GHENT UNIVERSITY

Course Specifications

Valid as from the academic year 2023-2024

Interdisciplinary Project (E761043)

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

Credits 6.0 **Study time 180 h**

Course offerings and teaching methods in academic year 2023-2024

A (semester 2)	Dutch	Gent	lecture
			seminar

Lecturers in academic year 2023-2024

Naessens, Helga	TWO5	lecturer-in-charge
Ongenae, Veerle	TWO5	co-lecturer
Pollefliet, Leen	TWO5	co-lecturer

Offered in the following programmes in 2023-2024	**crdts**	**offering**
Bachelor of Science in Engineering Technology(main subject Information Engineering Technology)	6	A
Preparatory Course Master of Science in Information Engineering Technology	6	A

Teaching languages

Dutch

Keywords

Project, Communication, Computer science (P170), Informatics (P175), Computer technology (T120)

Position of the course

Part project: To design, realize, release, demonstrate, and present a full-fledged multilingual mobile and/or desktop and/or web application as a team, applying the design and programming techniques taught in prerequisite courses.
Part communication: To learn and master by practice written and oral communication skills in Dutch.

Contents

Part project: Students learn to build a distributed application as a team, relying on various computer science disciplines. By using modern software development methodologies and tools, they learn to deliver a full-fledged software product in a realistic environment.
Part communication: The theory of good presentation techniques is dealt with and profoundly mastered by practice. The students are taught what the main features are of a large report, such as a bachelor or a Master's Dissertation. This includes a reflection on the work delivered in the context of the Sustainable Development Goals.

Initial competences

Competencies:
- To be able to implement and to apply basic algorithms and data structures.
- To be able to automate management tasks by writting scripts.
- To be able to implement and to apply software design patterns.
- To be able to design and to implement a database and query it using SQL- operations.
- To be able to design and to implement a GUI.
- To be able to program hardware with knowledge of architecture and knowledge of the components of modern computer systems.
- To be able to develop a web application.
- To be able to make an advanced software design for a problem in a team.
- To be able to develop and implement a mobile app.

This course unit can only be taken as the last bachelor course, cf the Curriculum Rules of the Faculty of Engineering and Architecture (https://www.ugent.be/ea/en/for-degree-students/your-studies-in-ghent/curriculum.htm). This course builds on the final competences of the previous courses of the bachelor's programme.

Final competences

1 To be able to analyze a large programming assignment and to build a well-structured program.
2 To be able to respect deadlines and agreements, and deliver a product on time.
3 To be able to design and to implement a distributed application with a mobile and/or web and/or a desktop interface.
4 To be able to design a database and to query it using SQL-operations.
5 To be able to assess which technology is a more suitable choice in a given situation.
6 To be able to assimilate, to implement and to use relevant existing and new technologies and/or theories.
7 To be able to discuss and to solve problems as a team efficiently.
8 To be able to communicate and to report information, ideas, problems and solutions in an efficient way (orally and in writing).
9 The student is able to give an effective presentation that is correct in a verbal and a nonverbal way.
10 The student is able to write a large report and he pays attention to the various parts of a large report, the correct language, the appropriate writing style, the attractive lay-out and the reference style.

Conditions for credit contract

This course unit cannot be taken via a credit contract

Conditions for exam contract

This course unit cannot be taken via an exam contract

Teaching methods

Group work, Seminar, Lecture

Extra information on the teaching methods

As a part of this course, visits to companies can be organized, with obligatory participation.
As a part of this course, presence and cooperation during the info day of the Bachelor and Master of Science in industrial engineering is required.
Part communication: Lecture with short movie and discussion in class - training in small group - peer assessment – self assessment

Learning materials and price

Part project: All the necessary information can be found on the electronic learning platform.
Communication part (learning path from the first bachelor up to the first master's year)

- Syllabus: 'Communicatie in drie modules' (250 pages, available on via the electronic learning platform), to be used from the first bachelor's year up to the first master's year (and afterwards).
- Handbook: 'Schrijven: van verslag tot eindwerk - do's & don'ts' (Academia Press, laatste editie, ISBN 9789401452595), price: 26 euros. Compulsory handbook for the communication partim on writing (reports, bachelor's thesis, master's dissertations), purchased in the first bachelor's year (Engineering Project) and to be used from the first bachelor's year up to the first master's year (and afterwards).
- From 2024-2025 onwards: Handbook: 'Scoren met je scriptie - Het standaardwerk voor verslagen, rapporten en projecten, off- en online' (355 pages + QR codes to instructional videos and interactive language and writing exercises) - Owl Press (https://borgerhoff-lamberigts.be/boeken/scoren-met-je-scriptie, ISBN 9789463937276), student price 30 euros: compulsory handbook for the communication partim on writing (reports, bachelor's thesis, master's dissertations), to be used from the first bachelor up to the first master's year (and afterwards).
- PowerPoint presentations/hand-outs/knowledge clips on writing and presenting available on the electronic learning platform.

References

Communication partim (learning path from the first bachelor up to the first master's year): 'Bij wijze van spreken – Het standaardwerk voor mondelinge communicatie' (550 pagina's) - Owl Press (https://borgerhoff-lamberigts.be/owlpress, ISBN 9789463934381, student price: 39,90 euros).

Course content-related study coaching

Part project: Coaching by the involved lecturers.
Part communication: Lecturer is available (in the classroom and by email) for questions and extra guidance;

Assessment moments

continuous assessment

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

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

Examination methods in case of permanent assessment

Participation, Presentation, Peer and/or self assessment, Assignment

Possibilities of retake in case of permanent assessment

examination during the second examination period is not possible

Extra information on the examination methods

Permanent assessment.
Self and peer assessment.
Assessment of methodology, product, final report and presentation.
Partim communication: The interim report and presentation (slides and speaker) are evaluated by the lecturer of communication: the evaluation is calculated in the final score.

Calculation of the examination mark

Partim project: Product (analysis and design, implementation, testing, deployment, Scrum), reporting and presentation: 90%
Partim communication: 10%