Course Syllabus

Syllabus Quiz (complete ASAP)
(https://canvas.oregonstate.edu/courses/1963528/quizzes/2886678)

Start of Term Survey (complete ASAP)
(https://canvas.oregonstate.edu/courses/1963528/assignments/9346554)

Please note that some content linked on this page may only be available to registered students.

| Course Introduction | Syllabus | Schedule | Where to go for help | Available Projects |

Read Me First

Course Name: Senior Software Engineering Project I (online)
Course Number: CS 461
Credits: 3
Instructors and contact info:

- **Bill Pfeil (mailto:pfeilw@oregonstate.edu)**
- **Ami Gates (mailto:ami.gates@oregonstate.edu)**

Teaching Assistant name and contact info:

- **Brian Mulanda (mailto:mulandab@oregonstate.edu)**
- **John Zontos (mailto:zontosj@oregonstate.edu)**

This syllabus describes the administrative parts of the course and serves as a contract between student and instructors. Remaining in this course indicates acceptance of these rules.

Remember that in this Capstone course, you are expected to behave professionally. Please use this document throughout the course.

Table of Contents

Course Description

Real-world team-based experience with the software engineering design and delivery cycle, including requirements analysis and specification, design techniques, and requirements and final project written

documentation.

Prerequisites: (**CS 325 (https://classes.oregonstate.edu/search/?p=CS%20325)** or **325H (https://classes.oregonstate.edu/search/?p=CS%20325H)**) and **CS 361 (https://classes.oregonstate.edu/search/?p=CS%20361)** and (**CS 362 (https://classes.oregonstate.edu/search/?p=CS%20362)** or **362H (https://classes.oregonstate.edu/search/?p=CS%20362H)**).

A minimum grade of C is required in **CS 325 (https://classes.oregonstate.edu/search/?p=CS%20325)** , **CS 325H (https://classes.oregonstate.edu/search/?p=CS%20325H)** , **CS 361 (https://classes.oregonstate.edu/search/?p=CS%20361)** , **CS 362 (https://classes.oregonstate.edu/search/?p=CS%20362)** and **CS 362H (https://classes.oregonstate.edu/search/?p=CS%20362H)** .

Communication

If we need to contact you, we will email you directly (or via the class mailing list), or send out a canvas announcement. *NOTE: It is your responsibility to make sure you can receive notifications from Canvas.*

Here is the preferred way to contact professors:

Email directly:

For Dr. Bill: **pfeilw@oregonstate.edu (mailto:pfeilw@oregonstate.edu)** (If I don't respond in 24 hours please email me again)

For Dr. Ami: **Ami.Gates@oregonstate.edu (mailto:Ami.Gates@oregonstate.edu)** (I generally respond back on the same day. I take Saturdays off so if you email Friday night, you may need to wait until Sunday afternoon/evening for a response :)

Messaging on Canvas is an unreliable and indirect way to send an email. Please use the email addresses noted. Given the sea of Canvas notifications and daily digest spam from several courses, etc. *So please use regular email for contact :)*

Dr. Bill may be on Teams / Slack from time to time, but email is STILL the best way to get ahold of him. Email is the best way to get Dr. Ami.

We are not Debuggers, Programmers, or Architects — that's *your* job! Do not send the instructors or TAs any code except what is required for your assignment submissions.

Don't expect the instructors or the TAs to see comments left with assignment submissions. Canvas allows us to download the entire class's submissions as one .zip file, which does not include these comments. If you need to make a meta-comment about your submission, add it to the submission or email the person grading that submission directly.

Time Expectations

This course is online only. This course combines approximately 100 hours of online activities and assignments for 3 credits.

Technical Assistance

If you experience any errors or problems while in your online course, contact 24-7 Canvas Support through the Help link within Canvas. If you experience computer difficulties, need help downloading a browser or plug-in, or need assistance logging into a course, contact the IS Service Desk for assistance. You can call (541) 737-8787 or visit the **IS Service Desk** ⤷ **(https://oregonstate.teamdynamix.com/TDClient/Requests/TicketRequests/NewForm?ID=Dr9c0T7BaSI_)** online.

Learning Resources

All class materials can be found on the course web-page. There is no textbook; students are expected to source their own learning resources to accomplish the goals of their projects. A microphone and screen-recording device may be required, for submitting project or prototype demonstrations.

Note: Check with the OSU Beaver Store for up-to-date information for the term you enroll (**OSU Beaver Store website** ⤷ **(http://osubeaverstore.com/Academics)** or 800-595-0357). If you purchase course materials from other sources, be very careful to obtain the correct ISBN.

