

Semester 1: Core IT Foundations

- **Fundamentals of Information Technology**
 - Computer hardware and software basics
 - Operating systems (Windows, Linux overview)
 - File management and system utilities
- **Office Productivity Tools**
 - MS Word: advanced formatting, mail merge
 - MS Excel: formulas, charts, pivot tables
 - MS PowerPoint: presentations with animations
- **Programming in C**
 - Variables, operators, control structures
 - Functions, arrays, strings
 - Pointers and file handling basics
- **Internet & Web Basics**
 - Email, search engines, cloud storage
 - Introduction to HTML & CSS

Semester 2: Advanced IT Applications

- **Object-Oriented Programming (OOP)**
 - C++ / Java basics
 - Classes, objects, inheritance, polymorphism
 - Exception handling and file I/O
- **Database Management Systems (DBMS)**
 - Database concepts and models
 - SQL queries (create, insert, update, delete, select)
 - Practical with MySQL / MS Access
- **Networking Fundamentals**
 - LAN, WAN, Internet basics
 - IP addressing and configuration
 - Network devices (routers, switches)
 - Cybersecurity basics
- **Software Engineering**
 - SDLC (Software Development Life Cycle)
 - System analysis and design
 - UML diagrams and documentation

Practical Projects & Assessment

- Create a formatted report in Word
- Build a financial spreadsheet in Excel
- Design a presentation in PowerPoint
- Develop a database project in MySQL
- Build a simple website using HTML/CSS
- Final project: Complete IT application (e.g., student management system, inventory system)

Learning Outcomes

By the end of the DIT course, students will:

- Understand IT fundamentals and office tools
- Develop programming skills in C, C++/Java
- Design and manage databases using SQL
- Build websites with HTML & CSS
- Understand networking and cybersecurity basics
- Apply IT skills in real-world projects