

E3407: Electromagnetics

Time

Tuesday 9:30-10:50AM

Thursday 9:30-10:50AM

Office hours

Tuesday 11-11:30AM, Thursday 11-11:30AM

Blackboard access:

<https://elearn.uta.edu>

Lab session website

http://www.uta.edu/faculty/jcchiao/class/EE3407_2016_Spring/ee3407_2016_Spring.htm

Description (4)

EE 3407 ELECTROMAGNETICS (3) + Laboratory Session (1)

Time varying electric and magnetic fields, displacement current, Maxwell's equations and transverse electromagnetic waves; plane waves in an unbounded medium, waves in media with planar interfaces, boundary conditions, reflection and transmission, plane waves in lossless and lossy media; electromagnetic waves in a bounded medium, guided waves, wave guides, propagation modes; transmission lines, circuit models of transmission lines, transmission line equations, reflection at discontinuities, terminations, transient response, steady state waves on transmission lines, open and short circuited lines, power flow, impedance matching and the Smith chart, antennas. Problems and experimental demonstrations will be covered during recitation and laboratory sessions.

Prerequisites:

Prerequisite: C or better in both EE 2347 and PHYS 1444. Co-requisite is EE 3446.

Required textbook

Fundamentals of Applied Electromagnetics, 6/E.

Fawwaz T. Ulaby, Eric Michielssen, Umberto Ravaioli

ISBN-10: 0132139316 • ISBN-13: 9780132139311

Prentice Hall • Published 02/25/2010

Textbook chapter problem answers: (Password required, password is given in class)

[Chapter 1](#) [Chapter 2](#) [Chapter 3](#) [Chapter 4](#) [Chapter 5](#) [Chapter 6](#) [Chapter 7](#) [Chapter 8](#)

Policy

Grading

- Midterm #1 15%
- Midterm #2 20%
- **Pop quizzes 15%**
- Lab report grade 25%
- Final 25%
- All grades or scores are final after two weeks from the day the scores are given. After the two-week period, your scores or grades will not be changed.

Ethics and conducts of students

- The College of Engineering cannot and will not tolerate any form of academic dishonesty by students. This includes, but is not limited to cheating on examinations and homework/project assignment; plagiarism or collusion. Definitions:
 - Cheating on exams includes
 - Copying from another's paper, any means of communication with another during exam, giving aid to or receiving aid from another during exam;
 - Using any material during exam that is unauthorized by the proctor;
 - Taking or attempting to take an exam for another student or allowing another student to take or attempt to take an exam for oneself;
 - Using, obtaining, or attempting to obtain by any means the whole or any part of an unadministered exam.
 - Plagiarism is the unacknowledged incorporation of another's work into work which the student offers for credits.
 - Collusion is the unauthorized collaboration of another in preparing work that a student offers for credit.
- All students have to sign the Statement on Ethics, Professionalism and Conduct of Engineering Students for College of Engineering, University of Texas at Arlington and submit to the TAs. Without the Statement, the student will not receive credits. Please contact TAs for this Statement.
- Any evidence of cheating or plagiarism in reports will cause ZERO credit. This is a zero-tolerance policy. Any evidence of cheating or plagiarism in final project reports will receive ZERO credit for the entire semester.

Email, classroom and profession etiquette

- Students are required to present professionalism, courtesy and politeness in the classroom and lab. No loud voices, invasive or intrusive behaviors are allowed. No food is allowed in class. Any violation will be reported to the UTA police.
- Student visits and phone calls are only allowed in the office hours and TA office hours. Please do not visit without an appointment if you cannot make it in the office hours. Appointment can be made through emails.
- It is important to follow common email etiquette. Any email that looks like a text message will be ignored because our goals are to mentor students to have professionalism. Being polite and courteous is not difficult to follow [complete list is in <http://www.101email etiquettetips.com/>]. The following are cited from the website
 - Make sure your e-mail includes a courteous greeting and closing. Helps to make your e-mail not seem demanding or terse.
 - Address your contact with the appropriate level of formality and make sure you spelled their names correctly.
 - Read your email out loud to ensure the tone is that which you desire.
- The labs and classrooms are shared by other students. Talking on the phones, talking loudly, watching materials unrelated to the class or lab session, listening to music through headphone during the sessions, and any inconsiderate behaviors are not allowed. The

classrooms and labs are the places to learn.

Americans with Disabilities Act:

The University of Texas at Arlington is on record as being committed to both the spirit and letter of federal equal opportunity legislation; reference Public Law 93-112 - The Rehabilitation Act of 1973 as amended. With the passage of new federal legislation entitled the *Americans with Disabilities Act (ADA)*, pursuant to section 504 of the Rehabilitation Act, there is renewed focus on providing this population with the same opportunities enjoyed by all citizens in the United States.

We are required by law to provide **reasonable accommodation** to students with disabilities so as not to discriminate on the basis of that disability. **Student responsibility** primarily rests with informing faculty at the **beginning of the semester** (before the census date) and in **providing authorized documentation** through designated administrative channels (**Office for Students with Disabilities**, 601 S. Nedderman Dr. • University Hall, Room 102, Box 19510 • Arlington, TX 76019, Phone: 817-272-3364 • Fax: 817-272-1447).

Students can check <http://www.uta.edu/disability/> for information.