Measurable Student Learning Outcomes

After completion of this course, students will have demonstrated an ability to:

1. Apply all aspects of the software engineering process, including project planning, requirements documents, software design, coding, testing, walk-throughs, documentation, and delivery
2. Demonstrate good communication skills in the form of weekly reports and project talks, posters, and elevator talks
3. Participate effectively in a team environment
4. Analyze and organize their own career preparation
5. Evaluate the professional, legal, and/or social implications of software product development

Additional Student Learning Outcomes - At the completion of the course, students will be able to:

1. Design, plan, organize, synthesize and complete a significant software project in three academic quarters
2. Evaluate the contributions and importance of software projects to the broad user community.
3. Explain the importance of software projects to people from other disciplines and the general public.
4. For WIC: Develop and articulate content knowledge and critical thinking in the discipline through frequent practice of informal and formal writing.
5. For WIC: Demonstrate knowledge/understanding of audience expectations, genres, and conventions appropriate to communicating in the discipline.
6. For WIC: Demonstrate the ability to compose a document of at least 2000 words through multiple aspects of writing, including brainstorming, drafting, using sources appropriately, and revising comprehensively after receiving feedback on a draft.

Evaluation of Student Performance

Assignment	Points	#	Total	Percent of grade
Syllabus Quiz, Intro Survey	20	1	20	4.00%
Blog Posts	10	3	30	6.00%
Checkin Surveys	10	4	40	8.00%
General Discussions	20	2	40	8.00%
Project Discussions	20	2	40	8.00%
Choose Your Project	20	1	20	4.00%
Individual Problem Statement	30	1	30	6.00%
Requirements Document	40	1	40	8.00%
Preliminary Design (Individual)	40	1	40	8.00%
Progress Videos (v0.0.1, v0.0.2)	50	2	100	20.00%
Team Design Document - Draft	30	1	30	6.00%
Team Design Document - Final	40	1	40	8.00%
Client Verification	30	1	30	6.00%
Totals			500	100.00%

Letter Grade

Grading responsibilities are shared between the instructors and the TAs. The Course Introduction tab details who grades which assignment, and which groups each person will grade.

Your group will not create your grade for you. You need to accomplish the goals you sign off on by submitting all assignments. In this course, failure to communicate with your team, or to provide reasonably working code compatible with the project per the specification may result in you receiving

a non-passing grade while the rest of your group passes. You may be removed from your team if you are found to not be putting in the required amount of work.

Total Percentage vs. Letter Grade

```
100
      ┬  A
92.95 ┤
      ┤  A-
89.95 ┤
      ┤  B+
86.95 ┤
      ┤  B
82.95 ┤
      ┤  B-
79.95 ┤
      ┤  C+
76.95 ┤
      ┤  C
72.95 ┤
      ┤  C-
69.95 ┤
      ┤  D+
66.95 ┤
      ┤  D
62.95 ┤
      ┤  D-
59.95 ┤
      ┤  F
    0 ┴
```
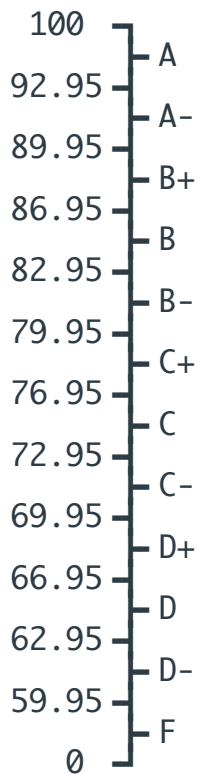
Course Content

Week	Topic	Explorations	Learning Activities
1	Introduction	What is a Projects Course? Choosing Your Project	Choose Your Project Discussion: Project Management Tools Discussion: Introduce Yourself to your Teammates
2	Project Requirements	Blogging Your Project Working in Teams Traditional Requirements	Blog Post Discussion: Team Standards
3	Project Requirements	How to Write a Problem Statement	Individual Problem Statement

Week	Topic	Explorations	Learning Activities
		Writing a Technical Requirements Document Agile Requirements	
4	Design and Technologies	Separation of Concerns UI/UX Design Choosing Your Technologies	Discussion: Software Tools for Design Requirements Document
5	Software Design and Review	Design Review The Role of Criticism in Design	Preliminary Design (Individual) Discussion: Preliminary Design Review
6	Design and Development	Effective Design	Design Document (Team - Draft)
7	Prototyping	Prototyping	Project Development: v0.0.1 Blog Post
8	Game Changers	Game Changers	Discussion: Game Changers
9	Resume Guide	Your Resume	Design Document - (Team - Final) Client Verification
10	Job Search	Hack Your Interview	Project Development: v0.0.2 Blog post
Finals	No Final in this Course		

Course Policies

Discussion Participation

Students are expected to participate in all graded discussions. While there is great flexibility in online courses, this is not a self-paced course. You will need to participate in discussions on at least two different days each week, with your first post due no later than Thursday evening, and your second and third posts due by the end of each week (Sunday evening).

