

## EE 4301.501 16F Course Syllabus

### Course Information

<i>Course Number/Section</i>	EE 4301.501 16F
<i>Course Title</i>	Engineering Electromagnetics 1
<i>Term</i>	2016 Fall
<i>Days and Times</i>	Tuesday and Thursday 5:30 pm to 6:45 pm
<i>Meeting place</i>	ECSN 2.110

### Professor Contact Information

<i>Professor</i>	Ann Catrina Coleman
<i>Email address</i>	catrina.coleman@utdallas.edu
<i>Office</i>	ECSN 3.506
<i>Phone</i>	972-883-3554
<i>Office hours</i>	Tuesday and Thursday 3 pm to 4 pm

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

<i>Pre-requisites</i>	PHYS 2326 and ENGR 3300 and (CE 3301 or EE 3301 or TE 3301)
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### 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 (4<sup>th</sup> 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 <sup>th</sup>	5.30 pm to 6.00 pm
1 <sup>st</sup> Exam	Thursday October 6 <sup>th</sup>	5.30 pm to 6.45 pm
2 <sup>nd</sup> Exam	Thursday November 3 <sup>rd</sup>	5.30 pm to 6.45 pm
3 <sup>rd</sup> Exam	Tuesday December 6 <sup>th</sup>	5.30 pm to 6.45 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.**