

USE CASES SPECIFICATIONS

(23MCCE22,22MCCE21)

PROJECT TITLE – ONLINE CREDIT BASED E-LEARNING MANAGEMENT SYSTEM.

To design and develop an **Online Credit-Based Degree Learning System** for the **Department of Computer Science**, modelled for the **University of Hyderabad**.

- The system will digitally manage courses, students, faculty, assessments, and academic records.
- The platform will closely replicate the structure and workflow of a traditional offline degree programme

ACTOR – ADMIN

Use Case – Login To System – (Common to all actors)

Field	Details
Use Case ID	UC-001
Use Case Name	Login to System
Created By	Project Team
Date Created	25/02/2026
Last Updated By	Project Team
Date Last Updated	25/02/2026
Actors	Admin, Course Coordinator, Academic Coordinator, Faculty, Student
Description	Allows registered users to securely log into the Online Credit Based E-Learning Platform using valid credentials.
Preconditions	1. User must be registered in the system.2. User must have valid login credentials (Username & Password).
Postconditions	1. User is successfully logged into the system.2. Dashboard is displayed according to user role.
Normal Flow	1. User opens login page.2. Enters username and password.3. Clicks “Login”.4. System validates credentials.5. System redirects user to respective dashboard.
Alternate Flow	1. User enters incorrect credentials.2. System displays error message.3. User re-enters credentials.

Exceptions	1. Account locked after multiple failed attempts.2. Server unavailable.
Priority	High
Frequency of Use	Very Frequently
Business Rules	1. Password must follow security policy.2. Maximum login attempts limited (e.g., 3 attempts).
Assumptions	1. User has internet access.2. Authentication system is operational.

1.Create Courses -

Field	Description
Use Case ID	UC-01
Use Case Name	Create Courses
Created By	Project Team
Date Created	24-02-2026
Last Updated By	Project Team
Date Last Updated	24-02-2026
Actors	Administrator
Description	Admin creates a new course in the system.
Preconditions	Admin must be logged into the system.
Post Conditions	New course is successfully created and stored in database.
Normal Flow	1. Admin selects "Create Course". 2. System prompts for course details. 3. Admin enters details. 4. System saves course.
Alternate Flow	If details are incomplete, system shows error message.
Exceptions	Database failure or duplicate course ID.
Priority	High
Frequency of Use	Often

Business Rules	Course ID must be unique.
Assumptions	Admin has valid authorization.

2.Assign Course-Co-Ordinators –

Field	Description
Use Case ID	UC-02
Use Case Name	Assign Course Coordinator
Created By	Project Team
Date Created	24-02-2026
Last Updated By	Project Team
Date Last Updated	24-02-2026
Actors	Administrator
Description	Admin assigns a coordinator to a course.
Preconditions	Course must already exist.
Post Conditions	Coordinator is successfully assigned to course.
Normal Flow	1. Admin selects course. 2. System displays list of coordinators. 3. Admin selects coordinator. 4. System confirms assignment.
Alternate Flow	If coordinator already assigned, system shows message.
Exceptions	Invalid selection.
Priority	High
Frequency of Use	Often
Business Rules	One course must have at least one coordinator.
Assumptions	Coordinators are already registered.

3.Assign Academic Co-ordinators –

Field	Description
Use Case ID	UC-03
Use Case Name	Assign Academic Coordinator
Created By	Project Team
Date Created	24-02-2026
Last Updated By	Project Team
Date Last Updated	24-02-2026
Actors	Administrator
Description	Admin assigns academic coordinator to a course.
Preconditions	Course must exist.
Post Conditions	Academic coordinator linked to course.
Normal Flow	1. Admin selects course. 2. System displays academic coordinators. 3. Admin selects one. 4. System updates record.
Alternate Flow	If no coordinators available, show error.
Exceptions	System failure.
Priority	High
Frequency of Use	Sometimes
Business Rules	Only authorized users can be assigned.
Assumptions	Coordinators data is available.

