

# **Traceability Record**

#### **SEmester**

Version:	1.0
Made By:	Chatpisut Chaiuan, Peerachada Limtrakul, Salinporn Rattanaprapaporn, and Thanida Paige Pholsukcharoen
Date of Document:	18/12/2024

## **Document History**

Document Name	Version	Date	Reviewer	Responsible
SEmester_TR_0.1.docx	0.1	16/12/2024		Chatpisut Chaiuan, Peerachada Limtrakul, Salinporn Rattanaprapaporn, and Thanida Paige Pholsukcharoen
SEmester_TR_1.0.docx	1.0	18/12/2024		Chatpisut Chaiuan, Peerachada Limtrakul, Salinporn Rattanaprapaporn, and Thanida Paige Pholsukcharoen

### **Table of Content**

User Requirement Specification and System Requirement Specification	3
User Case and User Requirement Specification	7
Activity Diagram and User Requirement Specification	11
Sequence Diagram and User Requirement Specification	15
System Requirement Specification	19

# User Requirement Specification and System Requirement Specification

No.	URS Description	SRS-1.1. 1.	SRS-1.1. 2.	SRS-1.1. 3.	SRS-1.1. 4.	SRS-1.1. 5	SRS-2.2. 1.	SRS-2.2. 2.	SRS-2.2. 3.	SRS-3.3. 1.	SRS-3.3. 2.
1	Teachers can create a course										
2	Students can enroll in courses										
3	Students can unenroll course										

No	URS Description	SRS-1. 1.4	SRS-4. 4.1.	SRS-4. 4.2.	SRS-4. 5.1.	SRS-4. 5.2.	SRS-4. 5.3.	SRS-4. 5.4.	SRS-4. 5.5.	SRS-4. 6.1.	SRS-4. 6.2.	SRS-4. 6.3.	SRS-4. 7.1.	SRS-4. 7.2.
4	Teachers can view assignments													
5	Teachers can create assignments													
6	Teachers can grade assignments													
7	Teachers can delete assignments													

No.	URS Description	SRS-1.1.	SRS-5.8. 1.	SRS-5.8. 2.	SRS-5.9. 1.	SRS-5.9. 2.	SRS-5.9. 3.	SRS-5.9. 4.	SRS-5.1 0.1.	SRS-5.1 0.2.	SRS-5.1 0.3.
8	Students can view assignments										
9	Students can submit assignments										
10	Students can unsubmit assignments										
No.	· '		SRS-6.11 .1.	SRS-6.11 .2.	SRS-6.1 2.1.	SRS-6.1 2.2.	SRS-6.1 2.3.	SRS-6.1 2.4.	SRS-6.1 2.5.	SRS-6.1 3.1.	SRS-6.1 3.2.
11	Teachers can view announcement posts										
12	Teachers can create an announcement post										
13	Teachers can delete announcement posts										

No	URS Description	SRS-1. 1.4	SRS-6. 11.2.	SRS-7. 14.1.	SRS-8. 15.1.	SRS-8. 15.2.	SRS-8. 15.3.	SRS-8. 16.1.	SRS-8. 16.2.	SRS-8. 16.3.	SRS-8. 16.4.	SRS-8. 17.1	SRS-8. 17.2
14	Students can view announcement posts												
15	Teachers can view attendance												
16	Teachers can create attendance												
17	Teachers can check attendance												

No.	URS Description	SRS-8. 15.2.	SRS-8. 15.3.	SRS-9. 18.1.	SRS-1 0.19.1.	SRS-1 0.19.2.	SRS-1 0.19.3.	SRS-1 0.20.1.	SRS-11 .21.1.	SRS-11 .21.2.
18	Students can view attendance									
19	Teachers can assign grades									
20	Teachers can edit grades									
21	Students can view grades for the assignments in a specific course.									

No	URS Description	SRS-5. 8.1.	SRS-5. 9.1	SRS-11 .23.1.	SRS-11 .23.2.	SRS-11 .23.3.	SRS-11 .24.1.	SRS-11 .24.2.	SRS-11 .25.1.	SRS-8. 16.3.	SRS-8. 16.4.	SRS-8. 17.1	SRS-8. 17.2
22	Students can view grades for a specific assignment in a specific course												
23	Students can view all the grades of all the enrolled courses												
24	Teachers can view all the students' grades in a specific course												
25	Teachers can view all the students' grades in a specific assignment.												
26	Teachers can view all the classes' grades for all the courses they are teaching.												

