

## Qualidade de Software - 2025/26

### Seminar

## Overview

The seminar is an integral part of this course. You will work in teams to design, implement, and evaluate one of the following seminars. Each team should choose the seminar they want to work on.

1	Foundations of Software Quality in the Age of Probabilistic and Generative Systems	<a href="#">link</a>
2	Trust, Accountability, and Responsibility in AI-Supported Software Engineering	<a href="#">link</a>
3	Limits of Automation in Software Engineering: What Should Never Be Fully Automated?	<a href="#">link</a>
4	Evolving Software Quality Attributes for AI-Intensive Systems	<a href="#">link</a>
5	From Tool-Centric to System-Centric Thinking in AI-Assisted Software Engineering	<a href="#">link</a>
6	Towards a Theory of Continuous Quality in AI-Driven Software Lifecycles	<a href="#">link</a>

## Goals

1. To create something useful;
2. To understand the software engineering development cycle with a particular focus on how **Continuous Testing and Continuous Review** contribute to ensuring and improving **software quality**.
3. To understand how **AI-based tools**, particularly **LLMs**, can be leveraged to improve the efficiency and quality of **test automation, code review, and debugging processes**.
4. To critically evaluate the role of **AI-powered assistants** in improving **software quality assurance (SQA)** and fostering **collaboration between developers and testers**.
5. To gain valuable experience and enjoy the journey.

## Restrictions

There are several **hard** restrictions on the seminar:

1. The final report must be written in accordance with the [Springer template](#)
2. The solution must feature a **well-justified architectural style**;

3. All seminar activities should be **organized and regularly updated** in a tool (JIRA, Trello, Notion, ...);

In addition, consider the following **soft** restrictions when choosing the seminar topic:

1. Each team should be composed of 2 or 3 students. Any exceptions must be approved in advance by the professor
2. All team members are expected to actively participate in team activities, including attending in-person lectures;

## Team Formation

Deadline: 06/03/2026

How to apply: [link](#)

## Methodology, Outcomes, and Assessment

In each seminar theme description, you will find the proposed report structure (which you are free to modify), and the evaluation criteria.

## Seminar Presentations

- Interim presentation: 13.04.2026, 14h, Room: 6.18/6.20
- Final presentation: 01.06.2026, 14h, Room: 6.18/6.20

**NOTE#1:** *This assignment will be graded on a 0 to 20 scale;*

**NOTE#2:** *Under the **continuous assessment (ensino-aprendizagem) model**, this seminar accounts for **6 points of the final course grade** (i.e., **30%**). The final contribution of the seminar to the course grade will be calculated using the formula: **Final Score = S × 6 / 20***

*Under the **exam-based assessment model**, the theoretical component related to this seminar will be **individual**, with an **assignment defined by the course instructor**.*