

1. Course Code

2295

2. Course Title

M21e: Requirement Analysis and Design Exercises

3. Teacher

HIRAISHI, Teruhiko

4. Term

Fall 2

5. Course Requirements (Courses / Knowledge prerequisite for this course)

Requirement Analysis and Design (achievement of target level is required)

6. Course Overview and Objectives

This course intends for students to acquire the practical ability of knowledge and technique on "Requirement Analysis" and "Architectures Design" by practising through playing the roles of acquirer(customer) and supplier(developer).

Each member belongs to a team, and the team will play the roles both acquirer and supplier in the class.

Through exercises, students will not only improve their practical skills through team discussions and project management practices, but they will also acquire practical abilities such as facilitation, negotiations, and presentations.

7. Course Outline

- 1 Orientation(lecture/practice)
- 2 Determining the theme(lecture/practice)
- 3 Determine the issue to be solved(practice)
- 4 Requirement analysis(lecture/practice)
- 5 Determine the issue to be solved(practice)
- 6 Requirement analysis(lecture/practice)
- 7 Requirement analysis(practice)
- 8 Architecture design/Requirement analysis(lecture/practice)
- 9 Requirement analysis(practice)
- 10 Architecture design/Requirement analysis(lecture/practice)
- 11 Requirement Analysis(practice)
- 12 Architecture design/Requirement analysis(lecture/practice)
- 13 Architecture design(practice)
- 14 Architecture design/Requirement analysis(lecture/practice)
- 15 Prepare for final presentation(practice)
- 16 Final presentation/Finl report

8. Textbooks (Required Books for this course)

None.

9. Reference Books (optional books for further study)

None.

10. Course Goals (Attainment Targets)

- (1) To be able to determine the theme of the requirements as an acquirer.
- (2) To be able to develop RFP(Request for Proposal) as an acquirer.
- (3) To be able to develop the requirement definition documents as a supplier.
- (4) To be able to the system architecture documents as a supplier.
- (5)
- (6)
- (7)
- (8)

11. Correspondence relationship between Educational goals and Course goals

Educational goals of the school			Course Goals
High level ICT skills	Basic academic skills		
	Specialized knowledge and literacy		(1) , (2), (3), (4)
Human skill (Tankyu skill)	Ability to continually improve own strengths		(1) , (2), (3), (4)
	Ability to discover and resolve the problem in society	Problem setting	(1)
		Hypothesis planning	(1),(2),(3)
		Hypothesis testing	(2),(3)
		Practice	(3),(4)
	Fundamental Competencies for Working Persons	Ability to step forward	(1),(2),(3),(4)
		Ability to think through	(1),(2),(3)
		Ability to work in a team	(1),(2),(3),(4)
Professional ethics			

12. Evaluation

Goals	Evaluation method & point allocation					
	examination	Quiz	Reports	Presentation	Deliverables	Other
(1)			○	○	○	
(2)			○	○	○	
(3)			○	○	○	
(4)			○	○	○	
(5)						
(6)						
(7)						
(8)						
Allocation			30	40	30	

13. Evaluation Criteria

Examination	
Quiz	

Reports	Confirm that students understand the content of the lesson by describing problems and solutions based on the knowledge and skills acquired in the lesson and their own thoughts.
Presentation	For each section, students make presentation of the progress of each team. This presentation is evaluated by lecturer and other teams, not the correctness but easiness and presentation manner.
Deliverables	As a supplier (developer), the acquirer team and the lecturer evaluate whether the developed work products meets the needs of customers and is effective.
Other	

14. Active Learning

Hourly percentage of active learning within the whole class time		90%
1	Active learning such as problem solving assignment using the knowledge and skills acquired in class.	Sometimes
2	Active learning such as group works and discussions.	All the time
3	Outcome presentations and feedbacks.	All the time
4	Students actively make decisions on how the class should be conducted.	All the time

15. Notes

This course intends to acquire practical ability by playing both acquirer and supplier roles as project teams. Through team discussion and project management, this course intends to improve not only the students' technological skills, but also facilitation, negotiation, and presentation skills.

As this course is carried out in role-playing style, this course may not be open when the number of students is less than 4.

16. Course plan

(Notice) This plan is tentative and might be changed at the time of delivery

Lesson 1: Orientation	lecture&practice,90min
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Comprehend the outline of the course.

- (1) Orientation
- (2) Flow of the development processes
- (3) What is the architecture?
- (4) Presentation

Lesson 2: Determining the themes	lecture&practice,90min
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As an acquirer, summarize the issue to be solved to the document

- (1)Read case study
- (2)Read RFP(request for proposal)
- (3)Establish issue to be solved
- (4)Summarize the issue to the document

Lesson 3: Determine the issues to be solved	practice,90min
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As a acquirerer, analyze stakeholders, and identify the issues, and purpose of the system

- (1)Select issue to be solve in each team.
- (2)Develop case study8sttory)
- (3) Develop RFP(Request for Proposal)
- (4) Prepare memo for Supplier's questions.

Lesson 4:Requirement analysis	lecture&practice,90min
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As a supplier, proceed requirement definition.

- (1)Structuring stakeholders
- (2)Presentation

Lesson 5: Determine the issues to be solved	practice,90min
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As a acquirerer, analyze stakeholders, and identify the issues, and purpose of the system

- (1)Select issue to be solve in each team.
 - (2)Develop case study(sttory)
 - (3)Develop RFP(Request for Proposal)
 - (4)Prepare memo for Supplier's questions.
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Lesson 6:Requirement analysis	lecture&practice,90mi
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As a supplier, proceed requirement definition.

- (1)Requirement organization
- (3)Fascilitation & negotiation
- (3)Requirement definitioon
- (4)Presentation

Lesson 7: Requirement analysis	practice,90 min
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According to the RFP from acquirer, proceed requirement analysis as a supplier(developer).

- (1)Requirement Organization
- (2)Requirement Definitioon

Lesson 8: Architecture design/Requirement analysis	lecture&practice,90min
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study the basis of architecture design

- (1) Outline of model
- (2) Typical models
- (3) Functional block diagram
- (4) Use case diagram
- (5) Presentation

Lesson 9:Requirement analysis	practice,90min
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According to the requirements from acquirer, proceed requirement analysis as a supplier(developer).

- (1)Stakeholder Analysis

Lesson 10: Architecture design/Requirement analysis	lecture&practice90 min
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According to the acquirerer's request, develop architecture documents

- (1)Class diagram
 - (2)Make Development plan
 - (3)Presentation
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Lesson 11:Requirement analysis	practice,90min
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According to the requirements from acquirer, proceed requirement analysis as a supplier(developer).

(1)Stakeholder Analysis

Lesson 12:Architecture design/Requirement analysis	practice,90min
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Architecture design

(1)Architecture design based on the typical models

(2)Presentation

Lesson 13:Architecture design	practice,90min
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Architecture design

(1)Architecture design based on the typical models

Lesson 14:Architecture design	practice,90min
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Architecture design

(1)Architecture design based on the typical models

(2)Presentation

Lesson 15:Prepare for final presentation	practice,90min
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Prepare for final presentation

(1)Prepare for presentation for all activities and deliverables in this exercise

Lesson 16:Final presentation/Final report	practice,90min
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Final presentation

(1) Present to all activities and outcomes in all of this exercise

(2) Explanation of final report
