Use Cases Part 1

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UC1: Pull Course Information

Purpose: To view the course data in order to make informed decisions and learn relevant information.

Stakeholder List:
- Student counselor: wants to view course information in order to advise and guide students planning their degree.
- Grad Student: wants to view course information to learn about the courses they want to take or potentially TA.
- System Admin/Tech Support: wants to view course information to review the data before seeing what needs to be changed or updated if they want to override the information as well as seeing if the changes they made are correct.

Primary Actor: Student counselor.

Preconditions: Student counselor, Grad Student and or System Admin/Tech Support requires details regarding a course's information.

Postconditions: Student counselor, Grad Student and or System Admin/ Tech Support receives information on course description, prerequisites, course code, number of credits, offering type (distance education or regular), location if applicable, semester offered, seats available, lab time, meeting time, and restrictions.

Basic Flow:
1. The student counselor, grad Student, System Admin/Tech Support choose to view information on a course.
2. The student counselor, grad student, System Admin/Tech Support enters a search attribute for a course (ex. course name, course code).
3. The system searches the course information database for any records that match the search attribute.
4. If a match is found, the system retrieves and displays all the required information about about the course including information on course description, prerequisites, course code, number of credits, offering type (distance education or regular), location if applicable, semester offered, seats available, lab time, meeting time, and restrictions.
5. The student counselor, grad student, and or System Admin/Tech Support examine and assess the information and use it for their intended purpose.

Alternate Flow (Exceptions):

1a. Invalid search attribute entered.
    1a.1. System signals error with a message prompt and rejects the entry.

1a.2. System prompts the student counselor, grad Student and or System Admin/ Tech to re-enter a valid search attribute.

2a. The student counselor, grad Student and or System Admin/ Tech cancels and suspends the search.

2a.1.System terminates the search for course information from the database.

2a.2.System prompts the student counselor, grad Student and or System Admin/   Tech to re-enter a search attribute for a course (ex. course name, course code)

3a. The system crashes and suspends the search.

3a.1. The student counselor, grad Student, and or System Admin/Tech Support restarts the system.

3a.2. System reconstructs prior search state.

3a.2.1. The system is unable to display the previous state.

3a.2.1.1. System signals error with a message prompt and returns to the initial, clean state.

3a.2.1.2 The student counselor, grad Student, and or System Admin/ Tech Support starts a new search for course information.

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UC2: Pull Student Information

Purpose: To retrieve student information when needed

Stakeholder List:
- Student counselor: wants access to student information to ensure that student is meeting the necessary requirements for their degree
- System Admin/ Tech Support: wants access to student information to verify the accuracy of all attributes, review and modify any incorrect information, and confirm the correctness of their changes if any fields have been overridden.

Primary Actor: Student Counselor

Preconditions: Student Counselor or system admin/ tech support needs information about a student for an intended purpose

Postconditions: Student Counselor or system admin/ tech support receives all required information regarding the student including central login ID, student number, name, email, phone number, registered courses, completed courses, completed credits, degree, GPA, major, minor

Basic Flow:
1. The student counselor or system admin/ tech support selects the option to search for a student's information
2. The student counselor or tech support/system admin enters a search attribute of the student (ex. login ID, student number, first name, last name, email)
3. The system searches the student database for a record that matches the search attribute
4. If a match is found, the system retrieves and displays all the required information about about the student
5. The student counselor or system admin/ tech support reviews the information and uses it for the intended purpose

Alternate Flow (Exceptions):
1a. Invalid search attribute entered
    (ex. Incorrect email address, non-existent student number, or incorrect name entered)
        1a.1. The system displays an error message indicating that the search attribute is invalid
        1a.2. Prompts to re-enter a valid search attribute

2a. Incomplete or outdated student information
    (ex. Student recently changed contact information, major, degree)
        2a.1. System may not retrieve all the required information about the student
        2a.2. System displays warning message to indicate some information may be incomplete or outdated
        2a.3. Student counselor or tech support/system admin is advised to contact student directly or the appropriate authorities (ex. registrarial services) to obtain missing or updated information

3a. Multiple student records found
    (ex. Student with same first and last name, similar emails)
        3a.1. System finds multiple student records that match the search attribute entered and displays a list of all matching records
        3a.2. Student counselor or tech support/system admin must have a unique attribute such as the student number to select the correct student from the list

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UC3: Pull Professor Info

Purpose: To retrieve professor information when needed

Stakeholder List: System Admin / Tech Support: wants access to professor information to verify the accuracy of all attributes, review and modify any incorrect information, and confirm the correctness of their changes if any fields have been overridden.

