



Faculty of Health, Science and Technology
Geo-Science

Syllabus

Geographic Information Systems - raster

Course Code:	NGGB45
Course Title:	Geographic Information Systems - raster <i>RasterGIS</i>
Credits:	7.5
Degree Level:	Undergraduate level
Progressive Specialisation:	First cycle, has less than 60 credits in first-cycle course/s as entry requirements (G1F)

Major Field of Study:
NGA (Physical Geography)

Course Approval

The syllabus was approved by the Faculty of Health, Science and Technology 2019-09-04, and is valid from the Spring semester 2020 at Karlstad University.

Prerequisites

Geographical Information Systems I (7.5 ECTS credits), and at least 2.5 ECTS credits completed in Physical Geography and GIS (7.5 ECTS credits), or equivalent

Learning Outcomes

Upon completion of the course, the students should be able to:

- describe applications of raster-based Geographical Information Systems (GIS) within a specified focus area,
- carry out a project using raster-based GIS,
- explain and use methods for spatial analysis and modeling using raster-based data in GIS, and
- search for relevant information in reports, articles, and so on.

Content

The course covers methods in the treatment of geographic information in raster format by means of GIS software. The main focus is on data layers in vector and raster format as well as spatial analysis of the collected data.

Students work independently on a GIS project, including project planning, data collection, analysis, and presentation of results. The course includes a series of lectures, and students collect their own background information about the area in which the analyses are carried out and compile their results in a project report to be presented in a seminar.

Reading List

See separate document.

Examination

Assessment is based on individual hand-in assignments and a written group project report. Submissions for assessment must clearly indicate individual contributions. Projects are discussed in a seminar.

If students have a decision from Karlstad University entitling them to special pedagogical support due to a documented disability, the examiner has the right to give such students an adapted examination or to examine them in a different manner.

Grades

One of the grades 5 (Pass with Distinction), 4 (Pass with Some Distinction), 3 (Pass), or U (Fail) is awarded in the examination of the course.

Quality Assurance

Follow-up relating to learning conditions and goal-fulfilment takes place both during and upon completion of the course in order to ensure continuous improvement. Course evaluation is partly based on student views and experiences obtained in accordance with current regulations and partly on other data and documentation. Students will be informed of the result of the evaluation and of any measures to be taken.

Course Certificate

A course certificate will be provided upon request.

Additional information

The local regulations for studies at the Bachelor and Master levels at Karlstad University stipulate the obligations and rights of students and staff.