Course Title	OPERATING SYSTEM PRACTICES	Instructor	LIOU, AY-HWA ANDY
Course Class	TLMXB2A DEPARTMENT OF INFORMATION MANAGEMENT, 2A	Details	◆ Required ◆ One Semester ◆ 2 Credits

Departmental Aim of Education

Ⅰ. Refining information management skills.

Ⅱ. Enhancing information technology capabilities.

Ⅲ. Thinking independently with logic analysis.

Ⅳ. Reinforcing team-working spirit.

Ⅴ. Valuing business and information ethics.

Ⅵ. Cultivating global view.

Departmental core competences

A. Problem analysis and critical thinking.

B. Functional business Areas and business practices.

C. Applications of information systems.

D. Computer programming.

E. Network system planning.

F. Database design and management.

G. Analysis, design and integration of information system.

H. Project management.

Course Introduction	After the students have basic concepts about the computer hardware and process scheduling from previous course of Operating Systems, this course focuses on advanced concepts of process synchronization, memory management, deadlocks, file systems, and secondary storage structures. Some examples of related system programs will be demonstrated too.

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	Aware of the principle of the Operating Systems and its methods of operation.	C2	A
2	Understand the evolvement of Operating Systems and its current trend of development.	C2	G
3	Apply the knowledge of Operating Systems to give suggestions or analysis for the work and problems facing.	C4	C

Teaching Objectives, Teaching Methods and Assessment

No.	Teaching Objectives	Teaching Methods	Assessment
1	Aware of the principle of the Operating Systems and its methods of operation.	Lecture, Demo, Q&A	Written test
2	Understand the evolvement of Operating Systems and its current trend of development.	Lecture, Demo, Q&A	Written test
3	Apply the knowledge of Operating Systems to give suggestions or analysis for the work and problems facing.	Lecture, Demo, Q&A	Written test

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	Synchronization	
2	107/03/05 ~ 107/03/11	Synchronization	
3	107/03/12 ~ 107/03/18	Synchronization	
4	107/03/19 ~ 107/03/25	Synchronization	
5	107/03/26 ~ 107/04/01	Synchronization	
6	107/04/02 ~ 107/04/08	Deadlocks	
7	107/04/09 ~ 107/04/15	Deadlocks	
8	107/04/16 ~ 107/04/22	Deadlocks	
9	107/04/23 ~ 107/04/29	Memory Management Strategies	
10	107/04/30 ~ 107/05/06	Midterm Exam Week	
11	107/05/07 ~ 107/05/13	Memory Management Strategies	
12	107/05/14 ~ 107/05/20	Memory Management Strategies	

13	107/05/21~ 107/05/27	Virtual Memory Management	
14	107/05/28~ 107/06/03	Virtual Memory Management	
15	107/06/04~ 107/06/10	File System	
16	107/06/11~ 107/06/17	File System	
17	107/06/18~ 107/06/24	File System	
18	107/06/25~ 107/07/01	Final Exam Week	

Requirement	Others of the Grading Policy includes: HW15%, Quiz10%, Notes5%,TA10%
Teaching Facility	Computer, Projector
Textbook(s)	Operating System Concepts, 9th edition, by Silberschatz, Galvin, and Gagne（新月）
Reference(s)	
Number of Assignment(s)	**4**　　(Filled in by assignment instructor only)
Grading Policy	◆ Attendance： 5.0 ％ ◆ Mark of Usual： ％ ◆ Midterm Exam： 25.0 ％ ◆ Final Exam： 30.0 ％ ◆ Other〈HW, Quiz, Notes, TA〉：40.0 ％
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.**