

Mastery Learning

In COMP151, we use a **mastery-based approach** to teaching programming. This means that you will learn and practice skills and techniques in a specific order, with each new topic building upon your understanding of previous ones.

As you progress through the course, it's important to complete each topic before moving on to the next one. While **the lectures will follow a fixed schedule, your lab work may move at a different pace**. If you find yourself getting ahead of the lectures, that's great! Just make sure not to fall too far behind, as it can be difficult to catch up.

Since the **course is self-paced**, different students may reach different parts of the material by the end of the semester. We expect all students to complete up to and including Lesson 13, but you should aim to go as far as you can.

Assessment

There are a total of 8 Mastery Levels and 2 Practical Tests in this course. The Mastery Levels are worth 60% of your final grade, and each Practical Test is worth 20%.

The Mastery Levels are pass/fail. **In order to attempt the next level, you must successfully complete the previous one** (except Levels 7 and 8 which may be completed in either order).

You can retry a Mastery Level as many times as you like, but only once per day. If you pass a Mastery Level, you get all the marks available for that level. If you fail a Mastery Level, you don't get any marks but you may resit the following day.

Each of the Mastery Levels are summarised below in Figure 1.

Mastery Levels	Content		Marks	Grade Progression		
	Lesson(s)	Questions		A-Track	B-Track	C-Track
1 Assignment and Operations	1, 2	3	4%	Week 2	Week 3	Week 3
2 Functions and User Input	3, 4	2	8%	Week 3	Week 4	Week 4
3 Conditionals and Fruitful Functions	5, 6	2	8%	Week 4	Week 5	Week 6
4 Modules and Strings	7, 8	2	8%	Week 5	Week 6	Week 8
5 Files	9	2	8%	Week 6	Week 8	Week 10
6 Iteration: while loop	10	2	8%	Week 8	Week 10	Week 12
7 NumPy and Matrices	11, 14-17	2	8%	Week 10	Week 12	Week 13
8 Pandas and Visualisation	18-19	2	8%	Week 12	Week 13	-

Figure 1: The Mastery Levels. A/B/C-track are the expected time to finish a level if you want an A/B/C for the paper.