

COURSE DESCRIPTION			
Program	Computer Application & Business Management		
Course Title	Office Automation Software Lab		
Course Code	2259	Semester	II
Type of Course	Lab	Contact Hours	45
Teaching Scheme (L: T:P:R)	0:0:3:0	Credits	1.5
CIE Marks	60	ESE Marks	40

Introduction

An efficient office automation is crucial for managing files, creating documents, and enhancing productivity through digital tools. This lab course offers practical training in file handling basics, office productivity software, multilingual typing tools (with focus on Malayalam), cloud-based collaboration suites, professional documentation systems, and AI-assisted automation, equipping students with skills to streamline business operations and support multilingual environments.

Course Objectives

1	To equip students with essential skills in file management, including creation, organization, and secure handling, to support efficient business data operations.
2	To develop proficiency in using core office tools like MS Word, PowerPoint, and introductory Excel, integrated with Malayalam typing tools (ISM and Google Typing), for creating professional business documents and presentations.
3	To train students in cloud-based and online office suites such as Google Docs, Sheets, Slides, MS 365, WPS, and Google Workspace for collaborative and remote business workflows.
4	To enable the use of AI based automation tools to enhance productivity in office works.

Course Pre-requisite

Topic	Course code	Course Title	Semester
NIL			

Course Outcome

CO	Course Outcome	Blooms Taxonomy Level
CO1	Implement file creation, organization, and management strategies for secure and efficient business data storage and retrieval	Apply
CO2	Create formatted documents, presentations, and basic spreadsheets using MS Office tools with multilingual (Malayalam) typing integration via ISM and Google Typing	Apply
CO3	Utilize cloud-based tools like Google Docs, Sheets, Slides, MS 365, WPS, and Google Workspace for real-time collaboration and online document management in business process	Apply
CO4	Apply AI tools for automating office tasks, promoting sustainable and innovative business practices	Apply

CO-PO mapping

COURSE ARTICULATION MATRIX											
Course Outcomes	PROGRAM OUTCOMES										
	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11
CO1	3	2	2	2	3	2	2	-	-	2	2
CO2	3	2	2	-	3	-	-	2	3	2	2
CO3	3	3	3	2	3	2	-	3	3	2	2
CO4	3	2	2	-	3	3	2	-	-	2	3
Total	12	9	9	4	12	7	4	5	6	8	9
Correlation Level	3	2.2	2.25	2	3	2.33	2	2.5	3	2	2.25

Legends: 1 - Low; 2 - Medium; 3 - High; No Correlation - "-"

Teaching and Assessment Scheme

Teaching Scheme/Week				Self-learning (SS)/Week	Total Hours/Semester	Credits C	Examination Scheme					
							Theory			Practical		
L	T	P	S				CIE	ESE	Total	CIE	ESE	Total
0	0	3	0	1.5	45	1.5				60	40	100

L: Lecture (One unit is of one-hour duration with one credit), T: Tutorial (One unit is of one-hour duration with one credit), P: Practical (One unit is of one-hour duration with 0.5 credit), S: Project (One unit is of one-hour duration with 0.5 credit) SS: Self-Learning, CIE: Continuous Internal Evaluation, ESE: End Semester Examination

Detailed Syllabus

Expt No.	Experiment name	Practical Outcome	Mapped CO	Taxonomy Level	Instructional Hours
Module I					
1	File Creation and Exploration	Identify and create 5-10 files of different types, demonstrating efficient naming conventions.	CO1	Apply	1
1	Basic File Organization	Organize folder structure simulating a small business database, with documented navigation paths.	CO1	Apply	1
1	File Compression and Archiving	Compress a sample project folder, demonstrating reduced size and integrity checks.	CO1	Apply	1
2	File Permissions and Access Control	Create a secured file set with access logs, highlighting the privacy issues involved.	CO1	Apply	1
2	Backup and Recovery Strategies	Prepare a backup plan document demonstrating how deleted files can be recovered.	CO1	Apply	1
2	File Search and Filtering Techniques	Demonstrate how to locate a file quickly from a cluttered set of folders.	CO1	Apply	1
Module II					
3	MS Word Document Creation and Formatting	Prepare a properly formatted 2-3 page business report using insert and page layout tools, ensuring everything is neatly arranged and error-free.	CO2	Apply	3
4	Mail Merge for Personalized Business Correspondence	Prepare a set of merged documents (for minimum 5 personalized letters) ready for printing/emailing, with a report on automation benefits.	CO2	Apply	3
5	Multilingual Document Creation Using ISM	Create a report in two languages with correct typing and proper formatting, and make sure the language and cultural details are accurate.	CO2	Apply	3
6	PowerPoint Slide Design and Multimedia Integration	Create a PowerPoint presentation with smooth transitions and export it as a PDF or video.	CO2	Apply	3
7	Introductory Excel Data Entry and Formulae	Create a working spreadsheet (such as a monthly budget) with correct calculations and charts.	CO2	Apply	3
	Series Exam I		CO2	Apply	3
Module III					
8	Collaborative Document Editing in Google Docs	Create a 3-4 page document edited by a team, with comments addressed and version history shown.	CO3	Apply	1.5
8	Collaborative Data Management in Google Sheets	Generate an interactive spreadsheet with charts and team edits, exportable to PDF/Excel, showing data insights.	CO3	Apply	1.5
9	Presentation Collaboration in Google Slides	Prepare a professional 5-7 slide presentation including media and team edits, ready for sharing.	CO3	Apply	1.5
9	Presentation Collaboration in Google Slides	Generate a co-authored set of files (report, spreadsheet, slides) with change tracking and mobile usability.	CO3	Apply	1.5
10	Document Creation and Compatibility in WPS Office	Create files in different formats (like .docx from WPS), test if they work properly in other software, and include a comparison chart.	CO2	Apply	1.5
10	End-to-End Collaboration in Google Workspace	Perform an integrated workspace project (such as event planning) using connected tools and show the full collaboration cycle.	CO4	Apply	1.5
Module IV					