Primary Actor: System Admin / Tech Support

Preconditions: Tech Support / System Admin requires information about a professor

Postconditions: Tech Support / System Admin receives all information including central ID, employee ID, name, email, department, phone number, office, courses in progress, courses previously taught, and any description.

Basic Flow:
1. Selects search for professor
2. Enters any piece of multiple pieces of professor data for search (ex. Central ID, employee ID, name, email)
3. Receives all information about professor

Alternate Flow (Exceptions):
1a. Invalid search attribute entered
    (ex. Incorrect email address, non-existent central ID, non-existent employee ID, or incorrect name entered)
        1a.1. The system displays an error message indicating that the search attribute is invalid
        1a.2. Prompts to re-enter a valid search attribute

2a. Incomplete or outdated professor information
    (ex. Professor recently changed contact information)
        2a.1. System may not retrieve all the required information about the professor
        2a.2. System displays warning message to indicate some information may be incomplete or outdated
        2a.3. Tech support/system admin is advised to contact professor directly or the appropriate authorities to obtain missing or updated information

3a. Multiple professor records found
    (ex. Professor with same first and last name, similar emails)
        3a.1. System finds multiple professor records that match the search attribute entered and displays a list of all matching records
        3a.2. Tech support/system admin must have a unique attribute such as the employee ID to select the correct professor from the list

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UC4 : Override Professor Info

Purpose: To update professor information as and when needed

Stakeholder List:
- System Admin / Tech Support: Needs to update professor information on school records.
- Professor: Wants to update their information on school records.

Primary Actor: System Admin / Tech Support

Preconditions: System Admin / Tech Support is required to edit or update information about a professor.

Postconditions: System Admin / Tech Support receives and is able to edit information including central ID, employee ID, name, email, department, phone number, office, courses in progress, courses previously taught, and any description.

Basic Flow:
1. The System Admin / Tech Support selects the option to search for a professor's information
2. The System Admin / Tech Support enters a search attribute of the professor (ex. Central ID, employee ID, name, email)
3. The system searches the database for a record that matches the search attribute.
4. If a match is found, the system retrieves and displays all the required information about about the professor
5. The System Admin / Tech Support reviews the information and overrides the information that needs to be updated
6. The System Admin / Tech Support pushes the updated information back to the database.

Alternate Flow (Exceptions):
1a. Invalid search attribute entered
   (ex. Incorrect email address, non-existent employee number, or incorrect name entered)
      1a.1. The system displays an error message indicating that the search attribute is invalid
      1a.2. Prompts to re-enter a valid search attribute

2a. Incomplete or outdated professor information

(ex. Professor recently changed contact information, department, courses in progress)

      2a.1. System may not retrieve all the required information about the professor

      2a.2. System displays warning message to indicate some information may be incomplete or outdated

      2a.3. System admin / Tech Support is advised to contact professor directly or the appropriate authorities (ex. registrarial services) to obtain missing or updated information

3a. Multiple professor records found

    (ex. Professor with same first and last name, similar emails)

      3a.1. System finds multiple professor records that match the search attribute entered and displays a list of all matching records

      3a.2. System admin / Tech Support must have a unique attribute such as the employee number to select the correct professor from the list

4a. Invalid data entered

    (ex. Incorrect email address, non-existent employee number, or incorrect name entered)

      4a.1. The system displays an error message indicating that the entered data is invalid

      4a.2. Prompts to re-enter valid data

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UC5: Override Student Info

Purpose: To update student information as and when needed

Stakeholder List:
- System Admin / Tech Support: needs to edit outdated/incorrect student information upon a student's request
- Student: wants to ensure that any requested changes to their information are made

Primary Actor: System Admin / Tech Support

Preconditions: System Admin / Tech Support is required to edit or update information about a student.

Postconditions: System Admin / Tech Support receives and is able to edit information including central ID, student ID, name, email, major, , minor, contact details, and course history..

Basic Flow:
1. The System Admin / Tech Support selects the option to search for a student's information

2. The System Admin / Tech Support enters a search attribute of the student(ex. Central ID, student ID, name, email)
3. The system searches the database for a record that matches the search attribute.
4. If a match is found, the system retrieves and displays all the required information about about the student
5. The System Admin / Tech Support reviews the information and overrides the information that needs to be updated
6. The System Admin / Tech Support pushes the updated information back to the database.

