

Programming Fundamentals I

COP 3502C

Sections: 11722, 11723, 11724, 11725, 11738, 11739, 11741, 11743, 11744, 11745, 11757, 11758, 11759, 11760, 11761, 11762, 18176, 18177, 19791, 19792

Academic Term: Fall 2025

Class Periods, Modalities, and Locations:

Lecture

T | P4 (10:40 AM to 11:30 AM)
R | P4-5 (10:40 AM to 12:35 AM)

Modality: In person @ CAR 100
& live via Zoom

Discussion/Labs

You must join your respective discussion
from the following based on your section:

Modality: In person only.

Section #	Day	Time	Room
19791	Tuesday	11:45 AM - 1:40 PM	MALA 3210
19792	Tuesday	11:45 AM - 1:40 PM	MALA 2001
11722	Tuesday	1:55 PM - 3:50 PM	MALA 3210
11723	Tuesday	1:55 PM - 3:50 PM	MALA 2001
11724	Tuesday	4:05 PM - 6:00 PM	MALA 3210
11725	Tuesday	4:05 PM - 6:00 PM	MALA 2001
11738	Tuesday	6:15 PM - 8:10 PM	MALA 3210
18176	Tuesday	6:15 PM - 8:10 PM	MALA 2001
11739	Wednesday	7:25 AM - 9:20 AM	MALA 2001
11741	Wednesday	7:25 AM - 9:20 AM	MALA 3210
11743	Wednesday	9:35 AM - 11:30 AM	MALA 3210
11744	Wednesday	9:35 AM - 11:30 AM	MALA 2001
11745	Wednesday	11:45 AM - 1:40 PM	MALA 3210
11757	Wednesday	11:45 AM - 1:40 PM	MALA 2001
11758	Wednesday	1:55 PM - 3:50 PM	MALA 3210
11759	Wednesday	1:55 PM - 3:50 PM	MALA 2001
11760	Wednesday	4:05 PM - 6:00 PM	MALA 2001
18177	Wednesday	4:05 PM - 6:00 PM	MALA 3210
11761	Wednesday	6:15 PM - 8:10 PM	MALA 2001
11762	Wednesday	6:15 PM - 8:10 PM	MALA 3210

Instructor:

Ashish Aggarwal

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Office: MALA 4236

Office Phone: 352-294-1385

Office Hours: -Fridays, 3 to 5 pm in person and online (MALA 4236 or <https://ufl.zoom.us/my/ashishjuit>)
-Or by appointment

Teaching Assistants/Peer Mentors:

TBA on Canvas

Course Description

This is the first course of a two-semester introductory sequence for students without prior programming experience. Topics include major concepts of computer science and computer programming processes, including

object-oriented programming, procedural and data abstraction and program modularity.

Course Objectives

By the end of the semester, successful students should be able to:

- understand what programming is and the unique features of Python,
- read and understand programs written in Python,
- design and implement programs using Python,
- interpret and execute programs to get results, and
- debug (identify and fix) syntax, semantic, and logic errors in Python source code.

Professional Component (ABET):

This course contributes to meeting the professional component of ABET program criteria:

4) an ability to recognize ethical and professional responsibilities in engineering situations and make informed judgements, which must consider the impact of engineering solutions in global, economic, environmental, and societal contexts.

Required Textbooks and Software

- PyCharm IDE
- RuneStone' Python for Everybody: Interactive textbook, provided through a link in the course
- Other digital tools: Canvas, Gradescope, EdStream, Honorlock

Recommended (NOT REQUIRED) Textbooks

- Python Crash Course, Eric Matthes (No Starch Press, 2016)

Mobile Computing Requirement

- The College of Engineering requires students to have a mobile computing device (standard laptop) with 802.11 WiFi capability (<https://www.eng.ufl.edu/students/resources/computer-requirements/>). Students are required to bring their mobile computing devices (laptops) to class and labs for assignments!

