

# Programming Fundamentals I

COP 3502C

*Academic Term:* Spring 2023

## **Class Periods:**

### **Lecture**

M,W,F | P2 (8:30 am – 9:20 am)

Live @ CAR-100 or online via zoom

---

### **Discussion**

**In-person**, time other than the lecture time on one.uf

## **Instructor:**

Lisha Zhou

[lzhou1@ufl.edu](mailto:lzhou1@ufl.edu)

Office Hours: W 9:30am - 11:30am, or by appointment

## **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**

- Programming in Python 3 with zybooks, zyBooks  
URL: [learn.zybooks.com](https://learn.zybooks.com) Book code: [UFLCOP3502CZhouSpring2023](#)

## **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 (<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

The following is a rough topical overview of what we will examine during the course (subject to minor changes):

| Mod. | Dates         | Lecture                                 | Lab                   | Project        |
|------|---------------|---|-----------------------|----------------|
| NA   | 01/09 – 01/15 | Course Syllabus, Intro to CS            | No Quiz / No Lab      |                |
| 00   | 01/17 – 01/22 | Introduction to Computer Science        | Lab 01 / Quiz 01      |                |
| 01   | 01/23 – 01/29 | Variables & Arithmetic, & IO            | Lab 02 / Quiz 02      |                |
| 02   | 01/30 – 02/05 | Program Control                         | Lab 03 / Quiz 03      |                |
| 03   | 02/06 – 02/12 | Methods & Number Systems                | Lab 04 / Quiz 04      | P1 Due: 02/10  |
| 04A  | 02/13 – 02/19 | Data Types – Strings, Lists             | Lab 05 / Quiz 05      | P2a Due: 02/17 |
| E    | 02/20 – 02/26 | Review, EXAM 1                          | Exam 1 Review Session |                |
| 04B  | 02/27 – 03/05 | Data Types – Tuples, Sets, Dictionaries | Lab 05 / Project 2b   | P2b Due: 03/03 |
| 05   | 03/06 – 03/12 | Software Engineering                    | Lab 06 / Quiz 06      | P2c Due: 03/10 |
| EE   | 03/13 – 03/19 | Spring Break                            | No Quiz/ No Lab       |                |
| 06   | 03/20 – 03/26 | Class and Inheritance                   | Lab 07 / Quiz 07      |                |
| 07   | 03/27 – 04/02 | Searching and Sorting Algorithms        | Lab 08 / Quiz 08      |                |
| E    | 04/03 – 04/09 | Review, EXAM 2                          | Exam 2 Review Session | P3 Due: 04/07  |
| 08   | 04/10 – 04/16 | Recursion                               | Lab 09 / Quiz 09      |                |
| 09   | 04/17 – 04/23 | File I/O                                | No Quiz / No Lab      |                |
| FE   | 04/24 – 04/26 | Final Review                            | No Quiz / No Lab      | P4 Due: 04/25  |

## Evaluation of Grades

| Assignment                 | Weightage | Percentage of Final Grade |
|----------------------------|-----------|---------------------------|
| Quizzes (9, Drop Lowest 1) | 2% x 8    | 16%                       |
| Labs (9, Drop Lowest 1)    | 2% * 8    | 16%                       |
| Exam 1                     | 10%       | 10%                       |
| Exam 2                     | 10%       | 10%                       |
| Final Exam                 | 14%       | 14%                       |
| Projects (1, 2, 3)         | 8% x 3    | 24%                       |
| Project 4                  | 10%       | 10%                       |
| Extra Credit Opportunities | Up to 3%  | 3%                        |
|                            |           | <b>Total: 103%</b>        |

## 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         |
| 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.

Final grades will be rounded to the nearest whole percentage point. 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***

- No make-up or late submission allowed on quizzes. Remember, we drop lowest score.
- 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. Excused absences must be consistent with university policies in the undergraduate catalog (<https://catalog.ufl.edu/ugrad/current/regulations/info/attendance.aspx>) and require appropriate documentation. Please note that there is no guarantee that requests will be accommodated.

### ***Email Etiquette***

- **Include the class name, discussion section number and the purpose of the email in the subject line. An example of email subject line includes “COP 3502C Section#22131 Lab 4 grading issues”.**
- When you send the instructor an email regarding personal requests, **please cc your section TA or list your section TA name in the body of the email.**
- If you don’t follow the two rules above, your email will not be responded in 72 business hours. It might take 1 – 2 weeks before you hear back from any course staff.

### ***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. Debug information should never be released in the final version of a software project. Projects that do not compile AND run will be marked zero.
- 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 or your instructor.
- Include only those files specified by the documents in your archive. Projects should have no directory structure except as explicitly mentioned in the documentation (i.e., relevant files and folders should be submitted in the root of the zip file.) It should be possible to open the archive, copy your files directly into the project, compile, and then run the project without further steps. If the project has naming or organization error(s), its grade will be zero.

