

Bharathidasan University, Centre for Differently Abled Persons

Certificate in Office Automation and Assistive Technology (COAAT)

Curriculum of

**CERTIFICATE IN OFFICE AUTOMATION
AND
ASSISTIVE TECHNOLOGY**

Programme Code: 1COAAT

Offered by

Centre for Differently Abled Persons

Bharathidasan University

Tiruchirappalli-620 023

Tamil Nadu, India



**CERTIFICATE IN OFFICE AUTOMATION
AND
ASSISTIVE TECHNOLOGY**

(For Students with Sensory Disabilities, Cognitive Disabilities, and
Multiple Disabilities)

For the candidates admitted from the academic year
2026-2027 onwards

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Certificate in Office Automation and Assistive Technology (COAAT)

1. PREAMBLE

The Certificate in Office Automation and Assistive Technology (COAAT) is formulated to promote inclusive digital education and enhance the functional, technological, and vocational capabilities of learners with disabilities. The programme adopts an accessible, learner-centred approach that supports independence, participation, and equal opportunities in a technology-enabled society.

2. ABOUT THE PROGRAMME

The COAAT is a one-year programme offering structured learning in computer operations, office applications, assistive technology, digital safety, and workplace skills. Through practical and activity-based training, learners develop competencies for using digital tools effectively in academic, personal, and employment settings. The programme facilitates digital independence, employability, self-employment, and progression to further learning.

3. REGULATIONS OF THE PROGRAMME

Duration	The duration of the programme will be of 1-year (2 semesters)
Medium of Instruction	The medium of instruction will be Bilingual (Tamil & English).
Number of Intake	The maximum number of student's enrolment for the programme will be 10 and shall be increased based on need and approval from the University.
Eligibility	This programme is for Students with Sensory Disabilities (Blindness, Low Vision, Deaf, Hard of Hearing), Cognitive Disabilities (Intellectual Disability, Cerebral Palsy, Specific Learning Disabilities, Autism Spectrum Disorder) and Multiple Disabilities. The candidates shall be required to have passed in 8 th Standard Examination conducted by the Government of Tamil Nadu or an equivalent examination of any other statutory Board (UDID certificate is mandatory).

a) Attendance Requirements for Examination

Attendance Percentage	Eligibility / Requirement
75% and above	Students are eligible to appear for the semester examination.
65%–74%	Students may apply for condonation of shortage of attendance in the prescribed form along with the prescribed fee.
50%–64%	Students may apply for condonation of shortage of attendance in the prescribed form along with the prescribed fee and a valid Medical Certificate.
Below 50%	Students are not eligible to appear for the semester examination and shall be required to re-do the concerned semester(s) after the completion of the programme.

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b) Evaluation

Evaluation for each Course shall be done by a Continuous Internal Assessment (CIA) by the Course teacher concerned as well as by an end semester examination and will be consolidated at the end of the semester as per university norms.

i) Passing Minimum

	<i>Continuous Internal Assessment (CIA)</i>	<i>Minimum Passing Marks</i>	<i>University Examination (UE)</i>	<i>Minimum Passing Marks</i>
Theory	40% out of 30 marks	12	40% out of 70 marks	28
Practical	40% out of 40 marks	16	40% out of 60 marks	24

ii) Passing Condition:

A candidate shall be declared to have passed a course only if the candidate secures the prescribed minimum marks in both Continuous Internal Assessment (CIA) and University Examination (UE).

iii) Reappearance Condition:

A candidate who fails in the **CIA** shall be permitted two chances to reappear through Tests and Assignments in subsequent semesters. A candidate who fails in the **University Examination** shall be permitted to reappear for the failed course in the subsequent University Examination, as per the University rules and regulations in force.

iv) Eligibility for the Award of Certificate

A candidate shall be declared eligible for the award of the Certificate only upon the successful completion of all the courses prescribed under the Certificate Programme and fulfillment of all other academic and regulatory requirements stipulated by the University.

4. REVISION OF REGULATIONS AND CURRICULUM

The University reserves the right to revise, amend, or modify the **Regulations and Curriculum** from time to time, as deemed necessary.

5. PROGRAMME EDUCATIONAL OBJECTIVES (PEOs)

The programme aims to enable learners to:

PEO1: Develop foundational digital and office automation competencies for effective academic, personal, and workplace applications.

PEO2: Enable learners to use assistive and accessible technologies independently to enhance productivity and participation.

PEO3: Foster employability, professional behaviour, and lifelong learning for meaningful participation in vocational and employment opportunities.

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6. PROGRAMME OUTCOMES (POs)

On successful completion of the Certificate in Office Automation and Assistive Technology, learners will be able to:

- PO1:** Demonstrate fundamental knowledge and practical skills in computer operations and office applications.
- PO2:** Apply assistive technologies and digital tools to perform routine academic, personal, and workplace tasks.
- PO3:** Demonstrate digital safety, workplace etiquette, communication, and employability skills in professional environments.

7. PROGRAMME SPECIFIC OUTCOMES (PSOs)

On successful completion of the programme, learners will be able to:

- PSO1:** Operate computers and common office applications for routine documentation and information management.
- PSO2:** Create and manage documents, spreadsheets, and presentations using appropriate digital tools.
- PSO3:** Use suitable assistive technologies and accessibility features according to individual needs.
- PSO4:** Apply responsible internet practices, digital safety, and ethical use of online resources.
- PSO5:** Demonstrate workplace readiness and functional digital competencies for employment, vocational activities, and further learning.

