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Advanced Diploma in Information Technology

Course Outline

Course Details

The **Advanced Diploma in Information Technology (ADIT)** is a comprehensive **1-year professional diploma** designed to equip learners with **practical IT skills** required in today's digital economy.

The course blends **technical training** (MS Office, Web Design, Programming, CMS, Python) with **career-focused learning** (Freelancing & Portfolio Development). Students will begin with **foundational skills** such as MS Office and UI/UX design, then progress to **web technologies (HTML, CSS, Bootstrap, JavaScript, PHP, MySQL, WordPress, and Python)**.

By the end of the program, learners will have built **real-world projects**, developed **freelancing-ready profiles**, and gained the technical knowledge to pursue careers in IT, web development, and digital freelancing.

Course Type: Diploma
Course Duration: 1 Year (2 Semesters)
Class Frequency: 3 classes/week, 2 hours each
Mode of Delivery: On-Campus

Course Objectives

By the end of this diploma, learners will be able to:

- **MS Office Productivity:** Create professional documents, data-driven reports, and presentations using Word, Excel, and PowerPoint.
- **UI/UX Design:** Design user-friendly interfaces and prototypes with Figma.
- **Web Development Fundamentals:** Build responsive websites using HTML, CSS, and Bootstrap.
- **Programming Skills:** Apply client-side and server-side programming with JavaScript, jQuery, PHP, and MySQL.
- **CMS Development:** Install, customize, and manage WordPress-based websites, including e-commerce platforms.
- **Python Basics:** Understand Python syntax and apply it for automation and simple applications.
- **Freelancing Skills:** Create online profiles, portfolios, and gigs on freelancing platforms to start earning online.
- **Capstone Projects:** Deliver real-world IT projects that demonstrate technical and professional skills.

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Week-wise Course Plan

Semester 1: MS Office and Web Designing (6 Months)

MS Office (Word, Excel, PowerPoint)

Week	Topics Covered	Learning Objectives	Assignments
1	Introduction to MS Office & Word Basics (documents, formatting, tables)	Navigate MS Office suite, create professional documents	Draft a formal business letter with headings & formatting
2	Advanced Word (styles, referencing, mail merge)	Apply professional formatting and automate docs	Create a 3-page report with TOC & mail merge
3	Excel Basics (cells, formulas, functions)	Perform calculations, organize and format data	Build a monthly expense sheet with SUM & AVERAGE
4	Excel Advanced (charts, conditional formatting, functions like VLOOKUP, IF)	Analyze data, create interactive dashboards	Create a sales report with charts and formulas
5	Excel Pivot Tables & Data Analysis	Summarize datasets, apply filters & groupings	Build a pivot table-based report
6	PowerPoint Basics (slides, text, images)	Structure content visually in slides	Prepare a 5-slide company intro presentation
7	PowerPoint Advanced (themes, transitions, animations, SmartArt)	Create professional & engaging presentations	Design a 10-slide product pitch deck
8	Integration of Word, Excel & PPT + Cloud Collaboration (OneDrive, Teams)	Merge MS Office tools for professional use	Create a combined report (Word doc + Excel charts + PPT presentation)

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UI/UX Design (Figma)

Week	Topics Covered	Learning Objectives	Assignments
9	Introduction to UI/UX + Figma Basics	Understand difference between UI & UX; navigate Figma workspace	Create a basic homepage wireframe
10	Typography, Color Theory, Layout Design	Apply design principles for readability & aesthetics	Redesign an existing webpage layout in Figma
11	Wireframing & Prototyping	Build interactive prototypes in Figma	Create a clickable prototype of a 3-page website
12	Responsive & Mobile Design + Portfolio Work	Adapt designs for multiple devices, prepare portfolio	Build a mobile-responsive app prototype & add to design portfolio

HTML5 & CSS3

Week	Topics Covered	Learning Objectives	Assignments
13	HTML5 Basics (structure, headings, links, lists)	Build a simple webpage with navigation	Create a multi-page site with links
14	HTML Forms & Semantic Elements	Apply forms, semantic tags, accessibility	Build a student registration form
15	CSS Basics (selectors, colors, text formatting)	Style webpages with CSS rules	Create a styled personal homepage

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Week	Topics Covered	Learning Objectives	Assignments
16	CSS Box Model, Positioning, Flexbox	Apply layout techniques for responsiveness	Build a profile card layout using flexbox
17	CSS Grid & Advanced Styling	Create grid-based designs	Build a photo gallery using CSS Grid
18	CSS Animations, Transitions, Effects	Enhance user experience with interactivity	Animate a navigation menu & button hover effects

Responsive Layout with Bootstrap

Week	Topics Covered	Learning Objectives	Assignments
19	Bootstrap Setup & Grid System	Apply responsive design using Bootstrap grid	Build a homepage with responsive grid
20	Bootstrap Components (navbar, carousel, cards)	Use built-in components for design efficiency	Create an e-commerce landing page
21	Forms, Utilities & Responsive Project	Build responsive forms and utilities	Design a responsive business website

Basics of JavaScript & React JS

Week	Topics Covered	Learning Objectives	Assignments
22	JavaScript Basics (variables, loops, functions)	Write scripts to add interactivity	Build a simple calculator

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Week	Topics Covered	Learning Objectives	Assignments
23	DOM Manipulation & Events	Control webpage elements dynamically	Create an interactive form validator
24	React Basics (components, props, states)	Build dynamic UI with React	Create a to-do list app in React

Freelancing

Week	Topics Covered	Learning Objectives	Assignments
25	Freelancing Platforms & Profile Building	Learn Fiverr/Upwork basics, create gigs, client communication	Create a Fiverr/Upwork profile + 2 sample gigs

Semester Project

Objective: Apply all learned skills to build a **real-world IT solution.**

Project Options:

1. A responsive **multi-page business website** (HTML, CSS, Bootstrap, JavaScript, React).
2. A **portfolio website** (UI/UX in Figma + coded in HTML/CSS/JS).
3. A **functional e-commerce demo site** with cart & responsive layout.

