UNIVERSITY OF
GOTHENBURG

NGN240   Remote Sensing and Geographical Information Systems (GIS), 7.5 credits

Fjärranalys och geografiska informationssystem (GIS), 7,5 högskolepoäng
First Cycle

Confirmation

This course syllabus was confirmed by Department of Earth Sciences on 2014-09-25 and was last revised on 2017-01-16 to be valid from 2017-01-16, autumn semester of 2016.

Field of education: Science 100%
Department: Department of Earth Sciences

Position in the educational system

The course includes 7.5 credits at undergraduate level and is part of the Earth Science Bachelor's exam. The course can also be taken as a free-standing course.

The course can be part of the following programmes: 1) Master's Programme in Geography (N2GEO), 2) Bachelor's Programme in Earth Sciences (N1GVS), 3) Bachelor's Programme in Geography (N1GEO) and 4) Master's Programme in Earth Sciences (N2GVS)

Main field of studies	*Specialization*
-	G2F, First Cycle, has at least 60 credits in first-cycle course/s as entry requirements

Entry requirements

For acceptance into the course 7.5 credits in Geographic Information Systems and 45 credits in Geography or Earth Sciences is required. Students with equivalent education can after assessment be admitted to the course after review and approval.

Learning outcomes

On successful completion of the course the student will be able to:

Knowledge and understanding

- identify principles in the analysis of remote sensing data.
- can handle remote sensing data with different programs.

Competence and skills

- independently search for, choose and evaluate remote sensing data based on the aim of the analysis.
- create digital maps and visualize the results with GIS.
- communicate results orally and in writing.

Judgement and approach

- critically evaluate the quality of remote sensing data and the appropriateness of analysis methods.

Course content

The aim of the course is to provide in-depth knowledge in remote sensing in connection with geographical information systems (GIS), to provide in-depth exercise in the practice of GIS, and to provide in-depth knowledge of principles for the introduction and application of GIS. The course is given full-time. A major part of the course is devoted to practical exercises with various software related to remote sensing and GIS. Even open source software will be used. The teaching include lectures, group teaching and lab exercises.

Form of teaching

A major part of the course is devoted to practical exercises with various software related to remote sensing and GIS. Even open source software will be used. The teaching includes lectures, group teaching and laboratory work.

Language of instruction: English

Assessment

Part 1 Examination (Examination), 2.5 credits U/G/VG
Part 2 Assignments, 2 credits U/G
Part 3 Project Work, 3 credits U/G/VG

Part 1 and 3 determines the course's final grade, which is only issued when all parts have been approved. All grades, including compulsory parts, are required for grades on the entire course.

Grades

The grading scale comprises: Pass with Distinction (VG), Pass (G) and Fail (U).

Course evaluation

The course as a whole and each part must be evaluated and the results should be the subject of discussion between the students and the teachers on the course.   When planning the following course occasion, it must be documented how the results of the evaluation have been utilized. A summary of the results from the course evaluation is available through the study expedition at the department responsible.

Additional information

Students at N2GEO take precedence for admittance to the course.