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②國玄東華大學

教學計劃表 Syllabus

課程名稱(中文) Course Name in Chinese	電動力學(一)			學年/學期 Academic Year/Semester		113/1	
課程名稱(英文) Course Name in English	Electrodynamics (I)						
科目代碼 Course Code	APH_50600	系級 Department 碩士 & Year		開課單位 Course-Offering Department		物理學系	
修別 Type	選修 Elective	學分數/時 Credit(s)/Hou		3.0/3.0			
授課教師 Instructor	/紀信昌						
先修課程 Prerequisite							
課程描述 Course Description							

https://drive.google.com/file/d/1-91pCbVmn403AtYQb3U0pL50e4Wd0Coo/view?usp=drive_link

課程目標 Course Objectives

- 1. 延續電磁學的理論基礎,介紹靜電學,邊界值問題,多極問題,介質,靜磁學,時間 變化場,馬克士威方程式,守恆定律,磁單極問題,對稱性,平面波等。導波管與共 振腔,簡單輻射系統,散射與折射,狹義相對論,電磁場中的帶電粒子,物體內能量 損耗,運動電荷的輻射,多極場,輻射阻尼,導波管與共振腔等問題。
- 2. 於理論的形成及解題的運算技巧給予必要的訓練

	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	具備物理與相關應用領域之專業知識Possessing professional knowledge in physics and related application fields.	•
В	能以物理知識與邏輯推理,分析解決物理問題Being able to analyze and solve physics problems based on basic knowledge in physics as well as logical reasoning.	•
С	瞭解當代實驗儀器之原理,並具備操作實驗儀器之能力Understanding the principles of up-to-date equipment and being able to operate them for performing physics experiments.	
D	能利用電腦處理各類物理問題Being able to use computers for solving various physics problems.	
Е	對學術倫理有清楚正確之認知Properly and clearly acknowledging the academic ethics.	
F	具備以口頭報告及論文寫作發表研究成果之能力Possessing the skills of oral presentation and scientific writing for publishing research findings	
G	具備科技發展之國際觀及外語溝通能力Having an international view of the technology developments and being able to use a foreign language for communications.	

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		
2		
3		

4							
5							
6							
7							
8							
9	期中考試週 Midterm Exam						
10							
11							
12							
13							
14							
15							
16							
17							
18	期末考試週 Final Exam						
	教 學 策 略 Teaching Strategies						
課堂講	爱 Lecture 分組討論Group Discussion 參觀實習」	Field Trip					
其他Mis	scellaneous:						
	教 學 創 新 自 評 Teaching Self-Evaluation						
創新教學(Innovative Teaching)						
問題導口	向學習(PBL)	型習(SBL)					
翻轉教生	室 Flipped Classroom						
社會責任(Social Responsibility)						
在地實際	賤Community Practice 產學合作 Industy-Academia Cooperati	on					
跨域合作(Fransdisciplinary Projects)						
	學Transdisciplinary Teaching 跨院系教學Inter-collegiate Teaching	:					
業師合	授 Courses Co-taught with Industry Practitioners						
其它 othe	r:						

	學期成績計算	草及多元	.評量方:	弋 Gradi	ng & As	sessmen	ts		
配分項目 Items	配分比例 Percentage				多元評量				
		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)									
期中考成績 Midterm Exam									
期末考成績 Final Exam									
作業成績 Homework and/or Assignments									
其他 Miscellaneous ()									
	Grading & A		量方式 ents Sup			ruction	s		
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Textbook & Ot	教科書與參考 her References							ks, etc.)	
	教材網址(含線 .ds & Teacher' Persor	s Websi	ite(Incl	uding c		eaching			
	其他補	充說明	(Supple	mental:	instruct	tions)			