Alternate Flow (Exceptions):

1a. Invalid search attribute entered
   (ex. Incorrect email address, non-existent student number, or incorrect name entered)
      1a.1. The system displays an error message indicating that the search attribute is invalid
      1a.2. Prompts to re-enter a valid search attribute

2a. Incomplete or outdated student information
   (ex. Student recently changed contact information, major/minor, courses in progress)
      2a.1. System may not retrieve all the required information about the student
      2a.2. System displays warning message to indicate some information may be incomplete or outdated
      2a.3. Student counselor or tech support/system admin is advised to contact student directly or the appropriate authorities (ex. registrarial services) to obtain missing or updated information

3a. Multiple student records found
   (ex. Students with same first and last name, similar emails)
      3a.1. System finds multiple student records that match the search attribute entered and displays a list of all matching records
      3a.2. Student counselor or tech support/system admin must have a unique attribute such as the student number to select the correct student from the list

4a. Invalid data entered
   (ex. Incorrect email address, non-existent student number, or incorrect name entered)
      4a.1. The system displays an error message indicating that the entered data is invalid
      4a.2. Prompts to re-enter valid data

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UC6: Pull Error Logs

Purpose: To be able to see any issues/errors with the Gryphhub right away and fix them.

Stakeholder List:
- **System Admin / Tech Support:** To immediately identify and resolve any problems that could pop up on the Gryphhub.
- **Professor:** To make sure the Gryphhub is operating efficiently and that students have access to the materials they require.
- **Student:** To make sure students can easily obtain the materials they require from the Gryphhub.
- **Applicants:** To make sure the Gryphhub is operating efficiently and that they have access to the resources they need for the application process.
- **Graduate Student:** To make sure the Gryphhub is operating efficiently and that they have access to the materials they require for their study or apply for any TA position.
- **Program Counselor:** To make sure that the Gryphhub is operating efficiently and that students have access to the materials they require for their degree.

Primary Actor: System Admin / Tech Support

Preconditions: The website is up and running.

Postconditions: Any issues affecting the website have been located and fixed by system administrators and technical support.

Basic Flow:
1. System admin / tech support access the Gryphhub's database.
2. System admin / tech support investigate and identify any errors occurring on the website.
3. System admin / Tech support review the data in the error logs.
4. System admin / tech support troubleshoot the errors found and resolve them.

Alternate Flow (Exceptions):
1a. Unable to access Gryphhub.
> 1a.1 The system admin / tech support cannot authenticate their identity.
> 1a.2 The system admin / tech support must seek permission from the university IT department if they do not already have access to the Gryphhub.

2a. Unable to access error log page
> 2a.1 The system admin / tech support must seek assistance from the university IT department if they are unable to reach the error log page.

3a. The error is too complex

3a.1 The system admin / tech support cannot understand the error.
3a.2 The system admin / tech support cannot find a possible solution to the error.
3a.3 The system admin / tech support should contact the website developer for help, if the problem is difficult to diagnose or the error is too complex.

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UC7: Disable parts of the system

Purpose: Disable parts of the website for maintenance services so that system admin can fix bugs without user interference

Stakeholder List:
- System admin: to disable parts of the website for maintenance services so that they can fix bugs without user interference
- Student, Professor, Grad Student, Student Counselor: to have uninterrupted access to the website and its features

Primary Actor: System admin

Preconditions: The system admin must be logged in and have appropriate privileges to disable parts of the system. There must be identified parts of the website that require disabling for maintenance.

Postconditions: The disabled parts of the website will be inaccessible to all users except system admins. The system admin will be able to perform maintenance on the disabled parts of the website without user interference.

Basic Flow:
1. The system admin logs into the system and navigates to the admin dashboard.
2. The system admin selects the "Maintenance" tab from the dashboard.
3. The system admin identifies the parts of the website that require disabling for maintenance.
4. The system admin selects the "Disable" button for the identified parts of the website.
5. The system admin confirms the action by selecting the "Confirm" button.
6. The system admin is presented with a success message indicating that the identified parts of the website have been disabled.

Alternate Flow (Exceptions):

1a. Unable to Disable Website Parts
      1a.1 After the system admin attempts to select the "Disable" button, the system encounters an error and is unable to disable the part of the website.
      1a.2 The system admin is presented with an error message indicating that the part of the website cannot be disabled due to a technical issue.
      1a.3 The system admin can try again later or contact technical support for assistance.

