

Syllabus

Villanova University

Course: CSC 1010 - Programming for All

Term: Summer 2026

Instructor: Dr. Maurício Gruppi

Email: mauricio.gouveagrupperi@villanova.edu

Office: Mendel Hall, 292A

Last updated: May 28, 2026



Quick links

- Course Schedule
- Refactor Textbook



Meeting times and locations

- **Section 002:** *Online* - Zoom link on Brightspace.



Office hours

- **Dr. Gruppi:**
 - Upon request via Zoom.

TL;DR

- Check out the **Online Classroom Policy**
- 🙋 **Be present:** Avoid phones and off-task laptop use during class; step out if you need to use your phone.
- 📊 **Assessments:** In-class labs, one exam, one homework, final project + presentation.
- 📖 **Textbook: Python Data Science Handbook, 2nd Edition.**
- 📅 **Deadlines:** Communicate early if exceptional circumstances arise.
- 🤖 **AI Tools:** Can be helpful for learning; do not submit AI-generated work as your own. Follow the disclosure rules below.
- 🎯 **Goal:** Your success. Reach out early and often.

Contents

- (1) Main references
 - (2) Course content
 - (3) Course structure
 - (4) Course objectives
 - (5) Assessment
 - (6) Attendance
 - (7) Technology
 - (8) Late work
 - (9) Student conduct
 - (10) Office of Disabilities and Learning Support Services
 - (11) Academic Integrity
 - (12) Absence for Religious Holidays
 - (13) Lecture recording
 - (14) Copyright notice
-

Main references

[Back to top]

- Required textbook (digital): **Rephactor Python Book**.
 - **Course code:** `csc1010-summer2026`
- Lecture notes and assignments will be available on Brightspace.

Course content

[Back to top]

The following topics are covered in this course:

Module	Description
1. What is Programming?	The definition of a computer program. Python: Control structures, debugging.
2. The Python Standard Library	Turtle Graphics, conditionals, boolean expressions.
3. Loops and Lists	While and for loops, lists and its methods.
4. Functions, Dictionaries and Sets	Defining and calling functions, manipulating dictionaries and sets.
5. File manipulation	Working with files in I/O.
6. Data Science with Pandas	Efficient dataset manipulation, data visualization.

Course structure

[Back to top]

- **On Zoom** at scheduled time, link on Brightspace.
- **Weekly plan on LMS:** topics, readings, deliverable deadlines, and exam dates.
- **Lecture recordings** available upon request (see policy below).

Online Classroom Policy

- Students are expected to attend class from a quiet environment whenever possible.
- Microphones should remain muted unless speaking.
- Cameras are encouraged during discussion and lab activities to support engagement and classroom community.
- Use respectful and professional communication in Zoom chat and discussion boards.

- Students are responsible for maintaining reliable internet access and a functioning development environment. Technical problems should be communicated as early as possible and do not automatically excuse missed work or deadlines.
- Attendance alone does not constitute participation. Students are expected to engage in class activities, respond to polls/questions, participate in labs, and remain attentive during lecture sessions. Repeated inactivity or disengagement may affect participation-related evaluations.

Course goals

[Back to top]

The goal of this course is to introduce students to the fundamentals of computer programming using the Python language and to develop their ability to apply programming concepts to solve real-world problems.

Upon successful completion of the course, the student will be able to:

- Understand how a computer program is created;
- Understand basic programming concepts, including: conditionals, loops, variables, expressions, and functions;
- Write complete programs in Python;
- Find and correct errors (bugs) in Python programs;
- Work with large data files and perform data analysis using Pandas.

Assessment

[Back to top]

Assessment of the learning goals in the class consists of in-class exercises (labs), a midterm exam, a homework assignment, a final project, and a final exam.

Grades will be distributed with the following activities:

Assignment	Points
Labs	10%
Homework	20%
Quizzes	20%
Midterm exam	25%
Final exam	25%
Total	100%

A description of each assessment module as well as their related goals is shown in Table 1. The final grade cutoff points are displayed in Table 2.

Assessment	Description	Goals assessed
Labs	Weekly hands-on exercises.	a,b,c,d.
Homework	Solve coding problems.	a,b,c.
Quizzes	Short quizzes with 1-3 questions at the start of each lecture.	a,b,c.
Midterm exam	Written exam.	a,b,c.
Final exam	Comprehensive exam.	a,b,c.
Active participation	Student participation in- or outside of class.	e.

Table 1: Assessment modules

Grade	Cutoff	Grade	Cutoff
A	95	C	73
A-	90	C-	70
B+	87	D+	67
B	83	D	63
B-	80	D-	60
C+	77	F	< 60

Table 2: Letter grade cutoff points

Attendance

[Back to top]

Attendance is expected for a successful completion of this course. The instructor will register the attendance at the beginning of every class.

As per university guidelines, if the number of unexcused absences for first year students exceeds twice the number of weekly classes (four absences for a course that meets twice a week), then such student will receive a failing grade “Y”.

