Institute of Business Administration

Syllabus

CSF-510
Application Development

Zarmeen Nasim

Course Information and Title

Class:5619	
Application Development	

Class Details

Class Timings and Room	MTL-4						
Session Day(s)	MON	TUE	WED	THU	FRI	SAT	SUN
						08:30 AM – 11:15 AM	
Credit Hours	3						
Email	znasim@iba.edu.pk						
Contact No.	-						

Course Description

The general goal of this course is to teach the fundamentals of programming and the basic concepts of application development. The course is designed to be a complete hands-on course, with Python as the preferred data science implementation language.

Learning Outcomes

- *Knowledge of how to code*
- *Thorough knowledge about the web based application development using Python*
- *Hands-On experience of application development*

Topics:

Week	Topics
1	Introduction: Anaconda Installation, Jupyter Notebook, Variables and Data Types
2	Data Structures in Python: Lists, Tuples, Sets, Arrays, Dictionaries
3	Programming Fundamentals: Conditional Statements and Loops
4	Functions, Strings and File Handling
5	Numpy Library
6	Data Manipulation using Pandas
7	Data Visualization using Matplotlib
8-9	Using APIs in Python
10	Project
11-12	Web Development using Flask
13-14	Project Presentations

Grading Plan (Tentative):

Category	Score
Assignments	20 Marks
Hourlies (3)	60 Marks
Final Project	20 Marks

Reference Books

1. *Python Data Science Handbook by Jake VanderPlas*