

GryphHub Specifications

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Functional Specifications

Please refer to the following format for each functional specification:

User story number:

- Requirement Num. System specification
- Requirement Num. System Specification
- ...

(Rationale)

Student

1.0:

- 1.0.0 GryphHub shall display the user's unofficial transcript that includes the grades for all courses taken, and GPAs.
- 1.0.1 GryphHub shall allow the user to download their unofficial transcript as a PDF through a hyperlink.

(Provide students with a convenient and accessible method to view their grades and academic progress)

1.1:

- 1.1.0 GryphHub shall allow the user to log into GryphHub by verifying their central login ID
- 1.1.1 GryphHub should provide a login that is secure and encrypted

(Provide students with a secure method for students to login to GryphHub)

1.2:

- 1.2.0 GryphHub shall allow the user to view courses for the specific semester
- 1.2.1 GryphHub shall allow the user to select and register for each of the viewed courses
- 1.2.2 GryphHub should return an error if the user tries registering for an illegible course
- 1.2.3 GryphHub shall allow users to view the courses they are registered for
- 1.2.4 GryphHub shall allow user to drop courses

(Allow students to manage their academic progress and plan for the future.)

1.3:

- 1.3.0 GryphHub shall allow users to view courses within a catalog
- 1.3.1 GryphHub should allow users to search and filter for courses they want to view
- 1.3.2 GryphHub should provide information for each course (semesters offered, prerequisites, restrictions, etc.)

1.4:

- 1.4.0 GryphHub should generate a calendar/timetable depending on what courses the student registers for
- 1.4.1 GryphHub should properly format the calendar with names of courses, rooms, and descriptions (lab, exam, lecture, etc.)

(Provides user with improved planning features to view their week at a glance given their registered courses)

1.5:

- 1.5.0 GryphHub should allow students to view a list of all memberships and clubs offered by the university
- 1.5.1 GryphHub should allow students to view details about each club or membership including name, description, meeting dates and times, and contact information.
- 1.5.2 GryphHub should allow students to select memberships and club they are a part of
- 1.5.3 GryphHub should allow students to view a list of memberships and clubs they are currently part of
- 1.5.4 GryphHub should allow students to remove a membership or club they are no longer part of

(Provide users with a convenient and accessible way to keep track of their memberships and clubs in a centralized location)

1.6

- 1.6.0 GryphHub could allow students to pay their tuition/housing fees using debit/credit options
- 1.6.1 GryphHub could provide a detailed invoice regarding their payment
- 1.6.2 GryphHub could send email confirmations to students after they have made payments

(Provide students with more methods of payment as well as make it more convenient since they would be paying on the same site that displays their balance)

Grad Student

2.0:

- 2.0.0 GryphHub could allow grad students to view a list of available TA positions
- 2.0.1 GryphHub could display the name of the course, the department offering the course, the professor in charge, and the deadline for applications for each TA position.
- 2.0.2 GryphHub could allow grad students to search for specific TA positions by course name/course code
- 2.0.3 GryphHub could allow grad students to filter the list of TA positions by department
- 2.0.4 GryphHub could display a hyperlink for each TA position that links to the corresponding application form

(Provide grad students with easy access to available TA positions.)

2.1:

- 2.1.0 GryphHub shall maintain a record of all courses that a grad student has TA'd in the past and is currently a TA for.
- 2.1.1 GryphHub should display the name of the course, the department offering the course, the professor in charge, and the dates the student was/is a TA for.
- 2.1.2 GryphHub should allow the user to export the course list to a PDF document for easy sharing.

(This requirement is necessary to provide grad students with a record of their TA experiences for future TA applications and record keeping)

2.2:

- 2.2.0 GryphHub could display a list of upcoming awards and scholarships for grad students.
- 2.2.1 GryphHub could display the name of the award or scholarship, the sponsor, the deadline for applications, and the amount of the award for each award or scholarship.
- 2.2.2 GryphHub could categorize the list of awards and scholarships by department.

