


國立東華大學
教學計劃表 Syllabus

課程名稱(中文) Course Name in Chinese	嵌入式系統設計概論		學年/學期 Academic Year/Semester	107/2
課程名稱(英文) Course Name in English	Introduction to Embedded System Design			
科目代碼 Course Code	CSIEB0380	系級 Department & Year	學三	開課單位 Course-Offering Department
資訊工程學系				
修別 Type	學程 Program	學分數/時間 Credit(s)/Hour(s)	3.0/3.0	
授課教師 Instructor	/紀新洲			
先修課程 Prerequisite				
課程描述 Course Description				
使了解基本的嵌入式系統設計，探討如何將各單元整合成一完整的嵌入式系統，並在實作平台上驗證其實作的技巧。				
課程目標 Course Objectives				
Embedded systems are in almost every electronic device in use today. The skills for embedded software development cover a variety of topics. We will investigate these topics in this course.				
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	資訊專業終身學習能力	Profound professional knowledge and skills	●	
B	實驗驗證資訊科學能力	Sound and free spirit; simple and generous quality	●	
C	資訊工具整合運用能力	Ability to appreciate beauty and think creatively	●	
D	資訊系統應用設計開發能力	Sense of democracy, the rule of law, and civil responsibility	○	
E	團隊合作溝通協調能力	Ability of communication, teamwork, and social practice	●	
F	資通訊科技問題解決能力	Possess both domestic and global perspectives	●	
G	瞭解資訊科技多元影響能力	Knowledgeable and possess the quality of humanism	●	
H	肩負資訊社會責任能力	Ability of verbal expression and information organization and application	○	
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	Introduction			
2	ARM Instruction Set & Programming			
3	ARM Instruction Set & Programming			

4	ARM Processor Architecture	
5	Platform and I/O Interfacing	
6	LED Control	
7	Dot Matrix Control	
8	Dot Matrix Control	
9	Midterm Exam	
10	Keyboard Scanning	
11	Keyboard Scanning	
12	LCD Display	
13	LCD Display	
14	Selected Topics	
15	Selected Topics	
16	Selected Topics	
17	Term Project	
18	Term Project	

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 General Performance	60%		✓						Experiments
期中考成績 Midterm Exam	15%	✓							
期末考成績 Final Exam	20%	✓							
作業成績 Homework and/or Assignments									
其他 Miscellaneous (Class Participation)	5%								

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.)

Lecture slides

課程教材網址 (教師個人網址請列在本校內之網址)

Teaching Aids & Teacher's Website (Personal website can be listed here.)

其他補充說明 (Supplemental instructions)