# **User Case and User Requirement Specification**

No	Use Case	URS 1	URS 2	URS 3	URS 4	URS 5	URS 6	URS 7	URS 8	URS 9	URS 10	URS 11	URS 12	URS 13	URS 14	URS 15	URS 16	URS 17	URS 18	URS 19	URS 20	URS 21	URS 22	URS 23	URS 24	URS 25	URS 26
1	Teachers can create a course																										
2	Students can enroll in courses																										
3	Students can unenroll course																										
4	Teachers can view assignments																										
5	Teachers can create assignments																										
6	Teachers can grade assignments																										
7	Teachers can delete assignments																										

No	Use Case	URS 1	URS 2	URS 3	URS 4	URS 5	URS 6	URS 7	URS 8	URS 9	URS 10	URS 11	URS 12	URS 13	URS 14	URS 15	URS 16	URS 17	URS 18	URS 19	URS 20	URS 21	URS 22	URS 23	URS 24	URS 25	URS 26
8	Students can view assignments																										
9	Students can submit assignments																										
10	Students can unsubmit assignments																										
11	Teachers can view announcement posts																										
12	Teachers can create an announcement post																										
13	Teachers can delete announcement posts																										
14	Students can view announcement posts																										

No	Use Case	URS 1	URS 2	URS 3	URS 4	URS 5	URS 6	URS 7	URS 8	URS 9	URS 10	URS 11	URS 12	URS 13	URS 14	URS 15	URS 16	URS 17	URS 18	URS 19	URS 20	URS 21	URS 22	URS 23	URS 24	URS 25	URS 26
15	Teachers can view attendance																										
16	Teachers can create attendance																										
17	Teachers can check attendance																										
18	Students can view attendance																										
19	Teachers can assign grades																										
20	Teachers can edit grades																										
21	Students can view grades for the assignments in a specific course																										

No	Use Case	URS 1	URS 2	URS 3	URS 4	URS 5	URS 6	URS 7	URS 8	URS 9	URS 10	URS 11	URS 12	URS 13	URS 14	URS 15	URS 16	URS 17	URS 18	URS 19	URS 20	URS 21	URS 22	URS 23	URS 24	URS 25	URS 26
22	Students can view grades for a specific assignment in a specific course.																										
23	Students can view all the grades of all the courses they are enrolled in.																										
24	Teachers can view all the students' grades in a specific course																										
25	Teachers can view all the students' grades in a specific assignment.																										
26	Teachers can view all the classes' grades for all the courses they are teaching																										

## **Activity Diagram and User Requirement Specification**

No	Activity Diagram Name	URS 1	URS 2	URS 3	URS 4	URS 5	URS 6	URS 7	URS 8	URS 9	URS 10	URS 11	URS 12	URS 13	URS 14	URS 15	URS 16	URS 17	URS 18	URS 19	URS 20	URS 21	URS 22	URS 23	URS 24	URS 25	URS 26
1	Teachers can create a course																										
2	Students can enroll in courses																										
3	Students can unenroll course																										
4	Teachers can view assignments																										
5	Teachers can create assignments																										
6	Teachers can grade assignments																										
7	Teachers can delete assignments																										

No	Activity Diagram Name	URS 1	URS 2	URS 3	URS 4	URS 5	URS 6	URS 7	URS 8	URS 9	URS 10	URS 11	URS 12	URS 13	URS 14	URS 15	URS 16	URS 17	URS 18	URS 19	URS 20	URS 21	URS 22	URS 23	URS 24	URS 25	URS 26
8	Students can view assignments																										
9	Students can submit assignments																										
10	Students can unsubmit assignments																										
11	Teachers can view announcement posts																										
12	Teachers can create an announcement post																										
13	Teachers can delete announcement posts																										
14	Students can view announcement posts																										

No	Activity Diagram Name	URS 1	URS 2	URS 3	URS 4	URS 5	URS 6	URS 7	URS 8	URS 9	URS 10	URS 11	URS 12	URS 13	URS 14	URS 15	URS 16	URS 17	URS 18	URS 19	URS 20	URS 21	URS 22	URS 23	URS 24	URS 25	URS 26
15	Teachers can view attendance																										
16	Teachers can create attendance																										
17	Teachers can check attendance																										
18	Students can view attendance																										
19	Teachers can assign grades																										
20	Teachers can edit grades																										
21	Students can view grades for the assignments in a specific course																										

