

UC_1.1	Login
Summary	- Each user will be able to login into the system by entering their respective credentials.
Dependency	-
Actors	- Student, Instructor, Administrator
Preconditions	- The user must have a valid account, where the Students can easily sign up, while the Instructors will be created by the Administrator, which will be created in advance,
Description of the Main Sequence	- Each user will be able to log in by entering their credentials if they already have a valid account.
Description of the Alternate Sequence	- In the other case, where a user does not have a valid account, he (student) can signup by entering some required credentials. - The Administrator will be a default account. - Instructors will be added by the Administrator.
Non-functional requirements	- This is a crucial part of the project because this is where the 'hackers' will try to break through, by using SQL injection. It is made sure that this will be avoided. Also, the password will be hashed and cannot be seen by any person.
Postconditions	- The user will be directed to his dashboard.

UC_1.2	Edit Credentials
Summary	- Each user will have the opportunity to edit their information details.
Dependency	-
Actors	- Students, Instructor, Administrator
Preconditions	- User must have an account - User must be logged in
Description of the Main Sequence	- Each user will have the opportunity to change or edit their profile including name, birthday, username, password, and photo (optional) according to the given rules.
Description of the Alternate Sequence	- If the newly changed credential does not meet the requirements, then it will not be saved and it will remain the same as before
Non-functional requirements	- The password will be hashed and cannot be seen by anyone, except the user. A hash library is necessary.
Postconditions	- The information for the user will be updated,

UC_1.3	View Available Courses
Summary	- The user can see which courses will be available for him to take
Dependency	-
Actors	- Guest, Student, Instructor, Administrator
Preconditions	- The user must have established an internet connection - User must have visited OfCourses
Description of the Main Sequence	- The user can check the courses that are offered at the moment, and maybe take on if one of these courses fits him
Description of the Alternate Sequence	- There might be no available courses at the moment and all the user will see, will be empty, or finished courses. - User might be logged out (Guest), and the only thing he can do is watch
Non-functional requirements	- To meet the Usability Requirements, the user will be able to use the product everywhere: PC, phone, laptop, etc.
Postconditions	- If one course is selected, then the user is directed to that course page.

UC_2.1	Manage Courses
Summary	- Users can take action on courses they are involved with.
Dependency	-
Actors	- Students
Preconditions	- Internet connection - User must have at least started a course.
Description of the Main Sequence	- The user can either get information such as course descriptions or add and drop courses.
Description of the Alternate Sequence	- The user is not logged in. - The user is not enrolled in that course. - The course is not available at the moment
Non-functional requirements	-The user's personal information will be protected and it will not be visible to the others, except the user, instructor, and administrator.
Postconditions	- The user will have the ability to interact with the course.

UC_2.1.1	Cancel Course
Summary	- Users can select a course and choose to drop from it.
Dependency	- Manage Courses
Actors	- Students
Preconditions	- Instructors must have added a course. - Students have to be enrolled in that course.
Description of the Main Sequence	-The user can unenroll himself from a certain course for different reasons that may vary.
Description of the Alternate Sequence	- The user cannot unenroll himself from the course because the add/drop period has ended(depending on the course). - The user has reached his drop courses limit.
Non-functional requirements	-
Postconditions	- The user will be unenrolled from that course and will not be asked or charged.

UC_2.1.2	Take Course
Summary	- Students can participate in a certain course.
Dependency	- Manage Courses
Actors	- Students
Preconditions	- Instructors must have added a course. - Students must be first logged in.
Description of the Main Sequence	- Students can select a specific course and choose to enroll in it.
Description of the Alternate Sequence	- Students cannot be enrolled in a certain course because it has reached its quota. - The course is not available at the moment.
Non-functional requirements	-
Postconditions	- The student is directed to the course page.

UC_2.1.3	Get an average grade for a course
Summary	- Students can get/view a grade for a course that they are enrolled in.
Dependency	- Manage Courses
Actors	- Students
Preconditions	- Student users must be enrolled in at least one course.
Description of the Main Sequence	<ul style="list-style-type: none"> - Students can get a grade as a feedback for a certain HW - Students can get an average grade at the end of the course - Students can check grading information such as individual grades for exams, projects, etc., or average grades and other grading properties.
Description of the Alternate Sequence	- The student has not been enrolled in any course before.
Non-functional requirements	- The student's grades will be invisible to others, except himself, the Instructor, and the Administrator.
Postconditions	- The user is directed to the page with grade information

