## **Computer Programming Course Outline**

### **Chapter 1: Arrays and Strings**

- 1.1. One-dimensional array
  - 1.1.1. Declaring 1D arrays
  - 1.1.2. Accessing and processing 1D array elements
- 1.2.Multi-dimensional array
  - 1.2.1. Declaring 2D arrays
  - 1.2.2. Accessing and processing 2D array elements
- 1.3. Basics of Strings
- 1.4. String Manipulation in C++
- 1.5. Converting strings to other types

# **Chapter 2: Function and Passing argument to function**

- 2.1. Definition of function
- 2.2. Declaration of function
- 2.3. Scope of Variables
- 2.4. Return Values
- 2.5. Default Values for Parameters
- 2.6. Function Overloading
- 2.7. Recursion
- 2.8. Passing value of a function by Value
- 2.9. Passing value of a function by reference
- 2.10. Arrays as parameters

#### **Chapter 3: Pointers**

- 3.1. Address and pointer
- 3.2. Pointer and array
- 3.3. Pointer and function
- 3.4. Pointer and string

#### **Chapter 4: Structure**

- 4.1. Specifying simple structure
- 4.2. Defining a structure variable
- 4.3. Accessing structure variable

## Chapter 5: File

5.1. File and file management