

Tamkang University Academic Year 111, 1st Semester Course Syllabus

Course Title	OPERATING SYSTEMS	Instructor	LIOU, AY-HWA ANDY
Course Class	TLMXB2A DEPARTMENT OF INFORMATION MANAGEMENT, 2A	Details	<ul style="list-style-type: none"> ◆ General Course ◆ Required ◆ One Semester
Relevance to SDGs	SDG4 Quality education		
Departmental Aim of Education			
<ul style="list-style-type: none"> 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. 			
Subject Departmental core competences			
<ul style="list-style-type: none"> A. Problem analysis and critical thinking.(ratio:45.00) B. Functional business Areas and business practices.(ratio:5.00) C. Applications of information systems.(ratio:15.00) D. Computer programming.(ratio:5.00) E. Network system planning.(ratio:5.00) F. Database design and management.(ratio:5.00) G. Analysis, design and integration of information system.(ratio:15.00) H. Project management.(ratio:5.00) 			
Subject Schoolwide essential virtues			
<ul style="list-style-type: none"> 1. A global perspective. (ratio:5.00) 2. Information literacy. (ratio:30.00) 3. A vision for the future. (ratio:15.00) 4. Moral integrity. (ratio:5.00) 			

- 5. Independent thinking. (ratio:30.00)
- 6. A cheerful attitude and healthy lifestyle. (ratio:5.00)
- 7. A spirit of teamwork and dedication. (ratio:5.00)
- 8. A sense of aesthetic appreciation. (ratio:5.00)

Course Introduction

This course provides an introduction to the operation concepts of modern operating systems. Specifically, the course will cover computer system structure, processes, threads and CPU scheduling. Depending on the actual progress of the course schedule, Microcodes and Queueing Theory may also be covered. The material covered will be considered a basis for the advanced course of Operating Systems Practices.

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	Aware of the principle of the Operating Systems and its ways of functioning.	Cognitive
2	Understand the devolvement of Operating Systems and its current trend of development.	Cognitive
3	Apply the knowledge of Operating Systems to give suggestions or analysis for the work and problems facing.	Cognitive
4	Allow the students to be aware of Operating Systems' current technologies, including the principle and method of managing an effective and resource-saving system. The students should be able to understand the basic idea and apply it to a future career when possible. The algorithms and principles introduced can be a general idea for solving related problems, which can be considered valuable for an Information Management student.	Cognitive

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

No.	Core Competences	Essential Virtues	Teaching Methods	Assessment
1	ACG	25	Lecture, Discussion	Testing, Study Assignments, Discussion(including classroom and online), Report(including oral and written)
2	ABCDEFGH	12345678	Lecture, Discussion	Testing, Discussion(including classroom and online), Report(including oral and written)
3	ABCDEFGH	12345678	Lecture, Discussion	Testing, Discussion(including classroom and online), Report(including oral and written)
4	ABCDEFGH	12345678	Lecture	Testing, Study Assignments, Discussion(including classroom and online), Report(including oral and written)

Course Schedule

Week	Date	Course Contents	Note
1	111/09/05 ~ 111/09/11	Introduction	
2	111/09/12 ~ 111/09/18	Computer System Structure	
3	111/09/19 ~ 111/09/25	Computer System Structure	
4	111/09/26 ~ 111/10/02	Computer System Structure	
5	111/10/03 ~ 111/10/09	Processes	
6	111/10/10 ~ 111/10/16	Processes	
7	111/10/17 ~ 111/10/23	Processes	
8	111/10/24 ~ 111/10/30	Threads	
9	111/10/31 ~ 111/11/06	Threads	
10	111/11/07 ~ 111/11/13	Midterm Exam Week	
11	111/11/14 ~ 111/11/20	CPU Scheduling	
12	111/11/21 ~ 111/11/27	CPU Scheduling	

13	111/11/28 ~ 111/12/04	CPU Scheduling	
14	111/12/05 ~ 111/12/11	CPU Scheduling	
15	111/12/12 ~ 111/12/18	Process Synchronization	
16	111/12/19 ~ 111/12/25	Process Synchronization	
17	111/12/26 ~ 112/01/01	Process Synchronization	
18	112/01/02 ~ 112/01/08	Final Exam Week	
Requirement	No late turn-in for Homework or Quiz. All asking of leave should perform make-up after. (All percentages are adjustable)		
Teaching Facility	Computer, Projector		
Textbooks and Teaching Materials	Operating System Concepts, 10th edition, by Silberschatz, Galvin, and Gagne (新月)		
References			
Number of Assignment(s)	5 (Filled in by assignment instructor only)		
Grading Policy	◆ Attendance : 5.0 % ◆ Mark of Usual : % ◆ Midterm Exam : 25.0 % ◆ Final Exam : 35.0 % ◆ Other (Notes, HW, quiz, TA) : 35.0 %		
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.		