

課程目標 Course Objectives	1. Understanding the electric-optical properties of liquid crystals 2. Be aware of the applications of liquid crystals beyond display techniques 3. Inspiring the curiosity of soft-matter materials for photonics							
系專業能力 Basic Learning Outcomes	A.具有光電相關的物理、化學、材料及數學的知識。 B.具有光電工程的專業知識及應用能力。 C.具有設計與執行實驗、報告撰寫與數據解釋之能力。 D.使用儀器進行物件的分析及測試。 E.具備適當的英文能力，應用於學習與交流。 F.具有良好的溝通與團隊合作的能力。 G.具有創新思維及終身學習的能力。							
課程目標與基礎能力相關性(必填)Correlation between Course Objectives and Basic Learning Outcomes	A	B	C	D	E	F	G	
	●	●	◎		●	◎	●	
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	2/20
2	Basic properties of liquid crystals	
3	Liquid crystal lasers	
4	Liquid crystal lasers	
5	Liquid crystal lasers	
6	Liquid crystal lens	
7	Liquid crystal waveplates and phase modulations	
8	Liquid crystal smart windows	
9	Midterm exam	4/16
10	Light responsive liquid crystals and micro-robots	
11	Light responsive liquid crystals and micro-robots	
12	Liquid crystals/nano-composites	
13	Liquid crystals/nano-composites	
14	Oral presentation	
15	Oral presentation	
16	Oral presentation	
17	Final exam	6/11
18	Alternative curriculum (optional)	
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: <u>Oral presentation</u>	
學期成 績計算 方 式 Grading	☒ 平時成績 General Performance:20% ☒ 期中考成績 Midterm Exam:30% ☒ 期末考成績 Final Exam:30% ☐ 作業成績 Homework and Assignments:0% ☒ 其他 Miscellaneous: (<u>Oral presentation</u>) 20%	
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 (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.)		
備註： 1. The content of lecture could be adjusted if necessary. 2. Cheating and plagiarism are absolutely forbidden. 3. General performance includes roll call, small quiz, and the slides for the oral presentation.		