



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 the Board of the School of Computer Science, Physics and Mathematics
2009-09-08

Revised 2010-08-04. Revision of prerequisites and course evaluation.

The course syllabus is valid from spring semester 2011

Prerequisites

(1DV101), Object Oriented Software Engineering, 15 credits or (1DV102), Software Engineering - Proccess, 15 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 software 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 course evaluation will be carried out at the end of the course in accordance with the guidelines of the University. The result of 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).