**Introduction to Computer:**

Credit hours: 3 (2+1)

Course Code: GIS-112

Prerequisites: None

Introduction to Computer hardware and Software organization. Operating System concepts, DOS, LINUX/UNIX Operating Systems, Introduction to Windows, Environment, Local Area Networks and Internet, Computer Security. Fundamentals of Programming: High Level Languages, Problem Analysis and Algorithm Development, Flow charting, Sequential Flow, Conditional Flow, Repetitive Flow, Algorithm Logic.

Introduction to C-language: Program structures, Pre-processor declaration, Looping and Flow Control in C, Functions and Structured Programming, standard data types, Branching and Nested Flow of Control, Arrays and Strings, Pointers, Structure data types and Union, Input / Output, Filling System in C, Graphics programming, Objects Oriented Programming, Introduction to JAVA.

**RECOMMENDED BOOKS:**

1. Tucker Noonan, Programming Languages: Principles and Paradigms, 2002, McGraw-Hill

2. C++ Program Design, 3rd Edition, 2002, McGraw-Hill

3. Cormen et.al., Introduction to Algorithms, 2nd Edition, 2002, McGraw- Hill

4. Wu, An Introduction to Object Oriented Approach with C++,1998, McGraw-Hill

5. Francis Scheid, Schaum's Outline Series, Computers and Programming, 1983.

6. C Programming using Turbo C, Robert Lafore Howard & W. Sams Co., 1990.

7. L. H. Miller and A. E. Quilici, Joy of C, John Wiley, New York, 1993

8. Microsoft Disk Operating Systems Manual

9. Anthony Rudd, C++ Complete, John Wiley, New York, 1994

10. Jones, Understanding UNIX, Que. Books, 1990.

11. W. Stallings, Computer Organization and Architecture, MaxwellMacmillan, New York, 1990.