Late Work Policy

Almost all assignments allow submissions up to THREE days after the due date for a reduced maximum score. Each assignment has a **due** date listed on Canvas. Assignments that may be submitted late also have an **available until** date, which is at least 3 days after the initial due date. For these assignments, the following policy applies:

- **0-1 Day Late:** Assignments submitted on the day after the due date will be graded normally. This applies to most assignments (except **Choose Your Project (https://canvas.oregonstate.edu/courses/1963528/assignments/9346547)** which MUST be turned in on time).
- **1-2 Days Late:** Assignments submitted on the second day after the due due date will be graded normally and then any points past a 90% point total will be lost.
- **2-3 Days Late:** Assignments submitted on the third day after the due date will be graded normally and then any points past a 75% point total will be lost.

Note that, unlike in other courses, late assignment grades will not be scaled by some factor; any points above a threshold (90% or 75%) will simply be discarded.

Makeup Exams

This course has no tests or exams.

Incompletes

Incomplete (I) grades will be granted only in emergency cases (usually only for a death in the family, major illness or injury, or birth of your child), and if the student has turned in 80% of the points possible (in other words, usually everything but the final paper). If you are having any difficulty that might prevent you completing the coursework, please don't wait until the end of the term; let me know right away.

Statement Regarding Religious Accommodation

Oregon State University is required to provide reasonable accommodations for employee and student sincerely held religious beliefs. It is incumbent on the student making the request to make the faculty member aware of the request as soon as possible prior to the need for the accommodation. See the **Religious Accommodation Process for Students** (http://eoa.oregonstate.edu/religious-accommodation-policy) .

Guidelines for a Productive and Effective Online Classroom

(Adapted from Dr. Susan Shaw, Oregon State University)

Students are expected to conduct themselves in the course (e.g., on discussion boards, email) in compliance with the university's regulations regarding civility. Civility is an essential ingredient for academic discourse. All communications for this course should be conducted constructively, civilly, and respectfully. Differences in beliefs, opinions, and approaches are to be expected. In all you say and do for this course, be professional. Please bring any communications you believe to be in violation of this class policy to the attention of your instructor.

Active interaction with peers and your instructor is essential to success in this online course, paying particular attention to the following:

- Unless indicated otherwise, please complete the readings and view other instructional materials for each week before participating in the discussion board.
- Read your posts carefully before submitting them.
- Be respectful of others and their opinions, valuing diversity in backgrounds, abilities, and experiences.
- Challenging the ideas held by others is an integral aspect of critical thinking and the academic process. Please word your responses carefully, and recognize that others are expected to challenge your ideas. A positive atmosphere of healthy debate is encouraged.

Establishing a Positive Community

It is important you feel safe and welcome in this course. If somebody is making discriminatory comments against you, sexually harassing you, or excluding you in other ways, contact the instructor, your academic advisor, and/or report what happened at **Student Conduct Reporting** (https://studentlife.oregonstate.edu/studentconduct/reporting) so we can connect you with resources.

Expectations for Student Conduct

Student conduct is governed by the university's policies, as explained in the Student Conduct Code (**https://beav.es/codeofconduct** ⬌ **(https://beav.es/codeofconduct)**). Students are expected to conduct themselves in the course (e.g., on discussion boards, email postings) in compliance with the university's regulations regarding civility.

Academic Integrity

Integrity is a character-driven commitment to honesty, doing what is right, and guiding others to do what is right. Oregon State University Ecampus students and faculty have a responsibility to act with integrity in all of our educational work, and that integrity enables this community of learners to interact in the spirit of trust, honesty, and fairness across the globe.

Academic misconduct, or violations of academic integrity, can fall into seven broad areas, including but not limited to: cheating; plagiarism; falsification; assisting; tampering; multiple submissions of work; and unauthorized recording and use.

It is important that you understand what student actions are defined as academic misconduct at Oregon State University. The OSU Libraries offer a **tutorial on academic misconduct (https://guides.library.oregonstate.edu/c.php?g=286121&p=3896378)** , and you can also refer to the **OSU Student Code of Conduct** ⬌ **(https://beav.es/codeofconduct)** and **the Office of Student Conduct and Community Standard's website (https://studentlife.oregonstate.edu/studentconduct/student-info)** for more information. More importantly, if you are unsure if something will violate our academic integrity policy, ask your professors, GTAs, academic advisors, or academic integrity officers.

