

SYSB13, Information Systems: IS and Business Development, 30 credits

*Informationssystem: IS- och verksamhetsutveckling, 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 2016-10-28. . The revised syllabus applied from 2017-08-29. , autumn semester 2017.

General Information

The course makes up the third semester of the BSc programme in Design of Information Systems or can be taken as a freestanding course.

Language of instruction: Swedish

Required reading in English may be included.

Main field of studies

Informatics

Information Systems

Depth of study relative to the degree requirements

G1F, First cycle, has less than 60 credits in first-cycle course/s as entry requirements

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Learning outcomes

On completion of the course, the student shall have obtained specialised knowledge of and skills in the design of organisations and information systems (IS), focusing particularly on process design, data modelling and change of ERP (Enterprise Resource Planning) systems. Furthermore, the student shall have acquired basic understanding of financial control and financial systems and their connection to ERP systems and organisational development. Finally, the student shall have acquired specialised knowledge of and skills in project work in IS design.

Knowledge and understanding

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

- the use of standard frameworks and ERP for the standardisation of organisational structures and processes
- tools for the automatisisation and/or support of transaction-intensive activities
- implications of introducing a database system for activities and organisations
- implications of introducing a business system for activities and organisations
- the use of a DBMS (Database Management System) as tools for strategy and control in activities and organisations
- parametric control as change of an ERP system
- the use of business systems as tools of strategy and control in activities and organisations
- conflicts between organisations, individuals and ICT (Information and Communication Technology) systems that can be caused by standard products such as ERP
- database modelling, design and implementation of database systems as a part of enterprise architecture (EA)
- ERP and standard frameworks as manifestations of EA (Enterprise Architecture)
- EA as a structure for service-oriented organisational design
- process modelling as part of EA
- basic concepts and models within strategy, financial control and financial systems
- financial control instruments
- different types of units for financial accountability
- design and use of financial systems.

Competence and skills

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

- analyse existing process in a business system (ERP), design a change of the process and introduce the changed process in the existing ERP system
- design and present process models and plans as documentation for a dialogue about change management
- analyse the organisation from the perspective of persistent storage requirements
- apply database modelling to information storage, retrieval and protection of data
- design a database system that can manage large sets of data in accordance with a set database model
- plan the introduction of a database system
- apply simple process modelling to the change of an ERP system with a relevant modelling tool/MDD (Model Run Development) tool
- design and present EA models and plans as documentation for a dialogue about change management
- plan the change of an ERP system as a project using a project support tool
- communicate problems and solutions in both speech and writing
- analyse the strategy, financial control and financial system of a company
- apply basic control tools within strategy, financial control and financial systems in order to identify and solve problems
- identify problems of financial control and financial systems and propose changes to the systems
- identify information risks and propose ways of addressing them
- write a report that describes an IS project and includes individual reflections

- discuss key areas and issues in the required reading.

Judgement and approach

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

- analyse and assess a changed process from the perspectives of efficiency, benefits and use/acceptance/impact on staff
- analyse and assess plans for a project and the internal process of a working group
- assess information systems from a safety and risk perspective
- independently reflect on their own learning process and assess their own change process and goal attainment.

Course content

The course includes

- process modelling
- database design
- enterprise systems
- financial control
- risk analysis
- enterprise architecture
- project methodology
- information system projects
- information security.

Modules

Databases,
Business process management,
Enterprise systems in theory,
Enterprise systems in practise,
Enterprise architecture,
Information security,
IS project.

Course design

The teaching consists of lectures, lessons, seminars, and laboratory exercises.

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

Assessment

The assessment is based on a written exam, an IS project report and written assignments.

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.

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

General and completed course: "Informatics: Introduction to Information Systems, 1-30 cr" or the equivalent.

Further information

SYSB13 may not be included in a degree together with INFB03 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 adviser for an individual assessment.

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

Amendments

2015-12-04: Added that the course includes compulsory components and that attendance on the introduction meeting is compulsory.

2016-06-03: New grading rule from Autumn term 2016. Updated reading list and new set of exams from Autumn term 2016.

2016-09-23: Change in module names and set of exams from Autumn term 2016.

2016-10-28: Updated the syllabus so that it can be announced as an freestanding course, i.e. removed SYSA12 from the requirements and deleted information indicating that the course can only be read in the BSc programme in Design of Information Systems.

Subcourses in SYSB13, Information Systems: IS and Business Development

Applies from H16

- 1601 Databases, Written Exam, 3,0 hp
Grading scale: Fail, E, D, C, B, A
Individual exam.
- 1602 Databases, Assignments, 4,0 hp
Grading scale: Fail, E, D, C, B, A
Group assignment.
- 1603 Business Process Management, Written Exam, 3,0 hp
Grading scale: Fail, E, D, C, B, A
Individual exam.
- 1604 Business Process Management, Assignments, 3,0 hp
Grading scale: Fail, E, D, C, B, A
Group assignment.
- 1605 Enterprise Systems in Theory, Written Exam, 2,0 hp
Grading scale: Fail, E, D, C, B, A
Individual assignment.
- 1606 Enterprise Systems in Practise, Assignments, 3,0 hp
Grading scale: Fail, Pass
Group assignment.
- 1607 Enterprise Architecture, Written Exam, 2,0 hp
Grading scale: Fail, E, D, C, B, A
Individual assignment.
- 1608 Enterprise Architecture, Written Take-Home Exam, 2,0 hp
Grading scale: Fail, E, D, C, B, A
Individual take-home exam.
- 1609 Information Security, Assignments, 1,0 hp
Grading scale: Fail, Pass
Group assignment.
- 1610 IS Project, Report, 6,0 hp
Grading scale: Fail, E, D, C, B, A
Group assignment.
- 1611 Mandatory Assignments and Learning Portfolio, 1,0 hp
Grading scale: Fail, Pass
Individual assignment.

Applies from H13

- 1301 Enterprise Architecture, Written Examination, 1,0 hp
Grading scale: Fail, E, D, C, B, A
Individual exam.
- 1302 IS Project, Enterprise Architecture, 3,0 hp
Grading scale: Fail, Pass
Group assignment.
- 1303 Databases, Written Examination, 3,0 hp
Grading scale: Fail, E, D, C, B, A
Individual exam.
- 1304 IS Project, Databases, 4,0 hp
Grading scale: Fail, E, D, C, B, A

- Group assignment.
- 1305 Business Process Modelling, Written Examination, 2,0 hp
Grading scale: Fail, E, D, C, B, A
Individual exam.
- 1306 IS Project, Business Processes, 4,0 hp
Grading scale: Fail, E, D, C, B, A
Group assignment.
- 1307 Management Control Systems, Written Examination, 3,0 hp
Grading scale: Fail, E, D, C, B, A
Individual exam.
- 1308 Enterprise Systems, Written Examination, 2,0 hp
Grading scale: Fail, E, D, C, B, A
Individual exam.
- 1309 IS Project, Enterprise Systems, 3,0 hp
Grading scale: Fail, Pass
Group assignment.
- 1310 Information Security, Written Examination, 1,0 hp
Grading scale: Fail, E, D, C, B, A
Individual exam.
- 1311 IS Project, Report, 3,0 hp
Grading scale: Fail, E, D, C, B, A
Group assignment.
- 1312 Mandatory Assignments and Learning Portfolio, 1,0 hp
Grading scale: Fail, Pass
Individual assignment.