

Group 5

Bettervisor

Milestone 2

Use Cases

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Section 1: Use Cases - Degree Management Subsystem

1.1 - DM1: Register for courses

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Use Case ID: DM1

Use Case Title: Register for courses

Purpose: Allow student to save their place in a desired course

Primary Actor: Student

Stakeholders & Interests:

- 1) Student
 - a) Wants to quickly register for courses
 - b) Wants to pay for all costs associated with registration
- 2) Professor
 - a) Wants updated information of all students registered in their course
- 3) University
 - a) Wants to confirm the student's enrollment status
 - b) Wants to accurately bill the student for all costs associated with registration
 - c) Wants to have access to funds within a timely manner
- 4) Program counsellor
 - a) Wants to quickly enroll a student in a section of a course on their behalf

Preconditions:

- 1) Student is authenticated

Post Conditions:

- 1) Student's schedule includes applicable course section's time commitments
- 2) Student's information appears on course's class list
- 3) Student's progress information is updated
- 4) Number of empty seats for the given section is updated
- 5) Correct cost of course added to semester invoice(if applicable)

Basic Flow:

- 1) Student identifies the course they would like to register for
- 2) Student enters request to enroll in one section of the course
- 3) System verifies that all eligibility criteria is met and approves the request
- 4) System gets student's information and adds it to course's class list
- 5) System updates student's semester schedule with the course section's time commitments
- 6) System updates student's progress information
- 7) System adds course fee to total amount owed by student
- 8) Student pays total amount owed, refer to [DM6](#) for detailed flow

Alternative Flow:

*a) If student's degree level is PhD, student is automatically enrolled in a placeholder course

- 1) System recognizes placeholder course and bypasses invoice update
- 2) System adds placeholder course to the bottom of the semester schedule(no time commitment)

3a) If any of the following cases are true, system denies student request to enroll in a given section and displays an appropriate message:

- i) One or more prerequisites not met
- ii) Credit requirement not met
- iii) Major or minor faculty doesn't match
- iv) Currently registered for maximum number of credits
- v) Insufficient total credits for current registration window or past registration deadline
- vi) Conflicting lecture and/or lab time with a registered course
- vii) Exam conflict with a registered course

3b) Upon system rejecting student request for reasons i,ii,iii,iv,v in 3a, student can seek an override from the counsellor

- 1) Student reaches out to counsellor specifying course and section ID they'd like to enroll in
- 2) counsellor can accept this request and place student in the desired section

3c) No cases in 3a are met and section contains 0 empty seats at the time of the request :

- 1) System adds student information to waitlist
- 2) System displays appropriate message indicating this action was taken
- 3) System provides counsellor with updated waitlist where they place student in the desired section

Use Case ID: DM2

Use Case Title: Deregister from courses

Purpose: Allow a student to drop a registered course

Primary Actor: Student

Stakeholders/Interests:

- 1) Student
 - a) Wants to unenroll from a section of a course
 - b) Wants to get a refund for deregistering from a course\
- 2) Professor
 - a) Wants updated information about the students in the class
- 3) University
 - a) Wants to confirm student's enrollment status
 - b) Wants to verify the student's eligibility for a refund and initiate the process
- 4) Program counsellor
 - a) Wants to quickly unenroll a student from a section of a course on their behalf

Preconditions:

- 1) The student is authenticated
- 2) The student has registered for a course

Postconditions:

- 1) Student's schedule no longer includes course section's time commitments
- 2) Student's information is removed from the course's class list
- 3) Student's progress information is updated
- 4) Number of seats in the section of the course is updated
- 5) If applicable, semester invoice is credited by the appropriate amount

Basic Flow:

- 1) Student identifies the course they would like to deregister from
- 2) Student sends a request to deregister from their enrolled section
- 3) System verifies that the student is eligible to deregister
- 4) System removes student's information from the class list
- 5) System updates student's course schedule by removing the section's time commitment
- 6) System updates student's progress information
- 7) System credits semester invoice

Alternative Flow:

3a) If the student has passed the deadline of deregistering from a course, the system denies the deregister request from the student and displays an appropriate message

3b) Upon a denied request for deregistering, a student can seek out an override request from the program counsellor

- 1) Student reaches out to their respective program counsellor with a filled out academic consideration form
- 2) Program counsellor reviews the form and can accept to override the student to deregister from the course.