4.View Course Details –

Field	Description
Use Case ID	UC-04
Use Case Name	View Course Details
Created By	Project Team
Date Created	24-02-2026

Last Updated By	Project Team
Date Last Updated	24-02-2026
Actors	Administrator
Description	Admin views details of a selected course.
Preconditions	Course must exist.
Post Conditions	Course details displayed.
Normal Flow	1. Admin selects course. 2. System displays course information.
Alternate Flow	If course not found, error shown.
Exceptions	System error.
Priority	Medium
Frequency of Use	Often
Business Rules	Only authorized users can view.
Assumptions	Course database is accessible.

5.Manage Co-ordinators –

Field	Description
Use Case ID	UC-05
Use Case Name	Manage Coordinators
Created By	Project Team
Date Created	24-02-2026
Last Updated By	Project Team
Date Last Updated	24-02-2026
Actors	Administrator
Description	Admin manages coordinator information.
Preconditions	Admin logged in.

Post Conditions	Coordinator information updated.
Normal Flow	1. Admin selects manage coordinators. 2. System displays list. 3. Admin updates details. 4. System saves changes.
Alternate Flow	Invalid data entered.
Exceptions	System failure.
Priority	High
Frequency of Use	Sometimes
Business Rules	Only valid data allowed.
Assumptions	Coordinator data exists.

6 .Add Users –

Field	Description
Use Case ID	UC-06
Use Case Name	Add Users
Created By	Project Team
Date Created	24-02-2026
Last Updated By	Project Team
Last Updated Date	24-02-2026
Actors	Administrator
Description	Admin adds new users to the system.
Preconditions	Admin must be logged in.
Post Conditions	User successfully added.
Normal Flow	1. Admin selects Add User. 2. System prompts for user details. 3. Admin enters data. 4. System saves user.
Alternate Flow	If user ID already exists, show error.
Exceptions	Database failure.
Priority	High

Frequency of Use	Often
Business Rules	User ID must be unique.
Assumptions	Admin has permission.

ACTOR – COURSE CO-ORDINATOR

7.DEFINE SEMESTERS –

Field	Description
Use Case ID	UC-07
Use Case Name	Define Semester
Created By	Project Team
Date Created	24-02-2026
Last Updated By	Project Team
Date Last Updated	24-02-2026
Actors	Course Coordinator
Description	Coordinator defines semester details in the system.
Preconditions	Coordinator must be logged in.
Post Conditions	Semester details stored successfully.
Normal Flow	1. Select Define Semester. 2. Enter semester details. 3. System saves data.
Alternate Flow	If fields are empty, error shown.
Exceptions	System/database failure.
Priority	High
Frequency of Use	Once per semester
Business Rules	Semester code must be unique.

Assumptions	Academic year already exists.
--------------------	-------------------------------

8.Add Subjects –

Field	Description
Use Case ID	UC-08
Use Case Name	Add Subjects
Created By	Project Team
Date Created	24-02-2026
Last Updated By	Project Team
Date Last Updated	24-02-2026
Actors	Course Coordinator
Description	Adds subjects under a semester.
Preconditions	Semester must be defined.
Post Conditions	Subjects added successfully.
Normal Flow	1. Select Add Subjects. 2. Enter subject details. 3. Save.
Alternate Flow	Duplicate subject code → error.
Exceptions	Invalid input.
Priority	High
Frequency of Use	Every semester
Business Rules	Subject code must be unique.
Assumptions	Semester exists.

9.ADD CREDITS –

Field	Description
Use Case ID	UC-09

Use Case Name	Add Credits
Created By	Project Team
Date Created	24-02-2026
Last Updated By	Project Team
Date Last Updated	24-02-2026
Actors	Course Coordinator
Description	Assigns credit value to subjects.
Preconditions	Subject must exist.
Post Conditions	Credits updated successfully.
Normal Flow	1. Select subject. 2. Enter credit value. 3. Save.
Alternate Flow	Invalid credit value → error.
Exceptions	System failure.
Priority	High
Frequency of Use	Every semester
Business Rules	Credits must follow curriculum rules.
Assumptions	Subject already added.

