DIGITAL TECHNIQUES APPLICATION

[CDTA+DDTA+ADITA]

DURATION: 1 YEAR 6 MONTHS

FEES: 11,000/-

ELIGIBILITY: 10th Passed or Appeared or Higher

Course Description

Certificate in Digital Technique Application (CDTA)

The **Certificate in Digital Technique Application (CDTA)** is a foundational program designed to provide students with essential computer knowledge and practical skills required for everyday digital tasks. This course focuses on computer fundamentals, office automation tools, and basic cyber awareness.

Diploma in Digital Technique Application (DDTA)

The **Diploma in Digital Technique Application (DDTA)** is a comprehensive program aimed at building strong programming and database management skills along with advanced office applications. This course is designed for students who want to develop technical expertise in software development and data handling.

Advance Diploma in Information Technology Application (ADITA)

The **Advance Diploma in Information Technology Application (ADITA)** is an advanced-level program designed to equip students with in-depth knowledge of programming languages and application development tools. This course is ideal for individuals seeking to build a professional career in software development and IT services.

Course Syllabus

Semester I

- Computer Fundamental
- Operating System Windows 10
- Microsoft Word latest
- Microsoft Excel latest
- Microsoft Access latest
- Microsoft PowerPoint latest
- Cyber Security Basic
- Mobile Operating System Overview

Semester II

- Concepts of core programming
- Programming Language (with C)
- Algorithms and Flowchart
- Introduction to OOPs (with JAVA)
- RDBMS(MySQL)
- HTML 5
- Adv Excel

Semester III

- C++, visual C++ with OOPS
- VB.Net
- JAVA Script
- VB Script

FINANCIAL ACCOUNTING

[CFAS+DFAS+ADFAS]

DURATION: 1 YEAR 6 MONTHS

FEES: 12,000/-

ELIGIBILITY: 10th Passed or Appeared or Higher

Course Description

Certificate in Financial Accounting System (CFAS)

The **Certificate in Financial Accounting System (CFAS)** is a foundational program designed to introduce students to computer-based accounting and office automation tools. This course combines basic computer knowledge with essential accounting concepts to build a strong base in financial management systems.

Diploma in Financial Accounting (DFAS)

The **Diploma in Financial Accounting (DFA)** is a comprehensive program designed to provide advanced knowledge in computerized accounting, taxation, and office productivity tools. The course focuses on practical accounting applications used in modern businesses and organizations.

Advanced Diploma in Financial Accounting (ADFAS)

The **Advanced Diploma in Financial Accounting (ADFA)** is an advanced-level program aimed at developing professional expertise in taxation, payroll management, and advanced accounting software. This course is ideal for students seeking higher-level careers in finance and accounting.

Course Syllabus

Semester I

- Fundamental of Computer
- Windows OS
- MS Word
- Fundamental of Accounts
- Tally ERP9
- EX-NGN

Semester II

- Advanced Excel
- Visual FoxPro
- Tally Prime with GST
- MS PowerPoint
- Fact
- Accord
- Internet & E-mail

Semester III

- Advanced Tally Prime
- E-filing
- Payroll
- Busy
- Ace

DESK TOP PUBLISHING [CDTP+DDTP+ADDTP] DURATION: 1 YEAR 6 MONTHS FEES: 10,000/-

ELIGIBILITY: 10th Passed or Appeared or Higher

Course Description

Certificate in Desktop Publishing (CDTP)

The **Certificate in Desktop Publishing (CDTP)** is a foundational program designed to provide essential skills in computer operations and graphic design for print media. This course introduces students to industry-standard publishing tools and layout techniques used in newspapers, magazines, advertisements, and digital content creation.

Diploma in Desktop Publishing (DDTP)

The **Diploma in Desktop Publishing (DDTP)** is a comprehensive program aimed at developing advanced graphic design and multimedia skills. The course focuses on creative design tools and digital editing techniques required in advertising agencies, printing presses, and media houses.

Advance Diploma in Desktop Publishing (ADTP)

The **Advance Diploma in Desktop Publishing (ADTP)** is an advanced-level program designed for students who want to build a professional career in graphic design and web design. This course provides in-depth training in professional design software and website development tools.

