COURSE NAME: Advanced Diploma in Information Technology (ADIT)

Prerequisite: Sound knowledge of Computing Fundamentals & Programming basics

Course Objective: The objective of this course is to enable the student who has knowledge of PC operations to get initiated into the domain of software development and to develop basic desktop and web based applications.

Course Duration: 288 hours

Course Contents:

Sl. No.	Modules	Hours
1	Fundamentals of Programming	28
2	Operating System Concepts	24
3	Database Concepts	16
4	VB .Net Programming	72
5	Database Programming using Access	20
6	Web Application Development	48
7	Introduction to Software Engineering	20
8	Project	60
Total		**288**

Fundamentals of Programming   **(28 hrs)**
Algorithms
Data Representation
Boolean Algebra
Concepts of Flowcharting
Creating Flowcharts
Arrays
Introduction to File Structure

Operating system Concepts   **(24 Hrs)**
What is an OS?
Processes
Memory management
File Systems
General OS architecture
Scheduling & Synchronization
Virtual Memory and Paging
Threading concepts

Database concepts   **(16 hrs)**
RDBMS Technologies
Database Design
Normalization Techniques
ER Diagrams

VB .Net Programming **(72 hrs)**
Introducing VB .NET
Form object
Introduction to data types in VB.NET
The user interface and control names
The Visual Basic code
Modules and scopes
VB .NET functions
Class Libraries
Interfaces & Abstract Classes
Delegates and Events
Intrinsic controls in VB .NET
User interface design (MDI & SDI Models)

Database Programming Using MS Access **(20 hrs)**
Queries
Forms
Reports and Labels
Macros and Macro Groups
Database Security

Web Application Development **(48 hrs.)**
Developing Web Applications using
Front Page
Interdev

Introduction to Software Engineering **(20 hrs.)**

Project **(60 hrs.)**