School of Economics and Management

SYSA11, Informatics: Introduction to Information Systems, 30 credits

Informatik: Introduktion till informationssystem, 30 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 2015-05-13. . The revised syllabus applied from 2015-08-31. , autumn semester 2015.

General Information

The course makes up the first semester of the BSc programme in Design of Information Systems.

Language of instruction: Swedish
Required reading in English may be included.

Main field of studies	*Depth of study relative to the degree requirements*
Information Systems	G1N, First cycle, has only upper-secondary level entry requirements

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

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

- the basic meaning of the terms information, data and information system
- design as a problem solving process at a basic level
- the basic meaning of the terms information system and ICT (information and communication technology)
- 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

For a pass on the course, students shall 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
- execute assignments within given time frames

Judgement and approach

For a pass on the course, students shall 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

- introduction to information systems
- systems analysis and modelling
- organisation analysis
- needs analysis
- software development
- introduction to computers and communication systems
- the IS project as a working method
- report writing
- oral and written presentation.

Modules

Information Systems as a Subject
Business and Information Systems
Systems Analysis and Modelling
Information and Communication Systems
Software System Construction
IS Project

Course design

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

Compulsory components and sessions may be included. They are stated in the timetable.

Assessment

The assessment is based on assignments, 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.

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.
Grades (Designation) Points or percentage of maximum points. Definition..

A (Excellent) 85-100. An excellent result in terms of theoretical depth, practical relevance, analytical ability and independence.

B (Very good) 75-84. A very good result in terms of theoretical depth, practical relevance, analytical ability and independence.

C (Good) 65-74. A good result in terms of theoretical depth, practical relevance, analytical ability and independence.

D (Satisfactory) 55-64. A satisfactory result in terms of theoretical depth, practical relevance, analytical ability and independence.

E (Acceptable) 50-54. A result that satisfies the minimum requirements with regard to theoretical depth, practical relevance, analytical ability and independence.

U (Inadequate/Fail) 0-49. An inadequate result in terms of theoretical depth, practical relevance, analytical ability and independence.

To pass the course, the students must have been awarded the grade of E or higher.

Grading rules

Exam assessment

The grades A to E and U are applied to exams which are awarded *different passing grades*.

The grades U and G (Fail and Pass) are applied to exams which are *not awarded different passing grades*.

Course assessment

A grade for the entire course is awarded when all exams included in the course have been passed. The assessment is based on all the exams that have been awarded the grades A to E and U and the numbers assigned to the letters according to the following list: A = 15, B = 14, C = 13, D = 12, E = 11.

The exams with different passing grades are weighted according to the following formula:

The number of credits for the exam is multiplied with the value of the grade according to the list above. The total value is then divided by the total number of credits for the exams included. The resulting average is then rounded off to the nearest whole number and the number indicates the relevant course grade in the list above.

Exams awarded the grades of U and 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: Mathematics C and Social Studies A. English B (advanced) proficiency

Further information

SYSA11 is a programme-specific course and only students on the BSc in Design of Information Systems are admitted.

SYSA11 may not be included in a degree together with SYSA01, INFA16 or the equivalent.

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

9 March 2012: In the third point under Knowledge and understanding- ICT (information and communication systems) - has been changed to- ICT (information and communication technology). Editorial changes.

13 April 2012: Addition of Stanelius, M. in the reading list.

3 May 2012: General editorial changes.

11 June 2013: The exam- IS project design is renamed- IS project software development (no changes to content)

13 May 2015: New learning outcome under Competence and skills- "execute assignments within given time frames". The module "Introduction to Information Systems" is renamed "Information Systems as a Subject". New set of exams from the autumn semester 2015.

Subcourses in SYSA11, Informatics: Introduction to Information Systems

Applies from H16

1601 Information Systems as a Subject, Written Exam, 2,0 hp
Grading scale: Fail, Pass
Individual exam with focus on ICT.

1602 Information Systems as a Subject, Paper, 3,0 hp
Grading scale: Fail, E, D, C, B, A
Group paper in the subject area of information systems.

