Course Name: Introduction to Computer Science II
Course Number: CS 162
Credits: 4
Instructors (for all sections):
- Luyao Zhang: luyao.zhang@oregonstate.edu
- Doshna Umma Reddy: doshna.ummareddy@oregonstate.edu

Teaching Assistant Name and Contact Info: Will be available on Canvas

Course Description
Basic data structures. Computer programming techniques and application of software engineering principles. Introduction to analysis of programs. Lec/lab/rec.

Prerequisites or Corequisites
Prerequisites: CS 161 or EECS 161.
A minimum grade of C is required in CS 161 and EECS 161.
Enrollment is limited to students with a major in Computer Science (307).
Enrollment limited to students in the College of Engineering college.
Enrollment limited to students in the Dist. Degree Corvallis Student campus.

Communication and Response Times
When you email your ULA or us (the instructors), you should expect a response within two days. You should usually expect your assignments to be graded within five days of the due date. Projects 2 and 8b require more manual grading from the ULAs, so they may need one additional day. Some extra time may also be needed to grade the portfolio project, due to its complexity.

Getting Help
When you have a question about something, the order of steps you should take to pursue answers is roughly the following:
1. Review the relevant materials (assignment description, readings, lectures).
2. Search the class discussion board on Ed Discussion (it can take some practice to learn how to refine your searches well) to see if your question has been answered already.
3. Post to the class discussion board on Ed Discussion (by doing #1 and #2 first, you might save yourself asking a question, and you might also then be better able to help others). When you post a question on Ed Discussion and it's answered there, that benefits other people who have the same question (if you're shy, you can post anonymously).

4. If you've tried #1-3 and feel like your question hasn't been fully addressed, please email your assigned ULA or the Instructors. Or attend one of the office hours on Microsoft Teams.
5. For questions about assignment grading, first ask your ULA. If that doesn't resolve the issue, then ask the Instructors.
6. For questions relating to course policies, or to request an extension, email the instructor **for your section** and **in advance** of the due date.

You are allowed to post small snippets of non-working code as discussed in the section on Academic Integrity below. That also applies to answering other students' questions - please use pseudocode or give hints so the student will have the satisfaction (and learning reinforcement) of figuring out the solution for themselves. When you are willing to help others on the discussion board and take pains to not make anyone feel like they asked a dumb question, you are reinforcing both your technical knowledge and your people skills, both of which are highly valued not just here, but out in the real world.

The College of Engineering (COE) offers a variety of academic support resources for students. There are remote tutoring services available through the COE by appointment and drop-in. There are also tutoring services available through the College of Science. More information about these and other academic support services can be found on the COE's Academic Support website. For writing assistance, the Oregon State Online Writing Suite is a great resource for students enrolled in Ecampus courses. If you have additional tutoring needs, or have questions about these services, please contact Casey Patterson at casey.patterson@oregonstate.edu.

Time Expectations
This course combines approximately 120 hours of instruction, online activities, and assignments for 4 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 Service Desk online.

Learning Resources
There is no textbook for this course.
Students in this section may be required to interact with teachers, teaching assistants, and students in other concurrent sections of this same course.

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

Measurable Student Learning Outcomes

At the completion of the course, you will be able to...

1. **Design** and **implement** programs that require:
     - multiple classes, structures
     - hierarchies of classes that use inheritance and polymorphism
     - understanding of abstraction, modularity, separation of concerns, exception handling
2. **Construct** and **use** basic linear structures (arrays, stacks, queues, and various linked lists) in programs, and be able to describe instances appropriate for their use.
3. **Classify** moderately complicated algorithms in these complexity classes: O (1), O(log n), O(n), O(n log n), and O(n2).
4. **Develop** test-data sets and testing plans for programming projects
5. **Produce recursive** algorithms and **choose** appropriately between iterative and recursive algorithms.

Evaluation of Student Performance

- Assignments 70%
- Quizzes 30%

Letter Grade

Grade	Percent Range
A	93-100%
A-	90-93%
B+	87-90%
B	83-87%
B-	80-83%
C+	77-80%
C	73-77%
C-	70-73%
D+	67-70%
D	63-67%
D-	60-63%
F	0-60%

Course Content

Week	Topic	Learning Materials	Activities and Assessments
1	Importing modules, installing packages, virtual environments	- Lesson 1 - Explorations - Importing modules, installing packages, virtual environments - Classes and Objects (review) - Debugging Skills - Video Demos - Importing modules - Classes and Objects (review) - Review	- Activity Page - Assignment 1 - Quiz 1
2	Exception handling, unit testing	- Lesson 2 - Exploration - Video Demo - Webinar - Review	- Activity Page - Assignment 2 - Quiz 2
3	Inheritance, composition, polymorphism	- Lesson 3 - Exploration - Video Demo - Webinar	- Assignment 3 - Quiz 3

Week	Topic	Learning Materials	Activities and Assessments
		• Review	
4	Searching, sorting, algorithm analysis	• Lesson 4 • Exploration • Video Demo • Review	• Assignment 3 – group part • Assingment 4 • Quiz 4
5	File handling, pickling, JSON	• Lesson 5 • Exploration • Video Demo • Review	• Assingment 5 • Quiz 5
6	More recursion	• Lesson 6 • Exploration • Video Demo • Review	• Assignment 6 • Quiz 6
7	Linked lists, stacks, queues	• Lesson 7 • Exploration • Video Demo • Review	• Assingment 7 • Quiz 7
8	Generators, first-class functions, decorators	• Lesson 8 • Exploration • Video Demo • Review	• Assingment 7 – group part • Assignment 8 • Quiz 8
9	(Two weeks) - Portfolio Project	• Lesson 9 • Where to begin on the project	• Halfway Progress Report • **Portfolio Project**
10	(Two weeks) - Portfolio Project	• Lesson 9	• Halfway Progress Report • **Portfolio Project** • End-of-course Conversation

