Selected Topics in Software Engineering

2025 - 2026

Is part of the next programmes:

- M0012004 Master of Computer Science: Software Engineering
- M0048004 Master of Computer Science: Software Engineering
- M0090004 Master of Teaching in Science and Technology: Computer Science
- U0001008 Courses open to exchange students in Sciences

Course Code:	2001WETCSE
Study Domain:	Computer Science
Semester:	1E SEM
Contact Hours:	45
Credits:	6
Study Load (hours):	168
Contract Restrictions:	No contract restriction

Language of Instructions:	ENG
Lecturer(s):	T Moharram Challenger
Examperiod:	exam in the 1st semester

1. Prerequisites *

speaking and writing of:

- English

extra commentary:

(This course is taught in English)

specific prerequisites for this course

- **You have the knowledge, skills and attitude which might be expected from a graduate student in computer science (Informatics)**
  - **You have profound experience with programming in an object-oriented language (e.g. C++, Java)**
  - **You are capable of reading and interpreting a design written down in the most commonly used design notations (UML, statecharts, ...)**
  - **You can demonstrate deep knowledge concerning the formal foundations of computer science (logics, algorithms, complexity theory, finite automata)**
  - **You obtained an overview of some of the basic disciplines within computer science (databases, telecommunication, distributed systems)**
- **You have a vivid interest in Software Engineering**

2. Learning outcomes *

- be aware of recent developments in the field of software engineering
- be able to follow the rapidly expanding literature in our field

3. Course contents *

This course deals with a variety of topics, selected based upon the research conducted in the participating research group. For each of the topics students must perform an assignment (project, research paper, experiment) which will be used to decide on the grade.

4. International dimension *

- This course stimulates international and intercultural competences.
- Students use course materials in a foreign language.
- Students give presentations in a foreign language.
- Students write papers in a foreign language.
- Students work together (online) with international students.

5. Teaching method and planned learning activities

5.1 Used teaching methods *

Class contact teaching

- Lectures
- Seminars/Tutorials

Personal work

Paper

- Individually

Project

- Individually

5.2 Planned learning activities and teaching methods

The detailed plan depends a lot on the topics discussed and practical concerns. For precise information we refer to the Electronic Learning Platform of the University of Antwerp.

5.3 Facilities for working students *

Classroom activities

- no specific facilities

6. Assessment method and criteria *

6.1 Used assessment methods *

Examination

- Oral with written preparation
- Oral without written preparation
- Written with oral presentation
- Written examination without oral presentation

Other assessment methods

- Written assignment

6.2 Assessment criteria *

Each of the topics ends with a specific assignment (writing an article, do a project, write a report, ...). These will be assessed using the standard criteria voor such type of work. More precise details depend on the contents of the respective modules and will be distributed via the electronic learning platform.
Copied Code - Code created by Generative AI
For project work, students may copy code from the internet, but must do so explicit attribution of the source where it is copied from. Students may use generative AI

tools for the code of their project, but must do so with explicit acknowledgment, i.e. it must be clearly indicated which code was created by which tools. In an oral exam of the assignment or during a contact moment, students are expected to elaborate on their assignment (and how they used generative AI).

Reports written with support from generative AI

Students may use generative AI tools as a tool during their assignment, similar to initial search engines such as Google and for checking grammar and spelling. In an oral exam of the assignment or during a contact moment, students are expected to elaborate on their assignment (and how they used generative AI).

7. Study material

7.1 Required reading *

Course material varies significantly depending on the topics selected this year. All material is distributed over the world-wide web and accessible via the electronic learning platform.

7.2 Optional reading

8. Contact information *

Prof. Moharram Challenger

9. Tutoring

- **Start early.** We set the deadlines for the respective assignments outside the regular exam period. use it to your advantage to avoid peak loads.