Linnæus University

Course syllabus

Faculty Board of Science and Engineering

School of Computer Science, Physics and Mathematics

GO7494 AUO delkurs 5c Examensarbete - Matematikdidaktik, 30 högskolepoäng

GO7494 General field of Education 5c: Degree Project - Didactics of Mathematics, 30 credits

Main field of study
Mathematics

Subject Group
Educational Sciences/Theoretical Subjects

Level of classification
Second Level

Progression
A1E

Date of Ratification
Approved 2009-08-11
Revised 2010-08-18 by School of Computer Science, Physics and Mathematics.
Revision made for English translation of the syllabus, prerequisites and course evaluation.
The course syllabus is valid from spring semester 2011

Prerequisites
60 credits in General field of Education and 60 credits in Mathematics/Mathematical Didactics and completed 60 credits in another topic.

Objectives

The overall aim of the course is for the students to extend independently and on a scholarly basis their ability to conduct developmental and innovative work within their future profession. The students should also increase their ability to be able to follow the educational advances within their field of work and be able to reflect theoretically over their future profession.
After completing the course the students should:

- be able to identify and formulate scholarly problems in the didactics of mathematics, with relevance to their field of work
- be able to choose, argue for and carry out relevant scientific processes based on chosen problem and theoretical efforts

- be able to critically and independently utilise, systematise and reflect on national and international research and development
- be able to examine, analyse and problematise the result critically from a theoretical perspective and in relation to the chosen problem and as a result of that come to conclusions about teaching and other pedagogical activities
- be able to deal with ethical considerations and the deliberations involved in academic work
- be able to search for, gather, evaluate and critically examine information independently
- be able, orally and in writing, to present and from a scholarly basis be able to discuss a research and development project
- be able to examine critically and act as opponent to work of a scholarly nature.

Content

During the course the students conduct an investigation concerning a limited problem area relevant to teaching concentrating particularly on the field of mathematics.
The following items are covered:

- formulation of probems
- scientific theories and methods with in depth study within the problem area
- collecting, processing and analysis of material
- processing information
- research ethics
- the writing of a scholarly report
- active participation in seminars
- presentation of degree project and acting as an academic opponent.

The degree project is linked with advantage to a didactic/scientific research project and to the student's experiences from the workplace training.

Type of Instruction

Lectures, tutoring, self-tuition and seminars.
Attendance at seminars are obligatory
Teaching and supervision may also be conducted by internet based educational means.

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 student is assessed through the written memo/thesis plan, oral presentations and defence of the degree project and oral opposition to another project.

Where students have worked together on a project the individual contribution and performance must be distinguishable and judged separately.

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

Upon request, a Swedish University degree will be issued upon successful completion

of the full demands for that degree.

On request, a Swedish University course certificate will be awarded upon successful completion of the course.

Required Reading and Additional Study Material

Course Litterature

Strömquist, S, *Skrivboken. Skrivprocess, skrivråd och skrivstrategier*. Malmö: Gleerups, 2000: 195-227. Pages 32.
Svenska skrivregler utgivna av Svenska språknämnden. Liber, 2000. Pages 220.
Bryman, A, *Samhällsvetenskapliga metoder*. Malmö: Liber ekonomi, 2000. Pages 498.
Johansson, B., Svedner, P-O,*Examensarbetet i lärarutbildningen*, Uppsala: Kunskapsföretaget, 2001. Pages 136.
/Compendium and stencils//, DFM. Linnæus University, current year

Reference Literature

Jarrick, A. & Josephson, O, *Från tanke till text. En språkhandbok för uppsats-skrivande studenter*. Lund: Studentlitteratur, 1996. Pages 129.
Patel, R. & Davidsson, B, *Forskningsmetodikens grunder*. Lund: Studentlitteratur, 2003. Pages 124.
Patton, M. Q, *Qualitative Research & Evaluation Methods (3. ed.)*. Thousand Oaks, California: Sage Publications Inc, 2002. Pages 598.
Kvale, S, *Den kvalitativa forskningsintervjun. Lund: Studentlitteratur, 1997. Pages 306.*
Merriam, S. B, Fallstudien som forskningsmetod//. Lund: Studentlitteratur, 1994. Pages 228