



DEPARTMENT OF COMPUTER SCIENCE AND ENGINEERING

DIT878 Seminar Course in Data Science, 7.5 credits

Seminariekurs i Data Science, 7,5 högskolepoäng

Second Cycle

Confirmation

This course syllabus was confirmed by Department of Computer Science and Engineering on 2019-02-08 to be valid from 2019-09-02, autumn semester of 2019.

Field of education: Science 100%

Department: Department of Computer Science and Engineering

Position in the educational system

The course is offered within the Master's programme N2ADS Applied Data Science.

Main field of studies

Data Science

Specialization

A1F, Second cycle, has second-cycle course/s as entry requirements

Entry requirements

To be eligible to the course, the student should have a Bachelor's degree, and have successfully completed 30 credits of courses within the subject Data Science.

The subject of the proposed seminar course must be within the field of Data Science and have been approved by the Head of the Programme, who also decides whether or not the student has the required prerequisites within the subject area to follow the seminars.

Applicants must prove knowledge of English: English 6/English B or the equivalent level of an internationally recognized test, for example TOEFL, IELTS.

Learning outcomes

On successful completion of the course the student will be able to:

Knowledge and understanding

- give an overview of the most important concepts and trends in a selected research field

Competence and skills

- identify the most salient ideas in a research paper
- present theoretical ideas clearly and understandably to a peer group
- summarize the most important ideas in a research fields as a written survey report

Judgement and approach

- consider advantages and drawbacks of different approaches to the selected research problem
- evaluate research articles critically

Course content

This course examines a selected set of current state-of-the-art, research-related topics in the general area of data science, including research fields such as statistical modeling, machine learning, large-scale algorithms, and visualization, as well as fields where data science is applied such as bioinformatics, natural language processing, digital humanities, and computational social or political science.

*Sub-courses***1. Seminars** (*Seminarier*), 4.5 credits

Grading scale: Pass with Distinction (VG), Pass (G) and Fail (U)

2. Written report (*Skriftlig rapport*), 3 credits

Grading scale: Pass with Distinction (VG), Pass (G) and Fail (U)

Form of teaching

The course is organized around a set of seminars. In each seminar, students will present one or more research articles. They will then introduce a number of reflections and questions for discussion related to the topics presented in the articles. This leads to an open discussion, where all students in the group participate.

Language of instruction: English

Assessment

The course is examined by seminars (4.5 credits) and a written report (3 credits).

To pass the seminar sub-course, the student needs to present a number of research articles and participate actively in discussions. To pass the report sub-course, the student needs to submit a written survey of the selected research field, discussing the most important research and techniques within the field.

For both the sub-courses, a VG grade is awarded for work of exceptional clarity and insight.

If a student, who has failed the same examined component twice, wishes to change examiner before the next examination, a written application shall be sent to the department responsible for the course and shall be granted unless there are special reasons to the contrary (Chapter 6, Section 22 of Higher Education Ordinance).

In cases where a course has been discontinued or has undergone major changes, the student shall normally be guaranteed at least three examination occasions (including the ordinary examination) during a period of at least one year from the last time the course was given.

Grades

The grading scale comprises: Pass with Distinction (VG), Pass (G) and Fail (U).

A Pass grade (G) for the entire course requires at least a Pass grade for all sub-courses. To be awarded Pass with Distinction (VG) for the full course, the grade VG must be obtained for both the sub-courses.

Course evaluation

The course is evaluated through meeting after the course between teachers and student representatives. Further, an anonymous questionnaire is used to ensure written information. The outcome of the evaluations serves to improve the course by indicating which parts could be added, improved, changed or removed.

Additional information

The course is given in an on-demand basis. Students approach the programme responsible and suggest topics. The seminar course will then be initiated if there are enough participants to form a group, and the programme responsible finds the topic relevant.

The choice of the course material depends on the chosen research field and will be determined jointly by the students and the programme responsible at the beginning of the course.

Course literature to be announced the latest 8 weeks prior to the start of the course.