

Software Engineering Lab 1 (C003780)

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 2025-2026

A (semester 2)

Dutch

Gent

seminar
lecture

Lecturers in academic year 2025-2026

Scholliers, Christophe

WE02

lecturer-in-charge

Verschaffelt, Pieter

GE31

co-lecturer

Offered in the following programmes in 2025-2026

[Bachelor of Science in Computer Science](#)

crdts

6

offering

A

Teaching languages

Dutch

Keywords

software-design, mobile platforms

Position of the course

This course is the first in a series of Software Engineering labs, in which students get acquainted with important concepts and principles in the Software Engineering discipline, through the use of a specific platform. For this course, the focus is on mobile platforms, and in this context considerable emphasis is put on the development of a mobile application, based on the Software Engineering principles introduced.

Contents

1. Basic concepts of programming for mobile applications
2. Development methodology for mobile applications
 - a. Ideation and application concept definition
 - b. Design and testing of a user interface (HCI aspects)
 - c. Planning using KANBAN
3. Development of a mobile app
 - a. Basic components and principles
 - b. Architectural patterns
 - c. Interaction with a cloud back-end
4. Test driven design
 - a. The test pyramid
 - b. Testing architectures
 - c. Platforms and libraries for testing
5. Communication skills
 - a. Sales pitch
 - b. Demo

Initial competences

Object oriented programming (in Java) including event driven programming and user interfaces.

Final competences

- 1 Design, develop and test a mobile application.
- 2 Plan and implement a software project in a team.
- 3 To communicate clearly and well structured on the chosen application.

- 4 To take into account the specific characteristics of mobile environments in the design and implementation of a mobile application.

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

Group work, Seminar, Lecture

Extra information on the teaching methods

- *Lectures mix of theory and hands-on practice (presence required)*
- *Work shops (presence required)*
- *Feedback sessions (presence required)*
- *Guest lectures :some workshops are give by guest lectures from industry, in addition to this other guest lectures can be organised where presence is required*

Study material

Type: Slides

Name: Slides'

Indicative price: Free or paid by faculty

Optional: no

References

- Learn Flutter
<https://docs.flutter.dev/get-started/learn-flutter>

Course content-related study coaching

E-learning environment

Exercises and project supervised

Interaction through e-mail and fora

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

Professional practice, Oral assessment, Participation, 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

- *Assessment of communication skills (25%)*
- *Assessment of project result (55%)*
- *Participation (10%)*
- *Giving a peer evaluation (10%)*

Calculation of the examination mark

Weighted score as mentioned above, with special conditions:

- For both items "communication skills" and "project result", students should obtain at least 40%, if not the final score is limited to 9/20
- Participation to guest lectures, workshops and feedback sessions is mandatory, for each non-attended lecture 1 point is subtracted from the item total score (with a max of 2 points - i.e. the total partial score for the part 'participation').