

SYLLABUS

Advanced experimental techniques 7.5 credits F7021T

Avancerad experimentell teknik

Course syllabus admitted: Autumn 2023 Sp 1 - Present

**DECISION DATE
2022-02-14**

Advanced experimental techniques 7.5 credits F7021T

Avancerad experimentell teknik

Second cycle, F7021T

| Education level | Grade scale | Subject | Subject group (SCB) |
|-----------------|-------------|-----------------------|---------------------|
| Second cycle | U G# | Experimentell mekanik | Engineering Physics |

Entry requirements

Basic courses in physics, solid mechanics and fluid mechanics.

Selection

The selection is based on 30-285 credits

Course Aim

The student should acquire the following skills in the course: -Be able to use modern optical techniques for the measurement of mechanical and thermal properties. -Be able to independently accomplish experimental work. -Be able to process experimental data and make comparisons with theoretical models. -Be able to present the results in written reports and oral presentations.

Contents

Optical methods for the measurement of mechanical, acoustical and thermal properties. Experimental work, evaluation of experimental data, theoretical modelling.

Realization

Each course occasion's language and form is stated and appear on the course page on Luleå University of Technology's website.

Lectures, experimental work, demonstrations and project work. The project work can be in co-operation with other courses or research divisions.

Examination

If there is a decision on special educational support, in accordance with the Guideline Student's rights and obligations at Luleå University of Technology, an adapted or alternative form of examination can be provided. Approved exercises and written reports.

Unauthorized aids during exams and assessments

If a student, by using unauthorized aids, tries to mislead during an exam or when a study performance is to be assessed, disciplinary measures may be taken. The term "unauthorized aids" refers to aids that the teacher has not previously specified as permissible aids and that may assist in solving the examination task. This means that all aids not specified as permissible are prohibited. The Swedish version has interpretative precedence in the event of a conflict.

Course offered by

Department of Engineering Sciences and Mathematics

Modules

| Code | Description | Grade scale | Cr | Status | From period | Title |
|------|-----------------|-------------|-----|-----------|-------------|-------|
| 0001 | Laboratory work | U G# | 7.5 | Mandatory | A07 | |

Study guidance

Study guidance for the course is to be found in our learning platform Canvas before the course starts. Students applying for single subject courses get more information in the Welcome letter. You will find the learning platform via My LTU.

Last revised

by Niklas Lehto, Programme Director 2022-02-14

Syllabus established

The syllabus was established by the Department of Applied Physics and Mechanical Engineering 2007-02-28, and remains valid from autumn 2007.