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②國玄東華大學 教學計劃表 Syllabus

		1-2	1 - 1	- J					
	名稱(中文) ume in Chinese	電路學		ester 113/2					
	課程名稱(英文) Course Name in English Basic engineering circuit analysis								
	十目代碼 rse Code	OE10380	系級 Department 學一 & Year		開課單位 Course-Offering Department	ý	光電工程學系		
	.0/3.0	5.0							
授課教師 Instructor /林伯彦									
先修課程 Prerequisite									
課程描述 Course Description									
電路學(一)的課程內容:主要建立電路學的基本觀念與了解重要的電路原理與其分析方法,此課程特別著重於直流電路的分析方法,包含了由被動元件(電阻、電容與電感)、主動元件(運算放大器)與其所構成的一、二階網路,並作為修習電路學(二)之基礎。									
		課	程目標 Cour	se Object	ives				
讓學生瞭解	基本電路理論與分	析方法。							
系專業能力 Basic Learning Outcomes						Cor	課程目標與系專業能 力相關性 Correlation between Course Objectives and Dept.'s Education Objectives		
				chemistry,	material, and math		•		
knowledge related to opto-electronic engineering 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							•		
C 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							\circ		
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							\circ		
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I	llustration :	● 高度相關 H	ighly correla	ated ○中	度相關 Moderatel	y corre	lated		
		授 課 進	度 表 Teaching	g Schedul	e & Content				
週次Week		內容	Subject/Topi	cs			備註Remarks		
1	課程介紹								
2	Introduction: I	Basic Concepts							
3	Basic Laws (I)								
4	Basic Laws (II))							

5	Methodo of Analysis (I)						
	Methods of Analysis (I)						
6	Methods of Analysis (II)						
7	Circuit Theorems (I)						
8	Circuit Theorems (II)						
9	期中考試週 Midterm Exam						
10	Operational Amplifiers (I)						
11	Operational Amplifiers (II)						
12	Capacitors and Inductors						
13	Capacitors and Inductors						
14	First-Order Circuits (I)						
15	First-Order Circuits (II)						
16	Second-Order Circuits (I)						
17	Second-Order Circuits (II)						
18	18 期末考試週 Final Exam						
	教學策略 Teaching Strategies						
✓ 課堂講	授 Lecture 分組討論Group Discussion 参觀實習 Fi	ield 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							
社會責任(Social Responsibility)							
在地實踐Community Practice 產學合作 Industy-Academia Cooperation							
■ 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(含出缺席) General Performance (Attendance Record)	40%	~					~		
期中考成績 Midterm Exam	30%	~							
期末考成績 Final Exam	30%	~							
作業成績 Homework and/or Assignments									
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.)

Textbooks:

1. Susan Riedel and James W. Nilsson, Electric Circuits, 11th Edition, Pearson, 2020.(滄海代理)

References:

- 1. James A. Svoboda and Richard C. Dorf, Introduction to Electric Circuits, 9th Edition, John Wiley & Sons, Singapore, 2018.(滄海代理)
- 2. Charles K. Alexander and Matthew N.O. Sadiku, Fundamentals of Electric Circuits, 7th Edition, McGraw-Hill Education, NY, 2021 (東華書局代理) ISBN13:9781260570793

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)

課程進度內容依實際上課狀況作滾動式調整。