Course Syllabus

Semester I

- Computer Fundamental
- Operating System Windows 10
- Microsoft Office
- Adobe PageMaker
- CorelDRAW
- Bengali Type

Semester II

- Macromedia Freehand MX
- Adobe Photoshop
- Adobe Flash
- Internet & Email

Semester III

- Adobe Illustrator
- Adobe InDesign CC
- Web Design Use Flash/ Adobe Dreamweaver

MULTIMEDIA APPLICATION
[CBM+DMA]
DURATION: 1 YEAR
FEES: 14,900/-

ELIGIBILITY: 10+2 Passed / Appeared or 10th Passed or Appeared with CDTP from YCTC

Course Description

Certificate in Basic Multimedia (CBM)

The **Certificate in Basic Multimedia (CBM)** is a foundational program designed to introduce students to the core concepts of multimedia design and digital content creation. This course focuses on graphic design, image editing, animation, sound editing, and basic authoring tools used in the media and entertainment industry.

Diploma in Multimedia Application (DMA)

The **Diploma in Multimedia Application (DMA)** is an advanced program designed to provide comprehensive knowledge in video editing, compositing, and 3D animation. The course focuses on professional multimedia production tools used in film, television, advertising, and digital media industries.

Course Syllabus

Semester I

- Adobe Illustrator
- Imaging: Adobe Photoshop
- 2D Animation: Adobe Flash
- Authoring: Adobe Direct
- Sound Editing: Sound Forge

Semester II

- Video Compositing & Editing
  - ✓ Adobe Premiere Pro CC
  - ✓ Adobe After effects CC
- 3D Animation
  - ✓ Using 3D Max

WEB DESIGNING - CWD

DURATION: 6 MONTHS

FEES: 3,600/-

ELIGIBILITY: 10+2 Passed / Appeared or 10th Passed or Appeared with CDTP from YCTC

Course Description

Certificate in Web Designing (CWD)

The **Certificate in Web Designing (CWD)** is a comprehensive program designed to provide students with essential skills in website creation and online publishing. This course focuses on both the technical and creative aspects of web development, enabling learners to design and manage professional websites.

Course Syllabus

Semester I

- Internet
- HTML
- DHTML
- JAVA Script
- GIF
- Cool 3D
- Dreamweaver
- Web hosting, Web Page design

Certificate in Artificial Intelligence

Duration: 6 months
Level: Beginner / Non-CS Background
Mode: Theory + Hands-on
Tools: Python, Google Colab, AI Platforms

SEMESTER 1 — AI TOOLS, AI THINKING & FOUNDATIONS
Goal: Make students comfortable with AI, confident using AI tools, and ready for ML in Sem 2.

1. Essential Computer & Digital Skills (AI-Oriented)
What is a computer & how AI runs on computers
Internet, browsers, cloud platforms
Files, folders, CSV, images, PDFs
Introduction to cloud notebooks
Overview of GitHub (conceptual)
CPU and GPU details

2. Introduction to Artificial Intelligence (Modern & Practical)
What is AI? (with daily-life examples)
AI vs Machine Learning vs Deep Learning
Types of AI applications:
Chatbots
Image recognition
Recommendation systems
Fraud detection
Limitations of AI

3. AI Tools & AI Platforms (Core Module)
Using ChatGPT for:
Learning
Coding
Data understanding
Overview of Google Gemini
Overview of Claude
AI for productivity:
Resume building
Report generation
Presentation creation
AI risks, hallucinations & validation
Object detection using YOLO and Annotations

4. Prompt Engineering (Hands-On & Job Relevant)
What is a prompt?

Prompt structure:
Instruction
Context
Output format
Zero-shot vs Few-shot prompting
Prompting for:
Data analysis
Coding
Chatbots
Prompt ethics & safety
Lab:
Build prompt templates
Compare outputs across AI tools

