



Course Syllabus:

Computer Engineering BA (C), Project Based Product Development, 15 credits

General data

Code	DT169G
Subject/Main field	Computer Engineering
Cycle	First cycle
Progression	C
Credits	15.00
Progressive specialisation	First cycle, has at least 60 credits in first-cycle course/s as entry requirements
Answerable department	Information Systems and Technology
Established	2018-05-29
Date of change	2018-06-21
Version valid from	2018-07-01

Aim

The student will have training in, in a group with different competencies, developing a value-creating product based on a problem description, and training in participating in a project. The project work will take place primarily based on assignments from external constituents. This means that the student will get used to cooperating with representatives from the industry and with students with other competencies.

Course objectives

The students shall be able to:

- in cooperation with others identify the need of products and services
- in cooperation with others suggest products and develop services based on users' preconditions and needs
- participate in requirements capturing and in the formulation of requirement specifications
- follow a motivated project management model
- plan and participate in a project within given time frames
- understand something about the possibilities and limitations of technology
- present the product in speech and writing
- apply knowledge from previous courses in the discipline
- make some ethical considerations

Content

- Initial exercise in innovation, requirements analysis, problem identification, search for creative solutions, competitor and market analyses, information gathering
- Intellectual property agreements: confidentiality, copyright, patents and open license forms
- Methods and tools for requirement engineering, test driven design (TDD), agile system development and version control
- Requirements gathering, problem-collection
- Project and time planning
- Requirement engineering and choice of use cases for each partial delivery (sprint)
- Unit testing, integration testing, user testing
- Selection of development tools
- Reconciliation meetings with demonstration of deliverables and presentation of test results
- Oral and written final project presentation and demonstration of prototype/demonstrator
- Documentation and presentation

Entry requirements

At least two years studies on a university level (or the equivalence of 100 credits), and of these 50 credits in the main discipline (Computer Engineering), alternatively Business Management and Organization or Information Systems, including one course in web programming.

Selection rules and procedures

The selection process is in accordance with the Higher Education Ordinance and the local order of admission.

Teaching form

The student will work in a project team which will be supervised by an external supervisor, and by an advisor appointed by the university. Open seminars will be given regularly during the course and the course will be ended with a presentation of the product / service in a final seminar.

Examination form

1.5 credits, P101: Project run-up

Selection of project, study visits*, active participation in group meetings and in writing agreements.

Grades: Pass or Fail

3.0 hp, P201: Project run-up, examined in group.

Written project plan and seminars*.

Grades: Pass or Fail

4.5 hp, P301: Project

Active participation in group meetings and written assignments.

Grades: Pass or Fail

6.0 credits, P401: Project, examined in group.

Seminars* and written report

Grades: Pass or Fail

*) Replacement assignment is in the form of a written assignment

The examiner has the right to offer alternative examination arrangements to students who have been granted the right to special support by Mid Sweden University's disabilities adviser.

Grading system

Fail (U) or Pass (G)

Course reading

Required literature

Studenterna söker för gruppen relevant material

Other information

If you have not completed P101 och P201 before the end of the third week of the course, you will lose your place on the course as the university will register an early non-completion on the course.