Coursework and Grading Policies

- Your code will be tested to make sure it works correctly. It is your job to make sure that your code will behave correctly for any possible tests. One simple test is provided on GradeScope, for which you get immediate feedback. The remaining tests are "hidden" until the due date has passed.
- You may submit assignments and quizzes up to 72 hours late for half-credit, **with the exception of the portfolio project and the end of course conversation**. If

- you have extenuating circumstances, please contact your instructor about them as early as possible.
- All assignments are due at **11:59pm Pacific Time**. Be aware of what time zone Canvas is using to display deadlines. If it's not your local time zone, you can set it to be. The Canvas phone app always displays times for the time zone the phone is in. This is important to keep in mind if you will be traveling.
- In this course you may use commands or techniques that haven't been covered in the course, but **only** what is available without importing **any** modules, except where the specifications say that you can use specific modules. Always ask first before using any other modules or packages, otherwise you may lose points. The reason for this is so you don't circumvent using material that the assignment was designed to make you practice.
- If you disagree with a score on any coursework, contact your ULA by email within one week of receiving your grade. If you are dissatisfied with your ULA's response (or if they neglect to respond at all), then you should contact your instructor about it.
- We don't plan to "curve" the grades, but that's something we will reassess at the end of the term.
- Makeup exams will only be given for exams excused in advance by the instructor.
- Incompletes will be given very rarely. If you have been doing well in the course so far, but an emergency comes up that prevents you from continuing according to schedule, let your instructor know as soon as possible.

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://ecampus.oregonstate.edu).

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.

Expectations for Student Conduct
Student conduct is governed by the university's policies, as explained in the Student Conduct Code (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, and you can also refer to the OSU Student Code of Conduct and the Office of Student Conduct and Community Standard's website 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.

Academic Integrity DOs and DON'Ts:

- Do feel free to discuss course content with each other, even including general discussion
  of homework assignments and how to fix specific issues.
- Do feel free to post small snippets of non-working assignment code to Ed Discussion or the official course Microsoft Teams. If you have trouble

narrowing the problem down to a small snippet, just describe the problem as well as you can and/or ask your ULA for help.
- Do feel free to ask conceptual questions related to assignments on Ed Discussion or the official course Microsoft Teams.
- Do feel free to post code for the exploration exercises on Ed Discussion or the official course Microsoft Teams.
- **Don't** post any quiz questions or answers in any form.
- **Don't** make your code publicly accessible, for example by posting it on Stack Overflow, Chegg, a public GitHub repository, etc. Any GitHub repository you post assignment code on must be private. The Portfolio assignment can be made public after your final course grades have been posted to the Registrar.
- Do feel free to share and compare your assignment code with other students on Ed Discussion or the official course Microsoft Teams starting the Sunday after the assignment was due. Keep in mind that there's not just one correct way to write a program - there's almost always a variety of correct approaches. As you compare with others' code, try to notice what seem to be advantages or disadvantages of a particular approach, and don't be afraid to ask questions about why someone made a certain design decision.
- **Don't** copy someone else's code, in whole or in part, whether someone else in the course, a previous student in the course, or code you found somewhere online. It's easy for us to detect plagiarism, it will get you a zero on the assignment, and it goes on your academic record. This also includes detailed plans for code, such as pseudocode.

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?](#)

Statement Regarding Students with Disabilities

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 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 intended to be accessible. However, resources available through external providers (i.e., YouTube, websites, etc.) may not fully comply with accessibility standards. If you require accommodations please contact Disability Access Services (DAS).

Additionally, Canvas, the learning management system through which this course is offered, provides a vendor statement certifying how the platform is accessible to students with disabilities.

Tutoring and Writing Assistance
TutorMe is a leading provider of online tutoring and learner support services fully staffed by experienced, trained and monitored tutors. Access TutorMe from within your Canvas course menu.

The Oregon State Online Writing Support is also available for students enrolled in Ecampus courses.

Academic Calendar
All students are subject to the registration and refund deadlines as stated in the Academic Calendar: https://registrar.oregonstate.edu/osu-academic-calendar.

Student Bill of Rights
OSU has twelve established student rights. They include due process in all university disciplinary processes, an equal opportunity to learn, and grading in accordance with the course syllabus: https://asosu.oregonstate.edu/advocacy/rights.

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.

Ecampus students are always encouraged to discuss issues that impact your academic success with the Ecampus Success Team. Email ecampus.success@oregonstate.edu to identify strategies and resources that can support you in your educational goals.

- **For mental health:**
  Learn about counseling and psychological resources for 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).

Student Learning Experience Survey
During Fall, Winter, and Spring term the online Student Learning Experience surveys open to students the Wednesday of week 9 and close the Sunday before Finals Week. Students will receive notification, instructions, and the link through their ONID email. They may also log into the survey via MyOregonState or directly at https://beav.es/Student-Learning-Survey. Survey results are extremely important and are 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 of written comments) and are not available 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.