

Description

This usage scenario explains how a student enrolls in courses through the system and how the process progresses.

Stakeholders and Interests

- **Student:** The student wants to register for selected courses, check the suitability and prerequisites of the courses, view their course schedule, and access an updated transcript.
- **Course Registration System:** The system aims to securely verify student identities and accurately process course registrations and updates.
- **Academic Advisors:** Advisors play a role in approving or guiding students in their course selections. They want to assist students in making appropriate course choices and review and approve course registration requests.

Actors

- **Primary Actor:** Student
- **Supporting Actors:** Course Registration System, Database (JSON files)

Preconditions

- The student must be a registered and active student in the system.
- The student needs to log in with their username and password.
- The course registration period must be open.
- The student must meet the registration requirements, such as prerequisites and credit limits.

Success Guarantee (Postconditions)

- The student's course registration is successfully completed, and the student can access their course schedule, the list of registered courses, and an updated transcript.

Basic Flow

1. System Login:

- 1.1. The student logs into the system using their username and password.
- 1.2. The system verifies the student's identity and redirects them to the main page upon successful login.

2. View Course List:

- 2.1. The student selects the "Course Registration" module.
- 2.2. The system displays a list of courses available for registration for the current term.

3. Course Selection:

3.1. The student selects the course(s) they wish to register for from the list.

3.2. The system checks the prerequisites of the selected course(s) and the student's previous course records.

4. Conflict Check and Approval:

4.1. The system checks if there are any time conflicts between the selected courses.

4.2. If there are no conflicts or prerequisites issues, the system presents the option to confirm the selection to the student.

5. Registration Process:

5.1. The student confirms their selection.

5.2. The system records the student's registration and updates the registration in the JSON database.

6. Registration Result and Transcript Update:

6.1. The system sends a successful registration message to the student.

6.2. The student's transcript and course schedule are updated, and this information is made available to the student.

Alternative Flows

1.1.a) The student uses unwanted special characters in the username.

1.1.a.1) The system detects unwanted special characters in the username and informs the student with an error message.

1.1.a.2) The student realizes that a valid username is required and retries with a corrected username.

1.1.a.3) The system accepts the corrected username and proceeds to the password request step.

1.2.a) If the system detects an incorrect username or password, it displays an error message and redirects to the login screen.

1.2.a.1) The system identifies an incorrect username or password combination and informs the student with an error message.

1.2.a.2) The student understands that they need to enter the correct username and password and retries with corrected information.

1.2.a.3) The system accepts the correct username and password and proceeds to the course list viewing step.

2.2.a) If the courses for the term have not opened yet or the course list is empty, it displays an error message.

2.2.a.1) The system detects that the term has not started or the course list is empty and informs the student with an error message.

2.2.a.2) The student understands that they should check again later and is redirected to the main page.

3.2.a) If one or more of the selected courses do not meet prerequisites, it displays an error message.

3.2.a.1) The system identifies that one or more of the selected courses do not meet prerequisites and informs the student with an error message.

3.2.a.2) The student understands that they should choose appropriate courses and returns to the course selection step.

4.2.a) If there is a time conflict among the selected courses, the system displays conflicting courses and provides an opportunity for the student to resolve the conflict.

4.2.a.1) The system detects a time conflict among the selected courses and displays this conflict.

4.2.a.2) The student makes changes to the conflicting courses or selects a different time.

4.2.a.3) The system confirms the conflict-free course selection and proceeds to the approval step.

5.1.a) If the student chooses to cancel their confirmation before completing the registration, the registration process is cancelled.

5.1.a.1) The student chooses to cancel their confirmation before finalizing the registration.

5.1.a.2) The system informs the student that the registration process has been canceled and redirects them to the course selection step.

5.2.a) If an error occurs during the registration process, the system sends an error message and suggests repeating the registration process.

5.2.a.1) The system detects an error during the registration process and informs the student with an error message.

5.2.a.2) The student corrects the error and chooses to repeat the registration process.

5.2.a.3) The system accepts the corrected registration process and proceeds to the registration result and transcript update step.

Special Requirements

- The system should efficiently and securely handle user login and course registration processes.

Frequency

- This process occurs at the beginning of each academic term and during specified registration periods.