UNIVERSITY OF GOTHENBURG

DEPARTMENT OF EARTH SCIENCES

NGN220 Open Source - GIS, 7.5 credits

Open Source - GIS, 7,5 högskolepoäng

Second Cycle

Confirmation

This course syllabus was confirmed by Department of Earth Sciences on 2021-05-07 and was last revised on 2021-09-28 to be valid from 2022-01-17, spring semester of 2022.

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

Position in the educational system

The course includes 7,5 credits at master's level and is included in the Master's programme in Geography. The course is offered as an elective course subject to availability.

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

Main field of studies	*Specialization*
Geography	A1F, Second cycle, has second-cycle course/s as entry requirements
Earth Sciences	A1F, Second cycle, has second-cycle course/s as entry requirements

Entry requirements

Admission to the course requires a successfully completed course in GIS of at least 15 credits. Applicants with an equivalent education can, after review and approval, be admitted to the course.

Learning outcomes

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

Knowledge and understanding

- account for and explain the concept of open source.
- understand and describe fields of use of different spatial file formats.

Competence and skills

- be able to create automatic processes by means of GIS.
- be able to carry out geographical analyses and transformations between different data formats by means of OS GIS.
- be able to communicate knowledge and functionality in geographic information technology (GIT).
- be able to carry out simple programming.

Judgement and approach

- critically argue for the choice of software in GIT.
- be able to evaluate advantages and disadvantages of different OS GIS programs and their application for different assignments, both based on a user and a scientific perspective.

Course content

The aim of the course is to provide advanced, broadening knowledge of all that open source (OS) includes and how it is used in geographic information technology (GIT).

Furthermore, the aim is to realize the potential possibilities when using OS programs. The course explores the theoretical background to some extent, but above all consists of practical components with programs built on open source. Basic programming is included.

Form of teaching

The teaching consists of lectures, supervised project work and written assignment (exercises).

Language of instruction: English and Swedish
A student can complete the course with no knowledge of Swedish.

Assessment

Project work, 5 credits: U/G/VG

Written assignments, 2,5 credits: U/G

A student who has taken two exams in a course or part of a course without obtaining a pass grade is entitled to the nomination of another examiner. The student needs to contact the department for a new examiner, preferably in writing, and this should be approved by the department unless there are special reasons to the contrary (Chapter 6 Section 22 of the Higher Education Ordinance).

If a student has received a recommendation from the University of Gothenburg for special educational support, where it is compatible with the learning outcomes of the course and provided that no unreasonable resources are required, the examiner may decide to allow the student to sit an adjusted exam or alternative form of assessment.

In the event that a course has ceased or undergone major changes, students are to be guaranteed at least three examination sessions (including the ordinary examination session) over a period of at least one year, but no more than two years, after the course has ceased/been changed. The same applies to placements and professional placements (VFU), although this is restricted to just one additional examination session.

Grades

The grading scale comprises: Pass with Distinction (VG), Pass (G) and Fail (U).
For the grade Pass (G) for the entire course, a passing grade is required for all graded sections. To receive the grade Pass with Distinction (VG) for the final grade, the grade Pass with Distinction for the Project work section as well as at least the grade Pass on all other sections is required.

Course evaluation

The students are given the opportunity to make an anonymous written evaluation of the course.

The results of and possible changes to the course will be shared with students who participated in the evaluation and students who are starting the course.

Additional information

Students admitted to N2GEO Master's Programme in Geography have precedence to the course.