# **Materials**

Here you will find a listing of lesson materials for the course such as slides, assignments, and similar.

## 1. Welcome Weeks

- Activity 01: README.md Due Date: Wednesday 3 Sept 2025 (by the end of class)
- GitHub Classroom Link (Used to setup your workspace and repository for your assignment submission.)

# 2. Getting Started

- Installing necessary software for the course. Python, Visual Studio Code and GitHub.
- Required Reading: Guttag Chapter 1
- Lab 01: Working with the UV package manager to run Python code.
  - GitHub Classroom Link
  - README Lab 01 documentation

## 3. Crash Course I: Python

- Required Reading: Guttag Chapter 2
- Literals, Variables, Conditionals, Strings, etc.
  - HTML Slides
  - PDF The slide's material as a pdf.
- Lab 02: Refactoring (Restructuring) a Rock, Paper, Scissors Python game.
  - GitHub Classroom Link
  - README Lab 02 documentation
- Activity 02: Building a morse code translator in Python and UV
  - GitHub Classroom Link

# 4. Crash Course II: Python

- Literals, Variables, Conditionals, Strings, etc.
  - HTML Slides
  - PDF The slide's material as a pdf.
- Activity 03: Coding using literals, lists and conditionals
  - GitHub Classroom Link
- Lab 03: Completing smaller Python programs.
  - GitHub Classroom Link
- Guest Speaker: Form

## 5. Lists and Dictionaries

- Return to Programming challenges of Activity 03
  - README
  - Note: This time only: Changed Due Date. Now set to 22nd Sept 2025, 11:30pm
- Lists and Dictionaries at Work
  - PlayGround demonstrations: Demonstration
  - Finish slides from last week (Check the challenges)
    - \* HTML Slides
- Lab04: For loops and While Loops
  - GitHub Classroom link
- Activity 04: Fixing code for finding approximations
  - GitHub Classroom Link

## 6. Exhaustive enumeration and Approximation

- Some Approximation Techniques in Python
  - HTML Slides
  - PDF The slide's material as a pdf.
- A Study of the General nth Root Algorithm
  - HTML
  - PDF The slide's material as a pdf.