



School of Economics and Management

INFA40, Informatics: Digitalisation and AI from an Organisational and Societal Perspective, 7.5 credits

Informatik: Digitalisering och AI ur ett organisations- och samhällsperspektiv, 7,5 högskolepoäng
First Cycle / Grundnivå

Details of approval

The syllabus was approved by The Board of the Department of Informatics on 2019-12-04 and was last revised on 2024-09-18. The revised syllabus comes into effect 2025-03-15 and is valid from the autumn semester 2025.

General information

The course is given as a freestanding online course.

Language of instruction: Swedish and English

The course is given in Swedish but there may also be teaching in English.

Main field of study *Specialisation*

Informatics G1N, First cycle, has only upper-secondary level entry requirements

Learning outcomes

After passing the course, the student should have gained basic knowledge of digitalisation and artificial intelligence (AI) from an organisational and societal perspective.

Topics covered in the course include technological trends and societal changes linked to digitalisation; technology development and exponential growth; AI and artificial general intelligence (AGI); history and background of today's AI technologies; basic types of AI and machine learning (ML) and its applications; the use of AI in business and organisations, as well as ethical and social aspects of digitalisation and AI.

Knowledge and understanding

To pass the course, the student must demonstrate knowledge of and understanding of

- how technological trends and digitalisation are driving change and affecting society, organisations and individuals
- the emergence of technologies that create the conditions for digitalisation and artificial intelligence
- history and background of today's AI technologies
- how AI and ML can be used in businesses and organisations
- ethical aspects and challenges linked to digitalisation of society in general, with an emphasis on ethical aspects of AI

Competence and skills

To pass the course, the student must demonstrate competence and skills individually or in groups to

- describe various technological trends and driving forces behind the current wave of digitalisation
- explain the difference between different forms of AI and ML
- describe how AI and ML can be used in organisations and businesses
- critically examine and discuss ethical aspects of AI

Judgement and approach

To pass the course, the student must demonstrate the ability to

- evaluate how digitalisation and AI affect society, organisations and individuals
- critically evaluate the limitations and opportunities of AI technology from a societal and operational perspective
- critically address and discuss ethical aspects of digitalisation and AI

Course content

The course contains:

- technological trends and driving forces behind the current wave of digitalisation
- background to AI
- introduction to different types of AI and ML
- use of AI and ML within organisations and businesses
- the interaction of humans and AI and digital technologies
- ethical aspects of digitalisation and AI

Course design

The teaching is given entirely online via an internet-based learning platform. It is assumed that the student participates in these conditions and has access to a computer with a network connection. The course is mainly based on information gathering via the internet and on communication in writing. Access to teachers for questions and guidance is provided via the internet-based learning platform.

Assessment

The assessment is based on individual assignments.

Re-examinations are offered in close conjunction with the first examination.

The test and course grades are determined by the course examiner. The examiner is entitled to change the grades given by the teachers on the course if this does not violate Chapter 6, Section 24 of the Higher Education Ordinance (1993:100).

Academic misconduct such as cheating, plagiarism, fabrication and falsification is considered a serious offence in higher education (see Chapter 10 of the Higher Education Ordinance). The disciplinary measures that may be taken as a result of such offences are caution or suspension for a limited period of time from the university (and all the faculties of the university).

Examinations

- Assignments, 7.5 cr, grading scale: U-A, individual examination

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.

Grades

Grading scale includes the grades: U=Fail, E=Sufficient, D=Satisfactory, C=Good, B=Very Good, A=Excellent

Grade (Definition) Points or percentage out of maximum points. Characteristic.

A (Excellent) 85-100. A distinguished result that is excellent with regard to theoretical depth, practical relevance, analytical ability and independent thought.

B (Very good) 75-84. A very good result with regard to theoretical depth, practical relevance, analytical ability and independent thought.

C (Good) 65-74. The result is of a good standard with regard to theoretical depth, practical relevance, analytical ability and independent thought and lives up to expectations.

D (Satisfactory) 55-64. The result is of a satisfactory standard with regard to theoretical depth, practical relevance, analytical ability and independent thought.

E (Sufficient) 50-54. The result satisfies the minimum requirements with regard to theoretical depth, practical relevance, analytical ability and independent thought, but not more.

U (Fail) 0-49. The result does not meet the minimum requirements with regard to theoretical depth, practical relevance, analytical ability and independent thought.

To pass the course, the student must have been awarded the grade of E or higher.

Grading rules and definitions

Examination grades

Examinations are graded according to the grading scale U-A or the grading scale U-G (Fail-Pass).

Course grade

A passing grade on all examinations is required to pass the course.

1. For each examination with the grading scale U-A, the obtained points are multiplied by the number of credits for the examination. Grades without points are converted as follows: A = 92, B = 80, C = 70, D = 60, E = 52.
2. The products of the included examinations are summed up and divided by the total number of credits of the included examinations.
3. This results in a weighted average which determines the course grade. 85–100 gives the grade A, 75–84 gives the grade B, 65–74 gives the grade C, 55–64 gives the grade D, 50–54 gives the grade E.

Examinations with the grading scale U-G are not included in the calculation of the course grade.

Entry requirements

General requirements for university studies in Sweden

Further information

If the course is discontinued, there may be limited opportunities for re-examination. Please contact the study advisor for information.