GHENT UNIVERSITY

Course Specifications

Valid as from the academic year 2016-2017

Engineering Project I (E098511)

Course size *(nominal values; actual values may depend on programme)*

Credits 6.0	**Study time 180 h**	**Contact hrs**	42.5 h

Course offerings and teaching methods in academic year 2016-2017

A (semester 1)	project	30.0 h
	lecture	12.5 h

Lecturers in academic year 2016-2017

Beunis, Filip	TW06	lecturer-in-charge
Mottart, André	PP06	co-lecturer

Offered in the following programmes in 2016-2017	crdts	offering
Bachelor of Science in Civil Engineering	6	A
Bachelor of Science in Computer Science Engineering	6	A
Bachelor of Science in Chemical Engineering and Materials Science	6	A
Bachelor of Science in Electrical Engineering	6	A
Joint Section Bachelors of Science in Engineering	6	A
Bachelor of Science in Engineering Physics	6	A
Bachelor of Science in Electromechanical Engineering	6	A
Preparatory Course Master of Science in Biomedical Engineering	6	A

Teaching languages

Dutch

Keywords

Project work, written and oral presentations

Position of the course

Learn to work on project basis, in collaboration with fellow students. Learn to write reports and to make oral presentations about the project work.

Contents

Lectures for all students.

- Introduction: aim of the project course, choice of project subjects, sources for literature study.
- The use of quantities, measurements, modeling, error analysis, data storage, making diagrams, data analysis.
- Written reports: aim of the report, structure of the report (intro, results, discussion, conclusions). language and style, use of figures and tables, referencing.
- Oral presentations: aim of an oral presentation, use of Power Point for making slides, structure, language and style of the presentations, use of figures, diagrams and schemes.
- Students are distributed over the available projects, with about 20 students per project.
- There are two lectures on project work by guest lecturers. Attendance is required.

Project work

Students are distributed over the available projects, with about 20 students per project. The projects are organized by a responsible university staff member and a number of supervisors. The project has a design component in addition to construction, modeling or measurements. There are weekly task descriptions for literature study, measurements, designs or simulations. Storing the data, making diagrams and

simulations are carried out by computer.
- The students are divided in groups of 4 (or 3) and collaborate on the tasks related to the project. They meet weekly with the supervisors during a contact session (1 hour) in a meeting room of the department.
- There is a room in the faculty buildings and a timeslot where the students can work on the tasks in the project under supervision. Alternatively tasks may be carried out at home or in the PC-class rooms.
- Each student is responsible for one intermediate oral presentation and collaborates with the other group members on the final presentation. Each student is responsible for one intermediate report and collaborates with the other group members on the final report. The supervisors give feedback after the intermediate presentations and reports.
- Final report and final presentation in the additional week.

Initial competences

High school education.

Final competences

1 Concepts: working collaboration in a group, scientific techniques, use of scientific language.
2 Use of software tools to make simulations and diagrams.
3 Writing reports.
4 Oral presentation.

Conditions for credit contract

Access to this course unit via a credit contract is determined after successful competences assessment

Conditions for exam contract

This course unit cannot be taken via an exam contract

Teaching methods

Lecture, project

Extra information on the teaching methods

- lectures: introduction, scientific methods, presentation techniques
- project work

Learning materials and price

Power Point presentations on project work and presentation techniques are available on Minerva. Background information for the specific projects is available on Minerva.

References

Course content-related study coaching

Weekly supervision of the projects: 1 hour per week with presentations, discussions, question sessions; 2 hours per week with project work (opportunity to ask advice from the supervisors). Additional support on request.

Evaluation methods

continuous assessment

Examination methods in case of periodic evaluation during the first examination period

Examination methods in case of periodic evaluation during the second examination period

Examination methods in case of permanent evaluation

Written examination, oral examination, participation, report

Possibilities of retake in case of permanent evaluation

examination during the second examination period is possible in modified form

Extra information on the examination methods

During semester: graded project reports; graded oral presentations.

Calculation of the examination mark

Evaluation of the scientific work during the project work. One intermediate report per student, one intermediate presentation per student, one final report per group, one final presentiation per group. Attendance of the project work sessions is required. The attendance during the guest lectures is required. With each absence without good cause during the guest lectures, two marks are lost.