UNIVERSITY OF SKÖVDE

TRANSLATION FROM SWEDISH

COURSE SYLLABUS

Explainable AI A1F

7.5 credits

Course code: IT790A
Version number: 6
Valid from: 1 July 2027
Ratified by: Curriculum Committee for Informatics
Date of ratification: 12 November 2026

1. General information about the course

The course is provided by the University of Skövde and is named Explainable AI A1F (Explainable AI A1F). It comprises 7.5 credits and is a second-cycle course. The level of progression is A1F.

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 IT734A Data Mining A1N and attended IT824A Visual Data Analysis A1N with a passed grade on the examination 1001 Lab assignment, 2 credits and a passed grade on the examination 2001 Seminar assignment, 2 credits (or the equivalent).

3. Course content

The course highlights the application of data-driven Explainable AI (XAI) approaches to understand AI models and their results. The main emphasis lies on post hoc explanations and how to use them as a basis for appropriate decisions. Moreover, the course focuses on how to avoid uncertainties in the predictions as well an understanding of the value of transparency and explainability for the decision-maker. The course incorporates theories and methods of XAI and discusses the benefits and limitations of XAI. The course comprises both theoretical and practical parts where the student will be given an opportunity to immerse within a chosen subject in Explainable AI.

4. Objectives

After completed course the student should be able to:

- explain and implement Explainable AI techniques,
- critically reflect upon and describe utility, problems and limitations of Explainable AI,
- analyze and reflect upon the importance of decision support transparency, and
- discuss and account for the latest research questions within the area Explainable AI.

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:

- **Seminars**
  1.5 credits, grades: G/U
- **On-campus supervised written examination**
  6 credits, grades: A/B/C/D/E/F (determines the final grade)

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 is comprised of project work, teaching lessons and seminars/group discussions.

The teaching is conducted in English.

7. Course literature and other educational materials

Course literature according to teachers' instructions on the page of the course on the learning platform.

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

The content of the course corresponds completely or partially with the following course(s) and cannot be included in the required credits of a degree qualification:

- IT728A - Data Driven Decision-making A1F 7.5 credits

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.