(This will allow them to better fund their tuition and stay informed about opportunities for funding)

2.3:

- 2.3.0 GryphHub shall provide the grad student with the option to select their preferred payment method from the following options: awards/scholarships, payroll deductions, trust funds, or sponsors.
- 2.3.1 GryphHub shall allow the grad student to pay their tuition fees using awards/scholarships.
 - 2.3.1.0 This shall include the ability to select the specific award/scholarship, input the amount being applied towards tuition, and process the payment.
- 2.3.2 GryphHub shall allow the user to pay their tuition fees using payroll deductions.
 - 2.3.2.0 This should include the ability to set up automatic payroll deductions and view their payment history.
- 2.3.3 GryphHub shall allow the grad student to pay their tuition fees using trust funds.
 - 2.3.3.0 This shall include the ability to select the specific trust fund and input the amount being applied towards tuition.
- 2.3.4 GryphHub shall allow the user to pay their tuition fees using sponsors.
 - 2.3.4.0 This shall include the ability to select the specific sponsor, input the amount being applied towards tuition, and process the payment.
- 2.3.5 GryphHub shall provide a receipt for each payment made by the grad student
- 2.3.6 GryphHub shall maintain a record of all payments made by the grad student and the method of payment

(Provide grad students with multiple options for paying their tuitions so they can choose the method that is most convenient for them and provide a record of their payments)

2.4:

- 2.4.0 GryphHub should allow the grad student to view available research opportunities.
- 2.4.1 The research positions that each student can view should be subject to
 - 2.4.1.0 The grad students department
 - 2.4.1.1 The grad students level of study
- 2.4.2 The research position should contain the following details
 - 2.4.2.0 The title of the research position.
 - 2.4.2.1 The organization/college/university offering said position.

- 2.4.2.2 The division of the organization that offers the position.
- 2.4.2.3 The work format - remote, hybrid or in-person.
- 2.4.2.4 An outline of the research project - job description, preferred qualifications and work hours
- 2.4.2.5 The deadline to apply for the research position.
- 2.4.3 GryphHub should allow the grad student to upload a resume, transcript and cover letter so as to allow them to apply to the positions posted.
- 2.4.4 GryphHub could allow the grad student the option to automatically attach their most recent transcript to the application, if they have not uploaded one already.

(This feature can provide grad students with multiple research opportunities to explore their interests and add depth to their education)

2.5:

- 2.5.0 GryphHub should allow the grad student TA to view their T4A
- 2.5.1 GryphHub should allow the grad student TA to view previous T4As if applicable

2.6:

- 2.6.0 GryphHub should automatically calculate and display the class level based on the number of in-progress and completed credits.
- 2.6.1 GryphHub could provide an option to view the class level calculation formula.

(This requirement is necessary to allow the grad student to quickly and easily understand their class level without having to manually calculate it)

Professor

3.0:

- 3.0.0 GryphHub should allow the professor to input their office hours schedule
- 3.0.1 GryphHub should indicate any conflicts there may be between office hours and lecture times
- 3.0.2 GryphHub should make the professor's office hours schedule accessible to students enrolled in the professor's courses

(This feature allows professors to easily schedule their office hours according to the rest of their schedule and it allows students to easily see which office hours they can attend)

3.1:

- 3.1.0 GryphHub could keep track of dates that students dropped/added a specific course
- 3.1.1 GryphHub could display drop/add information on the professor's classlist

(This feature allows professors to keep track of which students have dropped/added their courses in the middle of the semester, so that they can edit course groups accordingly)

3.2:

- 3.2.0 GryphHub shall allow the professor to view a list of courses with vacancies.

- 3.2.1 GryphHub should allow the professor to filter the list by
 - 3.2.1.0 The department a particular course comes under
 - 3.2.1.1 Terms the course is offered in - summer, fall or winter
 - 3.2.1.2 Course level - 1000 - 4000 or graduate courses.
- 3.2.2 GryphHub shall allow professors to apply to any course in their list.
- 3.2.3 GryphHub should remove the course from the list once the vacancy is filled.

(This feature can provide professors with the opportunity to teach courses that they may be interested in teaching and lie under their scope)

3.3:

- 3.3.0 GryphHub should allow the professor to view different calendars for every course they are teaching.
- 3.3.1 GryphHub should have the following events on each calendar,
 - 3.3.1.0 Class timings and location
 - 3.3.1.1 Lab section timings and location
 - 3.3.1.2 Office hours and their location
 - 3.3.1.3 Test/Midterm dates and assignment due dates
- 3.3.2 GryphHub should allow professors to edit the events on each calendar.
- 3.3.3 GryphHub could allow professors to enable email reminders for certain events.

