

Tamkang University Academic Year 107, 2nd Semester Course Syllabus

Course Title	PRACTICE OF OPEN SOURCE SOFTWARE	Instructor	FENG-CHENG CHANG
Course Class	TQICB2A DIVISION OF SOFTWARE ENGINEERING, DEPARTMENT OF INNOVATIVE INFORMATION AND TECHNOLOGY (ENGLISH- TAUGHT PROGRAM), 2A	Details	<ul style="list-style-type: none"> ◆ Selective ◆ One Semester ◆ 3 Credits
Departmental Aim of Education			
Cultivate professional talents in developing and applying information system in various fields.			
Departmental core competences			
<ul style="list-style-type: none"> A. Capability of computer program coding, process planning, and problem solving B. Capability of applying basic mathematics and information technology related mathematics C. Capability of applying knowledge of internet structure and protocol in communication system D. Capability of developing information system E. Capability of integrating information system 			
Course Introduction	<p>There has been a few success stories since the initiation of the open-source concepts. These software packages has been developed by volunteers from all over the world, collaboratively. In this course, we will learn some important concepts of open-source process by developing a real project. Each student should participate a 3-member team and goes through the process.</p>		

The Relevance among Teaching Objectives, Objective Levels and Departmental core competences

I. Objective Levels (select applicable ones) :

- (i) Cognitive Domain : C1-Remembering, C2-Understanding, C3-Applying,
C4-Analyzing, C5-Evaluating, C6-Creating
- (ii) Psychomotor Domain : P1-Imitation, P2-Mechanism, P3-Independent Operation,
P4-Linked Operation, P5-Automation, P6-Origination
- (iii) Affective Domain : A1-Receiving, A2-Responding, A3-Valuing,
A4-Organizing, A5-Characterizing, A6-Implementing

II. The Relevance among Teaching Objectives, Objective Levels and Departmental core competences :

- (i) Determine the objective level(s) in any one of the three learning domains (cognitive, psychomotor, and affective) corresponding to the teaching objective. Each objective should correspond to the objective level(s) of ONLY ONE of the three domains.
- (ii) If more than one objective levels are applicable for each learning domain, select the highest one only. (For example, if the objective levels for Cognitive Domain include C3, C5, and C6, select C6 only and fill it in the boxes below. The same rule applies to Psychomotor Domain and Affective Domain.)
- (iii) Determine the Departmental core competences that correspond to each teaching objective. Each objective may correspond to one or more Departmental core competences at a time. (For example, if one objective corresponds to three Departmental core competences: A, AD, and BEF, list all of the three in the box.)

No.	Teaching Objectives	Relevance	
		Objective Levels	Departmental core competences
1	Understand the open-source development model	C4	E
2	Install the platforms and tools for collaborative work	P3	E
3	Learn the popular development tools for open-source software	P3	E
4	The techniques for developing cross-platform software	P6	E

Teaching Objectives, Teaching Methods and Assessment

No.	Teaching Objectives	Teaching Methods	Assessment
1	Understand the open-source development model	Lecture, Discussion	Written test, Report
2	Install the platforms and tools for collaborative work	Lecture, Practicum	Written test, Practicum
3	Learn the popular development tools for open-source software	Lecture, Practicum	Written test, Practicum
4	The techniques for developing cross-platform software	Lecture, Discussion, Practicum	Written test, Practicum, Report

This course has been designed to cultivate the following essential qualities in TKU students

Essential Qualities of TKU Students	Description
◇ A global perspective	Helping students develop a broader perspective from which to understand international affairs and global development.
◆ Information literacy	Becoming adept at using information technology and learning the proper way to process information.
◆ A vision for the future	Understanding self-growth, social change, and technological development so as to gain the skills necessary to bring about one's future vision.
◇ Moral integrity	Learning how to interact with others, practicing empathy and caring for others, and constructing moral principles with which to solve ethical problems.
◆ Independent thinking	Encouraging students to keenly observe and seek out the source of their problems, and to think logically and critically.
◇ A cheerful attitude and healthy lifestyle	Raising an awareness of the fine balance between one's body and soul and the environment; helping students live a meaningful life.
◇ A spirit of teamwork and dedication	Improving one's ability to communicate and cooperate so as to integrate resources, collaborate with others, and solve problems.
◇ A sense of aesthetic appreciation	Equipping students with the ability to sense and appreciate aesthetic beauty, to express themselves clearly, and to enjoy the creative process.

Course Schedule

Week	Date	Subject/Topics	Note
1	108/02/18 ~ 108/02/24	Introduction	
2	108/02/25 ~ 108/03/03	Using Linux	
3	108/03/04 ~ 108/03/10	Software Development (C / C++ / Java)	
4	108/03/11 ~ 108/03/17	Software Development (Makefile / Version Control)	
5	108/03/18 ~ 108/03/24	Software Development in Linux (HTML / CSS)	
6	108/03/25 ~ 108/03/31	Software Development (Client-Side JavaScript)	
7	108/04/01 ~ 108/04/07	Software Development (PHP)	
8	108/04/08 ~ 108/04/14	Software Development (MariaDB)	
9	108/04/15 ~ 108/04/21	Open Source Project Initiation	
10	108/04/22 ~ 108/04/28	Midterm Exam Week	
11	108/04/29 ~ 108/05/05	Project Development (1)	
12	108/05/06 ~ 108/05/12	Project Development (2)	

13	108/05/13 ~ 108/05/19	Project Development (3)	
14	108/05/20 ~ 108/05/26	Project Development (4)	
15	108/05/27 ~ 108/06/02	Project Development (5)	
16	108/06/03 ~ 108/06/09	Project Development (6)	
17	108/06/10 ~ 108/06/16	Project Development (7)	
18	108/06/17 ~ 108/06/23	Final Exam Week	
Requirement	There is no make-up quiz and assignment if you miss the deadline without a reason.		
Teaching Facility	Computer, Projector		
Textbook(s)	Due to the fast evolving of open-source software, we will mostly use the class notes and the on-line resources as our material		
Reference(s)			
Number of Assignment(s)	6 (Filled in by assignment instructor only)		
Grading Policy	◆ Attendance : % ◆ Mark of Usual : 10.0 % ◆ Midterm Exam : 20.0 % ◆ Final Exam : 20.0 % ◆ Other (lab) : 50.0 %		
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.		