

الجمهورية اللبنانية
وزارة التربية والتعليم العالي
المديرية العامة للتعليم المهني والتقني

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اعتماد منهاج مادة "المعلوماتية" لمستوى التكميلية المهنية السنة الاولى والسنة الثانية
الذي يؤدي لنيل شهادات رسمية في المديرية العامة للتعليم المهني والتقني

إن المديرية العامة للتعليم المهني والتقني بالتكليف،
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بناءً على اقتراح رئيسي المصلحة الفنية بالتكليف ومصلحة التأهيل المهني بالتكليف،
تقرر ما يأتي:

المادة الأولى: يُعتمد في المديرية العامة للتعليم المهني والتقني، المنهاج المُرفق بهذا القرار العائد لمادة " المعلوماتية "
لمستوى التكميلية المهنية السنة الاولى والسنة الثانية، الذي يؤدي لنيل شهادة رسمية.

المادة الثانية: يُنشر هذا القرار في الجريدة الرسمية ويُعمل به فور صدوره.

٢٠٢٦ ٧

الدكوانه في:
المديرية العامة للتعليم المهني والتقني
د. هنادي بري

٢٠٢٦ ٧



المديرية العامة للتعليم المهني والتقني
General Directorate of Vocational
and Technical Education

MODERNIZED TWO-YEAR CURRICULUM
INFORMATION AND COMMUNICATION TECHNOLOGY (ICT)
BREVET PROFESSIONNEL (BP)
BP1 & BP2

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1. INTRODUCTION

This syllabus has been developed with learning outcomes that outline the knowledge, skills, attitudes, and values students are expected to achieve by the end of the ICT-BP Year 1 and Year 2 program. The ICT Studies syllabus provides multiple pathways for both post-secondary education and employment opportunities. It has applications that are both specialized and general across various fields. The use of computers has grown significantly in many countries, becoming a key driver of economic, social, and political development, particularly in developed nations. In Lebanon, the influence of IT has accelerated over the past few decades. Lebanon is continuing to develop its Computer Studies programs to meet the country's increasing demand for IT expertise.

Key stakeholders recognize the importance of transitioning Lebanon into an IT-savvy nation, and they are supporting both public and private institutions to create a computer-literate society.

This syllabus is designed to cater to this growing need. Vocational and technical schools offering this syllabus provide essential knowledge and skills training that aligns with students' needs and supports the achievement of the government's development priorities. Vocational and technical schools offering this syllabus provide essential knowledge and skills training that aligns with students' needs and supports the achievement of the government's development priorities.

2. GENERAL OBJECTIVES OF THE ICT CLASSES

Technological development has advanced rapidly. The technological revolution is dramatically transforming the world. Computer technology is widespread, influencing all sectors of the economy by creating new jobs, transforming existing ones, and enhancing various activities. It allows students to explore an area of interest and to develop specific knowledge and skills of computer-based technology.

To stay competitive in the global technological landscape, Lebanon must integrate computer technology into business, government, and education. The continual improvements in computer technology are breaking geographical barriers and bringing people closer together. Students pursuing Computer Studies are at the forefront of innovations in communication, information, and computer technology.

3. GENERAL AIMS

ICT Studies aims to enable students to:

- Make a worthwhile contribution to the social and economic development of the country using ICT skills.
- Develop knowledge, skills, values, and attitudes in computer technology that will be transferable to their career paths and future life directions.
- Provide students with basic knowledge of computer technology that enhances their personal and professional productivity.
- Communicate effectively using technological innovations.

4. STRANDS

The science of ICT Studies is described in the following strands:

4.1. INFORMATION LITERACY

Information literacy is the skill of gathering data from various sources, choosing relevant materials, and organizing them in a way that enables the user to make informed decisions or take targeted actions.

This strand identifies the information that is taken from the data. Whatever data is encoded in the computer is interpreted in various ways to collect accurate and reliable information. Information literacy is the skill of gathering data from various sources, choosing relevant materials, and organizing them in a way that enables the user to make informed decisions or take targeted actions. Students learn concepts in data input, processing, and output to help them make informed decisions on information found in all aspects of their lives.

4.2. COMMUNICATION

Communication involves the process of transferring information from one location to another.

In computer communications, data travels electronically at a very high speed.

The speed of computer communication has a profound impact on users, enabling possibilities once unimaginable. Continuous improvement in the use of satellite communications and the internet is making the world a smaller place.

Students understand the use of a range of communication hardware and software devices. They develop an awareness of the opportunities provided by the growing need for communication.

4.3. TECHNOLOGY

Technology encompasses the knowledge and creative processes involved in developing hardware and software tools, techniques, and materials. Technology is designed and produced to meet a range of human needs, from personal to business, education, and government. Students learn about technologies that meet user needs and the impacts of those technologies.

5. INTENDED LEARNING OUTCOMES (ILOS)

Based on the broad aims, it is possible to identify the general learning outcomes for the syllabus as follows:

Year 1 -BP – 25 teaching hours

Intended Learning Outcomes (ILOs)	Description
ILO 1	Technology encompasses the knowledge and creative processes involved in developing hardware and software tools, techniques, and materials.
ILO2	Develop basic proficiency in word processing and spreadsheet software.
ILO3	Explore IT terminology and concepts
ILO 4	Apply fundamental problem-solving techniques using technology
ILO 5	Understand the basics of computer networks and the internet.
ILO 6	Recognize the ethical implications and responsible use of technology

Year 2 –BP – 25 teaching hours

Intended Learning Outcomes (ILOs)	Description
ILO 1	Develop advanced proficiency in word processing, spreadsheet software, and presentation tools.
ILO2	Understand the principles of database management and basic programming concepts.
ILO3	Understand the principles of database management and basic programming concepts.
ILO 4	Understand the importance of data security and privacy
ILO 5	Explore advanced communication technologies and the internet
ILO 6	Demonstrate responsible digital citizenship and awareness of technology's societal impact.

6. CURRICULUM DELIVERY

Learning strategies must focus on interactive communication, ensuring student engagement.

General education topics should be closely tied to real-world situations and integrated with practical activities.

Instructors should adopt a participative approach to teaching and learning, providing students with as many opportunities as possible to discover and practice independently. The student should be encouraged to actively participate in the development of his/her skills through discussion as well as practical exercises related to the occupation. Audio-visual aids should be used to complement and enhance lectures. The use of ICT and internet browsing should be encouraged to spark curiosity and enable students to explore existing solutions available online. Creating forums and blogs for collaborative discussions can further support this exploration.

7. ASSESSMENT

Assessing learners' achievements gives insight into what has been learned at a specific moment. The assessment modes comprise not only the evaluation of demonstrating knowledge and understanding of the fundamentals of the subject but also other abilities, to be applied by students when performing a task or involved in a situation. Continuous assessment is part of the teaching/learning process. It should guide teachers in lesson planning and helping students meet the learning objectives for their subject and grade.

By using continuous assessment techniques, teachers can ensure that each of their students is making progress consistent with their level of ability. It will also give them a system for diagnosing an early-stage problem that their students may be encountering (either the whole class or individual students). Since assessment is continuous, it doesn't matter if only a few students are assessed at a time—teachers can frequently check progress in a particular skill or knowledge area for an individual or small group.

Methods used can include:

- Students' self-assessment against specific criteria
- Peer assessment
- Peer correction/marking (students exchange their work for comments/marks)
- Group report on activities and projects
- Teacher's assessment of student's knowledge against specific criteria
- Teacher's assessment of group work (individual contributions and roles played)
- Marks are given for homework
- Performance in quizzes and tests

To secure progression between the 1st and 2nd, students are sitting for end-of-year exams. When students complete the second year of their education, they take an official exam allowing them to enter the BT1 level in their respective tracks.

