# CSCI-UA.0002, Spring 2020

Introduction to Programming in Python

# **Syllabus**

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- Class hours:
  - Section 12: Mondays and Wednesdays 2:00 PM 3:15 PM LOCATION: WWH room 101
  - Section 13: Tuesdays and Thursdays 9:30 AM 10:45 AM LOCATION: 60 Fifth Ave C10
- Instructor Office hours: Mondays 3:30-4:30PM, Thursdays 11:30AM-12:30PM and by appointment on Zoom at https://nyu.zoom.us/j/405326798
- Lab Tutoring Hours
- Exam Schedule: Section 12, Mondays and Wednesdays:
  - Midterm Exam #1 (in class): Wednesday, March 4, 2020
  - Midterm Exam #2 (in class): Monday, April 13, 2020
  - Final Exam: (in class): Monday, May 11, 2020
- Exam Schedule: Section 13, Tuesdays and Thursdays:
  - Midterm Exam #1 (in class): Tuesday, March 3, 2020
  - Midterm Exam #2 (in class): Thursday, April 9, 2020
  - Final Exam (in class): Thursday, May 7, 2020

#### Common Course Syllabus

#### Prerequisite

Three years of high school mathematics or equivalent. No prior computer experience assumed. Students with any programming experience should consult with the computer science department before registering. Students who have taken or are taking CSCI-UA 101 will not receive credit for this course. Note: This course is not intended for computer science majors, although it is a prerequisite for students with no previous programming experience who want to continue in CSCI-UA 101. Offered every semester. 4 points.

#### Course Description

This course is designed to be an introduction to the fundamentals of computer programming, which is the foundation of Computer Science. Students will design, write and debug computer programs. No knowledge of programming is assumed.

#### Course Tutors

All tutoring for CSCI-UA.2 is done in Kimmel Center Lab, 60 Washington Square South, 4th Floor. Hours will be announced.

# Topics

In this course, we will study the fundamentals of computer programming ... one of the towering intellectual achievements of the 20th century. We will design, code, and debug programs using Python as we explore these concepts.

# Textbook

# **Required:**

## Starting Out with Python – 4th Edition by Tony Gaddis

Note: Older editions of this textbook, including the 2nd and 3rd editions, may be used instead of the most recent edition. Also note that online resources such as MyProgrammingLab are NOT required.

# Course Dynamics

This course is structured as a "blended learning" format. This means is that a good portion of the lecture and reading material are presented in interactive online modules. The class is broken primarily into three components:

- 1. Online learning modules Before each week's topics you will be expected to complete the online learning module. These modules contain video, text and interactive programming exercises. When you are finished with a module you will be asked to take a short online quiz (via NYU Classes) to test your understanding of the concepts presented in the module.
- 2. In-class discussion and application of principles One class period per week will focus on the design concepts and application of the principles taught in the online learning module.
- 3. In-class workshops Weekly assignment will be presented in the other class period. The professor and two T.A.'s will be available in class to provide support and guidance as necessary.

#### Grading

There will be two midterm exams and one final exam. Your grade will be 20 percent for each midterm, 35 percent for the final, 5 percent for quizzes, and 20 percent for assignments. If you plan to continue with computer science courses such as CSCI-UA.0101, CSCI-UA.60, CSCI-UA.61 and related coursework, you \*MUST\* get a grade of C or better in this course. No exceptions will be made. Attendance is mandatory and will be taken during most classes.

#### Quizzes

There will be 10 online quizzes that go along with each online learning module. These quizzes contain a series of multiple choice questions and are worth 5% of your final grade. Quizzes are delivered via NYU Clasess and can be attempted up to 5 times - your most recent score will be the one to be recorded (not your highest score). The online quizzes must be completed before class on the day in which they are due - please see the course schedule for a complete list of due dates. Unlike assignments (described below), no late submissions will be accepted for missed quizzes. "Grace" days (also described below) do not apply to quizzes.

