

1. Course Title (Course Code)

Requirements Analysis Exercises (2237)

2. Instructor

Chika Yoshida

3. Term

Fall 2

4. Outline and Objectives

Developing and managing a good requirement specification is one of the key factors for success of IT system development project.

In this course, students will learn how to elicit, analyze, and define requirements for IT system developments. Students will also learn how to analyze business strategy and how to derive IT system requirement it. The course consists lecture session and exercise session. In the exercise session, students will have an experience with actual requirement analysis process for practical subject in small groups.

5. Goals (Attainment Targets)

To understand the importance of requirement management and to be able to analyze customer's needs for system requirement to develop system requirement specification.

- (1) Able to explain the importance of requirement analysis and requirement management in the IT system development process.
- (2) Able to elicit user requirements using various techniques.
- (3) Able to analyze and model system requirements
- (4) Able to formulate a requirement specification document
- (5) Able to prioritize and select the requirements
- (6) Able to analyze business strategy to derive IT system requirements.

6. Correspondence relationship between Educational goals and Course goals

Educational goals			Course goals
High level ICT skill	Basic academic skills		(1), (2), (3), (4)
	Specialized knowledge and literacy		(5), (6)
Human skill (Tankyu skill)	Ability to continually improve own strengths		
	Ability to discover and resolve the problem in society	Problem setting	
		Hypothesis planning	
		Hypothesis testing	
		Practice	
	Fundamental Competencies for Working Persons	Ability to step forward	(1), (2), (3), (4)
		Ability to think through	(5), (6)
		Ability to work in a team	(1), (5), (6)
Professional ethics			

7. Course Requirements

None

8. Textbooks

None

9. Reference Books

Just Enough Requirements Management, Alan M. Davis, Dorset House Publishing ISBN
0-932633-64-1

10. Evaluation

Goals	Evaluation method & point					
	term-end exam	quiz	report	presentation	deliverable	other
(1)					○	
(2)					○	
(3)				○		
(4)				○		
(5)				○		
(6)				○		
Allocation				60	40	

11. Notes

Foundations of System Development or equivalent knowledge

Course Schedule

(Notice) This schedule is a tentative plan, there might be changes, additions, and revisions etc. at the time of delivering the course.

Lesson 1-2 Introduction to Requirement Analysis (Lecture 90min, Exercise 90 min)

Explanation of Course logistics and overview of Requirement analysis

- (1) Course Orientation (Course schedule, Syllabus, Groups, Evaluation, etc.)
- (2) What is requirement analysis?
- (3) Requirement Analysis in Software Development
- (4) Relation with Stakeholders
- (5) Group Discussion and Presentation. "Why Requirement Analysis is Important?"

Lesson 3-4 Requirement Management (Lecture 90min, Exercise 90 min)

Explanation of Requirement management and the processes with documents.

- (1) What is requirement Management?
- (2) Development Model and Requirement
- (3) Requirement Management Process
- (4) Types of Requirement
- (5) Group Discussion and Presentation "Requirement Management Exercise)

Lesson 5-6 Business strategy Analysis (1) (Lecture and Exercise, 90min)

Learn how to identify business situation and the problems using analyze method

- (1) Process of Business Strategy Analysis
- (2) Stake Holder Analysis
- (3) SWOT Analysis
- (4) Problem Analysis
- (5) Group Exercise

Lesson 7-8 Business strategy Analysis (2) (Lecture and Exercise, 90min)

Learn how to identify business strategy and suitable ICT solution to achieve the goal.

- (1) To identify business objectives and challenges by Balance Score Card
- (2) To find suitable solution with making IT Innovation Strategy Map
- (3) Defining achievement target with KGI and KPI
- (4) Group Exercise

Lesson 9 Completion and Presentation of Strategy Map (Presentation and Discussion, 90min)

Complete the strategy map. Presentation and discussion with the strategy map.

- (1) Completing the strategy map
- (2) Presentation and discussion

Lesson 10 Requirement Elicitation (Lecture, 90min)

Learn how to effectively elicit requirements.

- (1) What is requirement elicitation?
- (2) Why do elicitation?
- (3) Stake holders for requirement elicitation
- (4) Elicitation techniques (Interviewing, Brain storming, Questionnaires, Prototyping etc.)

Lesson 11 Requirements Triage (Lecture, 90min)

Learn techniques to develop just enough requirements.

- (1) Why Requirement Triage (Prioritization and selection) is important?
- (2) Prioritizing requirements by importance
- (3) Estimating effort for requirements
- (4) Selecting requirements

Lesson 12 Requirement modeling (Lecture and Exercise, 90min)

Modeling of business requirements and system requirements

- (1) What is requirement modeling?
- (2) Scenarios and use cases
- (3) Writing use case diagrams

Lesson 13-14 Case Study: Business modeling (Lecture and Exercise, 90min)

Analyze business flow and model it using use case diagram and business flow diagram.

- (1) What is business modeling?
- (2) Writing activity diagram and business flow diagram
- (3) Modeling Exercise

Lesson15 Case study presentation and Summary of the course
(Presentation and Lecture, 90min)

Students make presentation of their case study result, and discuss about them.

- (1) Presentation of case study results with diagram
- (2) Discussion about the case study
- (3) Summary and review of the course