

Institutionen för matematikämnet och
naturvetenskapsämnenas didaktik

Kursplan för kurs på forskarnivå

Syllabus for a course at postgraduate level

Diversity and inclusion in mathematics teacher education, 4 ECTS credits

Course code: UM022FN
Valid from: March 1, 2020
Approved: 2020 01 21

Decisions and guidelines

Syllabus for an optional graduate level course of 4 credits to be taught by the Department of Mathematics and Science Education. The syllabus was approved by the department board at the Department of Mathematics and Science Education on 2020.-01-21

Prerequisites and conditions for acceptance on the course

Course participants must be registered in a doctoral program in mathematics education, pedagogy, didactics, subject related pedagogies or equivalent at a university or equivalent.

Course content

The course explores research on diversity in mathematics teacher education. It addresses the nature of the knowledge and competence formed in mathematics teacher education about student diversity and how mathematics teacher-students and teachers learn to deal with such diversity.

The course seeks to bring to the fore new international advancements in theory and methodology of research in this area, to identify what is known about the configuration of mathematics teacher education and its relation to how teachers come to understand and engage with a diverse student population to promote access to mathematical learning.

The overall contents of the course are:

1. Different societal conditions and policies of relevance to the issues of diversity and mathematics teacher education.
2. The theories that are available to study student diversity in mathematics teacher education.
 - a. The theoretical landscape
 - b. Problematization of the theoretical landscape
3. The methodologies for research for studying diversity in mathematics teacher education
 - a. Different types of studies and methodological strategies
 - b. Pitfalls of different methodological approaches
4. Current challenges to existing research and opportunities for the advancement of this area of scholarship.



Learning outcomes

On course completion students will understand international perspectives on diversity in mathematics teacher education. Participants will be able to:

- critically analyze the theoretical foundations of research in this area
- critically assess different methodological strategies for researching the area
- critically understand the connections between mathematics pedagogical practices and larger societal mechanisms of student differentiation in the context of mathematics teacher education.

Teaching

The course is designed in thematic blocks. Each block will contain a range of activities, including lectures, activities, group discussions, and activities linking the course content to the participants' doctoral projects. The sessions will be facilitated as to maximize conversation among participants across field of research and context of work. At the end of each block there will be a summarizing of main points, and some commenters will raise the general points of discussion during the sessions.

Assessment

- a. The course will be assessed by means of oral presentation,
- b. The only grades awarded will be Pass or Fail.
- c. Students who fail are entitled to further examinations, as long as the course is given. Students who fail the examination twice have the right to ask that another assessor is appointed to determine the grade. The application should be made to the Board.

Other

The course may be given in English

Compulsory literature

A list of compulsory readings is attached to the syllabus, and made available to students through the course homepage.