Personal Days

In addition to the attendance policy stated above, students are entitled to one excused absence for any reason that may contribute to their personal wellness. Students must advise the instructor by email before class of their intent to utilize a Personal Day as the reason for their absence. A Personal Day will not be approved retroactively. Students may, but are not required, to provide additional information regarding their absence. Additionally, a Personal Day may not:

- a. be used immediately preceding or following a University holiday or break period;
- b. be used on days when exams, presentations or other major assignments are scheduled.

A Personal Day does not grant an automatic extension for items due. Students remain responsible for all assignments, exams, presentations, etc. due on that date. It is in the instructor’s discretion to determine whether any extension is appropriate given individual circumstances.

Technology

[Back to top]

- **Required:** Laptop capable of running: Python (3.12+), Jupyter/VS Code, numpy, pandas, matplotlib, scikit-learn. Use laptops **only** for in-class activities.
- Phones are a big distraction in class. Being concentrated on your phone during a lecture is also disrespectful to the instructor and colleagues. ***If you need to use your phone, do it outside the classroom.***
- All homework and projects **must be typeset**, unless otherwise stated. Students should make use of a computer and a text editor to write reports and homework solutions and **submit them in PDF format**.

Use of Artificial Intelligence (AI) tools

[Back to top]

AI tools (e.g., Copilot, ChatGPT, Gemini) can support learning, but submitting AI-generated work as your own is prohibited and may constitute an Academic Integrity violation.

Allowed AI use (with disclosure)

- Brainstorming outlines, datasets and data collection methods, clarifying concepts, drafting figure captions.
- Code explanations and debugging suggestions (you must write/own final code).
- Grammar/spell-check for your writing.
- Assistance with presentation preparation.

Prohibited AI use

- Generating solutions or code you submit without substantial modification and understanding.
- Using AI during exams or in-class assessments.

Required AI Usage Statement (if used)

Include a short note in your submission (e.g., in the README or report appendix) describing what tool, for which purpose, and how you verified the output. You may use the following template:

AI Usage Disclosure (Course: CSC 1010 - Programming for All)
Tool(s) used: [e.g., Copilot, ChatGPT, Gemini]
Purpose: [brainstorming, debugging, caption drafting, etc.]
Sample prompts: [list the most relevant prompts you used for each purpose]
Verification: [how you validated outputs, what you rewrote or corrected]
Authorship: I confirm the submitted work reflects my own understanding and writing.

Late work

[Back to top]

As it is every member's responsibility to contribute to the creation of a healthy and safe community, students are required to comply with University health and safety directives, guidelines, rules, regulations and protocols in times of emergency and/or public health concern. Violations may be referred for action under the Code of Student Conduct.

Student conduct

[Back to top]

As it is every member's responsibility to contribute to the creation of a healthy and safe community, students are required to comply with University health and safety directives, guidelines, rules, regulations and protocols in times of emergency and/or public health concern. Violations may be referred for action under the Code of Student Conduct.

Office of Disabilities and Learning Support Services

[Back to top]

It is the policy of Villanova to make reasonable academic accommodations for qualified individuals with disabilities. All students who need accommodations should go to Clockwork for Students via myNOVA to complete the Online Intake or to send accommodation letters to professors. Go to the LSS website or the ODS website for registration guidelines and instructions. If you have any questions please contact LSS at 610-519-5176 or learning.support.services@villanova.edu, or ODS at 610-519-3209 or ods@villanova.edu.

Academic Integrity

[Back to top]

All students are expected to uphold Villanova's Academic Integrity Policy and Code. Any incident of academic dishonesty will be reported to the Dean of the College of Liberal Arts and Sciences for disciplinary action. You may view the University's Academic Integrity Policy and Code for a detailed description.

Absence for Religious Holidays

[Back to top]

Villanova University makes every reasonable effort to allow members of the community to observe their religious holidays, consistent with the University's obligations, responsibilities, and policies. Students who expect to miss a class or assignment due to the observance of a religious holiday should discuss the matter with their professors as soon as possible, normally at least two weeks in advance. Absence from classes or examinations for religious reasons does not relieve students from responsibility for any part of the course work required during the absence. For more information, see Religious Holidays.

Lecture recording

[Back to top]

This course, including your participation, will be recorded on video and may be made available to students in the course for viewing remotely. Course videos and materials belong to your instructor, the University, and/or other sources depending on the specific facts of each situation, and are protected by copyright. Do not download, copy, or share any course or student materials or videos without the explicit permission of the instructor. For questions about recording and use of videos in which you appear please contact your instructor.

Copyright notice

[Back to top]

The materials on this course Website are only for the use of the course instructor and the students enrolled in this course for purposes associated with this course. Some of these Website materials may be subject to copyrights held by third parties. None of these materials may be (i) retained after the course term expires, (ii) further disseminated, or (iii) accessed by or made available to others. Students with questions about the permissibility of use of materials on this Website are advised to consult the course instructor.