



Faculty of Health, Science and Technology
Physics

Syllabus

Physics, Bachelor degree project

Course Code: FYGC10

Course Title: Physics, Bachelor degree project
Fysik, examensarbete kandidatnivå

Credits: 22.5

Degree Level: Undergraduate level

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

Specialisation: requirements, contains degree proj. for B.A./B.Sc. (G2E)

Major Field of Study:

FYA (Physics)

Course Approval

The syllabus was approved by the Faculty of Health, Science and Technology 2019-02-13, and is valid from the Autumn semester 2019 at Karlstad University.

Prerequisites

At least 75 ECTS credits in Physics and 45 ECTS credits in Mathematics, or equivalent.

Learning Outcomes

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

- give an account of the scientific basis of physics, especially of the theories, methods, and applications in a chosen specialised subarea, as well as a few current research issues in that area,
- independently identify, formulate, and solve problems and complete tasks in a project within given time limits,
- give an account of and discuss information, problems, and solutions in a scientific manner, orally and in writing,

- search for and collect relevant information, critically evaluate its reliability and quality, and interpret and reference it correctly,
- evaluate and critically review the obtained results in relation to scientific literature,
- make considered judgements on relevant social and ethical aspects of the chosen subarea and demonstrate insight into the potentials and limitations of science, its role in society, and our responsibility for how it is used.

Content

The aim of the course is to provide a conclusion to the Bachelor-level studies in Physics, in which students independently carry out an investigative science project in a chosen area.

The degree project is carried out under supervision within a specialised area of Materials Physics, Theoretical Physics, or Physics Education.

Reading List

See separate document.

Examination

Assessment is based on an individual written report on the project, which has to be presented and defended in a seminar. The written report is written in Swedish or English. Reports written in English must have a title and a summary in Swedish.

Grades

One of the grades Distinction (VG), Pass (G), 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.

This course has the same main content and learning outcomes as the course FYGC05 with the difference that the project is more extensive.