

Tamkang University Academic Year 109, 2nd Semester Course Syllabus

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| Course Title | OPERATING SYSTEM PRACTICES | 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 | SDG9 Industry, Innovation, and Infrastructure | | |
| D e p a r t m e n t a l A i m o f E d u c a t i o n | | | |
| <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:80.00) C. Applications of information systems.(ratio:10.00) G. Analysis, design and integration of information system.(ratio:10.00) | | | |
| Subject Schoolwide essential virtues | | | |
| <ul style="list-style-type: none"> 2. Information literacy. (ratio:20.00) 5. Independent thinking. (ratio:80.00) | | | |

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| Course Introduction | After the students have basic concepts about computer hardware and process scheduling from the 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 also. |
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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 | Aware of the principle of the Operating Systems and its methods of operation. | Cognitive |
| 2 | Understand the evolvement of Operating Systems and its current trend of development. | Affective |
| 3 | Apply the knowledge of Operating Systems to give suggestions or analysis for the work and problems facing. | Affective |

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, Practicum | Testing, Study Assignments, Discussion(including classroom and online), Activity Participation |
| 2 | ACG | 25 | Lecture, Discussion | Testing, Study Assignments, Report(including oral and written), Activity Participation |
| 3 | ACG | 25 | Lecture, Discussion | Testing, Study Assignments, Activity Participation |

| Course Schedule | | | |
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| Week | Date | Course Contents | Note |
| 1 | 110/02/22 ~ 110/02/28 | Synchronization | |
| 2 | 110/03/01 ~ 110/03/07 | Synchronization | |
| 3 | 110/03/08 ~ 110/03/14 | Synchronization | |
| 4 | 110/03/15 ~ 110/03/21 | Synchronization | |
| 5 | 110/03/22 ~ 110/03/28 | Synchronization | |
| 6 | 110/03/29 ~ 110/04/04 | Deadlocks | |
| 7 | 110/04/05 ~ 110/04/11 | Deadlocks | |
| 8 | 110/04/12 ~ 110/04/18 | Deadlocks | |
| 9 | 110/04/19 ~ 110/04/25 | Deadlocks | |
| 10 | 110/04/26 ~ 110/05/02 | Midterm Exam Week | |
| 11 | 110/05/03 ~ 110/05/09 | Memory Management Strategies | |
| 12 | 110/05/10 ~ 110/05/16 | Memory Management Strategies | |
| 13 | 110/05/17 ~ 110/05/23 | Memory Management Strategies | |
| 14 | 110/05/24 ~ 110/05/30 | Virtual Memory Management | |
| 15 | 110/05/31 ~ 110/06/06 | Virtual Memory Management | |
| 16 | 110/06/07 ~ 110/06/13 | File System | |
| 17 | 110/06/14 ~ 110/06/20 | File System | |
| 18 | 110/06/21 ~ 110/06/27 | Final Exam Week | |
| Requirement | Mark of usual includes TA, HW, Online Exam, and class notes. | | |
| Teaching Facility | Computer, Projector | | |
| Textbooks and Teaching Materials | Operating System Concepts, 9th edition, by Silberschatz, Galvin, and Gagne (新月) | | |
| References | | | |
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| Number of Assignment(s) | 4 (Filled in by assignment instructor only) |
| Grading Policy | ◆ Attendance : 5.0 % ◆ Mark of Usual : 40.0 % ◆ Midterm Exam : 25.0 % ◆ Final Exam : 30.0 % ◆ Other () : % |
| 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. |