CS-114 Computer Programming

Credit Hours: 2-1

Pre-requisites:

Course Objectives

- This course aims to provide students the knowledge of basic computer programming skills and basic concepts and analysis using these softwares.

Course Contents

- Families of Languages, variables, mathematical calculations, procedures and functions, structure and style

- String manipulations, input and output, memory management, error handling object oriented programming, generic programming, concurrent programming, packages and modules, libraries, combining languages

Course Outcome

At conclusion of this course students should have the knowledge of:

- Basic computer programming overview
- Basic software language overview
- Basics of structured and modulated programming
- Analyzing problem and designing solution.
- Basic Algorithms and problem solving using software.

Suggested Books

- Peter Van Roy, Seif Haridi *Concepts, Techniques, and Models of Computer Programming MIT Press, 2004*

- Donald Ervin Knuth, *The art of Computer Programming, vol 1, 2 and 3 ADDISON WESLEY Publishing Company Incorporated, 2005*