



**Student Name:** KISHORE A

**Project ID:** 18

**Project title:** COURSE REGISTRATION

### Technical Components

Component	Tech Stack
Frontend	React (JS Library for building user interfaces)
Backend	Node.js with Express.js
Database	MongoDB (NOSQL Database)
API	Open API

### Implementation Timeline

Phase	Deadline	Status	Notes
Stage 1		Under review	Planning and Requirement gathering
Stage 2		Not started	Design and Prototyping
Stage 3		Not started	DB Designing
Stage 4		Not started	Backend Implementation
Stage 5		Not started	Testing & Implementation

## **PROBLEM STATEMENT:**

Course registration is the process by which students select and enroll in the classes they will take for an upcoming academic term.

- **Selecting Department course:** Students must register for the required courses within their declared academic major or department. These are the core courses needed to fulfill the degree requirements.
- **Selecting Elective courses:** In addition to the department courses, students must also select elective courses. Electives allow students to explore other areas of interest or take classes outside their primary field of study.
- **Adding on Course:** Some students may want to take additional courses beyond the required department courses and electives. These "add-on" courses could include research projects, internships, independent studies, or additional electives.

## **PROJECT-FLOW:**

### **Purpose:**

The primary purpose of a course registration system is to allow students to enroll in the classes they need to progress towards completing their degree requirements. This registration includes Department/Major Courses, elective Courses, Add-On courses.

### **Scope:**

The system needs to support the full lifecycle of course selection and enrollment, including Course catalog management, Student academic planning and advising, Real-time course availability and waitlist tracking, Enrollment processing and confirmation.

## **Business Context:**

Course registration sits at the core of the student experience and academic operations. It directly impacts student satisfaction and retention Faculty teaching workloads and classroom utilization Institutional enrollment, revenue, and resource planning Compliance with academic policies and accreditation standards.

## **Consideration:**

- Usability and accessibility for diverse student populations
- Compliance with registration deadlines and priority enrollment rules
- Real-time course capacity management and waitlist handling
- Integration with degree audit and academic advising systems
- Reporting and analytics to support enrollment forecasting

## **Dependencies:**

- Student information system (SIS)
- Course catalog and schedule management
- Degree audit and academic advising tools
- Facilities and classroom management

## **User personas:**

- Undergraduate Student
- Graduate Student
- Academic Advisor

## **User Stories:**

- As a Student, I want to be able to view the course catalog and select the courses I need to fulfill my degree requirements, including department/major courses, electives, and any add-on courses.
- As a Graduate Student, I need to register for my required program courses as well as any additional electives or research credits to maintain my full-time status.
- As an Academic Advisor, I require the ability to review my advisees' course selections, provide guidance, and approve their registration.

## **Functional Requirements:**

- Course Catalog Management
- Student Registration
- Academic Advising Integration
- Enrollment Management
- Reporting Analytics

**FLOW CHART:**





