Blekinge Institute of Technology
School of Computing

COURSE SYLLABUS

Avancerad projektstyrning inom programvarutillverkning

Advanced Software Project Management

7,5 ECTS credit points (7,5 högskolepoäng)

Course code: PA2414
Educational level: Advanced level
Course level: A1N
Field of education: Technology
Subject group: Computer Technology

Subject area: Software Engineering
Version: 6
Applies from: 2011-08-29
Approved: 2011-06-10

1 Course title and credit points

The course is titled Advanced Software Project Management/Avancerad projektstyrning inom programvarutillverkning and awards 7,5 ECTS credits. One credit point (högskolepoäng) corresponds to one credit point in the European Credit Transfer System (ECTS).

2 Decision and approval

This course is established by School of Computing 2007-08-24. The course syllabus was revised by School of Computing and applies from 2011-08-29. Reg no TEK56-284/07

3 Objectives

Most software is today developed in teams. It is therefore vital that software engineers have detailed knowledge and skills to manage and work effectively in project teams.
The objective with this course is to provide the participants with a strong theoretical foundation in the field of general project management, behavioral sciences and organizational studies in connection to software project management (SPM) issues. This course assumes that the participants already have practical knowledge from project participations.

4 Content

The course is built around four blocks:
• Project management
• Organizational theory
• Leadership
• Behavioral sciences
Regarding Project Management (PM), the participants are introduced to the history of PM, concepts and applications, and PM in the context of software development, i.e. SPM.
Concerning organizational theory, the participants are introduced to both macro theories (institutional, evolutionary, networks, etc.) and micro theories (cognitive, motivation, group, etc.)
In the leadership block, topics such as leadership types, classifications and terminologies are introduced and discussed.
With respect to behavioral sciences the role of the individual in a project context is examined and theories covering, in particular, decision science (psychology, management, etc.) are introduced and their role in project management is discussed.

5 Aims and learning outcomes

On completion of the course the student will be able to:
• Independently describe, and in a group, discuss the area of project management (history, standards, definitions etc.) and name a number of key issues.
• Independently describe, and in a group, discuss the area of organizational theory and how it applies to SPM.
• Independently describe and, in a group, discuss the area of behavioral sciences and their connection to SPM.
• Independently describe and, in a group, discuss the role of the leader in different types of organizations.
• Independently describe, compare and contrast different leadership types such as e.g. situational leadership.
• Independently develop an understanding of the key problems and benefits associated with managing people.
• In a group compare and contrast the different methods and techniques used to assure the quality of a software product in a SPM.

6 Generic skills

The following generic skills are trained in the course:
• Planning and time management
• Critical thinking
• Information search
• Problem solving

• Analytical ability
• Team work

7 Learning and teaching
The course is structured around a number of lectures, guest lectures and workshops. The course starts with an introductory lesson and then consists of a series of lectures where a number of topics (see Section 4) are introduced to the participants. During each lecture additional time is spent on discussions and team assignments. Each participant must, individually, submit two written assignments in addition to the written exam.
The teaching language is English.

8 Assessment and grading
Examination of the course

Code	Module	Credit	Grade
	Written examination	3.5 ECTS	U/G/VG
	Assignement 1	2 ECTS	U/G/VG
	Assignement 2	2 ECTS	U/G/VG

The course will be graded Fail, Pass or Pass with Distinction.The total grade is based on a weighted average (e.g. the written exam is worth 3.5/7.5th of the total grading).
On request grades according to ECTS will be given.

9 Course evaluation
The course coordinator is responsible for systematically gathering feedback from the students in course evaluations and making sure that the results of these feed back into the development of the course.

10 Prerequisites
Bachelor of Science with a major in Computer Science or Software Engineering.

11 Field of education and subject area
The course is part of the field of education and is included in the subject area Software Engineering. The course can also be included in the subject area Computer Science.

12 Restrictions regarding degree
The course cannot form part of a degree with another course, the content of which completely or partly corresponds with the contents of this course.

13 Course literature and other teaching material
1. IEEE Std. 1490-2003. Adoption of PMI Standard A Guide to the Project Management Body of Knowledge (PMBOK® Guide)
Author: IEEE
Publisher: IEEE
Published: 2003
ISBN: 1-930699-45-X
2. Guide to the Software Engineering Body of Knowledge (SWEBOK), 2004 version
Author: Tripp, L. L. et al.
Publisher: IEEE
Published: 2004
ISBN: 0769523307
3. Management of Organizational Behavior: Leading Human Resources
Author: Blanchard, K. and Heresy, P.
Publisher: Prentice Hall
Published: 2001
ISBN: 0130175986
4. On Becoming a Leader: The Leadership Classic
Author: Bennis, W. G.
Publisher: Perseus Publishing
Published: 2003
ISBN: 0738208175
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