

Syllabus

COSC 010 Introduction to Computer Science – Python (Summer 2021)

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TAs: See Canvas

Office Hours: See Canvas

Course Description: This course is intended for non-majors seeking an introduction to computer science and Python programming. The course covers the following topics: basic data types in Python, variables and constants, input and output, Python reserved words and built-in functions, operators, conditional control structures, repetition control structures, basic file operations, user-defined functions, value parameters, lists, scope rules, importing packages, elementary data processing and visualization, and elementary software engineering principles. This course may be used to fulfill the math/computer science portion of the Gen Ed Math/Science requirement.

Credits: 3

Prerequisites: None

References:

(Free) Textbook: *Python for Everybody: Exploring Data Using Python 3*, Charles R. Severance 2016
FREE and listed by chapter here: <https://www.py4e.com/html3/>

(Free) Textbook: *Introduction to Programming with Python 3*, Ami Gates 2016 (pending publication)
FREE and listed by chapter here: <http://drgates.georgetown.domains/GatesPythonIntroBook/>

*NOTE: The Internet contains much useful information on Python; you are encouraged to be resourceful. Be aware, however, that we will be using only **Python 3** (the most up-to-date version). Some resources on the Internet, particularly older resources, are for Python 2 – similar but different than Python 3 in a few key ways. The Canvas course page will also contain additional reading material for certain topics.*

Required Software:

- Anaconda Python (requires approximately 470 MB of space on your computer)

NOTE: It is assumed that you have access to a computer for this class. If your computer is unable to add the above software (due to space limitations), please contact the instructor as soon as possible.

Course Grade: The letter grade for the course, based on total points out of 100, will be as follows:

A	[94, 100]
A-	[90, 94)
B+	[87, 90)
B	[84, 87)
B-	[80, 84)
C+	[77, 80)
C	[71, 77)
C-	[67, 71)
D	[60, 67)
F	[0, 60)

Grading:

	Percent of Final Grade
Lecture Quizzes/Participation	10%
Lab Assignments	25%
Homework Assignments	25%
Projects	40%

Lectures: Attendance and active class participation is strongly recommended. You will be responsible for all material covered in lecture.

Lab Assignments: There will be regular lab assignments throughout the semester. Most lab assignments will involve some form of programming.

Homework Assignments: There also will be regular homework assignments throughout the semester. These assignments, many of which include some reading, are designed to build off the previous lectures and prepare you for the ensuing lab assignments. You will be able to access all resources for the homework assignments via Canvas.

Projects: You will complete 2-3 projects over the course of the semester. Project descriptions will be posted on Canvas, along with their due dates. All electronic submission requirements (source code, reports, conclusions, etc.) should be uploaded to Canvas prior to the due date and time. You are responsible for thoroughly reading the project description and ensuring that your submission has the correct file formats and naming conventions, as specified in the project description. In the case of any written portions of projects, it is recommended that you type your answers (e.g., in a text editor). The teaching staff uses the following rule: "If the student's answer can't be read and understood then it must be wrong".

All projects will have a due date. You have a total of three (3) "slip days" that you can use throughout the semester to extend a due date. Each slip day grants you a 24-hour extension. You can use them one at a time or in combination. **Any and all projects submitted 1 minute (or more) after the deadline + any slip day extension will be penalized -30% per day.** If you submit late, you must email the instructor to get a grade. Slip days can only be used for projects – not exams nor any other assignments.

Academic Honesty and Expectations: I am required to report any suspicion of academic dishonesty to the Honor Council.

- Discussion among students pertaining to project content and general methodology is allowed, but students are NOT ALLOWED to share code or write code/solution for others. Students are NOT ALLOWED to copy code or use code of others without an explicit disclosure.
- Note: A student may be asked to present, demonstrate, or explain a project submission at any time, without notice. At the instructor's discretion, a student's project grade can be adjusted based on this presentation, demonstration, and/or explanation. If a student does not sufficiently understand or explain their submission, further action may be taken.
 - Note: At the end of the semester, I will run all project submissions (including past semester submissions) through Stanford's MOSS, a software program that uses advanced algorithms to detect similarities between computer programs (<https://theory.stanford.edu/~aiken/moss/>).
- ***Any violation of these policies can result in a grade of F for the course,*** in addition to the report to the Honor Council.

Other Notes: The specific course schedule will be provided on Canvas. Course topics, administrative guidelines, and other specifics discussed in this syllabus are subject to change. Notice of any changes will be provided in class or on Canvas. Feel free to ask questions in the class or during regular office hours of the instructor/TA. If you cannot meet during regular office hours, email to set an appointment.