8. PEO–PO–PSO ALIGNMENT MATRIX

PEOs / POs & PSOs	PO1	PO2	PO3	PSO1	PSO2	PSO3	PSO4	PSO5
PEO1	✓	✓		✓	✓	✓		✓
PEO2	✓	✓	✓	✓	✓	✓	✓	✓
PEO3		✓	✓	✓	✓	✓	✓	✓

Legend: ✓ – Direct alignment

9. BLOOM'S TAXONOMY LINKAGE WITH PROGRAMME OUTCOMES

The Programme Outcomes are aligned with the revised **Bloom's Taxonomy** to promote progressive development from foundational knowledge to practical application and independent performance.

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Programme Outcome	Bloom's Level	Cognitive Process	Key Action Verbs
PO1: Demonstrate fundamental knowledge and practical skills in computer operations and office applications.	K3 – Apply	Apply	Demonstrate, operate, use, perform, implement
PO2: Apply assistive technologies and digital tools to perform routine academic, personal, and workplace tasks.	K3 – Apply	Apply	Apply, use, select, operate, demonstrate
PO3: Demonstrate digital safety, workplace etiquette, communication, and employability skills in professional environments.	K3–K4 – Apply–Analyse	Apply and Analyse	Demonstrate, follow, communicate, analyse, solve

Revised Bloom's Taxonomy

Level	Cognitive Process	Application in the Programme
K1	Remember	Identify, recall, recognise
K2	Understand	Explain, describe, classify
K3	Apply	Demonstrate, perform, use, implement
K4	Analyse	Differentiate, compare, examine, analyse
K5	Evaluate	Assess, judge, check, justify
K6	Create	Design, develop, produce, plan

Programme-Level Progression

Remember → Understand → Apply → Analyse → Evaluate → Create

The programme places greater emphasis on **K3 – Apply**, supported by **K4 – Analyse**, because vocational competence is demonstrated primarily through practical performance, task completion, problem-solving and application of skills in real-life and workplace situations.

10. GRADUATE ATTRIBUTES

On successful completion of the programme, learners are expected to demonstrate:

- Digital Competence** – Effectively use computers, office applications, and digital tools.
- Assistive Technology Skills** – Use appropriate assistive and accessibility technologies independently.
- Communication Skills** – Communicate appropriately in academic, personal, and workplace settings.
- Workplace Readiness** – Demonstrate professional etiquette, safety, discipline, and responsible work practices.
- Problem-Solving Skills** – Apply appropriate digital tools to accomplish routine tasks and solve practical problems.
- Digital Citizenship** – Practise safe, ethical, responsible, and secure use of digital resources.

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7. **Independence and Confidence** – Perform technology-enabled tasks with confidence and greater independence.
8. **Employability and Lifelong Learning** – Demonstrate readiness for employment, vocational opportunities, and continued skill development.

11. EXPECTED JOB ROLES / CAREER OPPORTUNITIES

On successful completion of the programme, learners may pursue entry-level opportunities such as:

- Computer Operator
- Data Entry Operator
- Office Assistant
- Junior Office Assistant
- Documentation Assistant
- Back-Office Assistant
- Digital Content Assistant
- Administrative Support Assistant
- Records and File Management Assistant
- Customer Support Assistant
- Assistive Technology Support Assistant
- Computer Lab Assistant

The programme also provides a foundation for **self-employment, freelancing, vocational training, and higher education** in related areas.

12. PEDAGOGICAL METHODS

The programme adopts inclusive, learner-centered, accessible, and practice-oriented teaching methods to address diverse learning needs. The following methods are recommended:

1. **Demonstration and Guided Practice** – Step-by-step demonstration followed by supervised practice.
2. **Activity-Based Learning** – Learning through structured activities, exercises, and practical tasks.
3. **Hands-on Laboratory Training** – Practical training in computer applications, office automation, and assistive technologies.
4. **Individualized Instruction** – Adaptation of teaching pace, materials, and support according to individual needs.
5. **Multimodal Teaching** – Use of text, visuals, audio, demonstrations, captions, and accessible digital resources.
6. **Experiential Learning** – Application of skills through real-life and workplace-oriented tasks.
7. **Collaborative Learning** – Peer learning, group activities, and supported practice.
8. **Task-Based Assessment** – Evaluation through practical exercises, assignments, demonstrations, and performance-based activities.

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13. CURRICULUM STRUCTURE

Sem	Course Code	Title of the Course	In hrs/ week	Credit	Marks		
					CIA	ESE	TOTAL
I	26COAAT101	Fundamentals of Computer and Operating System	8	6	30	70	100
	26COAAT102	Windows and Word Processing Lab	8	5	40	60	100
	26COAAT103	Assistive Technology Lab	8	5	40	60	100
	26COAAT104	Basic Academic Foundation for Digital Life	6	4	30	70	100
	TOTAL		30	20			400
II	26COAAT201	Ethics of Internet Usage	8	6	30	70	100
	26COAAT202	Spreadsheets Lab	8	5	40	60	100
	26COAAT203	Presentation Lab	8	5	40	60	100
	26COAAT204	Workplace Safety, Etiquette and Professional Skills	6	4	30	70	100
	TOTAL		30	20			400
GRAND TOTAL				40			800

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Semester-I

FUNDAMENTALS OF COMPUTER AND OPERATING SYSTEM

Course Code : 26COAAT101

Credits : 6

Max. Marks : 100

Internal Marks : 30

External Marks : 70

Course Objectives:

- To understand the fundamental concepts, characteristics, components, and applications of computer systems.
- To acquire knowledge of computer hardware, software, input/output devices, memory, and storage systems.
- To understand the basic concepts, functions, types, and importance of operating systems in computer operations.
- To develop practical skills in using an operating system, managing files and folders, and utilizing basic system and accessibility features.