8. BP - YEAR 1 ICT SYLLABUS: OBJECTIVES & SKILLS

BP-Year1		
	Objectives	Skills
First year	<u>Unit 1: Computer Fundamentals</u> - Define the term Information and Communication Technology (ICT) - Identify different types of ICT services/ Uses - Identify the main types of computers - Identify the main types of devices	- Identify different types of ICT services/uses like: Internet services, mobile technology, and office productivity applications. - Define the term hardware. - Identify the main types of computers like: desktops, laptops, and tablets. Identify the main types of devices like: smartphones, media players, and digital cameras. - Define the terms processor, Random Access Memory (RAM), and storage. Understand their impact on performance when using computers and devices. - Identify the main types of integrated and external equipment like: printers, screens, scanners, keyboards, mouse/trackpad, webcam, speakers, microphone, and docking stations. - Define the term software and distinguish between the main types of software like: operating systems, applications. Know that software can be installed locally or available online. - Define the term operating system and identify some common operating systems for computers and devices. - Identify common examples of applications like: office productivity, communications, social networking, media, design, and mobile applications. - Start a computer and log on using a username and password.
	<u>Unit 2: File management</u> - File Management - Introducing Files and Folders - File Explorer - Organizing Files and Folders	- Understand how an operating system organizes drives, folders, and files in a hierarchical structure. - Navigate between drives, folders, subfolders, files. - Display file, and folder properties like: name, size, and location. - Identify common file types like: word processing, spreadsheet, presentation, portable document format (pdf), image, audio, video, compressed, and executable files. - Recognize good practice in folder, and file naming: use meaningful names for folders and files to help searching and organization. - Search for files by properties: all or part of file name using wildcards, if necessary, content, date modified. - Select individual, adjacent, and non-adjacent files, and folders.
	<u>Unit 3: Word processing</u> - Introduction to Word Processing - Terminology - The Ribbon - Using the Application - Working with Documents - Document Creation	- Open, and close a word processing application. Open, and close documents. - Save a document to a location on a drive. Save a document under another name to a location on a drive. - Save a document as another file type like: text file, Rich Text Format, template, software-specific file extension, or version number.

	• Enter Text • Select, Edit • Insert • Proofing and printing	• Display, and hide built-in toolbars. Restore, and minimize the ribbon. • Display, and hide non-printing formatting marks like: spaces, paragraph marks, manual line break marks, tab characters. • Edit content by entering, removing characters, and words within existing text, by over-typing to replace existing text. • Inserting visual elements: adding tables, picture, and charts to documents. • Proofing and printing: Finalizing documents for distribution.
First year	<u>Unit 4: PowerPoint processing</u> • Introduction to Presentations • The Ribbon • Using the Application • Working with Presentations • Developing a Presentation • Presentation Views • Slides • Transitions and animations • Finalizing presentations	• Open, and close a presentation application. • Save a presentation as another file type: Rich Text Format, template, show, image file format, version number. • Use magnification/zoom tools. • Display, and hide built-in toolbars. Restore, and minimize the ribbon. • Understand the uses of different presentation view modes: normal view, slide sorter view, outline view, and slide show view. • Recognize good practice in adding slide titles: use a different title for each slide to distinguish it in the outline view when navigating in the slide show view. • Choose a different built-in slide layout for a slide. • Apply an available design template to a presentation. • Change background color on specific slide(s), apply to all slides. • Add a new slide with a specific slide layout like: a title slide, chart and text, bulleted list, table/spreadsheet. • Copy, and move slides within the presentation, between open presentations. • Insert a graphical object (picture, image, drawn object) into a master slide. Remove a graphical object from a master slide. • Enhancing with media effects: applying transitions and animations. • Enter text into the footer of specific slides/ all slides in a presentation. • Apply automatic slide numbering, automatically updated date, and non-updating date into the footer of specific slides, all slides in a presentation. • Finalizing presentations : preparing for effective delivery.
First year	<u>Unit 5: Excel processing</u> • Introduction to Spreadsheets • The Ribbon • Using the Application • Working with Spreadsheets • Cells • Insert, Select • Edit, Sort • Copy, Move, Delete • Managing Worksheets • Rows and Columns • Worksheets	• Open, and close a spreadsheet application. Open, and close spreadsheets. • Create a new spreadsheet based on the default template. • Save a spreadsheet to a location on a drive. Save a spreadsheet under another name to a location on a drive. • Switch between open spreadsheets. • Display, and hide built-in toolbars. Restore, and minimize the ribbon. • Understand that a cell in a worksheet should contain only one element of data, (for example, first name detail in one cell, surname detail in adjacent cell). • Recognize good practice in creating lists: avoid blank rows and columns in the main body of the list, insert a blank row before

	• Formatting data • Chart • Formulas and functions • Finalizing and printing	the Total row, and ensure cells bordering the list are blank. • Select a cell, range of adjacent cells, range of non-adjacent cells, and entire worksheet. • Sort a cell range by one criterion in ascending, descending numeric order, ascending, descending alphabetic order. • Copy the content of a cell, and cell range within a worksheet, between worksheets, and between open spreadsheets. • Use the autofill tool, and copy handle tool to copy, and increment data entries. • Move the content of a cell, and cell range within a worksheet, between worksheets, and between open spreadsheets. • Select a row, range of adjacent rows, and range of non-adjacent rows. • Select a column, range of columns, and range of non-adjacent columns. • Insert a new worksheet, and delete a worksheet. • Recognize good practice in naming worksheets: use meaningful worksheet names rather than accept default names. • Copy, move, and rename a worksheet within a spreadsheet. • Create and apply formulas: sum, average, min, max • Formatting numbers, text, cell styles, using conditional formatting to highlight key data. • Present data with charts. • Preparing spreadsheets for presentation: margins, orientation, proofreading and correcting data before printing.
First year	<u>Unit 6: Online communications</u> • Finding Information • Managing Information • Web Browser Settings	• Understand the terms: World Wide Web (WWW), Uniform Resource Locator (URL), and hyperlink. • Understand the function of search engines and identify some common examples. • Carry out a search using a keyword, phrase, exact phrase, or image. • Refine a search using advanced search features like: date, language, media type, and usage rights. • Managing Information • Create, and delete a bookmarks/favorites folder. Add web pages to a bookmarks/favorites folder. • Download, and save files to a location. • Preview, and print a web page, select from a web page using available printing options. • Define the terms copyright and intellectual property. Recognize the need to acknowledge sources and/or seek permission as appropriate. • Web Browser Settings • Set the web browser home page. • Understand the term pop-up. Allow, block popups.

9. BP - YEAR 2 ICT SYLLABUS: OBJECTIVES & SKILLS

BP -Year2		
	Objectives	Skills
Second year	<u>Unit 1: Online Communication</u> • Communication Tools • Sending Email • Receiving Email • Email Tools and Settings • Organizing Emails • Using Calendars	• Understand the function and features of email, and identify some common examples. Understand the structure of an email address. • Understand the function and features of messaging, audio call, and video call tools, and identify some common examples. • Understand the function and features of social networking sites, and forums, and identify some common examples. • Recognize good practice when using communication tools like: using an appropriate communication tool and tone for the audience and content; be accurate, brief, and clear; do not inappropriately disclose private or sensitive information; do not circulate inappropriate content; use in accordance with usage policies. • Create an email. Enter an appropriate title in the subject field and enter, paste the content into the body of an email. • Enter one or more email addresses, and distribution list in the To, Copy (Cc), and Blind copy (Bcc) fields, and identify when these should be used • Add, or remove a file attachment. • Send an email • Open, and close an email. • Use the reply, reply to all functions, and identify when these should be used. • Forward an email. • Open, and save a file attachment to a location. • Recognize options for setting an out-of-office reply. • Mark an email as read or unread. Flag, unflag an email. • Create, delete, and update a contact, distribution list/ mailing list. • Search for an email by sender, subject, email content • Sort emails by name, date, size. • Create, and delete an email folder/label. Move emails to an email folder/label. • Delete an email. Restore a deleted email. • Move a message to, remove a message from a junk folder. • Create, cancel, and update a meeting in a calendar. • Add invitees, and resources (meeting room, equipment) to a meeting in a calendar. Remove invitees, and resources from a meeting in a calendar. • Accept, or decline an invitation.
	<u>Unit 2: File management Storage and Compression</u> • Main Types of Storage Media • Internal Hard Disk	• Identify the main types of storage media like: internal hard disk, external hard disk, network drive, CD, DVD, Blu-ray Disc, USB flash drive, memory card, and online file storage. • Identify file size, folder size, and storage capacity

	• External Hard Disk • Solid State Hard Drives (SSD) • USB Flash Drive (Flash Disk) • Network Drives • CD-ROM Drive (Compact Disk Read-Only Memory) • DVD ROM (Digital Versatile Disk) • Blu-Ray Disc • Memory Card • Online File Storage • Storage Capacity Measurements • View Available Space on a Storage Device • File and Folder Compression • Compress Files and Folders	measurements like: KB, MB, GB, and TB. • View available space on a storage device. • Understand the purpose of file and folder compression. • Compress files and folders. • Extract compressed files, and folders to a location on a drive. • Online file storage
	Unit 3: Advanced Word processing • Formatting • Text • Paragraphs • Styles • Objects • Table Creation • Table Formatting	• Apply different colors to text. • Align text left, center, right, justified. • Recognize good practice in paragraph spacing: apply spacing between paragraphs rather than use the Return key. • Apply spacing above, and below, paragraphs. Apply single, 1.5 lines, and double line spacing within paragraphs. • Add, and remove bullets, and numbers in a single-level list. Switch between different standard bullet, and number styles in a single-level list. • Add a box border and shading/background color to a paragraph. • Create a table ready for data insertion. • Insert, and edit data in a table. • Select rows, columns, entire table. • Insert, and delete rows and columns. • Modify column width and row height. • Modify cell border line style, width, color. • Add shading/background color to cells. • Insert an object (picture, image, chart, drawn object) to a specified location in a document. Select an object. • Copy, and move an object within a document, between open documents.