11	Content Generation Using AI Tools like Google Gemini or ChatGPT	Create AI-generated content, edit it, add it to a document, and include notes on ethical considerations.	CO4	Apply	3
11	AI-Assisted Editing and Summarization with Grammarly or Copilot	Create a well-formatted document using AI suggestions, and include a record of the changes made.	CO4	Apply	3
12	AI Automation in Spreadsheets and Presentations	Generate an automated spreadsheet or presentation section, record the AI prompts used and the results.	CO4	Apply	3
	Open Ended Experiment		CO4	Apply	3
	Series Exam - II		CO4	Apply	3

Open-ended experiment

Objective:

To encourage creativity, innovation, and application of knowledge by allowing students to design and perform an experiment beyond the prescribed list, using the concepts learned during the course.

Description:

At the end of the laboratory course, each student (or group of students) shall undertake one open-ended experiment. In this activity, students are expected to conceive, design, and implement an experiment of their own choice related to the course outcomes. The aim is to apply theoretical knowledge and laboratory skills to a new or practical problem not explicitly covered in the regular experiments. Any 3 to 5 open ended problem may be chosen and divided among student groups.

Students may choose to:

Modify or extend an existing experiment. Students must submit the portfolio with a reflective report on tool efficiencies, challenges, and alignment with business sustainability, demonstrating individual/team project management. Evaluation emphasizes creativity, integration, and practical application. ment to explore additional parameters or behaviors.

Integrate multiple concepts from the syllabus into a combined application.

Design a mini-setup or prototype to demonstrate a principle or solve a simple engineering problem.

Perform a comparative study or performance analysis of a circuit/system/component.

Student Activities for Self-Learning

Week	Self-Learning description	Hours
Module I		
1	Preparation of rough record related for Experiment - 1 Preparation of fair record record of Experiment - 1 Preparation of rough record related for Experiment - 2 Preparation of fair record record of Experiment - 2	1.5
2	Preparation of rough record related for Experiment - 3 Preparation of fair record record of Experiment - 3 Preparation of rough record related for Experiment - 4 Preparation of fair record record of Experiment - 4	1.5
3	Preparation of rough record related for Experiment - 5 Preparation of fair record record of Experiment - 5 Preparation of rough record related for Experiment - 6 Preparation of fair record record of Experiment - 6	1.5
4	Preparation of rough record related for Experiment - 7 Preparation of fair record record of Experiment - 7	1.5
Module II		
5	Preparation of rough record related for Experiment - 8 Preparation of fair record record of Experiment - 8	1.5
6	Preparation of rough record related for Experiment - 10 Preparation of rough record related for Experiment - 10 Preparation of fair record record of Experiment - 10 Preparation of fair record record of Experiment - 9	1.5
7	Preparation of rough record related for Experiment - 11 Preparation of fair record record of Experiment - 11	1.5
8	Preparing for Lab Examination	1.5
Module III		
9	Preparation of rough record related for Experiment - 12 Preparation of fair record record of Experiment - 12 Preparation of rough record related for Experiment - 13 Preparation of rough record related for Experiment - 14 Preparation of fair record record of Experiment - 14 Preparation of fair record record of Experiment - 13	1.5

10	Preparation of rough record related for Experiment - 15 Preparation of fair record record of Experiment - 15 Preparation of rough record related for Experiment - 16 Preparation of rough record related for Experiment - 16 Preparation of fair record record of Experiment - 17 Preparation of fair record record of Experiment - 17	1.5
11	Preparation of rough record related for Experiment - 18 Preparation of fair record record of Experiment - 18 Preparation of rough record related for Experiment - 19 Preparation of rough record related for Experiment - 19	1.5
12	Preparation of rough record related for Experiment - 20 Preparation of fair record record of Experiment - 20 Preparation of rough record related for Experiment - 21 Preparation of rough record related for Experiment - 21	1.5
Module IV		
13	Preparation of rough record related for Experiment - 22 Preparation of fair record record of Experiment - 22	1.5
14	Activities related to Open ended experiments	1.5
15	Preparation for Lab Examination	1.5
Total Self-Learning hours		22.5

