Use Case ID	UC-01		
Use Case Name	Create a course		
Created By	Pasakorn Kunchai	Last Update By	Apiwat Hantrakool
Date Created	26/2/2018	Last Revision Date	28/2/2018
Actors	Administrator		
Description	Administrator can create a course by inputting course information which are course name, course id, maximum seat, credit, teacher(s), semester and academic year.		
Trigger	Administrator select "add course" menu.		
Preconditions	Administrator must login by administrator account.		
Use Case Input Specification			
Input	type	Constraint	Example
Course name	string	-	Abstract data type
Course ID	string	Length must be 6	953111
Maximum seat	number	-	120
Credit	number	-	3
Teacher	string	-	Alex
Semester	string	-	1
Academic year	number	-	2561
Post conditions	1. The course is displayed on the course list page. 2. The course is added into the database.		
Normal Flows	User	System	
	3. Administrator input course information. 4. Administrator select "Add Course" button	1. The system shall provide text fields for inputting course information. 2. The system shall provide "Add Course" button. 5. The system shall validate course information. 6. The system shall collect information into the database. 7. The system shall display course list page.	
Alternative Flow	-		
Exception Flow	-		
Assumption	Administrator must understand English.		

Use Case ID	UC-02		
Use Case Name	Enroll a course		
Created By	Pasakorn Kunchai	Last Update By	Apiwat Hantrakool
Date Created	26/2/2018	Last Revision Date	28/2/2018
Actors	Student		
Description	Student can enroll a course by select "Enroll" button at the right of course name in course list page.		
Trigger	Student select "Enroll" button.		
Preconditions	1. Student must in the course list page. 2. Student must login by student account.		
Use Case Input Specification			
Input	type	Constraint	Example
-	-	-	-
Post conditions	1. The course is displayed on the Student information page. 2. The course is added into the database.		
Normal Flows	User	System	
		1. The system shall validate student and course information. **[E1]** 2. The system shall collect information into the database. 3. The system shall display student information page.	
Alternative Flow	-		
Exception Flow	E1: if student have more than 22 credits. 1. The system shall display "You cannot enroll a course more than 22 credits" when student have more than 22 credits. 2. The system shall display student information page.		
Assumption	Student must understand English.		

Use Case ID	UC-03		
Use Case Name	View all courses		
Created By	Pasakorn Kunchai	Last Update By	Apiwat Hantrakool
Date Created	26/2/2018	Last Revision Date	28/2/2018
Actors	Student		
Description	Student can view all course including course ID and course name.		
Trigger	Student select "Course lists" menu.		
Preconditions	Student must login by student account.		
Use Case Input Specification			
Input	type	Constraint	Example
-	-	-	-
Post conditions	The course lists are displayed on the course lists page.		
Normal Flows	User	System	
		1. The system shall retrieve course information from the database. 2. The system shall display course lists including course ID and course name.	
Alternative Flow	-		
Exception Flow	-		
Assumption	Student must understand English.		

Use Case ID	UC-04		
Use Case Name	View course details		
Created By	Apiwat Hantrakool	Last Update By	Apiwat Hantrakool
Date Created	26/2/2018	Last Revision Date	28/2/2018
Actors	Student and Teacher		
Description	Teacher and student can view details of each course.		
Trigger	1. Student selects "View" button next to course name in enrolled course list. 2. Teacher selects "View" button next to course name in teaching course list. 3. Teacher and student selects "View" button next to course name in course list page.		
Preconditions	1. Student must login by student account. 2. Student must already in student information page or course list page. 3. Teacher must login by teacher account. 4. Teacher must already in teacher information page or course list page.		
Use Case Input Specification			
Input	type	Constraint	Example
-	-	-	-
Post conditions	The course details are displayed on the view course page.		
Normal Flows	User	System	
		1. The system shall retrieve course information from the database. 2. The system shall display details or information of the course, including course name, course ID, course seat, credit and teacher names.	
Alternative Flow	-		
Exception Flow	-		
Assumption	1. Student must understand English. 2. Teacher must understand English.		

Use Case ID	UC-05		
Use Case Name	View enrolled course list		
Created By	Apiwat Hantrakool	Last Update By	Apiwat Hantrakool
Date Created	26/2/2018	Last Revision Date	28/2/2018
Actors	Student		
Description	Student can view list of course that were enrolled.		
Trigger	Student select "Student Information" menu.		
Preconditions	Student must login by student account.		
Use Case Input Specification			
Input	type	Constraint	Example
-	-	-	-
Post conditions	The course list, that student enrolled, is displayed.		
Normal Flows	User	System	
		1. The system shall retrieve course information that the student enrolled from the database. 2. The system shall display enrolled course list, including sequence number of each course, course ID, course name, credit and total of the credit.	
Alternative Flow	-		
Exception Flow	-		
Assumption	Student must understand English.		

