CS 100: Introduction to Programming with Python

Queensborough Community College

Instructor & Office Hours

Instructor: Raymond Law
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Office Hours: Mondays & Wednesdays, 5:25 PM – 5:55 PM (Immediately after class)

Textbook (Free/Open Source)

Python for Everybody
By Charles Severance
https://do1.dr-chuck.com/pythonlearn/EN_us/pythonlearn.pdf

Projects from:

Introduction to Computers and Programming using Python: A Project-based Approach
by Daniel Garbin, et al.
https://academicworks.cuny.edu/qb_oers/170/

Python Data Science Handbook
By Jake VanderPlas
https://jakevdp.github.io/PythonDataScienceHandbook/

Course Description

This is a first-level programming course designed for students with **no prior programming experience**. It introduces fundamental programming concepts using Python, a widely used, beginner-friendly language.

The course focuses on developing **algorithmic thinking** and teaching students how to write **clear, structured, and maintainable code**. Students will gain hands-on experience with core programming concepts such as variables, control structures, functions, and data structures.

In addition to foundational programming skills, students will be introduced to **object-oriented programming principles** and work with **third-party libraries**, including **NumPy** and **Pandas**, which are widely used in data analysis and scientific computing.

This course prepares students for more advanced programming, data science, or computer science coursework.

Learning Objectives

By the end of this course, students will be able to:

- Understand and apply basic programming concepts including variables, conditionals, loops, and functions.
- Use **algorithmic thinking** to break down problems and design logical, step-by-step solutions.
- Write Python programs that are **clean, well-structured, and easy to read** using good coding practices.
- Work with core data structures such as **lists, dictionaries, tuples**, and **sets**.
- Read from and write to files in Python.
- Understand and apply basic **object-oriented programming principles**, including defining and using classes and objects.
- Use popular Python libraries such as **NumPy** and **Pandas** for working with arrays and data tables.
- Develop small projects and scripts that solve practical problems, laying the groundwork for more advanced courses in programming and data science.

Grading Breakdown

Component	Weight
Midterm Exam (Monday Oct 27)	30%
Final Exam (Scheduled via CUNYFirst)	30%
Quizzes (Best 4 of 6)	30%
Homework	10%
Total	**100%**

Exams

- The **Midterm Exam** will be held **in class on Monday, October 27, 2025**.
- The **Final Exam** will be scheduled by the college and published in **CUNYFirst**. You are responsible for checking the official date and time once it becomes available.

Quizzes

- There will be **6 in-person quizzes**, each held during the **first 15 minutes of class**.
    - Quizzes will be spaced **approximately every two weeks**, with one quiz skipped during **midterm week**.
    - Each quiz will cover **recent topics** only.
    - Students will be **notified the class before** a quiz is scheduled.
    - The **lowest two quiz grades will be dropped** when calculating your final grade.

Homework

Homework assignments will be given regularly and are intended to help you practice and reinforce concepts introduced in class.

- These are **low-stakes assignments**, primarily graded for completion and effort.
- Homework is an important tool for preparing for quizzes and exams.

Communication

You are expected to check your QCC email and Brightspace regularly for updates, assignments, and announcements. If you have questions outside of class or office hours, email is the best way to reach me. I usually respond within 24 hours on weekdays.

Accessibility & Support

Students who require accommodations for a disability should contact the **Office of Accessibility Services (OSD)**. I am happy to work with OSD to ensure that all students have access to course materials and assessments.

Academic Integrity

All submitted work must be your own unless group work is explicitly assigned. Cheating or plagiarism will result in a **zero** on the assignment and may lead to disciplinary action in accordance with QCC policy. If you're unsure whether something is allowed, please ask.