Tamkang University Academic Year 112, 1st Semester Course Syllabus

Course Title	SOFTWARE ENGINEERING	Instructor	HUANG-WEN HUANG
Course Class	TEIDB4A DEPARTMENT OF COMPUTER SCIENCE AND INFORMATION ENGINEERING (ENGLISH-TAUGHT PROGRAM), 4A	Details	◆ General Course ◆ Required ◆ One Semester
Relevance to SDGs	SDG4 Quality education SDG9 Industry, Innovation, and Infrastructure		

Departmental Aim of Education

Ⅰ. Comprehend professional knowledge.

Ⅱ. Acquire mastery of Practical Skills.

Ⅲ. Establish creative achievement.

Subject Departmental core competences

A. Programming and application ability.(ratio:40.00)

B. Mathematical reasoning ability.(ratio:15.00)

C. Implementing computer systems ability.(ratio:15.00)

D. Computer networking application skills.(ratio:15.00)

E. Professional skills for information technology (IT) industry.(ratio:15.00)

Subject Schoolwide essential virtues

1. A global perspective. (ratio:10.00)

2. Information literacy. (ratio:30.00)

3. A vision for the future. (ratio:10.00)

4. Moral integrity. (ratio:20.00)

5. Independent thinking. (ratio:15.00)

6. A cheerful attitude and healthy lifestyle. (ratio:5.00)

7. A spirit of teamwork and dedication. (ratio:5.00)

8. A sense of aesthetic appreciation. (ratio:5.00)

	Course Introduction	Combining the fundamental knowledge of information systems and the experiences of programming, learn how to develop high quality software by engineering approaches. Due to the diversity of program development capability, the actual learning schedule of each student is different. The listed topics are for reference.

The correspondences between the course's instructional objectives and the cognitive, affective, and psychomotor objectives.

Differentiate the various objective methods among the cognitive, affective and psychomotor domains of the course's instructional objectives.

 I. Cognitive : Emphasis upon the study of various kinds of knowledge in the cognition of
          the course's veracity, conception, procedures, outcomes, etc.
II.Affective : Emphasis upon the study of various kinds of knowledge in the course's appeal,
          morals, attitude, conviction, values, etc.
III.Psychomotor: Emphasis upon the study of the course's physical activity and technical
          manipulation.

No.	Teaching Objectives	objective methods
1	Learn what is software engineering	Cognitive
2	Learn the related software engineering methodologies and tools	Cognitive
3	Develop software by a certain process, including the analysis/design techniques	Cognitive

The correspondences of teaching objectives : core competences, essential virtues, teaching methods, and assessment

No.	Core Competences	Essential Virtues	Teaching Methods	Assessment
1	ABCDE	12345678	Lecture, Discussion	Testing, Study Assignments, Discussion(including classroom and online)
2	ABCDE	12345678	Lecture, Discussion	Testing, Study Assignments, Discussion(including classroom and online)
3	ABCDE	12345678	Lecture, Discussion	Testing, Study Assignments, Discussion(including classroom and online), Report(including oral and written)

Course Schedule			
Week	Date	Course Contents	Note
1	112/09/11～112/09/17	Introduction	
2	112/09/18～112/09/24	Software Life Cycle	
3	112/09/25～112/10/01	Software Development Process	
4	112/10/02～112/10/08	Software Modeling	
5	112/10/09～112/10/15	Requirement Analysis	
6	112/10/16～112/10/22	Object Oriented Analysis	
7	112/10/23～112/10/29	1. Object Oriented Design 2. Enterprise Visiting (Field Trip)	
8	112/10/30～112/11/05	Design Patterns 1	
9	112/11/06～112/11/12	Midterm Exam Week	
10	112/11/13～112/11/19	1. Design Patterns 2, 2. Enterprise Visiting (Field Trip)	
11	112/11/20～112/11/26	1. Design Patterns 3, 2. Enterprise Visiting (Field Trip)	
12	112/11/27～112/12/03	Implementation Techniques 1,	
13	112/12/04～112/12/10	Implementation Techniques 2	
14	112/12/11～112/12/17	Implementation Techniques 3	
15	112/12/18～112/12/24	Case Study 1	
16	112/12/25～112/12/31	Case Study 2	
17	113/01/01～113/01/07	Final Exam Week	
18	113/01/08～113/01/14	Flex week, learning activities should be arranged.	
Key capabilities			
Interdisciplinary			

Distinctive teaching	
Course Content	Computer programming or Computer language (students have hands-on experience in related projects)
Requirement	The assignments include in-class exercises and quizzes/homework. There is no make-up assignment if you miss it without a reason.
Textbooks and Teaching Materials	Self-made teaching materials:Presentations, Handouts Using teaching materials from other writers:Textbooks, Videos Name of teaching materials: Software Engineering 10e, by IAN SOMMERVILLE
References	
Grading Policy	◆ Attendance： ％ ◆ Mark of Usual：60.0 ％ ◆ Midterm Exam： 15.0 ％ ◆ Final Exam： 15.0 ％ ◆ Other〈service learning〉：10.0 ％
Note	This syllabus may be uploaded at the website of Course Syllabus Management System at http://info.ais.tku.edu.tw/csp or through the link of Course Syllabus Upload posted on the home page of TKU Office of Academic Affairs at http://www.acad.tku.edu.tw/CS/main.php . ※ **Unauthorized photocopying is illegal. Using original textbooks is advised. It is a crime to improperly photocopy others' publications.**