

INF 605: Introduction to Programming — Python

Introduction to Programming — Python

Quinnipiac University

Fall 2026 · 3 Credits · INF60502 T/Th 11:00–12:15, Tator 130 · INF605DA online

Field	Detail
Canvas	https://quinnipiac.instructure.com
Format	One syllabus for both sections. INF60502 meets in person T/Th 11:00–12:15 in Tator Hall 130. INF605DA is online/web; students use recorded lectures, written instructions, and Canvas Inbox.
Term	Monday, August 24, 2026 – Saturday, December 12, 2026
On-campus instruction ends	Saturday, December 5, 2026
Finals window	Monday, December 7 – Saturday, December 12, 2026
Census	Monday, September 14, 2026
Add/Drop ends	Friday, August 28, 2026
Labor Day	Monday, September 7, 2026 (T/Th meetings held as scheduled)
Yom Kippur	Monday, September 21, 2026 (T/Th meetings held as scheduled)
Thanksgiving recess	Monday, November 23 – Saturday, November 28, 2026 (no Tuesday or Thursday class that week)

Instructor Information

Instructor Prof. Ron (Rongyu) Lin

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Office CCE 233, 275 Mt. Carmel Ave., Hamden, CT 06518

Office hours are shared across CSC 150, CSC 352 / CSC 552, and INF 605. Students from any of those courses are welcome.

- Tuesday 2:00–3:00 PM, CCE 233 and Zoom (in person or online)
- Wednesday 11:00 AM–12:00 PM, CCE 233 and Zoom (in person or online)
- Thursday 1:00–2:00 PM, CCE 233 and Zoom (in person or online)
- Friday 11:00 AM–12:00 PM, Zoom only

Zoom link is posted on Canvas.

1 Course Description

This course develops computational thinking while using Python as a tool to answer real-world questions with data. Students will gain experience exploring messy datasets, cleaning and preparing data, writing programs to automate analysis, and crafting compelling visualizations that communicate insights to both technical and non-technical audiences. The class emphasizes iterative design, statistical thinking, and the ethical implications of computing.

1.1 Learning Objectives

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

- Write Python programs using variables, control structures, functions, and object-oriented concepts
- Manipulate and analyze data using NumPy arrays and pandas DataFrames

- Clean, transform, and prepare messy real-world datasets for analysis
- Perform exploratory data analysis using descriptive statistics and data aggregation
- Create effective data visualizations using Matplotlib and Seaborn
- Work with various file formats (CSV, JSON, Excel) and databases
- Apply best practices for reproducible data analysis and code documentation

2 Required Materials

- **Intro to Python for Computer Science and Data Science: Learning to Program with AI, Big Data and The Cloud**, Paul and Harvey Deitel, Pearson.
- **Python for Data Analysis**, Wes McKinney.
- Jupyter Notebook and Python 3, installed as instructed in class.

3 Section Delivery

INF60502 meets in person Tuesday and Thursday, 11:00–12:15, in Tator Hall 130.

INF605DA is the online/web section. DA students use recorded lectures, written instructions, and Canvas Inbox.

4 Grading and Assessment

Each item below is 10% of the course grade. Assignments A1–A6 match Modules 1–6. Due dates are posted in Canvas.

Item	Weight
Assignment 1: Python Fundamentals	10%
Assignment 2: Control Flow and Functions	10%
Assignment 3: Data Structures and OOP	10%
Assignment 4: File Processing and NumPy	10%
Assignment 5: pandas Data Analysis	10%
Assignment 6: Data Visualization	10%
Final project: Complete Data Analysis Portfolio	10%
Midterm exam (take-home)	10%
Final exam (take-home)	10%
Attendance and participation	10%
Course total	100%

5 Course Policies

5.1 Late Work

Assignments are due before class starts on the specified due date unless announced otherwise. Late work incurs a 10% penalty for each day late (days 1–5). After 5 days late, the maximum possible score is 50%. No late work is accepted without prior approval.

5.2 Attendance and Participation

INF60502 meets in person in Tator Hall 130; consistent presence is essential. INF605DA participation is through recordings, written instructions, and Canvas Inbox. In-class or online activities count toward the grade. If you miss a class, email the instructor in advance to arrange make-up work.

5.3 Academic Integrity

Students are expected to maintain high standards of academic integrity. Cheating, plagiarism, and other forms of academic dishonesty, including unauthorized use of ChatGPT or other AI tools, are prohibited. Use of AI tools is permitted only when explicitly authorized for that assignment.

6 Course Modules

Six modules, one assignment each. Instruction follows the Tuesday/Thursday calendar for INF60502. INF605DA covers the same modules through recordings and written instructions. Thanksgiving recess (November 23–28) falls during Module 6.

Range	Module	Asmt
Weeks 1–2 August 25 – September 3	Module 1: Python fundamentals. Course introduction, Python and Jupyter setup, variables, and basic types.	A1
Weeks 3–4 September 8 – September 17	Module 2: Control flow and functions. Conditionals, loops, and functions.	A2
Weeks 5–7 September 22 – October 8	Module 3: Data structures and OOP. Collections, classes, and related programming practice.	A3
Weeks 8–10 October 13 – October 29	Module 4: Files and NumPy. File processing, array computing, and the midterm examination window.	A4
Weeks 11–12 November 3 – November 12	Module 5: pandas data analysis. Series and DataFrames, data cleaning, and aggregation.	A5
Weeks 13–14 November 17 – December 3	Module 6: Data visualization. Matplotlib and Seaborn. Thanksgiving recess November 23–28 (no class). Last 02 meetings are December 1 and December 3.	A6
Final examinations December 7–12	Final examination and project completion as posted in Canvas.	

This syllabus is subject to change.