10.ASSIGN FACULTY –

Field	Description
Use Case ID	UC-10
Use Case Name	Assign Faculty
Created By	Project Team
Date Created	24-02-2026
Last Updated By	Project Team

Date Last Updated	24-02-2026
Actors	Course Coordinator
Description	Assigns faculty to subjects.
Preconditions	Subject must exist.
Post Conditions	Faculty successfully assigned.
Normal Flow	1. Select subject. 2. Choose faculty. 3. Confirm assignment.
Alternate Flow	If faculty unavailable → show message.
Exceptions	Invalid selection.
Priority	High
Frequency of Use	Every semester
Business Rules	One subject must have assigned faculty.
Assumptions	Faculty list exists.

11.UPDATE CURRICULUM –

Field	Description
Use Case ID	UC-11
Use Case Name	Update Curriculum
Created By	Project Team
Date Created	24-02-2026
Last Updated By	Project Team
Date Last Updated	24-02-2026
Actors	Course Coordinator
Description	Updates curriculum structure.
Preconditions	Curriculum must exist.

Post Conditions	Curriculum updated successfully.
Normal Flow	1. Select curriculum. 2. Modify details. 3. Save changes.
Alternate Flow	Invalid update → error shown.
Exceptions	System failure.
Priority	Medium
Frequency of Use	Occasionally
Business Rules	Must follow university regulations.
Assumptions	Coordinator has authority.

ACTOR – ACADEMIC-COORDINATOR

12.REGISTER STUDENT –

Field	Description
Use Case ID	UC-12
Use Case Name	Register Student
Created By	Project Team
Date Created	24-02-2026
Actors	Academic Coordinator
Last Updated By	Project Team
Date Last Updated	24-02-2026
Description	Registers a new student in the system.
Preconditions	Coordinator must be logged in.
Post Conditions	Student basic record created.
Normal Flow	1. Select Register Student. 2. Enter student details. 3. Save information.

Alternate Flow	Missing details → error message.
Exceptions	Duplicate registration number.
Priority	High
Frequency of Use	Every academic year
Business Rules	Registration number must be unique.
Assumptions	Student documents are valid.

13. ENROLL STUDENTS -

Field	Description
Use Case ID	UC-13
Use Case Name	Enroll Students
Created By	Project Team
Date Created	24-02-2026
Last Updated By	Project Team
Date Last Updated	24-02-2026
Actors	Academic Coordinator
Description	Enrolls registered student into course and semester.
Preconditions	Student must be registered.
Post Conditions	Student enrolled successfully.
Normal Flow	1. Select student. 2. Allocate course & semester. 3. Confirm enrollment.
Alternate Flow	Course full → error message.
Exceptions	System failure.
Priority	High

Frequency of Use	Every semester
Business Rules	Student must meet eligibility criteria.
Assumptions	Courses already defined.

14. ASSIGN STUDENT ID –

Field	Description
Use Case ID	UC-14
Use Case Name	Assign Student ID
Created By	Project Team
Date Created	24-02-2026
Last Updated By	Project Team
Date Last Modified	24-02-2026
Actors	Academic Coordinator
Description	Assigns unique ID to enrolled student.
Preconditions	Student must be enrolled.
Post Conditions	Unique Student ID generated.
Normal Flow	1. Select enrolled student. 2. Generate ID. 3. Save.
Alternate Flow	ID conflict → regenerate ID.
Exceptions	Database error.
Priority	High
Frequency of Use	Every enrollment
Business Rules	Student ID must be unique.
Assumptions	System auto-generates ID.

