TQF 3

Course Specification

Institution´s name Rangsit University

Faculty/School College of Digital Innovation Technology

Section 1 General Information

Course Number and Course Title: CSC481/DIT202 Information System Analysis and Design

Number of Credit 3 credits (3-0-6)

Curriculum Bachelor of Science (Computer Science)

Type of Course Major Course (Required Major)

Course Coordinator Aj. Sumana Kasemsawasdi

Course Instructor Aj. Sumana Kasemsawasdi

Semester ☐ Special ☐ First ☑ Second

Year ☑ First year ☐ Second year ☐ Third year ☐ Fourth year

Pre-requisite None

Co-requisites None

Study Place Rangsit University

Date of updated course description December 13, 2024

Section 2 Purposes and Objectives

Purpose:

1) To analyze and study methods for designing information technology systems.

2) To understand the process of designing and developing information technology systems

3) to be able to apply knowledge in this course to solve problems that occur in daily life

Purpose in Course Improvement:

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Section 3 Working Process

1. Course Description

System component, system development life cycle, analysis methodologies and computer-aided software engineering tools, technical, operational, and economical feasibility studies, data flow diagram, entity relationship diagram, input design, output design, database design, documentation and presentation, systems analysis and design practices and case studies.

2. Teaching hours/semester

Lecture	Group Tutorial	Field Study visit	Self Study
45 hours	Students can contact teachers via E-mail : sumana.k@rsu.ac.th , Line : sumana_ks, Facebook : sumana RSU and in the classroom.	-	6 hrs per week

Section 4 Student's Learning Outcome Development

1.1 Ethical and Morale Development

●	Learning Outcome	Learning Process	Evaluation
1.2	Have self-discipline, punctuality, self-responsibility and social responsibility	insert content on being orderly, disciplined, punctual, and responsible for oneself and society	Class attendance ≥ 80%
1.3	Have leadership, be able to work in a team, resolve conflicts, and give proper priority to tasks	insert content on leadership, be able to work in a team, resolve conflicts, and give proper priority to tasks	Group participation

2. Knowledge

●	Learning Outcome	Learning Process	Evaluation
2.1	Possess knowledge related to the principles and theories of the student's field of study	☐ Interactive Lecture ☐ Assign Homework	Written examination - Midterm 20% - Final 50%
2.3	Be able to analyze, design, develop, install, and maintain or evaluate software components to conform to the requirement		☐ Project presentation and Project's report ☐ Homework

3. Cognitive skills

●	**Learning Outcome**	**Learning Process**	**Evaluation**
3.1	Be able to think analytically and systematically and logically.	☐ Assign group work	☐ Group discussions by case study and presentation

4. Interpersonal skills and responsibility

●	**Learning Outcome**	**Learning Process**	**Evaluation**
4.1	Be able to communicate in Thai and English with people with a variety of background	☐ Assign group work ☐ Work in groups as team member and leader	☐ Class participation ☐ Group participation, presentation and report ☐ Self-evaluation ☐ Group evaluation

5. Analytical and communication skills

●	**Learning Outcome**	**Learning Process**	**Evaluation**
5.1	Have skills in using the necessary tools currently available for working with computers.	Recommends resources for learning and practicing various tools in software projects.	☐ presentation and report

Section 5 Lesson Plan and Evaluation

Lesson plans

Lecturer: Sumana Kasemsawasdi

Week	Topics	Hours	Teaching Activities/ Media
Week 1	Introduction to Systems Analysis and Design	3	- Pre-Test - Interactive Lecture, Individual Assessment
Week 2	Analyzing the Business Case	3	- Interactive Lecture - Group Work - Quiz
Week 3	Managing Systems Projects	3	- Interactive Lecture, Group Assessment - Quiz - Assign Project
Week 4	Requirements Modeling	3	- Interactive Lecture, Group Assessment - Quiz - Group Work
Week 5 - 7	Data and Process Modeling	9	- Interactive Lecture, Group Assessment - CASE Tools - Project progress report - Quiz
Week 8	Midterm Examination		
Week 9	Object Modeling	3	- Interactive Lecture, Individual Assessment - Quiz
Week 10	Development Strategies	3	- Interactive Lecture, Group Assessment - Quiz - Project progress report
Week 11	User Interface Design	3	- Interactive Lecture, Individual Assessment

Week	Topics	Hours	Teaching Activities/ Media
			- Quiz
Week 12	Data Design	3	- Interactive Lecture, Individual Assessment - Quiz
Week 13	System Architecture	3	- Interactive Lecture, Individual Assessment -
Week 14	Managing Systems Implementation	3	- Interactive Lecture, Individual Assessment - Quiz
Week 15	Managing Systems Support and Security	3	- Interactive Lecture, Individual Assessment - Quiz
Week 16	Present Project	3	
Week 17	Final Examination		

2. Evaluation Plan

Learning Outcomes	Assessment Methods	Assessment Week	Assessment Ratio (Percentage)
2.1, 2.3, 3.4	- Midterm Examination - Final Examination	8 17	20% 50%
1.2, 2.1, 2.3, 4.4	- Class attendance - Quiz	All	10%
3.4, 4.1, 5.2	- Analyze and design case assignment - Individual / Group discussion and presentation in class	13 -16	20%

Section 6 Learning and Teaching Resource

1. Main Texts

Scott Tilley. (2019). **Systems Analysis and Design**, 12th Edition. Shelly Cashman Series.

2. Documentation and Essential Information

Professor: Dr. G. Alan Davis, Computer and Information Systems Robert Morris University. INFS6220 - System Analysis & Design. Retrieved July 9, 2024. From https://www.profdavis.net/infs6220.htm

Section 7 Evaluation and Improvement Plan

1. Evaluation Strategy for course effectiveness by Students

1.1 Using focus group

1.2 Students evaluate the course using "Course Evaluation Form"

2. Teaching Evaluation Strategy

2.1 Observation of learning and teaching activities by teaching team, colleagues and administrators

2.2 Verify learning assessment

2.3 Results of examination and students' reports

3. Teaching Improvement

3.1 Adjust the course based on the information received from the students' evaluation

3.2 Teaching Team, Head of Computer Science Bachelor Degree, Curriculum Committee arrange a meeting in order to improve the course.

4. Re-evaluation of student's learning outcome

- Instructors present the students achievement in the subjects with the committee members to verify.

5. Verification and Planning of Course Improvement

- Gather information from students' evaluation in improving the learning strategies.