

Computer Science 111

Fundamentals of Programming 1

Instructor:

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Webpages:

- For homework and grades: canvas.wlu.edu
- For lecture notes and materials: <https://github.com/geofmatthews/csci111>
If you don't know how to use git, just go to that website, click the `Code` button, and then `Download ZIP`. This does just what it says.
- For software: <https://www.python.org/> This software is installed in the labs, but you may want to download it for your own computer. It's free.

Class lectures: MWF 9:45 AM - 10:45 AM, Parmly 405

Lectures are in-person and attendance is required. If you must miss a lecture, inform your instructor before the day you must miss and arrange to get notes from another classmate. Office hours will not be used to answer questions, but material already presented in class will not be reviewed.

Labs: R 8:30 AM - 11:30 AM, Parmly 405

Labs are in-person and attendance is required. No new material will be presented in labs, but it is a unique opportunity to work on the homework with direct assistance from the instructor and the TAs. If you miss a lab, you will have to make the time up yourself, and it will likely take you longer.

Office hours: MWF 11:00 AM - 12:00 PM, Parmly 407A

If you need to see me but cannot make these hours, please make an appointment.

Overview: This is an introductory course in programming and problem solving. Topics include:

- the design and implementation of algorithms for solving problems
- an introduction to the syntax, semantics, and pragmatics of the Python programming language
- a survey of various types of programming applications such as numerical computation, text processing, graphics, and image processing

Objectives: After taking this course, you should be able to

- apply problem solving skills to a wide variety of computational problems

- understand the syntax and semantics of the Python programming language
- describe a program's functionality in plain English
- detect, diagnose, and fix errors in a program, using systematic testing and debugging techniques
- understand the ethical and historical context of computing
- undertake further study in computer science

Textbook: *Think Python 2nd Edition*, by Allen B. Downey.

This book is available for free online, in both HTML and PDF formats, from greenteapress.com. It is also available in the bookstore and at amazon.com for those who would prefer a paper copy.

There are many other online resources for studying Python, feel free to use as many as you think helpful!

Assignments: Credit will be awarded based on your performance in the following areas:

Labs 40%: Labs are on Thursdays. Each lab will be due the following Tuesday before midnight. There will be no late work accepted. Programs with syntax errors will receive no credit. Programs that do not follow formatting instructions exactly with regard to naming and commenting will receive no credit.

Quizzes 30%: Quizzes will be periodically announced in class and made available on canvas. The quizzes are to be done without collaboration with your classmates or any consultation with the internet or other resources. You may, however, consult your textbook and your own notes. Each quiz will have a due date posted with the quiz and will not be accepted after the due date. Quizzes will usually be discussed in class the day after their due date.

Final exam 20%: The final exam is comprehensive. It is open book and open notes, but you may not consult with any classmates or the internet or other resources.

Class participation 10%: During class there will be participation quizzes, where we solve problems together during class time. These could be individually, in small groups, or with the entire class. You are expected to contribute. I may also take attendance at any time and award some participation credit for good attendance.

Grades: Grades will be based on the following percentages out of all possible points for the assignments:

$$A \geq 90\% > B \geq 80\% > C \geq 70\% > D \geq 60\% > F$$

The instructor reserves the right to adjust the scale, but only in a manner that would reward higher grades than those predicted from the table. Awarding \pm is also at the discretion of the instructor.

Computer use in class: The use of laptops and mobile computing devices are permitted during class so long as they are being used for the course such as for taking notes and locating information related to the course. These devices are not to be used during class for texting, phone calls, reading email, social networking, completing assignments for other courses, shopping, or any other topic unrelated to the class you are currently attending.

Accommodations Washington and Lee University makes reasonable academic accommodations for qualified students with disabilities. All undergraduate accommodations must be approved through the Office of the Dean of the College. Students requesting accommodations for this course should present an official accommodation letter within the first two weeks of the (fall or winter) term and schedule a meeting outside of class time to discuss accommodations. It is the student's responsibility to present this paperwork in a timely fashion and to follow up about accommodation arrangements. Accommodations for test-taking should be arranged with the professor at least a week before the date of the test or exam.

Academic dishonesty: Please review the university's honor system, and the definition of plagiarism which can be found at

<https://my.wlu.edu/executive-committee/the-honor-system>

Unless specified otherwise, all work for this course is meant to be done **individually**. The work that you turn in for a grade must be completely your own, or you will be guilty of academic dishonesty.

Nevertheless, it is a valuable learning experience to discuss work with your fellow students, and this is encouraged. However, after working with a colleague, **you may not keep any paper or electronic copies of anything you produced together!** You may only keep your memories. In particular, this means that **you may not ask for or give help while sitting in front of a computer where the assignment is open!** Also, **you may not use anything a colleague has emailed to you!** Delete the email and do not save a copy.

To help understand what I mean, remember the

Long Term Memory Rule

You may discuss, sketch, write things down, use your computers, whatever, but after you are done working with your fellow students all files must be deleted, whiteboards erased, and all papers you created must be destroyed. You should then watch a rerun of *the Simpson's*, play a game of ping-pong, take a walk, or something else for half an hour. After this you can go back to your assignment (alone) and use the knowledge you have now gained.

We are here to help you get a great education. Please do not put us in a situation where we have to police you for plagiarism. We hate that.