Syllabus TL;DR
CMSC 140: Introduction to programming

Fall 2024

Section 3:	MWF noon, Rotunda G56
Websites:	`https://longwood.instructure.com/courses/1314215`
	`http://www.cs.longwood.edu/courses/cmsc140`
Professor:	Don Blaheta, Rotunda 334, `blahetadp@longwood.edu`
100% Office hours:	Mondays 3–4pm; Tuesdays 11am–noon;
	Wednesdays 10:30–11:30am; Fridays 2–3pm

Textbook and resources

A Practical Introduction to Python Programming, by Brian Heinold.

`https://www.brianheinold.net/python/python_book.html`

Python 3 editor/classroom support: Codeboard.io

`https://codeboard.io/`

Things you must have: a laptop (which you bring on designated lab days); internet access (for homework and, as needed, Zoom attendance)

Zoom attendance quick links

These can also be found on the Canvas page for the course.

Zoom link for CLASS	Zoom link for OFFICE HOURS

Content

Engagement. You need to be an active participant in this class: engaged during class time, and participating in the Canvas-based participation stuff that I post. 10% of the grade is for all of that.

Lab work (and homework). The central goal of the course is that you learn to program, so the bulk of the work you do will be "lab" work, i.e. writing programs. Homeworks can be revised to recover up to 90% of the points on the assignment. This work will make up 25% of the grade. Collaborative

Course project. Your course project will involve working with a data set in your area, building a program to process that data, and writing up your results. Evaluation will be based on the program code itself as well as your written and verbal proposals and conclusions based on the results; all that together will be worth a total of 25% of the final grade. Collaborative

Exams. There will be two exams, one in early March and one in late April. **You are not permitted to discuss the exams *at all,* with anyone other than me.** Each exam is worth 20% of the grade (total of 40%). Non-collaborative

Grading scale

I tend to grade hard on individual assignments, but compensate for this in the final grades. The grading scale will be approximately as follows:

A−	[85, 90)	A	[90, 95)	A+	[95, 100]
B−	[70, 75)	B	[75, 80)	B+	[80, 85)
C−	[55, 60)	C	[60, 65)	C+	[65, 70)
D−	[40, 45)	D	[45, 50)	D+	[50, 55)

While there will be no "curve" in the statistical sense, I may slightly adjust the scale at the end of the term if it turns out some of the assignments were too difficult. Final grades of A+ are recorded as an A in the grading system. Final grades below the minimum for D− are recorded as an F.

Note that *individual* grades recorded in Canvas should be accurate (and you should let me know if there's a data entry error!), but *averages* as computed by Canvas sometimes are not, if the averaging is complex or (especially) if an individual student has a special case scenario. The reference gradebook is my own spreadsheet, and while I will try to make Canvas reflect it (including averages) as well as I can, Canvas can't always handle it.

Calendar

Days marked **–L** mean you should bring your laptop that day, as we will be doing lab work.

Wk	M	W	F
	August		
1	**26** — Introduction The idea of an algorithm	**28 –L** — How to read/use a textbook Hello world	**30** Ch. 1 Input/output, comments
	September		
2	[Labor Day **no class**]	* **4** Ch. 2 for loops `range`	**6 –L** — (continued)
3	**9** — Quantitative Reasoning	**11** — What makes a workable quantitative question?	**13** Ch. 3 Arithmetic Order of operations
4	**16 –L** — Random, Math	**18** — Limitations of a QR process	**20** Ch. 4 `if` and blocks Comparisons and booleans `and` `or` `not`
5	**23 –L** — Blocks and nesting Flowcharts	**25** — `else`, `elif`	[prof absent **no class**]
		October	
6	**30** — Interpreting results of a quant question	**2** — Test cases Practicing with codingbat	**4** ** — **Exam 1**
7	**7** Ch. 6 Strings	**9 –L** — String slicing More string practice	[Fall Break **no class**]

* **3 September**: Deadline to add/drop classes (5pm)

** **4 October**: Deadline to elect pass/fail option (5pm)

Wk	M	W	F
	October		
8	**14** Ch. 7 Lists List operations Looping over lists	**16** Ch. 5 Standard list-loop algorithms	**18** — QR: Checking results for reasonability Resolving limitations Putting it together
9	**21 –L** — `split`, `join` Multiple assignment	**23** — Adding/removing items Writing the quant program Project overview	**25 –L** — List-loop practice
			November
10	**28 –L** Ch. 12 Text files	**30 –L** — CSV files **Project proposal due**	**1** Ch. 11 Dictionaries
11	**4** Ch. 8 Dictionary practice List comprehensions	**6** * 8.5 2D lists	**8** Ch. 13 Function basics
12	**11 –L** — Scope Using functions practically	**13 –L** — Speech practice Project work day	**15** — Functions, cont'd
13	**18** — **Elevator speeches**	[Research Day **no class**]	**22** Ch. 9 `while` loops `break`, `continue`
14	**25** — **Lightning talks**	[Thanksgiving **no class**]	[Thanksgiving **no class**]
	December		
15	**2** — Review	**4** — **Exam 2**	**6** — **Elevator speeches**

Project program and writeup due Thu, 12 December, 5:30pm
Exam time reserved for (online) speech overflow if needed: Thu, 12 Dec 3–5:30pm

* **6 November**: Deadline to withdraw from a class (5pm)