



COURSE SYLLABUS

Software Quality and Project Management, 7.5 credits

Mjukvarukvalitets- och projektstyrning, 7,5 högskolepoäng

Course Code:	TMPD28	Education Cycle:	Second-cycle level
Confirmed by:	Dean Jun 30, 2008	Disciplinary domain:	Technology (95%) and social sciences (5%)
Valid From:	Aug 1, 2010	Subject group:	DT1
Version:	1	Specialised in:	A1F
		Main field of study:	Computer Engineering, Informatics

Intended Learning Outcomes (ILO)

On completion of the course, the student should

- understand the main tasks of software project management and software quality management, and the integration between both areas
- have developed an ability to develop and optimize project plans, quality plans and project organization
- understand the specifics of process and product quality and be able to apply techniques for quality control
- have an overview on techniques in risk management, cost estimation, quality evaluation techniques and staff competences
- have detailed knowledge in one selected area of software quality and project management.

Contents

Software development projects should terminate “on time”, without exceeding the project budget and delivering the desired result in the right quality. Software quality management and software project management help to reach these objectives. This course examines advanced approaches in this field. In the context of software quality this includes defining and assessing software quality as well as appropriate management systems. Furthermore, the relationship to software project management is investigated.

The course includes the following topics:

- Fundamentals of quality management
- Standards for software process improvement (CMM, SPICE)
- Functional and non-functional quality features of software
- Defining and assessing software quality
- Software project management
- Software risk management
- Software cost estimation

Type of instruction

Lectures, lab work, seminars and home assignments.

The teaching is conducted in English.

Prerequisites

According to the eligibility rules of the Master's programme or equivalent. Furthermore, completed courses in Software Engineering Methods, Knowledge Modelling and Knowledge Management, Enterprise Modelling, Research and Inquiry Method. Experience in software development and programming (or the equivalent).

Examination and grades

The course is graded Fail (U), 3, 4 or 5.

The course uses the report grades A, B, C, D, E, FX, F for international students.

Registration of examination:

Name of the Test	Value	Grading
Examination	4.5 credits	U/3/4/5
Exercises and Assignments	3 credits	U/3/4/5

Course literature

Literature

There will be no main textbook, but a collection of readings from different books. Examples are:

Title: APPLIED SOFTWARE MEASUREMENT - ASSURING PRODUCTIVITY AND QUALITY

Author: Capers Jones

Publisher: McGraw-Hill

ISBN: 0070328137

Title: ASSESSMENT AND CONTROL OF SOFTWARE RISKS

Author: Capers Jones

Publisher: Englewood Cliffs, N.J Yourdon Series

ISBN: 0-13-741406-4

Title: EVALUATING SOFTWARE ARCHITECTURES - METHODS AND CASE STUDIES

Author: Hp.Clements, R.Kazman, M.Klein

Publisher: Addison-Wesley

ISBN:

Title: SOFTWARE ECONOMICS

Author: B. Boehm

Publisher: Englewood Cliffs, N.J: Prentice-Hall

ISBN: 0138221227

Title: SOFTWARE ENGINEERING. 7 edition

Author: Ian Sommerville

Publisher: Addison Wesley

ISBN: 0-321-21026-3

Additional material will be announced at the beginning of the course.