(This feature can provide professors with the ability to have a simplified view of all the courses they are teaching, enabling them to see all the important dates and plan easily)

3.4:

- 3.4.0 GryphHub should allow the professor to view the waitlist for every course they are teaching.
- 3.4.1 The waitlist should display the following details for all students in it
 - 3.4.1.0 The students major and minor
 - 3.4.1.1 The students name and student ID
 - 3.4.1.2 The students current position in the waitlist
- 3.4.2. GryphHub could allow the professor to set a certain preference filter to let students who meet the requirements have a higher chance of registering for a class.

(This feature can provide professors with the ability to see who is in the waiting list for their classes and potentially assist students who need that particular course to fulfill requirements for their major/minor)

3.5:

- 3.5.0 GryphHub could allow the professor to view the classlist of the course that they are teaching.
- 3.5.1 GryphHub could allow the professor to generate the pdf or excel sheet of the classlist.
- 3.5.2 The list could display the following details for all students in it:
 - 3.5.2.0 The student name
 - 3.5.2.1 The student ID

- 3.5.2.2 The student's major and minor

(This feature would allow professors to quickly and easily generate reports for their classes by exporting classlist data to pdf or excel files.)

3.6:

- 3.6.0 GryphHub should allow the professor to view each lab section with section number, day and time of the section.
- 3.6.1 GryphHub should allow the professor to see all the students in enrolled in particular lab section.
- 3.6.2 GryphHub should allow the professor to see name and student ID of each student.
- 3.6.3 GryphHub should allow the professor to see the number seat available in each lab section.

(This feature can make it easier for the professor to make groups and assist a student in shifting from one lab section to another available lab section).

SysAdmin / Tech Support

4.0:

- 4.0.0 GryphHub could display the list of errors in reverse chronological order.
- 4.0.1 GryphHub could allow the SysAdmin/Tech Support to filter the error log list by date
- 4.0.2 The error log could contain details such as the date and time, the type of error and a description of the error.

(This feature can make it easier for the SysAdmin/Tech support to see what caused error in the past and keep track of most frequent cause of error. It can make it easier for them to resolve the issue.)

4.1:

- 4.1.0 GryphHub could give API access to retrieve information from the site such as:
 - Course codes
 - Course name
 - Professor name
 - Etc

(This feature allows the SysAdmin / Tech Support to easily pull information off of the website that they need to be able to manage site details)

4.2:

- 4.2.0 GryphHub should allow the SysAdmin / Tech Support to disable one page at a time
- 4.2.1 GryphHub should display error messages to students for any page that is disabled
- 4.2.2 GryphHub should provide an estimate of how long the particular page will be disabled for

(This feature allows the SysAdmin / Tech Support to make changes and/or fix bugs on parts of the website while keeping all other functions of GryphHub usable)

4.3:

- 4.3.0 GryphHub should allow SysAdmin/Tech Support to view the number of people logged onto GryphHub
- 4.3.1 GryphHub should allow SysAdmin/Tech to view warning and error messages when the website hits capacity or crashes

4.4:

- 4.4.0 GryphHub shall allow SysAdmins to view the instructor of each course

4.5

- 4.5.0 GryphHub shall allow SysAdmins to view the number of students registers for each course

4.6

- 4.6.0 GryphHub shall generate meaningful error codes when there is an error within GryphHub
- 4.6.1 GryphHub shall allow SysAdmins to view error codes when there is an error within GryphHub

Student Counselor

5.0:

- 5.0.0 GryphHub shall allow a student counselor to search for a student using student ID, first and last name, or login ID.
- 5.0.1 The results of the search shall include a list of matching students, along with their student ID, first name, last name, and login ID
- 5.0.2 GryphHub shall allow the student counselor to view a detailed profile of a student by clicking on their name in the search results

(The ability to search by multiple criteria (student ID, name, and login ID) is crucial as it will allow the student counselor to find the student they are looking for efficiently even if they don't have complete information.)

5.1:

- 5.1.0 Upon clicking on the profile of a student, GryphHub shall allow student counselors to view the history of a student, including their degree program, courses taken, and their transcript.
- 5.1.1 The information displayed in the student's history shall be accurate and up-to-date.
- 5.1.2 The courses taken shall be displayed in a table format, including the course code, course name, term taken, and grade received.
- 5.1.3 The student's transcript should be displayed as a hyperlink to the document.

