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②国玄東華大學

課 網 Course Outline 電機工程學系學士班半導體工程組

中文課程名稱 Course Name in Chinese		光電半導體元件					
英文課程名稱 Course Name in English		Optoelectronic Semiconductor Devices					
科目代碼 Course Code		EE_33650	班 別 Degree	學士班 Bachelor's			
修別 Type		學程 Program	學分數 Credit(s)	3.0	時 數 Hour(s)	3. 0	
先修課程 Prerequisite							
課程目標							
Course Objectives							
介紹光電半導體元件原理,包括發光二極體、雷射二極體、光檢測器、光伏元件等光電半導體元 件。							
系教育目標 Dept.'s Education Objectives							
1	專業人才培育—奠立學生專業知能,培育產業技術人才。 To cultivate talents with basic professional knowledge						
2		合作訓練—落實分工合作觀念,具備溝通服從能力。 rain students with teamwork ability					
3		思維啟發—具備自我學習能力,啟發創新思維模式。 spire students with creative thinking					
4	多元學翌相劃—訓練觸粨亭通 B.维, 拉養其太科姑苗文閱讀湛通於力。						
系專業能力 Basic Learning Outcomes			力相關性 Correlati between (Objective Dept.'s	課程目標與系專業能 力相關性 Correlation between Course Objectives and Dept.'s Education Objectives			
A	培育具備工程、應用數學與物理科學等數理知識之基本能力。 To cultivate the basic knowledge of engineering, applied mathematics and physics.			•			
В	To cultivate the	「系統分析、模擬驗證、實作實現之能力。 cultivate the basic ability of analysis, verification and ementation of systems. ■					
С	To train the aux	與硬體實務驗證相互輔助 iliary ability betwee id the verification of	n the utiliza		,	•	

D	訓練電機本知學能技術與工程實務相互結合運用之能力。 To train the integrate ability between professional instinct in learning technique and engineering practice.	•			
Е	落實專題製作之群體合作與團隊競爭之能力。 To fulfill the ability of group cooperation and teamwork competition.	0			
F	落實發掘問題、邏輯分析、克服瓶頸與持續學習之能力 To fulfill the ability of question finding, logical analyzing, bottleneck overcoming and continuous learning.	•			
G	了解學術倫理與智慧財產觀念,掌握產業更迭需求與具備多元專長之能力。 To obtain the ability of multi-specialization and to meet the industry demand as well as to have the ability of academic ethics and concept of intellectual property				
Н	了解國內外市場變化,具備基本科技英文閱讀溝通之能力。 To understand the change of global market and the have the basic ability of reading and conversation in English.	0			
圖示說明Illustration : ● 高度相關 Highly correlated ○中度相關 Moderately correlated					
課程大綱 Course Outline					
1. Brief review of semiconductor concepts and pn junction principles 2. Light emitting diodes 3. Laser diodes 4. Photodetectors 5. Photovoltaic devices					
資源需求評估(師資專長之聘任、儀器設備的配合・・・等) Resources Required (e.g. qualifications and expertise, instrument and equipment, etc.)					
由本系專任教師授課					
課程要求和教學方式之建議 Course Requirements and Suggested Teaching Methods					
其他 Miscellaneous					