Second year	Unit 4: Advanced PowerPoint processing • Handling Text • Formatting • Lists • Tables • Charts • Using Charts	• Recognize good practice in creating slide content: use short concise phrases, bullet points, and numbered lists. • Enter text into a placeholder in the standard, outline view. • Edit text in a presentation • Copy, and move text within, between presentations • Delete text. • Change text formatting: font sizes, and font types.
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	• Organization Charts • Graphical Objects	• Apply text formatting: bold, italic, underline, shadow. • Apply different colors to text. • Apply case changes to text. • Align text: left, center, right in a text frame. • Indent bulleted text. Remove the indent from the bulleted text. • Adjust the line spacing before and after bulleted, numbered lists. • Switch between the different standard bullet, and number styles in a list. • Enter, and edit text in a table slide. • Select rows, columns, entire table • Insert, and delete rows and columns. • Modify column width and row height. • Input data to create built-in charts in a presentation: column, bar, line, pie. • Select a chart. • Add, remove, and edit a chart title. • Create an organization chart with a labeled hierarchy by using a built-in organization chart feature. • Add, and remove co-workers, and subordinates in an organization chart. • Insert a graphical object (picture, image, drawn object) into a slide.
Second year	<u>Unit 5: Advanced Excel processing</u> • Formulas and Functions • Arithmetic Formulas • Functions • Formatting • Numbers and Dates • Contents • Alignment, Border Effects • Charts (Create and Edit)	• Recognize good practice in formula creation: refer to cell references rather than type numbers into formulas. • Create formulas using cell references and arithmetic operators (addition, subtraction, multiplication, division). • Identify and understand standard error values associated with using formulas: #NAME?, #DIV/0!, #REF!. • Understand and use relative, and absolute cell referencing in formulas. • Use sum, average, minimum, maximum, count, counta, and round functions. • Use the logical function if (yielding one of two specific values) with comparison operator: =, >, <. • Format cells to display numbers to a specific number of decimal places, to display numbers with, or without a separator to indicate thousands. • Align cell contents: horizontally, and vertically. Adjust cell content orientation. • Merge cells and center a title in a merged cell. • Add border effects to a cell, cell range: lines, colors.
Second year	<u>Unit 6: Health and Green IT</u> • Recognize the health risks of prolonged computer use. • Apply ergonomic best practices for workstation setup. • Understand Green IT and its environmental benefits. • Identify ways to reduce e-waste and	• Ensure the Well-being of a User while using a computer or Device • Avoiding Danger When Working with a Computer • Golden Rules when Working with Computers • Computer and Device Energy Saving Practices • Turning Off • Automatic Shutdown

	recycle properly. • Practice energy-efficient IT usage.	• Backlight • Sleep Mode Settings • What is E-Trash or E-Waste?
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1. LEARNING UNIT 1: COMPUTER FUNDAMENTALS

Computer Fundamentals	Duration 4 hours
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1.1. INTRODUCTION

The goal of this course is to help students:

- ➡ Understand fundamental concepts related to ICT, computers, devices, and software.
- ➡ Navigate effectively on the computer desktop, utilizing icons and windows.
- ➡ Adjust essential settings in the operating system and utilize built-in help features.
- ➡ Gain knowledge of core file management principles.
- ➡ Understand storage concepts and apply utility software for compressing and extracting files.
- ➡ Learn the significance of protecting data and devices from malware, as well as the importance of data backups.

1.2. UNIT LEARNING OUTCOMES

By the end of this unit, all students should be able to:

- ➡ Master key skills and fundamental concepts related to ICT, computers, devices, and software.
- ➡ Follow best practices for efficient and effective computer use.

1.3. UNIT 1: LESSON PLANNING

Lesson	Key points / Reference to ILO	Content	Suggested learning/teaching activities	Resources
Introduction to ICT: Hardware, Software, and Operating Systems	Computer Devices and Software	• ICT • Hardware • Software	• Explain what ICT (Information and Communication Technology) means and give examples of ICT services. • Explain what hardware means and identify common types of computers and digital devices. • Explain what software and operating systems are and describe their role in using a computer. • Identify the main types of software and their uses.	https://edu.gcfglobal.org/en/computerbasics/inside-a-computer/1/ https://www.youtube.com/watch?v=5PDQKu2-bAc&t=4s
Basic Computer Operations and Desktop Management	Desktop, Icons, Tools and Settings	• Start And Shut Down • Desktop And Icons • Tools and settings	• Start a computer and log in using a username and password. • Log off, shut down, and restart a computer correctly. • Explain the purpose of the desktop and taskbar and identify common computer icons. • View basic computer information and change simple desktop settings. • Install and uninstall a computer application.	Lab live practicing • https://www.youtube.com/watch?v=xFgCI0xUxsq • https://www.youtube.com/watch?v=hclJ0yEJmfY0

			• Define the terms processor, random access memory (RAM), and storage understand their impact on performance when using computers and devices. • Identify the main types of integrated and external equipment like: printers, screens, scanners, keyboards, mouse/trackpad, webcam, speakers, microphone, and docking stations	
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1.4. FORMATIVE ASSESSMENT

Student Name:	Date:	
Learning Outcomes	Criteria for assessment	Assessment (✓ Yes / ✗ No / N/A)
ILO1: Computer Devices and Software	• Define ICT and identify ICT services • Define hardware types • Describe software and OS • Categorize software types	☐ Yes ☐ No ☐ N/A
ILO2: Desktop, Icons, Tools, and Settings	• Start and log on/off using proper procedures • Identify desktop components • Change desktop configuration • Install/uninstall applications	☐ Yes ☐ No ☐ N/A
ILO4: Storage & Outputs	• Identify storage types and capacity • Understand compression	☐ Yes ☐ No ☐ N/A

2.1. INTRODUCTION

The goal of this unit is to help students:

- ➡ Understand how an OS organizes drives, folders, and files, and displays their properties
- ➡ Change the view to display files and folders like tiles, icons, lists, and details.
- ➡ Identify common file types and recognize good practices in folder and file naming.
- ➡ Create/ rename/ select/ sort/ copy/ move/ delete files and folders.
- ➡ Identify the main types of storage media, and view available space.
- ➡ Identify file size, folder size, and storage capacity measurements (KB, MB, GB, TB)
- ➡ Understand the purpose of the file, folder compression/ Compress & extract compressed files, and folders.

2.2. UNIT LEARNING OUTCOMES

By the end of this unit, all students should be able to:

➡ **Understand Files and Folders**

- Define files, folders, and subfolders.
- Explain the importance of organizing files effectively.

➡ **Navigate and Use File Explorer**

- Open and navigate File Explorer.
- Identify file properties and common file types.
- Search for files and folders using different methods.

➡ **Perform File Management Operations**

- Create, rename, move, and delete files and folders.
- Copy and transfer files between folders and storage devices.
- Restore deleted files from the Recycle Bin.

➡ **Utilize Different Storage Media**

- Identify various storage devices (HDD, SSD, USB, cloud storage, etc.).
- Understand storage capacity and available space on a device.

➡ Compress and Extract Files

- Use file compression tools to reduce file size.
- Extract compressed files to a specific location.

