

Python Programming, COS 184, Fall 2022

In person in 513 Glickman, Portland campus, Mo 3:30PM - 4:45PM, We 3:30 PM - 5:45 PM

Instructor: David Bantz	Office Location: 232 Science
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Office Hours: by appointment	Day(s)/Time(s)/Room #: by appointment

Course Materials & Books:

Required: *Python Programming: an introduction to computer science* (3rd ed.), John Zelle (Franklin, Beedle & Associates). Errata and other useful information at Zelle's Python Programming website, <https://mcsp.wartburg.edu/zelle/python/>. This book is available as an ebook from <https://www.redshelf.com> for \$20.

Supplemental: *Python Pocket Reference* (5th ed.), Mark Lutz (O'Reilly); *Python for Data Analysis* (2nd ed.), Wes McKinney (O'Reilly); *Python Distilled*, David Beazley (Pearson Addison Wesley).

Technology Requirements: access to a computer that you can install software on. We will be the [Anaconda Distribution](#) collection of Python software, which requires a minimum of 3G of storage.

Other course resources:

Website: The supporting website for this course can be found on Brightspace [here](#).

Teaching Assistant: To Be Determined.

Tutors: try [The Learning Commons](#). Schedule [here](#) or call 780-4228. Online Zoom-based appointments are supported.

Other tutorial and supporting materials: There is a collection of Python tutorial videos at <https://www.youtube.com/watch?v=HBxCHonP6Ro&list=PL6gx4Cwl9DGAcbMi1sH6oAMk4JHw91mC>. The Python Tutorial is at <https://docs.python.org/3/tutorial/>. The Python Language Reference, a rather formal overview of Python, is at <https://docs.python.org/3/reference/index.html#reference-index>. We will do pair programming in the lab – check out http://www.cs.usm.maine.edu/~welty/cos160/160fall2010/W_SW_PairProgramming.pdf. [stackoverflow](#) is a great source of answers to specific Python and pandas questions.

Python libraries: The stupefying Python Package Library (PyPI) is at <https://pypi.python.org/pypi> and the library of standard packages is at <https://docs.python.org/3/library>.

Course Description, including format:

This course is a fast-paced introduction to computer programming for solving practical problems, taught in Python, a modern object-oriented dynamic computer language. It is also appropriate for students who have some programming background and want to pick up Python. The course format is in-person. There is a “lab” in which pairs of students tackle predefined lab-specific assignments. The course teaches how to represent aggregates of data, process data selectively and repetitively, structure programs with functions and use predefined libraries with an eye towards acquiring, managing, visualizing and performing basic analysis of sets of data. Lots of hands-on programming, both individually and with a partner. Prerequisites: MAT 108 or permission of the instructor. Cr 4.

Learning Outcomes:

- An understanding of the basic operations that Python supports and how it supports them, including iteration, choice, definition and invocation of functions and input and output.
- A basic ability to analyze a problem, conceive of a solution in the form of a computer program, and implement that program.
- An ability to function effectively on teams to accomplish a program solution.
- A basic ability to identify, find and fix errors in computer programs.
- An ability to broaden and deepen your understanding of Python and supporting software through study of documentation and, when required, reading code.

Schedule of Classes, Readings and Assignments:

Please see the separate document “Schedule of Classes, Readings and Assignments.” Each assignment (labs, programs and projects) will be extensively described on our Brightspace site.

Assessment:

There are no exams in this course. Your final grade will be based on total points earned. Extra credit will be given on some programs, labs and the final project. It is possible to fail this course: most have done it by not submitting programs, labs or the final project.

Course work and full-credit points awarded		Grading, based on total points awarded	
Programs	7 * 20 = 140 pts (~39%)	>= 30% will receive at least	A-
Project	80 pts (~23%)	>= 50% will receive at least	B-
Labs	9 * 15 = 135 pts (~38%)	>= 80% will receive at least	C-
Total	355 pts (100%)	>= 90% will receive at least and, unfortunately, some will receive	D F

Grading Criteria:

Each assignment includes specific grading criteria. General program grading criteria are available in the separate document “COS 184 program grading guidelines.” Project grading is described in the separate document “COS 184 Course Projects.”