UNIT I

Introduction to Computers – Characteristics and Applications of Computers – Evolution and Generations of Computers – Classification and Types of Computers – Basic Components of a Computer System – Input, Processing, Output, and Storage – Applications of Computers in Education, Business, Communication, and Daily Life.

UNIT II

Computer Hardware Components^{1,2} – Central Processing Unit (CPU) – Memory and Storage Devices – Primary and Secondary Memory – Input and Output Devices – Introduction to Software – Types of Software – System Software and Application Software – Introduction to Utility Software.

UNIT III

Introduction to Operating Systems – Need and Importance of Operating Systems – Functions of an Operating System – Types of Operating Systems – User Interface – Graphical User Interface (GUI) and Command-Line Interface (CLI) – Desktop Environment – Basic Operating System Operations⁵.

UNIT IV

Concept of Files and Folders – Creating and Organizing Files and Folders – Copying, Moving, Renaming, and Deleting Files – Storage Devices and Their Uses – File Extensions and Types – Basic File Organization – Introduction to Backup and Data Storage⁷.

UNIT V

Basic System Settings – User Accounts and Password Management – Device and Application Settings – Basic Security Features – Software Updates – Introduction to Accessibility Features – Keyboard Shortcuts – Magnifier, Narrator, and Other Ease of Access Tools⁸.

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UNIT VI

Practical Skills & Daily Living - Using assistive computers for independent living, office tasks, and personal growth through hands-on practice, workshops, and class discussions⁵.

Pedagogical method used:

¹Demonstration and Guided Practice

²Activity-Based Learning

⁵Multimodal Teaching

⁷Collaborative Learning

⁸Task-Based Assessment

Materials for Study and References:

Text Books:

1. Albert M. Cook, Janice M. Polgar, Pedro Encarnação, & Emma Smith, “Assistive Technologies: Principles and Practice”, Elsevier, 6th Edition, 2024.
2. Diane P. Bryant & Brian R. Bryant, “Assistive Technology for People with Disabilities”, Pearson, 2nd Edition, 2020.
3. Anita Goel, “Computer Fundamentals”, Pearson Education India, 3rd Edition, 2023.

Reference Books:

1. Halder, Santoshi, and Sanju Saha, editors. “The Routledge Handbook of Education Technology”. Routledge, 2023.
2. Morley, Deborah, and Charles S. Parker. “Understanding Computers: Today and Tomorrow: Comprehensive”, 16th ed., Cengage Learning, 2017.

E-Resources:

1. <https://openlibrary.org/search?q=computer+fundamental>
2. <https://www.readingrockets.org/topics/learning-disabilities/articles/assistive-technology-kids-learning-disabilities-overview>
3. https://onlinecourses.swayam2.ac.in/e-learning/preview/cec26_cs12

Course Outcomes:

On completion of the course the students will be able to:

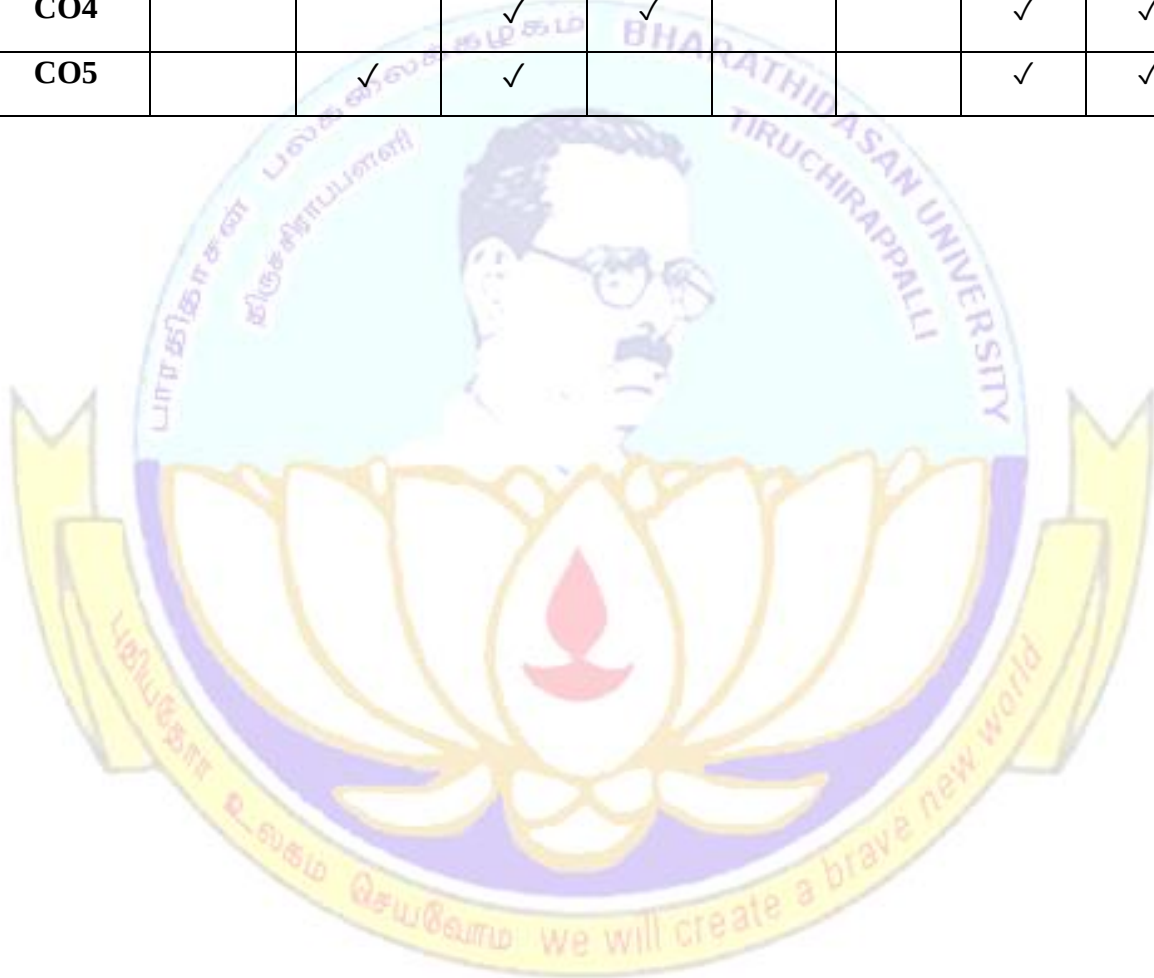
CO1	K4	Explain the fundamental concepts, characteristics, components, and applications of computer systems.
CO2	K5	Describe the concepts, functions, types, and role of operating systems in managing computer resources.
CO3	K3	Apply fundamental digital literacy skills using word processing, spreadsheets, presentation software, internet, and e-mail applications.
CO4	K1	Identify and differentiate various computer hardware components, software, input/output devices, memory, and storage devices.
CO5	K5	Utilize appropriate assistive hardware, software, and accessibility features to support communication, learning, accessibility, and independent functioning.

