

EE 4301.001 16F Course Syllabus

Course Information

Course Number/Section

EE 4301.001 16F

Course Title

Engineering Electromagnetics 1

Term

2016 Fall

Days and Times

Tuesday and Thursday 1:00 pm to 2:15 pm

Meeting place

ECSS 2.201

Professor Contact Information

Professor

Ann Catrina Coleman

Email address

catrina.coleman@utdallas.edu

Office

ECSN 3.506

Phone

972-883-3554

Office hours

Tuesday and Thursday 3 pm to 4 pm

Course Pre-requisites, Co-requisites and/or Other Restrictions

Pre-requisites

PHYS 2326 and ENGR 3300
and (CE 3301 or EE 3301 or TE 3301)

Course Description

Introduction to the general characteristics of wave propagation, physical interpretation of Maxwell's equations, propagation of plane electromagnetic waves and energy

Student Learning Objectives

1. Ability to explain and analyze electro-static and magneto-static fields.
2. Ability to determine electric and magnetic fields in the presence of simple dielectric, magnetic and conducting materials.
3. Ability to explain the physical significance of Maxwell's equations and the coupling of electric and magnetic fields.
4. Ability to explain electromagnetic wave equations and the propagation of electromagnetic fields and energy.

Required Textbook

Fundamentals of Engineering Electromagnetics by David K. Cheng
(Addison Wesley 1992) ISBN 978-0-201-60071-1

Recommended Material

Div grad curl and all that by H.M. Schey (4th Edition)
(Norton 2005) ISBN 0-393-92516-1 (pbk.)

A Student's Guide to Maxwell's Equations by Daniel Fleisch
(Cambridge 2008) ISBN 978-0-524-70147-1

Assignments and Academic Calendar

Exam Dates

Vector Calculus Test	Thursday September 15 th	1.00 pm to 1.30 pm
1 st Exam	Thursday October 6 th	1.00 pm to 2.15 pm
2 nd Exam	Thursday November 3 rd	1.00 pm to 2.15 pm
3 rd Exam	Tuesday December 6 th	1.00 pm to 2.15 pm

Grading Policy

Homework: 10%
Exams: 90%

Course Policies

Make up Exams

Only by permission of the instructor in advance

Extra Credit

None

Late Work

Homework will be due at the start of the class period on the assigned due date.
Late homework will not be graded without a valid excuse (preferably arranged in advance).

UT Dallas Syllabus Policies and Procedures

The information contained in the following link constitutes the University's policies and procedures segment of the course syllabus.

Please go to <http://go.utdallas.edu/syllabus-policies> for these policies.

The descriptions and timelines contained in this syllabus are subject to change at the discretion of the Professor.