

Syllabi:

EE3221 ELECTROMAGNETIC FIELD THEORY

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Catalog description:

This course covers: Wave propagation and Vector analysis, Fundamental of Laws and concepts of static and time harmonic electromagnetic fields.

Motivation:

The electrical engineers need to understand and applied the fundamentals principles and laws to design better electronics systems: analog and digital.

Textbook (Required)

Fundamentals of Applied Electromagnetic (6th edition)
Fawwaz T. Ulaby
Pearson Prentice-Hall 2010
ISBN: 0-13-978-0-13-21393-1

Course: Outline:

Module 1	Vector Analysis
Module 2	Electrostatics
Module 3	Magnetostatics
Module 4	Wave propagation and Transmission lines
Module 5	Waveguides

Critical course outcome:

Apply vector calculus to understand statics electric fields

Apply vector calculus to understand statics magnetic fields

Describe and analyze electromagnetic wave propagation in free space

Describe and analyze transmission lines

Project to connect the theory with the real world of and Electrical Engineer

UTEP Backboard:

UTEP Backboard is used on the entire course for material presentation, assignment and homework

Mandatory attendance:

We reserve the right to withdraw any student who has more than four unexcused absences

Homework:

Weekly (individual assignment)

Grading:

Exam 1:	15 points + 5 points of weekly homework
Exam 2:	15 points + 5 points of weekly homework
Exam 3:	15 points + 5 points of weekly homework
Exam 4:	15 points + 5 points of weekly homework
Project:	20 points
Total	<u>100 points</u>

Final letter grade scale:	A	100-90
	B	89.9-80
	C	79.9-70
	D	69.9-60
	F	below 60

Academic integrity and Professional Ethics

As described on the policy on academic dishonesty: <http://www.utep.edu/dos/acadintg.htm>

And IEEE code ethics: <http://www.ieee.org/about/whatis/code.html>