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Mapping with Program Outcomes and Program Specific Outcomes:

CO/ PO&PSO	PO1	PO2	PO3	PSO1	PSO2	PSO3	PSO4	PSO5
CO1	✓	✓			✓	✓		
CO2		✓			✓	✓		
CO3		✓	✓			✓	✓	
CO4			✓	✓			✓	✓
CO5		✓	✓				✓	✓



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Semester-I

WINDOWS AND WORD PROCESSING LAB

Course Code : 26COAAT102

Credits : 5

Max. Marks : 100

Internal Marks : 40

External Marks : 60

Course Objectives:

- To perform basic Windows operations, including navigating the desktop, managing files and folders, and using system settings.
- To create, save, open, edit, and organize documents using word processing software.
- To apply text and paragraph formatting, page layout, tables, and images to prepare well-structured documents.
- To practice the use of accessibility and assistive features, including keyboard shortcuts, voice typing, text-to-speech, and accessibility checkers.

EXERCISES^{2,3,5,6,8}:

1. **Windows Desktop Operations** – Explore the desktop, Start menu, taskbar, and application windows.
2. **File and Folder Management** – Create, rename, copy, move, and delete files and folders.
3. **Creating and Saving Documents** – Create, save, open, and close documents using Word Application.
4. **Editing Text** – Practice selecting, copying, cutting, pasting, and finding/replacing text.
5. **Text and Paragraph Formatting** – Apply fonts, styles, alignment, spacing, bullets, and numbering.
6. **Page Layout and Document Setup** – Set margins, orientation, page size, and page breaks.
7. **Creating and Formatting Tables** – Create tables and perform basic formatting and editing.
8. **Inserting Pictures and Shapes** – Insert and format pictures, shapes, and other objects in a document.
9. **Preparing a Professional Document** – Create a letter, notice, résumé using appropriate formatting.
10. **Accessibility Features in Windows and MS Word** – Practice keyboard shortcuts, voice typing, text-to-speech, accessibility checker, and other accessibility features

Pedagogical method used:

²Activity-Based Learning

³Hands-on Laboratory Training

⁵Multimodal Teaching

⁶Experiential Learning

⁸Task-Based Assessment

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Course Outcomes:

On completion of the course the students will be able to:

CO1	K2	Perform basic Windows operations and manage files and folders effectively.
CO2	K3	Create, edit, save, and organize documents using word processing software.
CO3	K4	Apply text and paragraph formatting to prepare well-structured documents.
CO4	K5	Create and format tables, images, and other document elements using appropriate page layout features.
CO5	K5	Utilize accessibility and assistive features such as keyboard shortcuts, voice typing, text-to-speech, and accessibility checkers.

Mapping with Program Outcomes and Program Specific Outcomes:

CO/ PO&PSO	PO1	PO2	PO3	PSO1	PSO2	PSO3	PSO4	PSO5
CO1	✓			✓	✓			
CO2	✓	✓			✓	✓		
CO3		✓	✓			✓	✓	
CO4		✓	✓				✓	✓
CO5		✓	✓				✓	✓

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Semester-I

ASSISTIVE TECHNOLOGY LAB

Course Code : 26COAAT103

Credits : 5

Max. Marks : 100

Internal Marks : 40

External Marks : 60

Course Objectives:

- To understand the basic concepts, standards, and principles of accessibility, assistive technology, and inclusive design for persons with disabilities.
- To develop practical skills in configuring and using assistive hardware, software, accessibility tools, and adaptive interfaces.
- To gain proficiency in using screen readers, text-to-speech, speech recognition, alternative input devices, and other accessibility features.
- To develop skills in evaluating, selecting, and adapting assistive technologies and accessible digital environments according to individual needs and functional requirements.

EXERCISES^{2,3,5,6,8}:

1. **Windows Accessibility Features** – Configure Magnifier, Narrator, Contrast, and other accessibility settings.
2. **Screen Reader Navigation** – Navigate the desktop, applications, files, folders, and web pages using a screen reader.
3. **Screen Magnification** – Use magnification and display enhancement tools for improved visual accessibility.
4. **Text-to-Speech Tools** – Access and listen to digital documents and web content using text-to-speech applications.
5. **Speech Recognition and Voice Typing** – Use voice input for text entry and basic computer operations.
6. **Alternative Input Devices** – Practice using alternative keyboards, mice, on-screen keyboards, and adaptive input devices.
7. **Keyboard Accessibility Features** – Use keyboard shortcuts, Sticky Keys, Filter Keys, and other accessibility options.
8. **Accessible Document Creation** – Create accessible documents using headings, alternative text, appropriate formatting, and accessibility checkers.
9. **Accessible Web Navigation** – Access and navigate web content using keyboard navigation and accessibility tools.
10. **Assistive Technology**– Identify suitable low cost assistive hardware and open source software for learning.