#### Assignments

There will be approximately ten assignments in this course that will be assigned on a weekly basis. Assignments are due before class of the date specified. For a full outline of assignment due dates please refer to the schedule.

It is important not to get behind in turning your assignments (this class is cumulative). Late submissions will be penalized by 10% off per day late, and assignments that are more than 7 days late can not be turned in for credit. That being said, sometimes there are unforeseen situations that may impede your progress, as a result you are being given 7 grace days for the entire semester. These grace days cover all late submissions regardless of personal, professional, or technical related delays (e.g. a job interview, computer hardware failure, etc.) and no further exceptions will be granted (so don't waste them simply by procrastinating). You don't need to do anything special to use these "grace" days - the course graders will keep track of these on your behalf and will apply them to your work as necessary. [Please note: if you experience a hardship such as a death in the family, a hospitalization or other life issue that prevents you from coming to class or completing your work, please let me (Deena) know so that we can together to help you through.]

You will be using NYU Classes to turn in your homework assignments. It is your responsibility to make sure that your assignments have been submitted successfully. You can do this by simply attempting to download your work after it has been uploaded to the system – if you are able to do so, your assignment was submitted successfully. If you do have trouble with NYU classes you can always e-mail your homework to me directly; I will also provide a separate email for the grader in the event that you are asked for another submission.

All grading will be done on NYU Classes as well and you can check your grades at any time by logging in there and following the "Gradebook" link. If you notice an irregularity (i.e. you mistakenly lost points for an item that you successfully completed) please let me know and I will be happy to sit down with you to review your work. All grade changes must be completed in person and cannot be done over e-mail.

Assignments that you turn in should be your own work. It is fine to talk to other students and to get assistance in how to do something, but you should not ask your fellow students to actually do the work for you. When you turn in an assignment, you are saying that you have done this work yourself. The definition of plagiarism is to present someone else's work as though it were your own. Please read the Computer Science Department statement on academic integrity for more information.

# Support

Computer Science is similar to a math course in that all the material is cumulative in nature and in that concepts build on each other. This means it's important that you not Spring behind. If at any time you have questions, feel like you're Springing behind, or don't understand the material there is always help available. The following resources are here to help you in the event you struggle with any concepts:

#### Software

The main software package that we will be working with this semester is the Python programming language. Python is an open-source project, and anyone can get their own copy free of charge at http://www.python.org/download. We will be using Python 3.x this semester.

#### Personal Computers

Because this class involves in-class programming assignments, it's highly encouraged that you bring a laptop to class. If you don't have a laptop during in-class work, then you may work with a partner (see cooperation and acknowledgements). Keep in mind that computers often have hardware related problems and you should save your work often and back it up to a separate device. If you don't have a computer you can use the NYU computer labs (see below).

# Using the NYU Computing Facilities

NYU provides numerous computer labs around campus. Further information on the labs is available from ITS.

Note about saving your work in the labs: You will be able to save your work ITS labs under your NYU Home Account and/or on your own flash drives. Although you can write to the hard disks of the machines in the labs, you cannot be sure that you will have access to the same machine the next time you enter the lab and the drives in the lab are frequently erased. The best option is to upload your files online and download them as needed (we will go over this in class).

#### Department Information

- CS Department
- Statement of Academic Integrity
- CS Majors
- CS Minors (descriptions and requirements)
- Important Dates

#### Professional Clubs:

- Women In Computing (WinC)
- Association for Computing Machinery (ACM)
- Student Groups

# Feedback

This course is designed as an introductory level class and topics will be presented assuming very little prior exposure to the topics which we will study. With that said, every student learns differently and I want to ensure that each of you is getting the maximum amount out of the course content as possible. Please do not hesitate to get in touch with me via e-mail or during office hours if you feel as though you are Springing behind or you are not understanding a certain concept. Please also feel free to get in touch with me to discuss future courses you might wish to take in CS or any other goals that I could perhaps assist you with. I look forward to working with all of you.

#### NYU / Dept of Computer Science - Prof Deena Engel / Spring 2020 - Send email to deena . engel AT nyu.edu