

PYTHON BOOT CAMP

Spring 2020

Instructor Information

Instructor: Dr Jonathan Cazalas (Dr Cazalas)

Course Description

Introduction to the basics of programming and problem-solving, including selections, loops, functions, and lists.

LIVE Sessions via Zoom Video Conferencing

We will have LIVE sessions every Tuesday and Thursday at 12:00 p.m. These sessions will last approximately one hour, and time will be allotted for participants to ask questions both during and after the session. A link to the Zoom session will be sent to all registrants.

Note: these Zoom sessions will be recorded and then uploaded to YouTube. By participating in this course, you consent to have THE Zoom class sessions recorded and published at YouTube without an expectation of compensation or other remuneration, now or in the future.

Course Student Learning Outcomes

By the end of the course students should be able to:

1. Use a programming language to implement, test, and debug algorithms for solving simple problems.
2. Analyze and explain the behavior of simple programs involving the fundamental programming constructs.
3. Identify and understand basic programming data types, operators, and expressions.
4. Choose appropriate conditional and iteration constructs for a given programming task.
5. Write and/or modify short programs that use standard conditional structures.
6. Write and/or modify short programs that use standard iterative control structures.
7. Write programs that use functions/methods.
8. Identify common coding errors and apply strategies for avoiding such errors.
9. Apply a variety of strategies to the testing and debugging of simple programs.

Suggested Materials

"Introduction to Programming Using Python", Liang. ISBN-13: 978-0132747189, ISBN-10: 0132747189

Weekly Practice Problems

There will be a practice set of short problems assigned each week, with the intention of having you successfully practice coding and problem solving on the topics most recently learned in class.

These problems will be submitted online and immediately graded at repl.it. A link will be provided to all registrants for you to enroll in the repl.it course.

Tentative Schedule for Class Meetings/Assignments

<u>Week</u>	<u>Dates</u>	<u>Content Covered</u>
1	3/23 – 3/27	Module 1: Introduction to Computers, Programs, and Python
2	3/30 – 4/3	Module 2: Elementary Programming
3	4/6 – 4/10	Module 3: Mathematical Functions, Strings, and Objects
4	4/13 – 4/17	Module 4: Selections
5	4/20 – 4/24	Module 5: Loops
6	4/27 – 5/1	Module 6: Functions
7	5/4 – 5/8	Module 7: Lists

Make all efforts of **READING** the module PDF **before** our live sessions, as this will allow you to get the most out of the course.