2a. Unauthorized Access Attempt
      2a.1 A stakeholder (Student, Professor, Grad Student, or Student Counselor) attempts to access a disabled part of the website.
      2a.2 The system detects the unauthorized access attempt and denies access to the stakeholder.
      2a.3 The stakeholder is presented with an error message indicating that the part of the website is currently undergoing maintenance and is temporarily unavailable.
      2a.4 The stakeholder can try again later or contact technical support for assistance.

3a. Internet Connection Failure While Disabling Website Parts
      3a.1 After the system admin confirms the action by selecting the "Confirms" button, the system admin encounters a problem with their internet connection.
      3a.2 The disabling action fails, and the system admin is presented with an error message indicating that the disabling action could not be completed due to a lack of internet connection.
      3a.3 The system admin can try again once their internet connection is restored.

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UC8: Override course information

Purpose: To update course information if it is incorrect or needs to be changed

Stakeholder List:

- Student, Professor, Grad Student, Student Counselor: want to be able to view any course information that has been updated or changed

System admin / Tech Support: wants to have access to edit course information that is incorrect or needs to be updated

Primary Actor: System admin / Tech Support

Preconditions: System admin/ tech support needs to override course information for a particular reason

Postconditions: System admin/ tech support successfully overrides course information including course code, name, description, term, prerequisites, location, sections, lecture date/time, exam date/time

Basic Flow:
1. System admin/ tech support selects course that requires an override
2. System admin/ tech support selects option to override course information
3. System admin/ tech support chooses the specific information that needs to be overridden, such as the course code, name, description, term, prerequisites, location, sections, lecture data/time, or exam data/time
4. System admin/ tech support updates or enters the new information into the system and saves the changes
5. The system displays a confirmation message to indicate that the override was successful

Alternate Flow (Exceptions):
1a. Conflicting course information
    (ex. Conflicting lectures times or exam schedules)
        1a.1. System admin/ tech support attempts to override course information that conflicts with other information in the system
        1a.2. The system displays an error message indicating that the override cannot be processed
        1a.3. System admin/ tech support is prompted to revise changes to ensure that changes do not conflict with other information in the system
2a. Undo override
    (ex. System admin/ tech support mistakenly overrides course information or needs to revert changes)
        2a.1. System admin/ tech support selects option to undo the override and confirms they want to revert changes
        2a.2. System restores previous course information and displays a confirmation message to indicate that the override has been undone
3a. Technical issues during override
    (ex. System crashes during override process and is unable to complete the override)
        3a.1. System admin/ tech support restarts system and attempts to access the course information

3a.2. If system has recovered, system admin/ tech support checks to see if override has gone through

3a.3. If override is unsuccessful or course information has been corrupted, system admin/ tech support selects option to undo override and restore system to a previous state.

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UC9: Override course permissions

Purpose: To override course permissions and restrictions to allow students to register for a particular course

Stakeholder List:
- Student: wants to be able to register for a particular course that they do not initially meet the requirements for
- Student counselor: wants to have access to give a student permission to register for a course regardless of grades or course restrictions

Primary Actor: Student counselor

Preconditions: Student counselor needs to override course permissions for a student for a particular reason

Postconditions: Student counselor successfully overrides course permissions for student to register for a particular course.

Basic Flow:
1. Student counselor searches for student with an attribute such as name, student ID, email.
2. System displays student information and their current course schedule
3. Student counselor selects the course that the student wants to register for, regardless of any prerequisites or restrictions
4. Student counselor selects the option to override course permissions for the student
5. The system updates the student's course schedule to include the desired course and registers them for the course
6. The system displays a confirmation message to indicate that overriding course permissions was successful

Alternate Flow (Exceptions):

1a. Student request denied

    1a.1. Student contacts student counselor to request permission to register for a course that they do not meet the requirements for

    1a.2. Student counselor reviews the request and determines that student cannot register for the course after consulting with the department head

    1a.3. The request is denied and the student counselor informs the student of the decision and provides alternative course options

2a. Undo override

    (ex. Student counselor mistakenly overrides course permissions or needs to revert changes)

    2a.1. Student counselor selects option to undo the override and confirms they want to revert changes

    2a.2. System restores previous course permissions for the student and displays a confirmation message to indicate that the override has been undone

3a. Technical issues during override

    (ex. System crashes during override process and is unable to complete the override)

    3a.1. Student counselor restarts system and attempts to override course permissions

    3a.2. If system has recovered, student counselor checks to see if override has gone through

    3a.3. If override is unsuccessful, student counselor selects option to undo override and restore previous course permissions for the student