(This requirement is necessary to allow the student counselor to understand a student's academic history and assist them effectively)

5.2:

- 5.2.0 GryphHub should provide the student counselor with a list of all courses offered by the university
- 5.2.1 GryphHub should allow the student counselor to edit the course instructor field for each course
- 5.2.2 GryphHub should allow the student counselor to edit the TA field for each course
- 5.2.3 GryphHub should allow the student counselor to edit the lecture times for each course
- 5.2.4 GryphHub should allow the student counselor to save their changes to the course description
- 5.2.5 GryphHub could provide a preview option to the student counselor to review their changes before saving

5.3:

- 5.3.0 GryphHub shall allow counselors to override course and grade permissions/restrictions to allow students to register for courses

5.4:

- 5.4.0 GryphHub should allow student counselors to view a list of program requirements and schedule for all the majors and minors
- 5.4.1 GryphHub should allow student counselors to view the course description and course restrictions by clicking on the course name in the program requirements and schedule

5.5:

- 5.5.0 GryphHub should allow counselors to enroll students in a section that is full
- 5.5.1 GryphHub should allow counselors to enroll students in a course with no available seats
- 5.5.2 GryphHub should allow counselors to enroll students in a course if they do not meet the course requirements
- 5.5.3 GryphHub should allow counselors to remove students from a section
- 5.5.4 GryphHub should allow counselors to remove students from a course

5.6:

- 5.6.0 GryphHub should show the number of seats in each course
- 5.6.1 GryphHub should show allow counselors to view the number of seats in a course
(This feature would allow program counsellor to see the number of students that can enroll in a particular course. Also, they will be able to assist a student in choosing a right course.)

Applicant

6.0:

- 6.0.0 GryphHub could allow an applicant to view the academic calendar for the degree they are pursuing
- 6.0.1 The academic calendar should include information about program requirements, admission averages, schedule of fees, and deadlines.
- 6.0.2 The academic calendar could be updated in real-time to reflect any changes
- 6.0.3 GryphHub should allow the applicant to access the academic calendar from the main menu
- 6.0.4 GryphHub should sort the schedule of fees and the deadlines by date.

(This requirement is beneficial as it will provide the applicant with the information they need in one place.)

6.1:

- 6.1.0 GryphHub should display a course catalog that includes information about all courses offered at Guelph, including course code, course name, description, semesters offered, and prerequisites.
- 6.1.1 GryphHub should provide a search function that allows the applicant to search for courses by keyword, course code, or department.
- 6.1.2 GryphHub should provide search results sorted alphabetically.
- 6.1.3 GryphHub should allow the applicant to access the course catalog from the main menu.

(The ability to search and compare courses will provide the applicant with a better understanding of their options and help them plan their future at Guelph)

6.2:

- 6.2.0 GryphHub shall allow an applicant to view the status of all their applications in a single table view.
- 6.2.1 GryphHub shall display the status of each application as: accepted, admitted, received, under consideration, or refused.
- 6.2.2 GryphHub should update the status of the application(s) in real-time.

(This requirement is necessary to provide the applicant with a clear understanding of their application status and the next steps they need to take. This will also provide transparency and alleviate confusion, allowing the applicant to make informed decisions and plan accordingly)

6.3:

- 6.3.0 GryphHub must allow an applicant to view the status of their documents uploaded.
- 6.3.1 GryphHub must display the status of each document as: uploaded, received, processing, verified or invalid.
- 6.3.2 GryphHub must also display the date of document when it was uploaded.

(This requirement will allow the applicant to see if the documents were accepted or not, if the application has moved into next steps of admission, does the applicant need to reupload the document, etc.)

6.4:

- 6.4.0

- 6.4.1

6.5:

- 6.5.0 GryphHub should allow an applicant to view transfer credits
- 6.5.1 GryphHub should allow an applicant to request a transfer of credits from their previous institution to the current university. The application request should contain the following details
 - 6.5.1.0 Course syllabus
 - 6.5.1.0 Transcript

Non-Functional Specifications

7.1 GryphHub shall ensure the confidentiality and security of personal and academic information of students and restrict access to authorized personnel only.

(To protect the privacy of students and ensure that their sensitive information is not accessible to unauthorized individuals.)

7.2 GryphHub shall be able to handle a high volume of concurrent users during peak registration periods.

(To ensure that users are able to utilize the system without slow performance, crashes, and errors for an efficient user experience, especially during peak times.)

7.3 GryphHub shall be compatible with various devices and browsers to ensure access for all students.

(To provide all students, regardless of the device or browser they use, equal access to the GryphHub platform)

7.4 GryphHub should have a data backup and recovery mechanism to ensure that data is protected against loss due to unexpected events.

(To protect the system against data loss and ensure that the system can recover from any hardware or software failures.)