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

## Details of approval

The syllabus was approved by The Board of the Department of Informatics on 2013-09-20 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 optional within the Bachelor's Programme in Design of Information Systems. It is also given as a freestanding course.

*Language of instruction:* English

| Main field of study | Specialisation |
|---|---|
| Information Systems | G2F, First cycle, has at least 60 credits in first-cycle course/s as entry requirements |
| Informatics | 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 an 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

To pass the course, the student must 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

To pass the course, the student must 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 regard to the discipline's academic and practical debate

## Judgement and approach

To pass the course, the student must 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.

## Assessment

The assessment is based on an on-campus written exam, group project and seminars.

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*

- On-Campus Written Exam, 3.0 cr, grading scale: U-A, individual examination
- Group Project, 3.5 cr, grading scale: U-A, group examination
- Seminars, 1.0 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

Admission to the course requires general requirements and English 6 as well as the courses: "Informatics: Introduction to Information Systems, 1-30 cr" and "Informatics: Information Systems and Business Development, 31-60 cr" or the equivalent.

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

## 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 their 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.

This is a translation of the syllabus which was established in Swedish.