



COMPUTER APPLICATION

8TH

Programming & development

Course Curriculum



COMPUTER STD 8TH

Module 1 : Operating System (OS) and Graphical User Interface (GUI) – Role and Functions

- Introduction
- Necessity
- Features and classification of operating systems
- Definition and examples of single users
- Meaning and types of user interfaces (CUI, GUI)
- Description of GUI and its benefits

Module 2: Spreadsheet – Functions and Charts

- Technique for entering formulas
- Meaning of a range, range selection, and range naming.
- Types of cell referencing (relative, absolute, mixed – with examples).
- Sheet tab naming, renaming, and sheet deletion.
- Functions' meaning.
- Guidelines for entering functions such as sum, average, max, min, count, etc.
- Construct a chart

Module 3: Algorithms and Flowcharts

- Introduction to algorithms, their use, and their definition.
- Characteristics of a good algorithm.
- Process for creating an algorithm
- Developing algorithms
- Flowchart definition
- Various symbols used in flowcharts
- Creating flowcharts and creating algorithms to solve problems all the way to decision-making (Without loops)

Module 4: Program Coding

- An introduction to programming and coding.
- Program components include identifiers and their naming conventions.
- Literals (like real, string and integer)
- Types of data and the necessity for various types of data (like int, char, float, etc.).



- Variable declaration and initialization
- Logic and relational operators and arithmetic operators (+, -, *, /,%).
- Assignment operator and its use.
- Programming compilation and execution.
- Concept, use and syntax of if, if else, if ladder, if else.

Module 5: App Development

- Introduction to apps and working of apps.
- Uses of some commonly known apps.
- Types of apps: mobile, web or online.
- Creation of simple apps (using any free app development software).

Module 6: Networks

- Network definition and list of parts (sender, receiver, medium).
- Definition of various network types with examples (CAN, LAN, WAN, MAN, PAN).
- Different terminology used concerning the internet and their definitions include Intranet, URL, IP, ISP, address, DNS, website, webpage, web portal, MODEM, switch, router, hub, gateways, link, hypertext, hyperlink and bandwidth.
- Definition of a protocol (a brief description of each and its function for HTTP, FTP, TCP/IP, IMAP, and SMTP).
- Introduction to Cloud Computing: characteristics and benefits.
- Using cloud computing, storing and sharing data/information