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)

2026/11/3

課程代號： CE161B001 Course Code 學分數： 3 Credits	必選修：必修/全學年 Required/Electve:Required/Full Yr. 先修課程： Prerequisites
節次教室： Time/Location	F6(TR-309) F7(TR-309) M10(TR-309) T1(TR-309)
專業核心能力： Core Professional Competencies	運用數學、科學及工程知識的能力。 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： Course Website	https://moodle2.ntust.edu.tw/
課程宗旨： Course Objectives	This course mainly include thermodynamics, electromagnetism, and optics.
課程大綱： Outline of Lectures	Thermodynamics 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： 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	Essential University Physics, 4th Edition, Richard Wolfson, Pearson Education Inc.
參考書目： References	

	Physics for Scientists and Engineers with Mordern Physics, by Serway and Jewett University Physics https://phys.libretexts.org/Bookshelves/University_Physics/University_Physics_(OpenStax)
修課須知： Notice	
評量方式： Grading	Homework, Quiz, Midterm exam, final exam.
備註說明： Notes	N/A