

The University of Akron
Department of Electrical and Computer Engineering

4400:354-301 Electromagnetics II

Summer 2018

LH 311*

Time 8:00 - 9:35 AM*

Mo,Tu,We

Dr. N. Ida

Room ASEC-S252

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***See: Method of delivery.**

Note: The course will be entirely on line except for the exams, which will be in class. The room assigned and times shown are for exams only.

TEXT: Engineering Electromagnetics, 3rd Edition, 2015, N. Ida, Springer Verlag

Period: June 11 to August 5, 2018.

Office Hours: See method of delivery.

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

Grading:	1st Exam	20%	(Wednesday, June 27)
	2nd Exam	20%	(Wednesday, July 11)
	3rd Exam	20%	(Wednesday, July 25)
	Homework	5%	
	Final Exam	35%	(optional, see below, Wednesday August 1)

Note: after the third exam, which will be given on or around the last week of the Semester, your initial grade will be computed using the following weights:

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

The initial grade will be communicated to you by e-mail. 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 recompute 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 term exams

do not need to take the final whereas those that did not do well can still improve their grades. The final is comprehensive and will be given at the scheduled time.

Homework: Will be assigned Mondays, to be submitted on the following Monday unless Monday is a holiday. If that is the case, the homework will be due the following day. Homework will be corrected, graded and returned the following Monday (see below). Please note: this is a summer class and each week of classes is roughly equivalent to two weeks of regular semester classes. The homework will also be equivalent to two homeworks. You will have a week to do the homework. Because of the extent of the homework and the short period of the summer class the submission dates are firm.

Supporting material: Additional material will be made available on the website:

Sample exams from previous years (with solutions)

Summaries to Chapters 10 through 18

A MATLAB suite of programs that demonstrates some of the principles discussed.

Method of delivery and other details

During Summer 2018, the course will be web-based. This means the following:

- The lectures will be available on Springboard or in Dropbox for download. An invitation will be sent to you so you can view or download the files in Dropbox.
- **Prior to each scheduled lecture date, there will be two 50 minutes lectures available for viewing/downloading. This means that each week you will have to go through 6, 50 minute lectures. I will place all 6 lectures for the week on Springboard and in Dropbox on Saturday so you can download them before the week begins.**
- **These will be available until the next scheduled lecture. After that they will be removed. Please make sure you download them early.**
- I will assign homework by e-mail using your University of Akron e-mail address unless you wish to use a different e-mail. If you do, send me an e-mail to that effect.
- **Homework will be collected by the student assistant, graded and returned to you. You may drop the homework in my mailbox in the EE office or send it by e-mail.**
- **Office hours. I will be available in my office at all times and encourage you to come and see me regarding class material, homework, etc. Best time is before noon every day. If you cannot see me in person:**
 - Call me on skype from your computer: My skype name is nathanida
 - Send me an e-mail
 - Call me on my office phone at 330-972-6525.
- **Exams: The exams will be given in the classroom indicated at the top of this announcement. There cannot be an exception to this procedure.**
- **If you prefer, you can also obtain a full set of the videos by bringing a thumb drive to my office. The thumb drive must have at least 7 Gb of space available.**

Finally, I very strongly recommend that you schedule the viewing of the lectures and your work on homework so that you complete everything on time. The class is intense and the time short. If you fall behind it is difficult to catch up. For this reason alone, I will not accept late homework. The student assistant will be instructed to this effect. Please remember, we will have an exam every two weeks and the only way to prepare is by working continuously and steadily.

I am aware that there are many resources on line that you can use. However, I caution you against using solution manuals. For one, there are many errors in them but, more importantly, copying a solution or “reading” a solution, does not prepare you for the exams. Working through the assigned problems, asking questions and reviewing material needed to solve the problems leads to understanding and eventual success.