



Coding with Python: A Course for Absolute Beginners

Course Outline

<p>Week 1</p>	<ul style="list-style-type: none"> ✓ Why learn to program? ✓ An introduction to Python <ul style="list-style-type: none"> • Application Areas • Myths and Misconceptions ✓ Installing Python on Windows <ul style="list-style-type: none"> • Latest Versions • IDLE (Integrated Development and Learning Environment) ✓ The Python Shell <ul style="list-style-type: none"> • Navigating around directories • Python One-liners
<p>Week 2</p>	<ul style="list-style-type: none"> ✓ Saving & Running scripts <ul style="list-style-type: none"> • Syntax errors, Run-time errors, and traceback • Adding comments ✓ Operators & Variables <ul style="list-style-type: none"> • Assignment operators • Order of operations • Storing data in variables • Valid names and naming conventions ✓ Working with Strings <ul style="list-style-type: none"> • The String data type and literals • Syntax, EOL, Escaping • Concatenation, Indexing and Splicing • Multi-line strings • Embedding values within strings
<p>Week 3</p>	<ul style="list-style-type: none"> ✓ Python Collections <ul style="list-style-type: none"> • List, Tuple, Set, Dictionary • The List constructor • Accessing and checking lists • Changing list contents • Adding and Removing items ✓ Condition Blocks



	<ul style="list-style-type: none">• Single and compound statements• Importance of Indentation• If, Else and Elif statements• Combining Conditions
Week 4	<ul style="list-style-type: none">✓ Writing Loops<ul style="list-style-type: none">• The Range function• For and While loops• Looping through Lists✓ Functions in Python<ul style="list-style-type: none">• Parts of a function• Variables and Scope• Built-in functions
Week 5	<ul style="list-style-type: none">✓ Introducing Modules<ul style="list-style-type: none">• Built-in and Downloadable• Some modules to try out✓ An in-class assessment