The University of Akron  
Department of Electrical Engineering

4400:354-001 Electromagnetics II  
Dr. N. Ida  
Spring 2012  
Schranck Hall N-354  
Time 9:55 - 10:45 AM  
MWF  
Room ASECS-252  
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TEXT:  

Office Hours: To be decided by mutual agreement. Suggested times: Monday and Friday, 8:00 to 9:45 AM and Wednesday 2:30 to 5:00 PM.

Course Outline: We will follow the notes rather closely. The material covered includes chapters 10 (review), 11, 12, 13, 14, 15, 16, and possibly 17. The topics are:

Chapter 10: Faraday's Law (review)  
Chapter 11: Maxwell’s equations.  
Chapter 12: Electromagnetic waves and propagation  
Chapter 13: Reflection and transmission of plane waves  
Chapter 14: Theory of transmission lines  
Chapter 15: The Smith chart, impedance matching and transmission line circuits  
Chapter 16: Transients on transmission lines

Grading:  
1st Exam 20% (Tentative: Friday, February 10)  
2nd Exam 20% (Firm: Friday, March 9)  
3rd Exam 20% (Tentative: Friday, April 20)  
Homework 5%  
Final Exam 35% (optional, see below)

Note: after the third exam, which will be given on or around the last week of the Semester (or perhaps a few days earlier), your initial grade will be computed using the following weights:

1st Exam 30%  
2nd Exam 35%  
3rd Exam 30%  
Homework 5%

You will receive an initial grade based on these weights. You then have the option of taking the final exam. There is no need to tell me what you want to do. If you take the final exam, I will re-compute the grade according to the first weights above. If not, your initial grade becomes your grade for the Semester. This option is designed so that students that do very well in exams do not
need to take the final while those that did not do well can still improve their grades. The final will be given at the scheduled time during examinations week.

**Homework:** Will be assigned on the first class of the week to be submitted on the first class of the following week. Homework will be corrected, graded and returned the following Monday. Solutions to all homework problems will be posted after the deadline for homework. All homework assignments will be counted in the final grade. The deadline for submission of homework is firm. I wish to remind that the purpose of homework is to exercise the material and prepare you for exams. Only independent work has the desired effect. I do encourage you to work in small groups (2 – 3 is ideal) to understand the material but your work must be independent.

**Supporting material:** Additional material (previous exams with solutions, some notes, etc.) will be made available from time to time.

**Note on textbook:** If you need to buy a book, please make sure it is the 2nd Edition, 2nd Printing, 2007 version. It has many changes and corrections that are not present in the previous versions. If however you already possess a copy of the 2nd edition (2004) use it but be aware that it does contain some errors. The first edition is not recommended as the changes are major.