### ***Class Expectations***

- Grade reviews must be requested within one week of a grade being posted. After two weeks, no grade will be revisited. In the event of a grade review, the entire assignment will be reviewed.
- All assignments are due by the time listed on Canvas. Projects and homework with a cascading deduction: one (1) business day late for 10% penalty; two (2) for 30% penalty; or three (3) for 60% penalty. Quizzes and exams may not be submitted late for credit except with instructor approval for extenuating circumstances (see below).
- Students are strongly recommended to attend all lectures. Attendance for lectures is not required.
- **Students are required to attend all discussion sections.** Labs shall only be submitted by students who attend or who have been excused, and pair programming is mandatory. **If you missed your discussion**

**section, then you are not allowed to submit the lab in that week. If you are 15 minutes late, you will be marked as absent.**

- Exam and quiz make-ups will not be given except in extenuating circumstances. For make-up consideration students will be required to submit written documentation from a reputable source as evidence. For any planned event (such as a wedding), the student is expected to contact the instructor no less than two weeks in advance for consideration. Please note that there is no guarantee that requests will be accommodated. Social, networking, and club events may be taken into consideration strictly at the discretion of the instructor.
- **If you will be absent in discussion section (with reputable documentation) and have grading issues, please contact your section TA first. If you don't hear back from your TA in 72 business hours, forward the email to the instructor.**

### ***Office Hours and Code Review Policy***

- 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 #labs or #projects channels, but the way to get personalized help is to visit them during office hours.
- 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.
- 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.
- Debugging requests for projects/quiz questions must first go through the TAs, or a post on slack. 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.
- Important correspondence (other than project help) should be engaged via email. In particular, the chat system is helpful for simple questions and allows students to help one another, but students should not expect a response to important questions via chat. **Please allow 72 business hours for a response: the instructor and TAs have many responsibilities and respond to messages as efficiently as is practical.**

### ***Academic Dishonesty***

- 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.**
- 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. 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.**
- 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.**

### **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/policies/student-honor-code-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.

### **Privacy**

Our class sessions may be audio visually recorded for students in the class to refer back and for enrolled students who are unable to attend live. Students who participate with their camera engaged or utilize a profile image are agreeing to have their video or image recorded. If you are unwilling to consent to have your profile or video image recorded, be sure to keep your camera off and do not use a profile image. Likewise, students who un-mute during class and participate orally are agreeing to have their voices recorded. If you are not willing to consent to have your voice recorded during class, you will need to keep your mute button activated and communicate exclusively using the “chat” feature, which allows students to type questions and comments live. The chat will not be recorded or shared. As in all courses, unauthorized recording and unauthorized sharing of recorded materials is prohibited.

### **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.

### **Disclaimer**

Although every effort will be made to implement all course policies as stated in this syllabus, course policies are subject to change at the discretion of the Instructor, based on unforeseen circumstances occurring during the semester or continuous feedback from the enrolled students.

### **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.bluera.com/ufl/>. Summaries of course evaluation results are available to students at <https://gatorevals.aa.ufl.edu/public-results/>.

### ***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
- Robin Bielling, Director of Human Resources, 352-392-0903, [rbielling@eng.ufl.edu](mailto:rbielling@eng.ufl.edu)
- Curtis Taylor, Associate Dean of Student Affairs, 352-392-2177, [taylor@eng.ufl.edu](mailto:taylor@eng.ufl.edu)
- Toshikazu Nishida, Associate Dean of Academic Affairs, 352-392-0943, [nishida@eng.ufl.edu](mailto: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](mailto: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](mailto: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/>.



## COVID-19

- You are expected to wear approved face coverings at all times during class and within buildings even if you are vaccinated.
- If you are sick, stay home and self-quarantine. Please visit the UF Health Screen, Test & Protect website about next steps, retake the questionnaire and schedule your test for no sooner than 24 hours after your symptoms began. Please call your primary care provider if you are ill and need immediate care or the UF Student Health Care Center at 352-392-1161 (or email [covid@shcc.ufl.edu](mailto:covid@shcc.ufl.edu)) to be evaluated for testing and to receive further instructions about returning to campus.
- If you are withheld from campus by the Department of Health through Screen, Test & Protect, you are not permitted to use any on campus facilities. Students attempting to attend campus activities when withheld from campus will be referred to the Dean of Students Office.
- UF Health Screen, Test & Protect offers guidance when you are sick, have been exposed to someone who has tested positive or have tested positive yourself. Visit the [UF Health Screen, Test & Protect website](#) for more information.
- Please continue to follow healthy habits, including best practices like frequent hand washing. Following these practices is our responsibility as Gators.

## Academic Resources

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

**Career Resource Center**, Reitz Union, 392-1601. Career assistance and counseling. <https://www.crc.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://care.dso.ufl.edu>.

**On-Line Students Complaints**: <http://www.distance.ufl.edu/student-complaint-process>.