



## Course Overview

The aim of ECC is to assist a prospective entrant into a professional stream with attaining the necessary skills and knowledge needed to complete in today's competitive scenario. The focus of the course is divided amongst the following four dimensions:

1. Understanding Computer Hardware, Software and its maintenance
2. Office Automation – Disposal of daily routine jobs using Office Automation Tools
3. Exploring the wide world of Internet and latest technologies in online services and e-Gov applications
4. Personality development with communication skills

**Duration:** 6 Months (200 Hrs.)

## Course Content (Practical)

### MS-Windows

- Introduction to Computer
- Computer Basic
- Creating Folder
- Directories
- Notepad
- Paint
- WordPad
- Calculator
- MS-DOS
- Windows Short Cut Keys

### Microsoft-Word 2019

- Creating
- Editing
- Saving
- Printing documents
- Page Setup
- Font and Paragraph Formatting
- Simple character formatting
- Inserting tables
- Smart Art
- Page breaks
- Using lists and styles
- Working with images
- Using Spelling and Grammar check
- Understanding document properties
- Macros
- Mail Merge

### Microsoft-Excel 2019

- Spreadsheet Basics
  - Creating
  - Editing
  - Saving
  - Page Settings
- Working with Functions & Formulas
  - Basic Functions
  - Lookup Functions
  - Logical If Functions
  - Financial Functions
  - Statistical Functions
  - Maths & Trig. Functions
  - Text Functions & Many More
- Modifying worksheets with color
- Auto Formats
- Charts & Graphs
- Pivot Table & Pivot Chart
- Data Forms
- Analysing Data
- Data
  - Subtotal
  - Sorting Data
  - Filtering Data
  - Data Validation
  - Goal Seek
- Formatting worksheets
- Conditional formatting
- Macros
- Securing & Protecting Spreadsheets
- Proofing and Printing

## Microsoft-PowerPoint 2019

- Opening
- Viewing
- Creating
- Printing Slides
- Applying Auto Layouts
- Adding Custom Animation
- Using Slide Transitions
- Charts & Graphs
- Hyperlinks and Action Buttons
- Working with Movies and Sounds
- Slide Master
- Creating Professional Slide for Presentation.

## Microsoft-Access 2019

- Introduction to the concepts of DBMS.
- Creating a database
- Creating a Table
  - Concepts of field (Field Type)
  - Entering data in a table
  - Changing row and column height
  - Closing and opening of table
  - Sorting of table
  - Finding and replacing texts
- Using Queries wizard
  - Creating report from tables
  - Queries from report wizard
  - Modifying a report
- Printing of report
  - Creating a form using wizard
  - Entry in the forms
  - Basic of formatting of forms & reports

## Internet

- What is Internet?
- Understanding how to search/Google
- Bookmarking and Going to a specific website
- Search engines
- Email -
  - Receiving Incoming Messages
  - Sending Outgoing Messages
  - Email addressing
  - Email attachments
- Copy and paste Internet content into your word file and emails
- Blogging
- Understanding social media platforms such as Facebook & Many more
- Learn with best practices

## Basic Computer Hardware (PC Maintenance, Security & Troubleshooting)

- Overview of Computer Maintenance and Security
- Inbuilt PC Security, tools, securing documents, Antivirus, Upgrading Operating System and Application software
- Cleaning the monitor, keyboard, CPU
- Deleting unnecessary programs and files: Disk clean up, deleting toolbars; defrag hard drive
- Computer maintenance programs: Ccleaner, my Defrag, Spinrite etc.
- Basic troubleshooting: restart computer, checking cables, uninstalling a software, start windows in safe mode etc.
- Windows installation and upgrades
- CPUs and motherboards, Memory systems, Expansion cards, Data storage devices
- Ports, connectors, and cables, Printers and scanners, display devices, Portable computers and devices, Networking, Security, Maintaining the PC environment.

- Getting started with PC hardware support, Electricity and power systems, CPUs and motherboards, Basic Input/output System, Memory systems, Bus structures, color combination of network cable Expansion cards, Ports, connectors, and cables.

### HTML Programming Basics

- Concepts of HTML page structure
- FrontPage / Interdev
- HTML text, HTML Links
- Using CSS, Using tables
- HTML document tables
- HTML frames
- HTML images

### Introduction to Multimedia

- Basic concepts
- Hardware requirement for multimedia computer
- Textural information
- Components of Multimedia
  - Images and their types
  - Animation, Digital audio
  - Digital Video Software for Multimedia
- Introduction to MS-Publisher & PhotoDraw
- Developing simple application and presentations using MS-Publisher

## Course Content (Theory)

### 1. Introduction to Computer

- 1.0 Introduction
- 1.1 Objectives
- 1.2 Computer and Latest IT gadgets
  - 1.2.1 Evolution of Computers & its applications
  - 1.2.2 IT gadgets and their applications
- 1.3 Basics of Hardware and Software
  - 1.3.1 Hardware
    - 1.3.1.1 Central Processing Unit
    - 1.3.1.2 Input devices & Output devices
    - 1.3.1.3 Computer Memory & storage
  - 1.3.2 Software
    - 1.3.2.1 Application Software
    - 1.3.2.2 Systems Software & Utility Software
    - 1.3.2.3 Open source and Proprietary Software
    - 1.3.2.4 Mobile Apps

### 2. Introduction to Operating System

- 2.0 Introduction
- 2.1 Objectives

## 2.2 Operating System

- 2.2.1 Basics of Operating system
- 2.2.2 Operating Systems for Desktop and Laptop
- 2.2.3 Operating Systems for Mobile Phone and Tablets