No	Activity Diagram Name	URS 1	URS 2	URS 3	URS 4	URS 5	URS 6	URS 7	URS 8	URS 9	URS 10	URS 11	URS 12	URS 13	URS 14	URS 15	URS 16	URS 17	URS 18	URS 19	URS 20	URS 21	URS 22	URS 23	URS 24	URS 25	URS 26
22	Students can view grades for a specific assignment in a specific course.																										
23	Students can view all the grades of all the courses they are enrolled in.																										
24	Teachers can view all the students' grades in a specific course																										
25	Teachers can view all the students' grades in a specific assignment.																										
26	Teachers can view all the classes' grades for all the courses they are teaching																										

## **Sequence Diagram and User Requirement Specification**

No	Sequence Diagram Name	URS 1	URS 2	URS 3	URS 4	URS 5	URS 6	URS 7	URS 8	URS 9	URS 10	URS 11	URS 12	URS 13	URS 14	URS 15	URS 16	URS 17	URS 18	URS 19	URS 20	URS 21	URS 22	URS 23	URS 24	URS 25	URS 26
1	Teachers can create a course																										
2	Students can enroll in courses																										
3	Students can unenroll course																										
4	Teachers can view assignments																										
5	Teachers can create assignments																										
6	Teachers can grade assignments																										
7	Teachers can delete assignments																										

No	Sequence Diagram Name	URS 1	URS 2	URS 3	URS 4	URS 5	URS 6	URS 7	URS 8	URS 9	URS 10	URS 11	URS 12	URS 13	URS 14	URS 15	URS 16	URS 17	URS 18	URS 19	URS 20	URS 21	URS 22	URS 23	URS 24	URS 25	URS 26
8	Students can view assignments																										
9	Students can submit assignments																										
10	Students can unsubmit assignments																										
11	Teachers can view announcement posts																										
12	Teachers can create an announcement post																										
13	Teachers can delete announcement posts																										
14	Students can view announcement posts																										

No	Sequence Diagram Name	URS 1	URS 2	URS 3	URS 4	URS 5	URS 6	URS 7	URS 8	URS 9	URS 10	URS 11	URS 12	URS 13	URS 14	URS 15	URS 16	URS 17	URS 18	URS 19	URS 20	URS 21	URS 22	URS 23	URS 24	URS 25	URS 26
15	Teachers can view attendance																										
16	Teachers can create attendance																										
17	Teachers can check attendance																										
18	Students can view attendance																										
19	Teachers can assign grades																										
20	Teachers can edit grades																										
21	Students can view grades for the assignments in a specific course																										

No	Sequence Diagram Name	URS 1	URS 2	URS 3	URS 4	URS 5	URS 6	URS 7	URS 8	URS 9	URS 10	URS 11	URS 12	URS 13	URS 14	URS 15	URS 16	URS 17	URS 18	URS 19	URS 20	URS 21	URS 22	URS 23	URS 24	URS 25	URS 26
22	Students can view grades for a specific assignment in a specific course																										
23	Students can view all the grades of all the enrolled courses																										
24	Teachers can view all the students' grades in a specific course																										
25	Teachers can view all the students' grades in a specific assignment.																										
26	Teachers can view all the classes' grades for all the courses they are teaching																										

