

Uttarakhand Sanskrit University

Haridwar



CURRICULUM

FOR

Certificate in Computer Application

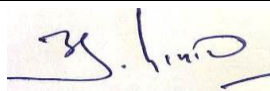
(C.C.A.)

(06 Months: 1 Semester Program)

(Effective from the Session 2024-25)

Uttarakhand Sanskrit University, Haridwar**Certificate in Computer Application – 06 Months**

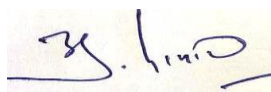
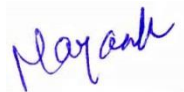
Name of Program	Certificate in Computer Application (CCA)
Duration	06 Months – (01 Semesters)
Eligibility	10+2 from a recognized Board/University.
Objective of Program	The course is designed to equip a student to use computers for professional as well as day to day use. It provides theoretical background as well as in depth knowledge of Software/ packages. Students will also be trained in the latest trends of information technology.
Program Outcome	After completing the course, the students will be digitally literate and will be able to: • Acquire confidence in using computer techniques available to users. • Recognize the basic components of computers and terminology; • Get familiar with various input and output devices. • Get familiar with computer memory and various storage devices. • Understand the concept of computer number system and codes. • Get familiar with various types of software used for computer and mobile apps. • Get familiar with Operating system and file management. • Ability to understand the working of Microsoft Windows. • Get familiar with Office Package. • Practice and use of word processor, spreadsheet, presentation, Access database table and basic concept of DTP; • Understand the concept of computer networks, Internet Technology, content search, email and collaborate with peers; • Get familiar with Web Technology and HTML. • Practice and use the various internet services, email, search Engines, chatbots, DigiLocker and ABC etc. • Practice and use the various online resources, platform, portal and tools for education. • Understand the basic concepts related to E-Commerce and e-Governance services. • Practice and use the various digital payments tools and application of day-to-day use. • Get familiar with basic concepts of Future skills like IOT, Cloud computing, Bigdata. • Ability to understand the basic concepts related to AI. • Describe the concept of Cyber security, issues and challenges associated with it.
Medium of Instruction	English/Hindi
Program Structure	06 Months Course
Program Passing Rules	As per norms of University.






Uttarakhand Sanskrit University, Haridwar
Certificate in Computer Application – 06 Months

Semester – I						
S.No.	Paper Code	Paper Name	Theoretical Marks	Sessional Marks	Total Marks	Credits
1	CCA01	Computer Fundamental	80	20	100	2
2	CCA02	PC Packages	80	20	100	2
3	CCA03	Digital Awareness and Cyber Security	80	20	100	2
4	CCA04	Practical			100	2
					400	8



Uttarakhand Sanskrit University, Haridwar
Certificate in Computer Application – 06 Months

Paper Name: Computer Fundamental
Paper- I

Total Marks: 100

Time: 03 Hours

External Marks: 80

Credit: 02

Internal Marks: 20

Unit	Description
1	Computer: Introduction, History of Development of Computers, Computer System Concept, Block diagram of Computer, Computer System Characteristics, Advantages and Disadvantages, Types of Computers, Basic Components of a Computer System – CPU, Control Unit, ALU, Register, Motherboard, System bus, SMPS, UPS;
2	Input Devices: Keyboard, Mouse, Joystick, Scanners, Digital Camera, MICR, OCR, OMR, OBR, Light pen, Touch Screen. Output Devices: Monitors; Printers, Types of Printer, Projector, Sound Card and Speakers;
3	Computer Memory: Primary Memory: RAM, ROM, EPROM, EEPROM, Cache Memory; Primary Memory vs Secondary Memory. Storage Devices: Magnetic Disks, Hard Disk Drives, Floppy Disks, Optical Disks, Other portable storage devices, Cloud Storage(Like Google Drive etc.)
4	Computer Programming Languages- Introduction, Machine, Assembly and High Level; Introduction to Computer number System, Binary number, ASCII, Unicode. Computer Software- Introduction to Software, Types of Software, System Software, Application Software, Virus and Antivirus.
5	Computer Network: Introduction to computer network, Network Concept, Network Services, Component of Communication: Sender, Receiver, Transmission medium and Protocols, Direction of Transmissions Flow: Simplex, Half Duplex, Full Duplex. Types of Network - LAN, WAN, MAN. Network Topologies: Ring, Bus, Star, Mesh and Tree topologies.

Text & Reference Books:

- 1) Sinha P.K., “Computer Fundamentals”, BPB Publication.
- 2) Goel.A, “Computer Fundamentals”, Reprint, Pearson Education.
- 3) Thareja R., “Fundamentals of Computers”, Oxford University Press.
- 4) Rajaraman,V., “Computer Fundamentals”, PHI.
- 5) Srivastva C., “Fundamentals of Information Technology”, Kalyani Publishers.
- 6) Stallings W., “Operating systems”, Pearson.

