

Programming Fundamentals I

COP 3502C

Sections: 11812, 11813, 11814, 11815, 12127, 1218, 12129, 12130, 12145, 12146, 12148, 12150, 12151, 12152, 12165, 12166, 12167, 12168, 12169, 12170, 12171, 12172, 20400, 20401, 23031, 23032

Academic Term: Fall 2024

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 0100
& live via Zoom

Discussion You must join your respective discussion:

Modality: In person only.

Section #	Day	Time	Room
23031	Tuesday	11:45 AM - 1:40 PM	MALA 3210
23032	Tuesday	11:45 AM - 1:40 PM	MALA 2001
12128	Tuesday	1:55 PM - 3:50 PM	MALA 3210
12127	Tuesday	1:55 PM - 3:50 PM	MALA 2001
12145	Tuesday	4:05 PM - 6:00 PM	MALA 3210
12130	Tuesday	4:05 PM - 6:00 PM	MALA 2001
12146	Tuesday	6:15 PM - 8:10 PM	MALA 3210
20400	Tuesday	6:15 PM - 8:10 PM	MALA 2001
12150	Tuesday	8:20 PM - 10:10 PM	MALA 3210
12148	Tuesday	8:20 PM - 10:10 PM	MALA 2001
12152	Wednesday	7:25 AM - 9:20 AM	MALA 3210
12151	Wednesday	7:25 AM - 9:20 AM	MALA 2001
12166	Wednesday	9:35 AM - 11:30 AM	MALA 3210
12165	Wednesday	9:35 AM - 11:30 AM	MALA 2001
12167	Wednesday	11:45 AM - 1:40 PM	MALA 3210
12168	Wednesday	11:45 AM - 1:40 PM	MALA 2001
12169	Wednesday	1:55 PM - 3:50 PM	MALA 3210
20401	Wednesday	1:55 PM - 3:50 PM	MALA 2001
12170	Wednesday	4:05 PM - 6:00 PM	MALA 3210
12171	Wednesday	4:05 PM - 6:00 PM	MALA 2001
11812	Wednesday	6:15 PM - 8:10 PM	MALA 3210
12172	Wednesday	6:15 PM - 8:10 PM	MALA 2001
11813	Wednesday	8:20 PM - 10:10 PM	MALA 3210
12129	Wednesday	8:20 PM - 10:10 PM	MALA 2001
11814	Thursday	7:25 AM - 9:20 AM	MALA 3210
11815	Thursday	7:25 AM - 9:20 AM	MALA 2001

Instructor:

Ashish Aggarwal

ashishjuit@ufl.edu

Office: MALA 4236

Office Phone Number: 352-294-1385

Office Hours: Fridays, 4 to 6 pm in person and online (location and zoom link available on Canvas)

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
- No Textbooks Required

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 to class for in-class assignments!

Course Schedule (Tentative)

Week 01 (08/22 – 08/23):	Introduction to Information, Technology and Computers
Week 02 (08/26 – 08/30):	User input and output, variables, operators
Week 03 (09/03 – 09/06):	Flow control: Conditionals
Week 04 (09/09 – 09/13):	Loops (while and for loop)
Week 05 (09/16 – 09/20):	Functions
Week 06 (09/23 – 09/27):	Review and Exam-1
Week 07 (09/30 – 10/04):	Number Systems & Data Types: Strings, Lists, Tuples
Week 08 (10/07 – 10/11):	Data Types: Sets, Dictionaries
Week 09 (10/14 – 10/18):	Recursion and Exam-2
Week 10 (10/21 – 10/25):	Classes and Objects
Week 11 (10/28 – 11/01):	Inheritance
Week 12 (11/04 – 11/08):	Software Engineering
Week 13 (11/12 – 11/15):	Event Driven Programming and Exam-3
Week 14 (11/18 – 11/22):	File I/O and Plotting
Week 15 (12/02 – 12/04):	Computational ethics; Final project submission

Evaluation of Grades

Assignment	Weightage	Percentage of Final Grade
Quizzes (11, Drop Lowest 3)	1.5% x 8	12%
Labs (11, Drop Lowest 3)	2.5% x 8	20%
Exam 1	15%	15%
Exam 2	15%	15%
Exam 3	10%	10%
Projects (3)	3 x 6%	18%
Final Project	10%	10%
Extra Credit Opportunities	Up to 3%	3%
		Total: 103%

