

Syllabus

for course at first level

Geographic Information Systems (GIS)
Geografiska informationssystem (GIS)

**7.5 Higher Education
Credits**
7.5 ECTS credits

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|--------------------------|---|
| Course code: | GE4030 |
| Valid from: | Spring 2019 |
| Date of approval: | 2018-08-20 |
| Department | Department of Physical Geography |
| Main field: | Earth Sciences |
| Specialisation: | G1F - First cycle, has less than 60 credits in first-cycle course/s as entry requirements |

Decision

This syllabus has been approved by the Board of Science at Stockholm University 2018-08-20.

Prerequisites and special admittance requirements

Admission to the course requires knowledge equivalent to 30 ECTS credits in Earth sciences, or geography, or 60 ECTS credits in other subject exclusive introductory courses.

Course structure

| Examination code | Name | Higher Education Credits |
|------------------|---------------------------|--------------------------|
| DEL1 | Fundamental GIS Methods | 3.5 |
| DEL2 | GIS Theory | 2 |
| DEL3 | Advanced GIS Applications | 2 |

Course content

a. The course deals with theory and application of spatial analysis and visualization with a geographic information system (GIS) for the fields of geoscience and geography. Practical GIS applications of geodata are covered during the course. These include spatial data management, processing and visualization methods.

b. The course consists of the following course units:

1. Fundamental GIS Methods 3.5 credits
2. GIS Theory 2 credits
3. Advanced GIS Applications 2 credits

Learning outcomes

Upon completion of the course, students are expected to be able to:

- explain basic concepts and theory in geographic data processing (Unit 1, 2 and 3)
- implement spatial mapping, visualization and analysis in a geographic information system (Unit 1 and 3)
- plan geoscience projects based on geographic data (Unit 3)

Education

The course is given only as a distance learning course. The teaching consists of web-based teaching and independent project work. Instructions are in English.

Forms of examination

- a. The course is examined as follows: Knowledge assessment takes the form of
- written examination (Unit 2)
 - written presentation of project work (Unit 1 and 3)

Examinations are written in English but answers can be given in Swedish.

- b. Grades are assigned according to a seven-point goal-related grading scale:

A = Excellent

B = Very good

C = Good

D = Satisfactory

E = Adequate

Fx = Fail, some additional work required

F = Fail, much additional work required

- c. The grading criteria will be distributed at the beginning of the course.

d. In order to pass the course, students must receive a passing grade on all course units. The final grade on the course is determined by weighting the grades from all course units, where each grade is weighted in relation to the scope of the course unit.

e. Students who receive a failing grade on a regular examination are allowed to retake the examination as long as the course is still provided. The number of examination opportunities is not limited. Other mandatory course elements are equated with examinations. A student who has received a passing grade on an examination may not retake the examination to attain a higher grade. A student who has failed the same examination twice is entitled to have another examiner appointed, unless there are special reasons to the contrary. Such requests should be made to the department board.

The course includes at least two examination opportunities per year when the course is given. At least one examination opportunity will be offered during a year when the course is not given.

f. Students awarded the grade U are given the opportunity to improve their grade to G. The examiner decides the supplementary assignments to be performed and the pass mark criteria. The supplementary assignments will take place before the next examination session.

Interim

Students may request that the examination be conducted in accordance with this course plan even after it has ceased to be valid. However, this may not take place more than three times over a two year period after course instruction has ended. Requests must be made to the departmental board. The provision also applies in the case of revisions to the course plan and the revisions of the course literature.

Limitations

The course may not be included in examinations in combination with courses

Geographic Information Systems (GE3004),

GIS and Remote Sensing (GE4012), Geographic Information Systems (GIS) (GE4027), Geographic Information Systems (GE4019) or Applied Remote Sensing and GIS for Landscape Analysis (GE7062) or equivalent.

Misc

The course is offered as a separate course.

Required reading

The course literature is decided by the department board and published on the Department of Physical Geography's website at least two months before the start of the course.