**Course Introduction and Promo**

[00:00:00.49] [AUDIO LOGO]

[00:00:08.80] RYAN AHMED: Hello, everyone, and welcome to Python Programming Fundamentals Practical Skills Module. My name is Ryan Ahmed. I'm a professor and bestselling online instructor. I hold a masters and PhD degrees in engineering and I hold an MBA in finance from McMaster University in Ontario, Canada. I'm super passionate about edtech and I've taught over quarter million students online from over 160 countries.

[00:00:34.96] In this course, we will understand Python programming fundamentals in a practical, easy, and fun way. Python is one of the most widely used programming languages in the world, since it's easy to learn, scalable, and comes with many powerful open source modules and libraries.

[00:00:54.11] This course is unique because we will learn by doing. The course content is designed to include 10 minutes of video lectures immediately followed by a practice opportunity in the form of a coding lab so you can directly apply what you learned. Afterwards, I will provide you with a detailed video explanation of the coding lab solution so you can compare your answers to the answer sheet.

[00:01:18.20] The course starts by covering Python programming fundamentals, such as math operations, loops, functions, and conditional statements. Next, we will learn how to perform data wrangling and analysis using a powerful Python library named as Pandas. Finally, we will cover a final capstone project on portfolio optimization and Monte Carlo simulation in Python.

[00:01:42.95] Here are the key learning objectives of this Python course. Master Python programming fundamentals, such as variables, data types, loops, functions, and conditional statements. Understand how to use Jupyter Notebooks for developing, presenting, and sharing data science projects. Leverage key Python libraries, such as Pandas for data wrangling and analysis, Matplotlib and Seaborn for data visualization, and Plotly Express for interactive data visualization in a financial context. Perform portfolio optimization, run Monte Carlo simulations, and calculate portfolios returns, risks, and Sharpe ratios in Python. Obtain real world financial data using Pandas Data Reader and Yahoo Finance API in Python as well.

[00:02:33.01] This course has no prerequisites, so if you have never used Python or any other programming language in the past, don't worry. We will have a clear video explanation for each of the topics we'll be covering. We will start from the basics and gradually build up your knowledge.

[00:02:49.70] Let's start this exciting journey and harness the power of Python together.

[00:02:54.58] [AUDIO LOGO]