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Week-wise Course Plan

Semester 2: Web Development & Programming (6 Months)

Introduction to Client-side Programming

Week	Topics Covered	Learning Objectives	Assignments
1	Programming Basics: Variables, Data Types, Operators	Understand core programming concepts	Write a script for simple arithmetic operations
2	Control Structures: Loops, Conditionals	Implement decision-making in code	Create a script to check grades based on marks
3	Functions & Scope	Organize reusable blocks of code	Write a function-based calculator
4	DOM & Events	Connect programming with web pages	Build an interactive webpage (button events, dynamic text)

Web Application Development - JavaScript

Week	Topics Covered	Learning Objectives	Assignments
5	Advanced JavaScript: Arrays, Objects	Work with data structures effectively	Build a student database in JS
6	ES6 Features: let/const, arrow functions, template literals	Apply modern JavaScript features	Convert old JS code to ES6 syntax
7	Error Handling & Debugging	Write error-free code	Debug a faulty script

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Week	Topics Covered	Learning Objectives	Assignments
8	JavaScript Project	Apply complete JS skills	Build a weather app using an API

Web Application Development - JQuery

Week	Topics Covered	Learning Objectives	Assignments
9	jQuery Basics: Selectors, Events, Effects	Simplify DOM manipulation	Build a jQuery image slider
10	jQuery Animations & UI Effects	Add interactivity & animations	Create a dropdown menu with animations
11	jQuery Plugins	Extend site features with plugins	Implement a jQuery carousel
12	jQuery Project	Apply all skills	Build a dynamic photo gallery

Web Application Development – PHP with MySQL

Week	Topics Covered	Learning Objectives	Assignments
13	PHP Basics: Syntax, Variables, Operators	Write server-side scripts	Create a PHP contact form

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Week	Topics Covered	Learning Objectives	Assignments
14	Forms & User Input Handling	Manage GET/POST requests	Build a feedback form
15	MySQL Basics: Databases, Tables, Queries	Store & retrieve data	Create a student database
16	PHP & MySQL Integration	Build dynamic websites with database support	Create a blog system with CRUD
17	Authentication & Security	User login/logout, validation, security best practices	Build a secure login system
18	PHP Project	Full-stack application	Create a mini CMS (content management system)

CMS WordPress

Week	Topics Covered	Learning Objectives	Assignments
19	WordPress Setup & Dashboard	Install & configure WordPress	Set up a personal blog
20	Themes & Customization	Customize themes using Elementor/Customizer	Design a portfolio website
21	Plugins & WooCommerce	Extend WP functionality & build e-commerce	Create a demo online store

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Week	Topics Covered	Learning Objectives	Assignments
22	WordPress Project	Build a complete site	Develop a business website with WP

Introduction to Python

Week	Topics Covered	Learning Objectives	Assignments
23	Python Basics: Syntax, Variables, Operators	Understand Python programming structure	Write a Python calculator program
24	Loops, Conditionals & File Handling	Automate tasks & handle files	Write a program to store & retrieve student records

Semester Project

Objective: Apply all programming & development skills to create a **real-world project**.

Project Options:

1. **Dynamic Website** (PHP/MySQL + jQuery + JavaScript integration)
2. **CMS WordPress-based E-Commerce Site** with product catalog & cart system
3. **Full-stack Web Application** with authentication, database, and responsive frontend

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Assessment Structure

- **Weekly Assignments** – **30%** (based on module deliverables)
- **Mid-Semester Exams (Each Semester)** – **20%** (written & practical)
- **Class Participation & Attendance** – **20%**
- **Final Project (Each Semester)** – **30%** (practical real-world project)

Final Project

At the end of the diploma, students will complete a **capstone project** that integrates skills from both semesters.

Examples of Final Projects:

1. A **responsive business website** with UI/UX design, HTML, CSS, Bootstrap, and React.
2. A **dynamic CMS-based website** using PHP/MySQL and WordPress.
3. A **full-stack web application** with database integration, authentication, and Python features.
4. A **portfolio & freelancing profile setup** with real project samples.

Students will present their projects as part of the final evaluation.

Recommended Resources

Books & Guides

- *Head First HTML & CSS* – O'Reilly Media
- *Eloquent JavaScript* – Marijn Haverbeke
- *PHP & MySQL Web Development* – Luke Welling & Laura Thomson
- *Don't Make Me Think* – Steve Krug (UI/UX principles)

Online References

- MDN Web Docs (HTML, CSS, JavaScript)
- ReactJS Official Documentation
- PHP.net Documentation
- Python.org Documentation
- WordPress Codex & Developer Docs

Attendance Policy

Regular attendance is essential for successful course completion. Students are expected to attend at least **80% of classes in each module**. More than **20% unexcused absences** may result in disqualification from the final project and certification.

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