### **System Requirement Specification**

- **SRS-1.1.1.** The system shall display the course creation pop-up interface.
- **SRS-1.1.2.** The system shall provide text fields for the course name, course ID, course section, and course credit in the post creation interface, in order to fill in the course details.
- **SRS-1.1.3.** The system shall provide a Create button to create a course.
- **SRS-1.1.4.** The system shall provide a Cancel button to cancel the action.
- **SRS-1.1.5.** The system shall display the created course in the Courses menu section.
- **SRS-2.2.1.** The system shall display the join course pop-up interface.
- **SRS-2.2.2.** The system shall provide a text field for course code in the join course interface.
- **SRS-2.2.3.** The system shall provide a Join button to join the matching code course.
- **SRS-3.3.1.** The system shall display the unenroll button of each enrolled course.
- **SRS-3.3.2.** The system shall not display the unenrolled course in the Courses section.
- **SRS-4.4.1.** The system shall provide the link in the teacher system homepage to the assignment management interface.
- **SRS-4.4.2.** The system shall provide the service to show the list of assignments of the course in four categories (Not turned in, Turned in, Late, Graded).
- **SRS-4.5.1.** The system shall display the assignment creation pop-up interface.
- **SRS-4.5.2.** The system shall provide text fields for topic, description, score, and weight in the course creation interface.
- **SRS-4.5.3.** The system shall provide selections for file, due date, and due time in the course creation interface.
- **SRS-4.5.4.** The system shall provide a Post button to post an assignment.
- SRS-4.5.5. The system shall display the created assignment post in the Assignments section.
- **SRS-4.6.1.** The system shall display the submitted assignment details.
- **SRS-4.6.2.** The system shall provide text fields for scores and comments.
- **SRS-4.6.3.** The system shall provide a Submit button to submit the grading of the assignment.
- **SRS-4.7.1.** The system shall display the Delete button for each assignment post.
- **SRS-4.7.2.** The system shall not display the deleted assignment in the Assignments section.
- **SRS-5.8.1.** The system shall provide the link in the system homepage to the announcement management interface.
- **SRS-5.8.2.** The system shall provide the service to show the list of assignments of the course in four categories (forthcoming, past due, graded, and completed).
- **SRS-5.9.1.** The system shall provide a View Assignment link to display the assignment details.
- **SRS-5.9.2.** The system shall provide selections for files in assignment details.
- **SRS-5.9.3.** The system shall provide a Submit button to submit an assignment.
- **SRS-5.9.4.** The system shall display the submitted assignment post in the Completed section.
- **SRS-5.10.1.** The system shall display the submitted assignments in the Completed section.
- **SRS-5.10.2.** The system shall provide an Unsubmit button to unsubmit an assignment.
- **SRS-5.10.3.** The system shall display the unsubmitted assignment post in the Forthcoming or Past Due.
- **SRS-6.11.1.** The system shall provide the link in the teacher system homepage to the announcement management interface.

- **SRS-6.11.2.** The system shall provide the service to show the list of announcements of the course.
- SRS-6.12.1. The system shall display the post creation pop-up interface
- **SRS-6.12.2.** The system shall provide text fields for the topic and description sections in the post creation interface, in order to fill in the announcement post details.
- **SRS-6.12.3.** The system shall provide a Choose File button to select attaching files.
- **SRS-6.12.4.** The system shall provide a Post button to post an announcement.
- **SRS-6.12.5.** The system shall display the created announcement post in the Announcements section.
- SRS-6.13.1. The system shall provide a service and button to delete an announcement post
- **SRS-6.13.2.** The system shall not display the deleted announcement in the announcement section.
- **SRS-7.14.1.** The system shall provide the link in the student system homepage to the announcement management interface.
- **SRS-8.15.1.** The system shall provide the link in the teacher system homepage to the attendance record interface.
- **SRS-8.15.2.** The system shall provide the service to show the list of attendance records for each date.
- **SRS-8.15.3**. The system shall provide the service to show the list of attending dates
- **SRS-8.16.1.** The system shall display the attendance record creation pop-up interface
- **SRS-8.16.2.** The system shall provide date fields for the date sections in the attendance record creation interface, in order to fill in the attendance record details.
- **SRS-8.16.3.** The system shall provide a Create button to create an attendance record.
- **SRS-8.16.4.** The system shall display the created attendance record in the attendance section.
- **SRS-8.17.1** The system shall provide a dropdown box for students' attendance statuses (present, absent, and late).
- **SRS-8.17.2** The system shall provide a text field for a remark section for each student.
- **SRS-9.18.1.** The system shall provide the link in the student system homepage to the attendance record interface.
- **SRS-10.19.1.** The system shall provide text fields for the grade sections in the students' grades list interface, in order to fill in the letter grade of each student.
- **SRS-10.19.2.** The system shall provide a save button to save the inputted grade.
- **SRS-10.19.3.** The system shall display the assigned grade in the grade section.
- **SRS-10.20.1.** The system shall provide an edit button to edit the existing grade.
- **SRS-11.21.1.** The system shall provide the service to show the list of all assignments' grades of the course.
- **SRS-11.21.2.** The system shall provide the link in the student system homepage to the grades interface.
- **SRS-11.23.1.** The system shall provide the service to show the list of all courses' grades.
- **SRS-11.23.2.** The system shall provide the service to show the graph of overall grades.
- **SRS-11.23.3.** The system shall provide the tab on the system homepage to the grade overview interface.
- **SRS-11.24.1.** The system shall provide the service to show the list of all students' grades for the course.

**SRS-11.24.2.** The system shall provide the link in the teacher system homepage to the grades interface.

**SRS-11.25.1.** The system shall provide a Check button to display the assignment details of all students in the specific course.