COURSE CODE:	CS-109		
COURSE NAME:	Fundamentals of Computer Programming I		
CREDIT HOURS:	Theory = 02	Practical = 01	Total = 03
CONTACT HOURS:	Theory = 32	Practical = 48	Total = 80
PREREQUISITE:	None		
MODE OF TEACHING:	Instruction: 2 hours of Lecture per week (67%) Lab Demonstration: 3 hours of Lab work per week (33%)		

COURSE DESCRIPTION:

This objective of this course is to impart basic computing skills necessary for use of digital support to modern education for acquiring knowledge through offline and online resources, analysis of data, composition of data and presentation of data in the in efficient and effective way.

TOPICS COVERED:

Week	Topic
1	Basic Definitions and Concepts
2	Hardware: Computer Systems and Components
3	Hardware: Computer Systems and Components
4	Storage & Data
5	Processing Data, Number Systems
6	Operating Systems
7	Productivity Software
8	Productivity Software
9	**Mid Semester Exam**
10	Programming and Development
11	Database Management Systems
12	The Internet and World Wide Web
13	e-Commerce and the Online World

14	Computer Networks
15	Data Communications
16	AI, Security Issues in ICT
17	Project Presentations
18	**End Semester Exam**

Lab/Practical:

Week	**Practical**
1	Installation and knowhow of IDE
2	Introduction to the python Programming Language
3	Expressions, Input, Output and Data Type
4	Conditional Statements
5	Looping Statements
6	Arrays/List
7	introduction to Functions
8	Functions that Return a Value
9	**MSE**
10	Searching and Sorting Arrays
11	Multi-Dimension List
12	Tuples and Dictionary
13	Data Structure
14	Exception Handling
15	File Handling
16-17	Revision
18	**End Semester Exam**

Text and Material:

1. Computing Essentials by Timothy O'Leary and Linda O'Leary, 2010 Complete (McGraw Hill)

2. Using Information Technology: A Practical Introduction to Computer & Communications by Williams Sawyer, 6th Edition (McGraw Hill)

ASSESMENT SYSTEM:

Theoretical/Instruction	**100%**
Assignments	10%
Quizzes	15%
Mid Semester Exam	25%
End Semester Exam	50%

Practical Work	**100%**
Lab Work	70%
Lab Exam/Projects	30%