2.3. UNIT 2: LESSON PLANNING

Lesson	Key points / Reference to ILO	Content	Suggested learning/teaching activities	Resources
Understanding Files, Folders, and Organization Hierarchy	Understanding Files and Folders	• Definition of files and folders • Purpose of organizing files - Introduction to file hierarchy	• Instructor-led demonstration of files and folders using File Explorer • Hands-on practice: creating and organizing folders • Class discussion on best practices for organizing files	• Computer with operating system (Windows/Mac) • Projector for demonstration • Sample files for practice
Navigating and Managing Files with File Explorer	File Explorer	• Open File Explorer • The Preview Pane • Navigate between Drives, Folders, Subfolders and Files • Display File or Folder Properties • Identify Common File Types	• Open File Explorer • Navigate between Drives, Folders, Subfolders and Files • Display File or Folder Properties • Change View to Display Files and Folders • Identify Common File Types • Open a File, Folder or Drive • Naming Files and Folders • Create a Folder • Rename a File or Folder • Search for Files by Properties • Find a File or Application • Search for a File or Folder by Name or Content • Search for a File by Date Modified / Date Created	• Computers with Windows/Mac • Screenshots of File Explorer interface • Sample files for classification
File Selection, Organization, and Management Tasks	File Management	• Introducing Files and Folders • Organizing Files and Folders	• Select Files and Folders • Select an Individual File or Folder • Select Adjacent Files or Folders • Select Non-Adjacent Files or Folders • Sorting Files • Copy, Move Files and Folders • Copy a File or Folder between Folders • Copy Files or Folders between Drives • Move a File or Folder between Folders • Move Files or Folders between Drives • Delete a File or a Folder • Restore Files and Folders from the	Computers with test files - USB flash drives for practice - Worksheets with exercises

			Recycle Bin Empty the Recycle Bin	
Efficient File and Folder Organization	Organizing files and folders	- Importance of organizing files. - Best practices (consistent naming, clear folder structure). - How to create and name folders. - Organizing files into logical categories. - Sorting and searching for files. - Backup and security basics.	- Show how to organize files and folders on a computer. - Have students organize a set of unorganized files. - Share personal tips on file organization. - Short quiz on naming conventions and folder structure.	- Simple file organization tips on YouTube. - Google Drive: For organizing and sharing files. - Dropbox: For easy file storage and organization. - Cloud Storage: - OneDrive (for Windows users) - YouTube videos on organizing files and folders on your computer or cloud services. - Google Backup and Sync for cloud file backup. - External hard drives for simple, physical backups.

2.4. FORMATIVE ASSESSMENT

Student Name:	Date:	
Learning Outcomes	Criteria for assessment	Assessment (✓ Yes / ✗ No / N/A)
ILO1: Understanding Files and Folders	- Define files and folders - Explain the importance of organizing files - Identify different file types	☐ Yes ☐ No ☐ N/A
ILO2: Navigating File Explorer	- Open and navigate File Explorer - Locate files and folders using different views - Display file and folder properties	☐ Yes ☐ No ☐ N/A
ILO3: File Organization and Selection	- Create and organize folders - Select individual, adjacent, and non-adjacent files - Rename files and folders appropriately	☐ Yes ☐ No ☐ N/A
ILO4: Organizing files and folders	- Recognize why organizing files and folders is essential for efficiency and accessibility. - Use consistent naming conventions and create a clear folder structure. - Effectively create and name folders based on content and purpose. - Sort files by type, name, or date and use search functions for efficient retrieval. - Apply basic backup methods and file security practices.	☐ Yes ☐ No ☐ N/A

3. LEARNING UNIT 3: WORD PROCESSING

Word Processing

Duration:4 hours

3.1. INTRODUCTION

In this unit, students will enhance their word-processing abilities by designing solutions to challenges presented through case studies or design briefs. The focus is on creating and producing word-processed documents that meet the requirements of individuals, businesses, or organizations.

3.2. UNIT LEARNING OUTCOMES

By the end of this unit, students should be able to:

- ➡ Manage documents by saving them in various file formats, either locally or in the cloud.
- ➡ Create and modify word-processing documents, ensuring they are ready for sharing and distribution.
- ➡ Apply diverse formatting and styling options to improve document presentation.
- ➡ Configure page settings, proofread and correct spelling errors before printing.
- ➡ Insert tables and images to enhance document content.

3.3. UNIT 3: LESSON PLANNING

Lesson	Key Points / Reference to ILO	Content	Suggested Learning/Teaching Activities	Resources
Document Creation and Saving	Creating and saving documents effectively	• Creating documents in different formats • Saving documents locally and in the cloud	• Hands-on practice creating documents • Tutorial on cloud storage options	• Word processing software (MS Word, Google Docs, LibreOffice) • Sample templates for letters, reports, and resumes • Online cloud storage guides (Google Drive, OneDrive)

Editing and Formatting Text	Enhancing document presentation	• Text alignment, fonts, styles, and spacing • Applying headers, footers, and styles	• Peer editing exercises • Formatting challenges	• Style guides (APA, MLA, business formatting) • Sample formatted documents (reports, newsletters) • Online tutorials (Microsoft Word Formatting Guide)
Inserting Visual Elements	Adding tables, pictures, and charts to documents	• Inserting and formatting tables • Adding pictures and adjusting layouts	• Group project to design a brochure • Individual tasks for chart creation	• Free image libraries (Unsplash, Pixabay)
Proofing and Printing	• Finalizing documents for distribution	• Using spelling and grammar checks • Setting up documents for printing	• Print preview exercises • Review checklist activity	• Proofreading tools (Grammarly, Hemingway Editor) • Sample printouts for analysis • Printing setup tutorials (MS Word, Google Docs)

3.4. FORMATIVE ASSESSMENT

Student Name:	Date:	
Learning Outcomes	Criteria for assessment	Assessment (✓ Yes / ✗ No / N/A)
ILO1: Document Creation and Saving	• Creating documents in different formats • Saving documents locally and in the cloud	☐ Yes ☐ No ☐ N/A
ILO2: Editing and formatting Text	• Text alignment, fonts, styles, and spacing • Applying headers, footers, and styles	☐ Yes ☐ No ☐ N/A
ILO3: Inserting Visual Elements	• Inserting and formatting tables • Adding pictures and adjusting layouts	☐ Yes ☐ No ☐ N/A
ILO4: Proofing and Printing	• Using spelling and grammar checks • Setting up documents for printing	☐ Yes ☐ No ☐ N/A

4. LEARNING UNIT 4: POWERPOINT PROCESSING

PowerPoint processing	Duration: 4 hours
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4.1. INTRODUCTION

In this unit, students will enhance their PowerPoint presentation skills by starting with a basic design, adding new slides and content, selecting appropriate layouts, modifying slide designs, adjusting color schemes, and applying various design templates. They will also learn to create visual effects, such as animated slide transitions. Elements like text, color, transitions, animations, and sound will be integrated to produce a cohesive slide show. By the end of this module, students will be able to create a complete and engaging slide show.

4.2. UNIT LEARNING OUTCOMES

By the end of this unit, students should be able to:

- ➡ Create and manage presentations, saving them in various file formats either locally or in the cloud.
- ➡ Identify and use different presentation views, selecting from built-in layouts, designs, and themes.
- ➡ Insert, modify, and format elements such as text, tables, images, charts, and graphics.
- ➡ Enhance presentations by applying animation and transition effects.
- ➡ Review and refine presentation content to ensure accuracy before printing or delivering the presentation.

4.3. UNIT 4: LESSON PLANNING

Lesson	Key Points / Reference to ILO	Content	Suggested Learning/Teaching Activities	Resources
Creating Presentations	Introduction to presentation tools	- Creating presentations and saving in various formats - Choosing and applying themes	An interactive workshop to design a basic presentation	- PowerPoint, Google Slides, Canva - PowerPoint Basics Tutorial
Designing Slides	Customizing slide layouts and content	- Adding slides, choosing layouts - Modifying color schemes and templates - footer	- Pair activity to critique slide designs - Practice sessions for layout customization	www.canva.com
Enhancing with Media and Effects	Applying transitions and animations	- Inserting text, tables, pictures, and charts - Using animation and transition effects	- Demonstration of animations - Group presentations using	- Animation tutorials - Audio-visual examples https://www.youtube.co

			custom effects •	m/watch?v=Ey1atEavZ-M
Finalizing Presentations	Preparing for effective delivery	• Reviewing content • Setting up print and display settings	Presentation rehearsal and feedback session	TED Talk Presentation Tips: https://www.ted.com/playlists/574/how_to_make_a_great_presentation

4.4. FORMATIVE ASSESSMENT

Student Name:	Date:	
Learning Outcomes	Criteria for assessment	Assessment (✓ Yes / ✗ No / N/A)
ILO1: Creating Presentations	• Creating presentations and saving in various formats • Choosing and applying themes	☐ Yes ☐ No ☐ N/A
ILO2: Designing Slides	• Adding slides, choosing layouts • Modifying color schemes and templates	☐ Yes ☐ No ☐ N/A
ILO3: Enhancing with Media and Effects	• Inserting text, tables, pictures, and charts • Using animation and transition effects	☐ Yes ☐ No ☐ N/A
ILO4: Finalizing Presentations	• Reviewing and correcting content • Setting up print and display settings	☐ Yes ☐ No ☐ N/A

5. LEARNING UNIT 5: EXCEL PROCESSING

Excel Processing

Duration: 5 hours

5.1. INTRODUCTION

In this unit, students will enhance their ability to manage data effectively and efficiently. They will learn to use a spreadsheet application to create and manipulate spreadsheets by entering, moving, editing, and deleting data, along with performing essential spreadsheet tasks.

