



Course syllabus

Faculty of Technology
Department of Computer Science

2DV604 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 Faculty of Technology 2015-05-22
The course syllabus is valid from spring semester 2016

Prerequisites

(1DV101), Object Oriented Software Engineering, 15 credits or (1DV102), Software Engineering - Process, 15 credits or equivalent.

Objectives

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

- explain and apply software architecture concepts,
- describe software architecture design and evaluation methods
- perform basic software architecture design and evaluation
- explain and apply advanced software architecture design principles.
- describe and apply software architectures documentation concepts and strategies
- explain the connection between software architecture and software quality
- describe how software architectures may assist in software reuse

Content

The course comprises:

- introduction to software design and software architectures
- introduction to software architecture concepts
- overview of architecture description techniques and architectural views
- architectural styles and patterns
- software product-line concepts and its 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 A, B, C, D, E, Fx or F.

The grade A constitutes the highest grade on the scale and the remaining grades follow in descending order where the grade E is the lowest grade on the scale that will result in a pass. The grade F means that the student's performance is assessed as fail (i.e. received the grade F).

The examination is based on a number of assignments.

Course Evaluation

During the course or in close connection to the course, a course evaluation is to be carried out. The result and analysis of the course evaluation are to be communicated to the students who have taken the course and to the students who are to participate in the course the next time it is offered. The course evaluation is carried out anonymously. The compiled report will be filed at the Faculty.

Credit Overlap

This course cannot be part of a degree in combination with another course in which the content fully or partly correspond to the content of this course: 2DV104 Software Architectures, 7.5 credits

Other

Grade criteria for the A–F scale are communicated to the student through a special document. The student is to be informed about the grade criteria for the course by the start of the course at the latest.

Required Reading and Additional Study Material

Required reading

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