

COURSE ORGANIZATION

INSTRUCTOR:	Prof. Robert C. Moore 557 NEB, Tel: 352-392-0634, Fax: 352-846-3363, Email: moore@ece.ufl.edu Office Hours: Wednesdays 12:50 pm – 1:20 pm, Thursdays 1:00 pm – 2:00 pm (Plus Recitation Session on Mondays, see below)
LAB ASSISTANT:	Alex Rea Email: area@ufl.edu Office Hours: TBD
COURSE OBJECTIVES:	This course is intended to provide undergraduate students with a strong foundation in electrostatic, magnetostatic, and electromagnetic theory and to provide an understanding of important applications.
COURSE DESCRIPTION:	Transmission line equations, electrostatics, magnetostatics, time-varying fields, plane waves, and electromagnetic waves. Prerequisite: EEL3008.
COURSE WEBSITE:	Connect through the E-Learning website: https://elearning.ufl.edu/
TEXTBOOK:	<u>Required:</u> Ulaby and Ravaioli, <i>Fundamentals of Applied Electromagnetics, 7th Edition</i> , Pearson, 2015.
LECTURES:	MWF 11:45 am – 12:35 pm in 310 Larsen Hall
RECITATION (OPTIONAL):	M 1:00 pm – 2:00 pm in 234 Larsen Hall. (Note: This session is optional. Video of the session will be provided through Canvas.)
HOMEWORK:	5 homework sets will be assigned (see Handout #2). Graded on a 0-10 basis. Grades for each homework set will be weighted according to difficulty.
EXAMS:	2 mid-term exams, 1 final exam. Open-book, open-notes.
GRADING:	10% homework, 10% laboratory, 25% each midterm and final exam, 5% Participation.
GRADING SCALE:	Curved, if appropriate.
ATTENDANCE:	Mandatory. Attendance will be taken irregularly when the professor deems it necessary. Any material covered in class may appear on the exams.
CELL PHONES:	Please silence cell phones in the classroom. Text messaging is not permitted during class or exams.
MAKE-UP EXAMS:	Special cases only. Must be arranged with and approved by the professor 1 week prior to the exam.

Honesty Policy All students admitted to the University of Florida have signed a statement of academic honesty committing themselves to be honest in all academic work and understanding that failure to comply with this commitment will result in disciplinary action. This statement is a reminder to uphold your obligation as a UF student and to be honest in all work submitted and exams taken in this course and all others.

Accommodation for Students with Disabilities Students requesting classroom accommodation must first register with the Dean of Students Office. That office will provide the student with documentation that he/she must provide to the course instructor when requesting accommodation.

UF Counseling Services Resources are available on-campus for students having personal problems or lacking clear career and academic goals. The resources include:

- University Counseling Center, 301 Peabody Hall, 392-1575, Personal and Career Counseling.
- SHCC mental Health, Student Health Care Center, 392-1171, Personal Counseling.
- Center for Sexual Assault/Abuse Recovery and Education (CARE), Student Health Care Center, 392-1161, sexual assault counseling.
- Career Resource Center, Reitz Union, 392-1601, career development assistance and counseling.

Software Use All faculty, staff and students of the University are required and expected to obey the laws and legal agreements governing software use. Failure to do so can lead to monetary damages and/or criminal penalties for the individual violator. Because such violations are also against University policies and rules, disciplinary action will be taken as appropriate. We, the members of the University of Florida community, pledge to uphold ourselves and our peers to the highest standards of honesty and integrity.

TENTATIVE SCHEDULE

Date	Topic	Reading	Homework	Laboratory
22 Aug W	Introduction	Ulaby Chapter 1		
24 Aug F	Transmission Line Equations	Ulaby Chapter 2		
27 Aug M	Characteristic Impedance			
29 Aug W	Reflection and Transmission			
31 Aug F	Attenuation and Dispersion			
3 Sept M	HOLIDAY: Labor Day			
5 Sept W	Transient Analysis			
7 Sept F	Vector Operations	Ulaby Chapter 3		
10 Sept M	Line and Surface Integrals			Lab 1
12 Sept W	Differential Operators			
14 Sept F	Electrostatics – Coulomb's Law	Ulaby Chapter 4	Homework #1 Due	
17 Sept M	Divergence, Gauss' Law			
19 Sept W	Ohm's Law, Resistance			
21 Sept F	Energy and Potential			
24 Sept M	Capacitance			Lab 2
26 Sept W	Laplace and Poisson Equations			
28 Sept F	Boundary Conditions			
1 Oct M	Method of Images			
3 Oct W	Biot-Savart Law	Ulaby Chapter 5		
5 Oct F	Curl			
8 Oct M	Magnetic Vector Potential		Homework #2 Due	Lab 3
10 Oct W	Ampere's Law, Boundary Conditions			
12 Oct F	1st EXAM			
15 Oct M	Exam Solutions			
17 Oct W	Inductance			
19 Oct F	Faraday's Law	Ulaby Chapter 6		
22 Oct M	Time-Varying Fields			Lab 4
24 Oct W	Moving Conductors			
26 Oct F	Boundary Conditions		Homework #3 Due	
29 Oct M	Maxwell's Equations			
31 Oct W	Electromagnetic Plane Waves	Ulaby Chapter 7		
2 Nov F	HOLIDAY: Homecoming			
5 Nov M	Polarization			Lab 5
7 Nov W	Lossy Media, Power Flow		Homework #4 Due	
9 Nov F	2nd MIDTERM EXAM			
12 Nov M	HOLIDAY: Veteran's Day			
14 Nov W	Exam Solutions			
16 Nov F	Reflection and Transmission	Ulaby Chapter 8		
19 Nov M	Normal Incidence			
21 Nov W	HOLIDAY: Thanksgiving			
23 Nov F	HOLIDAY: Thanksgiving			
26 Nov M	Oblique Incidence			
28 Nov W	Special Cases			
30 Nov F	Radiation: Antennas	Ulaby Chapter 9	Homework #5 Due	
3 Dec M	Radiation: Near/Far Field			
5 Dec W	Course Review			
12 Dec W	FINAL EXAM: 10 am - 12 pm			