Course Evaluations:

At the end of each semester every student has the opportunity to provide constructive feedback on the course. It is important to me that you take the time to let me know your thoughts about the course. I use your feedback to make improvements in the course materials, assignments, and outcomes.

COURSE POLICIES

ATTENDANCE POLICY

Attendance will not be taken in this course. The lecture class meetings will not be recorded. Since you will be working with a partner in lab, you can arrange with that partner to meet at a time that is convenient for you both outside of lab, but be aware that you will miss out on the personalized help that the instructor provides during lab. If you do not attend the lecture meetings, you will miss out on the opportunity to ask questions of personal interest, hear answers to questions that others ask, and participate in dialog with the instructor during those meetings.

CLASS CANCELLATION

Every effort will be made to hold all of the lecture and lab meetings at their assigned time. If a meeting is cancelled or otherwise compromised, we will decide jointly as to whether and when the meeting will be rescheduled.

ATTENDANCE POLICY: Inclement Weather

From time to time USM will close the University due to inclement weather. When the cancellation is for an entire day, the class content will be made up at another time.

When the school opens late or closes early, and the time selected is during the middle of class, we will still hold the class unless you are otherwise notified by me. Two examples:

- If class starts at 1pm, but the University is closing at 1:30pm, we will still have class unless you hear from me.
- If class starts at 1pm, but the University is opening at 1:30pm, we will not have class unless you hear from me.

MEETING ETIQUETTE

Please keep your phones silenced during class. We will be in a room with a personal computer for each student. If you need to check your email or messages very briefly, that's OK, but class time is for learning Python. Some students open Python development software during a lecture and use it to check what is being said. As long as this doesn't interfere with your attention to the lecture, it's OK with me – and if I make a mistake, speak out respectfully and let me know – both I and the other students will be grateful.

ACADEMIC INTEGRITY / PLAGIARISM

Everyone associated with the University of Southern Maine is expected to adhere to the principles of academic integrity central to the academic function of the University. Any breach of academic integrity represents a serious offense. Each student has a responsibility to know the standards of conduct and expectations of academic integrity that apply to academic tasks. Violations of academic integrity include any actions that attempt to promote or enhance the academic standing of any student by dishonest means. Cheating on an examination, stealing the words or ideas of another (i.e., plagiarism), making statements known to be false or misleading, falsifying the results of one's research, improperly using library materials or computer files, or altering or forging academic records are examples of violations of this policy which are contrary to the academic purposes for which the University exists. Acts that violate academic integrity disrupt the educational process and are not acceptable.

Evidence of a violation of the academic integrity policy will normally result in disciplinary action. A copy of the complete policy may be obtained from the office of Community Standards and Mediation, online at usm.maine.edu/community-standards-mediation/academic-integrity or by calling and requesting a copy at (207) 780-5242.

FINAL PROJECT

Materials relevant to the final project are available separately on our Brightspace site. The final project, which may involve as many as three students (ask me if your group really needs to be bigger), will be discussed extensively in class. You will present and turn in your final project on the date and time scheduled for the final exam (which will not be held).

UNIVERSITY POLICIES AND RESOURCES

DISABILITY ACCOMMODATIONS

The university is committed to providing students with disabilities equal access to all university programs and services. If you think you have a disability and would like to request accommodations, please contact the Disability Services Center. Timely notification is essential. The Disability Services Center can be reached by calling 207-780-4706 or by email dsc-usm@maine.edu. If you have already received a faculty accommodation letter from the Disability Services Center and would like to request accommodations for this course, please provide me with that information as soon as possible. Please make a private appointment so that we can review your accommodations together.

TUTORING AND WRITING ASSISTANCE

Tutoring at USM is for *all* students, not just those who are struggling. Tutoring provides active feedback and practice, and is available for writing, math, and many more subjects. Walk-in tutoring is available at the Glickman Library in Portland, the Gorham Library, and the LAC Writing Center. For best service, we recommend making an appointment at <https://usm.maine.edu/learningcommons/schedule-tutoring-appointment>. Questions about tutoring should be directed to Naamah Jarnot at 207-780-4554. Interested in becoming a more effective, efficient learner? Check out <https://usm.maine.edu/agile!>

