


國立東華大學
教學計劃表 Syllabus

課程名稱(中文) Course Name in Chinese	電子電路學		學年/學期 Academic Year/Semester	105/1	
課程名稱(英文) Course Name in English	Electric and Electronic Circuits				
科目代碼 Course Code	CSIEB0090	系級 Department & Year	學二	開課單位 Course-Offering Department	資訊工程學系
修別 Type	學程 Program	學分數/時間 Credit(s)/Hour(s)	3.0/3.0		
授課教師 Instructor	/張意政				
先修課程 Prerequisite					
課程描述 Course Description					
<p>此課程介紹電路基本元件特性，如電阻、電容、電感、運算放大器等，同時也說明電路分析的方法，如節點分析、回路分析、暫態電路分析等，培養學生擁有基本電路設計的能力。</p> <p>This course provides the learning of the characteristics of electronic components, e.g. resistors, capacitors, inductors, and operational amplifiers. The methods of circuit analysis are also introduced in the course, e.g. nodal analysis, loop analysis, and transient/steady state circuit analysis</p>					
課程目標 Course Objectives					
<p>1. Familiar with the characteristics of the electronic components. 2. Practice the methods for circuit analysis.. 3. Lay the foundation for a circuit designer</p>					
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	資訊專業終身學習能力	Profound professional knowledge and skills			●
B	實驗驗證資訊科學能力	Sound and free spirit; simple and generous quality			○
C	資訊工具整合運用能力	Ability to appreciate beauty and think creatively			○
D	資訊系統應用設計開發能力	Sense of democracy, the rule of law, and civil responsibility			
E	團隊合作溝通協調能力	Ability of communication, teamwork, and social practice			●
F	資通訊科技問題解決能力	Possess both domestic and global perspectives			
G	瞭解資訊科技多元影響能力	Knowledgeable and possess the quality of humanism			
H	肩負資訊人社會責任能力	Ability of verbal expression and information organization and application			
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	Basic Concepts	
3	Resistive Circuits	
4	Nodal Analysis Techniques	
5	Loop Analysis Techniques, Quiz	
6	Hand-on Practice	
7	Additional Analysis Techniques	
8	Review and Quiz	
9	期中考試週 Midterm Exam	
10	Thevenin' s and Norton' s Theorems	
11	NDHU Sports Day - No Class	
12	Op Amps	
13	Capacitance and Inductance	
14	Transient Circuits (I), Quiz	
15	Transient Circuits (II)	
16	Basic Semiconductor Electronic Circuits	
17	Review and Quiz	
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 參觀實習 Field Trip
 其他 Miscellaneous: Hand-on practice

學期成績計算及多元評量方式 Grading & Assessments

配分項目 Items	配分比例 Percentage	多元評量方式 Assessments							
		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 General Performance	15%	✓	✓						
期中考成績 Midterm Exam	35%	✓							
期末考成績 Final Exam	35%	✓							
作業成績 Homework and/or Assignments	15%						✓		
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.)

Text book: Basic Engineering Circuit Analysis(10/e) J. David Irwin and R. mark Nelms, Wiley

Reference: Microelectronic Circuits 5/e, Sedra/Smith, Oxford University Press, USA.

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.)

東華e學苑 <http://www.elearn.ndhu.edu.tw/moodle/>

其他補充說明 (Supplemental instructions)