Reg No: NGGC91/20231



Faculty of Health, Science and Technology Geo-Science

# **Syllabus**

# Degree Project for the Engineering Programme in Surveying Technology and Geographical IT

Course Code: NGGC91

**Course Title:** Degree Project for the Engineering Programme in

Surveying Technology and Geographical IT Examensarbete för högskoleingenjörsexamen i

lantmäteriteknik och GIT

Credits: 22.5

**Degree Level:** Undergraduate level

**Progressive** First cycle, has at least 60 credits in first-cycle course/s

**Specialisation:** as entry requirements (G2F)

## Major Field of Study:

### **Course Approval**

The syllabus was approved by the Faculty of Health, Science and Technology 2022-05-25, and is valid from the Spring semester 2023 at Karlstad University.

#### **Prerequisites**

120 ECTS credits completed in the Surveying Technology and Geographical IT Engineering programme, and Scientific Methods in Geomatics, 7.5 ECTS credits, and registration for Geographic Information Systems Analysis, 7,5 ECTS credits, or equivalent

#### **Learning Outcomes**

The degree project is an opportunity for the students to apply and develop the knowledge that they have acquired in an independent project.

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

- demonstrate enhanced knowledge of theories, methods, and applications in the field of

technology,

- identify a scientifically interesting area and problematise it,
- demonstrate an ability to plan and carry out an independent project in accordance with sound engineering practice,
- collect and process relevant information from different sources in the area of technology and science.
- write reports in compliance with standard academic structure and formal requirements, including correct referencing,
- present their results and the knowledge and arguments on which they are based orally and in writing,
- critically review and evaluate their own project and those of others adopting a scientific approach and communicate the result in a public discussion and examination, and
- take issues of sustainability and gender equality into account when planning and completing the project.

#### Content

Instruction is in the form of supervision and seminars. The degree project should ideally be completed in collaboration with an external employer, but this is not an absolute requirement. At the beginning of the course, students submit a project plan specifying the design and process, for the approval of the examiner. The project plan must include background, aim, research problems, preliminary method and bibliography, and a time plan. Students carry out an introductory literature study and present it in a seminar.

Students can choose to work alone or in pairs. If two students collaborate, submissions for assessment must clearly indicate individual contributions. If the degree project is carried out in pairs, equal treatment of the students is guaranteed and the collaboration is expected to be based on inclusive and respectful methods..

The degree project is an independent assignment and each student is responsible for the process and the result. Students are also responsible for planning and requesting supervision sessions. The number of supervision sessions is limited to five and supervision is only provided for the course duration. Students who re-register at a later date are offered supervision subject to availability.

Students are also required to serve as peer reviewers in connection with the final seminar.

#### **Reading List**

See separate document.

#### Examination

Assessment is based on participation in a mandatory seminar, a project plan, a literature study, and a written project report presented in a seminar, as well as performance as a peer reviewer of another student's project.

Assessment is individual. If the examiner finds that a degree project does not reach the learning outcomes, the student may be asked to submit a revised version.

The number of assessment opportunities in this course is limited to five.

If students have a decision from Karlstad University entitling them to Targeted Study 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 Pass with Distinction (5), Pass with Some Distinction (4), Pass (3), or Fail (U) 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.

Students cannot claim the right to supervision when the course has ended.