

# SK2005 Project course in Optics and Photonics (7.5 hp)

## General information

The idea with a project course is that you do your own small research project in a group at our department or do a self-study of a special topic in optical physics. Registration to the course follows a special procedure as described in detail below and can be done at any time during the academic year if you have fulfilled the specific prerequisites.

It is in principle possible to do a project outside our department, but this must be discussed with the course responsible on an individual basis.

## Preparations before course start

Before you can start with the course, you need to go through the following steps.

- Find a project or self-study topic, and a supervisor
- Get registered for the course

### ***Find a project:***

There are three ways to find a project or self-study topic.

- You propose your own project according to your interest. Most senior researchers at our department are happy to work together on such a project with you. Just ask around.
- You identify a project together with one of our senior researchers in our department. This is done by asking senior researchers during or after their lectures. You may also browse KTH profiles of our senior researchers and approach them for project proposal according to your mutual interest.
- You approach the course responsible for a list of available projects or self-study topics offered by our senior researchers. From there, you identify an appropriate project and proceed to talk the corresponding supervisor.

### ***Find a supervisor:***

If you have found a project or topic, your contact will in most cases be the supervisor of your project. The supervisor must be a senior researcher at our department (not a PhD student).

### ***Get registered for the course:***

Once you have found a project, you must arrange with the paperwork together with your supervisor. The registration form can be downloaded from this page:

<https://www.aphys.kth.se/internal/teaching>

Please note that the starting date and the finishing date is a mutual agreement between you and your supervisor.

The registration form should be filled in and signed by you and your supervisor. The registration form should then be sent electronically to the course responsible and examiner ([uvogt@kth.se](mailto:uvogt@kth.se)) for a final signature before the course is registered in LADOK.

**Please also check with your program responsible or study counselor if it is ok for you to take a project course.**

### **Examination and completion**

Your supervisor is responsible to organize and perform the examination of your project/self-study. You are formally examined through a written report/hand-in assignments and an oral presentation. The following rules apply:

#### ***Written report***

The results of a project should be documented in a written report. The exact format is not defined and must be discussed with the supervisor.

#### ***Hand-in assignments***

A self-study is examined by hand-in assignments as agreed with the supervisor.

#### ***Oral presentation***

The results of the project work or self-study must be presented in an oral presentation.

#### ***Registration of results***

The examiner is responsible for the registration of the results in LADOK. For this, the result form must be filled out by the supervisor and send to [uvogt@kth.se](mailto:uvogt@kth.se), together with a pdf version of the report. The form can be found here:

<https://www.aphys.kth.se/internal/teaching>

### **Grading criteria**

The project will be assessed in terms of project planning, scientific content, and presentation, which are directly related to the learnings outcomes of the course. The course has Pass or Fail (P/F) grading scheme.

#### **Pass:**

- **Planning:** Plan and carry out work within agreed time frames, show initiative and be open to supervision and criticism, show ability to acquire necessary knowledge for the project and seek out and acquire a certain amount of knowledge related to the project yourself.

- **Scientific content:** Demonstrate reasonably good ability to systematically apply the scientific skills required to carry out the project work/self-study. Obtain scientifically correct results, which are supporting conclusions. Understand deficiencies of the approach. Know potential improvement methods.
- **Presentation:** Demonstrate well-disposed written presentation of work and results, analysis, and argumentation, as well as good language-processing ability. For the oral presentation, one shall show good ability to orally report and discuss the work.

**Fail:**

- **Planning:** Lack of respect for agreements or disobedience to supervision. Inability or unwillingness to acquire necessary knowledge for the project/self-study.
- **Scientific content:** Demonstrate an inability to apply the scientific skills required to complete the project work/self-study. Obtained results are partially incorrect, or not supporting conclusions. Do not understand deficiencies of the approach. Do not know potential improvement methods.
- **Presentation:** Remaining major deficiencies in the written report/hand-in assignments despite the request, or inability to present or discuss the work orally.