

Software Lab 2025



Chair of Computational Modeling and Simulation

Objectives

- Design and implementation of engineering software
- Teamwork – team responsibility
- Solutions for research and/or industry relevant problems

Benefit

- Scientific skills: Software Engineering, Simulation Background
- Soft skills: Teamwork, Presentation, Communication
- **6 ECTS:** 2 hours per week * 2 semester

Organisation/Contact

- Changyu Du, M.Sc. (changyu.du@tum.de)

Dates

- Jan 29th presentation of project topics
- Feb 5th open for applications (on our website)
- Feb 12th application deadline for the topics
- March ~1st announcement of Software Lab 2025 project teams



2 Semesters
(2 h/week)



Groups (3 - 4)

Key points

- Duration SS 25 & WS 25/26
- Time effort **2 hours/week**
- Group size 3 - 4 students (usually 3)
- 3 Reviews exact dates will be announced one month in advance
- Deliveries documented code, scientific report and a poster

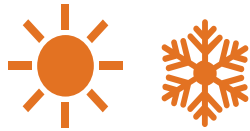


3 Presentations



Deliverables:
Code, data, report

All information:



2 Semesters
(2 h/week)



Groups (3 - 4)



3 Presentations



Deliverables:
Code, data, report



<https://www.cee.ed.tum.de/cms/teaching/master/softwarelab/>

CHOOSING YOUR TOPIC

How to Register

1. Read the guidelines: Decide if you want to commit to the project.
2. Choose your six most favorite topics and two no-go topics:
 - 🏆 2 Gold topics
 - 🥈 2 Silver topics
 - 🥉 2 Bronze topics
 - ❌ 2 No-go topics (No student will be matched to one of his No-go topics!)
3. **Registration:** insert your selection in the online form on the website (same QR code as before).
 - ⚠️ Use your TUM email address for it.
 - 📅 Do it before Feb 12th EOD.

Q&A

Q&A

1. Which programming skills are needed?

- The content of the CiE 1 course or equivalent.

2. How difficult is software lab?

- It is a very difficult project!
- *⚠ If you cannot guarantee a commitment of at least 2 hours per week to work on the project, please do not send an application with your selection on the website.*

3. What if I sent a selection once but now changed my mind?

- Only the last application (with the TUM Email) before the deadline will be considered for the topic assignment.

Q&A

4. Can the Software lab project be used as a base for a master's thesis?

- Yes, however, a master's thesis should be an independent work, distinct from the specific focus of the software lab.
- If the results of your software lab project are good enough, your supervisor may recommend that you extend them and write a paper out of it.

5. How is the distribution done?

- An algorithm automates the distribution process by aiming to maximize the number of students receiving a gold topic.
- It is not first-come-first-serve.

PRESENTATION OF TOPICS