School of Economics and Management

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

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 to be valid from 2020-08-31, autumn semester 2020.

General Information

The course is given as a distance course.

Language of instruction: Swedish

Main field of studies	*Depth of study relative to the degree requirements*
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

In order to pass the course, the student must be able to 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

In order to pass the course, the students must be able to 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

In order to pass the course, the students must be able to 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 entirety on distance 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.

Cheating such as plagiarism, fabrication and falsification is considered a seriousoffence in higher education (see Chapter 10 of the Higher Education Ordinance). Thedisciplinary measures that may be taken as a result of such offences are caution orsuspension for a limited period of time from the University.

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.

Subcourses that are part of this course can be found in an appendix at the end of this document.

Grades

Marking scale: Fail, E, D, C, B, A.

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.

F (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 students must have been awarded the grade of E or higher.

Grading rules and definitions

Grades are awarded according to a graded scale from A (highest) to F (lowest), with E as the minimum passing grade.

When the exam/assignment is not graded, the grades G (Pass) or F (Fail) will be applied.

Course grades

When calculating course grades, the graded components will be weighted according to the following formula:

The number of credits for the exam is multiplied with the exam score. The total value is then divided by the total number of credits for the exams/assignments included. The resulting average is then rounded off to the nearest whole number. The number indicates the relevant course grade in accordance with the grading definitions above.

For exams/assignments which are graded and scored, the grades A to F will be used in accordance with the grading definitions above. The exam score will be used directly in the calculation.

For exams/assignments which are graded but not scored, the grades A to F will be used and converted as follows: A = 92, B = 80, C = 70, D = 60, E = 52.

Exams/assignments which are not graded but awarded with G (Pass) or F (Fail) will not be 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.

Subcourses in INFA40, Digitalisation and AI from an Organisational and Societal Perspective

Applies from H20

2001 Assignments, 7,5 hp
Grading scale: Fail, E, D, C, B, A