



COURSE SYLLABUS

Agile och Lean Mjukvaruutveckling

Agile and Lean Software Development

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

Course code: PA2555

Educational level: Second cycle

Course level: A1N

Field of education: Technology

Subject group: Computer Technology

Subject area: Software Engineering

Version: 5

Applies from: 2017-08-01

Approved: 2017-04-24

1 Course title and credit points

The course is titled Agile and Lean Software Development/Agile och Lean Mjukvaruutveckling 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 Dean 2016-09-01. The course syllabus was revised by Head of Department of Software Engineering and applies from 2017-08-01.

Reg.no: BTH-4.1.1-0755-2017

3 Objectives

The aim of the course is to offer an overall training in agile and lean that prepares campus students to practically evaluate the potential of agile / lean, plan the implementation of agile / lean, and realize agile and lean in an agile environment.

4 Content

The course consist of three modules:

Create an agile project

Reflect and describe the differences between various agile approaches

Create a value stream mapping

5 Aims and learning outcomes

Knowledge and understanding

On completion of the course the student should be able to:

- In general be able to describe basic concepts and goals, common practices and tools as agile enablers and constraints.
- Be able to thoroughly explain various agile frameworks, their differences, similarities, advantages and disadvantages.

- Be able to build a value stream mapping based on a chosen process within an operation.

Skills and abilities

On completion of the course the student should be able to:

- In detail be able to apply an agile framework with those definitions that are used within the agile context.
- Be able to plan and create a project using agile methods.
- Do a critically review on an agile project and explain the differences between various solutions.
- Be able to apply a value stream mapping on a process, taken from a selected activity.

Values and attitudes

On completion of the course the student should be able to:

- Provide a general explanation that justify agile/lean development of a business.

6 Learning and teaching

The course begins with an introduction of the subject area and then consist of a series of seminars with a workshop structure, this while the students runs a project. The project is divided into a number of sprints, where students are expected to conduct a Demo as a delivery. The teaching within a sprint is organized around research articles, book chapters, a number of pre-recorded video lectures and some exercises in a form of questions that needs to be answered. The tasks are designed to help the student to reflect on past experiences, literature, research articles and relate them to each other. Through the course teachers are available by email and in discussion forums.

English

7 Assessment and grading

Examination of the course

Code	Module	Credit	Grade
1710	Project assignment	1.5 ECTS	G-U
1720	Written report [1]	3 ECTS	G-U
1730	Written report [2]	3 ECTS	G-U

The course will be graded G Pass, UX Fail, supplementation required, U Fail. Submission of reports and assignments will be managed with a month as interval, exact date will be announced at the start of the course.

8 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.

9 Prerequisites

Completed courses of at least 120 ECTS credits of which 90 credits must be in the following areas: Software Engineering or Computer Science. In addition, a completed course of at least 7.5 credits in Software Engineering or a Team Software Engineering Project is required.

10 Field of education and subject area

The course is part of the field of education and is included in the subject area Software Engineering.

11 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.

12 Course literature and other teaching material

Agile and Lean Development of Software Intensive Products - material from the department about 500 pages.

Reference literature:

M. Cohn "Succeeding with Agile", Addison Wesley, 2010, ISBN-10: 0-321-57936-4, ISBN-13

987-0-321-57936-2. J. Rasmusson "The Agile Samurai", Pragmatic Bookshelf, 2010. ISBN-10: 1934356581 | ISBN-13: 978-1934356586.

