

Updated on Sep. 11st, 2011

EE 214002 Electromagnetics

國立清華大學電機工程科學系

Prof. 黃衍介
Fall 2011

Class location: EECS 209
Class schedule: M3M4W2

Office hours: 9-noon, Monday and Wednesday, Office Location: EECS516

Teaching Assistants (TAs): 黃冠諺 (kyhtw@ipt.nthu.edu.tw),
吳明雄(wuing911119@hotmail.com)

TA office-hour service is held in EECS 516. **The service schedule will be announced later.**

General Information

This course is to introduce the basic concepts on electromagnetics, covering topics of transmission line, electrostatics, magnetostatics, time-varying field, plane waves etc. To be consistent with the modern trend of electrical engineering, I bring forward the transmission line to the beginning of the lecture. The content of transmission line is mostly adopted from the textbook by Ulaby. However, the same concepts are also given in the textbook by Cheng.

This course will be lectured mostly in English and slightly in Chinese for clarity.

Textbooks

1. David K. Cheng, Field and Wave Electromagnetics 2nd Ed., Addison Wesley, 1989.
2. Fawwaz T. Ulaby, Fundamentals of Applied Electromagnetics 6th Ed., PEARSON Prentice Hall, 2007. (新月圖書，東華書局代理)

Grading Policy:

Homework	20%	(late homework not accepted)
Weekly quiz (open books, notes) [*] adjustment)	20%	(will become the weighting factor for final score)
two midterm exams (Oct. 17, Nov. 28)	20% x 2	
one final exam	20%	

* weekly quiz includes those lectured, to be lectured, or assigned in homework.

Course Handouts: Bound copies will be available at 水木書苑 shortly before the beginning of the semester.. Updates can be found on <http://www.hope.nthu.edu.tw>. **The password to access the course website will be announced by the teaching assistant.**

Course Contents

Introduction, transmission line, vector calculus, electrostatics, magnetostatics, time-varying field, electromagnetic waves, EM wave at boundaries, radiation and antenna (if time allows).