Pedagogical method used:

²Activity-Based Learning

³Hands-on Laboratory Training

⁵Multimodal Teaching

⁶Experiential Learning

⁸Task-Based Assessment

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Course Outcomes:

On completion of the course the students will be able to:

CO1	K1	Configure basic accessibility features in operating systems and digital devices
CO2	K3	Demonstrate the use of screen readers, screen magnifiers, and text-to-speech tools.
CO3	K4	Apply speech recognition, voice typing, and alternative input methods for computer access.
CO4	K5	Create and access accessible digital documents and web content using appropriate accessibility tools
CO5	K5	Identify suitable assistive technologies to support learning.

Mapping with Program Outcomes and Program Specific Outcomes:

CO/ PO&PSO	PO1	PO2	PO3	PSO1	PSO2	PSO3	PSO4	PSO5
CO1	✓	✓		✓	✓			
CO2	✓	✓			✓	✓		
CO3		✓	✓		✓	✓		
CO4			✓			✓	✓	✓
CO5			✓				✓	✓

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Semester-I

BASIC ACADEMIC FOUNDATION FOR DIGITAL LIFE

Course Code : 26COAAT104

Credits : 4

Max. Marks : 100

Internal Marks : 30

External Marks : 70

Course Objectives:

- To introduce essential functional literacy, basic numeracy, and digital skills required for daily life.
- To strengthen reading, comprehension, writing, and basic calculation skills using appropriate assistive tools.
- To develop awareness of digital safety, digital identity, safe online communication, and basic e-banking.
- To develop practical life skills, including effective communication, personal organization, decision-making, and independent use of everyday services and resources.

UNIT I

Functional Reading and Writing – Vocabulary for Daily and Digital Life – Reading and Understanding Instructions, Messages, Notices, and Forms¹ – Basic Written Communication – Digital Symbols, Icons, and Common Terminology.

UNIT II

Numbers and Basic Arithmetic – Money Management – Time and Calendar – Practical Calculations^{2,4} – Introduction to Digital Tools for Calculations – Use of Calculator Applications and Basic Digital Records.

UNIT III

Introduction to Assistive Technology – Concept, Need and Importance – Types and Categories of Assistive Technologies – Assistive Hardware and Software – Applications of Assistive Technology for Persons with Disabilities – Role and Benefits of Assistive Technology in Education, Employment, Communication, and Daily Living⁵.

UNIT IV

Internet Fundamentals – Web Browsers and Search Engines – E-mail and Digital Messaging – Video Communication – Online Forms – Digital Identity and Accounts – E-Governance Services – Introduction to Digital Payments and Online Banking⁷.

UNIT V

Cyber Safety and Digital Security⁸ – Password and Account Protection – Privacy and Personal Information – Identifying Online Scams and Fraud – Safe use of Social Media – Responsible Online Communication – Digital Citizenship and Ethical Use of Technology.

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UNIT VI

Hands-on activities on personal password creation, safe web search drills, daily schedule creation using digital calendars, and interactive online safety scenarios – Practical Evaluation – Class Discussions⁸

Pedagogical Method Used:

¹Demonstration and Guided Practice

²Activity-Based Learning

⁴Individualized Instruction

⁵Multimodal Teaching

⁷Collaborative Learning

⁸Task-Based Assessment

Materials for Study and Reference:

Text Books

1. Ramesh, G. “*Digital Literacy: A Practical Guide to Digital Skills*”. 1st Edition, New Delhi, 2022.
2. V. Rajaraman. “*Introduction to Information Technology*”, 4th Edition, PHI Learning, 2022.

Reference Books:

1. Pavan Duggal. “*Cyber Law and Cyber Crimes*”. LexisNexis, 2021.
2. K. L. James. “*The Internet: A User's Guide*”. 4th Edition, PHI Learning, 2021.
3. R. K. Singh. “*Assistive Technology for Persons with Disabilities*”. 1st Edition, New Delhi, 2022.

E - Resources:

1. https://ciet.ncert.gov.in/cyber-safety-security?utm_source
2. https://onlinecourses.swayam2.ac.in/e-learning/preview/aic19_ge01

Course Outcomes:

On completion of the course the students will be able to:

CO1	K3	Demonstrate functional literacy and communication skills required for academic, personal, and digital contexts.
CO2	K2	Apply basic numeracy skills and digital tools to perform everyday calculations and manage practical tasks.
CO3	K3	Operate computers and digital devices effectively, including basic file management and accessibility features.
CO4	K3	Utilize the internet, digital communication platforms, online services, and basic digital financial services responsibly.
CO5	K4	Apply appropriate cyber safety, privacy, and responsible digital citizenship practices in everyday digital life.

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Mapping with Program Outcomes and Program Specific Outcomes:

CO/ PO&PSO	PO1	PO2	PO3	PSO1	PSO2	PSO3	PSO4	PSO5
CO1	✓	✓		✓	✓			
CO2		✓			✓	✓		
CO3	✓					✓	✓	
CO4		✓					✓	✓
CO5		✓	✓				✓	✓



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Semester-II

ETHICS OF INTERNET USAGE

Course Code : 26COAAT201

Credits : 6

Max. Marks : 100

Internal Marks : 30

External Marks : 70

Course Objectives:

- To understand the fundamental principles and importance of ethical Internet usage and responsible digital behaviour.
- To develop awareness of digital privacy, information security, and the responsible management of personal information.
- To promote ethical and respectful practices in online communication, social media, and digital interactions.
- To develop responsible digital citizenship and ethical decision-making skills for safe and inclusive participation in the digital environment.