15.MANAGE STUDENT RECORDS –

Field	Description
Use Case ID	UC-15
Use Case Name	Manage Student Records
Created By	Project Team
Date Created	24-02-2026
Last Updated By	Project Team
Date Last Updated	24-02-2026
Actors	Academic Coordinator
Description	Manages and maintains student information.
Preconditions	Student record must exist.
Post Conditions	Updated record saved.
Normal Flow	1. Search student. 2. View details. 3. Update if required. 4. Save.
Alternate Flow	Invalid data entered → error.
Exceptions	Record not found.
Priority	Medium
Frequency of Use	Frequently
Business Rules	Only authorized updates allowed.
Assumptions	Coordinator has permission.

ACTOR - FACULTY

16.UPLOAD LECTURE CONTENT –

Field	Details
Use Case ID	UC-16
Use Case Name	Upload Lecture Content
Created By	Project Team

Date Created	24/02/2026
Last Updated By	Project Team
Date Last Updated	24/02/2026
Actors	Faculty
Description	Faculty uploads lecture videos/notes for students.
Preconditions	Faculty must be logged in and course must be assigned.
Postconditions	Lecture content is stored and available to students.
Normal Flow	1. Select course.2. Choose upload option.3. Select file.4. System validates file.5. System uploads and confirms.
Alternate Flows	Invalid file format → system shows error.
Exceptions	Upload failure due to server/network issue.
Priority	High
Frequency of Use	Often
Business Rules	File size and format restrictions apply.
Assumptions	Faculty has valid course access.

17.CREATE TASKS –

Field	Details
Use Case ID	UC-17
Use Case Name	Create Tasks
Created By	Project Team
Date Created	24/02/2026
Last Updated By	Project Team
Date Last Updated	24/02/2026
Actors	Faculty
Description	Faculty creates assignments/tasks for students.

Preconditions	Faculty logged in and course selected.
Postconditions	Task is published to students.
Normal Flow	1. Select course.2. Click create task.3. Enter details.4. Save task.5. System confirms.
Alternate Flows	Missing required fields → prompt correction.
Exceptions	Database save failure.
Priority	High
Frequency of Use	Often
Business Rules	Deadline must be future date.
Assumptions	Course exists.

18.ENTER INTERNAL MARKS –

Field	Details
Use Case ID	UC-18
Use Case Name	Enter Internal Marks
Created By	Project Team
Date Created	24/02/2026
Last Updated By	Project Team
Date Last Updated	24/02/2026
Actors	Faculty
Description	Faculty enters internal assessment marks.
Preconditions	Faculty logged in; students enrolled.
Postconditions	Internal marks saved.
Normal Flow	1. Select course.2. Open internal marks.3. Enter marks.4. Save.5. Confirmation displayed.
Alternate Flows	Marks out of range → error message.
Exceptions	Save failure/system crash.
Priority	High

Frequency of Use	Per assessment
Business Rules	Marks must be within allowed range.
Assumptions	Student list available.

19.ENTER MAJOR MARKS –

Field	Details
Use Case ID	UC-19
Use Case Name	Enter Major Marks
Created By	Project Team
Date Created	24/02/2026
Last Updated By	Project Team
Date Last Updated	24/02/2026
Actors	Faculty
Description	Faculty enters major exam marks.
Preconditions	Faculty logged in; exam completed.
Postconditions	Major marks recorded.
Normal Flow	1. Select course.2. Open major marks section.3. Enter marks.4. Save.5. Confirmation displayed.
Alternate Flows	Invalid marks entered → prompt correction.
Exceptions	Database save error.
Priority	High
Frequency of Use	Once per semester
Business Rules	Marks cannot exceed maximum limit.
Assumptions	Students attempted exam.

