Offered by
ICT Engineering

IT-BPR2

1.0

Bachelor Project 2

ECTS
20

Prerequisites
BPR1, general conditions for ECTS credits.

- BPR1

Main purpose
The purpose of the Bachelor Project 2 is to evolve the student's ability to solve a relevant ICT Engineering problem and document the solution. In a group, students must be able to analyse, design, implement and test complex problems and be able to carry out well-documented and tested solutions.

Knowledge
After having completed this course, the students must master the knowledge about:

- Searching and scoping relevant project information
- Project and team work planning
- Communication and documentation skills
- Testing

Skills
After having completed this course, the student must master to:

- Identify and justify problems and their context
- Select and argue for choice of method and reflect critical and said methods
- Find and assess relevant literature within the problem domain
- Present the result for an audience of engineers

Competences
After having completed this course, the students must be able to:

- Describe and delimit a large ICT Engineering Project
- Select and use relevant theories and methods to solve the problem
- Plan and structure the project within the BPR2 time frame
- Initiate the preliminary steps in a system development process, leading to a clearly defined requirements capture, use cases as well as object and behavior analysis.
- Work successfully in a project group with the objective of solving a well-defined engineering problem.

Topics
The Bachelor Project (BPR2) is based on an ICT Engineering problem with a project description made in the BPR1 course.
The BPR2 project must contain:

- Data collection
- Brainstorm techniques
- Project methods
- Reference/citation model and literature search
- Document version control
- Requirements: How can you test the requirements, which test results do you expect for each test case.
- Analysis: Risk analysis (technology challenges, error implementations, Data loss, delays in order fulfillments), Actor/persona description, Use cases
- Design: System architecture, Class diagram, Layer model, Mockup model, Usability, GUI, Exceptions
- Implementation: Coding of project
- Test: Unit test, Integration test, System test, GUI test
- Automatic build servers – including automated tests
- Project results
- Evaluation/discussion of project results

- Time schedule and milestones
- Work flow management
- Group dynamics
- Report writing
- Presentation techniques

Teaching methods and study activities
Supervision, theory and independent work, project documentation and presentation.

Resources
To be announced on Studynet.

Evaluation
External examination.
The basis of the evaluation is the reports, the solution of the ICT Engineering problem, and the oral examination. The student's ability to express oneself (in writing and orally) and to spell is part of the evaluation.

Examination
Oral examination.
Group presentation of the project (20 minutes). Individual examination of each member of the group (20 minutes).

The individual examination typically starts from topics in the report and may involve all the topics from 1st to 7th semester.

Grading criteria
Grades are given according to the ECTS scale.

12: For an excellent performance displaying a high level of command of all aspects of the relevant material, with no or only a few minor weaknesses.

10: For a very good performance displaying a high level of command of most aspects of the relevant material, with only minor weaknesses.

7: For a good performance displaying good command of the relevant material but also some weaknesses.
4: For a fair performance displaying some command of the relevant material but also some major weaknesses.
02: For a performance meeting only the minimum requirements for acceptance.
00: For a performance which does not meet the minimum requirements for acceptance.

-3: For a performance which is unacceptable in all respects.

If a project is assessed as "failed" (00 or -3), a written justification for the assessment is worked out by the supervisor and the external examiner.

Additional information
The Project Report must have the following extent: 20-30 pages per student plus appendices.

Responsible
Poul Væggemose

Valid from
2.2.2017

Course type
ICT Engineering;Compulsory Course for all ICT Engineering;Project;7. semester;Compulsory for the specialization Business Information Systems;Compulsory for the specialization Cross Media;Compulsory for the specialization Embedded Engineering;