

# Syllabus

for course at advanced level

**System Integration of IT Business Information Systems**  
**Systemintegration av IT-baserade affärssystem**

**7.5 Higher Education**  
**Credits**  
**7.5 ECTS credits**

<b>Course code:</b>	IB476C
<b>Valid from:</b>	Spring 2018
<b>Date of approval:</b>	2011-11-18
<b>Changed:</b>	2017-11-24
<b>Department</b>	Department of Computer and Systems Sciences
<b>Main field:</b>	Computer and Systems Sciences
<b>Specialisation:</b>	A1N - Second cycle, has only first-cycle course/s as entry requirements

## Decision

This syllabus was approved by the Head of the Department 2011-11-18.  
This syllabus was updated 2017-10-27

## Prerequisites and special admittance requirements

90 ECTS in Computer and Systems Sciences (or the equivalent), of which at least:  
7.5 ECTS Databases  
7.5 ECTS Programming

## Course structure

Examination code	Name	Higher Education Credits
SYSR	System integration and business information systems, project	3.5
SYSS	System integration and business information systems, exam	4

## Course content

System integration is becoming more important in the engineer's every-day work. Today, there is almost no project that does not pose requirements for integration of data, services, or processes among different information systems. Most of enterprises have, historically, the systems that cannot communicate in a transparent way. Another motivation is that an enterprise needs to integrate its systems with other enterprises or organizations. The objective of this course is to bring in core as well as advanced concepts, methods and techniques needed in solving the problem of system integration. Additionally, the course provides an understanding of the main challenges in system integration nowadays, by giving the students experience in integrating several systems into a single business system, services, Internet and Social Networks.

## Learning outcomes

Upon successful completion of the course, the student should be able to:

- Explain core approaches for integration of Information Systems (IS) and their relationships
- Explain detailed concepts, methods and patterns for integration of IS.
- Design a system integration solution based on the SI approaches, respective concepts, methods and patterns.
- Create a system integration solution according to different approaches, using an advanced integration tool.

## Education

The language of instruction is English. The teaching activities in the course are: lectures, exercises, laboratory

works, supervision sessions and seminars. Participation in certain seminars is mandatory. The students can complete the mandatory seminars afterwards if they cannot participate.

### **Forms of examination**

a. The course is examined through a written examination and a project work. The project work must be completed and submitted by the deadlines listed in the course schedule. A missed or incomplete project work can be re-submitted at a scheduled time window. Alternatively, the student will have to follow the schedule of next instance of the course.

b. The final grading of the course is based on the following grading scale related to the learning outcomes of the course: A = Excellent, B = Very Good, C = Good, D = Satisfactory, E = Sufficient, Fx = Fail, F = Fail.

c. The grading criteria are communicated to the students at the start of the course.

d. In order to complete the whole course segment the student must obtain at least grade E (or P with Pass/Fail grades) in all course components/examinations.

If there are multiple examinations with grading A to F, the average of the grades is calculated by converting letters into numbers in the following way: A = 4, B = 3, C = 2, D = 1, E = 0. The average is calculated relatively to the number of credits of the various components/examinations and the number of credits of the course. The final grade of the course is thus a weighted average of the course components/examinations. If the average is in between two grades, 2/3 parts of the higher grade are required in order to round up the average.

e. In addition the following regulations also apply:

- Students who obtain grade Fx in a written examination task are allowed to complete a supplementary assignment in order to elevate the grade to E.

The examiner informs the concerned students when the results of the written examination are published. The supplementary assignment has to be submitted within a given deadline and can only be utilized to elevate the grade of the actual examination task.

- Students who obtained grade E in an examination task are not allowed to re-write the examination or resubmit the assignment in order to obtain a higher grade.

- Students who have failed the same examination task twice are allowed to have another examiner appointed, unless there are special reasons to the contrary.

### **Interim**

When a course is discontinued, or its contents are substantially altered, the following applies:

- Failed examination tasks are replaced with other similar examination tasks according to a specific plan.

- If no similar examination tasks can be provided, at least three examination opportunities per examination task should be offered during a period of at least three terms from the date of the decision. After this period, no examinations should be carried out on the course.

### **Limitations**

This course may not be included in a degree together with a course, taken in Sweden or elsewhere, of identical or partially similar content.

### **Required reading**

Information about course literature is available on the department's website - [www.dsv.su.se](http://www.dsv.su.se) - at least two months before the start of the course.