

## Mastering Data Analysis with Python





COURSE DURATION

16 Hrs





MODE OF TRAINING Classroom



FUNDING VALIDITY
TIll 09 Sep 2027

This course aims to equip learners with the knowledge and skills to develop python programs. Python is one of the most versatile software programming languages and is widely used in AI and machine learning. Its versatility also extends to business intelligence tools. This course will help learners learn the syntax and program logic techniques of python and apply it to creating data analysis routines as well as to use python libraries for data visualization in Power BI Desktop and Tableau.

#### Who is this course for

This training is relevant to all workers, PMETs, executives and
professionals who are required to perform tasks automation and
data analysis to engage with stakeholders and target audience
to promote a business case as well as to present Management
with business insights to facilitate decision making.

#### Course Objectives

- Understand programming language characteristics suitable for business use
- Design and develop Python programs using algorithms, data structures, functions, and libraries
- Apply best practices in coding, organisation, and documentation for business needs
- Troubleshoot and resolve errors with problem-solving and errorhandling techniques
- Enhance and adapt Python solutions to meet evolving business objectives and processes

FULL FEE

\$950

(Subject to 9% GST)

NETT FEE AFTER FUNDING

\$370.50

SME <u>OR</u> Singaporean age 40 and above 70% Course Fee Funded

\$560.50

Non-SME <u>OR</u> Singaporean age 21 to 39 OR Singapore PR

50% Course Fee Funded

Subsidies Available Individual

SkillsFuture Credit PSEA



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#### **Course Content**

### Learning Unit 1: Understand the concept of Software Development

- Understanding software programming
- Introduction to Python

# Learning Unit 2: Enhance Programming Design Approach through Design and Scripting Tools like Pseudo-Code and Flowchart

- Creating Program Description and Specification Approach
- Tools to Design Program Scripts

#### Learning Unit 3: Understanding Different Data Structure Types and Variables in Python

- Create algorithm to perform computations in Python
- Apply Various Data Structure for Variables and Lists

#### Learning Unit 4: Understand Python Programming Syntax with Functions and Libraries for Data Analysis

- Using Types of Functions and Procedures to Address Business Requirements
- Incorporating Python Libraries for Data Analysis

#### Learning Unit 5: Create Routines for Problem-Solving and Error Handling with Conditional Statements

- Using Conditional Statements for Problem Solving
- Routines for Error Handling

#### Learning Unit 6: Create Different Loop Routines with Variables in Python

 Using Different LOOP Statements

### Learning Unit 7: Enhance Python Codes to Support Data Visualisation

 Embedding Codes and Libraries to Enhance Data Visuals

#### Learning Unit 8: Enhance Code Readability for Code Maintenance in Python

 Enhancing Code Maintenance with Good Documentation Practice FULL FEE

\$950

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