

CSE 1010-011: Introduction to Computing for Engineers

Fall 2024 Syllabus

Course Description

In CSE 1010, you will learn how to solve computing problems using algorithmic thinking, programming, computing logic, processes, and environments. The course follows a flipped design: recorded lectures and an interactive textbook are used to teach materials outside of class, while class-time is reserved for solving problems along-side peers and instructors. Lab assignments were developed from problems in mathematics, science, and engineering.

Prerequisites: Not open for credit to students who have passed CSE 1100 or 1729.

Logistics

Course instructor:

- Prof. Timothy Curry
 - Email: timothy.curry@uconn.edu
 - Office: Science 1, Floor 1MZ, Office 116
 - Office hours: Wednesdays 2:30 – 3:30pm and by appt.

Lab instructors (teaching assistants):

Alina Wu	peiling.wu@uconn.edu
Emma Adams	emma.adams@uconn.edu
Harshit Yadav	harshit.yadav@uconn.edu
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Ryan Powers	ryan.p.powers@uconn.edu
Tam Nguyen	tam.n.nguyen@uconn.edu

Office hours will be offered throughout the week by various instructors. Please refer to our HuskyCT for office hours listings (to be posted during the second week of the semester).

Learning Objectives and Outcomes

After completion, you will be able to:

- LO1: Develop computational programs to analyze data and solve computing problems in Python.
- LO2: Translate science and engineering problems to mathematical models using algebra, probability, statistics, and domain knowledge.
- LO3: Compute statistics and visualizations of various types of data using Python visualization libraries and pandas to clearly communicate information

Assessment and Evaluation

Grades are administered in HuskyCT. Students are responsible for tracking their progress through the HuskyCT grade center.

CSE 1010 includes several types of formative and summative assessments.

- **Lecture Participation (LO1, LO2, LO3) – 10%:** Participating during group activities and discussions during our in-person class meetings.
- **Lab assignments (LO1, LO2, LO3) – 15%:** Lab assignments consist of problem formalization and programming during our in-person lab sections.
- **zyBooks homework assignments (LO1, LO2, LO3) – 35%:** Homeworks consist of activities and programming problems within zyBooks. These allow for unlimited submissions before the deadline. The lowest homework scores will be dropped.
- **Exams (LO1, LO2, LO3) – 40%:** 3 exams (lowest score counts for 10%, other two scores count for 15% each).

We strongly encourage high-level discussion of ideas and concepts with peers and instructors, but all assignments must be completed and submitted individually.

Thresholds

We will determine exact floors and half letter grades at the end of the semester according to the standards of performance below. Instructors reserve the right to modify the floors up or down to match the appropriate level of mastery.

Numerical Grade	Letter Grade	GPA
93 - 100	A	4.0
90 – 92	A-	3.7
87 – 89	B+	3.3
83 – 86	B	3.0
80 – 82	B-	2.7

77 – 79	C+	2.3
73 – 76	C	2.0
70 – 72	C-	1.7
67 – 69	D+	1.3
63 – 66	D	1.0
60 - 62	D-	0.7
< 60	F	0.0

Course Design

CSE 1010 is a flipped course, so all lecture and reading materials will be available to you outside of class on HuskyCT/zyBooks (asynchronously). Lectures are broken into short video segments. It is essential that you finish the assigned reading, participation exercises, and lectures prior to the lab section to ensure that you can participate in discussions and complete the lab assignments.

Additionally:

- All work will either be tracked in zyBooks or handed into HuskyCT.
- All work must be submitted by posted deadline. Late submissions will be automatically marked as a zero for that assignment. Please inform the instructor if observance of religious holidays, illness, disability, or other valid reasons interferes with your work so we can try our best to accommodate you.
- In the event of a major life event that warrants additional extensions (it happens), contact the [dean of students](#). They will provide you with additional resources, including contacting your instructors for additional extensions.

Required Book

This course uses a custom zyBooks that is accessed online. The book can be bought directly from the zyBook's website or the UConn bookstore. Purchasing the book directly through zyBook's website is usually less expensive. In short, visit zyBook's website, make a new account or sign into an existing account, and enter in the book ID, **UCONNCSE1010CurryFall2024**, and make sure to select your lab section.

Online textbooks have several advantages over traditional printed textbooks. Many difficult concepts have interactive animations to help build intuition, participation activities that encourage you to engage with the material, and challenge questions to give you immediate feedback. zyBooks can be accessed through your specific lab from your course schedule. If students are learning remotely and do not have regular access to the internet, please

contact your instructor ASAP. It is not recommended for learning, but zyBooks chapters can be downloaded as PDFs for offline study.

Extra Help & Resources

- Office hours (both in-person and remote): Please see the schedule on HuskyCT (to be posted during the second week of the semester).
- If you are having difficulty with writing, the [Writing Center](#) is a great resource.
- Tutoring services (on the Storrs campus) for CSE 1010 are available through the [Engineering Tutoring Center](#) or [Upsilon Pi Epsilon](#).

Course Schedule

In CSE 1010, we cover the following modules throughout the semester, typically one per week. This schedule is tentative and subject to change as needed. Any changes will be communicated via HuskyCT.

Dates	Module	zyBook Chapter
8/26 – 8/30	Course Introduction	
9/2 – 9/6	1. Python Basics	1
9/9 – 9/13	2. Variables and Expressions	2
9/16 – 9/20	3. Functions	3
9/23 – 9/27	4. Control Flow	4
9/30 – 10/4	Exam 1	
10/7 – 10/11	5. Iteration and Definite Loops	5
10/14 – 10/18	6. Indefinite Loops	6
10/21 – 10/25	7. Classes and Basic Data Structures	7
10/28 – 11/1	Exam 2	
11/4 – 11/8	8. Advanced Data Structures and Functions	8
11/11 – 11/15	9. Input, Output, and Modules	9
11/18 – 11/22	10. Data Science (part 1)	10
11/25 – 11/29	Fall Recess	
12/2 – 12/6	10. Data Science (part 2)	10
12/9 – 12/13	Final Exam Week	

Policies

Academic Integrity

Formally, we follow the university policy on academic integrity to discourage and penalize academic misconduct.

Academic misconduct is dishonest or unethical academic behavior that includes, but is not limited to, misrepresenting mastery in an academic area (e.g., cheating), failing to properly credit information, research, or ideas to their rightful originators or representing such information, research, or ideas as your own (e.g., plagiarism). – UConn Community Standards, Academic Misconduct

Students found in violation of academic integrity may be subject to failing the assignment, the course, and/or review by the academic integrity hearing board. See the [student code](#) and references therein for more information. Informally, all academic work you submit must be your own or in collaboration with explicitly specified peers (where permitted). Discuss classwork, exercises, and problems with peers in a manner that helps all parties understand a problem or possible paths towards its solution. Do not copy solutions from other students or from any other resource. You will put your future self in the best position to succeed in academia or industry if you dedicate yourself to learning and retaining the material.

Disabilities

The University offers many services to its students with disabilities through the [Center for Students with Disabilities](#). Eligibility for these services is determined individually based on documented need. If you have a diagnosed disability (physical, learning, or psychological) that will make it difficult for you to carry out the course work as outlined, or that requires accommodations such as recruiting note-takers, readers, or extended time on exams or assignments, please advise the instructor during the first two weeks of the course so that we may review possible arrangements for reasonable accommodations.