

## Logic Development & Programming Concept

### Total Credits: 3

#### Objective:

This course provides the background and nomenclature to enable students to develop skills in traditional programming languages. After studying this module the student **will** be able to Analyze the given problem, Break down the problem into the sequence of elementary tasks, Formulate an algorithm, Express the algorithm in terms of precise notation: flowchart and Pseudo code and Finally to find out the efficiency of the algorithm in terms computing time and storage space. It also helps in learning Programming concepts, Structured Design Concepts, Logic, Flow Charting, Pseudo code, Data Representation, and Computer Internals

Sr. No	Topic Name	No. Of Hrs.
01.	Algorithms	[08]
	What is an algorithm? Properties of algorithms, Types of algorithms: Probabilistic, Approximate and heuristic Examples  Minimum Three Tutorials Based on above study	
02.	Flowchart	[08]
	All symbols used, Guidelines for preparing flowcharts, Advantages and disadvantages of flowcharts, examples  Minimum Three Tutorials Based on above study	
03.	Pseudo code	[07]
	Guidelines for preparing Pseudo code, Advantages and disadvantages of Pseudo code  Minimum Three Tutorials Based on above study	

04.	Introduction to programming	[15]
	The structure of a typical program, Program development cycle, Program control structure:, Sequence control, Selection control repletion control, Data declaration, Concept of variables, Arithmetic expressions, Control Statements: Looping, decision-making, procedures & parameters, arrays, all types of functions, programs for data entry, editing and data retrieval, Programming characteristics,	
05.	Programming classification	[07]
	Unstructured, Structured and Object oriented, Programming language classification: Machine level, Assembly level and high level language	
	<b>Total</b>	<b>[15]</b>