

EEP 520: Software Engineering for Embedded Applications

- **Instructor:** Sep Makhsous
 - Email: sosper30@uw.edu
 - Office hours: TBD
- **Class Time & Location:** MW 4:00p - 5:50p, ECE 045
- **Communication:** Slack (Mandatory for all students)
- **Canvas:** Provided for course materials and assignments

Course Summary: Introducing fundamentals of programming languages and software engineering for embedded systems programming.

Learning Outcomes:

1. Design embedded applications for varying problem sizes.
2. Implement designs in C/C++.
3. Document developed solutions appropriately.
4. Design and conduct tests for given components.
5. Utilize existing documentation for libraries and frameworks.

Class Format:

- In-person with limited Zoom engagement.
- Attendance is vital for In-Class Team Exercises (ICTE).
- Asynchronous materials: prefilled slides, recorded lectures, and notes.

Course Materials:

- Prefilled Slides: Available 12 hours before the lecture.
- ICTEs: Posted during the lecture; due end of class.
- Homework: Posted 2 weeks before the deadline; due Friday at midnight.
- Lectures and Recordings: Available 12 hours post-lecture.

Resources:

- Prof. Klavins' Dockerhub
- GitHub for code version control
- Visual Studio Code
- Google Test environment
- Docker container system
- C++ documentation
- Doxygen API documentation generator

Assessment & Workload:

- **Homework (50%):**
 - 6 assignments, submitted as .pdf on Canvas.
 - Due: Fridays, 11:59p. +5% bonus for on-time submission. Extension: Saturdays, 11:59p.
- **ICTEs (20%):**
 - Group assignments during lectures. Lowest score dropped.
 - Approximately 4-6 throughout the course.

- **Final Project (30%):** Individual projects demonstrating covered topics.
- **Bonus:** Up to 5%.
- **Total Possible:** 105%.

Collaboration:

- ICTEs: Teams of 3.
- Homework & Final Project: Individual.
- Allowed: study groups, tools (cite them), reuse course materials, consult public resources (cite them).

Submission:

- Use Canvas Assignment for .pdf files.
- Handwritten solutions should be legible scans.

Diversity, Equity, and Inclusion: Respect and inclusion are vital. All backgrounds, beliefs, and identities are welcome.

Disability & Access: Contact Disability Resources for Students (DRS) for accommodations.

Religious Accommodations: Requests should be made within the first two weeks using the Religious Accommodations Request form.

Safety: Contact SafeCampus at 206-685-7233 for safety concerns.

Academic Misconduct: Adherence to the UW's Student Code of Conduct is expected. Misconduct will result in a grade of 0 for the affected work.