UNIT I

Concept, Nature, and Significance of Internet Ethics – Ethical Principles in the Digital Environment – Responsible and Accountable Use of the Internet – Rights and Responsibilities of Internet Users – Ethical Decision-Making in Cyberspace – Values of Honesty, Respect, and Accountability in Online Activities^{1,2}.

UNIT II

Concept and Importance of Digital Privacy – Protection of Personal Information and Data – Digital Footprints and Online Identity – Password and Account Security – Responsible Information Sharing – Privacy Settings and Data Protection Practices – Awareness of Common Online Security Threats^{4,5}.

UNIT III

Principles of Netiquette – Ethical Use of E-mail, Messaging, and Social Media Platforms – Respectful, Inclusive, and Responsible Online Communication⁸ – Cyber bullying and Online Harassment – Responsible Social Media Behaviour – Consequences and Implications of Unethical Online Conduct.

UNIT IV

Fundamentals of Intellectual Property Rights – Copyright and Digital Content – Plagiarism and Academic Integrity – Software Piracy and Illegal Downloading – Ethical Use of Digital Resources – Responsible Use and Sharing of Images, Videos, Music, and Online Content – Open Educational Resources and Creative Commons⁷.

UNIT V

Concept and Principles of Digital Citizenship – Digital Rights and Responsibilities – Identification of Misinformation and Fake News – Ethical Decision-Making in Digital Spaces – Responsible Participation in Online Communities – Safe, Inclusive, and Ethical Use of Digital Technologies⁸ – Promotion of Positive Digital Citizenship.

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UNIT VI

Interactive scenario-based drills: identifying spam emails, practicing safe web searches, setting up privacy controls, and reporting online threats – Practical Assessment – Group Discussions⁸.

Pedagogical Method Used:

¹Demonstration and Guided Practice

²Activity-Based Learning

⁴Individualized Instruction

⁵Multimodal Teaching

⁷Collaborative Learning

⁸Task-Based Assessment

Materials for Study and Reference:

Text Books:

1. Pavan Duggal. “Cyber Law and Cyber Crimes”, 1st Edition, LexisNexis, 2021.
2. V. Rajaraman. “Introduction to Information Technology”. 4th Edition, PHI Learning, 2022.

Reference Books:

1. S. S. Srivastava. “Cyber Laws”. Eastern Book Company, 2021.
2. Pavan Duggal. “Cyberlaw: The Indian Perspective”. Universal Law Publishing, 2020.
3. V. K. Jain. “Information Technology and Cyber Laws”. Cyber Tech Publications, 2021.

E- Resources:

1. https://ciet.ncert.gov.in/cyber-safety-security?utm_source
2. <https://www.unicef.org/stories/how-to-stop-cyberbullying>

Course Outcomes:

On completion of the course the students will be able to:

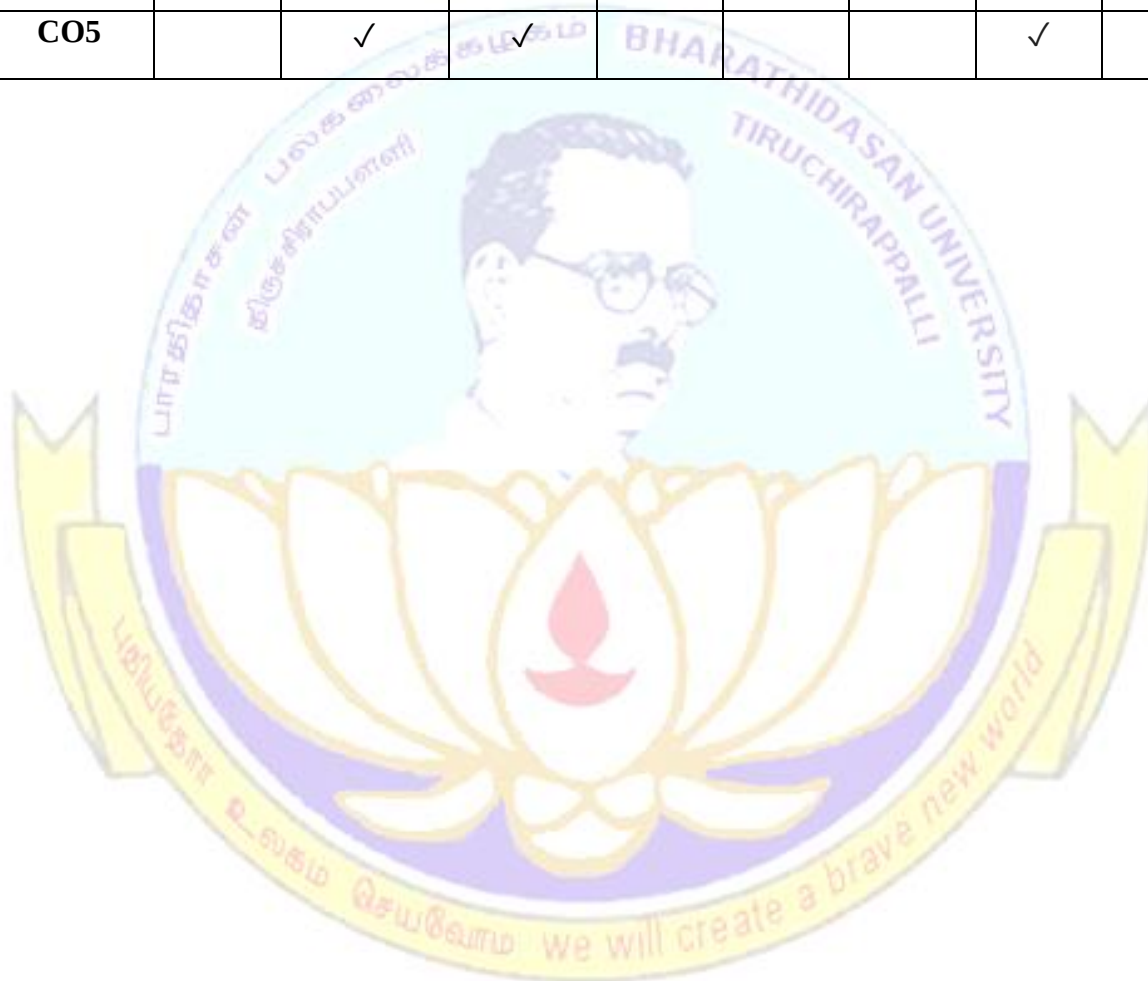
CO1	K1	Explain the fundamental principles of Internet ethics and responsible online behaviour.
CO2	K2	Apply appropriate practices for protecting digital privacy, personal information, and online accounts.
CO3	K5	Demonstrate ethical, respectful, and responsible communication in online and social media environments.
CO4	K4	Identify and apply principles relating to intellectual property, copyright, plagiarism, and the ethical use of digital content.
CO5	K5	Demonstrate responsible digital citizenship and ethical decision-making for safe, inclusive, and accountable participation in the digital environment.

