

A) Course Aims/Description

This is an introductory course designed for business or accountancy undergraduate student who has no programming background and is interested to learn how to manage data and conduct business analytics programmatically. It is oriented to enhance your technical skillset. The aim of this course is to provide a broad understanding on how to manage data, the process of preparing data for analysis, basic of analytics, and the means to communicate analytics outcome. This course will equip you with the ability to write customized solutions to inform business decision, integrate statistical libraries for data analysis, and construct visuals or reports for business understanding. This module will provide you with individual hands-on practices to hone your coding skillset and opportunity to develop coding solution in a team. We utilize Python language as the medium of learning because it is one of the most in-demand coding language and its user-friendly syntax is well suited for beginner level. You will utilize modern development tools to turn information into insights.

B) Intended Learning Outcomes (ILO)/Objectives

By the end of this course, you should be able to:

1. Interpret different elements of programming components like programming syntax, control structures, data types and design methods.
2. Write codes that allow you to solve simple business problem programmatically.
3. Derive analytics outcome from managing data.
4. Present data graphically that aid and support decision with appropriate statistical and graphing modules or use visualization software.

C) Course Content

The key topics covered are:

- Programming Basic
- Operators in Python
- Control in Python
- Using Functions and Defining Functions
- Data types: String, List, Tuple, Dictionary
- File Input and Output
- Structured Query Language (SQL)
- Data Preparation
- Descriptive Analysis
- Data Visualization
- Web Scraping

D) Assessment (includes both continuous and summative assessment)

Component	Weightage	# Team/Individual
1. Class Participation	10	Individual
2. LAMS Attempts (online MCQ & Short Answers)	10	Individual
3. Practical Assessment (Online MCQ & Short Answers)	40 (PA1 20%, PA2 20%)	Individual
4. Group Project (Slides & Oral Presentation)	40 (Project work 30% Presentation 10%)	Team
Total	100	

E) Weekly Schedule

Week	Topic
1	Introduction & Programing Basic
2	Operators in Python
3	Control in Python
4	Using Functions and Defining Functions
5	Data types: String, List, Tuple, Dictionary
6	File Input and Output
7	Structured Query Language (SQL)
Recess Week	
8	Data Preparation
9	Descriptive Analysis
10	Data Visualization
11	Project Consultation
12	Web Scraping (eLearning)
13	Project