EE4391A Electromagnetic Compatibility
SUMMER 2004

Instructor: Dr. W. Marshall Leach, Jr., Van Leer E388, 404.894.2963, (Secretary: 404.894.2973), email: mleach@ece.gatech.edu

Time and Location: MWF, 2:40 – 3:50 p.m., Van Leer C340

Office Hours: TTh 2:30 – 4:00 p.m.

Textbook: *Noise Reduction Techniques in Electronic Systems* by Ott

Class Web Page: http://users.ece.gatech.edu/~mleach/ece4391/

Material: Chapters 1 through 12 in the text, selected material from the text Appendix, and supplementary notes on active device noise.

Grading: Homework at 10%, three 1/2-period quizzes at 20% each, final exam at 30%

Pertinent Dates:

Holidays	Monday, May 31 and Mon. July 5
Drop Day	Friday, June 18
Quiz 1	Wednesday, June 2
Quiz 2	Monday, June 21
Quiz 3	Friday, July 9
Final Exam	Wednesday, July 28, 11:30 – 2:20 p.m.

Class Policies:

Students are expected to show respect for other students in the class and the instructor by arriving on time, by not leaving the class during a lecture, not talking in class, by not letting the door slam when entering the classroom after a lecture has begun, and by turning off cell phones and pagers before entering the classroom. If I am distracted by students talking in class, I will invite them to come to the board and finish my lecture.

Course Objectives

To review regulations on electromagnetic compatibility and the agencies which write these regulations. To examine the electromagnetic properties of cables used to conduct signals. To study the effects of grounding of devices and equipment on electromagnetic compatibility. To examine the benefits of using balanced signals and the methods of power supply decoupling in equipment. To review passive components and how they differ from their ideal behavior. To examine methods of shielding as a method of noise reduction. To study methods used to protect electrical contacts in ac and dc circuits. To examine the characteristics of intrinsic noise sources in passive and active components. To study methods of noise control in digital circuits and systems. To study the problems electrostatic discharge in equipment design.