

# Full Use Case Documentation

## 1) Add Course — Success

**Scenario:** Student adds a course during Add/Drop.

**Trigger:** Start of registration window.

**Description:** Student selects a course → prerequisites checked → seats verified → tuition validated → registration confirmed.

**Actors:** Student, System, Registrar, Finance.

**Flow:**

1. Student opens Manage Courses.
2. System shows schedule.
3. Student selects course.
4. System checks prerequisites.
5. System checks seat availability.
6. Finance verifies payment.
7. System confirms registration.

**Rules:** Must stay between 4–7 courses.

**Exceptions:** Seats full, prerequisite fail, payment fail.

## 2) Drop Course — Minimum Rule

**Scenario:** Student drops a course but system enforces minimum load.

**Trigger:** Student selects course to drop.

**Description:** If drop makes schedule fall below 4 → system blocks.

**Actors:** Student, System, Registrar.

**Flow:**

1. Student selects Drop.
2. System checks new load.
3. **alt:** Allowed → drop; Too low → block user.

**Rules:** Minimum 4 courses.

## 3) Add Course — Prerequisite Missing

**Scenario:** Student tries adding a course without prerequisites.

**Trigger:** Student attempts registration.

**Description:** System blocks and suggests alternatives.

**Actors:** Student, System, Registrar.

**Flow:**

1. Student selects course.
2. System checks prerequisites.
3. **alt:** Passed → register; Failed → block + recommend courses.

## 4) View Grades

**Scenario:** Student views semester grades.

**Trigger:** Student opens View Grades.

**Description:** System retrieves grades from Registrar.

**Actors:** Student, System, Registrar.

**Flow:**

1. Student selects View Grades.
2. System fetches grades.
3. System displays results.

**Exceptions:** Grades not released.

## 5) Pay Tuition — Retry (Recursion)

**Scenario:** Student pays tuition with retry attempts.

**Trigger:** Student opens Billing.

**Description:** System calculates balance → attempts payment (up to 3 retries).

**Actors:** Student, System, Finance, Bank.

**Flow:**

1. Student opens Billing.
2. System fetches balance.
3. **loop (max 3 retries):** System validatePayment().
4. Student confirms.
5. Bank processes.
6. **alt:** success → confirmation; fail → retry or abort.

