

Syllabus for Electromagnetics

ECE 3025 – Spring 2012

Class Description:

Course	Title	Cr Hrs	Instructor	Days	Time	Location
ECE-3025	Electromagnetics	3	Greg Durgin	T Th	12:05 AM 1:25 AM	Van Leer 457

ECE 3025 Electromagnetics

Presentation of the laws and applications of electromagnetics. This course covers transmission line theory, basic electrostatics, Maxwell's equations, and introductory concepts in electromagnetic waves.

Instructor:

Greg Durgin

Office: 507 Van Leer

Office Hours: TBD (see online)

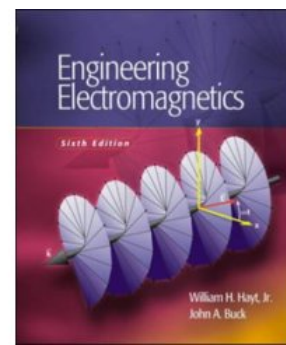
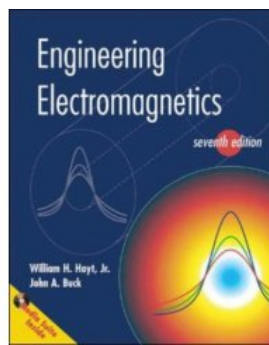
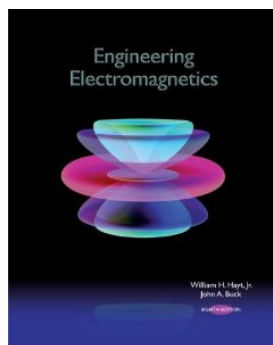
E-mail: durgin@gatech.edu

Office Phone: (404) 894-2951

Class Web Page: <http://www.propagation.gatech.edu/ECE3025>

Textbook:

Primarily Online Notes
Engineering Electromagnetics, 8th edition, Hayt and Buck. McGraw-Hill, 2011.



Prerequisites: Students must have taken ECE 2040 (Circuit Analysis) and one of the following math courses: MATH 2403 or MATH 2413. Note: *Advancement in the ECE program requires students to complete ECE 3025 Electromagnetics with a final grade of at least C.*

Grading:

20% Homework – Expect approximately 10 homework assignments over the course of the semester. Homework will be assigned on Thursday and collected the following Thursday *at the beginning of class*. **Late homework is not accepted.**

55% Examinations (3) – There will be 3 in-class quizzes. The highest midterm scores will count 20% each toward the final class grade; the lowest midterm score will only count 15% toward the final class grade.

25% Final Exam –The regularly scheduled final exam will count 25% toward the final class grade.

Quiz Dates:

See website for dates. Any change to this schedule will be announced with at least 1 week of advance notice.

Computer Usage:

The web will be used extensively in this class to disseminate homework assignments, lecture materials, and class announcements.

Some homework assignments may involve the use of Matlab[™] software. Most students should have access to this software through a university computer lab or their own personal computing packages. If not, please inform the instructor.

Tentative Lecture Topics:

- | | |
|-----------------------|-------------------------------|
| I. Transmission Lines | V. Electrodynamics |
| II. Vector Calculus | VI. Electromagnetic Materials |
| III. Electrostatics | VII. Maxwell's Equations |
| IV. Magnetostatics | VIII. Basic Wave Propagation |

See class website for a more detailed listing of course topics.

Honor Code:

The Honor Code applies to every aspect of this class, with only one noteworthy exception: student discussion of concepts and techniques for solving homework problems is permitted and even encouraged outside the classroom. However, *all submitted work must be original.*