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	◆ Selective ◆ One Semester ◆ 3 Credits

Departmental Aim of Education

Cultivate professional talents in developing and applying information system in various fields.

Departmental core competences

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	There has been a few sucess stories since the initiation of the open-source concepts. For example, GNU/Linux and FreeBSD are two distinguished operating systems; OpenOffice.org is a production-grade office suite. These software packages has been developed by volunteers from all over the world, colaboratively. To support such kind of development model, they implicitly incorporate many tools and concepts from various software engineering methodologies. They are so important that we can study the important elements by practical cases.

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-Charaterizing,   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	107/02/26 ~ 107/03/04	Linux installation and setup (1)	
2	107/03/05 ~ 107/03/11	Linux installation and setup (2)	
3	107/03/12 ~ 107/03/18	Linux commands and shell scripts	
4	107/03/19 ~ 107/03/25	Desktop environments	
5	107/03/26 ~ 107/04/01	Web server installation and configuration (Apache Server)	
6	107/04/02 ~ 107/04/08	Database server installation and configuration (MySQL Server)	
7	107/04/09 ~ 107/04/15	C/C++/Java development tools (command-line) and Makefile	
8	107/04/16 ~ 107/04/22	Version control	
9	107/04/23 ~ 107/04/29	Project management with version control	
10	107/04/30 ~ 107/05/06	Midterm Exam Week	
11	107/05/07 ~ 107/05/13	HTML and CSS	

12	107/05/14 ~ 107/05/20	PHP basics	
13	107/05/21 ~ 107/05/27	PHP application design	
14	107/05/28 ~ 107/06/03	PHP application with database	
15	107/06/04 ~ 107/06/10	Simple web service (JSON as the exchange format)	
16	107/06/11 ~ 107/06/17	Web application with Javascript	
17	107/06/18 ~ 107/06/24	Single-page application	
18	107/06/25 ~ 107/07/01	Final Exam Week	

Requirement	(1) There is no make-up quiz and assignment if you miss the deadline without a reason. (2) If the periods are the campus-wide roll-calling periods, you will be excluded from the course when the "absence hours" reaches 18. (Article 38.2 of TKU Study Regulations) (2.1) Please note that the "exclusion from the course" is not part of the evaluation of your learning outcome. We consider the "participation" or the "contribution" in the evaluation. However, the administrative team enforces that the campus rule overrides the course evaluation method. The staff will submit the exclusion list on behave of the teacher when you violate the regulation.
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.**