



教學計劃表 Syllabus

課程名稱(中文) Course Name in Chinese	作業系統	學年/學期 Academic Year/Semester	114/2
課程名稱(英文) Course Name in English	Operating Systems		
科目代碼 Course Code	IM_30100	系級 Department & Year	學三 Course-Offering Department
修別 Type	學程 Program	學分數/時間 Credit(s)/Hour(s)	3.0/3.0
授課教師 Instructor	/劉英和		
先修課程 Prerequisite			
課程描述 Course Description			
The goal of this course is to introduce the concepts and algorithms in Operating System. Operating system is an important component of a computer system. Various operating systems have been proposed for decades. We will survey the critical topics in these operating systems such as system structure, process management, memory management, and storage management			
課程目標 Course Objectives			
探討作業系統的程序管理、記憶體管理、檔案管理、設備管理、輸入輸出管理、系統績效評估與安全考量等處理方式，另介紹分散式作業系統之環境、結構與應用。			
系專業能力 Basic Learning Outcomes			課程目標與系專業能力相關性 Correlation between Course Objectives and Dept.'s Education Objectives
A	具備資訊管理基礎與跨學域的應用能力。Cultivate the personnel with the capability of basic and interdisciplinary information management		○
B	具備以資訊科技為核心，擁有高度專業技術與國際視野之能力。Cultivate professional personnel with international perspective and the capability of using information technology		●
C	具備資訊管理創新、研發、企劃之資訊管理人才之整合能力。Cultivate senior personnel with the capability of innovation, research and development and integrated planning		○
D	具備企業資訊化的能力。Cultivate the personnel with the capability of computerization of enterprises		●
E	具備業界多媒體應用、網站經營以及資訊行銷所需之能力。Cultivate the personnel with the capability of multimedia applications, website operations, and information marketing		●
F	具備認知新興資訊產業發展所需之能力。Cultivate the personnel with the capability for the emerging information industry		○
圖示說明 Illustration : ● 高度相關 Highly correlated ○ 中度相關 Moderately correlated			
授課進度表 Teaching Schedule & Content			
週次 Week	內容 Subject/Topics		備註 Remarks
1	Overview (1)		
2	Overview (2)		
3	Process Concept (1)		
4	Process Concept (2)		

5	Process Concept (3)	
6	Multithreaded Programming (1)	
7	Multithreaded Programming (2)	
8	Multithreaded Programming (3)	
9	期中考試週 Midterm Exam	
10	Process Scheduling (1)	
11	Process Scheduling (2)	
12	Synchronization (1)	
13	Synchronization (2)	
14	Deadlocks (1)	
15	Deadlocks (2)	
16	Memory-Management Strategies	
17	期末考試週 Final Exam	
18	supplementary materials	

教學策略 Teaching Strategies

- 課堂講授 Lecture
 分組討論 Group Discussion
 參觀實習 Field Trip
- 其他 Miscellaneous:

教學創新自評 Teaching Self-Evaluation

創新教學 (Innovative Teaching)

- 問題導向學習 (PBL)
 團體合作學習 (TBL)
 解決導向學習 (SBL)
- 翻轉教室 Flipped Classroom
 磨課師 Moocs

社會責任 (Social Responsibility)

- 在地實踐 Community Practice
 產學合作 Industry-Academia Cooperation

跨域合作 (Transdisciplinary Projects)

- 跨界教學 Transdisciplinary Teaching
 跨院系教學 Inter-collegiate Teaching

- 業師合授 Courses Co-taught with Industry Practitioners

其它 other:

學期成績計算及多元評量方式 Grading & Assessments

配分項目 Items	配分比例 Percentage	多元評量方式 Assessments							
		測驗 會考	實作 觀察	口頭 發表	專題 研究	創作 展演	卷宗 評量	證照 檢定	其他
平時成績(含出缺席) General Performance (Attendance Record)	10%								Class participation
期中考成績 Midterm Exam	30%	✓							
期末考成績 Final Exam	30%	✓							
作業成績 Homework and/or Assignments	30%	✓							
其他 Miscellaneous (_____)									

評量方式補充說明

Grading & Assessments Supplemental instructions

教科書與參考書目 (書名、作者、書局、代理商、說明)

Textbook & Other References (Title, Author, Publisher, Agents, Remarks, etc.)

Operating system concepts, 8th ed. (or 9th ed.), A. Silberschatz, P.B. Galvin, and G. Gagne, John Wiley & Sons (Asia), 2011. (ISBN: 978-1118112731)

課程教材網址(含線上教學資訊, 教師個人網址請列位於本校內之網址)

Teaching Aids & Teacher's Website(Including online teaching information.

Personal website can be listed here.)

<http://www.elearn.ndhu.edu.tw/moodle/>

其他補充說明 (Supplemental instructions)