Uttarakhand Sanskrit University, Haridwar
(Certificate in Computer Application) – 06 Months
Paper Name: Operating System and PC Packages
Paper- II

Total Marks: 100**External Marks: 80****Internal Marks: 20****Time: 03 Hours****Credit: 02**

Unit	Description
1	Introduction to Operating System: Basics of Operating System, Functions of operating system, Types of operating system, Popular Operating System, Working with Windows OS: User Interface, Desktop, Taskbar, Icons, Menu, Running an application, Recycle Bin, Operating System simple settings: Changing date and time, Changing display properties, Installing software, To Add or Remove Program and Features, Adding removing and sharing printers. File and Folder management: Creating, renaming and deleting files and directories, Types of file extensions. Office Package: Introduction, Introduction to Office Automation, Components of MS office; Introduction to Open office, Google Docs.
2	Word Processing: Introduction, Area of use, Starting Word, Different Bars, Document View, Text Area, Exiting Word; Creating, Editing, Saving, Closing, Printing and Opening an Existing Document. Working with Fonts, Style, Layout, Paragraph, Cut, Copy, Paste, Undo and Redo, Spell Check, Find, Replace, Bullets, Numbering, Header, Footer, Page-Setup, Page Number. Creating Table, Modifying Table, Merging of Cells, Split Cells, Insert Pictures, Symbols and Graphics. Mail Merge, Importing and exporting to and from various formats, Shortcut Keys.
3	Spread Sheet: Excel Introduction, Area of use, Concepts of Workbook & Worksheets, Starting MS-Excel, different Bars, Row, Column and Cell. Exiting MS-Excel. Creating a New Workbook, Working with Cells. Working with Fonts. Merging of Cells. Inserting a Row and Column, Deleting a Row and Column. Saving a Workbook, Closing a Workbook. Different Data Types and Operators used in Excel, Working with Calculation and Functions. Working with Chart.
4	Power Point Presentation: Introduction, Creation of Presentation, Inserting & Editing Text on Slides, Inserting and Deleting Slides, Saving a Presentation, Manipulating Slides, Inserting Table, Adding ClipArt Pictures, Inserting Other Objects, Resizing and Scaling an Object, Creating & using Master Slide, Presentation of Slides, Choosing a Set Up for Presentation, Running a Slide Show, Transition and Slide Timings, Automating a Slide Show, Adding Movie and Sound, Adding Headers, Footers and Notes, Printing Slides and Handouts.
5	Introduction of MS Access: Database, Tables, Create Table, Insert data in Table, Data types in MS Access. Microsoft Office Picture Manager: Introduction and uses; Image Editing. Introduction of DTP: Definition of D.T.P, Uses and Advantage of DTP, Working with Microsoft Publisher for DTP.

Text & Reference Books:

1. Jain S. “MS Office 2010 Training Guide”, BPB Publications.
2. Kroenke D., Nilson D., “Microsoft Office 365 in Business”, US Edition, Wiley India Pvt. Ltd.
3. Sinha P.K., “Computer Fundamentals”, 6th Edition, BPB Publication.
4. Goel.A, “Computer Fundamentals”, Reprint, Pearson Education.
5. Prakhhar Complete Course For DTP.

Uttarakhand Sanskrit University, Haridwar
(Certificate in Computer Application) – 06 Months
Paper Name: Digital Awareness and Cyber Security
Paper- III

Total Marks: 100

Time: 03 Hours

External Marks: 80

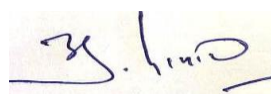
Credit: 02

Internal Marks: 20

Unit	Description
1	Internet Communication: Internet Concepts, Applications of Internet, Various Internet Services, Intranet, Extranet, ISP, Modes of Connecting Internet (Hotspot, Wi-Fi, LAN Cable, Broadband, USB Tethering), WWW, URL, HTTP & HTTPS, IP, FTP, Web Browsers, Search Engines, E-mail Concepts, Internet chatting, IP Addressing;
2	Introduction to Web Technologies: Application of Web Technologies, Web Page, Website, Client-Server Architecture. HTML: Introduction To HTML, Elements of HTML Syntax, HTML Tags, Title, Head & Body Sections, Building HTML Documents, Formatting Tags, Inserting Images, Hyperlinks, Backgrounds, Table, Designing a Web Page using HTML.
3	e- Commerce & Governance Services: Basics of E-Commerce, Basics of E-Governance, Basics of Mobile Commerce, Digital Locker, ABC, Social Networking; Digital Financial Tools and Applications: Introduction, Digital Financial Tools: OTP, QR Code, Credit Card, Debit Card, eWallet, UPI, AEPS, Online Payment Apps, Internet Banking, Online Bill Payment.
4	Overview of Future skills: Introduction to - Cloud computing, IOT, Big data, Virtual Reality and Blockchain Technology; Artificial Intelligence (AI): Introduction to Artificial Intelligence (AI), Goals of AI, Advantages and Disadvantages of AI, Application of AI, AI at Present, AI Tools.
5	Overview of Cyber Security: Introduction to Cyber Security, Cyber Security Need, Goal of Cyber Security, Securing PC, Security issues on Internet, Security issues on Electronic Payment System, Securing Browser, Securing Email and Social Media Accounts, Securing Smart Phone, Securing PC.

Text & Reference Books:

1. Data Communication and Networking – B. Forouzan – MCGrawth Hill.
2. Jain V.K., “O Level Module - M 1.2 - Internet & Webpage Designing” – BPB Publications.
3. Turban, Efraim, and David King, “Electronic Commerce: A Managerial Perspective”, Pearson Education Asia, Delhi.
4. Whiteley D, “E - Commerce: Strategy, Technologies and Applications”, Tata McGraw Hill.
5. Kalakota, Ravi, “Frontiers of Electronic Commerce”, 2004, Addison –Wesley, Delhi.
6. Joseph P.T., “E-Commerce an Indian Perspective (Second Edition)”, S.J. Presentice-Hall of India.
7. Cyber Crime Impact in the New Millennium, by R. C Mishra, Author Press.






Uttarakhand Sanskrit University, Haridwar
(Certificate in Computer Application) – 06 Months
Paper Name: Practical & Viva
Paper- IV

Total Marks: 100**Credit: 02**

Description	Total: 100
Practical based on Paper CCA01, CCA02 and CCA03.	

