

SYSA21, Informatics: Introduction to Information Systems, 30 credits

Informatik: Introduktion till informationssystem, 30 högskolepoäng
First Cycle / Grundnivå

Details of approval

The syllabus was approved by The Board of the Department of Informatics on 2018-03-05 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 compulsory within the Bachelor's Programme in Design of Information Systems. It is also given as a freestanding course.

Language of instruction: Swedish and English

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

Main field of study *Specialisation*

Informatics	G1N, First cycle, has only upper-secondary level entry requirements
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Information Systems	G1N, First cycle, has only upper-secondary level entry requirements
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Learning outcomes

On completion of the course, the student shall have obtained basic knowledge of theories and methods in the field of Information Systems (IS). Furthermore, the student shall have attained a basic ability to independently and critically perform system development and develop software systems. The student shall also have acquired basic knowledge and skills with regard to report writing and project work for IS design.

Knowledge and understanding

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

- the basic meaning of the terms information, data, information systems, information technology (IT) and information and communication technology (ICT)
- design as a problem solving process at a basic level
- different types of IS and ICT and their usage
- the organisational context supported by IS, especially business processes
- simple concepts and principles of systems analysis and modelling
- IS design as an area of activity
- programming as part of IS development
- problem solving at a basic level
- software development as an area of activity
- project work as a method for IS development
- basic concepts, models and principles of business administration that are relevant to informatics

Competence and skills

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

- design a limited information system for an enterprise
- make a simple analysis of an enterprise from a process perspective
- make a simple analysis of the aim, goal and organisation of an enterprise
- produce and defend a delimited study of an assigned topic
- correctly describe simple design proposals in modelling language
- produce and test software in the form of modules within or in connection with a system
- apply basic analysis models to simple enterprise systems
- apply basic principles of analysis and modelling in order to identify functions and needs and suggest, explain and present an IS design for this purpose
- implement parts of a limited information system as software
- design, present and argue for an IS design
- critically analyse the work within an IS design project
- use simple models of economic analysis and calculation for the valuation of investments in IS/IT
- use simple models of financial analysis linked to ERP (Enterprise Resource Planning)
- execute assignments within given time frames

Judgement and approach

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

- account retrospectively and reflectingly for theories and processes used and connect them to relevant components, tasks and assignments on the course

- reflectingly account for advantages and disadvantages experienced within group work on IS design
- independently reflect on their own learning process and assess their own change process and goal attainment
- assess economic consequences of investments in IS/IT

Course content

The course deals with:

- information systems as a subject
- academic writing
- information and communication systems
- enterprises and business
- business, IT and digitalisation
- systems analysis and modelling
- concept and business modelling
- software development
- data modelling
- transformation and programming
- information systems project
- organisation and business
- process and business modelling

Modules

- Information Systems as a Subject
- Business, IT and Digitalisation
- Systems Analysis and Modelling
- Software Development
- Information Systems Project

Course design

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

Assessment

The assessment is based on assignments, on-campus written exams and an IS project.

Assessed components including documentation and written reflections are compiled in the student's learning portfolio.

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

- Information Systems as a Subject, Assignments, 2.0 cr, grading scale: U-G, individual examination
- Information Systems as a Subject, Paper, 3.0 cr, grading scale: U-A, group examination
- Business, IT and Digitalisation, Assignments, 3.0 cr, grading scale: U-G, individual examination
- Business, IT and Digitalisation, Case Assignments, 3.0 cr, grading scale: U-G, group examination
- Systems Analysis and Modelling, On-Campus Written Exam, 3.0 cr, grading scale: U-A, individual examination
- Systems Analysis and Modelling, Assignments, 3.0 cr, grading scale: U-A, group examination
- Software Development, On-Campus Written Exam, 3.0 cr, grading scale: U-A, individual examination
- Software Development, Assignments, 3.0 cr, grading scale: U-G, individual examination
- Information Systems Project, ICT- and Business Assignment, 2.0 cr, grading scale: U-A, group examination
- Information Systems Project, Process and Modelling Assignment, 2.0 cr, grading scale: U-A, group examination
- Information Systems Project, Software Development Assignment, 2.0 cr, grading scale: U-A, group examination
- Learning Portfolio and Assignments, 1.0 cr, grading scale: U-G, 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 points/percent. A distinguished result that is excellent with regard to theoretical depth, practical relevance, analytical ability and independent thought.

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

C (Good) 65-74 points/percent. 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 points/percent. The result is of a satisfactory standard with regard to theoretical depth, practical relevance, analytical ability and independent thought.

E (Sufficient) 50-54 points/percent. 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 points/percent. 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 and courses corresponding to the following Swedish Upper Secondary School Programs: Civics 1b/1a1+1a2, English 6.

Further information

SYSA21 may not be included in a degree together with SYSA11, INFA16 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 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.