

Faculty of Science

# NGEN07, Web GIS, 7.5 credits Webb GIS, 7,5 högskolepoäng Second Cycle / Avancerad nivå

## Details of approval

The syllabus was approved by Study programmes board, Faculty of Science on 2007-06-14 to be valid from 2007-07-01, autumn semester 2007.

## **General Information**

Language of instruction: Swedish

Main field of studies

Physical Geography

Depth of study relative to the degree requirements A1N, Second cycle, has only first-cycle course/s as entry requirements

## Learning outcomes

Knowledge and understanding To pass the course, the student should be able to:

- analyse the possibilities and the limitations to handle geographic information via Internet
- explain the theory of cartographic visualisation on computer screens,
- account for technologies to distribute geographic information via Internet and advantages and disadvantages with these technologies
- account for applications and use of geographic information processing via Internet,
- describe basic programming techniques and tagging for Internet based GIS services
- describe standardised map distribution services (clearing houses) on Internet and
- illustrate some important aspects to consider when introducing digital map services in an organisation.

Skills and abilities

To pass the course, the student should be able to:

- independently handle a program to develop Internet based GIS services
- create an Internet based map distribution service with good cartographic properties and
- have basic skills in adapting a GIS service by means of tagging and script programming.

Assessment skills and approach

To pass the course, the student should be able to:

- see the full picture of how Internet can influence the use of geographic data and
- be able to reflect over which laws and ethical rules that must be observed at using geographic data.

#### Course content

In the basic courses, the students have got familiar with GIS as an information system that is used on a personal computer. The aim of this course is to learn how GIS can be used in a client - server environment where communication via Internet is important. A part of the course also deals with cartographic rules for computer screens. The lectures treat the most important technologies for transfer of geographic data via Internet . Exercises are mainly directed towards to create Internet based GIS services by means of different programming systems and encoding in with tagging and using different script languages. The course ends with a larger project work where the student individually creates an Internet based GIS service.

#### Course design

The teaching consists of lectures, laboratory sessions, seminars and project work. Participation in laboratory sessions, seminars and project work and thereby integrated other teaching is compulsory.

#### Assessment

Examination consists of a written exam paired with oral and written presentations of project work. Students who have not passed the ordinary examination are offered a re-examinations shortly after.

Subcourses that are part of this course can be found in an appendix at the end of this document.

## Grades

Marking scale: Fail, Pass, Pass with distinction. The grades in the course are pass with credit, passed and failed. To pass the entire course, approved examination and passed results of written assignments are required as well as completed project presentations and participation in all compulsory parts. N2007266 This is a translation of the course Students who want to have the regular grade supplemented by ECTS grades should to the course coordinator of the course hand in a request for that at the start of the course.

### Entry requirements

For admission to the course, a Bachelor's degree in physical geography or the equivalent is required including 30 credits in GIS alternative three years' studies at faculty of engineering.

## Further information

The course may not be included in a higher education qualification together with NGE613 Geographic information processing via Internet, 5 credits, GIS416 Internet GIS, 5 credits or GISN09 internet GIS, 7.5 credits.

#### Subcourses in NGEN07, Web GIS

#### Applies from V08

0701 Web-GIS, 7,5 hp Grading scale: Fail, Pass, Pass with distinction