Grading Policy

Percent	Grade	Grade Points
92.5 - 103	A	4.00
89.5 - 92.4	A-	3.67
86.5 - 89.4	B+	3.33
82.5 - 86.4	B	3.00
79.5 - 82.4	B-	2.67
76.5 - 79.4	C+	2.33

Percent	Grade	Grade Points
72.5 - 76.4	C	2.00
69.5 - 72.4	C-	1.67
66.5 - 69.4	D+	1.33
62.5 - 66.4	D	1.00
59.5 - 62.4	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). Note: an average of C- is equivalent to a GPA of 1.67 and therefore does not satisfy this graduation requirement. For more information on grades and grading policies, please consult the catalog.

Grades will not be “bumped up”, and no additional credit will be offered at the end of the term – so do not ask! Any request for a final grade increase, via “bumping” or “extra credit” will result in a **deduction of 1%** of the student’s final grade.

Make-Up and Late Submission Policy

1. No make-up or late submission is allowed on quizzes and labs. Remember, we drop the lowest scores.
2. Makeups for exams 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>).
3. 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

1. 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.
2. Code must compile/run in debug and release mode. Debug information should never be released in the final version of a software project. **Projects and Labs that do not compile AND run will be marked zero.**

Class Expectations

3. The class will follow an in-person **lecture-based format where lectures will be held on Tuesdays and Thursdays**, and you are expected to attend the class weekly. There will also be a live Zoom session for those who are interested in attending the class online.
4. **Attending weekly live labs/discussions is mandatory and failure to attend a lab will result in a score of 0 for that week's lab.**

Course Communication, Office Hours and Code Review Policy

5. **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.
6. **For questions directed to instructors, messaging on EdStream is the preferred mode of communication.**
7. We typically answer queries on EdStream within 48 business hours.
8. 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.
9. **Debugging requests for projects/quiz questions must first go through the TAs.** 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.
10. 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.
11. 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.

Academic Dishonesty

1. Quizzes, Projects, and Exams are to be worked independently without code sharing. **All cheating or dishonest behaviors will be reported to the Honor Court immediately.**
2. As for the labs, you will work with your peers during the discussion section. But you must submit your own code.
3. 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.
4. 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.**
5. 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.

Course Evaluation

Students are expected to provide professional and respectful feedback on the quality of instruction in this course by completing course evaluations online via GatorEvals. Guidance on how to give feedback in a professional and respectful manner is available at <https://gatorevals.aa.ufl.edu/students/>. Students will be notified when the evaluation period opens, and can complete evaluations through the email they receive from GatorEvals, in their Canvas course menu under GatorEvals, or via <https://ufl.bluer.com/ufl/>. Summaries of course evaluation results are available to students at <https://gatorevals.aa.ufl.edu/public-results/>.

In-Class Recording

Students are allowed to record video or audio of class lectures. However, the purposes for which these recordings may be used are strictly controlled. The only allowable purposes are (1) for personal educational use, (2) in connection with a complaint to the university, or (3) as evidence in, or in preparation for, a criminal or civil proceeding. All other purposes are prohibited. Specifically, students may not publish recorded lectures without the written consent of the instructor.

A “class lecture” is an educational presentation intended to inform or teach enrolled students about a particular subject, including any instructor-led discussions that form part of the presentation, and delivered by any instructor hired or appointed by the University, or by a guest instructor, as part of a University of Florida course. A class lecture does not include lab sessions, student presentations, clinical presentations such as patient history, academic exercises involving solely student participation, assessments (quizzes, tests, exams), field trips, private conversations between students in the class or between a student and the faculty or lecturer during a class session.

Publication without permission of the instructor is prohibited. To “publish” means to share, transmit, circulate, distribute, or provide access to a recording, regardless of format or medium, to another person (or persons), including but not limited to another student within the same class section. Additionally, a recording, or transcript of a recording, is considered published if it is posted on or uploaded to, in whole or in part, any media platform, including but not limited to social media, book, magazine, newspaper, leaflet, or third party note/tutoring services. A student who publishes a recording without written consent may be subject to a civil cause of action instituted by a person injured by the publication and/or discipline under UF Regulation 4.040 Student Honor Code and Student Conduct Code.

