical basis (variation theory). Key concepts here are: discernment, variation and critical aspects.

Type of Instruction

The teaching is carried out in the form of lectures, seminars, group discussions, individual and/or group assignment and field studies. Course work requires participation and commitment. The students will document and present their own reading and learning orally and in writing. The student must also demonstrate that they master to summarize, see connections and contexts and from a scientific approach reflect on the course content.
Compulsory attendance is required or occurs during all or part of the course and this is apparent from the respective schedules or study guide.

When the course is followed at a distance Internet access is required.

Examination

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

Assessment varies according to course content. Oral and written presentations, individually and in groups as well as seminar occur. Grades are given for each sub course. Assessment Criteria for Pass is clear from the expected learning outcomes (see above).

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 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

Holmqvist, M. (2006). *Lärande i skolan. Learning study som skolutvecklingsmodell*. Lund: Studentlitteratur. 224 p

Lo, M.L., Pong, W. Y.,& Chik, P. (2005). *For each and everyone. Catering for individual differences through Learning studies*. Hong Kong: hong Kong University Press. 149 p

Marton, F., & Tsui, A. B. M. (Eds.). (2004). *Classroom discourse and the space of learning*. Mahwah: N.J.: Lawrence Erlbaum. chapter 1. 40 p

Marton, Ference., & Booth, Shirley. (2000). *Om lärande*. Lund: Studentlitteratur. app. 280 p.

Löwing, M. & Kilborn, W. 2003. Huvudräkning –en inkörsport till matematiken. Studentlitteratur, Lund. ISBN 91-44-04225-6.

Nämnaren Tema 5 (1992). Uppslagsboken. NCM, Göteborgs universitet. ISBN 91-88450-34-1

In consultation with the instructor for the elective didactics' subject will be selected literature, reports and scholarly articles, about 100-200 pages.