7a) Based on the time of deregistering:

- 1) If 14 days have passed since the start of the course, student's semester invoice is not credited
- 2) If 7 days have passed since the start of the course, student's semester invoice is credited 50% of the course fee
- 3) If less than 7 days have passed since the start of the course, student's semester invoice is credited 100% of the course fee

Note: Refer to [DMZ](#) for detailed flow on refund process when a credit balance exists

Use Case ID: DM3

Use Case Title: Plan future semesters

Purpose: Aid in degree planning and management

Primary Actor: Student

Stakeholders/Interests:

- 1) Student
 - a) Wants to create future semester schedules in order to plan out the courses they will take to complete their degree
- 2) University
 - a) Wants to ensure that the student is able to plan their degree for successful graduation

Preconditions:

- 1) The student is authenticated

Postconditions:

- 1) An empty semester schedule of the specified term is created
- 2) The semester schedule is saved with planned courses

Basic Flow:

- 1) Student requests to create an empty semester schedule according to the remaining semesters in their degree
- 2) System generates empty planned semester schedule alongside current semester schedule
- 3) Student selects a course to add to their planned semester schedule
Repeat step 3 until satisfied

Alternative Flow:

- 1a). Student is on their last semester before their expected graduation date
 - 1) System informs the student that:
 - a) It cannot create new semester schedules
 - b) The student should apply for a continuation of study if they wish to plan future semesters
- 2a). System fails to generate a semester schedule
 - 1) System informs student of an unexpected error while trying to create a new semester schedule, and that the student should attempt this action at a later time

Use Case ID: DM4

Use Case Title: Update personal information

Purpose: For students to edit their personal information with up to date information

Primary Actor: Student

Stakeholders/Interests:

- 1) Student
 - a) Wants to update personal information when something relevant changes
- 2) University
 - a) Wants to verify that the information provided is up to date

Preconditions:

- 1) The student is authenticated

Postconditions:

- 1) The required student information has been successfully changed based on the inputs provided.

Basic Flow:

- 1) Student identifies what part of their personal information needs to be modified
- 2) Student selects the edit option
- 3) Student replaces old information with new information
- 4) Student confirms their changes
- 5) System verifies that all required fields have valid values
- 6) System replaces old information with provided input

Alternative Flow:

3a) Student changes none of the required fields

- 1) System displays a message indicating that no changes have been applied

5a) One or more required fields are empty

- 1) System displays message indicating which one of the fields require input

5b) One or more of the fields replaced with new information have improper format

- 1) System displays message indicating which fields have improper format alongside the desired format

Use Case ID: DM5

Use Case Title: Add course review

Purpose: For students to be able to provide feedback for a course that they've completed

Primary Actor: Student

Stakeholders List:

- 1) Student
 - a) Students that have completed the course want to provide feedback to students planning to take the course
 - b) Students planning to take the course want to use feedback to help make their final decision

Pre Conditions:

- 1) The student is authenticated

Post Conditions:

- 1) Review appears alongside course when student is planning/registering

Basic Flow:

- 1) Student selects a course to provide feedback for
- 2) System verifies that the student has received a credit for the course they're attempting to review
- 3) System prompts student to enter a rating from 1-5 indicating satisfaction of overall course experience
- 4) System prompts student to enter an optional comment for any additional details they'd like to disclose
- 5) System verifies the content of the comment if applicable
- 6) System places the review under the course selected in step 1

Alternative Flow:

2a) System will deny the request to submit a rating if the student has not received the credit for the course they're attempting to review

- 1) System displays an appropriate message indicating missing credit

5a) System detects inappropriate language and/or profanity being used in the comment and rejects the review

