

# COMPUTER APPLICATION AND PROGRAMMING

## 01.Certificate in Basic Computer Application. (Duration 03 Months.)

Introduction to Computer Applications

Course Duration: 3 Months

Week 1-2: Basic Computer Skills

### Module 1: Introduction to Computers

- Understanding the history and evolution of computers
- Identifying key components of a computer system
- Familiarity with input, output, storage devices

### Module 2: Operating Systems

- Introduction to popular operating systems (Windows, MacOS, Linux)
- File management and organization
- Basic troubleshooting and system maintenance

Week 3-4: Microsoft Office Suite

### Module 3: Microsoft Word

- Creating and formatting documents
- Working with tables and images
- Collaboration and sharing features

### Module 4: Microsoft Excel

- Introduction to spreadsheets and cells
- Basic formulas and functions
- Data visualization using charts

### Module 5: Microsoft PowerPoint

- Creating effective presentations
- Slide design and layout
- Incorporating multimedia elements

Week 5-6: Internet and Web Basics

### Module 6: Internet Fundamentals

- Navigating web browsers
- Understanding URLs and web addresses
- Using search engines effectively

### Module 7: Email and Online Communication

- Setting up and managing email accounts
- Writing professional emails
- Understanding netiquette

Week 7-8: Introduction to Programming Concepts

### Module 8: Basics of Programming

- Introduction to algorithms and pseudo code

⌚ Understanding variables and data types



Basic concepts of control structures (if statements, loops)

### **Module 9: Introduction to a Programming Language (e.g., Python)**

⌚ Writing and executing simple programs

⌚ Debugging and troubleshooting

⌚ Basics of coding best practices

### **Week 9-10: Data Management and Security**



#### **Module 10: Data Management**

⌚ Introduction to databases

⌚ Basics of data organization and retrieval

⌚ Data security and privacy



#### **Module 11: Computer Security Basics**

⌚ Understanding malware and antivirus software

⌚ Password management

⌚ Safe online practices

### **Week 11-12: Project and Practical Applications**



#### **Module 12: Practical Applications**

⌚ Applying learned skills to real-world scenarios

⌚ Group project: Developing a simple application or solving a problem using computer applications

⌚ Presentation of projects and feedback

