

## 1. Purpose of the Database

This database is designed to manage core academic operations for an educational institution, specifically tracking:

- Student information and enrollment
- Course offerings and details
- Lecturer assignments and information
- Class scheduling and section management
- Student enrollment in classes with grade tracking

## 2. Scope of the Database

The database covers the following key academic functions:

### A. Student Management

- Stores student personal information
- Tracks academic details
- Maintains a unique identifier for each student

### B. Course Catalog

- Defines all available courses with codes, titles, and descriptions
- Tracks credit hours and departmental affiliation
- Supports prerequisite relationships

### C. Lecturer Information

- Maintains faculty records with contact and departmental information
- Tracks office locations and employment dates

### D. Class Scheduling

- Manages specific class instances of courses
- Assigns lecturers to classes
- Organizes by semester/year with section numbering
- Controls room assignments and capacity limits

### E. Enrollment System

- Links students to classes they're taking
- Records enrollment dates and status
- Stores final grades for completed classes
- Tracks current enrollment numbers against class capacities