## 2.3 User Interface for Desktop and Laptop

- 2.3.1 Task Bar
- 2.3.2 Icons & shortcuts
- 2.3.3 Running an Application

## 2.4 Operating System Simple Setting

- 2.4.1 Using Mouse and Changing its Properties
- 2.4.2 Changing System Date and Time
- 2.4.3 Changing Display Properties
- 2.4.4 To Add or Remove Program and Features
- 2.4.5 Adding, Removing & Sharing Printers

## 2.5 File and Folder Management

## 2.6 Types of file Extensions

## 2.7 Model Questions and Answers

**3RD TO 5TH CHAPTER WILL BE PRACTICAL (MS-WORD. MS-EXCEL & MS-POWERPOINT)**

## **6. INTRODUCTI ON TO INTERNET AND WWW**

### 6.0 Introduction

#### 6.1 Objectives

#### 6.2 Basic of Computer Networks

- 6.2.1 Local Area Network (LAN)
- 6.2.2 Wide Area Network (WAN)
- 6.2.3 Network Topology

#### 6.3 Internet

- 6.3.1 Concept of Internet & WWW
- 6.3.2 Applications of Internet
- 6.3.3 Website Address and URL
- 6.3.4 Introduction to IP Address
- 6.3.5 ISP and Role of ISP
- 6.3.6 Internet Protocol
- 6.3.7 Modes of Connecting Internet (Hotspot, Wi-Fi, LAN Cable, Broadband, USB Tethering)
- 6.3.8 Identifying and uses of IP/MAC/IMEI of various devices

#### 6.4 Popular Web Browsers (Internet Explorer/Edge, Chrome, Mozilla Firefox, Opera etc.)

#### 6.5 Exploring the Internet

- 6.5.1 Surfing the web
- 6.5.2 Popular Search Engines
- 6.5.3 Searching on Internet
- 6.5.4 Downloading Web Pages
- 6.5.5 Printing Web Pages

## **7.E-mail, Social Networking and eGovernance Services**

### 7.0 Introduction

### 7.1 Objectives

### 7.2 Structure of E-mail

### 7.3 Using E-mails

#### 7.3.1 Opening Email account

#### 7.3.2 Mailbox: Inbox and Outbox

#### 7.3.3 Creating and Sending a new E-mail

#### 7.3.4 Replying to an E-mail message

#### 7.3.5 Forwarding an E-mail message

#### 7.3.6 Searching emails

#### 7.3.7 Attaching files with email & Email Signature

### 7.4 Social Networking & e-Commerce

#### 7.4.1 Facebook, Twitter, LinkedIn, Instagram

#### 7.4.2 Instant Messaging (WhatsApp, Facebook Messenger, Telegram)

#### 7.4.3 Introduction to Blogs 7.4.4 Basics of E-commerce

#### 7.4.5 Netiquettes

#### 7.5 Overview of e-Governance Services like Railway Reservation, Passport, eHospital [ORS]

#### 7.6 Accessing e-Governance Services on Mobile Using “UMANG APP”

#### 7.7 Digital Locker

#### 7.8 Model Questions and Answers

## **8. DIGITAL FINANCIAL TOOLS AND APPLICATIONS**

### 8.0 Introduction

### 8.1 Objectives

### 8.2 Digital Financial Tools

#### 8.2.1. Understanding OTP [One Time Password]and QR [Quick Response] Code

#### 8.2.2 UPI [Unified Payment Interface]

#### 8.2.3 AEPS [Aadhaar Enabled Payment System]

#### 8.2.4 USSD [Unstructured Supplementary Service Data]

#### 8.2.5 Card [Credit / Debit]

#### 8.2.6 eWallet

#### 8.2.7 PoS [Point of Sale]

### 8.3 Internet Banking

#### 8.3.1 National Electronic Fund Transfer (NEFT)

#### 8.3.2 Real Time Gross Settlement (RTGS)

#### 8.3.3 Immediate Payment Service (IMPS)

### 8.4 Online Bill Payment

## **9. Overview of Futureskills & Cyber Security**

### 9.0 Introduction to Futureskills

#### 9.1 Introduction to

- 9.1.1 Internet of Things (IoT)
- 9.1.2 Big Data Analytics
- 9.1.3 Cloud Computing
- 9.1.4 Virtual Reality
- 9.1.5 Artificial Intelligence
- 9.1.6 Social & Mobile
- 9.1.7 Block chain Technology
- 9.1.8 3D Printing/ Additive Manufacturing
- 9.1.9 Robotics Process Automation

#### 9.2 Cyber Security

- 9.2.1 Need of Cyber Security
- 9.2.2 Securing PC
- 9.2.3 Securing Smart Phone

## **10. Soft Skills**

### 10.1 Effective communication: features of effective communication

#### 10.2 Communication Skills & Call Handling Skills

##### 10.2.1 Listening Skills: Types of Listening

#### 10.3 Tips for Effective Listening

##### 10.3.1 Academic Listening- (lecturing)

##### 10.3.2 Listening to Talks and Presentations

##### 10.3.3 Listening to Announcements

#### 10.4 Corporate culture

##### 10.4.1 CRM Concepts

##### 10.4.2 Selling skills

##### 10.4.3 Behavioural Skills

##### 10.4.4 Vocabulary Development

#### 10.5 Pronunciation, Reading, Listening & Speaking Writing

#### 10.6 Integrated Skills

##### 10.6.1 Non-verbal Communication