COURSE SYLLABUS

Global mjukvaruutveckling
Global Software Engineering
4 credits (4 högskolepoäng)

Course code: PA1466
Main field of study: Software Engineering
Disciplinary domain: Technology
Education level: First cycle
Specialization: G1F - First cycle, has less than 60 credits in first cycle course/s as entry requirements

Subject area: Computer Technology
Language of instruction: English
Applies from: 2021-01-18
Approved: 2020-10-01

1. Decision

This course is established by Dean 2018-05-22. The course syllabus is approved by Head of Department of Software Engineering 2020-10-01 and applies from 2021-01-18.

2. Entry requirements

Admission to the course requires completed course Software Engineering, 6 credits.

3. Objective and content

3.1 Objective

Software is nowadays developed by engineers distributed across multiple companies and locations. This type of environment poses different challenges than the traditional, one-roof collocated projects. Modern software engineers shall be familiar with such challenges and the practices associated with distributed work. The aim of the course is to provide knowledge and understanding of global software projects, with respect to communication, collaboration and coordination of activities, and the importance of interpreting and sensitively exploit diversity (incl. cultural, and organizational) in a professional career. The course will illustrate the state-of-the-art knowledge in the field and focus on practical classroom-based exercises and industrial case studies as a source of reflection and learning.

3.2 Content

The course covers the following topics:
• Global teamwork: Tools, communication, and coordination practices in different types of distributed software development projects.
• Global project management: Basics of organizing distributed software development projects.
• Feasibility of global projects: Fundamentals of measuring costs and benefits in distributed software development projects.

4. Learning outcomes

The following learning outcomes are examined in the course:

4.1 Knowledge and understanding

On completion of the course, the student will be able to:
• Understand the risks associated with global software development.

4.2 Competence and skills

On completion of the course, the student will be able to:
• Apply remote communication and coordination tools and practices to the development of software in a global setting.

4.3 Judgement and approach

On completion of the course, the student will be able to:
• Present, discuss, and select suitable methods/tools to reduce risks in the context of global software development projects.

5. **Learning activities**

The teaching consists of lectures and practical exercises in which students are expected to participate through discussions, questions, and personal experiences. The course includes compulsory assessments with fixed deadlines. The students are expected to work individually in two assessments, and in groups for a project assignment.

The course begins with an introductory lecture and continues with a series of lectures where a number of topics are introduced and illustrated with practical exercise. In the assessment tasks 1 and 2, the students are expected to reflect on their personal experience from the practical exercises. The practical exercises, followed by a written report, are run only once during the course and will not be repeated on demand. The assessment tasks can be substituted. Each lecture includes time for discussions and reflections. Teaching language and materials are in English.

6. **Assessment and grading**

Modes of examinations of the course

Code	Module	Credits	Grade
2105	Written report	1 credits	AF
2115	Project assignment	3 credits	AF

The course will be graded A Excellent, B Very good, C Good, D Satisfactory, E Sufficient, FX Fail, supplementation required, F Fail.

The course-PM for each course revision should include the assessment criteria and make explicit in which modes of examination that the learning outcomes are assessed.

An examiner can, after consulting the Disability Advisor at BTH, decide on a customized examination form for a student with a long-term disability to be provided with an examination equivalent to one given to a student who is not disabled.

7. **Course evaluation**

The course evaluation should be carried out in line with BTH:s course evaluation template and process.

8. **Restrictions regarding degree**

The course can form part of a degree but not together with another course the content of which completely or partly corresponds with the contents of this course.

9. **Course literature and other materials of instruction**

Global IT Outsourcing: Software Development across Borders, by S. Sahay, B. Nicholson and S. Krishna, Cambridge University Press, 2003.

Integrating Agile with an Offshore Strategy: A practical kit for adopting agile methods in distributed projects and teams, by D. Smite, N.B. Moe and V. Stray, LeanPub publisher, 2018.