5.2. UNIT LEARNING OUTCOMES

All students should be able to:

- ➡ Operate spreadsheet applications and save files in various formats, whether on local devices or in cloud storage.
- ➡ Input data into cells, organize it into structured lists, and efficiently select, sort, copy, move, and remove data.
- ➡ Construct mathematical and logical formulas by applying standard spreadsheet functions.
- ➡ Format numerical and textual data to enhance clarity and presentation.
- ➡ Select appropriate chart types and design charts to present information clearly and effectively.
- ➡ Modify page settings and thoroughly review spreadsheet content to ensure accuracy before printing.

5.3. UNIT 5: LESSON PLANNING

Lesson	Key Points / Reference to ILO	Content	Suggested Learning/Teaching Activities	Resources
Introduction to Spreadsheets	Understanding spreadsheet applications and file management	• Definition of spreadsheets • Importance of spreadsheets in data organization and analysis • Saving files locally and in the cloud	• Demonstration of opening and saving spreadsheets in different formats • Class discussion on how spreadsheets are used in various industries	• Live Demos: Students practice opening, saving, and managing spreadsheets in different formats. • Industry Examples: Case studies on how spreadsheets are used in different fields • Quiz: Multiple-choice and true/false questions on spreadsheet basics. Short Assignment: Students explain how spreadsheets can be used in their preferred industry

Data Entry and Management	Entering and organizing data effectively	• Entering data into cells • Creating and managing lists • Sorting, copying, moving, and deleting data	• Hands-on practice entering data into sample spreadsheets • Group activity to organize a simple dataset	• Data Entry Race: Students compete to enter data correctly within a time limit. • Group Activity: Organizing and sorting messy datasets into meaningful tables. • Data Accuracy Check: Students review and correct errors in a provided dataset.
Formulas and Functions	Creating and applying formulas	• Introduction to basic mathematical formulas (SUM, AVERAGE, MIN, MAX) • Logical functions (IF, AND, OR)	• Interactive exercises where students write formulas to solve problems • Quizzes to test understanding of logical functions	• Real-World Problem Solving: Calculate expenses, salaries, and grade averages using formulas. • Quiz: Multiple-choice and short-answer questions on functions like IF, SUM, and AVERAGE.
Formatting Data	Enhancing readability through formatting	• Formatting numbers, text, and cell styles • Using conditional formatting to highlight key data	• Practical tasks to format sample spreadsheets • Peer review of formatted spreadsheets to ensure clarity	• Before & After Activity: Students transform a poorly formatted spreadsheet into a clear, readable one. • Peer Review: Students review and give feedback on each other's formatting. • Formatting Checklist: Students check if a spreadsheet meets readability standards. • Grading Rubric: Evaluate formatted spreadsheets based on consistency, clarity, and proper use of formatting.

Charts and Data Visualization	Presenting data effectively with charts	• Selecting suitable charts (bar, line, pie) • Creating and formatting charts for clarity	• Project-based learning to design charts from a dataset	• Chart Selection Game: Students match datasets with the best type of chart. • Mini-Presentations: Students create and explain charts based on given data. • Project-Based Task: Create a full report with visualizations based on a dataset.
Finalizing and Printing	Preparing spreadsheets for presentation	• Adjusting page settings (margins, orientation) • Proofreading and correcting data before printing	• Simulated print previews and adjustments • Checklist activity for finalizing spreadsheets	• Printing Simulation: Students adjust settings and compare digital vs. printed outputs. • Error Hunt: Students find and correct errors before finalizing spreadsheets. • Print-Ready Checklist: Students complete a final review before submitting their spreadsheets. • Case Study Task: Given a real-world scenario, students prepare a print-ready document.

5.4. FORMATIVE ASSESSMENT

Student Name:	Date:	
Learning Outcomes	Criteria for assessment	Assessment (✓ Yes / ✗ No / N/A)
ILO1: Introduction to Spreadsheets	- Define spreadsheets and explain their importance in data organization and analysis. - Demonstrate the ability to open, save, and manage spreadsheet files locally and in the cloud.	☐ Yes ☐ No ☐ N/A
ILO2: Data Entry and Management	Accurately enter data into spreadsheet cells.	☐ Yes ☐ No ☐ N/A
ILO3: Formulas and Functions	- Apply basic mathematical formulas (SUM, AVERAGE, MIN, MAX) correctly. - Use logical functions (IF, AND, OR) in problem-solving scenarios.	☐ Yes ☐ No ☐ N/A
ILO4: Formatting Data	- Format numbers, text, and cell styles to enhance readability. - Implement conditional formatting to highlight key data.	☐ Yes ☐ No ☐ N/A
ILO5: Charts and Data Visualization	- Select appropriate chart types (bar, line, pie) based on data. - Create and format charts effectively for clear data representation.	☐ Yes ☐ No ☐ N/A
ILO6: Finalizing and Printing	- Adjust page settings (margins, orientation) for proper print formatting. - Proofread and correct data before printing.	☐ Yes ☐ No ☐ N/A

6. LEARNING UNIT 6: ONLINE COMMUNICATION

Online Communication	Duration: 4 hours
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6.1. INTRODUCTION

This unit focuses on teaching students how to use the internet effectively for communication, information retrieval, and security. They will explore the use of web browsers, email communication, and online collaboration tools while understanding best practices for safe and responsible online activities.

6.2. UNIT LEARNING OUTCOMES

By the end of this unit, students should be able to:

- ➡ Understand the role of the Internet in communication and collaboration.
- ➡ Use web browsers efficiently for searching and retrieving information.
- ➡ Manage emails, including sending, receiving, and organizing messages.
- ➡ Utilize cloud-based tools for file sharing and collaboration.
- ➡ Recognize cybersecurity risks and best practices for online safety.

6.3. UNIT 6: LESSON PLANNING

Lesson	Key Points / Reference to ILO	Content	Suggested Learning/Teaching Activities	Resources
Introduction to Online Communication	- Importance of internet communication - Types of online tools	- Web-based email - Social media - Messaging apps - Video conferencing tools	- Discussion on different communication methods - Demonstration of email and messaging platforms	- Computers with internet access - Presentation slides
Using Web Browsers	- Navigating the web - Search engines	- Opening a browser - Using search engines - Bookmarking pages	- Hands-on browsing exercises - Finding reliable sources online	- Web browser (Chrome, Firefox) - Internet connection
Managing Emails	- Sending and receiving emails - Email organization	- Composing an email - Attaching files - Using CC and BCC	- Drafting and sending practice emails - Organizing inbox folders	- Gmail, Outlook, or other email service - Sample email templates

Online Collaboration Tools	• Cloud storage • Shared documents	• Google Drive, OneDrive • Working on shared files	• Group project using a shared document	• Cloud storage accounts • Collaborative tools (Google Docs)
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6.4. FORMATIVE ASSESSMENT

Student Name:	Date:	
Learning Outcomes	Criteria for assessment	Assessment (✓ Yes / ✗ No / N/A)
ILO1: Internet Communication	• Define online communication • List different online tools	☐ Yes ☐ No ☐ N/A
ILO2: Web Browsing Skills	• Use a browser effectively • Perform a keyword search	☐ Yes ☐ No ☐ N/A
ILO3: Email Management	• Compose and send emails • Organize inbox folders	☐ Yes ☐ No ☐ N/A
ILO4: Cloud-Based Collaboration	• Share and edit online documents	☐ Yes ☐ No ☐ N/A

1. LEARNING UNIT 1: ONLINE COMMUNICATION

Online Communication	Duration: 4 hours
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1.1. INTRODUCTION

This unit introduces students to advanced online communication tools, focusing on professional email usage, collaboration tools, online meetings, and security in digital communication.

1.2. UNIT LEARNING OUTCOMES

By the end of this unit, students should be able to:

- ➔ Use advanced email features (filters, signatures, scheduled emails).
- ➔ Manage contact groups and mailing lists.
- ➔ Use instant messaging and video conferencing platforms.
- ➔ Recognize and prevent phishing, spam, and email fraud.
- ➔ Apply online communication etiquette in a professional setting.

