

# An Engineer's Beginners Guide To Python (from a students perspective)

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May 22, 2024

## 1 Introduction

This document could be thought as the one stop shop to succeed in EMS412U python side of the module.

## 2 Week 0: The laying the foundation

Let's start with the most basic python program and explain some key concepts. Below is a "code block", this contains the actual raw python code.

```
1 # Author: Muhie
2 # Date: 21/05/24
3 # Explanation of the program: Outputs a Hello World! to the screen
4 """I can
5 write a comment
6 on multiple lines"""
7 print("Hello World!")
8
```

*Lines 1-3:* In every program you write you MUST always start with:

- Your name
- Today's date
- A brief explanation of the program

As you can see in the example above before writing my name, date and explanation I use a hashtag (#) symbol, this denotes a comment. A comment is completely separate to the main program, comments do not effect the functionality of the program. One more thing to note is that if you need a comment over multiple lines you can use three quotation marks: three before the start of the comment and then three after the comment, as seen above with *lines 4-6*. *Line 7:* This is where the actual python code

starts the keyword `print`

Syntax - these are mainly keywords (and symbols like a hashtag #).

- 3 KEY CONCEPTS YOU'LL NEED FOR WEEKS 1-12**
- 4 I NEED HELP WHAT DO I DO!**