

## Tamkang University Academic Year 112, 2nd Semester Course Syllabus

Course Title	OPEN SOURCE PRACTICE	Instructor	FENG-CHENG CHANG
Course Class	TEIDB2A DEPARTMENT OF COMPUTER SCIENCE AND INFORMATION ENGINEERING (ENGLISH-TAUGHT PROGRAM), 2A	Details	<ul style="list-style-type: none"> <li>◆ General Course</li> <li>◆ Required</li> <li>◆ One Semester</li> </ul>
Relevance to SDGs	SDG4 Quality education		
Departmental Aim of Education			
<ul style="list-style-type: none"> <li>I. Comprehend professional knowledge.</li> <li>II. Acquire mastery of Practical Skills.</li> <li>III. Establish creative achievement.</li> </ul>			
Subject Departmental core competences			
<ul style="list-style-type: none"> <li>A. Programming and application ability.(ratio:30.00)</li> <li>B. Mathematical reasoning ability.(ratio:10.00)</li> <li>C. Implementing computer systems ability.(ratio:20.00)</li> <li>D. Computer networking application skills.(ratio:10.00)</li> <li>E. Professional skills for information technology (IT) industry.(ratio:30.00)</li> </ul>			
Subject Schoolwide essential virtues			
<ul style="list-style-type: none"> <li>1. A global perspective. (ratio:10.00)</li> <li>2. Information literacy. (ratio:20.00)</li> <li>3. A vision for the future. (ratio:10.00)</li> <li>4. Moral integrity. (ratio:10.00)</li> <li>5. Independent thinking. (ratio:20.00)</li> <li>6. A cheerful attitude and healthy lifestyle. (ratio:10.00)</li> <li>7. A spirit of teamwork and dedication. (ratio:10.00)</li> <li>8. A sense of aesthetic appreciation. (ratio:10.00)</li> </ul>			

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 team for developing the term project.</p> <p>Please note that this is a quick go-through process to let you know about the overall architecture. For learning the specific details, it depends on your projects and the in-class discussions.</p>
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**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	Understand the open-source development model	Cognitive
2	Install the platforms and tools for collaborative work	Psychomotor
3	Learn the popular development tools for open-source software	Psychomotor
4	The techniques for developing cross-platform software	Psychomotor

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

No.	Core Competences	Essential Virtues	Teaching Methods	Assessment
1	ACDE	12358	Lecture, Discussion	Testing, Discussion(including classroom and online)
2	ABCDE	12345678	Lecture, Discussion	Study Assignments, Discussion(including classroom and online), Activity Participation
3	ACDE	123578	Lecture, Discussion	Testing, Study Assignments, Discussion(including classroom and online), Report(including oral and written), Activity Participation

4	ABCDE	12345678	Lecture, Discussion	Testing, Study Assignments, Discussion(including classroom and online), Report(including oral and written), Activity Participation
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### Course Schedule

Week	Date	Course Contents	Note
1	113/02/19 ~ 113/02/25	Course Overview and Introduction	
2	113/02/26 ~ 113/03/03	Linux Installation and Basic Commands	
3	113/03/04 ~ 113/03/10	Software Development (C / C++ / Java)	
4	113/03/11 ~ 113/03/17	Software Development (Makefile / Version Control)	
5	113/03/18 ~ 113/03/24	Software Development (HTML / CSS)	
6	113/03/25 ~ 113/03/31	Software Development (Client-Side JavaScript)	
7	113/04/01 ~ 113/04/07	Software Development (PHP / MariaDB)	
8	113/04/08 ~ 113/04/14	Software Development (PHP / MariaDB)	
9	113/04/15 ~ 113/04/21	Midterm Exam Week	
10	113/04/22 ~ 113/04/28	Example of Developing PHP Web Application	
11	113/04/29 ~ 113/05/05	Project Development (1): Requirements and Data Model	
12	113/05/06 ~ 113/05/12	Project Development (2): System Architecture	
13	113/05/13 ~ 113/05/19	Project Development (3): Initial Version into VCS	
14	113/05/20 ~ 113/05/26	Project Development (4): Revision & Progress Report	
15	113/05/27 ~ 113/06/02	Project Development (5): Revision & Progress Report	
16	113/06/03 ~ 113/06/09	Project Development (6): Finalize Documents and Release Version	
17	113/06/10 ~ 113/06/16	Final Exam Week (Date:113/6/11-113/6/17)	
18	113/06/17 ~ 113/06/23	Flex week, learning activities should be arranged.	

Key capabilities

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Interdisciplinary	
Distinctive teaching	
Course Content	Computer programming or Computer language (students have hands-on experience in related projects) Logical Thinking
Requirement	There is no make-up quiz and assignment if you miss the deadline without a reason. Due to the restriction of not being able to perform administrative tasks on public PCs, it is highly recommended to bring your own laptop for installing and configuring various software packages.
Textbooks and Teaching Materials	Self-made teaching materials:Presentations, Handouts, Videos Using teaching materials from other writers:Handouts, Videos
References	
Grading Policy	◆ Attendance :           %   ◆ Mark of Usual : 10.0 %   ◆ Midterm Exam : 15.0 % ◆ Final Exam :   15.0 % ◆ Other < lab > : 60.0 %
Note	This syllabus may be uploaded at the website of Course Syllabus Management System at <a href="http://info.ais.tku.edu.tw/csp">http://info.ais.tku.edu.tw/csp</a> or through the link of Course Syllabus Upload posted on the home page of TKU Office of Academic Affairs at <a href="http://www.acad.tku.edu.tw/CS/main.php">http://www.acad.tku.edu.tw/CS/main.php</a> . <b>※ Unauthorized photocopying is illegal. Using original textbooks is advised. It is a crime to improperly photocopy others' publications.</b>