1.3. UNIT 1: LESSON PLANNING

Lesson	Key Points	Content	Suggested Learning Activities	Resources
Introduction to Online Communication Tools	- Understanding different online communication tools (email, messaging, video calls, social networking, forums) - Comparing the advantages and disadvantages of each tool - Identifying when to use each tool appropriately	- Definition of online communication - Types of online communication tools - Examples of popular communication platforms (e.g., Gmail, WhatsApp, Zoom, Microsoft Teams, social media sites)	- Group discussion on personal experiences with different communication tools - Interactive quiz on identifying the correct tool for specific scenarios - Role-play communication using different platforms	- Presentation slides on communication tools - Video demonstration on different communication platforms - Online quiz platform for interactive assessments
Understanding	Structure of an email	Explanation of the	Identify valid and	Infographic on

Email Basics	address • Features and functions of email services • Standard email providers and their features	structure of an email address (username, domain, extension) • Recognizing valid and invalid email addresses • Overview of email service providers (Gmail, Yahoo, Outlook)	invalid email addresses from examples • Hands-on activity where students create their own email accounts • Compare different email providers and their features	email structure • Worksheet on email service providers • Internet-connected devices for hands-on practice
Sending and Receiving Emails	• Creating and composing an email • Entering recipients correctly (To, Cc, Bcc) • Sending and receiving emails	• Writing a professional and well-structured email • Understanding the use of "To", "Cc" (carbon copy), and "Bcc" (blind carbon copy) • Email etiquette and appropriate tone	• Hands-on exercise: Students compose and send emails to each other • Role-play: Students practice email etiquette through real-life scenarios • Peer review of email drafts for clarity and professionalism	• Email simulation tool • Sample email templates • Guidelines on email etiquette
Email Attachments and Management	• Adding and removing attachments • Opening and saving attachments • Organizing emails efficiently	• How to attach files and best practices for naming attachments • Recognizing different file types that can be sent via email • Managing email storage and organization	• Practice exercise on attaching files to emails • Hands-on email sorting challenge • Discussion on security risks associated with downloading attachments	• Sample emails with attachments • Tutorial video on email attachments and file management
Email Tools and Settings	• Setting up an out-of-office reply • Searching and filtering emails • Managing spam and junk emails	• How to set up automatic responses when unavailable • Searching for emails using sender, subject,	• Hands-on setup of out-of-office replies • Class discussion on the importance of email security • Practice exercise: Search and filter	• Email service demo accounts • Step-by-step guides for setting up email features • Case study on phishing and email

		and keyword filters Identifying spam and how to manage junk folders	emails in a simulation tool	security threats
Organizing Emails Effectively	- Creating, deleting, and updating folders/labels - Sorting and categorizing emails - Restoring deleted emails	- Techniques for keeping an organized inbox - Importance of email categorization for productivity - How to recover mistakenly deleted emails	- Organizing inboxes using an email simulation platform - Sorting challenge where students categorize emails into different folders - Discussion on time management and productivity through email organization	- Email practice platform - Worksheet on email folder management - Case studies on email organization best practices
Using Calendars for Scheduling	- Creating and managing calendar events - Adding and removing invitees and resources - Responding to calendar invitations	- How to set up and schedule meetings in an online calendar - Adding invitees, meeting rooms, and other resources - Accepting, declining, and rescheduling events	- Hands-on activity: Students create and send calendar invitations - Group project where students plan a school event using an online calendar - Discussion on time management and meeting efficiency	- Calendar app tutorial - Interactive scheduling tool - Step-by-step guide on calendar event management

1.4. FORMATIVE ASSESSMENT

Student Name:	Date:	
Learning Outcomes	Criteria for Assessment	Assessment (✓ Yes

		/ X No / N/A)
ILO1: Identify different online communication tools	• Correctly name and describe at least three tools and their uses	☐ Yes ☐ No ☐ N/A
ILO2: Understand the structure and function of an email address	• Accurately define an email address structure and provide examples	☐ Yes ☐ No ☐ N/A
ILO3: Compose and send a well-structured email	• Includes a subject, recipient, and straightforward message content	☐ Yes ☐ No ☐ N/A
ILO4: Use attachments correctly	• Successfully attach and remove a file from an email	☐ Yes ☐ No ☐ N/A
ILO5: Organize emails effectively	• Demonstrate sorting, flagging, and creating folders in an email account	☐ Yes ☐ No ☐ N/A
ILO6: Schedule and manage calendar events	• Create, update, and invite attendees to a calendar event	☐ Yes ☐ No ☐ N/A

2. LEARNING UNIT 2: FILE MANAGEMENT STORAGE AND COMPRESSION

File management Storage and Compression

Duration: 4 hours

2.1. INTRODUCTION

This unit introduces students to different types of storage media, storage capacity measurements, file and folder compression, and how to manage available storage space.

2.2. UNIT LEARNING OUTCOMES

By the end of this unit, students should be able to:

- ➡ Organize and manage files effectively across multiple storage platforms.
- ➡ Use cloud storage solutions for collaboration and backup.
- ➡ Understand file security, encryption, and permission settings.
- ➡ Perform data recovery and restore lost files.

2.3. UNIT 2: LESSON PLANNING

Lesson	Key Points	Content	Suggested Learning Activities	Resources
Introduction to Storage Media	- What is storage media? - Main types of storage devices.	- Internal hard disk, external hard disk - Solid State Drives (SSD) - USB flash drive - Network drives	- Show pictures or real examples of different devices. - Ask students to name devices they use at home or at school. - Discuss together the benefits and limits of each device.	Real devices or pictures, projector, whiteboard, videos.

Optical Media and Memory Cards	• What are optical storage devices? • Overview of CD-ROM, DVD-ROM, Blu-Ray Discs • Introduction to memory cards	• Usage, storage capacities, lifespan, pros & cons • How to handle and store optical media and memory cards safely	• Show students CDs/DVDs and let them observe them. • Demonstrate how memory cards are used in smartphones or cameras. • Conduct a short matching activity between storage devices and their uses	• CDs, DVDs, Blu-ray disc, memory card examples, projector, quiz handouts
Online File Storage and Cloud Services	• What is cloud storage? • Examples of online storage services (Google Drive, Dropbox, OneDrive) • Advantages/disadvantages of online storage	• Accessibility, security, free vs paid plans • How cloud storage supports file sharing and collaboration	• Demonstrate how to save and open a file using Google Drive. • Ask students to create their own Google Drive folder. • Discuss how cloud storage helps people work and share files together.	• Computer lab, internet connection, projector, whiteboard
Understanding Storage Capacities	• What is file size? • Measurement units: KB, MB, GB, TB • Understanding how much space common files take	• Converting units (example: 1024 KB = 1 MB) • Real examples: size of a picture, video, document	• Ask students to compare the sizes of different files such as photos, videos, and text files. • Guide students to check available storage space on a computer or USB drive. • Conduct a short activity on storage size conversions (for	• Computer lab, projector, worksheet with practice exercises

			example, GB to MB).	
Viewing Available Space on a Storage Device	• Why check available space? • How to view storage space on Windows/Mac • Managing storage	• Windows: This PC > Properties • Disk cleanup basics	• Ask students to check storage space on the computer. • Discuss which files use the most storage and ways to free up space. • Demonstrate how to clean up storage and remove unnecessary files.	• Computer lab, projector, whiteboard instructions

File and Folder Compression	• What is file compression and why is it used? • Compressing and extracting files • Common compression formats: ZIP, RAR	• Step-by-step compressing a file/folder (Windows right-click > Send to > Compressed) • Extracting files from ZIP folders • Benefits: easier sharing, less storage	• Demonstrate how to compress and extract a folder. • Ask students to practice compressing and extracting files. • Give students a simple task to compress several files and share them with the teacher.	• Computer lab, projector, example files for practice
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2.4. FORMATIVE ASSESSMENT

Student Name:	Date:	
Learning Outcomes	Criteria for Assessment	Assessment (✓ Yes / ✗ No / N/A)

ILO1: Identify and describe the main types of storage media	• Student can list and correctly describe at least 6 types of storage media. • Can differentiate between internal and external storage devices.	☐ Yes ☐ No ☐ N/A
ILO2: Explain the uses, capacities, and advantages of optical media and memory cards.	• Student can correctly explain the uses and storage capacities of CD, DVD, Blu-ray, and memory cards. • Can state 2 advantages and 2 disadvantages for each.	☐ Yes ☐ No ☐ N/A
ILO3: Demonstrate an understanding of online file storage and its importance.	• Student can name at least 2 cloud storage services. • Can demonstrate saving and retrieving files from a cloud drive. • Can explain the benefit of using cloud storage in teamwork.	☐ Yes ☐ No ☐ NA

ILO4: Understand file size measurements and storage capacity units (KB, MB, GB, TB) and perform basic conversions.	• Student correctly identifies file sizes of common files. • Successfully converts between KB, MB, GB,	☐ Yes ☐ No ☐ N/A
ILO5: View available storage space on a computer or storage device.	• Student can demonstrate how to check available space on a storage device. • Can explain what takes up the most space and suggest ways to free space.	☐ Yes ☐ No ☐ N/A
ILO6: Compress and extract files and folders using compression tools.	• Student successfully compresses files and folders. • Student extracts compressed files to a chosen location.	☐ Yes ☐ No ☐ N/A

3. LEARNING UNIT 3: ADVANCED WORD PROCESSING

Advanced Word Processing

Duration: 4 hours

3.1. INTRODUCTION

This unit builds on basic word processing skills, teaching document automation, mail merge, and professional formatting.