- 1) System prompts student to change comment and not use inappropriate language

5b) System detects that comment field is not within 250-1000 characters and rejects the review

- 1) System prompts student to change comment to meet character limit

Use Case ID: DM6

Use Case Title: Pay Tuition & Fees

Primary Actor: Student

Purpose: To pay cost of enrollment to the university

Stakeholder/Interests:

- 1) Student
 - a) Wants to maintain good financial standing with the university
 - b) Wants to remain enrolled in their course sections
- 2) University
 - a) Wants to receive payment from student
- 3) Financial Institution
 - a) Wants to facilitate the payment process

Preconditions:

- 1) The student currently has a debit balance for the semester invoice
- 2) At least one of the following is true:
 - a) The student owes ancillary fees
 - b) The student owes residence fees
 - c) The student is enrolled in a course that incurs tuition

Postconditions:

- 1) The student's balance with the university is updated based on the amount paid

Basic Flow:

- 1) System displays the student's total balance alongside a breakdown of costs
- 2) System provides university's account information for making bill payments through a recognized financial institution
- 3) Student transfers funds to the university account
- 4) Student pays their full invoice resulting in a balance of zero

Alternative Flow:**4a) Overpayment**

- 1) The student has a credit balance with the university
- 2) System automatically applies credit balance to the next tuition/fee payment
- 3) It can also be withdrawn, refer to [DMZ](#) for details

4b) Underpayment:

- 1) The student's balance is decreased by the amount paid but still has a debit balance

4c) No payment:

- 1) If the student does not pay by the semester deadline, the system advises student to contact their counsellor for further instructions
- 2) If no action is taken by the counsellor to amend the issue, the system will unenroll the student from all their registered course sections and remove tuition/fees from their semester invoice

Use Case ID: DM7

Use Case Title: Request a refund

Primary Actor: Student

Purpose: To withdraw credit from the university

Stakeholder/Interests:

- 1) Student
 - a) Wants to receive any excess funds that exist within their account
- 2) University
 - a) Wants to approve withdrawal request from their account
- 3) Financial Institution
 - a) Wants to facilitate the refund process

Preconditions:

- 1) The student has a credit balance with the university

Basic Flow:

- 1) System displays credit balance to the student
- 2) Student selects option to refund credit
- 3) The student enters the amount of credit they would like to receive
- 4) University sends this amount through a recognized Canadian financial institution to the account the payment came from

Alternative Flow:

- 2a) Student is not domestic and has not completed two consecutive semesters at the university
 - 1) System denies request and displays a message indicating ineligibility
- 3a) Requesting to withdraw an amount exceeding credit balance
 - 1) System denies request and displays message indicating the credit balance
- 4b) Student is not domestic and has completed at least two consecutive semesters at the university
 - 1) System deposits the amount into a recognized international financial institution of the student's choice but takes \$50 for foreign transfer fee

Use Case ID: DM8

Use Case Title: Declare minor

Purpose: Allow students to officially declare a minor

Primary Actor: Student

Stakeholders & Interests:

- 1) Student
 - a) Wants to take courses in an area of study outside of their major
- 2) Program counsellor
 - a) Wants to know about and record student's minor declaration

Preconditions:

- 1) The student is authenticated
- 2) The student is currently at the undergraduate level

Postconditions:

- 1) The student's minor appears under their degree
- 2) The student can register for a course in their minor's faculty without the need for a counsellor override

Main Flow:

- 1) Student submits a complete minor declaration request
- 2) System sends request to appropriate program counsellor for review
- 3) Program counsellor approves request
- 4) System adds the minor name to student's degree
- 5) Student registers for courses in their minor's faculty according to DM1

Alternate Flows:

- 1a) Student submits request to change a previously declared minor
- 1b) Student submits a request to declare an additional minor
- 2a) Counsellor rejects minor declaration request due to:
 - i) Insufficient credits remaining prior to prescribed graduation date
 - ii) Student's GPA is below 60%
- 3a) If 1a) is true, system replaces old minor with new minor
- 3b) If 1b) is true, system adds the additional minor name to student's degree