UNIVERSITY OF SKÖVDE

TRANSLATION FROM SWEDISH

COURSE SYLLABUS

Master Degree Project in Informatics with a Specialisation in Data Science A1E

15 credits

Course code: IT741A
Version number: 11
Valid from: 1 January 2026
Ratified by: Curriculum Committee for Informatics
Date of ratification: 15 May 2025

1. General information about the course

The course is provided by the University of Skövde and is named Master Degree Project in Informatics with a Specialisation in Data Science A1E (Examensarbete i informationsteknologi med inriktning mot Data Science A1E). It comprises 15 credits and is a second-cycle course. The level of progression is A1E.

The course is a part of the main field of study in Informatics. The disciplinary domain of the course is Technology.

2. Entry requirements

The course has the following entry requirements: passed IT776A Artificial Intelligence A1N and passed IT734A Data Mining A1N and attended IT803A Introduction to Data Science A1N with a passed grade on the examination 1002 Mini Project, 4.5 credits and a passed grade on the examination 2002 Written assignment, 3 credits.

3. Course content

The thesis content shall deal with applications in data science. The thesis should be a natural completion of the study programme and provides opportunity to apply acquired theoretical and practical knowledge within a project of significant size. The degree project can be carried out in cooperation with an external organization and serve as a link to industry. The work shall be carried out in connection with research conducted in data science at the University of Skövde. The complete thesis prepared by the student is presented and defended in an opposition process.

4. Objectives

After completed course the student should be able to:

- identify, formulate, argue for and solve/answer a research problem within data science,
- choose, argue for and apply a suitable scientific method to solve the research problem,
- explain and apply research ethical principles,
- reflect on the result in relation to the chosen problem or issue and position the result in a larger context with respect to data science, including both scientific, ethical, and societal aspects,
- communicate his/her research orally and in writing, and
- evaluate and critically assess scientific publications within the field of data science.

5. Examination

The course is graded A (Excellent), B (Very good), C (Good), D (Satisfactory), E (Sufficient) or F (Fail).

The examinations of the course consist of the following modes of assessment:

- **Written report, oral presentation and opposition**
  15 credits, grades: A/B/C/D/E/F

Students with a permanent disability who have been approved for directed educational support may be offered adapted modes of assessment.

6. Types of instruction and language of instruction

The teaching consists mostly of own work with individual supervision.

The teaching is conducted in English.

7. Course literature and other educational materials

Berndtsson, M. et. al. (2007). *Thesis Projects: A Guide for Students in Computer Science and Information Systems*. London: Springer-Verlag London Ltd. ISBN 9781848000087. or

Dawson, C. W. (2009). *Projects in Computing and Information Systems: A Student's Guide*. Harlow: Addison-Wesley Professional. ISBN 0273721313.

Additional course literature selected in consultation with the supervisor.

8. Student influence

Student influence in the course is ensured by means of course evaluation. The students are informed about the results of the evaluation and potential measures that have been taken or are planned, based on the course evaluation.

9. Additional information

Further information about the course, as well as national and local governing documents for higher education, is available on the website of the University of Skövde.