INTRODUCTION TO PYTHON FOR SOCIAL SCIENTISTS

MODULE ONE
- Why use Python? - Introduction to the course and a short explanation of the value of Python for data analysis and social science
- Installing Python
- Working in the shell and using an editor
- Equality and comparison - Difference between assignment and equality, using comparison operators
- Assigning variables - Assigning one or more variables, overwriting and modifying variables

MODULE TWO
- Data types - The three different data types and operations that can be performed on them
- Lists - Creating and manipulating lists, list functions and mapping
- String formatting - String use and manipulation in Python
- Tuples - Function and use of the tuple data container
- Dictionaries - Function and use of dictionaries

MODULE THREE
- IF, ELSE and ELIF - What IF, ELSE and Elif statements are and how to use them, e.g using ELSE to handle when a condition is not met
- Loops - Constructing and using loops and IF statements to check conditions and change the behavior of a program
- And/or - Using and/or conditions
- Dealing with files - Opening, reading and closing files

MODULE FOUR
- Working with the web - Pulling data from web content
- Writing functions - Purpose and use of functions
- Writing scripts in Python - Splitting code into multiple scripts
- Objects and Classes - Creating a class and using objects
- A brief guide to thinking like a programmer - Considerations when planning tasks to do using code, task flow etc