Use Case ID	UC-06		
Use Case Name	Remove a course		
Created By	Apiwat Hantrakool	Last Update By	Apiwat Hantrakool
Date Created	26/2/2018	Last Revision Date	28/2/2018
Actors	Student		
Description	Student can remove a course.		
Trigger	Student select "Remove" button next to course name in enrolled course list.		
Preconditions	1. Student must login by student account. 2. Student must already in student information page.		
Use Case Input Specification			
Input	type	Constraint	Example
-	-	-	-
Post conditions	The course is removed from the enrolled course list of the student.		
Normal Flows	User	System	
	2. Student click "Yes" button. [E1]	1. System shall display text alert box or pop-up as confirm box that has a message that "Are you sure to remove this course?" box. 3. System shall remove the information of the course from the student's enrolled list of the database. 4. System shall show update enrolled course list that the course is removed.	
Alternative Flow	-		
Exception Flow	E1: Student select "No" button 1. If student click "No" button, the system close pop-up and do not do anything. 2. End of use case.		
Assumption	Student must understand English.		

Use Case ID	UC-07		
Use Case Name	View tuition fee.		
Created By	Apiwat Hantrakool	Last Update By	Apiwat Hantrakool
Date Created	26/2/2018	Last Revision Date	28/2/2018
Actors	Student		
Description	Student can view tuition fee of courses that were enrolled.		
Trigger	Student select "Student Information" menu.		
Preconditions	Student must login by student account.		
Use Case Input Specification			
Input	type	Constraint	Example
-	-	-	-
Post conditions	The tuition fee is displayed on the student information page.		
Normal Flows	User	System	
		1. The system shall retrieve course information that the student enrolled from the database. 2. The system shall calculate the tuition fee by 20 THB per course credits. 3. The system shall display the tuition fee.	
Alternative Flow	-		
Exception Flow	-		
Assumption	Student must understand English.		

Use Case ID	UC-08		
Use Case Name	View student GPA		
Created By	Apiwat Hantrakool	Last Update By	Apiwat Hantrakool
Date Created	26/2/2018	Last Revision Date	28/2/2018
Actors	Student		
Description	Student view own GPA of the courses that were enrolled.		
Trigger	Student select "View GPA" button.		
Preconditions	1. Student must login by student account. 2. Student must already in student information page.		
Use Case Input Specification			
Input	type	Constraint	Example
-	-	-	-
Post conditions	The GPA will be displayed.		
Normal Flows	User	System	
		1. The system shall retrieve grade information of the student of all course that student enrolled from the database. 2. The system shall calculate the GPA from the grades. 3. The system shall display GPA, including list of enrolled course with grade of each course, GPA of this semester, total GPA.	
Alternative Flow	-		
Exception Flow	-		
Assumption	Student must understand English.		

Use Case ID	UC-09		
Use Case Name	View teaching course list		
Created By	Apiwat Hantrakool	Last Update By	Apiwat Hantrakool
Date Created	27/2/2018	Last Revision Date	28/2/2018
Actors	Teacher		
Description	Teacher can view list of course that they teach.		
Trigger	Teacher select "Teacher Information" menu.		
Preconditions	Teacher must login by teacher account.		
Use Case Input Specification			
Input	type	Constraint	Example
-	-	-	-
Post conditions	The course list that teacher taught is displayed.		
Normal Flows	User	System	
		1. The system shall retrieve course information that the teacher taught from the database. 2. The system shall display teaching course list, including course ID and course name.	
Alternative Flow	-		
Exception Flow	-		
Assumption	Teacher must understand English.		

Use Case ID	UC-10		
Use Case Name	Put the grade		
Created By	Apiwat Hantrakool	Last Update By	Apiwat Hantrakool
Date Created	27/2/2018	Last Revision Date	28/2/2018
Actors	Teacher		
Description	Teacher can grade for students in each course.		
Trigger	Teacher select "Grading" button next to course name in teaching course list.		
Preconditions	1. Teacher must login by teacher account. 2. Teacher must already in the "teacher information" page.		
Use Case Input Specification			
Input	type	Constraint	Example
Grade	String with scroll down value	A, B, C, D, F which integer values are 4, 3, 2, 1, 0 respectively.	A
Post conditions	The grade of each student will be put to the database.		
Normal Flows	User	System	
	5. Teacher select value of the scroll down button. 8. Teacher click "Submit" button.	1. The system shall provide course grading interface in "grading" page. 2. The system shall show list of students in the course including student ID and student name. 3. The system shall provide scroll down button next to student name consist value of A, B, C, D and F which values are 4, 3, 2, 1 respectively. 4. The system provide "Submit" button. 6. The system shall calculate the grade summary and GPA of the course. 7. The system shall display the grade summary and GPA of the course that relate to the student grades. 9. The system shall put the grade value of each student to the database.	
Alternative Flow	-		
Exception Flow	-		
Assumption	Teacher must understand English.		