20.GENERATE GRADE CARD –

Field	Details
--------------	----------------

Use Case ID	UC-20
Use Case Name	Generate Grade Card
Created By	Project Team
Date Created	24/02/2026
Last Updated By	Project Team
Date Last Updated	24/02/2026
Actors	Faculty
Description	Faculty generates final grade card.
Preconditions	Internal and major marks must be entered.
Postconditions	Grade card generated and stored.
Normal Flow	1. Select course.2. Click generate grade card.3. System calculates grades.4. Grade card generated.5. Confirmation shown.
Alternate Flows	Marks incomplete → generation blocked.
Exceptions	Calculation error.
Priority	High
Frequency of Use	Once per semester
Business Rules	Grade calculation follows university rules.
Assumptions	Marks are finalized and accurate.

ACTOR - STUDENT

21. VIEW ENROLLED SUBJECTS –

Field	Details
Use Case ID	UC-21
Use Case Name	View Enrolled Subjects
Created By	Project Team
Date Created	24/02/2026

Last Updated By	Project Team
Date Last Updated	24/02/2026
Actors	Student
Description	Student views subjects allocated for the semester.
Preconditions	Student must be logged in and enrolled in a semester.
Postconditions	Enrolled subject list displayed.
Normal Flow	1. Student logs in.2. Selects semester.3. System displays enrolled subjects.
Alternate Flows	No subjects enrolled → system displays message.
Exceptions	Database retrieval failure.
Priority	High
Frequency of Use	Each semester
Business Rules	Student can view only allocated subjects.
Assumptions	Enrollment completed by Academic Coordinator.

22. ACCESS LEARNING MATERIALS –

Field	Details
Use Case ID	UC-22
Use Case Name	Access Learning Materials
Created By	Project Team
Date Created	24/02/2026
Last Updated By	Project Team
Date Last Updated	24/02/2026
Actors	Student
Description	Student accesses lecture materials uploaded by faculty.
Preconditions	Student logged in and enrolled in subject.
Postconditions	Materials displayed.

Normal Flow	1. Select subject.2. Click access materials.3. System retrieves content.
Alternate Flows	No materials uploaded.
Exceptions	File loading error.
Priority	High
Frequency of Use	Often
Business Rules	Access allowed only to enrolled subjects.
Assumptions	Faculty uploaded materials.

23 .ATTEMPT TEST –

Field	Details
Use Case ID	UC-23
Use Case Name	Attempt Tests
Created By	Project Team
Date Created	24/02/2026
Last Updated By	Project Team
Date Last Updated	24/02/2026
Actors	Student
Description	Student attempts online assessment.
Preconditions	Valid login and active test schedule.
Postconditions	Test responses submitted.
Normal Flow	1. Select test.2. Answer questions.3. Submit test.
Alternate Flows	Time expires → auto submit.
Exceptions	Network disconnection.
Priority	High
Frequency of Use	Per assessment
Business Rules	Single submission per test.
Assumptions	Test created by faculty.

24.VIEW MARKS –

Field	Details
Use Case ID	UC-24
Use Case Name	View Marks
Created By	Project Team
Date Created	24/02/2026
Last Updated By	Project Team
Date Last Updated	24/02/2026
Actors	Student
Description	Student views internal/exam marks.
Preconditions	Marks entered by faculty.
Postconditions	Marks displayed.
Normal Flow	1. Select subject.2. Click view marks.3. System displays marks.
Alternate Flows	Marks not yet published.
Exceptions	Data retrieval error.
Priority	High
Frequency of Use	Per assessment
Business Rules	Students cannot modify marks.
Assumptions	Faculty evaluated answers.

25.VIEW GRADES –

Field	Details
Use Case ID	UC-25
Use Case Name	View Grades
Created By	Project Team
Date Created	24/02/2026
Last Updated By	Project Team

Date Last Updated	24/02/2026
Actors	Student
Description	Student views subject-wise grades and SGPA/CGPA.
Preconditions	Grade card generated.
Postconditions	Grades displayed.
Normal Flow	1. Select semester.2. Click view grades.3. System displays grades.
Alternate Flows	Grades not yet published.
Exceptions	Calculation error.
Priority	High
Frequency of Use	Once per semester
Business Rules	Grade calculation follows predefined grading scheme
Assumptions	Marks finalized by faculty.
