

SYLLABUS

Advanced Materials Characterisation Techniques 7.5 credits T7003T

Materialtekniska Analysmetoder

Course syllabus admitted: Autumn 2023 Sp 1 - Present

**DECISION DATE
2018-01-12**

Advanced Materials Characterisation Techniques 7.5 credits T7003T

Materialtekniska Analyismetoder

Second cycle, T7003T

Education level	Grade scale	Subject	Subject group (SCB)
Second cycle	G U 3 4 5	Materialteknik	Materials Technology

Main field of study

Materials Science and Engineering

Entry requirements

Basic knowledge in materials engineering (metallic and polymeric materials, solid state physics).

Selection

The selection is based on 30-285 credits

Course Aim

The aim of this course is to provide sufficiently detailed understanding of some of the most important materials characterization techniques. Active student participation through discussions is also stimulated.

Contents

After fulfilling the course the students will have achieved knowledge about some of the most important materials characterization methods and choose the most suitable technique for a certain application. Techniques covered throughout the course are electron microscopy, atomic force microscopy, thermal analysis, XRD, spectroscopic methods and a number of other methods.

Realization

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

Lectures, seminars and laboratory work.

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 seminar, assignment and lab 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.

Overlap

The course T7003T is equal to MPC004

Course offered by

Department of Engineering Sciences and Mathematics

Modules

Code	Description	Grade scale	Cr	Status	From period	Title
0003	Seminars	U G#	2.5	Mandatory	A14	
0004	Assignments	U G#	2.5	Mandatory	A14	
0005	Laboratory work	U G#	2.5	Mandatory	A14	

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 Mats Näsström 2018-01-12

Syllabus established

by Department of Applied Physics and Mechanical Engineering 2007-02-28