3.2. UNIT LEARNING OUTCOMES

By the end of this unit, students should be able to:

- ➡ Apply styles and templates for professional documents.
- ➡ Use mail merge for mass communication.
- ➡ Format and insert tables, graphics, and charts effectively.

3.3. UNIT 3: LESSON PLANNING

Lesson	Key Points	Content	Suggested Learning Activities	Resources
Formatting Text and Paragraphs	- Text alignment (left, center, right, justified) - Applying colors to text - Paragraph spacing (before/after) - Line spacing (single, 1.5, double)	- Importance of proper text formatting - How to change text alignment and color - Best practices for paragraph spacing	- Demonstration of formatting tools in a word processor - Hands-on activity: students format a given text - Group discussion on the impact of proper formatting on readability	- Computers with word processing software - Sample document templates
Bullets, Numbering, and Borders	- Creating and modifying bulleted and numbered lists - Applying borders and shading to paragraphs	- When to use bullets vs. numbering - Different bullet and number styles - Enhancing paragraphs with borders and shading	- Step-by-step demonstration of list and border tools - Practice exercise: students create a list and apply different formatting options - Peer review: students check each other's formatting	- Word processing software - Sample documents with lists
Creating and Formatting Tables	- Creating a table - Inserting and editing data - Selecting rows, columns, or the entire table	- Introduction to tables and their uses - Steps to create and modify tables - Selecting and modifying data within tables	- Teacher demonstration: creating a table - Hands-on activity: students create a personal timetable using tables - Quiz: identifying table parts and functions	- Word processing software - Sample tables

Modifying Tables	• Inserting and deleting rows/columns • Adjusting column width and row height • Applying table borders and shading	• Advanced table formatting options • Best practices for table presentation • Customizing tables for readability	• Teacher-guided practice on modifying tables • Student project: creating a comparison table with formatted rows/columns • Class discussion on best table design practices	• Word processing software • Sample tables
Working with Objects	• Inserting images, charts, and drawings • Positioning and resizing objects	• Using objects to enhance a document • Techniques for inserting and formatting objects	• Teacher-led demonstration on inserting objects • Student task: insert and adjust an image in a document • Peer feedback on object placement and formatting	• Word processing software • Image files
Managing Objects in Documents	• Selecting, copying, moving objects within a document • Moving objects between documents	• Best practices for organizing objects • Using text wrapping and alignment options	• Hands-on exercise: repositioning objects • Challenge activity: design a poster using text and objects • Class presentation of student-created documents	• Word processing software • Sample images and objects

3.4. FORMATIVE ASSESSMENT

Student Name:	Date:	
Learning Outcomes	Criteria for Assessment	Assessment (✓ Yes / ✗ No / N/A)
ILO1: Apply text colors, alignment, and spacing.	• Correct use of text color, alignment, and spacing.	☐ Yes ☐ No ☐ N/A
ILO2: Create and modify lists, apply borders and shading.	• Correct bullet styles, numbering, and border/shading application.	☐ Yes ☐ No ☐ N/A
ILO3: Create a table, insert/edit data, select rows/columns.	• Table structure, data insertion, and selection are correct.	☐ Yes ☐ No ☐ N/A

ILO4: Insert/delete rows/columns, adjust size, apply formatting.	• Correct insertion, deletion, and formatting of table elements.	☐ Yes ☐ No ☐ N/A
ILO5: Insert, position, and resize objects.	• Objects inserted and resized correctly without overlap.	☐ Yes ☐ No ☐ N/A
ILO6: Select, move, and copy objects between documents.	• Objects moved or copied correctly between documents.	☐ Yes ☐ No ☐ N/A

4. LEARNING UNIT 4: ADVANCED POWERPOINT PROCESSING

Advanced PowerPoint Processing

Duration: 4 hours

4.1. INTRODUCTION

This unit builds on basic presentation skills, helping students create professional and engaging presentations using advanced features like animations, transitions, multimedia integration, and slide design.

4.2. UNIT LEARNING OUTCOMES

By the end of this unit, students should be able to:

- ➡ Create structured and visually appealing presentations.
- ➡ Apply design principles to enhance readability and engagement.
- ➡ Use advanced transitions and animations effectively.
- ➡ Insert and format multimedia elements (images, videos, charts, and audio).
- ➡ Optimize slide decks for printing, sharing, and live presentations.

4.3. UNIT 4: LESSON PLANNING

Lesson	Key Points	Content	Suggested Learning Activities	Resources
Introduction to Text Handling in PowerPoint	Text in placeholders, basic text editing, and formatting.	- Recognize good practices in slide text (concise phrases, bullet points). - Text entry in placeholders and outline view. - Basic text editing (copy, move, delete).	- Practice creating slides using bullet points. - Edit a provided presentation: move, delete, and format text.	- PowerPoint tutorial video - sample presentations.
Advanced Text Formatting	Font types, sizes, colors, text alignment.	- Changing font sizes, types, and applying bold, italic, underline, shadow. - Applying text color and case changes. - Aligning text (left, center, right).	- Create a presentation slide with customized text. - Align and format text in a presentation based on given instructions.	- PowerPoint, - Style guide for text formatting.
Working with Bulleted and Numbered Lists	Lists, indenting, line spacing, and style changes.	- Indenting and removing indent in bulleted text. - Adjusting line spacing before and after items. - Switching between different bullet/number styles.	- Format a list of items with various bullet/number styles. - Adjust the spacing and indentation of bulleted text in a slide.	Example of slides with different list types.
Using Tables in PowerPoint	Inserting and editing tables.	- Inserting and editing tables. - Selecting and modifying rows and columns. - Changing column width and row height.	- Create a table and modify the layout (add/delete rows, adjust sizes). - Input data and format the table in a slide.	- PowerPoint table examples - Step-by-step guide for editing tables.

Inserting and Editing Charts	• Creating and editing built-in charts.	• Inserting column, bar, line, and pie charts. • Editing chart data and modifying chart titles. • Selecting and formatting charts.	• Insert a chart using provided data. • Edit the chart to represent different information and styles.	• Chart template examples • Sample data.
Working with Organization Charts and Graphical Objects	• Organization charts, adding images, graphical objects.	• Creating and modifying organization charts. • Inserting and resizing graphical objects (images, drawings).	• Build an organization chart for a hypothetical company. • Insert a picture or drawing and resize it within the slide.	• PowerPoint organization chart tool • Image editing software.

4.4. FORMATIVE ASSESSMENT

Student Name:	Date:	
Learning Outcomes	Criteria for Assessment	Assessment (✓ Yes / ✗ No / N/A)
ILO1: Text Handling	• Correct use of placeholders and outline view for text entry. • Ability to copy, move, and delete text accurately. • Consistency in following good practices for text presentation (concise, bullet points).	☐ Yes ☐ No ☐ N/A
ILO2: Text Formatting	• Correct application of font changes (size, type, bold, italic, underline). • Accurate alignment and color changes for text. • Proper use of text case changes.	☐ Yes ☐ No ☐ N/A
ILO3: Lists Management	• Proper creation and formatting of bulleted and numbered lists. • Correct adjustments to line spacing, indentation, and list style.	☐ Yes ☐ No ☐ N/A
ILO4: Tables	• Accurate insertion and modification of tables (rows, columns). • Correct adjustment of table layout (column	☐ Yes ☐ No ☐ N/A

	width, row height).	
ILO5: Charts	• Accurate creation of charts (column, bar, pie, line). • Correct data entry and chart title editing. • Appropriate chart customization for clarity.	☐ Yes ☐ No ☐ N/A
ILO6: Organization Charts and Graphical Objects	• Correct creation and modification of an organization chart. • Effective use of graphical objects (image placement, resizing).	☐ Yes ☐ No ☐ N/A

5. LEARNING UNIT 5: ADVANCED EXCEL PROCESSING

Advanced Excel Processing

Duration: 5 hours

5.1. INTRODUCTION

This unit advances students' skills in Excel, focusing on data analysis, formulas, functions, automation, and visualization.

5.2. UNIT LEARNING OUTCOMES

By the end of this unit, students should be able to:

- ➡ Use advanced formulas (VLOOKUP, IF statements, pivot tables).
- ➡ Analyze large datasets with sorting, filtering, and conditional formatting.
- ➡ Automate tasks using macros.
- ➡ Create professional charts to visualize data.
- ➡ Optimize spreadsheets for printing and sharing.

