

# FIN551 Python Programming

**Level:** 5

**Credit Units:** 2.5 Credit Units

**Language:** ENGLISH

**Presentation Pattern:** EVERY JULY

## Synopsis:

FIN551 Python Programming introduces students to the use of Python programming in the financial context. Python has been used extensively in the financial industry because it is easy to learn and there are many available add-on packages for analysis purposes. The course introduces basic programming concepts and best coding practices through the extensive use of in-class demonstrations and hands-on practices. Students will learn to translate and implement business and financial logic into Python for business applications, and they can integrate their Python implementation together with APIs for real-time deployment. As software development is typically carried out in teams, students will also learn how to make use of GitHub for code review and project management.

## Topics:

- Introduction to Python3.x
- Introduction to Spyder and Jupyter Notebook
- Data Types, Operations and List
- Control Sequences
- Boolean Operators
- User defined functions
- Introduction to Python modules – numpy, pandas, scipy
- Data Sources
- Documentation and best programming practices
- GitHub and developer APIs

## Learning Outcome:

- Appraise the usage of different data types and operations available in Python
- Design logic flow using control sequences and Boolean operators
- Assess the best practices for code implementation for large-scale IT projects
- Assemble and use the available Python libraries and modules for project development
- Select GitHub and APIs for project tracking and development
- Construct required technical specifications in Python
- Formulate source code management and development
- Apply the best coding practices

## Assessment Strategies:

| Continuous Assessment Component | Weightage (%) |
|---------------------------------|---------------|
| PARTICIPATION                   | 10            |
| GROUP BASED ASSIGNMENT          | 40            |
| <b>Sub-Total</b>                | <b>50</b>     |

| Examinable Component | Weightage (%) |
|----------------------|---------------|
|----------------------|---------------|

|                  |           |
|------------------|-----------|
| ECA              | 50        |
| <b>Sub-Total</b> | <b>50</b> |

**Weightage Total** **100**