School of Economics and Management

INFN65, Informatics: Business and Artificial Intelligence, 7.5 credits

Informatik: Verksamhet och artificiell intelligens, 7,5 högskolepoäng

Second Cycle / Avancerad nivå

Details of approval

The syllabus was approved by The Board of the Department of Informatics on 2019-09-11 and was last revised on 2023-06-07. The revised syllabus applies from 2024-01-15, spring semester 2024.

General Information

The course can be taken as part of the Master's Programme in Information Systems, the Master's Programme in Data Analytics and Business Economics, or as a separate course.

Language of instruction: English

Main field of studies	Depth of study relative to the degree requirements
Information Systems	A1N, Second cycle, has only first-cycle course/s as entry requirements
Informatics	A1N, Second cycle, has only first-cycle course/s as entry requirements

Learning outcomes

This course aims to provide an insight into designing business e.g., Processes (BPs), decisions and Artificial Intelligence (AI) that are building today's businesses.

On completion of the course, students shall have a thorough understanding of how AI shape and supports today's businesses e.g., processes and decisions and their design. Students shall be able to identify problems that can be solved by, or decisions that can be made or supported by, AI and be able to implement solutions to aid the aforementioned.

Knowledge and understanding
In order to pass the course, the student must be able to demonstrate knowledge of

and understanding of
- how AI is part in shaping today's businesses
- challenges that business digitalisation and artificial intelligence poses in organisations
- central terms used in the problem area of artificial intelligence and business

Competence and skills
In order to pass the course, the students must be able to demonstrate competence and skills individually or in groups to

- identify problems that can be solved by, or decisions that can be made or supported by AI in business
- implement solutions to aid business improvement
- designing business and artificial intelligence
- manage both managerial and technical aspects of business
- compare and evaluate different artificial intelligence tools

Judgement and approach
In order to pass the course, the students must be able to demonstrate the ability to

- critically evaluate the limitations and possibilities of AI technology
- evaluate AI impacts on business, organisations and society

Course content

The course focuses on the challenges that business digitalisation and artificial intelligence poses in today's organisations. To properly manage e.g., processes and business decisions, both managerial and technological aspects must be considered in conjunction. By studying business and artificial intelligence and through hands on workshops, the course focuses on how AI and business digitalisation alters internal and external parts of business within and across organisations.

Course design

The teaching consists of lectures, supervision and laboratory sessions. The teaching is research based and presents examples from AI-initiatives from different contexts.

The course may include compulsory components, which will be stated in the schedule.

Assessment

The assessment is based on an individual written exam, seminars and a group project.

Re-exams will be held in close proximity to the ordinary exam period.

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).

Cheating such as 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.

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.

<u>**Grade** (Definition) Points or percentage out of maximum points. Characteristic.</u>

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

To be admitted to the course, the student must have passed the general requirements and the courses: "Informatics: Introduction to Information Systems, 1-30 cr", "Information Systems: IS and Business Development, 31-60 cr", "Informatics: Bachelor Degree Project (Thesis), 15 cr", and further 15 credits informatics/information systems at Bachelor level (G2F), or the equivalent. English 6/English Course B.

An exception for the general entry requirement in Swedish will be granted when the course is given in English.

Students with knowledge equivalent to the first semester of the *Master's Programme in Data Analytics and Business Economics (EAGDA)* are eligible to study this course.

Further information

It is compulsory to attend the introduction meeting, where a roll call will be taken. Absence without notification means that the admitted student will lose his/her seat on the course.

For transitional provisions with regard to previous courses, please contact the study advisor for an individual assessment.

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

Subcourses in INFN65, Informatics: Business and Artificial Intelligence

Applies from V24

2401   Written exam, 3,0 hp
          Grading scale: Fail, E, D, C, B, A
2402   Seminars, 1,0 hp
          Grading scale: Fail, Pass
2403   Group project, 3,5 hp
          Grading scale: Fail, Pass

Applies from V22

2201   Take-home exam, 4,0 hp
          Grading scale: Fail, E, D, C, B, A
          Individual exam

2202   Group project, 3,5 hp
          Grading scale: Fail, Pass
          Group assignment