University Honesty Policy

UF students are bound by The Honor Pledge which states, “We, the members of the University of Florida community, pledge to hold ourselves and our peers to the highest standards of honor and integrity by abiding by the Honor Code. On all work submitted for credit by students at the University of Florida, the following pledge is either required or implied: “On my honor, I have neither given nor received unauthorized aid in doing this assignment.” The Honor Code (<https://sccr.dso.ufl.edu/process/student-conduct-code/>) specifies a number of behaviors that are in violation of this code and the possible sanctions. Furthermore, you are obligated to report any condition that facilitates academic misconduct to appropriate personnel. If you have any questions or concerns, please consult with the instructor or TAs in this class.

Commitment to a Safe and Inclusive Learning Environment

The Herbert Wertheim College of Engineering values broad diversity within our community and is committed to individual and group empowerment, inclusion, and the elimination of discrimination. It is expected that every person in this class will treat one another with dignity and respect regardless of gender, sexuality, disability, age, socioeconomic status, ethnicity, race, and culture.

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

- Your academic advisor or Graduate Program Coordinator
- Jennifer Nappo, Director of Human Resources, 352-392-0904, jpennacc@ufl.edu
- Curtis Taylor, Associate Dean of Student Affairs, 352-392-2177, taylor@eng.ufl.edu
- Toshikazu Nishida, Associate Dean of Academic Affairs, 352-392-0943, nishida@eng.ufl.edu

Software Use

All faculty, staff, and students of the University are required and expected to obey the laws and legal agreements governing software use. Failure to do so can lead to monetary damages and/or criminal penalties for the individual violator. Because such violations are also against University policies and rules, disciplinary action will be taken as appropriate. We, the members of the University of Florida community, pledge to uphold ourselves and our peers to the highest standards of honesty and integrity.

Student Privacy

There are federal laws protecting your privacy with regards to grades earned in courses and on individual assignments. For more information, please see: <https://registrar.ufl.edu/ferpa.html>

Campus Resources:

Health and Wellness

U Matter, We Care:

Your well-being is important to the University of Florida. The U Matter, We Care initiative is committed to creating a culture of care on our campus by encouraging members of our community to look out for one another and to reach out for help if a member of our community is in need. If you or a friend is in distress, please contact umatter@ufl.edu so that the U Matter, We Care Team can reach out to the student in distress. A nighttime and weekend crisis counselor is available by phone at 352-392-1575. The U Matter, We Care Team can help connect students to the many other helping resources available including, but not limited to, Victim Advocates, Housing staff, and the Counseling and Wellness Center. Please remember that asking for help is a sign of strength. In case of emergency, call 9-1-1.

Counseling and Wellness Center: <https://counseling.ufl.edu>, and 392-1575; and the University Police Department: 392-1111 or 9-1-1 for emergencies.

Sexual Discrimination, Harassment, Assault, or Violence

If you or a friend has been subjected to sexual discrimination, sexual harassment, sexual assault, or violence contact the **Office of Title IX Compliance**, located at Yon Hall Room 427, 1908 Stadium Road, (352) 273-1094, title-ix@ufl.edu

Sexual Assault Recovery Services (SARS)

Student Health Care Center, 392-1161.

University Police Department at 392-1111 (or 9-1-1 for emergencies), or <http://www.police.ufl.edu/>.

Academic Resources

E-learning technical support, 352-392-4357 (select option 2) or e-mail to Learning-support@ufl.edu.
<https://lss.at.ufl.edu/help.shtml>.

Career Connections Center, Reitz Union, 392-1601. Career assistance and counseling; <https://career.ufl.edu>.

Library Support, <http://cms.uflib.ufl.edu/ask>. Various ways to receive assistance with respect to using the libraries or finding resources.

Teaching Center, Broward Hall, 392-2010 or 392-6420. General study skills and tutoring.
<https://teachingcenter.ufl.edu/>.

Writing Studio, 302 Tigert Hall, 846-1138. Help brainstorming, formatting, and writing papers.
<https://writing.ufl.edu/writing-studio/>.

Student Complaints Campus: <https://sccr.dso.ufl.edu/policies/student-honor-code-student-conduct-code/>; <https://care.dso.ufl.edu>.

On-Line Students Complaints: <https://distance.ufl.edu/getting-help/>; <https://distance.ufl.edu/state-authorization-status/#student-complaint>.