

1. Course Code

2295

2. Course Title

Requirement Analysis and Design Experiments

3. Teacher

HIRAISHI, Teruhiko

4. Term

Fall 2

5. Course Overview and Objectives

This course intends students to acquire the practical ability of knowledge and technique on "Requirement Analysis" and "Architectures Design" by practicing through playing rolls of acquirer and supplier.

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

6. 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. 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			

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

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

9. Textbooks (Required Books for this course)

None.

10. Reference Books (optional books for further study)

None.

11. Evaluation

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

12. Notes

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

13. Course plan

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

Lesson 1: Orientation	(lecture & practice , 90 min.)
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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 2-3: Determining the themes	(lecture & practice, 2*90 min.)
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As an acquirer, determine theme to order to the supplier, referring to the sample case study

- (1) Read case study
- (2) Read RFP
- (3) Establish issue to be solved
- (4) Logical thinking
- (5) Practice (Acquirer & Supplier)
- (6) Presentation

Lesson 4-5: Requirement analysis(1)	(lecture & practice, 2*90 min.)
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As a supplier, analyze stakeholders, and identify the issues, and purpose of the system

- (1) Outline of Requirement definition
- (2) Stakeholder analysis
- (3) Identify the issue and purpose of the system
- (4) Practice (Acquirer & Supplier)
- (5) Presentation

Lesson 6~7: Requirement analysis (2)	(lecture & practice, 2*90 min.)
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As a supplier, develop requirement organization, then develop requirement definition.

- (1) Requirement organization
- (2) Requirement definition
- (3) Facilitation and negotiation
- (4) Practice (Acquirer & Supplier)
- (5) Presentation

Lesson 8~9: Architecture design (1)	(lecture & practice, 2*90 min.)
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According to the RFP from acquirer, develop architecture documents as a supplier.

- (1) Architecture design
 - (2) Concept of the model
 - (3) Functional block diagram
 - (4) Use case diagram
 - (5) Practice (Acquirer & Supplier)
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Lesson 10~11: Architecture design (2)	(lecture & practice, 2*90 min.)
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According to the RFP from acquirer, develop architecture documents as a supplier.

- (1) Activity diagram
- (2) Class diagram
- (3) Practice (Acquirer & Supplier)
- (4) Presentation

Lesson 12~13: Architecture design (3)	(lecture & practice, 2*90 min.)
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According to the RFP from acquirer, develop architecture documents as a supplier.

- (1) State machine diagram
- (2) Data flow diagram
- (3) Practice (Acquirer & Supplier)
- (4) Presentation

Lesson 14: Make development plan	(lecture & practice, 90 min.)
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At the end of the lecture, all the teams plan for future exercise activities.

- (1) Review of the requirement definition document.
- (2) Make development plan
- (3) Practice (Acquirer & Supplier)
- (4) Presentation

Lesson 15~28: Practice	(practice, 14*90 min.)
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Each team plays the role of acquirer and supplier based on their plans for requirement analysis and system architecture design.

- (1) Supplier develop requirement analysis deliverables based on the acquirer's RFP.
- (2) Supplier report the progress status to the acquirer.
- (3) Acquirer responds to the questions from the supplier, if needed.
- (4) Presentation

Lesson 29-30: Final presentation	(lecture & practice, 2*90 min.)
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Summarize all activities and work products, and make presentation.

(1) Summarize all activities and work products, then make presentation.

(2) Notification of final report.
