



Course syllabus

Faculty Board of Science and Engineering
School of Computer Science, Physics and Mathematics

2DV104 Programvaruarkitekturer, 7,5 högskolepoäng
Software Architectures, 7.5 credits

Main field of study

Computer Science

Subject Group

Informatics/Computer and Systems Sciences

Level of classification

First Level

Progression

G2F

Date of Ratification

Approved by Organisational Committee 2009-09-08

The course syllabus is valid from spring semester 2010

Prerequisites

Prerequisites for this course are fundamentals in objectoriented programming and modeling, and fundamentals of software engineering. (1DV101), Object Oriented Software Engineering, 15 higher education credits, (1DV102), Software Engineering - Proccess, 15 higher education credits or equivalent

Expected learning outcomes

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

- describe and explain concepts, principles, techniques, and methods for design, analysis, and maintenance of software architectures
- Individually or in groups design and document soft-ware architectures
- describe and explain the connection between software architecture and software quality
- describe and explain software architectures may assist in software reuse
- master advanced software architecture design principles

Content

The course comprises:

- software architectures
- architecture description and views
- architectural styles and patterns
- product-line architectures

- software architecture design and evaluation

Type of Instruction

Teaching consists of lectures, seminars and practical work. Practical work is carried out in groups or individual. Attendance at some activities is mandatory.

Examination

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

The examination is based on a number of assignments. 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.

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.

Required Reading and Additional Study Material

Required reading

Bass, L. et al, *Software Architecture in Practice* 2nd ed. Addison-Wesley, 2003.
Pages 300 (450).