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## ②图 i 東華大學 教學計劃表 Syllabus

	名稱(中文) ame in Chinese	固態光學			學年/學期 Academic Year/Seme	114/1		
	課程名稱(英文) Course Name in English Optical properties of solid							
科目代碼 Course Code		OE52000	系級 Department 碩士 & Year		開課單位 Course-Offering Department	光	電工程學系	
	修別 Type	0/3.0	3.0					
	授課教師 Instructor /林伯彥							
	先修課程 Prerequisite							
課程描述 Course Description								
闡述光在半導體,金屬,絕緣體中的光學特性								
		課	程目標 Cour	se Objecti	ives			
固體的光學性質是探導光與固態物質交互作用的基礎理論課,通過本課程的學習,要求 掌握固體中光學性質的基本理論,為從事凝態光學的研究、教學和工程應用等工作打好 理論基礎。								
条專業能力 Basic Learning Outcomes						Cor	程目標與系專業能 力相關性 relation between urse Objectives and Dept.'s Education Objectives	
A 具有獨立研究能力Equipped with abilities of independent research.							0	
B 具有光電工程的專業知識及應用能力。Professional knowledge and application ability of Opto-electronic engineering							•	
L 具有設計與執行實驗、報告撰寫與數據解釋之能力。Abilities to design and execute experiment, write reports, and explain data							0	
D 使用儀器進行物件的分析及測試。Analysis and test of devices by instruments							0	
E 具備適當的英文能力,應用於學習與交流。English language ability to study and interact							•	
F 具有良好的溝通與團隊合作的能力。Ability to communicate and teamwork							0	
G 具有創新思維及終身學習的能力。Creative thinking and life-long learning ability							0	
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/Topi	cs		,	備註Remarks	
1	Introduction of	course and ru						
2	2 syllabus							
3	3 Brief review of EM theory							
4 Brief review of EM theory					1			

5	Optical Properties of Condensed Matters						
6	Optical Properties of Condensed Matters						
7	Oscillation model: Lorentz model						
8	Oscillation model: Lorentz model						
9	Midterm Exam						
10	Oscillation model: Drude model						
11	Oscillation model: Drude model						
12	Oscillation model: Drude model						
13	Optical properties of semiconductors						
14	Optical properties of semiconductors						
15	Optical properties of semiconductors						
16	Luminescence centres						
17	Luminescence centres						
18	Final Exam						
教學策略 Teaching Strategies							
✓ 課堂講授 Lecture							
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							
—————————————————————————————————————							
□ 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(含出鉄席) General Performance (Attendance Record)	30%		<b>~</b>						
期中考成績 Midterm Exam	20%			~					
期末考成績 Final Exam	20%	>							
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.)

Optical properties of solids, M. Fox, Oxford Semiconductor optics, C. Klingshirn, Springer Waves in metamaterials, L. Solymar, Oxford

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)

課程進度依實際上課狀況做調整