## **Programming Fundamentals I**

COP 3502C Section 29775, 30145 Academic Term: Fall 2023

### Class Periods, Modalities, and Locations:

**Lecture** T | P4 (10:40 AM - 11:30 AM) Modality: In person ROG 0129 R | P4-5 (10:40 AM - 12:35 PM) & live via Zoom

DiscussionYou must join your respective discussion:Modality: In person only.DayTimeLocationClass NumberTPeriods 8-9 (3:00 PM - 4:55 PM)CSE E11530145TPeriod 10-11 (5:10 PM - 7:05 PM)CSE E31229775

#### Instructor:

Daniel Delgado danieldel@ufl.edu

Office Hours: Tuesday 2:00-4:00 pm or by appointment

### Teaching Assistants/Peer Mentors

Zoe Brown
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### **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
- Programming in Python 3 with zylabs, zyBooks
   URL: learn.zybooks.com
   Book code: UFLCOP3502CFall2023

#### **Recommended Materials**

• Textbook: 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 (<a href="https://www.eng.ufl.edu/students/resources/computer-requirements/">https://www.eng.ufl.edu/students/resources/computer-requirements/</a>). Students are required to bring their mobile computing devices to class for in-class assignments!

# Course Schedule (Tentative)

Mod.	Dates		Lecture Videos to Watch	Lab	Quiz	Project	Zybooks Reading
1	21-Aug	27-Aug	Course Syllabus / Introduction to CS				Ch-1
2	28-Aug	3-Sep	Variables & Arithmetic, & IO				Ch-2
3	4-Sep	10-Sep	Program Control	1	1		Ch-3
3, 4	11-Sep	17-Sep	Program Control & Functions	2	2		Ch-3, 4
4	18-Sep	24-Sep	Functions	3	3	P1	Ch-4
5	25-Sep	1-0ct	Number Systems & Data Types: Strings, Lists			P2a	Ch-5.1-5.18
5	2-Oct	8-0ct	Data Types: Tuples, Sets, Dictionaries	4	4		Ch-5.19-5.29
6	9-0ct	15-0ct	Review, EXAM 1			P2b	
7	16-0ct	22-0ct	Software Engineering	5	5		Ch-6
8	23-0ct	29-0ct	Class and Inheritance			P2c	Ch-7
9	30-0ct	5-Nov	Event-Driven Programming	6	6		
10	6-Nov	12-Nov	Introduction to Algorithms	7	7		Ch-8
11	13-Nov	19-Nov	Recursion			Р3	Ch-9
	20-Nov	26-Nov	Break	8	8		
12	27-Nov	3-Dec	Exam 2 Review	9	9		
13	4-Dec	6-Dec	File I/O and Plotting			P4	Ch-10

# **Evaluation of Grades**

Assignment	Weightage	Percentage of Final Grade
Quizzes (9, Drop Lowest 1)	2% x 8	16%
Labs (9, Drop Lowest 1)	2% x 8	16%
Exam 1	15%	15%
Exam 2 (cumulative)	15%	15%
Projects (1, 2, 3)	8% x 3	24%
Project 4	10%	10%
Zybooks activities	4%	4%
Extra Credit Opportunities	Up to 3%	3%
		<b>Total</b> : 103%

# **Grading Policy**

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

Percent	Grade	<b>Grade Points</b>
72.5 - 76.4	С	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

**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 <u>"bumped up"</u>, and no <u>additional credit</u> 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 allowed on guizzes. Remember, we drop lowest scores.
- 2. 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 (<a href="https://catalog.ufl.edu/ugrad/current/regulations/info/attendance.aspx">https://catalog.ufl.edu/ugrad/current/regulations/info/attendance.aspx</a>). Please note that there is no guarantee that requests will be accommodated. There will be a common makeup exam for Exam 1 and Exam 2 on the date of the final exam that will be used for substitution after approval from the Instructor.

#### Code Submissions

- 3. 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.
- 4. 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.**
- 5. Your project and lab grades will be based on your zybooks grade instead of the output you have in any other text editors e.g., PyCharm. Thus, when your program doesn't work on zybooks, reach out to your TA in a timely manner before the due date by showing them code in the office hours.
- 6. Include only those files specified by the documents in your archive. Projects should have no directory structure except as explicitly mentioned in the documentation. If the project has naming or organization error(s), its grade will be zero.

