



# Learn with Newtyne

## Newtyne Academy for Data Engineers

### Learning Overview:

The learning is delivered using blended learning techniques via our digital learning platform with comprehensive hands-on exercises throughout to help assess and reinforce learning.

### PySpark

To enable individuals to work on systems using PySpark to help model big datasets. The training provided will cover the following.

- Learn how to wrangle and model massive datasets with PySpark, the Python library for interacting with Spark.
- Learn about big data and how Spark fits into the big data ecosystem.
- Practice processing and cleaning datasets to get comfortable with Spark's SQL and dataframe APIs.
- Learn how to debug and optimize your Spark code when running on a cluster.
- Learn how to use Spark's Machine Learning Library to train machine learning models at scale.

### Essential Python Skills

This course will provide individuals with the solid understanding of the Python building Blocks to develop their Python programming skills. It contains a series of quizzes and comprehensive exercises to consolidate and reinforce learning. The training provided will cover the following:

- Explain the concept of Python's Object Orientated Programming (OOP) framework.
- Describe the basic concepts of Python syntax.
- Describe what Python data objects are and how they relate to a Class.
- Demonstrate how to implement common programming functionality such as data storage, functions, loops and conditional logic etc, within Python.
- Use the Python pandas package to access, manage, analyse and report on data tables.

### Python Certification

As part of the Academy programme, we are looking for individuals to attain Python – [Certified Entry Level Python Programmer \(PCEP\) professional certification](#) from the Python Institute.

PCEP measures an individual's ability to accomplish coding tasks related to the essentials of programming in the Python language.

To help individuals prepare for the PCEP – Certified Entry-Level Python Programme Certification Exam, we provide access to course materials sponsored by the Python Institute. The course covers all the required Python essentials to sit the exam.

### **AWS Cloud Practitioner Certification**

As part of the Academy Individuals will also have the opportunity attain the AWS professional certification and will receive appropriate training.

The AWS training course is designed to give individuals an overall understanding of the Amazon Web Services (AWS) Cloud. They will learn about AWS Cloud concepts, AWS services, security, architecture, pricing, and support to build their AWS Cloud knowledge.

### **SAS Language Training (inc PROC SQL) and Certification**

Training will also be provided to cover the essentials of the Language of SAS covering the required elements/topics to sit the SAS Certified Specialist: Base Programming using SAS 9.4 exam.

Fundamentals – the Language of SAS – [Course details](#)

Intermediate – the Language of SAS – [Course details](#)

PROC SQL – the Language of SAS – [Course details](#)

### **Professional Certificate in Applied Data Programming (SCQF 7)**

Learners also have the opportunity to attain a Professional Certificate in Applied Data Programming (ADP). This qualification has been developed by Newtyne and is certificated and quality assured by the Scottish Qualifications Authority (SQA). It is a practical workplace qualification, designed to apply and extend the learning from our Career Change programme for Data Analysts. See [Professional Certificate in Applied Data Programming \(SCQF Level 7\)](#) for full details.

### **Business Skills for Data Professionals**

The technical programme outlined above is complimented by the addition of essential business skills including communication skills, working with others and problem-solving skills, to support the transition into the workplace.