Use Case ID	UC-11		
Use Case Name	View grade summary		
Created By	Apiwat Hantrakool	Last Update By	Apiwat Hantrakool
Date Created	27/2/2018	Last Revision Date	28/2/2018
Actors	Teacher		
Description	Teacher can see the summary of the grade they give to the student.		
Trigger	Teacher select "Grading" button next to course name in teaching course list.		
Preconditions	1. Teacher must login by teacher account. 2. Teacher must already in the "teacher information" page. 3. Teacher must already grade to student.		
Use Case Input Specification			
Input	type	Constraint	Example
-	-	-	-
Post conditions	The grade summary will be display.		
Normal Flows	User	System	
		1. The system shall provide course grading interface in "grading" page. 2. The system shall show list of students in the course including student ID and student name. 3. The system shall display the summary of the grade they give to the student as the distribution of each grade.	
Alternative Flow	-		
Exception Flow	-		
Assumption	Teacher must understand English.		

Use Case ID	UC-12		
Use Case Name	View GPA of course		
Created By	Apiwat Hantrakool	Last Update By	Apiwat Hantrakool
Date Created	28/2/2018	Last Revision Date	28/2/2018
Actors	Teacher		
Description	Teacher can see the GPA of the course that is grade average of student in the course.		
Trigger	Teacher select "Grading" button next to course name in teaching course list.		
Preconditions	1. Teacher must login by teacher account. 2. Teacher must already in the "teacher information" page. 3. Teacher must already grade to student.		
Use Case Input Specification			
Input	type	Constraint	Example
-	-	-	-
Post conditions	The GPA of the course will be displays.		
Normal Flows	User	System	
		1. The system shall provide course grading interface in "grading" page. 2. The system shall show list of students in the course including student ID and student name. 3. The system shall display the GPA of the course from calculate the average of grade of all student in the course.	
Alternative Flow	-		
Exception Flow	-		
Assumption	Teacher must understand English.		

Use Case ID	UC-13		
Use Case Name	Login		
Created By	Apiwat Hantrakool	Last Update By	Apiwat Hantrakool
Date Created	28/2/2018	Last Revision Date	28/2/2018
Actors/Users	Administrator, Teacher, Student		
Description	Users or actors can login to access the system by using their account including e-mail and password.		
Trigger	User starts to the system.		
Preconditions	User does not log in yet.		
Use Case Input Specification			
Input	type	Constraint	Example
E-mail	string	Must be Email form, and no blank space	nekky.apiwat@hotmail.com
Password	string	No blank space	nekky123456789
Post conditions	User can access to the system.		
Normal Flows	User	System	
	5. User input user name in the "E-mail" input text box 6. User input user password in the "password" input text box. 7. User click "Login" button.	1. System shall provide "Login" interface. 2. System shall provide "E-mail" input text box. 3. System shall provide "Password" input text box. 4. System shall provide "Login" button. 8. System shall validate the E-mail and the password. [A1], [A2], [A3]	
Alternative Flow	**A1**: User input incorrect email form of the user name. 1. System shall display alert text under text field that "You must enter a valid email address". 2. Go to normal flow 1. **A2**: User do not input either e-mail or user password. 1. System shall display alert text under text field that "This is required field". 2. Go to normal flow 1. **A3**: Either e-mail or user password are not match with the data in the database. 1. System shall display alert pop-up text that "e-mail or Password does not exist". 2. Go to normal flow 1.		
Exception Flow	-		
Assumption	User must understand English.		

Use Case ID	UC-14		
Use Case Name	Logout		
Created By	Apiwat Hantrakool	Last Update By	Apiwat Hantrakool
Date Created	28/2/2018	Last Revision Date	28/2/2018
Actors	Administer, Teacher, Student		
Description	User can logout their account.		
Trigger	User click "Logout" button.		
Preconditions	User must already log in.		
Use Case Input Specification			
Input	type	Constraint	Example
-	-	-	-
Post conditions	User can sign out to the system.		
Normal Flows	User	System	
		1. System shall log out for user. 2. System shall go to "Login" page.	
Alternative Flow	-		
Exception Flow	-		
Assumption	User must understand English.		