### Class Expectations

- 7. The class will follow a **flipped format** and you are expected to watch videos every week before you show up in class. In class, we will briefly review the content and then work on activities.
- **8.** Grade reviews must be requested within one week of a grade being posted. After one week, no grade will be revisited. In the event of a grade review, the entire assignment will be reviewed.
- 9. Projects and labs submitted late will be penalized by **10% each day up to three days**. After the third day, you will get a 0. We also count weekends as regular days. So, if an assignment is due Friday, and you submit it on Sunday, your final score will have a 20% deduction (2 days late penalty).
- 10. Attending weekly live labs/discussions are mandatory and failure to attend a lab will result in a score of 0 for that week's lab. You will be working with a partner in the labs.

### Course Communication, Office Hours and Code Review Policy

- 11. Use course slack or office hours for all course related communication and help seeking. For any personal communication such as accommodations request, you can use emails, but we will not answer course related questions such as debugging requests on email. Note that we do not respond to Canvas messages as we prefer to keep all communications in one place.
- 12. For questions directed to instructors, email is the preferred mode of communication.
- 13. We typically answer queries on Slack within 48 business hours.
- 14. 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.
- 15. The course staff cannot provide you more than 15 minutes of their time in case of long lines or more than two students waiting to get help during office hours.

- 16. When making any debugging requests, make sure you provide the context of what problem you are trying to solve and where is your code failing. Small snippets (1 2 lines of code) can be posted on slack but not the entire code.
- 17. **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.
- 18. 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.
- 19. 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

- **20.** 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.**
- 21. As for the labs, you will work with your peers during the discussion section. But you must submit your own code.
- 22. 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.
- 23. For any conceptual discussions, cite the peer who you discussed it with or cite the internet resource you referred to. 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, or using someone else to code your solution is strictly prohibited.
- 24. 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 <a href="https://disability.ufl.edu/students/get-started/">https://disability.ufl.edu/students/get-started/</a>. 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 <a href="https://gatorevals.aa.ufl.edu/students/">https://gatorevals.aa.ufl.edu/students/</a>. 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 <a href="https://ufl.bluera.com/ufl/">https://ufl.bluera.com/ufl/</a>. Summaries of course evaluation results are available to students at <a href="https://gatorevals.aa.ufl.edu/public-results/">https://gatorevals.aa.ufl.edu/public-results/</a>.

# **In-Class Recording**

Daniel Delgado, Fall 2023

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 *Programming Fundamentals I Online, COP 3502C* 

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 (<a href="https://sccr.dso.ufl.edu/process/student-conduct-code/">https://sccr.dso.ufl.edu/process/student-conduct-code/</a>) 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 varied perspectives and lived experiences within our community and is committed to supporting the University's core values, including the elimination of discrimination. It is expected that every person in this class will treat one another with dignity and respect regardless of race, creed, color, religion, age, disability, sex, sexual orientation, gender identity and expression, marital status, national origin, political opinions or affiliations, genetic information, and veteran status.

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
- HWCOE Human Resources, 352-392-0904, student-support-hr@eng.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: <a href="https://registrar.ufl.edu/ferpa.html">https://registrar.ufl.edu/ferpa.html</a>

### 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 <a href="mailto:umatter@ufl.edu">umatter@ufl.edu</a> 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:** <a href="https://counseling.ufl.edu">https://counseling.ufl.edu</a>, 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 <u>Office of Title IX Compliance</u>, 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 <a href="http://www.police.ufl.edu/">http://www.police.ufl.edu/</a>.

### Academic Resources

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

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

**Library Support**, <a href="http://cms.uflib.ufl.edu/ask">http://cms.uflib.ufl.edu/ask</a>. 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. <a href="https://writing.ufl.edu/writing-studio/">https://writing.ufl.edu/writing-studio/</a>.

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

**On-Line Students Complaints**: <a href="https://distance.ufl.edu/getting-help/">https://distance.ufl.edu/state-authorization-status/#student-complaint</a>.