1603 Business Management and Information Systems, Written Exam, 3,0 hp
Grading scale: Fail, E, D, C, B, A
Individual exam with focus on business and management.

1604 Business Management and Information Systems, Assignments, 3,0 hp
Grading scale: Fail, Pass
Group assignments. Case.

1605 Systems Analysis and Modelling, Written Exam, 3,0 hp
Grading scale: Fail, E, D, C, B, A
Individual exam with focus on modelling.

1606 Systems Analysis and Modelling, Assignments, 3,0 hp
Grading scale: Fail, E, D, C, B, A
Group assignments with focus on modelling.

1607 Software Development, Written Exam, 3,0 hp
Grading scale: Fail, E, D, C, B, A
Individual exam with focus on object oriented programming in Java.

1608 Software Development, Assignments, 3,0 hp
Grading scale: Fail, Pass
Individual assignments with focus on object oriented programming in Java.

1609 IS Project, ICT- and business assignment, 2,0 hp
Grading scale: Fail, E, D, C, B, A
Group assignment. Project work focused on ICT and business.

1610 IS Project, Process and Modelling Assignment, 2,0 hp
Grading scale: Fail, E, D, C, B, A
Group assignment. Project work focused on processes and modeling.

1611 IS Project, Software Development Assignment, 2,0 hp
Grading scale: Fail, E, D, C, B, A
Group assignment. Project work focused on software development.

1612 IS as a Subject, Learning Portfolio and Assignments, 1,0 hp
Grading scale: Fail, Pass
Individual assignment. Reflective learning portfolio of all assignments included in the course.

Applies from H15

1501 Information Systems as a Subject, Assignments, 1,0 hp
Grading scale: Fail, Pass
Individual assignment

1502 Information Systems as a Subject, Course Article, 3,0 hp
Grading scale: Fail, E, D, C, B, A
Group assignment

1503 Business and Information Systems, Written Exam, 3,0 hp
Grading scale: Fail, E, D, C, B, A
Individual assignment

1504 Business and Information Systems, Assignments, 1,0 hp
Grading scale: Fail, Pass
Group assignment
1505 Systems Analysis and Modelling, Written Exam, 2,0 hp
Grading scale: Fail, E, D, C, B, A
Individual assignment
1506 Systems Analysis and Modelling, Assignments, 3,5 hp
Grading scale: Fail, Pass
Group assignment
1507 Systems Analysis and Modelling, Business Processes, Assignm., 2,5 hp
Grading scale: Fail, Pass
Group assignment
1508 Software System Construction, Written Exam, 3,5 hp
Grading scale: Fail, E, D, C, B, A
Individual assignment
1509 Software System Construction, Assignments, 1,0 hp
Grading scale: Fail, Pass
Individual assignment
1510 Information and Communication Systems, Written Exam, 1,0 hp
Grading scale: Fail, E, D, C, B, A
Individual assignment
1511 IS Project, Business Processes, 1,5 hp
Grading scale: Fail, E, D, C, B, A
Group assignment
1512 IS Project, Systems Analysis and Modelling, 1,5 hp
Grading scale: Fail, E, D, C, B, A
Group assignment
1513 IS Project, Software System Construction, 1,5 hp
Grading scale: Fail, E, D, C, B, A
Group assignment
1514 IS Project, Information and Communication Systems, 1,0 hp
Grading scale: Fail, E, D, C, B, A
Group assignment
1515 IS Project, Course Subject, Oral Presentation, 1,0 hp
Grading scale: Fail, Pass
Individual assignment
1516 IS Project, Feedback and Reflection, 1,0 hp
Grading scale: Fail, E, D, C, B, A
Group assignment
1517 Learning Portfolio and Assignments, 1,0 hp
Grading scale: Fail, Pass
Individual assignment