Tamkang University Academic Year 112, 1st Semester Course Syllabus

Course Title	INTRODUCTION TO SOFTWARE DEVELOPMENT	Instructor	LIN HUI
Course Class	TEIDB2A DEPARTMENT OF COMPUTER SCIENCE AND INFORMATION ENGINEERING (ENGLISH-TAUGHT PROGRAM), 2A	Details	◆ General Course ◆ Required ◆ One Semester
Relevance to SDGs	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:10.00)

C. Implementing computer systems ability.(ratio:20.00)

D. Computer networking application skills.(ratio:10.00)

E. Professional skills for information technology (IT) industry.(ratio:20.00)

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:10.00)

5. Independent thinking. (ratio:10.00)

6. A cheerful attitude and healthy lifestyle. (ratio:10.00)

7. A spirit of teamwork and dedication. (ratio:10.00)

8. A sense of aesthetic appreciation. (ratio:10.00)

Course Introduction	Combining the fundamental knowledge of information systems and the experiences of programming, learn how to develop high quality software engineering approaches.

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	Combining the fundamental knowledge of information systems and the experiences of programming, learn how to develop high quality software engineering approaches.	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, Practicum	Testing, Study Assignments, Practicum, Activity Participation

Course Schedule

Week	Date	Course Contents	Note
1	112/09/11 ~ 112/09/17	Introduction	
2	112/09/18 ~ 112/09/24	Software & Software Engineering	
3	112/09/25 ~ 112/10/01	Process Models	
4	112/10/02 ~ 112/10/08	Agile Development	

5	112/10/09 ~ 112/10/15	Principles that Guide Practice & Understanding Requirements	
6	112/10/16 ~ 112/10/22	Requirement Modeling	
7	112/10/23 ~ 112/10/29	Requirement Modeling	
8	112/10/30 ~ 112/11/05	Design Concepts	
9	112/11/06 ~ 112/11/12	Midterm Exam Week	
10	112/11/13 ~ 112/11/19	Architectural Design	
11	112/11/20 ~ 112/11/26	Architectural Design	
12	112/11/27 ~ 112/12/03	Component-Level Design	
13	112/12/04 ~ 112/12/10	User Interface Design	
14	112/12/11 ~ 112/12/17	Pattern-Based Design	
15	112/12/18 ~ 112/12/24	WebApp Design	
16	112/12/25 ~ 112/12/31	Quality Concepts	
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	Information Technology Problem solving
Interdisciplinary	STEAM course (S:Science, T:Technology, E:Engineering, M:Math, A field:Integration of Art and Humanist) In addition to teaching content of the teacher's professional field, integrate other subjects or invite experts and scholars in other fields to share knowledge or teaching
Distinctive teaching	
Course Content	Logical Thinking
Requirement	

Textbooks and Teaching Materials	Self-made teaching materials:Presentations, Handouts Using teaching materials from other writers:Textbooks Name of teaching materials: R. S. Pressman, Software Engineering: A Practitioner's Approach, 7th Ed., International Edition 2010, McGraw-Hill. I. Sommerville, Software Engineering, 9th Ed., International Edition, 2011, Pearson.
References	D. A. Gustafson, Schaum's Outline of Theory and Problems of Software Engineering, McGraw-Hill, 2002. E. Gamma et al., Design Patterns: Elements of Reusable Object-Oriented Software, Addison Wesley Longman, Inc., 1994.
Grading Policy	◆ Attendance： 10.0 % ◆ Mark of Usual：10.0 % ◆ Midterm Exam： 30.0 % ◆ Final Exam： 30.0 % ◆ Other〈Quiz〉：20.0 %
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.**