TurnItIn

Your instructor may ask you to submit one or more of your writings to Turnitin, a plagiarism prevention service. Your assignment content will be checked for potential plagiarism against Internet sources, academic journal articles, and the papers of other OSU students, for common or borrowed content. Turnitin generates a report that highlights any potentially unoriginal text in your paper. The report may be submitted directly to your instructor or your instructor may elect to have you submit initial drafts through Turnitin, and you will receive the report allowing you the opportunity to make adjustments and ensure that all source material has been properly cited. Papers you submit through Turnitin for this or any class will be added to the OSU Turnitin database and may be checked against other OSU paper submissions. You will retain all rights to your written work. For further information, visit **Academic Integrity for Students: Turnitin – What is it? (http://guides.library.oregonstate.edu/c.php?g=286121&p=1906660)**

(http://guides.library.oregonstate.edu/c.php?g=286121&p=1906660)

Statement Regarding Students with Disabilities

(http://guides.library.oregonstate.edu/c.php?g=286121&p=1906660) Accommodations for students with disabilities are determined and approved by Disability Access Services (DAS). If you, as a student, believe you are eligible for accommodations but have not obtained approval, please contact DAS immediately at 541-737-4098 or at **Disability Access Services (http://ds.oregonstate.edu/)** . DAS notifies students and faculty members of approved academic accommodations and coordinates implementation of those accommodations. While not required, students and faculty members are encouraged to discuss details of the implementation of individual accommodations.

Accessibility of Course Materials

All materials used in this course are accessible. If you require accommodations please contact **Disability Access Services (DAS) (http://ds.oregonstate.edu/home/)** .

Additionally, Canvas, the learning management system through which this course is offered, provides a **vendor statement** ⤷ **(http://www.instructure.com/accessibility)** certifying how the platform is accessible to students with disabilities.

Tutoring and Writing Assistance (http://ecampus.oregonstate.edu/services/student-services/online-tutoring/)

There are a variety of tutoring and academic skills resources across campus. Here are some of the most common for engineering students.

- **Academic Success Center (http://success.oregonstate.edu/)**

- **Writing Center (https://writingcenter.oregonstate.edu/)**

- **Ecampus Tutoring (https://ecampus.oregonstate.edu/services/student-services/online-tutoring/)**

- **Ecampus Student Success Team (https://ecampus.oregonstate.edu/services/student-services/)**

Ecampus Reach Out for Success

University students encounter setbacks from time to time. If you encounter difficulties and need assistance, it's important to reach out. Consider discussing the situation with an instructor or academic advisor. Learn about **resources that assist with wellness and academic success (https://counseling.oregonstate.edu/reach-out-success)** .

Ecampus students are always encouraged to discuss issues that impact your academic success with the **Ecampus Success Team (https://ecampus.oregonstate.edu/services/student-services/)** . Email **ecampus.success@oregonstate.edu (mailto:ecampus.success@oregonstate.edu)** to identify strategies and resources that can support you in your educational goals.

If you feel comfortable sharing how a hardship may impact your performance in this course, please reach out to me as your instructor.

- ## For mental health:

Learn about **counseling and psychological resources for Ecampus students (https://counseling.oregonstate.edu/main/ecampus-students)** . If you are in immediate crisis, please contact the Crisis Text Line by texting OREGON to 741-741 or call the National Suicide Prevention Lifeline at 1-800-273-TALK (8255).

- ## For financial hardship:

Any student whose academic performance is impacted due to financial stress or the inability to afford groceries, housing, and other necessities for any reason is urged to contact the Director of Care for support (541-737-8748).
(http://ecampus.oregonstate.edu/services/student-services/online-tutoring/)

Student Evaluation of Courses

During Fall, Winter, and Spring term, the online Student Evaluation of Teaching system opens to students the Wednesday of week 8 and closes the Sunday before Finals Week. Students will receive notification, instructions and the link through their ONID email. They may also log into the system via Online Services. Course evaluation results are extremely important and used to help improve courses and the learning experience of future students. Responses are anonymous (unless a student chooses to "sign" their comments, agreeing to relinquish anonymity) and unavailable to instructors until after grades have been posted. The results of scaled questions and signed comments go to both the instructor and their unit head/supervisor. Anonymous (unsigned) comments go to the instructor only.