

## 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 – 1:50 pm, Thursdays 1:00 pm – 2:00 pm (Plus Recitation Sessions, see below)
LAB ASSISTANT:	Patrick (Benji) Roberts Email: benjiroberts@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: <a href="https://elearning.ufl.edu/">https://elearning.ufl.edu/</a>
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 SESSION:	Previously recorded videos 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**

<b>Date</b>	<b>Topic</b>	<b>Reading</b>	<b>Homework</b>	<b>Laboratory</b>
21 Aug W	Introduction	Ulaby Chapter 1		
23 Aug F	Transmission Line Equations	Ulaby Chapter 2		
26 Aug M	Characteristic Impedance			
28 Aug W	Reflection and Transmission			
30 Aug F	Attenuation and Dispersion			
<b>2 Sept M</b>	<b>HOLIDAY: Labor Day</b>			
4 Sept W	Transient Analysis			
6 Sept F	Vector Operations	Ulaby Chapter 3		
9 Sept M	Line and Surface Integrals			Lab 1
11 Sept W	Differential Operators			
13 Sept F	Electrostatics – Coulomb's Law	Ulaby Chapter 4	<b>Homework #1 Due</b>	
16 Sept M	Divergence, Gauss' Law			
18 Sept W	Ohm's Law, Resistance			
20 Sept F	Energy and Potential			
23 Sept M	Capacitance			Lab 2
25 Sept W	Laplace and Poisson Equations			
27 Sept F	Boundary Conditions			
30 Sept M	Method of Images			
2 Oct W	Biot-Savart Law	Ulaby Chapter 5		
<b>4 Oct F</b>	<b>HOLIDAY: Homecoming</b>			
7 Oct M	Curl, Magnetic Vector Potential		<b>Homework #2 Due</b>	Lab 3
9 Oct W	Ampere's Law, Boundary Conditions			
<b>11 Oct F</b>	<b>1<sup>st</sup> EXAM</b>			
14 Oct M	Exam Solutions			
16 Oct W	Inductance			
18 Oct F	Faraday's Law	Ulaby Chapter 6		
21 Oct M	Time-Varying Fields			
23 Oct W	Moving Conductors			Lab 4
25 Oct F	Boundary Conditions		<b>Homework #3 Due</b>	
28 Oct M	Maxwell's Equations			
30 Oct W	Electromagnetic Plane Waves	Ulaby Chapter 7		
1 Nov F	Electromagnetic Plane Waves			
4 Nov M	Polarization			
6 Nov W	Lossy Media, Power Flow		<b>Homework #4 Due</b>	
<b>8 Nov F</b>	<b>2<sup>nd</sup> MIDTERM EXAM</b>			
11 Nov M	<b>HOLIDAY: Veteran's Day</b>			
13 Nov W	Exam Solutions			Lab 5
15 Nov F	Reflection and Transmission	Ulaby Chapter 8		
18 Nov M	Normal Incidence			
20 Nov W	Oblique Incidence			
22 Nov F	Special Cases			
25 Nov M	Radiation: Antennas	Ulaby Chapter 9	<b>Homework #5 Due</b>	
<b>27 Nov W</b>	<b>HOLIDAY: Thanksgiving</b>			
<b>29 Nov F</b>	<b>HOLIDAY: Thanksgiving</b>			
2 Dec M	Radiation: Near/Far Field			
4 Dec W	Course Review			
<b>10 Dec T</b>	<b>FINAL EXAM: 12:30 pm – 2:30 pm</b>			