Course Schedule (Tentative)

Week	Dates		Topic
1	21-Aug	24-Aug	Introduction to Information, Technology and Computers
2	25-Aug	31-Aug	User input and output, variables, operators
3	1-Sep	7-Sep	Flow control: Conditionals
4	8-Sep	14-Sep	Loops (while and for loop)
5	15-Sep	21-Sep	Functions
6	22-Sep	28-Sep	Review and Exam-1
7	29-Sep	5-Oct	Number Systems & Data Types: Strings, Lists, Tuples
8	6-Oct	12-Oct	Data Types: Sets, Dictionaries
9	13-Oct	19-Oct	Recursion
10	20-Oct	26-Oct	Exam-2; Classes and Objects
11	27-Oct	2-Nov	Inheritance and Algorithms
12	3-Nov	9-Nov	Software Engineering
13	10-Nov	16-Nov	Event Driven Programming
14	17-Nov	23-Nov	Exam-3; File I/O and Data Analysis
15	24-Nov	30-Nov	Thanksgiving Break
16	1-Dec	3-Dec	Computational Ethics; Final project submission

Evaluation of Grades

Assignment	Weightage	Percentage of Final Grade
Quizzes (11, Drop Lowest 3)	1.25% x 8	10%
Labs (11, Drop Lowest 3)	2.5% x 8	20%
Class Participation	5%	5%
Exam 1	15%	15%
Exam 2	15%	15%
Exam 3	10%	10%
Projects (3)	3 x 5%	15%
Final Project	10%	10%
		Total: 100%

Grading Policy

Percent	Grade	Grade Points
93.4 - 100	A	4.00
90.0 - 93.3	A-	3.67
86.7 - 89.9	B+	3.33
83.4 - 86.6	B	3.00
80.0 - 83.3	B-	2.67
76.7 - 79.9	C+	2.33

Percent	Grade	Grade Points
73.4 - 76.6	C	2.00
70.0 - 73.3	C-	1.67
66.7 - 69.9	D+	1.33
63.4 - 66.6	D	1.00
60.0 - 63.3	D-	0.67
0 - 59.9	E	0.00

More information on UF grading policy: <https://catalog.ufl.edu/ugrad/current/regulations/info/grades.aspx>

Note: A C- will not be a qualifying grade for critical tracking courses. In order to graduate, students must have an overall GPA and an upper-division GPA of 2.0 or better (C or better).

Class Expectations

- This course runs on a **flipped classroom design**. Every week, students will be expected to work in phases of before class, during class, and after class work
 - Before class:
 - Watch the **content videos** for a particular module
 - Complete a **quiz** based on it before the class
 - During the class: (*bring a personal laptop in the class*)
 - In-Person Section:
 - The classes will be **held on Tuesdays and Thursdays**, and students are encouraged to attend lectures on Tuesdays and Thursdays. There will also be a live Zoom session for those who are interested in attending the class online.
 - Only the **Thursday lecture** will have in-class participation activities for credit. While no attendance will be taken, **students must attend the Thursday class either in person in CAR 100 or online on Zoom to receive the in-class participation credit.**
 - After the class:
 - Complete and submit the **labs and projects**
- In addition, students are expected to complete **three exams, three projects, and one final project**
- Weekly discussion/lab sessions are scheduled for two periods each week, separate from the regular Tuesday and Thursday lectures. Attending these sessions is **MANDATORY** for receiving the lab credit.
- Exams will be administered in person.

Course Communication, Office Hours and Code Review Policy

- **EdStream is a communication and collaboration app in Canvas.** We plan to use that to streamline all communication. **Use EdStream or office hours for all course-related communication and help-seeking.** However, if you have issues using it, you can always email the instructor on Canvas.
- For questions directed to instructors, messaging on EdStream is the preferred mode of communication.
- We typically answer queries on EdStream within 48 business hours.
- Students should visit the course staff during scheduled office hours for help on projects or quizzes. Do not send emails or “@” instructors or TAs about project help. The TAs and instructor will often try to answer questions, when possible, in #questions- channels, but the way to get personalized help is to visit them during office hours.
- **Debugging requests for projects/quiz questions must first go through the Peer Mentors.** This is strongly encouraged given we have a large class and several of you might have similar questions. If your problem is not fixed, then reach out to the instructor.
- Try to answer questions posted by your course mates if possible and help them. This is helpful for a vibrant environment in a large course.
- Harassment/Bullying/Making fun of another student will not be tolerated and will lead to disciplinary actions. If someone is behaving disrespectfully on the forum which you find inappropriate, send the instructor a message and don't argue on it publicly.

