

## 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：胡宗和

Instructor:Tzong-Her Hwu

課程名稱：物理(下)

Course Title : Physics (II)

2026/5/5

課程代號： CE161B001 Course Code	必選修：必修/全學年 Required/Elective:Required/Full Yr.
學分數： 3 Credits	先修課程： Prerequisites
節次教室： F6(TR-309) F7(TR-309) M10(TR-309) T1(TR-309) Time/Location	
專業核心能力： 運用數學、科學及工程知識的能力。 Core Professional Competencies 規劃與執行實驗，並具解析數據之能力。 執行工程實務所需技術、技巧及使用現代化工具的能力。	
課程網址： <a href="https://moodle2.ntust.edu.tw/">https://moodle2.ntust.edu.tw/</a> Course Website	
課程宗旨： This course mainly include thermodynamics, electromagnetism, and optics. Course Objectives	
課程大綱： Thermodynamics Outline of Lectures Temperature and Heat The kinematic of Gases Heat, Work and Internal Energy First Law of Thermodynamics Second Law of Thermodynamics Electromagnetism Electric charge, electric force and electric field Gauss' s law Electric Potential Electrostatic energy and capacitors Electric current Electric circuit Magnetism - force and field Electromagnetic induction Alternative-Current Circuit Maxwell' s equations and electromagnetic waves Optics (optional)	
授課方式： 講授 Lecture：100% Method of Instruction 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： Essential University Physics, 4th Edition, Richard Wolfson, Pearson Education Inc. Textbooks	
參考書目： References	

Physics for Scientists and Engineers with Modern Physics, by Serway  
and Jewett  
University Physics  
[https://phys.libretexts.org/Bookshelves/University\\_Physics/University\\_P  
hysics\\_\(OpenStax\)](https://phys.libretexts.org/Bookshelves/University_Physics/University_Physics_(OpenStax))

修課須知：  
Notice

評量方式： Homework, Quiz, Midterm exam, final exam.  
Grading

備註說明： N/A  
Notes