

ECEN 3741 - Electromagnetic Fields 1

Fall 2026 Syllabus, Section 01, CRN 40732,

Credit hours: 3

Instructor

Edward Burden

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Public Instructor Information

Instructor Title: Senior Lecturer

Instructor Professional Qualifications: MSEE

Instructor Office Location: Moser 2035

Instructor Office Phone:

Course Description

3741. Electromagnetic Fields 1. Maxwell's equations. Static electric and magnetic fields. Magnetic materials and forces, dielectrics, conductance, capacitance, and inductance. Poisson's and Laplace's equations. Prereq.: ECEN 2633, prerequisite or concurrent MATH 3705. 3 s.h.

Course Readings

Group	Title	Author	ISBN
Choose One	Fundamentals of Applied Electromagnetics	Ulaby	

Read along with the course lectures.

The course readings are subject to change in the event of extenuating circumstances, research developments, current events, and/or to ensure better learning.

Schedule of Topics and Assignments

Week of	Proposed Topic	Due/To Prepare for Class
8/24	Electrostatics	
11/2	Magnetostatics	

The course schedule, policies, procedures, and assignments in this course are subject to change in the event of extenuating circumstances, by mutual agreement, and/or to ensure better learning.