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## EE 214002 Electromagnetics

國立清華大學電機工程科學系

Prof. 黃衍介  
Spring 2010

Class location: EECS 206  
Class schedule: M3M4W2

Teaching Assistants (TAs): 黃冠諺 @ 5162333, [kyhtw@ipt.nthu.edu.tw](mailto:kyhtw@ipt.nthu.edu.tw)  
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TA office-hour service will be help in EECS 516. The service schedule is 13:00~15:00 on every Monday.

### General Information

This course adopts a new trend on lecturing modern electromagnetics. Specifically, we'd emphasize on concepts and physical pictures covering a whole range from static fields to time-varying fields and waves in one semester. So, this course is a little bit experimental. I don't expect everything would be running smoothly but it could be rough and fun. If you are a conservative and traditional person, you might consider taking this course offered by other professors.

This course will be offered in English.

### Textbook

Fawwaz T. Ulaby, Fundamentals of Applied Electromagnetics 5<sup>th</sup> Ed., PEARSON Prentice Hall, 2007. (新月圖書，東華書局代理)

### Reference books

1. David K. Cheng, Field and Wave Electromagnetics 2nd Ed., Addison Wesley, 1989.
2. Simon Ramo, John R. Whinnery, and Theodore van Duzer, Fields and Waves in Communication Electronics, 2<sup>nd</sup> Ed., John Wiley & Sons, 1984.

### 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. The quiz could be on Monday or Wednesday.

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EE214002 Electromagnetics, Spring, 2010*

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**Course Handouts:** Updates can be found on <http://www.hope.nthu.edu.tw>. The password to access the course website is EE214002. Bound copies is available at 水木書苑 by 5 pm, Monday, March 1<sup>st</sup>..

**Course Contents**

Introduction, transmission line, electrostatics, magnetostatics, time-varying field, electromagnetic waves, radiation and antenna