5. Python Programming for AI (Minimal but Practical)
Python basics:
Variables, data types
Basic DSA knowledge
Lists, dictionaries
Loops & conditions
Functions
Basic OOPs programming
Easy-Medium Level coding problems to sharpen logic
Running Python on Google Colab
Intro to AI libraries:
NumPy
Pandas
Matplotlib
Reading datasets (CSV)
What is ML? Difference between traditional programming and Machine Learning (just the basic idea to prepare for sem-2)
Relation of Machine Learning with AI (same as above)
Lab:
Load & analyze real datasets
AI-assisted coding

6. AI Ethics & Sustainable AI
Fair & Inclusive AI Systems
Data Stewardship & Privacy by Design
Safe Use & Misuse Prevention
Energy-Efficient & Low-Carbon AI
Human-centric AI and employment

7. Mini AI Projects (Tool-Based)
AI resume analyzer
AI content generator

AI data summary tool
Prompt-based chatbot (no ML yet)
End of Certificate course Outcome
Confident AI user
Prompt engineer
Python basics
Ready for ML

Diploma in Artificial Intelligence

Duration: 1 Year
Level: Beginner / Non-CS Background
Mode: Theory + Hands-on
Tools: Python, Google Colab, AI Platforms

SEMESTER 1 — AI TOOLS, AI THINKING & FOUNDATIONS
Goal:
Make students comfortable with AI, confident using AI tools, and ready for ML in Sem 2.

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Coding
Data understanding
Overview of Google Gemini
Overview of Claude
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Report generation
Presentation creation
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Safe Use & Misuse Prevention
Energy-Efficient & Low-Carbon AI
Human-centric AI and employment

7. Mini AI Projects (Tool-Based)
AI resume analyzer
AI content generator
AI data summary tool

Prompt-based chatbot (no ML yet)
End of Semester 1 Outcome
Confident AI user
Prompt engineer
Python basics
Ready for ML

SEMESTER 2 — MACHINE LEARNING & AI APPLICATIONS

Goal:
Move from using AI building AI systems

1. Machine Learning Foundations
What is Machine Learning?
ML vs traditional programming
Types of ML:
Supervised
Unsupervised
Reinforcement (conceptual)
Real-world ML use cases

2. Data Understanding & Preparation
What is data?
Features & labels
Numerical vs categorical data
Data cleaning:
Missing values
Scaling (intuitive)
Train-test split

3. Essential Math for ML (Only What's Needed)
Mean, median, variance
Distance concept (intuition)
Correlation (idea, not proofs)
Why math matters in ML

4. Core Machine Learning Algorithms (Hands-On)
Main strength of the course
Supervised Learning
Linear and logistic Regression
Decision Trees
Random Forest
Model evaluation:
Accuracy
Confusion matrix
Overfitting vs underfitting
Unsupervised Learning
K-Means Clustering

Applications:
Customer segmentation
Data grouping
Choosing number of clusters (intuition)
Lab (Google Colab):
Build, train & test models
Compare multiple models
Interpret results

5. Intro to Neural Networks (Conceptual + Demo)
What is a neural network?
Neurons & layers (intuition)
Where deep learning is used
Demo using prebuilt libraries

6. Building AI Applications
ML pipelines
Using trained models for prediction
Connecting ML models to simple apps
AI APIs overview

7. Capstone Project (Mandatory)
Choose ONE:
Option 1: AI Analysis Tool
Examples:
Sales prediction tool
Student performance analyzer
Customer segmentation system
Accident or risk analysis system
Option 2: AI Chatbot
Examples:
College helpdesk chatbot
Customer support chatbot
AI study assistant
FAQ chatbot using ML / NLP concepts

Must include:

Dataset
ML model (K-Means / Decision Tree / Random Forest etc.)
Model evaluation
Final presentation

FINAL OUTCOMES

AI tool expert
Prompt engineer

Python for AI
ML model developer
Project-ready for internships / entry-level roles

Certificate in Python Programming

Duration: 6 Months
Level: Beginner / Non-CS Friendly
Course Fee: 6,000
Primary Tools: Python, Google Colab, Pandas, scikit-learn

SEMESTER 1 — PYTHON PROGRAMMING, CODING & DATA FOUNDATIONS

Goal:
Make students strong Python coders who can solve basic placement problems and work with data confidently.