Make-Up and Late Submission Policy

- Makeups for exams, labs, quizzes and projects are not normally allowed. If you cannot attend an exam, you must contact the instructor well in advance. Submitting an exam, quiz, or lab late will result in a zero. Arrangements will be made for students on a case-by-case basis for excused reasons. Failure to contact the instructor prior to the exam, homework, or final project will result in a zero. **You are allowed to submit projects up to 24 hours late with a penalty of 20 points.** This only applies to projects. It is the student's responsibility to honor and respect the given deadlines posted on Canvas (<https://elearning.ufl.edu>).
- Three quiz and lab drops are allowed; we drop your three lowest scored labs and quizzes.
- Deadline extensions: Given that we have three quizzes and lab drops allowed, we normally do not allow any extensions on the deadline and expect students to use these judiciously as the need arises. In case you use all three labs and quiz drops and still require additional extensions or excuses, you must submit documentation for all the missed labs and quizzes. All the requests should be submitted on EdStream (available on Canvas)
- Exams may be made up when a student has an excused absence. These absences must be notified to the instructor at least 72 hours before the exam along with written documentation from a reputable source as evidence. Excused absences must be consistent with university policies in the undergraduate catalog (<https://catalog.ufl.edu/ugrad/current/regulations/info/attendance.aspx>). Please note that there is no guarantee that requests will be accommodated.

Code Submissions

- Functionality is key to success in software development and computer science, so it is extremely important that the guidelines are followed. Failure to follow these instructions will result in penalties.
- Code must compile/run in debug and release mode.
- Gradescope gives you immediate feedback on your submission, and you are expected to go through the feedback, fix any issues and resubmit it if required. Note that you have unlimited attempts on Gradescope before the deadline for all the assignments.

Academic Dishonesty

- Quizzes, Projects, and Exams are to be worked independently without code sharing in any form. **All cheating or dishonest behaviors will be reported to the Honor Court immediately.**
- As for the labs, you will work with your peers during the discussion section. But you must submit your own code.
- Sharing/copying, “borrowing” of code structure, looking at code from another student or providing such code, and plagiarism, in addition to other dishonest behaviors, are all considered to be academic dishonesty. No information regarding the project, quiz, and exam solutions may be shared by students except for a discussion at a conceptual level.
- For any conceptual discussions, cite the peer who you discussed it with or cite the internet resource you referred to as comments in the program. Such discussions should be held on a whiteboard using explanation figures/pseudo-codes or through talking. We strongly encourage that if you have doubts, visit the course staff in-office hours. **Looking at any piece of your peer’s code, sharing files, searching for solutions found online, using AI-generated or -suggested code, or using someone else to code your solution is strictly prohibited.**
- Any student found to have violated these rules, whether a provider or receiver or unauthorized help, will be given a zero on that assignment and a two letter final grade decrement for a first offense. For a second offense, you will get an E grade, the failing grade. Also, for both offenses, you will be reported to the Honor Court. **If you aren’t clear on what constitutes plagiarism, ask the course staff.**

Students Requiring Accommodations

Students with disabilities who experience learning barriers and would like to request academic accommodations should connect with the disability Resource Center by visiting <https://disability.ufl.edu/students/get-started/>. It is important for students to share their accommodation letter with their instructor and discuss their access needs, as early as possible in the semester.

Academic Policies & Resources

<https://go.ufl.edu/syllabuspolicies>

Commitment to a Positive Learning Environment

The Herbert Wertheim College of Engineering values varied perspectives and lived experiences within our community and is committed to supporting the University’s core values.

If you feel like your performance in class is being impacted, please contact your instructor or any of the following:

- Your academic advisor or Undergraduate Coordinator
- HWCOE Human Resources, 352-392-0904, student-support-hr@eng.ufl.edu
- Pam Dickrell, Associate Dean of Student Affairs, 352-392-2177, pld@ufl.edu