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② 图 z 東華大學 教學計劃表 Syllabus

		秋 与	产計劃衣	Sy 11	abus					
	1/2 7 4 4 7 12				學年/學期 Academic Year/Seme	ester	112/1			
	名稱(英文) me in English	Operating system engineering								
	目代碼 rse Code	CSIEM0360	資	資訊工程學系						
	修別 Type	選修 Elective	0/3.0	3.0						
	課教師 tructor	/蔡正雄								
	修課程 equisite									
課程描述 Course Description										
作業系統設計與實作										
		課	程目標 Cours	se Object:	ives					
完整實作出一個多工且容易移植到各種不同CPU平台的作業系統(將學習實作 virtual memory, multi-threads, context switches, interrupts, interprocess communication, device drivers, etc)										
系專業能力 Basic Learning Outcomes							課程目標與系專業能 力相關性 Correlation betweer Course Objectives and Dept.'s Education Objectives			
	工知識技術之能力 ce and information		ate knowledge a	nd techno	logies of computer		•			
K	術理論驗證實驗之的 te hypotheses.	能力Ability to de	esign and conduc	t science	experiments and to		•			
C 資訊軟硬體設計開發之能力Ability to design and develop computer software and hardware.							•			
D							•			
E 批判性思考與創新研發之能力。Ability of analytical thinking, creative research planning, and innovative development.							0			
圖示說明∐	lustration :	● 高度相關 Hi	ghly correla	ted 〇中	度相關 Moderately	corre	lated			
		授課進	度 表 Teaching	Schedule	e & Content					
週次Week	次Week 内容 Subject/Topics				,	備註Remarks				
1	introduction									
2	OS structure and memory heap implementation									
3	3 process manager implementation									
4	process schedule and context switch implementation									
5	alarm system implementation									
6	6 process synchronization									

7	process synchronization and communication implementation I						
8	process synchronization and communication implementation II						
9	期中考試週 Midterm Exam						
10	cache memory introduction						
11	virtual memory						
12	memory manager introduction						
13	memory manager implementation I						
14	memory manager implementation II						
15	I/O device introduction						
16	I/O device driver framework design						
17	I/O device driver implementation						
18	期末考試週 Final Exam						
教學策略 Teaching Strategies							
✓ 課堂講授 Lecture							
数 與 如 英 石 並 Topobing Colf Evaluation							
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 層課師 Moocs							
社會責任(Social Responsibility)							
在地實踐Community Practice 產學合作 Industy-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	配分比例 Percentage	多元評量方式 Assessments							
Items		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 General Performance	20%		~						
期中考成績 Midterm Exam	20%		~			~			
期末考成績 Final Exam	20%		~		~	~			
作業成績 Homework and/or Assignments	40%								
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.)

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.)

其他補充說明(Supplemental instructions)