***Functional Requirements***

**Administrator (Admin) Requirements:**

1. M: The admin can add new user accounts for faculty members, students, and administrative staff.
2. M: The admin can edit existing user accounts, including updating personal information and roles.
3. M: The admin can delete user accounts when necessary, ensuring data integrity.
4. M: The admin has access to user management tools to assign roles and permissions.
5. S: The admin can configure system settings, including course categories, grading scales, and evaluation criteria for faculty members.
6. S: The admin can generate reports on user activity, course enrollment, and teaching performance evaluations.

**Faculty Member Requirements:**

7. M: Faculty members can create new courses within the LMS platform.

1. M: Faculty members can upload learning materials, set assignments, and manage assessments for their courses.
2. M: Faculty members can monitor student progress by tracking attendance, viewing grades, and providing feedback on assignments.
3. S: Faculty members can participate in teaching performance evaluations by rating their colleagues and viewing student and administrator feedback.

**Student Requirements**:

1. M: Students can browse and enroll in available courses.
2. M: Students can access course materials, including lectures, readings, and multimedia content.
3. M: Students can submit assignments, participate in online discussions, and take assessments within the LMS.
4. S: Students can provide feedback on courses and faculty members through evaluation surveys.

**System Requirements Specification (SRS): Hardware Requirements:**

1. M: The system runs on standard hardware configurations suitable for hosting the application and storing data.
2. S: Minimum hardware specifications are defined to ensure optimal performance and reliability. Software Requirements:
3. M: The LMS is compatible with popular web browsers such as Google Chrome, Mozilla Firefox, and Microsoft Edge.
4. M: The system supports multi-platform access, including desktop computers, laptops, tablets, and mobile devices.
5. S: Compatibility with various operating systems (e.g., Windows, macOS, Linux) is ensured. Performance Requirements:
6. M: The system can handle concurrent user access without significant performance degradation.
7. S: Response times for key functionalities meet acceptable standards. Security Requirements:
8. M: Robust authentication mechanisms ensure secure access to user accounts and sensitive data.
9. S: Data encryption protocols protect user privacy and confidentiality during transmission and storage. Scalability Requirements:
10. M: The system is designed to scale horizontally and vertically to accommodate growth in user base and course offerings.
11. S: Load balancing techniques evenly distribute incoming traffic across multiple server instances.
12. S: Database management strategies optimize performance and storage capacity as the system expands.

**Additional Functional Requirements**:

27. M: Users can reset their passwords through a secure authentication process.

1. M: Course materials are organized into categories for easy navigation.
2. M: Users receive notifications for important events such as course updates and deadlines.
3. M: The system provides a search functionality for users to find courses and materials efficiently.
4. M: Course enrollment is managed automatically, ensuring accurate student records.
5. S: Users can customize their profiles with personal information and preferences.
6. S: Faculty members can schedule and manage virtual classroom sessions for online courses.
7. S: The system supports integration with third-party tools and services, such as plagiarism detection software.
8. S: Accessibility features are implemented to ensure compliance with disability regulations.
9. S: The system logs user actions and interactions for auditing and troubleshooting purposes.