

St. Xavier's College (Autonomous), Ahmedabad

Syllabus of Semester – I of the following departments under
Faculty of Computer Science based on Undergraduate Curriculum
Framework to be implemented from the Academic Year 2024-25.

DEPARTMENT OF COMPUTER SCIENCE

BSc IT(Hons.) Category-IV

SEC Course –: Computer Skills and Office Automation(Practical)

CREDIT DISTRIBUTION, ELIGIBILITY AND PRE-REQUISITES OF THE COURSE

Course Title & Code	Credit Distribution of The Course			Eligibility Criteria	Pre-requisite(s) of the Course (if any)
	Lecture	Tutorial	Practical / Practice		
DOS and Office Automation Skills / Office Automation (practical) (ITSE111L)	0	0	4		Nil

Learning Objectives:

1. To gain a fundamental understanding of how operating systems work, with a focus on the historical context and practical application of DOS and Windows.
2. To become proficient in utilizing the command-line interface of DOS, mastering essential commands for managing files and directories efficiently.
3. To acquire the ability to create, format, and manage documents, spreadsheets, and presentations using the core functionalities of MS Word, Excel, and PowerPoint.
4. To explore and effectively apply advanced features within MS Office, such as macros, mail merge, data validation, and multimedia integration, to enhance productivity.
5. To develop the capability to integrate and utilize various office automation tools to streamline workflows and complete tasks efficiently in an office environment.

Learning Outcomes:

1. Ability to navigate and manipulate files and directories within the DOS command-line environment using relevant commands.
 2. Ability to create and format professional documents in MS Word, including utilizing advanced features like mail merge and automating tasks with macros.
 3. Ability to analyze and manipulate data using MS Excel, including the creation of spreadsheets, application of formulas and functions, generation of charts, and utilization of data validation and filtering.
 4. Ability to design and deliver engaging presentations in MS PowerPoint, incorporating multimedia elements, animations, and utilizing slide master features to maintain consistency.
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5. Ability to effectively integrate and apply the learned software skills to complete common office-related tasks, demonstrating increased productivity and efficiency.

UNIT	Particulars	Hours
I	Introduction to Operating Systems • What is an Operating System? • Brief Introduction about evolution of DOS and Windows Introduction to DOS and Demonstration of commands • Brief Introduction about DOS System Files (IO.SYS, MSDOS.SYS, COMMAND.COM) a) Internal Commands (Loaded during startup) • DIR – List directory contents • CD / CHDIR – Change directory • MD / MKDIR – Create a directory • RD / RMDIR – Remove a directory • COPY – Copy files • DEL – Delete files • REN – Rename files • CLS – Clear screen • TYPE – Display contents of a text file • VER – Display the DOS version • ECHO – Display messages or enable/disable command echoing b) External Commands (Stored as separate files) • CHKDSK – Check disk and fix errors • XCOPY – Copy directories and subdirectories • DELTREE – Delete an entire directory tree • EDIT – Open DOS text editor • FC – Compare files Demonstration of Ms-Office Common Features • MS-Office (Word, Excel, PowerPoint) Window components • Formatting Text ○ Selecting text ○ Copying and moving data ○ Formatting characters, changing cases, Paragraph formatting ○ Indents, Drop Caps, Using format painter ○ Bullets & numbering • Finding & replacing text • Working with Paragraph • Working with Tables • Overview of Equations and Symbols • Working with Pictures, Shapes, SmartArt Graphics Demonstration of Ms-Word Features • Macros: Purpose – Creating Macro – Using Macro – Storing Macro • Mail Merge and labels • Page and section break • Introduction to Cover Page • Merging the files • Print the document	30
	UNIT-2	
II	Demonstration of Ms-Excel Features	30

	• Spread sheets and Workbooks • Cell entries (numbers, labels, and formulas) • Adding and deleting rows and columns Filling series, fill with drag • Sorting Data, Formatting worksheet, Functions and its types • Functions and Formulas: ○ Mathematical: Round, ceil, floor, fact, subtotal, sum, sumif ○ Logical: AND, OR, NOT, if • Statistical: Min, max, average, count if • String: Text Concatenate, Exact, find, left, right, len, lower, upper, trim • Lookup: Hlookup, Vlookup • Date and Time: Date, day, days360, hour, minute, now, second, time, today, year • Advanced Excel Features: • Data validation - Data filter (Auto & Advance) • Charts - What if analysis - Goal seek - Scenario - Protecting Worksheet • Types of error Demonstration of Ms-PowerPoint Features • Working with slides and its layouts ○ Inserting, deleting, duplicating and rearranging slides ○ Viewing slideshow ○ Choosing an auto layout, using outlines ○ Adding subheadings ○ Using master slide ○ Overview of slide design ○ Header and Footer ○ Printing slides • Enhancing presentation using multimedia ○ Transitions, Preset Animation, Rehearse Timings, Custom Show ○ Inserting music and video on a slide	
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Following is the list of Sample Practical Questions:

- 1) Create a directory named "TEST_FILES" using MD. Then, navigate into it using CD. List the contents of the directory using DIR.
- 2) Copy a text file named "INFO.TXT" from the root directory to "TEST_FILES" using COPY. Then, delete the copied file from "TEST_FILES" using DEL.
- 3) Create a text file named "OLD.TXT" using the EDIT command. Rename it to "NEW.TXT" using REN. Display the contents of "NEW.TXT" using TYPE.
- 4) Run the CHKDSK command to check the disk for errors. Display the current DOS version using VER.
- 5) Create a directory "SOURCE" with subdirectories "SUB1" and "SUB2". Copy the entire directory structure to "DEST" using XCOPY /S. Then, delete the "DEST" directory and its contents using DELTREE.
- 6) Create two slightly different text files. Use the FC command to compare the files and identify the differences.
- 7) Using the EDIT command, create a batch file that executes a series of DOS commands.
- 8) Create a batch file that uses the ECHO command to display a series of messages to the user.
- 9) Create a nested series of subdirectories. Use the correct path to navigate to a specific deeply nested directory.
- 10) Create a document with the title "My Report". Format the title

with bold, underline, and a larger font size. Change the case of a paragraph to "Title Case".

- 11) Create a list of 5 items and apply bullet points. Then, convert the bullet points to numbered list.
- 12) In a document, replace all occurrences of the word "old" with "new".
- 13) Create a table with 3 rows and 4 columns. Enter data and format the table with borders and shading.
- 14) Insert a picture into a document and resize it. Draw a rectangle shape and add text inside it.
- 15) Record a macro that inserts the current date and time. Assign a shortcut key to the macro and use it to insert the date and time.
- 16) Create a letter template and a data source (Excel or Word table) with names and addresses. Perform a mail merge to generate personalized letters.
- 17) Create a document with two sections. Apply different headers and footers to each section using section breaks.
- 18) Create a spreadsheet with a list of numbers. Calculate the sum and average of the numbers using SUM and AVERAGE functions. Use the IF function to categorize numbers as "High" or "Low" based on a threshold.
- 19) Create a table with product IDs and names. In another sheet, use VLOOKUP to retrieve the product name based on a given product ID.
- 20) Create a column for "Age" and apply data validation to allow only numbers between 18 and 60. Create a data list and use auto filter to display all ages greater than 25.
- 21) Create a spreadsheet with sales data for different months. Generate a column chart to visualize the sales trend.
- 22) Create a spreadsheet with decimal numbers. Use ROUND, CEIL, and FLOOR functions to round the numbers to the nearest integer.
- 23) Create a spreadsheet with two logical conditions. Use AND, OR, and NOT functions to evaluate the conditions and display the results.
- 24) Create a spreadsheet with sales data. Use MIN and MAX functions to find the minimum and maximum sales. Use COUNTIF to count the number of sales above a certain value.
- 25) Create a spreadsheet with first and last names. Use CONCATENATE to combine the names. Use LEFT and RIGHT to extract parts of the names.
- 26) Use TODAY and NOW functions to display the current date and time. Use YEAR to extract the year from a date.
- 27) Create a large dataset and apply advanced filtering to extract records based on multiple criteria.
- 28) Create a spreadsheet with a formula for calculating profit. Use Goal Seek to determine the input value needed to achieve a specific profit target.
- 29) Create a worksheet containing sensitive data. Protect the sheet with a password to prevent unauthorized modifications.
- 30) Create a presentation with multiple sections. Create a custom show that includes only specific slides from the presentation.
- 31) Create a presentation and use the Rehearse Timings feature to set the timing for each slide.
- 32) Apply preset animation effects to text and objects on a slide. Experiment with different animation types and timings.
- 33) Create a presentation using various slide layouts. Apply different slide design themes to the presentation.
- 34) Add a header and footer to all slides in a presentation, including slide numbers and the presentation title.
- 35) Configure print settings to print multiple slides per page with notes.
- 36) Create a presentation with 5 slides. Apply a consistent design to all slides using the master slide. Add a header and footer to all slides.
- 37) Apply different slide transitions to each slide. Add animation effects to text and images on a slide.
- 38) Insert a video clip and an audio file into a slide. Configure the video to play automatically and the audio to play in the background.