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Mapping with Program Outcomes and Program Specific Outcomes:

CO/ PO&PSO	PO1	PO2	PO3	PSO1	PSO2	PSO3	PSO4	PSO5
CO1	✓			✓	✓			
CO2	✓	✓			✓	✓		
CO3		✓				✓	✓	
CO4		✓	✓				✓	✓
CO5		✓	✓				✓	✓



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Semester-II

SPREADSHEETS LAB

Course Code : 26COAAT202

Credits : 5

Max. Marks : 100

Internal Marks : 40

External Marks : 60

Course Objectives:

- To develop practical skills in creating, editing, and formatting spreadsheets.
- To perform basic calculations using formulas and functions.
- To organize, analyze, and present data using spreadsheet tools.
- To create charts and use basic data management features for effective decision-making.

EXERCISES^{2,3,5,6,8}:

1. **Introduction to Spreadsheet Software** – Create, open, save, and manage spreadsheet workbooks and worksheets.
2. **Data Entry and Cell Formatting** – Enter, edit, and format data using appropriate number, date, and text formats.
3. **Basic Formulas and Calculations** – Perform arithmetic calculations using formulas and cell references.
4. **Mathematical and Statistical Functions** – Apply functions such as SUM, AVERAGE, MIN, MAX, and COUNT.
5. **Logical Functions** – Use logical functions such as IF, AND, and OR for decision-making.
6. **Sorting and Filtering Data** – Organize and analyze data using sorting and filtering techniques.
7. **Conditional Formatting** – Apply conditional formatting to highlight and interpret important data.
8. **Charts and Graphs** – Create and format charts to represent data visually.
9. **Data Validation and Protection** – Apply data validation rules and protect worksheets from unauthorized changes.
10. **Preparation of a Spreadsheet Application** – Develop a practical spreadsheet for tasks such as student marks, attendance, budgeting, or inventory management.

Pedagogical method used:

²Activity-Based Learning

³Hands-on Laboratory Training

⁵Multimodal Teaching

⁶Experiential Learning

⁸Task-Based Assessment

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Course Outcomes:

On completion of the course the students will be able to:

CO1	K1	Create and manage worksheets using appropriate spreadsheet tools.
CO2	K3	Apply formulas and basic functions to perform calculations.
CO3	K4	Organize and analyze data using sorting, filtering, and formatting features.
CO4	K5	Create charts and tables for effective data presentation.
CO5	K5	Develop simple spreadsheet-based solutions for practical data management and analysis.

Mapping with Program Outcomes and Program Specific Outcomes:

CO/ PO&PSO	PO1	PO2	PO3	PSO1	PSO2	PSO3	PSO4	PSO5
CO1	✓			✓	✓			
CO2	✓	✓			✓	✓		
CO3		✓				✓	✓	
CO4		✓	✓				✓	✓
CO5		✓	✓			✓	✓	

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Semester-II

PRESENTATION LAB

Course Code : 26COAAT203

Credits : 5

Max. Marks : 100

Internal Marks : 40

External Marks : 60

Course Objectives:

- To develop practical skills in creating, designing, and managing digital presentations using presentation software.
- To apply appropriate presentation design principles, including themes, layouts, text formatting, and visual organization.
- To integrate tables, charts, images, audio, video, and other multimedia elements to enhance the effectiveness of presentations.
- To develop the ability to prepare and deliver structured, visually effective, and accessible presentations.

EXERCISES^{2,3,5,6,8}:

1. **Introduction to Presentation Software** – Create, save, open, and manage presentation files.
2. **Slide Design and Layout** – Apply themes, templates, slide layouts, and appropriate design elements.
3. **Text Formatting** – Insert and format titles, text, lists, and other textual content.
4. **Visual Elements** – Insert and format images, shapes, icons, and graphical objects.
5. **Tables and Charts** – Create and incorporate tables and charts for effective presentation of information.
6. **Animations and Transitions** – Apply appropriate animations and slide transitions.
7. **Multimedia Integration** – Insert and manage audio and video elements in presentations.
8. **Interactive Presentations** – Create hyperlinks and action buttons for interactive navigation.
9. **Accessible Presentation Design** – Apply accessibility features, appropriate fonts, readable layouts, captions, and other inclusive design practices.
10. **Presentation Development and Delivery** – Design and deliver a complete presentation on a selected topic.