1. Essential Computer & Coding Environment

How data is stored: files, CSV, Excel
Folder structure & file paths
Introduction to Google Colab
Running Python scripts & notebooks
Debugging basics

2. Python Programming (CORE – Heavy Focus)

Python Fundamentals
Variables & data types
Input / output
Conditional statements
Loops (for, while)
Functions & scope
Basic error handling

Core Python Data Structures (VERY IMPORTANT)

Lists
Indexing & slicing
List methods
Tuples
When to use tuples vs lists
Dictionaries
Key–value operations
Frequency counting
Sets
Uniqueness & set operations
String manipulation

Certificate in Green Skills with AI

Eligibility: Passed: Class 10th or Higher
Duration: 48 hours or 6 months
Course Fees : 6000/-

GREEN FOUNDATIONS, AI TOOLS & APPLIED SKILLS

Goal:
Build environmental awareness, develop practical green skills, and enable learners to use AI tools and basic data analysis for sustainability, climate, and ESG use cases.

1. Essential Digital & Data Skills for Green Careers

- What is a computer & how digital systems support sustainability
- Internet, browsers, cloud platforms
- Files, folders, CSV, images, PDFs
- Introduction to cloud notebooks (Google Colab)
- Overview of GitHub (conceptual)
- CPU, GPU & energy consumption basics

2. Sustainability & Climate Change Fundamentals

- What are Green Skills?
- Climate change basics:

Greenhouse gases
Carbon cycle
Global warming

- Environmental challenges:

Air pollution
Water pollution
Waste management
Energy transition

- Introduction to ESG (Environmental, Social, Governance)
- Green jobs & future career paths

3. Artificial Intelligence for Sustainability

- What is AI? (sustainability-focused examples)
- AI vs traditional environmental monitoring
- AI applications in:

Air & water quality monitoring
Climate risk analysis
Energy efficiency & renewables
Smart agriculture
Waste management

- Limitations of AI in environmental decision-making

4. AI Tools & Platforms for Green Applications

- Using ChatGPT for:

Sustainability research
Climate & ESG report drafting
Environmental data understanding
• Overview of Google Gemini
• Overview of Claude
• AI for green productivity:
Emissions summaries
Sustainability presentations
Compliance checklists
• AI risks, hallucinations & greenwashing
• Intro to AI-based image/object detection:
Waste segregation
Environmental monitoring

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5. Prompt Engineering for Green Use Cases (Hands-On)

• What is a prompt?
• Prompt structure:
Instruction
Context
Output format
• Zero-shot vs Few-shot prompting
• Prompting for:
Climate data analysis
ESG summaries
Environmental compliance support
• Prompt ethics & responsible AI

Lab:

• Build sustainability-focused prompt templates
• Compare outputs across AI tools
• Validate AI-generated environmental insights

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6. Python Programming & Data Basics for Sustainability

• Python fundamentals:
Variables, data types
Lists, dictionaries
Loops & conditions
Functions
• Running Python on Google Colab
• Intro to libraries:
NumPy
Pandas
Matplotlib
• Reading environmental datasets (CSV)
• Basic data visualization for pollution & climate data

Lab:

• Create simple energy/emissions charts
• AI-assisted coding

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7. Sustainable AI & Green Computing

• Fair & inclusive AI systems for climate solutions
• Data stewardship & privacy in environmental data
• Preventing AI misuse & greenwashing
• Energy-efficient & low-carbon AI systems
• AI, automation & green employment

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8. Mini Green AI Projects (Tool-Based)

• AI-based air quality report generator
• Climate policy & news summarizer
• Energy consumption analysis tool
• Prompt-based sustainability chatbot

End of Certificate Course Outcomes

• Strong foundation in green skills & sustainability
• Confident user of AI tools for climate & ESG applications
• Basic Python & environmental data analysis skills
• Understanding of Sustainable AI principles
• Job-ready for entry-level green & sustainability support roles