UC_2.1.4	Submit HW
Summary	- Students can submit a certain HW
Dependency	- Manage Courses
Actors	- Students
Preconditions	<ul style="list-style-type: none"> - Students must be enrolled in at least one course. - The instructor must have assigned an HW
Description of the Main Sequence	<ul style="list-style-type: none"> - The instructor assigns an HW - Students after solving it, submit it
Description of the Alternate Sequence	<ul style="list-style-type: none"> - The student is not enrolled in any course yet. - The student has not participated in exams or has not submitted HWs. - There were no exams or HWs at the moment.
Non-functional requirements	-
Postconditions	- Users submit their HW and redirect to the dashboard

UC_2.1.5	Ask a question
Summary	- Students can ask certain questions to the instructors
Dependency	- Manage Course
Actors	- Students
Preconditions	- Students must be enrolled in at least one course. - Student must have participated in exams or submitted his HWs.
Description of the Main Sequence	- Students may have questions - Students write their questions to this forum - Instructor answers the question
Description of the Alternate Sequence	- The student is not enrolled in any course yet. - The question is a redundant one or a non-related topic
Non-functional requirements	- The student's questions will be invisible to others(optional)
Postconditions	- Users are directed to their dashboard

UC_3.1	Manage Q&As
Summary	- Instructors can answer or delete questions from certain students
Dependency	-
Actors	- Instructor
Preconditions	- The user must be logged in as an instructor and have started a course. - The instructor must have at least one course ongoing.
Description of the Main Sequence	- Instructors can answer a certain question - Instructors can delete a certain question
Description of the Alternate Sequence	- There are no questions to be answered
Non-functional requirements	-
Postconditions	- The instructor is directed to the "Manage Q&As" page

UC_3.1.1	Answer question
Summary	- Instructors can answer questions from students.
Dependency	- Manage Q&As
Actors	- Instructor
Preconditions	- The User must be logged in as an instructor. - The Instructor must have started a course.
Description of the Main Sequence	- A question is asked by a student - The instructor answers the student's question
Description of the Alternate Sequence	- The instructor has not started a course. - There are no questions asked.
Non-functional requirements	-
Postconditions	- The instructor is directed to the "Manage Q&As" page

UC_3.1.2	Delete question
Summary	- Instructors can delete questions from students.
Dependency	- Manage Q&As
Actors	- Instructor
Preconditions	- The User must be logged in as an instructor. - The Instructor must have started a course.
Description of the Main Sequence	- A question is asked by a student - The question is inappropriate - The instructor deletes the question
Description of the Alternate Sequence	- The instructor has not started a course. - There are no questions asked.
Non-functional requirements	-
Postconditions	- The instructor is directed to the "Manage Q&As" page

UC_3.2	Manage Courses
Summary	- The Instructor can manage a course by adding, editing, and deleting.
Dependency	-
Actors	- Instructor
Preconditions	- The instructor must have the course validated by the Administrator.
Description of the Main Sequence	- The instructor will have to pass the Administrator test for the course - The instructor can add the course, edit it, or delete it.
Description of the Alternate Sequence	- The instructor does not have the validation from the Administrator and he cannot add the course.
Non-functional requirements	-
Postconditions	- The course is shown in the student's dashboard for selection or selected courses, and the instructor's dashboard as a course that needs management

UC_3.2.1	Manage Students
Summary	- The Instructor will be able to manage the students enrolled in his course.
Dependency	- Manage Courses
Actors	- Instructor
Preconditions	- The User must be logged in as an instructor. - The Instructor must have started a course. - The Instructor must have at least one student enrolled.
Description of the Main Sequence	- The Instructor can admit new students. - The instructor can deny new students. - The instructor can unenroll students.
Description of the Alternate Sequence	- There are no students to manage.
Non-functional requirements	-
Postconditions	- The instructor is redirected to the "Manage Students" page.

UC_3.2.1.1	Admit Students
Summary	- The Instructor will be able to admit the students who want to enroll in his course.
Dependency	- Manage Students
Actors	- Instructor
Preconditions	- The User must be logged in as an instructor. - The Instructor must have started a course.
Description of the Main Sequence	- The student enrolls for a course - The instructor of that course will admit the student
Description of the Alternate Sequence	- There is no course to enroll in.
Non-functional requirements	-
Postconditions	- The instructor is redirected to the “Manage Students” page.

UC_3.2.1.2	Deny Students
Summary	- The Instructor will be able to deny the students who want to enroll in his course.
Dependency	- Manage Students
Actors	- Instructor
Preconditions	- The User must be logged in as an instructor. - The Instructor must have started a course.
Description of the Main Sequence	- The student enrolls for a course - The instructor of that course will deny the student for different reasons
Description of the Alternate Sequence	- There is no course to enroll in.
Non-functional requirements	-
Postconditions	- The instructor is redirected to the “Manage Students” page.

