Details of approval
The syllabus was approved by Study programmes board, Faculty of Science on 2013-03-21 to be valid from 2013-03-22, autumn semester 2013.

General Information
The course is an elective course for second-cycle studies for a Degree of Master of Science (120 credits) in geographic information science.

Language of instruction: English

Main field of studies
Geographical Information Science

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

On completion of the course, the student should be able to:

- account for the concept sustainable tourism
- account for possible conflicts of interests regarding development of tourism
- account for how a simple decision support system for planning of tourism can be built
- discuss and problematise theoretical concepts to analyse the ecological sensitivity of a nature area
- describe how field measurements can be carried out and used in a GIS concerning mapping of tourist influence on the environment,
- account for how planning and administration of tourism can be carried out in sensitive natural areas.
**Skills and abilities**

On completion of the course, the student should be able to:

- communicate written and in a well balanced way be able to utilise the scientific language for special purposes within the subject
- visualise regional statistics and analyse seasonal effects
- carry out a spatial sensitivity analysis based on a natural area physical and biological properties regarding ecological sensitivity,
- use field measurements concerning tourist influence for visualisation in a GIS
- practically coordinate a simple tourist information system in a GIS environment
- create decision-making bases of planning of sustainable development of tourism.

**Judgement and approach**

- assimilate, critically assess and discuss scientific journals and publications within the subject
- critically assess and discuss analysis result concerning categorisation of sensitivity of natural environments and understand the complexity in such analyses
- be able to evaluate and relate to quality and limitations in geographic data.

**Course content**

The following parts are included in the course:

- Sustainable tourism; concepts, definitions and relations
- Handle and visualise regional tourist statistics
- Ecological influence of tourism
- Mapping and analysis of ecological sensitivity in natural areas
- Mapping and analysis of hiking trails
- Mapping of especially valuable natural environment
- Create a decision system in GIS for planning and handling of tourism in sensitive natural areas
- Analysis of the decision system and create basis for planning of sustainable tourism

**Course design**

The course is a distance course and is distributed on the Internet. It is flexible designed which facilitate for the student to carry out the course on full-, half-, or part-time. The teaching is done by video lectures, scientific journals, other text material and practical GIS exercises.

**Assessment**

Examination takes place through passed results on all practical and theoretical exercises and individual written assignments.

*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.
For the grade Pass, passed results are required in written assignments and practical and theoretical practical exercises and participating in all compulsory parts.

Entry requirements

For admission to the course, general entry requirements are required, English B and 90 credits completed courses including 30 credits courses in GIS. Equivalent knowledge in a different way acquired, give also admission to the course.
Subcourses in GISN23, GIS: GIS in Tourism and Recreation

Applies from V13

1301  Geographical Information System in Tourism and Recreation, 7,5 hp
   Grading scale: Fail, Pass, Pass with distinction