Learning Resources

TEXT BOOK			
Sl. No.	Title	Author	Publication
1	Microsoft Office 2019 Step by Step	Joan Lambert, Curtis Frye	Microsoft Press
2	Understanding Google Docs: The Step-by-step Guide to Understanding the Fundamentals of Google Docs: 1 (Google Apps)	Kevin Wilson	Elluminet Press
3	ISM Malayalam User Manual	CDAC	CDAC

REFERENCE			
Sl. No.	Title	Author	Publication
1	The New Microsoft Office 365 Bible	Rick Sterling, Mark Finch	Techmind Press LLC

WEB RESOURCES		
Sl. No.	URL	Modules Covered
1	https://www.usaii.org/ai-insights/8-best-ai-tools-for-small-business-leaders	IV
2	https://bernardmarr.com/20-game-changing-ai-tools-every-small-business-leader-needs-now/	IV

Major Equipment/Instruments/Components required for a batch of 30 students

Sl. No.	Particulars	Specifications	Quantity
1	Desktop Computers/ Laptops	Intel i5 or higher processor, 8 GB RAM minimum, 256 GB SSD, standard keyboard (with numeric keypad for typing practice), and built-in webcam/microphone for collaboration demos.	30
2	High-speed internet connectivity	50 Mbps or above, Wi-Fi enabled for cloud access and online tools.	1
3	Multimedia projector with HDMI connectivity	Short-Throw Projection System 3LCD Technology, LCD Panel 0.55 inch with MLA (D8)	1
4	Shared laser/inkjet printers	A4 Black and White Laserjet Printer; Prints up to 42/40 ppm (LTR/A4) USB, Mopria™, Ethernet Automatic Duplex Printing/Two-sided printing	1

Major Software required for a batch of 30 students

Sl. No.	Particulars	Specifications	Quantity
1	Microsoft Office 2019/2021	Licensed subscription for 30 users	30 User licence
2	Cloud: Google Workspace / Microsoft 365		

3	Malayalam Typing: ISM + Google Input Tools	Latest version	30
4	AI Tool: ChatGPT or Copilot		

Assessment Methodology - Lab

Mode	Attendance	CE	CA1	CA2	OEE	ESE
		Continuous evaluation	Practical test (first half of experiments)	Practical test (second half of experiments)	Open-ended experiment	Practical
Duration			3 hours	3 hours		3 hours
Exam mark		50	40	40	50	40
Converted to			15	15	10	
Marks	5	30	15		10	40
Total marks	60					40
Tentative schedule	End of semester	Every lab slot	7th week	14th week	15th week	

Scheme of Evaluation - Practical (Continuous Internal Evaluation)

Sl. No.	Criteria	Description	Marks
1	Preparation & Punctuality	Attendance, timely submission of record, pre-lab preparation, understanding of experiment objectives and theory.	10
2	Experimental Setup & Procedure	Ability to identify components/equipment, correct circuit connections/setup, systematic and safe execution of the procedure.	10
3	Observation & Data Recording	Accuracy and neatness of readings, correct use of units, tabulation, and systematic recording of results.	5
4	Analysis & Result Interpretation	Proper calculations, graphical representation, result verification, discussion, and logical conclusion.	10
5	Viva Voce / Concept Understanding	Clarity of theoretical concepts, explanation of procedure, ability to answer questions related to the experiment.	10
6	Workmanship, Discipline & Teamwork	Laboratory discipline, care of instruments, teamwork, attitude, and safety practices.	5
Total			50

Scheme of Evaluation - Practical Test & End Semester Evaluation

Category	Things to evaluate	Marks
Write-up / Procedure (before experiment)	Aim, circuit diagram/flowchart, stepwise procedure.	10
Experiment Setup & Execution	Correct circuit connections / coding / setup. Handling of instruments/software. Accuracy of execution.	10
Observation & Result / Output	Proper tabulation of readings. Calculations/graphs/program output. Correctness of result / expected outcome.	8
Viva Voce	Conceptual understanding of experiment. Related theoretical knowledge.	8
Record	Completion & neatness of practical record. Proper certification by faculty.	4
Total		40

Scheme of Evaluation - Open-ended experiment

Category	Things to evaluate	Marks
Originality and Relevance of the Idea	Assesses how creative, innovative, and relevant the chosen experiment is to the course objectives.	10
Clarity of Objectives and Experimental Plan	Evaluates how clearly the student defines the aim, scope, and systematic plan of the experiment.	10
Correctness of Execution and Data Recording	Checks the accuracy, safety, and neatness in performing the experiment and recording observations.	10
Analysis, Interpretation, and Presentation of Results	Measures the student's ability to analyze data, interpret outcomes, and present results logically.	10

Teamwork and Innovation Demonstrated	Judges the level of collaboration, initiative, and creativity shown during the experiment.	10
Total		50

SITTTR