5.3. UNIT 5: LESSON PLANNING

Lesson	Key Points	Content	Suggested Learning Activities	Resources
Introduction to Formulas and Functions	• What is a formula? • What is a function? • Types of formulas and functions.	• Overview of formulas and functions in Excel. • Introduction to cell references: relative and absolute.	• Have students create simple formulas with addition and subtraction using cell references.	• Excel workbook template with sample data

		Basic arithmetic formulas (addition, subtraction, multiplication, division).	Practice changing cell references from relative to absolute.	
Arithmetic Formulas	- Creating basic arithmetic formulas. - Using operators: +, -, *, /.	- How to perform calculations with Excel using arithmetic formulas. - Practice applying basic arithmetic operators in formulas.	- Create formulas to calculate totals, averages, and differences using a dataset. - Correct errors and discuss why certain formulas return errors (#DIV/0!, #NAME?).	Excel sheet with practice data.
Functions (Sum, Average, Min, Max)	- Introduction to common functions: SUM, AVERAGE, MIN, MAX. - Difference between a function and a formula.	- How to apply the SUM, AVERAGE, MIN, and MAX functions. - Using these functions for data analysis.	- Practice using SUM, AVERAGE, MIN, and MAX with real-world data (e.g., class test scores). - Compare the use of functions with manual calculations.	Excel template with sample numbers for calculation.
Logical Functions and IF Statements	- Introduction to logical functions. - Using the IF function for decision-making in Excel. - Comparison operators: =, >, <.	- Understanding how the IF function works. - Using comparison operators in logical formulas.	- Create an IF statement to categorize students as "Passed" or "Failed" based on test scores. - Explore nested IF statements.	Excel file with data for decision-making scenarios.
Cell Formatting and Borders	- Cell formatting options: decimal places, number separators. - Applying borders and alignment.	- How to format cells to display data in specific formats (e.g., number formatting, date formatting). - Understanding border and alignment options.	- Format a list of data with appropriate number formats, date formats, and borders. - Merge cells and center headers.	Excel worksheet with a dataset for formatting exercises.
Creating and Editing Charts	- Introduction to creating charts in Excel. - Types of charts: bar, line, pie, etc. - Editing and formatting charts.	- How to create basic charts from data. - Customizing chart elements (titles, labels, colors).	- Create a chart (e.g., bar chart or pie chart) from a set of data. - Customize the chart by changing colors, titles, and other elements.	Excel sheet with data for chart creation.

5.4. FORMATIVE ASSESSMENT

Student Name:	Date:	
Learning Outcomes	Criteria for Assessment	Assessment (✓ Yes / ✗ No / N/A)
ILO1: Create formulas using cell references and understand formulas vs. functions.	• Correct use of cell references and formulas.	☐ Yes ☐ No ☐ N/A
ILO2: Apply basic arithmetic operations and troubleshoot formula errors.	• Accuracy in arithmetic calculations. • Error identification.	☐ Yes ☐ No ☐ N/A
ILO3: Use functions for basic calculations and analyze data with functions.	• Correct application of SUM, AVERAGE, MIN, MAX.	☐ Yes ☐ No ☐ N/A
ILO4: Use IF functions with comparison operators and apply logic in formulas.	• Proper use of the IF function and comparison operators.	☐ Yes ☐ No ☐ N/A
ILO5: Format cells and apply borders and adjust alignment and cell appearance.	• Correct formatting (numbers, dates, alignment, borders).	☐ Yes ☐ No ☐ N/A
ILO6: Create, edit various charts and customize chart elements (titles, labels, colors).	• Ability to create and customize charts accurately.	☐ Yes ☐ No ☐ N/A

6. LEARNING UNIT 6: HEALTH AND GREEN IT

Health and Green IT

Duration: 4 hours

6.1. INTRODUCTION

This unit educates students on cybersecurity threats, responsible IT usage, and sustainability in computing.

6.2. UNIT LEARNING OUTCOMES

By the end of this unit, students should be able to:

- ➡ Identify cybersecurity threats (malware, phishing, hacking).
- ➡ Apply best practices for data protection.
- ➡ Understand legal and ethical considerations in IT.
- ➡ Implement eco-friendly IT practices (energy conservation, e-waste management).

6.3. UNIT 6: LESSON PLANNING

Lesson	Key Points	Content	Suggested Learning Activities	Resources
Health Risks of Prolonged Computer Use	- Common health issues (eye strain, back pain, repetitive strain injuries) - The 20-20-20 rule - Posture awareness	- Define health risks from extended computer use - Explain symptoms and prevention strategies - Importance of breaks and physical activity	- Classroom discussion with real-life examples - Posture-check activity in class - Poster creation: "Stay Healthy at Your Desk!"	- Diagrams of correct posture (printouts or digital) - YouTube video: "Healthy Computer Habits for Kids" - Projector/Smartboard
Ergonomic Best Practices	- Ergonomics: definition and purpose - Workstation setup (chair height, monitor position, keyboard angle)	- Step-by-step demonstration of an ergonomic workspace - Importance of a good chair, proper desk height, and monitor distance	- Class demo: rearrange a sample workstation - Students draw or design their "perfect ergonomic workstation" - Group activity: checklist for proper setup	- Ergonomic workstation charts - Measuring tape and classroom furniture - Sample checklist (printed or digital)
Golden Rules and Computer Safety	Avoiding danger: cables, food & drinks near devices, safe handling of plugs	- Do's and Don'ts when using computers - Key safety practices in classrooms and	"Spot the mistakes" images or activity sheets - Role-play:	"Spot the mistakes" images or activity sheets - Role-play:

	• Safe use of the internet (basic introduction) • Respecting break times to avoid fatigue	homes	demonstrating safe vs unsafe practices • Class safety poster creation	demonstrating safe vs unsafe practices • Class safety poster creation
Energy Saving Practices	• Why saving energy matters • Turning off devices • Sleep mode, backlight reduction, auto-shutdown settings	• Practical ways to reduce energy consumption in ICT use • How to adjust energy-saving settings	• Students practice changing settings on devices • Group challenge: find 3 energy-saving features on their computer • Class energy pledge: each student writes one action they will take	• Access to classroom computers or tablets • Printed instructions for settings adjustments • Projector for demonstration
Understanding E-Waste (E-Trash)	• What is e-waste? • Dangers of improper disposal • The life cycle of electronic devices	• How devices become e-waste • Environmental impact • The need for safe recycling	• Video on e-waste pollution • Group discussion: where does our old tech go? • Brainstorm: 5 ways to reduce e-waste	• Video (short documentary or YouTube clip) • Infographics of the e-waste cycle • Poster paper and markers for brainstorming results
Recycling and Green IT Initiatives	• Ways to reduce e-waste: donating, recycling, reusing • Environmental benefits of Green IT • Examples of Green IT initiatives (locally and globally)	• How to recycle responsibly • The concept of Green IT and examples: energy-efficient devices, cloud services, paperless practices	• Class project: design a Green IT campaign • Students create a recycling plan for their school or home • Visit a local recycling center or virtual tour	• Recycling center contact (if possible) • Online video tours of recycling facilities • Projector, art supplies for campaign posters

6.4. FORMATIVE ASSESSMENT

Student Name:	Date:	
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Learning Outcomes	Criteria for Assessment	Assessment (✓ Yes / ✗ No / N/A)
ILO1: Recognize health risks of prolonged computer use	- Identifies at least three health risks (eye strain, back pain, RSI) - Describes prevention methods (breaks, posture, exercises)	☐ Yes ☐ No ☐ N/A
ILO2: Apply ergonomic best practices for workstation setup	- Demonstrates correct sitting posture - Arranges workstation according to ergonomic guidelines (monitor height, chair positioning)	☐ Yes ☐ No ☐ N/A
ILO3: Follow golden rules and safety procedures when working with computers	- Lists at least five golden rules (e.g., no food/drinks near computer, cable management) - Shows safe use during classroom activities	☐ Yes ☐ No ☐ N/A
ILO4: Practice energy-saving habits in IT usage	- Adjusts settings for auto-shutdown, sleep mode, and backlight - Explains at least two reasons for saving energy with devices	☐ Yes ☐ No ☐ N/A
ILO5: Understand what e-waste is and its environmental impact	- Defines e-waste - Explains negative environmental effects of improper disposal - Suggests responsible disposal methods	☐ Yes ☐ No ☐ N/A
ILO6: Identify and suggest ways to reduce e-waste and apply Green IT practices	- Lists at least three ways to reduce e-waste (reuse, donate, recycle) - Describes at least one local or global Green IT initiative	☐ Yes ☐ No ☐ N/A