

Functional Specification Document (FSD)

Project: Student Enrollment Management System (SEMS)

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1. Purpose

This document defines the functional specifications of the SEMS application. It outlines how the system will behave and interact with users and forms the basis for system design and development.

2. System Overview

SEMS is a web-based application designed to enable students to view and enroll in courses online. It provides administrative features for managing course offerings, enrollment data, and reporting, while supporting role-based access for students and university staff.

3. User Roles and Permissions

Role	Permissions
Student	Register/ Login View course catalog Enroll/ Drop courses View enrollment history
Admin Staff	Manage courses (add, edit, delete) Manage enrollment View reports
Lecturer	View enrolled students View course details
IT Support	Monitor system performance Manage user roles and system configuration

4. Functional Requirements

ID	Requirement Description
FR-01	The system shall allow students to register and log in with secure credentials
FR-02	The system shall display a searchable, filterable course catalog
FR-03	The system shall allow students to enroll in available courses during the enrollment period
FR-04	The system shall prevent students from enrolling in full or conflicting courses
FR-05	The system shall allow students to drop courses within the allowed time frame
FR-06	The system shall send email confirmations upon successful enrollment or withdrawal
FR-07	The system shall allow admins to add, update or remove course information
FR-08	The system shall display current enrollment numbers and available seats in each course
FR-09	The system shall log all enrollment activities for auditing
FR-10	The system shall generate enrollment reports (e.g. course popularity, capacity status)

5. UI Wireframes Overview

Screen	Description
Login/ Register Page	Secure login and registration functionality
Course Catalog	Filter by department, semester, level; course details with seat availability
Enrollment Dashboard	Enrolled courses, status updates, drop option
Admin Panel	Course management, enrollment monitoring, report generation

6. Date Validation Rules

Field	Validation Rule
Email	Must be a valid university-issued email (e.g. student@university.lk)
Course Code	Must follow format: ABC123
Enrollment Period	Must be within defined semester dates
Prerequisites	Student must have completed required previous courses)

7. Assumptions

- All courses will be pre-loaded into the system before the enrollment period
- Each student has a valid account with defined permissions
- Email service is configured and functional for notifications

8. Dependencies

- Integration with the university's student information system (SIS)
- Email service provider (for confirmation emails)
- Web hosting and authentication services

9. Non-functional Requirements (from BRD)

- System must support 500 concurrent users
- Response time must be under 2 seconds for major actions
- System must be available 99.9% during enrollment periods
- All sensitive data must be encrypted at rest and in transit

10. Glossary

- BRD – Business Requirements Document
- FRD – Functional Requirements Document
- UAT – User Acceptance Testing
- SIS – Student Information System