



## Course syllabus

Faculty of Technology

Department of Physics and Electrical Engineering

GO7693 Examensarbete - fysik för senarelärare och gymnasielärare,  
15 högskolepoäng

Degree Project - Physics for High School Teachers, 15 credits

### Main field of study

Physics

### Subject Group

Educational Sciences/Theoretical Subjects

### Level of classification

First Level

### Progression

G2E

### Date of Ratification

Approved 2009-08-11

Revised 2018-04-23 by Faculty of Technology. Removal of ECTS-grading scale and course evaluation is changed.

The course syllabus is valid from autumn semester 2018

### Prerequisites

60 credits within the field of general education and at least 60 credits Physics including 30 credits at G1F level or equivalent.

## Objectives

Having completed the course the student is expected

- to be able to design and execute independently a scholarly study as well as account for it in a scholarly report
- to be able to formulate the problem independently, seek, evaluate, study, analyze and put relevant material together for the study
- be able to account for the research and literature relevant to the study as well as demonstrate methodological and ethical awareness when setting up the study
- to be able to defend the thesis with factual and relevant arguments and examine critically and act as opponent to another thesis
- to have an advanced ability to behave critically towards different sources as well as considerable competence in information technology.

## Content

Literary studies, field studies, scientific theory and methodology, research ethics, composition of a scholarly report, active participation in seminars, how to act as opponent.

The degree project may profitably be linked to the students' experiences from their practical training. Links to research projects in didactics within the university are recommended. The research that the student conducts should concern a subject/general didactic study relevant to teaching.

## Type of Instruction

The degree project may be planned and carried out individually or in pairs in consultation with a supervisor. The course comprises individual work, obligatory seminars and individual study of literature chosen in consultation with the supervisor. Teaching and supervision may also be conducted by net based educational means.

The extent of obligatory elements can be seen on the timetable.

## Examination

The course is assessed with the grades Fail (U), Pass (G) or Pass with Distinction (VG).

The student is assessed through written and oral examinations. In order to pass the student must present and defend the degree project as well as examine critically and act as opponent of another project and, in addition, participate in other, obligatory seminars.

Where students have worked together on a project the individual contribution and performance must be distinguishable and judged separately.

The project is usually presented as a written thesis but may also be presented in some other form provided it is accompanied by written documentation.

## Course Evaluation

During the course or in close connection to the course, a course evaluation is to be carried out. The result and analysis of the course evaluation are to be communicated to the students who have taken the course and to the students who are to participate in the course the next time it is offered. The course evaluation is carried out anonymously. The compiled report will be filed.

## Required Reading and Additional Study Material

### Required reading

Bryman, A., *Samhällsvetenskapliga metoder*,

Liber, 2000. Pages 200(selection).

Strömquist, S., *Skrivboken. Skrivprocess, skrivråd och skrivstrategier*, Gleerups, 2000. Page number (195-227).

*Svenska skrivregler utgivna av Svenska språknämnden*, Liber, 2000. Pages 207.

Other literature is chosen in consultation with the examiner and the supervisor

### Reference Literature

Johansson, B & Svedner, P-O, *Examensarbetet i lärarutbildningen*, Kunskapsförlaget, 2006. Pages 128.

Patel, R & Davidsson, B, *Forskningsmetodikens grunder*, Studentlitteratur, 2003. Pages 149.

Strömquist, S, *Uppsatshandboken. Råd och regler för utformningen av examensarbeten och vetenskapliga uppsatser*, Hallgren & Fallgren, 1998. Pages 150.