

INTRODUCTION TO PROGRAMING

ACQUIRE MOST IN-DEMAND SKILLS FOR THE AGE OF AI

BUILD SMART APPLICATIONS WITH PYTHON PROGRAMMING



JOIN NOW!

AEDA  Introduction to Programming
Instructor-Led Training
Live Workshop

Introduction to Programming is one of the modules under our Associate Enterprise Data Analyst (AEDA) program. AEDA is a 15-day training program that provides analysts with the tools required for efficient data analysis.

 **informs** PEP
PROFESSIONAL EDUCATION PARTNER

 **18** CPD
HOURS

 **HRDF
CLAIMABLE**

Get an in-depth look at Python concepts and start coding right away

Programming is one of the most demanded skills in today's job market, and yet not many in our workforce would self-identify as competent programmers. Python is the most popular and widely-used language for machine learning and artificial intelligence operations.

From Absolute Beginner to Beginner Programmer in Just 3 Days

Introduction to Programming is a 3-day module that lays the foundation for beginners to convert simple concepts into workable codes. Participants are introduced to the inner workings of a computer and how algorithms work. They will then use flowcharts to break problems down into logical steps. Finally, they will combine these concepts with writing simple Python code. The course emphasizes heavily hands-on applications to feel comfortable coding and confidence enough to leap from absolute stranger to beginner in no time.

Learning Outcome

- Ability to understand how computers work and how to instruct computers with codes and algorithms
- Learn how to draw flowcharts and write Pseudocodes
- Design and implement solutions by writing Python programs
- Instruct the computer to accomplish tasks and use variables to contain content
- Learn new Python vocabulary, write and run calculations, and conduct overall data analysis/manipulation using Python's base functionality.

Who Should Attend

- People interested in programming who have no prior programming experience
- Beginners who would like to learn the necessary skills to start a data analytics project
- Junior executives who are just getting started in a data-driven organization
- Analysts and business professionals who want to jump-start their abilities in analyzing data
- Finance, insurance, investment, banking, and actuary professionals who want to work faster and smarter with automation

Course Outline

Learn how to think like a programmer by breaking big problems into smaller ones and converting these byte-sized problems into code. Learn Python programming from scratch with hands-on exercises

	Module Description	Learning Breakdown
How Computers Work	Computers are ubiquitous in society, but for many of us, it's just a black box that takes our commands and outputs whatever we desire. Gain insight into how computers work and leverage this knowledge when you program to speed up processes or minimize your hardware limitations.	<ul style="list-style-type: none"> • Memory • Binary number system • How a CPU works • Input and Output
Introduction to Algorithms	Algorithms are the backbone of programming. Concepts developed here, such as assigning variables and creating repeating loops, are concepts that cut across all programming languages.	<ul style="list-style-type: none"> • Variables • Sequence • Selection • Repetition
Flowcharting and Pseudocode	Breaking down a big problem into smaller, solvable problems is at the heart of what programmers do. Flowcharts are a handy tool to help visualize this process and follow your commands' logic from the beginning to the end. By converting these flowcharts into pseudocode, we move one step closer to creating our working code	<ul style="list-style-type: none"> • Flowchart node types • Draw simple flowcharts • Pseudocodes
Introduction to Python	This chapter will put together knowledge from preceding sections to finally start writing a simple Python code. Python is a widely-used general-purpose programming language that is versatile and relatively easy to pick up. Translating pseudocode to Python will be easier than starting from scratch and will provide a good training ground for participants to become familiar with programming syntax.	<ul style="list-style-type: none"> • Input / Output statements • Assigning Variables • Datatypes • Relational and Logical Operators • Conditional Statements • Loops • Lists
Coursework	Develop a Python program on a business use case	

Reading Materials

Core Readings

1. John Paul Mueller, Beginning Programming with Python for Dummies, 2014, SBN-13: 978-1118891452, ISBN-10: 1118891457