朝陽科技大學 098學年度第2學期教學大綱
Introduction to Operating Systems 作業系統概論

當期課號	3862	Course Number	3862
授課教師	洪若偉	Instructor	HUNG,RUO WEI
中文課名	作業系統概論	Course Name	Introduction to Operating Systems
開課單位	資訊工程系(四進)三A	Department	
修習別	必修	Required/Elective	Required
學分數	3	Credits	3
課程目標	本課程主要講述作業系統的基本概念。課程內容包括：系統架構、用者介面、過程管理、記憶體管理、檔案系統、與分散式系統等作業系統核心概念。學生在完成本課程後，將可了解1. 作業系統的概念，2. 作業系統核心技術，3. 分散式系統基本概念。	Objectives	The goal of this course is to provide the students with a basic knowledge of the kernel of operating systems. The main topics include system structure, user interfaces, process management, memory management, file systems, and distributed systems. The students will realize the following topics after finishing this course: 1. the concepts of an operating system, 2.the techniques of the kernel of operating systems, 3. the basic concepts of distributed systems.
教材	駱詩軒、駱詩富、鄧俊修等譯, 作業系統原理 7/e, 東華書局, 2006. [Silberschatz et al., Operating System Principles 7/e, Addison-Wesley, 2006]	Teaching Materials	駱詩軒、駱詩富、鄧俊修等譯, 作業系統原理 7/e, 東華書局, 2006. [Silberschatz et al., Operating System Principles 7/e, Addison-Wesley, 2006]
成績評量方式	1. 隨堂考n次: 20% 2. 小考2次: 20% 3. 期中考(Midterm Exam): 35% 4. 期末考(Final Exam): 35% 5. 課程參與(Participation): 5%	Grading	1. Quizzes in Class: 20% 2. Quizzes*2 : 20% 3. Midterm Exam: 35% 4. Final Exam: 35% 5. Participation: 5%
教師網頁	http://www.cyut.edu.tw/~rwhung		
教學內容	本課程將介紹作業系統(OS)重要的主題, 如作業系統架構, 行程管理, CPU排班, 檔案管理, 記憶體管理, 核心, 週邊管理, 死結, 同步等. 其主要內容包括: (1) 電腦系統簡介 (2) 電腦系統與作業系統結構 (3) 行程 (4) CPU排班 (5) 死結偵測 (6) 記憶體管理 (7) 虛擬記憶體管理 (8) 檔案系統介面 (9) 檔案系統製作 (10)I/O系統 (11)第二儲存體結構	Syllabus	This course is to introduce the students to the most important topics of Operating System, such as System architecture, process management, CPU scheduling,file management, memory management, Kernel, peripheral management, deadlock, synchronization, etc. The contents of this course include: (1) Introduction to Algorithm (2) The Complexity of Algorithms and Lower Bounds of Problems (3) The Greedy Method (4) The Divide-and-conquer Strategy (5) Tree Searching Strategies (6) Prune-and-Search Strategy (7) Dynamic Programming (8) The Theory of NP-complete (9) Approximation Algorithms (10)Amortized analysis