國立台灣科技大學 114學年 第2學期　課程大綱

Spring 2026 NTUST Course Outline

授課教師：魏榮宗

Instructor:Jung-Tzung Wei

課程名稱：電路學(二)

Course Title：Basic Circuit Theory (2)

2026/11/3

課程代號： ET2104301 Course Code 學分數： 3 Credits	必選修：必修/半學年 Required/Electve:Required/Half Yr. 先修課程： Prerequisites
節次教室： Time/Location	R6(IB-401) R7(IB-401) T2(IB-401)
專業核心能力： Core Professional Competencies	
課程網址： Course Website	
課程宗旨： Course Objectives	本課程基於電路學(一)基礎教導進階電路分析及元件，包含回顧穩態功率分析、磁耦合電路、三相電路、拉普拉斯轉換、應用拉普拉斯轉換於電路分析、頻率響應、複利葉級數、雙埠網路及二極體 This course is based on the information of Basic Circuit Theory (1) to teach advanced circuit analysis and components. It contains the following contents: 1.Review of Steady-State Power Analysis 2.Magnetically Coupled Networks 3.Three-phase Circuits 4.Laplace Transform 5.Application of the Laplace Transform to Circuit Analysis 6.Variable-Frequency Network Performance 7.Fourier Analysis Techniques 8.Two-Port Networks 9.Diodes
課程大綱： Outline of Lectures	回顧穩態功率分析、磁耦合電路、三相電路、拉普拉斯轉換、應用拉普拉斯轉換於電路分析、頻率響應、複利葉級數、雙埠網路及二極體 1.Review of Steady-State Power Analysis 2.Magnetically Coupled Networks 3.Three-phase Circuits 4.Laplace Transform 5.Application of the Laplace Transform to Circuit Analysis 6.Variable-Frequency Network Performance 7.Fourier Analysis Techniques 8.Two-Port Networks 9.Diodes
授課方式： Method of Instruction	講授 Lecture：100% 分組討論 Group discussion：0% 案例研討 Case study：0% 操做練習 Practical exercises：0% 講授 Lecture：%
教科書： Textbooks	Engineering Circuit Analysis (12e), J. David Irwin/R. Mark Nelms, 滄海書局代理

參考書目： References	N/A
修課須知： Notice	安排兩位助教TA Arrange two teaching assistants
評量方式： Grading	1.點名成績5%(一次不到且未請假扣1點；扣滿五次該項無得分) 2.作業成績10% 3.小考(15%*2)、期中考(25%)及期末考(30%)共佔85% 1. 5% of the roll call score (1 point will be deducted for less than one time and no leave; no points will be deducted for five times) 2. Homework grade 10% 3. The quiz (15%*2), the mid-term exam (25%) and the final exam (30%) account for 85% of the total小考(15%*2)、期中考(25%)及期末考(30%)共佔85%
備註說明： Notes	先修科目(Prerequisites): 電路學(一) Basic Circuit Theory (1)