Syllabus TL;DR
CMSC 140: Introduction to programming

Spring 2021

Section 1:	MWF 9:55, Rotunda 115 (and via Zoom)
Section 2:	MWF 11:00, Rotunda 115 (and via Zoom)
Websites:	`https://canvas.longwood.edu/courses/1300130`
	`http://cs.longwood.edu/courses/cmsc140`
Professor:	Don Blaheta, Ruffner 334, `blahetadp@longwood.edu`
Office hours:	Mondays 4–5pm; Tuesdays 11–noon;
	Wednesdays 2:30–3:30pm; Thursdays 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); a device with video support (for Zoom attendance, and to record/upload video); internet access (for Zoom attendance, homework, and to record video); a suitable mask (following university guidelines).

Zoom attendance quick links

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

Zoom link for SECTION 1	Zoom link for SECTION 2	Zoom link for OFFICE HOURS

Content

Engagement. You need to be an active participant in this class: engaged during class time (whether in-person or via zoom) and on the discussion boards, 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 before, during, and after our assigned class periods. 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

A/B days indicate which attendance group is allowed to attend in person; others should attend via Zoom those days. Days marked –**L** mean you should bring your laptop that day, as we will be doing lab work.

Wk	M	W	F
	January		
1		**13** A — Introduction The idea of an algorithm	**15** B–**L** [video on Canvas] How to read/use a textbook Hello world
2	[MLK Day **no class**]	**20** A* Ch. 1 Input/output, comments	**22** B Ch. 2 for loops `range`
3	**25** A–**L** — (continued)	**27** B — Quantitative Reasoning	**29** A [reading TBA] What makes a workable quantitative question?
	February		
4	**1** B Ch. 3 Arithmetic Order of operations	**3** A–**L** — Random, Math	**5** B [reading TBA] Limitations of a QR process
5	**8** A Ch. 4 `if` and blocks Comparisons and booleans `and or not`	**10** B–**L** — `else`, `elif` Flowcharts	**12** A–**L** — (continued)
6	**15** B Ch. 6 Interpreting results of a quant question Strings	**17** A–**L** — (continued)	**19** B [reading TBA] Checking results for reasonability Resolving limitations
7	**22** A [reading TBA] Test cases: checking your work	**24** B–**L** — Putting it together	**26** A–**L** — (continued)
	March		
8	[March Break **no class**]	**3** B — Review	**5** — **Exam 1**

* **21 January**: Deadline to add/drop classes (5pm)

** **19 February**: Deadline to elect pass/fail option (5pm)

Wk	M	W	F
	March		
9	**8** A Ch. 7 Lists List operations Looping over lists	**10** B Ch. 5 Standard list-loop algorithms	**12** A–**L**** — (continued)
10	**15** B [reading TBA] Adding/removing items Multiple assignment Writing the quant program Project overview	**17** A — List-loop practice	**19** B Ch. 12 Text files
11	**22** A [reading TBA] CSV files	**24** B Ch. 8 `split`, `join` List comprehensions	**26** A 8.5 2D lists **Project proposal due**
			April
12	**29** B Ch. 11 Dictionaries	**31** A* Ch. 13 Function basics	[April Break **no class**]
13	**5** B–**L** — Scope Using functions practically	**7** A — Speech practice Project work day	**9** B — **Elevator speeches**
14	**12** A Ch. 9 `while` loops `break`, `continue`	[Research Day **no class**]	**16** B–**L** — Project work day
15	**19** A — **Lightning talks**	**21** B — Review	**23** — **Exam 2**
16	**26** A — **Elevator speeches**		
	May		

Project program and writeup due Thu 6 May 10:30am
Exam times reserved for (online) speech overflow if needed:
Sec 1: Wed 28 Apr, 3–5:30pm **Sec 2: Thu 6 May, 8–10:30am**

* **31 March**: Deadline to withdraw from a class (5pm)