UC_3.2.1.3	Unenroll Students
Summary	- The Instructor will be able to unenroll the students from his course.
Dependency	- Manage Students
Actors	- Instructor
Preconditions	<ul style="list-style-type: none"> - The User must be logged in as an instructor. - The Instructor must have started a course. - There must be students enrolled in the course
Description of the Main Sequence	<ul style="list-style-type: none"> - The student enrolls for a course - The instructor of that course will admit the student - The instructor unenrolls the student for different reasons
Description of the Alternate Sequence	- There is no student to unenroll.
Non-functional requirements	-
Postconditions	- The instructor is redirected to the “Manage Students” page.

UC_3.2.2	Add Course
Summary	- The Instructor can add a course.
Dependency	- Manage courses
Actors	- Instructors
Preconditions	- Instructor must have the course validated by the Administrator
Description of the Main Sequence	<ul style="list-style-type: none"> - Instructor will have to pass the Administrator test for the course - Instructor can add the course
Description of the Alternate Sequence	<ul style="list-style-type: none"> - Instructor does not have the validation from the Administrator and he cannot add the course. - The course is already added.
Non-functional requirements	-
Postconditions	- The course is shown in the student’s dashboard for selection or selected courses, and on the instructor’s dashboard as a course that needs management.

UC_3.2.3	Edit Course
Summary	- The Instructor can edit a course
Dependency	- Manage courses
Actors	- Instructors
Preconditions	- Instructor must have the course validated by the Administrator - Course must be available on OfCourses
Description of the Main Sequence	- Instructor will have to pass the Administrator test for the course - The course must be available on OfCourses - Instructor will be able to edit information, HWs, etc. in the course
Description of the Alternate Sequence	- Instructor does not have the validation from the Administrator and he cannot add the course. - There is no added course to edit.
Non-functional requirements	-
Postconditions	- Course is shown in the student's dashboard for selection, or selected courses and instructor's dashboard as a course that needs management

UC_3.2.4	Delete Course
Summary	- The instructor can delete the course from OfCourses
Dependency	- Manage Courses
Actors	- Instructor
Preconditions	- Instructor must have the course validated by the Administrator - Instructor must have the courses posted
Description of the Main Sequence	- For different reasons, the instructor can delete the course from OfCourses, and all the enrolled students are free and not charged for that course
Description of the Alternate Sequence	- The course is not deleted, but the students still will not be charged and assigned anything for that course - The Administrator will delete it manually from the database
Non-functional requirements	-
Postconditions	- The course is deleted from the Student's and Administrator's dashboard

UC_3.2.5	Check Course's Statistics
Summary	- The Instructor can check how the students performed in this course.
Dependency	- Manage Courses
Actors	- Instructor
Preconditions	<ul style="list-style-type: none"> - The Course must be validated by the Administrator. - The Course is added in OfCourses. - The Course must have students enrolled.
Description of the Main Sequence	<ul style="list-style-type: none"> - The Instructor can take a look at the students' statistics. - The Instructor can take a look at attendance. - The Instructor can see how the students performed in exams and HWs.
Description of the Alternate Sequence	<ul style="list-style-type: none"> - The course has no students enrolled. - There are no exams, HWs, or attended lessons.
Non-functional requirements	-
Postconditions	- The Instructor is informed about his course progress.

UC_3.2.6	Manage HWs
Summary	- The Instructor can do certain actions regarding homework.
Dependency	- Manage HWs
Actors	- Instructor
Preconditions	<ul style="list-style-type: none"> - The user must be logged in as an instructor and have started a course. - The instructor must have at least one course ongoing
Description of the Main Sequence	- Instructors can assign, edit, delete homework or check homework statistics for each student.
Description of the Alternate Sequence	<ul style="list-style-type: none"> - There are no HWs to manage because they are not assigned. - The instructor has not started the course yet(or not at all).
Non-functional requirements	-
Postconditions	- The instructor is directed to the "Manage homework" page

UC_3.2.6.1	Assign HWs
Summary	- Instructors can assign homework to students with an (optional) deadline.
Dependency	- Manage HW
Actors	- Instructor
Preconditions	- The User must be logged in as an instructor. - The Instructor must have started a course.
Description of the Main Sequence	- The instructor can assign homework to students with a deadline, and respond to their questions in the comments if there are any.
Description of the Alternate Sequence	- The instructor has not started a course. - The course of the Instructor has not been validated by the Administrator.
Non-functional requirements	-
Postconditions	- The instructor's page will be updated and students will have a new assignment.

