INFC35, Informatics: Decision Support Systems, 7.5 credits
Informatik: Beslutsstödssystem, 7,5 högskolepoäng
First Cycle / Grundnivå

Details of approval

The syllabus is an old version, approved by The Board of the Department of Informatics on 2013-09-20 and was last revised on 2016-06-03. . The revised syllabus applied from 2016-08-29. , autumn semester 2016.

General Information

The course can be taken as part of the BSc Programme in Information Systems Design, or as a separate course.

Language of instruction: English

Main field of studies	Depth of study relative to the degree requirements
-	G2F, First cycle, has at least 60 credits in first-cycle course/s as entry requirements

Learning outcomes

Decision-making is a central activity within any human activity-system, for example a firm or a public sector body. As a first step, the course on Decision Support Systems puts forward a broad perspective on what impacts decision making on individual level, group level and organisational level. Depending on the qualities of a decision, ICT (Information and Communication Technology) may be used to evaluate single choices but also a means to support the process of reaching a decision. The second step and departing from the previously introduced broad perspective, the course specifically covers methods and techniques for designing purposeful and business supporting ICT.

Knowledge and understanding

For a pass on the course, the student shall demonstrate knowledge of and understanding of

- Decision Support Systems as a discipline, its history and progression
- what is meant by decisions and organisational decision making in relation to a business, the operational components and the environment
- conditions that impact decision quality
- the content of typical choices and decision at different decision levels
- established methods and techniques of aiding decision making.

Competence and skills

For a pass on the course, students shall demonstrate competence and skills individually or in groups to

- selecting a suitable set of concepts and model in order to describe a decision situation
- work with methods and techniques with the specific purpose of articulating useful requirements for building decision supporting ICT
- work with a current decision supporting software
- work with an established decision model, in order to analyse a decision situation
- identify and formulate relevant problems with regards to the discipline's academic and practical debate.

Judgement and approach

For a pass on the course, students shall demonstrate the ability to

- evaluate and describe the general impact of decision support systems on individuals, groups, organisation and society
- describe and explain strengths and weaknesses of different classes of information systems in relation to specific decision situations.

Course content

The following topics will be covered:

- the significance of decision making
- aspects of human and organisational decision making
- theories and models relating to decision making
- decision support systems as a support for an organisation's activities
- ICT as a support for decision making
- group decision support systems
- theories, methods and techniques for the design, construction and implementation of situation-specific decision support systems
- principles for: Expert Systems, Executive Information Systems, Knowledge Management Systems, data warehousing, data mining and business intelligence
- evaluation methods for decision support systems.

Course design

The teaching consists of lectures, classes, seminars, supervision and laboratory sessions.

The course includes compulsory components, which are stated in the schedule.

Assessment

The assessment is based on a written exam, software assignment, case assignment and exercises.

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

Cheating such as plagiarism, fabrication and falsification is considered a serious offence in higher education (see Chapter 8 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.

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

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" and "Informatics: Level 2, 31-60 cr" 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.

Further information

The course may be included in the BSc programme in Design of Information Systems, according to a decision by the programme director on 1 June 2011.

INFC35 may not be included in a degree together with INFC24 or the equivalent.

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.

Amendments

(September 2011: Minor revision was made before the course was given the first time.)
(Oktober 2011: The course literature was changed before the course was given the first time.)
2012-05-03: General editorial changes.
2012-06-08: Change of literature.
2015-12-04: Added that the course includes compulsory components and that attendance on the introduction meeting is compulsory.
2016-06-03: New grading rules from Autumn term 2016.

Subcourses in INFC35, Informatics: Decision Support Systems

Applies from H18

1801 Written Exam, 3,0 hp
     Grading scale: Fail, E, D, C, B, A
1802 Project Assignment, 3,5 hp
     Grading scale: Fail, E, D, C, B, A
1803 Exercise, 1,0 hp
     Grading scale: Fail, Pass

Applies from H11

1101 Written Exam, 3,0 hp
     Grading scale: Fail, E, D, C, B, A
1102 Software Assignment, 2,0 hp
     Grading scale: Fail, E, D, C, B, A
1103 Case Assignment, 2,0 hp
     Grading scale: Fail, E, D, C, B, A
1104 Exercise, 0,5 hp
     Grading scale: Fail, Pass