



COURSE SYLLABUS

Global programvaruteknik Global Software Engineering 7.5 credits (7,5 högskolepoäng)

Course code: PA1471

Main field of study: Software Engineering

Disciplinary domain: Technology

Education level: First cycle

Specialization: G2F - First cycle, has at least 60 credits in first cycle course/s as entry requirements

Subject area: Computer Technology

Language of instruction: English

Applies from: 2019-09-02

Approved: 2019-05-20

1. Decision

This course is established by Dean 2019-04-30. The course syllabus is approved by Head of Department of Software Engineering 2019-05-20 and applies from 2019-09-02.

2. Entry requirements

Admission to the course requires completed courses of at least 60 credits in the area of Software Engineering or Computer Science including completed course(s) in Software Engineering and Team Software Engineering Project corresponding to 15 credits.

3. Objective and content

3.1 Objective

Many software development products are nowadays developed by the effort of engineers distributed across multiple companies and/or locations. This type of environment is recognized to be significantly distinct from one-roof collocated projects, and therefore modern software engineers shall be familiarized with the challenges and practices associated with distributed work. The aim of the course is to provide knowledge and understanding of the specificity of the global software projects in general and outsourcing in particular, 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 distributed projects
- Global project management: Basics of organizing distributed projects
- Feasibility of global projects: Fundamentals of measuring costs and benefits in global project

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;
- Calculate the costs associated with distributed projects.

4.3 Judgement and approach

On completion of the course, the student will be able to:

- Present, discuss, argue and select suitable methods to reduce the risks associated with global 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 also includes compulsory assessments with fixed deadlines. The students are expected to work individually in three of these assessments, and in groups in the project assignment.

The course begins with an introductory lecture and continues with a series of lectures where a number of topics (see Contents) are introduced and illustrated with a practical exercise. In the assessment tasks 1-3 the students are expected to reflect on their personal experience from the practical exercises. Please, note that practical exercises 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.

6. Assessment and grading

Modes of examinations of the course

Code	Module	Credits	Grade
1910	Written report 2	1.5 credits	GU
1920	Written report 2	1.5 credits	GU
1930	Written report 3	1.5 credits	GU
1940	Project assignment	3 credits	GU

The course will be graded G Pass, UX Fail, supplementation required, U Fail.

All modules must be approved.

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

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.