2309 CS250/CS014 Course Outline

Subject Code : **CS250/CS014**
Subject Title : Software Engineering
Course Type : Compulsory
Level : 3
Credits : 3
Teaching Activity : Lecture   45 hours
Prior Knowledge* : CS101 Data Base System
  CS111 OO Programming
  CS121 Data Structures
Class Schedule :

Class	Week	Time	Classroom	Date
D1	MON	12:30-15:20	B401	2023/09/04-2023/12/17
D2	THUR	12:30-15:20	B401	2023/09/04-2023/12/17

Instructor : Rubing Huang
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E-mail Address : rbhuang@must.edu.mo
Office : A209
Office Hour : Monday (10:00-12:00)
  Tuesday (10:00-12:00)
  Wednesday (14:30-17:30)
  Thursday (9:00-12:00)

Course Description

This subject aims to introduce theories, methodologies, technologies and general practices for software practices for software development. It covers the software life cycle, software processes, requirements engineering, system modelling, software design, implementation, software testing and debugging, and software maintenance.

Textbook(s)

Book Name: Software Engineering: A Practitioner's Approach
Author/Editor: Roger S. Pressman and Bruce Maxim
Edition: 9th Ed.
ISBN: 9781260548006
Publisher: McGraw-Hill
Date: 2019

Book Name: Object-Oriented and Classical Software Engineering
Author/Editor: Roger S. Pressman and Bruce Maxim
Edition: 8th Ed.
ISBN: Stephen Schach
Publisher: McGraw-Hill

Date: 2010

Intended Learning Outcomes

1. Ability to understand and apply project scheduling techniques.
2. Ability to understand and apply software requirements engineering techniques.
3. Ability to understand and apply software design principles and modelling techniques.
4. Ability to understand and apply software implementation and code quality.
5. Ability to understand and apply software testing and debugging techniques.
6. Oral presentation for the top-tier software engineering conference papers.

- **Schedule**

Week	Topic	Hours	Teaching Method
1	Overview of Software Engineering	3	Lecture
2	Software Process	3	Lecture
3	Software Requirements	3	Lecture
4	Requirements Analysis: Part 1	3	Lecture
5	Requirements Analysis: Part 2	3	Lecture
6	Software Design Principles and Methodologies: Part 1	3	Lecture
7	Software Design Principles and Methodologies: Part 2	3	Lecture
8	Software Implementation and Code Quality	3	Lecture
9	Software Testing and Debugging: Part 1	3	Lecture
10	Software Testing and Debugging: Part 2	3	Lecture
11	Introduce the top-tier conferences in the software engineering field and select the appropriate research papers, and also discuss about how to read research papers.	3	Lecture
12	Paper Oral Presentation: Part 1	3	Seminar
13	Paper Oral Presentation: Part 2	3	Seminar
14	Paper Oral Presentation: Part 3	3	Seminar
15	Revision for final exam	3	Lecture

- **Assessment Approach**

Assessment Method	% weight
1. In-Class Exercises (Class participation)	10%
2. Assignments	20%
3. Oral Presentation	20%

4. Final Exam	50%
Total	100 %

- **Guideline for Letter Grade:**

Marks	Grade
93-100	A+
88-92	A
83-87	A-
78-82	B+
72-77	B
68-71	B-
63-67	C+
58-62	C
53-57	C-
50-52	D
0-49	F

Notes:
1. Students will be assessed on several assessment items (i.e., attendance, paper presentation, the mid-term and final exams).
2. The attendance is to evaluate the student's participation of discussion in the classes.
3. The paper presentation is to evaluate the student's ability to study the cutting-edge software engineering research topics.
4. The mid-term and final exams are to evaluate the student's understanding of the concepts of software engineering.