Syllabus

for course at advanced level

Research Topics in Data Science
Forskningsämnen inom data science

7.5 Higher Education Credits
7.5 ECTS credits

Course code:	IB575C
Valid from:	Autumn 2019
Date of approval:	2015-03-26
Changed:	2019-04-10
Department	Department of Computer and Systems Sciences
Main field:	Computer and Systems Sciences
Specialisation:	A1N - Second cycle, has only first-cycle course/s as entry requirements

Decision

This syllabus was approved by the Head of the Department 2015-03-26. This syllabus was updated 2019-04-10

Prerequisites and special admittance requirements

90 ECTS in Computer and Systems Sciences (or the equivalent) including at least 7,5 ECTS in Data Mining in Computer and Systems Sciences (or the equivalent).

Course structure

Examination code	Name	Higher Education Credits
75C1	Research Topics in Data Science, assignment 1	1.5
75C2	Research Topics in Data Science, assignment 2	1.5
75C3	Research Topics in Data Science, assignment 3	4.5

Course content

The course introduces current research topics in data science, which concerns methods and techniques for collecting, organizing and analysing data with the purpose of exctracting new knowledge.

The course gives the student training in identifying and formulating research questions within the area, to choose and apply research method, to plan and execute research studies, including data collection and analysis, and to present results and draw conclusions, and relate these to previous work.

Learning outcomes

After having completed the course, the student will:
- have knowledge about current research topics within data science
- have the ability to identify and formulate research questions within data science
- have the ability to choose and apply research methods to answer research questions within data science
- have the ability to plan and execute research studies within data science
- have the ability to compile results and draw conclusions from these with respect to a given research question within data science
- have the ability to relate results and conclusions to previous work
- demonstrate the ability to clearly report and discuss, both orally and in writing, own conclusions from studies in data science.

Education

The language of instruction is English. The teaching and learning activities in the course are: lectures and seminars.

Forms of examination

a. The course is assessed through assignments.

b. The final grading of the course is based on the following grading scale related to the learning outcomes of the course: A = Excellent, B = Very Good, C = Good, D = Satisfactory, E = Sufficient, Fx = Fail, F = Fail.

c. The grading criteria are communicated to the students at the start of the course.

d. In order to complete the whole course segment the student must obtain at least grade E (or P with Pass/Fail grades) in all course components/examinations.

e. In addition the following regulations also apply:
- Students who obtain grade Fx in a written examination are allowed to complete a supplementary assignment in order to elevate the grade to E. The examiner informs the concerned students when the results of the written examination are published. The supplementary assignment has to be submitted within a given deadline and can only be utilised to elevate the grade of the actual examination task.
- Students who obtained grade E in an examination task are not allowed to re-write the examination or resubmit the assignment in order to obtain a higher grade.
- Students who have failed the same examination task twice are entitled to have another examiner appointed, unless there are special reasons to the contrary.

Interim

When a course is discontinued, or its contents are substantially altered, the following applies:
- Failed examination tasks are replaced with other similar examination tasks according to a specific plan.
- If no similar examination tasks can be provided, at least three examination opportunities per examination task should be offered during a period of at least three terms from the date of the decision. After this period, no examinations should be carried out on the course.

Limitations

This course may not be included in a degree together with a course of identical or partially similar content.

Required reading

Information about course litterature is available on the department's website - www.dsv.su.se - at least two months before the start of the course.