

Spring Semester, 2012

Classical Electrodynamics I - 古典電動力學一

Time(時間): 10:10~13:00 am, Monday

Room(教室): 311 IAMS 中研院原分所 R311(台大校園)

Course speakers(授課老師): Prof. James Michael Nester

Required(必修課), credit(學分): 3

Course No.(科號): PHT005

Date	lecturer	Date	lecturer
2/20 Monday 10:10~13:00	Prof. James Nester	4/30 Monday 10:10~13:00	Prof. James Nester
3/5 Monday 10:10~13:00	Prof. James Nester	5/7 Monday 10:10~13:00	Prof. James Nester
3/12 Monday 10:10~13:00	Prof. James Nester	5/14 Monday 10:10~13:00	Prof. James Nester
3/19 Monday 10:10~13:00	Prof. James Nester	5/21 Monday 10:10~13:00	Prof. James Nester
3/26 Monday 10:10~13:00	Prof. James Nester	5/28 Monday 10:10~13:00	Prof. James Nester
4/2 Monday 10:10~13:00	Prof. James Nester	6/4 Monday 10:10~13:00	Prof. James Nester
4/9 Monday 10:10~13:00	Prof. James Nester	6/11 Monday 10:10~13:00	Prof. James Nester
4/16 Monday 10:10~13:00	Prof. James Nester	6/18 Monday 10:10~13:00	Prof. James Nester
4/23 Monday 10:10~13:00	Prof. James Nester		

Speaker	Prof. James Michel Nester 聶斯特教授
---------	------------------------------------

Class Outline	A. Ch 1-6 in detail. Introduction, boundary value problems in electrostatics and magnetostatics, multipoles, macroscopic media, Maxwell equations, conservation laws. B. As time permits, part of Ch 7 plus an introduction to a few advanced theoretical ideas in relativistic electrodynamics from Ch 11, 12, 14, 16.
---------------	---

Introduction	Electrodynamic phenomena dominate our lives. Classical electrodynamics is central to all of physics, it is the foundation for quantum electrodynamics, and the model for our theories of all of the fundamental interactions. This course covers the basic theoretical ideas and the main mathematical techniques used in many applications.
Grading	<ol style="list-style-type: none">1. Homework (35%).2. Midterm exam (30%)3. Final exam (35%)
Textbook	J.D. Jackson: Classical Electrodynamics, 3 rd Edition (Wiley, 1999)