UC_3.2.6.2	Delete HWs
Summary	- Instructors can delete a certain HW for various reasons.
Dependency	- Manage HWs
Actors	- Instructor
Preconditions	<ul style="list-style-type: none"> - The User must be logged in as an instructor. - The Instructor must have started a course. - The Instructor must have assigned an HW.
Description of the Main Sequence	<ul style="list-style-type: none"> - The Instructor can select an HW, and for different reasons delete it. - The Student will not be asked to submit that assignment. - The Student will not be graded for that assignment
Description of the Alternate Sequence	<ul style="list-style-type: none"> - The instructor has not started a course. - The course of the Instructor has not been validated by the Administrator. - The HW deadline has been passed.
Non-functional requirements	-
Postconditions	- The instructor's page will be updated and students will have one less assignment

UC_3.2.6.3	Edit HWs
Summary	- Instructors can make changes regarding homework.
Dependency	- Manage HWs
Actors	- Instructor
Preconditions	<ul style="list-style-type: none"> - The User must be logged in as an instructor. - The Instructor must have started a course. - The Instructor must have assigned an HW
Description of the Main Sequence	- Instructors can select an HW, then make certain changes such as changing the HW description, adding or deleting files, or changing the HW deadline.
Description of the Alternate Sequence	<ul style="list-style-type: none"> - The instructor has not started a course. - The course of the Instructor has not been validated by the Administrator. - The HW deadline has been passed
Non-functional requirements	-
Postconditions	- The instructor's page will be updated and students will have an updated assignment

UC_3.2.6	Check HWs statistics
Summary	- The Instructor will be able to look at the statistics from the HWs.
Dependency	- Manage HWs
Actors	- Instructor
Preconditions	<ul style="list-style-type: none"> - The User must be logged in as an instructor. - The Instructor must have started a course. - The Instructor must have assigned an HW. - The Students must have submitted HW
Description of the Main Sequence	<ul style="list-style-type: none"> - The Instructor can see how many of the students have submitted the HW. - The Instructor can see the average grade of the class. - The Instructor can see each student's grade
Description of the Alternate Sequence	<ul style="list-style-type: none"> - There are no HWs to be graded. - There are no submitted HWs.
Non-functional requirements	-
Postconditions	- The instructor can see an overview of the HWs

UC_4.1	Manage Instructors
Summary	- The Administrator can manage the Instructors(add, edit, delete).
Dependency	-
Actors	- Administrator
Preconditions	- Must be logged in as an Administrator.
Description of the Main Sequence	<ul style="list-style-type: none"> - The Administrator can add new instructors to the course manually. - The Administrator can edit an instructor's personal information or Course mistakes. - The Administrator can delete an Instructor. - The Administrator can apply disciplines to an Instructor.
Description of the Alternate Sequence	-
Non-functional requirements	-
Postconditions	- The Instructors and their Courses will be modified according to the changes that will be made.

UC_4.1.1	Validate Courses
Summary	- The Administrator decides if this course fulfills the requirements.
Dependency	- Manage Instructors
Actors	- Administrator
Preconditions	<ul style="list-style-type: none"> - Must be logged in as an Administrator. - There must be a given course to be examined
Description of the Main Sequence	<ul style="list-style-type: none"> - The Administrator reviews the course that the Instructor provides. - If the course meets the requirements, then the Administrator validates it.
Description of the Alternate Sequence	<ul style="list-style-type: none"> - The course does not meet the given requirements, and feedback is given to the Instructor. - The Instructor works on the course, or he has the choice to not teach it at all.
Non-functional requirements	-
Postconditions	- The new course will be available for the Students.

UC_4.1.2	Edit Instructor
Summary	- The Administrator can edit an Instructor.
Dependency	- Manage Instructors
Actors	- Administrator
Preconditions	- Must be logged in as Administrator. - Must have at least one Instructor.
Description of the Main Sequence	- The Administrator can edit personal information about the Instructor. - The Administrator can edit course validation for the Instructor.
Description of the Alternate Sequence	- There are no Instructors to be edited.
Non-functional requirements	-
Postconditions	- The information about the Instructor is updated

UC_4.1.3	Add instructor
Summary	- The Administrator can add an Instructor.
Dependency	- Manage Instructors
Actors	- Administrators
Preconditions	- The user must be logged in as an Administrator.
Description of the Main Sequence	- The Administrator can add a new Instructor.
Description of the Alternate Sequence	- The new Instructor does not meet the requirements.
Non-functional requirements	-
Postconditions	- A new Instructor is added

UC_4.1.4	Delete Instructor
Summary	- The Administrator can delete an Instructor.
Dependency	- Manage Instructors
Actors	- Administrator
Preconditions	- The user must be logged in as an Administrator. - It must be at least one Instructor.
Description of the Main Sequence	- The Administrator can delete an Instructor for certain reasons
Description of the Alternate Sequence	- The Instructor cannot be deleted, and the Administrator must do that manually
Non-functional requirements	-
Postconditions	- The Instructor is deleted from OfCourses.