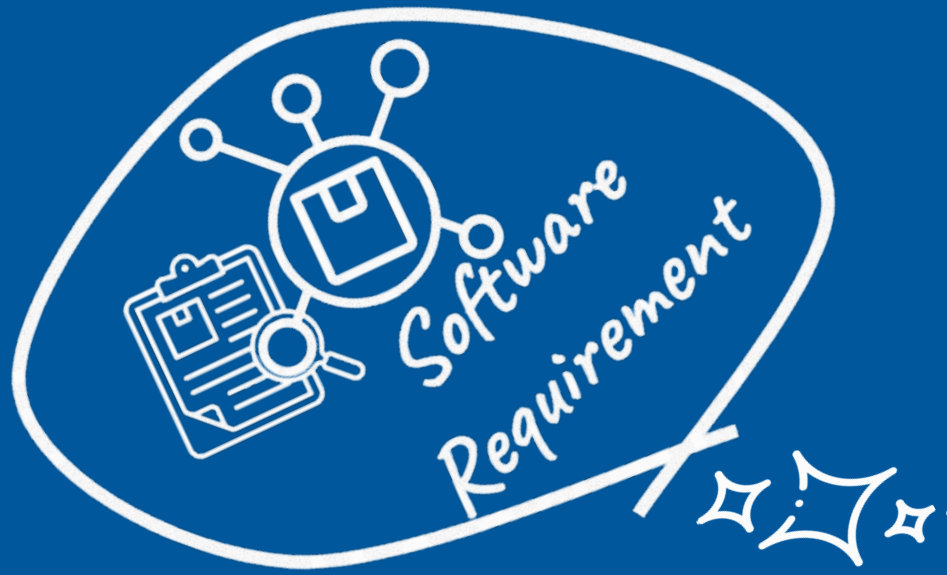

1305217

Software Requirements Analysis and Specification

Academic Year 2025/01

School of Information Technology, Mae Fah Luang University

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Course Description

- Requirements elicitation;
- Requirements analysis;
- Requirements negotiation;
- Requirements specification;
- Requirements validation;
- Formal specification.
- Techniques and tools used to define;
- Document and ensure customer satisfaction

Course Objective

- To perform requirements engineering in the context of the most common software development life cycles and processes
- To introduce techniques for requirements elicitation and analysis
- To develop functional and non-functional requirements
- To create a requirements specification to communicate requirements to a broad set of stakeholders
- To effectively analyze requirements and prioritize accordingly

Google Class Code

For announcement

tnaxwix7

https://classroom.google.com/c/NzgzMTg5NDk0MDc3?cjc=tnaxwix7

Google Form :

For Quiz and Participant

https://forms.gle/ZKymd4teuaijDDvE7

Course Outline

Introduction to software requirement engineering

What is software requirement engineering, software requirement principles, software process requirements, functional and nonfunctional requirements, system requirements and software requirements

Requirements Process

- Process Models
- Process Actors
- Process Quality and Improvement
- Software Requirement Modeling (UML) for example; Use case diagram, Activity Diagrams, Workflow

Requirements Elicitation

- Requirements Sources
- Elicitation Techniques

Requirements Analysis

- Requirements Classification
- Conceptual Modeling
- Architectural Design and Requirements Allocation
- Requirements Negotiation
- Formal Analysis

Course Outline

Requirements Specification

- System Definition Document
- System Requirements Specification
- Software Requirements Specification

Requirements Validation

- Requirements Reviews
- Prototyping
- Model Validation
- Acceptance Tests

Lesson Plan: Before Midterm Exam

Week\	Date	Topics
1	4 Aug 2025	Course Introduction
2	11 Aug 2025 (Holiday)	No Class
3	18 Aug 2025 (Sci Day)	Chapter 1: Introduction to software requirement engineering
4	25 Aug 2025	Chapter 2: Requirements Engineering Process
5	1 Sep 2025	Chapter 3: Requirement Elicitation Part#1
6	8 Sep 2025	Assignment : Interview your stakeholders
7	15 Sep 2025	Assignment : Interview your stakeholders
8	22 Sep 2025 (no class)	Presentation 1

Lesson Plan: After Midterm Exam

Week	Date	Topics
9	29 Sep 2025 (Midterm)	No Class
10	6 Oct 2025	Chapter 4: Requirement Analysis
11	13 Oct 2025 (holiday)	No Class (Workshop Checklist & Consult) ONLINE
12	20 Oct 2025	Chapter 5: Requirement Specification
13	27 Oct 2025	Chapter 6: Requirement Validation
14	45964	Workshop Checklist & Consult
15	10 Nov 2025	Final Presentation
16	17 Nov 2025	Final Presentation
17	Final Exam	No Class

Evaluation

- **Midterm** **25%**
- **Final** **25%**
- **Group Project** **30%**
- **Quiz and Assignment** **15%**
- **Participation** **5%**

Project and Assignment

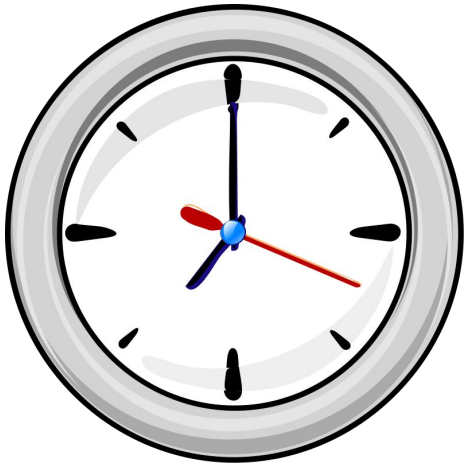
- **Software Requirements** will collaborate with **Database** and **Web application development**
- Group Work
  - 5-6 members / 1 group
- Topic: Freestyle
- Link group member:

https://docs.google.com/spreadsheets/d/1_06SKZ_FFMz7KjypSOW14QSC_0liDPfoOC-iAYt4oEw/edit?usp=sharing

Grading

A	**80-100**
B+	**75-79**
B	**70-74**
C+	**65-69**
C	**60-64**
D+	**55-59**
D	**50-54**
F	**0-49**

Teaching Rules



- Students are required to attend all classes.
- **Check-in** class and sometime has a quiz
- **The assignment** has to send it to be on time before the deadline. If you turn in late, it means you will get 0 point.