Department of Computer Science

Loreto College

Syllabus – Computer Competency Course: Microsoft Access (Database Management)

Academic Year: 2025–2026
Semester: III
Course Type: Computer Competency Course

Course Objectives

- To introduce students to the fundamentals of relational database management using Microsoft Access.
- To develop the ability to design, create, and manage databases for real-world applications.
- To enable learners to organise, retrieve, and analyse data efficiently using tables, queries, forms, reports, and relationships.
- To promote problem-solving skills through practical database design and management projects.

Course Syllabus

Unit I: Database Creation and Basic Table Design

- Introduction to Database Management Systems (DBMS)
- Microsoft Access Interface
- Creating a Database
- Creating and Saving Tables
- Field Names and Data Types
- Setting Primary Keys
- Table Design View and Datasheet View

Unit II: Data Entry and Form Design

- Data Entry Techniques
- Editing and Managing Records
- Creating Forms
- Form Design and Layout
- Formatting Forms
- Using Form Controls

Unit III: Multiple Tables and Charts

- Creating Multiple Tables
- Managing Related Data
- Importing Data
- Creating Charts
- Visual Representation of Data
- Integrating Tables with Charts

Unit IV: Relationships and Auto Forms

- Introduction to Relational Databases
- Creating Relationships Between Tables
- Referential Integrity
- One-to-One, One-to-Many Relationships
- AutoForm and Form Wizard

Unit V: Queries and Data Retrieval

- Introduction to Queries
- Query Design View
- Select Queries
- Applying Criteria
- Sorting and Filtering Records
- Calculated Fields
- Parameter Queries (Basic)

Unit VI: Teachers and Departments Database

- Designing Related Tables
- Creating Relationships
- Query Creation
- Form Development
- Report Generation
- Database Navigation

Unit VII: Employees, Departments and Managers Database

- Multi-table Database Design
- Relationship Management
- Conditional Queries
- Forms and Reports
- Database Maintenance

Unit VIII: Author–Book Database Management

- Database Planning
- Author and Book Tables
- Relationship Design
- Data Entry
- Query Development
- Report Design

Unit IX: Product–Order Management System

- Designing Transactional Databases
- Product, Order, Supplier, and Distributor Tables
- Managing Relationships
- Querying Transaction Data
- Forms and Reports
- Case Study-Based Database Project