LIBRARY SERVICES

USM Libraries encourages students and faculty to use library services. Library services are available remotely between 9:00am and 9:00pm and in-person between 10:00am and 8:00pm Monday through Thursday. Friday-Sunday [hours vary](#). You may borrow materials via curbside pickup, mail, or in-person. We also provide [subject-oriented guides](#) to materials. Despite having limited building hours, we are committed to providing assistance seven days a week. If you want assistance, you may contact Reference [online or via phone](#) and Circulation at usm.libaccess@maine.edu or by phone at (207) 780-4270 (Portland), (207) 780-5345 (Gorham) or (207) 753-6540 (Lewiston). **You need a USM ID to use library services, please get an ID and carry it with you.** The information above may change with the public health situation, please check [our website](#) for updates.

HEALTH AND COUNSELING

Counseling is available at USM. The best way to schedule an appointment is by phone at 780-5411. More information is available at <https://usm.maine.edu/uahcs>.

RECOVERY ORIENTED CAMPUS CENTER (ROCC)

A peer support community for students in recovery from substance abuse and other mental health conditions is available at USM. More information may be found online at <https://usm.maine.edu/recovery> or by contacting ROCC at 207-228-8141.

NONDISCRIMINATION POLICY AND BIAS REPORTING

The University of Southern Maine is an EEO/AA employer, and does not discriminate on the grounds of race, color, religion, sex, sexual orientation, transgender status, gender expression, national origin, citizenship status, age, disability, genetic information or veteran's status in employment, education, and all other programs and activities. The following person has been designated to handle inquiries regarding non-discrimination policies: Amie Parker, Interim Director of Equal Opportunity, The Farmhouse, University of Maine Augusta, Augusta, ME 04333, 207.581.1226, TTY 711 (Maine Relay System). Incidents of discrimination or bias at USM should be reported to Associate Vice President for Student Affairs David Roussel at 207-780-5242.

STATEMENT ON RELIGIOUS OBSERVANCE FOR USM STUDENTS

Absence for Religious Holy Days: The University of Southern Maine respects the religious beliefs of all members of the community, affirms their rights to observe significant religious holy days, and will make reasonable accommodations, upon request, for such observances. If a student's religious observance is in conflict with the academic experience, they should inform their instructor(s) of the class or other school functions that will be affected. It is the student's responsibility to make the necessary arrangements mutually agreed upon with the instructor(s).

TITLE IX STATEMENT

The University of Southern Maine is committed to making our campuses safer places for students. Because of this commitment, and our federal obligations, faculty and other employees are considered mandated reporters when it comes to experiences of interpersonal violence (sexual assault, sexual harassment, dating or domestic violence, and stalking). Disclosures of interpersonal violence must be passed along to the University's Deputy Title IX Coordinator who can help provide support and academic remedies for students who have been impacted. More information can be found online at <http://usm.maine.edu/campus-safety-project> or by contacting Sarah E. Holmes at usm.TitleIX@maine.edu or 207-780-5767.

If students want to speak with someone confidentially, the following resources are available on and off campus: University Counseling Services (207-780-4050); 24 Hour Sexual Assault Hotline (1-800-871-7741); 24 Hour Domestic Violence Hotline (1-866-834-4357).

POLICY ON ACCEPTABLE CONDUCT IN CLASS SETTINGS

If a student substantially disrupts a class, the professor may ask the student to align with this policy on conduct in a class setting. If the student refuses, the professor may, at their discretion, ask the student to leave. If the professor takes this step, they must attempt to communicate with the student and provide informal counsel and advice. The professor may elect to notify their dean of the situation as well. If the student disrupts the class again, the professor may, at their discretion, provide a written notification to the student, describe the offending behavior, and refer the student's case to the appropriate academic dean and notify the dean of students that an official student conduct code violation has occurred [<https://usm.maine.edu/community-standards-mediation/conduct-process>].

COVID FACE COVERING REQUIREMENT

As of early summer 2022, the USM and University of Maine System guidance on social distancing and face coverings has not yet been released for fall 2022, but it is expected that face coverings will NOT be required in class. However, they may be recommended. Resident students are exempted from face covering requirements when in their own room in the residence hall. Students seeking additional exceptions from this requirement should refer to the DISABILITY ACCOMMODATIONS section of this syllabus. <https://www.maine.edu/together/community-guidance/everyone/>