



Course syllabus

Faculty Board of Science and Engineering

School of Computer Science, Physics and Mathematics

2IK013 Informationssystemarkitektur, 7,5 högskolepoäng

2IK013 Systems and Software Architecture, 7.5 credits

Main field of study

Informatics

Subject Group

Informatics/Computer and Systems Sciences

Level of classification

First Level

Progression

G1F

Date of Ratification

Approved by Organisational Committee 2009-12-01

The course syllabus is valid from autumn semester 2010

Prerequisites

30 Higher Education Credits at the level 31-60 higher education credits in information systems science, computer science and basic knowledge of system- and software design or the equivalent

Objectives

After completing this course the student should be able to:

- implementation of strategic systems and architectural planning of the organizations in seminars
- from a lifecycle perspective implement architectural design of systems, software and component level
- discuss existing methods and approaches need for methodological development
- be familiar with the role of infrastructures and organizational systems design and to determine informationssystemarchitectures and IT infrastructures importance as an instrument of strategic IS / IT planning.

Content

The course covers relevant issues which highlight the strategic architecture planning and its importance to organizations.

Theoretical and empirical models for the architectural design of systems, software and component-level life cycle thinking are discussed. In the context of the different models discussed existing practice approaches and the need for methodological development.

Sections within the course deals with concepts and techniques as information architectures, software architectures, component architectures, design aspects, infrastructures and the role of organizational system design.

A special section devoted to informationssystemarchitectures and IT infrastructures importance as an instrument of strategic IS / IT planning.

Type of Instruction

Lectures and mandatory seminars.

Examination

The course is assessed with the grades Fail (U), Pass (G) or Pass with Distinction (VG).

On request, students may have their credits translated to ECTS-marks. Such a request must be sent to the examiner before the grading process starts.

Assessment of the student's performance is by written and / or oral and / or mandatory reporting of practical information. The principal form of examinations is determined at the start of the course.

Students who do not pass the regular examination are given the opportunity to do a resit examination shortly after the regular examination.

Course Evaluation

A written course evaluation will be carried out at the end of the course in accordance with the guidelines of the University. The course evaluation will be filed at the department.

Other

On request, a Swedish University course certificate will be awarded upon successful completion of the course.

Required Reading and Additional Study Material

Required reading

Barroca, L., Hall, J. & Hall, P. (Eds., *Software Architectures Advances and Applications*, Springer-Verlag, 2000. 280 pages.

MSI, SSARK – *Selected Scientific Papers Collection Architectural views – dokumentsamling*, Växjö Universitet, 2007. 300 pages.