Pedagogical method used:

²Activity-Based Learning

³Hands-on Laboratory Training

⁵Multimodal Teaching

⁶Experiential Learning

⁸Task-Based Assessment

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Course Outcomes:

On completion of the course the students will be able to:

CO1	K1	Create and manage professional digital presentations using presentation software.
CO2	K3	Apply appropriate design principles, layouts, and formatting techniques in presentation development.
CO3	K4	Integrate visual, graphical, and multimedia elements to enhance the presentation of information.
CO4	K5	Utilize animations, transitions, hyperlinks, and interactive features effectively.
CO5	K5	Design and deliver structured, visually effective, and accessible presentations for academic and professional purposes.

Mapping with Program Outcomes and Program Specific Outcomes:

CO/ PO&PSO	PO1	PO2	PO3	PSO1	PSO2	PSO3	PSO4	PSO5
CO1	✓			✓	✓			
CO2		✓			✓	✓		
CO3	✓	✓			✓	✓		
CO4		✓	✓			✓	✓	
CO5		✓	✓				✓	✓

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Semester-II

WORKPLACE SAFETY, ETIQUETTE AND PROFESSIONAL SKILLS

Course Code : 26COAAT204

Credits : 4

Max. Marks : 100

Internal Marks : 30

External Marks : 70

Course Objectives:

- To develop awareness of workplace safety, health, and accessibility practices.
- To identify workplace hazards and follow appropriate safety and emergency procedures.
- To develop professional etiquette, appropriate workplace behaviour, and respectful communication.
- To strengthen communication, teamwork, problem-solving, and independent living skills for employment.
- To enhance employability, self-advocacy, and workplace readiness among students with disabilities.

UNIT I

Concept and Importance of Workplace Safety – Safe and Healthy Work Environment – Common Workplace Hazards – Safety Rules and Procedures – Personal Protective Equipment – Accessible and Inclusive Workplace Practices – Reasonable Accommodation and Barrier-Free Workplaces^{1,2}.

UNIT II

Identification and Prevention of Workplace Hazards – Fire and Electrical Safety – Emergency Procedures – Evacuation and Emergency Communication – Basic First Aid Awareness – Personal Health and Well-being – Safety Support for Persons with Disabilities^{4,5}.

UNIT III

Professional Conduct and Appearance – Workplace Discipline – Punctuality and Time Management – Personal Responsibility – Respectful and Inclusive Behaviour⁷ – Workplace Ethics – Professional Relationships and Appropriate Workplace Conduct.

UNIT IV

Effective communication – Active listening – Verbal and non-verbal communication – Accessible communication – Teamwork and collaboration – Conflict resolution – Self-advocacy and expressing individual needs – Disability rights and workplace accommodations – Seeking reasonable accommodation – Communicating with supervisors and colleagues – Advocating for accessibility, inclusion, and equal opportunities.

UNIT V

Employability Skills – Problem-Solving and Decision-Making – Adaptability and Workplace Responsibility – Career Planning – Resume Preparation – Interview Skills – Workplace Rights and Responsibilities – Reasonable Accommodation⁸ – Independent and Successful Workplace Participation.

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UNIT VI

Hands-on office simulations: practicing job interviews, team collaboration, handling supervisor feedback, and resolving simple workplace scenarios through guided roleplay – Practical Assessment – Group Discussions⁸.

Pedagogical Method Used:

¹Demonstration and Guided Practice

²Activity-Based Learning

⁴Individualized Instruction

⁵Multimodal Teaching

⁷Collaborative Learning

⁸Task-Based Assessment

Materials for Study and Reference:

Text Books:

1. A. M. Sarma. “*Safety and Health in Industry: A Handbook*”, 2nd Edition, BS Publications, 2022.
2. Nira Konar. “*Communication Skills for Professionals*”. 2nd Edition, PHI Learning, 2021.

Reference Books:

1. Brij Mohan Bansal. “*Safety in Industry: Learn from Experience*”. 2022.
2. M. Jegadeesan, S. R. Padma and M. R. Naveen Kumar. “*Communication Skills and Personality Development*”. NIPA, 2021.
3. Rasikraman Das. “*Be the Smarter You @ Workplace*”. Simon & Schuster India, 2023.

E - Resources:

1. https://www.ilo.org/resource/training-material/occupational-safety-and-health?utm_source

Course Outcomes:

On completion of the course the students will be able to:

CO1	K5	Demonstrate awareness of workplace safety, accessibility, and inclusive practices.
CO2	K2	Identify workplace hazards and follow appropriate safety and emergency procedures.
CO3	K3	Demonstrate professional etiquette, discipline, responsibility, and respectful workplace behaviour.
CO4	K3	Apply communication, teamwork, interpersonal, and self-advocacy skills in workplace situations.
CO5	K4	Demonstrate awareness of disability rights, reasonable accommodation, and advocacy for accessible and inclusive employment.

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Mapping with Program Outcomes and Program Specific Outcomes:

CO/ PO&PSO	PO1	PO2	PO3	PSO1	PSO2	PSO3	PSO4	PSO5
CO1	✓			✓	✓			
CO2		✓			✓	✓		
CO3	✓	✓				✓	✓	
CO4		✓	✓				✓	✓
CO5		✓	✓			✓	✓	

