LUND UNIVERSITY

LTH
FACULTY OF ENGINEERING

Course syllabus

Aerosolteknologi, projekt
Aerosol Technology Project

MAMN20, 7,5 credits, A (Second Cycle)

Valid for: 2023/24
Faculty: Faculty of Engineering, LTH
Decided by: PLED C/D
Date of Decision: 2023-04-18

General Information

Main field: Nanoscience.
Elective for: F4, M4, MNAV2, N4
Language of instruction: The course will be given in English on demand

Aim

Students should acquire abilities to solve independently an aerosol technology related problem. The work will be carried out in a project form under supervision of researchers in aerosol science field. Project will consist of experimental and/or theoretical approach, some examples: performing measurements in real or laboratory settings, developing a new measurement technique, modelling, analysis of datasets, etc. Students should gain ability to identify the problem, choose adequate methods in approach to solve it, develop analysis and evaluation skills, and be able to draw conclusions.

The course aims also to train students in investigative approach and project management which are important skills both at the university education as well as in future workplace.

Learning outcomes

Knowledge and understanding
For a passing grade the student must

- show an in-depth understanding of theories related project's subject
- be able to explain why given methods, techniques, instrumentation and/or models were chosen

Competences and skills
For a passing grade the student must

- be able to independently formulate a project plan and carry out the project
- identify sources of information, independently evaluate their relevance and correctly use reference system

Judgement and approach
For a passing grade the student must

- submit a written report and give an oral presentation
- be able to discuss and evaluate the project's aerosol technology related problems

Contents

The contents are adapted to students' specialisation and personal interest. The project preferably is related to current research at the forefront of aerosol technology science carried out at Lund University. Researchers from Aerosol Group involved in supervision, ensure that applied techniques and methodologies are up-to–date with recent findings in the field. The project can be related to other fields, where aerosol technology science could be applied, this can be done after an agreement with the appropriate department or industrial partner. If applicable, sustainability aspects i.e. the challenges related to UN sustainable goals, will be considered.

Examination details

Grading scale: UG - (U,G) - (Fail, Pass)
Assessment: Written report and oral presentation. Oral presentation of the report will be given on announced seminar.

The examiner, in consultation with Disability Support Services, may deviate from the regular form of examination in order to provide a permanently disabled student with a form of examination equivalent to that of a student without a disability.

Admission

Admission requirements:

- One of the following courses: MAMF55, TFRG10, MAM242F, FKFN35, FYST38, FKF100F or equivalent knowledge

The number of participants is limited to: No

Reading list

- According to the project contents. Researchers involved in supervision ensure that recent scientific literature is adequately chosen and used.

Contact and other information

Course coordinator: Aneta Wierzbicka, Aneta.wierzbicka@design.lth.se
Examinator: Aneta Wierzbicka, aneta.wierzbicka@design.lth.se
Course homepage: https://www.eat.lth.se/english/courses/