



UMK213 Mathematics Education and School Placement for Upper Secondary 7.5 credits

Matematikdidaktik med verksamhetsförlagd utbildning för gymnasiet

This is a translation of the Swedish, legally binding, course syllabus.

If the course is discontinued, students may request to be examined during the following two academic years

Establishment

This official course syllabus is established by the Disciplinary domain Board of natural sciences at Stockholm University 17/08/2020.

Grading scale

VG, G, U

Education cycle

First cycle

Main field of study

Technology

Additional regulations

Part 2 in the course is given in collaboration with active teachers in municipal and independent schools.

Specific prerequisites

Admission to the course requires that the student is admitted to the programme Master of Science in Engineering and in Education, and has passed the course SF1661 Perspectives on Mathematics, 6 higher education credits or the equivalent.

Language of instruction

The language of instruction is specified in the course offering information in the course catalogue.

Intended learning outcomes

Having passed the course the student is expected to be able to:

Part 1: Mathematical didactics (Mathematics Education) 3 higher education credits

- discuss a teaching content in relation to the subject plan for Mathematics and different student groups
- plan and organise a teaching component in mathematics for a specific student group on the basis of current regulations
- plan for using technical aids as didactic tools in the mathematics teaching
- reflect on different ways to plan, organise and carry out teaching for learning in mathematics on the basis of mathematics didactic research and pupils' learning.

Part 2: Placement (School Placement) 4.5 higher education credits

- communicate with pupils and staff by listening and giving feedback, by talking and writing, and reflecting over these abilities
- under supervision and in different situations meet pupils in a respectful way in view of the school's basic values according to national regulations, and be aware of and describe own values and attitudes that may be of importance for the treatment of pupils
- under supervision write and justify own lecture plannings with clear aims that are related to national regulations, and carry out and evaluate the lessons against the aims
- under supervision lead teaching and reflect on how a democratic leadership can be substantiated

- on the basis of gained experiences and the expected learnings in the course, describe, assess and give examples of own strengths and fields of development, prior to the next placement course.

Course contents

The course consists of two parts.

Part 1: Mathematical didactics (Mathematics Education) 3 higher education credits.

This part treats learning and teaching of mathematics on the basis of current regulations for the upper secondary school and relevant research on didactics of the mathematics subject.

Furthermore, this part deals with planning, organisation and implementation of teaching mathematics to different student groups, with support from technical aids in relationship to pupils' learning.

Part 2: Placement (School Placement) 4.5 higher education credits

The student is introduced to placement (VFU), the activities and organisation of the school, and participates in the daily teaching at the relevant level.

The course focuses on the professional role of the teacher and the school as an educational environment.

The studies imply that on the basis of gained experiences, relevant subject knowledge and systematic reflection, integrate theory and practice.

The course content is designed based on expected study results and the activities in school.

Examination

- DEL1 - Mathematic Education, 3.0 credits, grading scale: VG, G, U
- DEL2 - Pre-Service Placement, 4.5 credits, grading scale: VG, G, U

Based on recommendation from KTH's coordinator for disabilities, the examiner will decide how to adapt an examination for students with documented disability.

The examiner may apply another examination format when re-examining individual students.

a. The course is examined on the following way:

Examination for part 1 takes place through written and oral reportings.

Examination for part 2 takes place through

1. The written assessment of the student's performance, by the placement supervisor,

2. documentation in digital placement portfolio,
3. oral examination during seminar.

Examiner has the opportunity to determine about adapted or alternative examination for students with disabilities.

- b. For a passing final grade participation in the placement, lectures and seminars is required.

If there are special reasons, the examiner can, after having consulted concerned teachers, grant the student exemption from the obligation to participate in some of the compulsory parts.

- c. The final grade of the course is given according to a three-point criterion-referenced grading scale:

VG = Passed with distinction

G = Passed

U= Failed

Grading of part 1 and 2 is done according to the three-point grading scale.

To get a final Pass grade, a Pass grade is required on all included parts.

The final mark of the course is set through a combination of the grades on the parts of the course where the different the parts' grades are weighted in relation to their extent.

A student can in exceptional cases be forced to interrupt the placement in advance, if:

I. The student acts particularly inappropriately or if the student displays severe incompetence.

II. The student substantially breaks agreements, contracts or current regulatory frameworks that concern the placement.

The student should in these cases be given a fail grade for the course and should be informed about the failure in a colloquy.

The reasons for interrupting the placement should be recorded. The student should also be informed about the possibility to contact Stockholm University's student union to obtain support from their student attorney.

Guidelines for disciplinary cases at Stockholm University is found in the Rule book.

- d. The grading criteria of the course are distributed at the beginning of the course.

e. Students who have failed in the regular test for part 1 have a right to go take additional tests as long as the course is given.

The number of examination sessions is not limited for part 1. Other compulsory course components are also considered equivalent to tests.

Students who have passed on a test may not participate in a new test for higher grades. A student, who have participated in two tests for part 1 in the course without passing, has the right to have another examiner appointed, unless there are special reasons for not allowing it. Requests for this should be made to the department board.

At failure for part 2 on the basis of the written assessment of the placement supervisor of the student's performance, or if the student started, but never completed the placement course. the student has the right to carry out the same placement course component

or if the student does started not complete placement course has the student right to carry out the same placement course component once more, however not more than twice in total (see a.1)

. Additional examination opportunity

is offered at latest when the course is given next time.

If there are extraordinary circumstances, the student can apply to the department board to be allowed to carry out course component 2 once more.

If the student does not complete the started placement within the given time frame, no grade should be given for the course. However, a comment that one of two occasions is consumed for the course should be entered in Ladok or an equivalent result recording system.

For examination based on the documentation in the digital placement portfolio or seminar at least two examinations should be offered during the current semester.

At least one more examination should be offered during each semester or the year that course is not offered.

Students who have not been given a pass grade on a written or oral exam (see a.2 and a.3) on two subsequent occasions, by the same examiner has a right to have another examiner appointed at the following occasion, unless special reasons speak against it. Request for this should be made to the department board.

The course has at least three examinations for part 1 per academic year during the years that the course is given. For the academic years that the course is not given at least one examination is offered.

f. If a Fail grade is given for part 1, a possibility to complete up to grade Pass is offered. The examiner decides which supplementary tasks that should be carried out and which criteria that should apply to pass the complementary examination.

The complementary examination should take place before the next scheduled examination.

For part 2, a completion of documentation in digital placement portfolio can be admitted if the student is close to passing.

The completion should be submitted within a week, after the student has been informed about the need by the examiner.

Transitional regulations

Students can request that examination is carried out according to this official course syllabus also after it has ceased to apply, however no more than three times during a two-year period after the course has been discontinued.

Requests hereof should be made to the department board.

This regulation applies also at revision of the official course syllabus and at revision of the course literature.

Ethical approach

- All members of a group are responsible for the group's work.
- In any assessment, every student shall honestly disclose any help received and sources used.
- In an oral assessment, every student shall be able to present and answer questions about the entire assignment and solution.