This course was designed to provide the building blocks for Python programming and data collection for those choosing a career in Data Science, Data Engineering, AI or Application Development.

Initially conceived as a foundation course for Data Science and AI it has been refreshed several times to keep pace with emerging career options. Additional content has been added which is applicable to Data Science, Data Engineering, AI or Application Development.

After completing this course you will have learned foundational skills in Python programming which you can then go on to apply in the Python Project course for your chosen career.  The Python Project courses involve real world scenarios where you are in charge of a final project as a Data Scientist, a Data Engineer, or in AI and Application Development. By finishing this course and your follow-on Python Project, you will gain the basic skills to continue the steps on your chosen career path.

* Types
  + Using type() to find type command.
  + Integers
  + float
  + strings
  + Type casting – converting data types. Datatype(‘data’) to convert
* Expressions
  + Mathematical operations (+,-,\*,/,//)
* Variable
  + My\_variable=10
* String Operations
  + Best to think of a string as an ordered sequence arranged as an array starting at index 0.
  + Note that the array can start with -1. Instead name[-1] will return the last character decreasing the index will move to the character on the left.
  + String Slicing
    - Name[start: end+1] – allows you to select a portion from the string.
  + String Stride
    - Name[::2] – this will pick every second letter starting from 0
    - Name[0:5:2] – this will pick the letter at 0,5,2 \*note order matters.
  + Length
    - Use len command to find the length.
  + Adding strings using +
  + Multiplying strings using \* by the number of times.
  + \n used to move the rest down one line.
  + \t used to insert a tab between the string.
  + To put a \ in the string used \\ instead - print(r"\ ")
  + Upper function \ lower
    - A.upper() will cause string A to be in all upper case.
  + .find(“str”)
    - Find the index where this str or letter exists.
  + .replace(‘str to replace’, ‘whats its being replaced with’)