

## Python Syllabus

Session	Outline	Required Background
<b>Part 1</b>		
<b>1</b>	<ul style="list-style-type: none"> <li>• Introducing the Bash Shell</li> <li>• Introduction to Python environment</li> <li>• Data analysis with numpy</li> </ul>	
<b>2</b>	<ul style="list-style-type: none"> <li>• Repeating actions with loops</li> <li>• Lists in python</li> <li>• OS Operations in Python</li> </ul>	
<b>3</b>	<ul style="list-style-type: none"> <li>• Making Choices</li> <li>• Creating Functions</li> <li>• Errors and Exceptions</li> <li>• Defensive Programming</li> <li>• Debugging</li> </ul>	
<b>4</b>	<ul style="list-style-type: none"> <li>• Python scripts and Command-Line</li> <li>• Starting with Pandas</li> </ul>	
<b>5</b>	<ul style="list-style-type: none"> <li>• Indexing, Slicing and Subsetting DataFrames in Python</li> <li>• Combining DataFrames with pandas</li> <li>• SQL query and relational database management with python</li> </ul>	Familiarity with SQL is not required but useful
<b>Part 2</b>		
<b>6</b>	<ul style="list-style-type: none"> <li>• Class and Object-oriented programming</li> <li>• Flask and web-app development in Python</li> </ul>	Familiarity with HTML is not required but useful
<b>7</b>	<ul style="list-style-type: none"> <li>• Dictionaries, Lambda, Map, Filter and Reduce in Python</li> </ul>	
<b>8</b>	<ul style="list-style-type: none"> <li>• Introduction to Cloud Computing and setting up a Cloud account</li> </ul>	
<b>9</b>	<ul style="list-style-type: none"> <li>• Finance with Python, part 1</li> </ul>	Knowledge of basic Finance concepts
<b>10</b>	<ul style="list-style-type: none"> <li>• Finance with Python, part 2</li> </ul>	Knowledge of basic Finance concepts