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EE214000 Electromagnetics, Fall, 2013

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EE 214000 Electromagnetics

國立清華大學電機工程科學系
Fall 2013

Prof. 黃衍介

Class location: EECS 209

Class schedule: M3M4W2

Office hours @ **Delta 856**: 12 ~ 13 pm, Monday; 10 am ~ 12 pm, Wednesday.

Teaching Assistants (TAs): 許應捷 gn01254163@hotmail.com x 62333

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 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 year, I will add some class demos of experiments whenever possible.

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

Textbook

David K. Cheng, Field and Wave Electromagnetics 2nd Ed., Addison Wesley, 1989.

Reference book

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	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 in the first week of class .

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).