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| |  |  | | --- | --- | | 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 | | N |  | N |  |  | N08:30 AM – 11:15 AM | N | | **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 | | 5 | First Hourly | | 6-7 | Object Oriented Programming | | 8 | Strings and File Handling | | 9 | Data Manipulation using Pandas | | 10 | Numpy Library | | 11 | Second Hourly | | * 12-13 | * Web Development using Flask | | 14 | * Data Visualization using Matplotlib and Plotly | | * 15 | 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* |