

**EE4445**  
**Audio Engineering**  
FALL 2010

**Instructor** Dr. W. Marshall Leach, Jr., Van Leer E386, 404-894-2963 (Secretarial Assistant: 404-894-2973), Email: mleach@gatech.edu

**Office Hours** Tuesday 3:30 – 4:30 p.m., Friday 1:30 – 2:30 p.m.

**Time and Location** MWF 1:05 – 1:55 p.m., Van Leer C340

**Class Web Page** users.ece.gatech.edu/~mleach/ece4445/

**Textbook** W. Marshall Leach, Jr., *Introduction to Electroacoustics and Audio Amplifier Design*, 3rd Edition, Kendall/Hunt

**Pertinent Dates**

Holiday	Monday, September 6, November 25 – 26
Midterm Recess	October 16 – 19
Drop Day	Friday, October 15
Quiz 1	Wednesday, September 22
Quiz 2	Monday, October 25
Quiz 3	Monday, November 22
Final Exam	Wednesday, December 15, 2:50 p.m. – 5:40 p.m.

**Grading** The course grade will be based on 3 one-half hour quizzes, homework, a design project, and a final examination. These will count toward the grade as follows:

Each Quiz:	18%
Homework:	10%
Design Project:	10%
Final Exam:	26%

**Course Topics**

1. Basic Principles of Sound
2. Fundamentals of Acoustics
3. Analogous Circuits of Acoustical Systems
4. Analogous Circuits of Mechanical Systems
5. Microphones
6. Moving-Coil Loudspeakers
7. Closed-Box Loudspeaker Systems
8. Vented-Box Loudspeaker Systems
9. Crossover Networks
10. Acoustic Horns
11. Audio Power Amplifiers

**Classroom Decorum** Please be considerate of the other students in the class. Arrive for class and be seated before the bell. If you must enter or leave the classroom during the lecture, do not let the door slam. Do not talk in class. Turn your cell phones and pagers off before class begins. Do not use a cell phone in class. School policies prohibit the consumption of food and beverages in the classroom.

**Special Note** It is difficult to concentrate on a lecture if students are talking in the classroom. If you need to talk, please leave the classroom. Otherwise, I will start giving pop quizzes.

**Plagiarism** Plagiarism is considered academic misconduct. Plagiarizing is defined by Webster's dictionary as to steal and pass off the ideas or words of another as one's own, to use another's production without crediting the source, to commit literary theft, to present as new and original an idea or product derived from an existing source. If caught plagiarizing, you will be dealt with by the Dean of Students according to the GT Academic Honor Code.

**Homework Collaboration** When working on homework, you may work either individually or with one other student in the class. In the latter case, you can turn in only one copy of the assignment. On the cover page, you must write both of your names. You are allowed and encouraged to ask me and the class GTA questions, although you should try to think about the problems before asking. Neither I nor the GTA will work problems for you if you do not submit evidence that you have made a prior attempt to work it. You are strongly encouraged to work on extra problems and example problems from the book on your own.

**Homework Format** Include a cover sheet with the course number, your printed name(s), and your signature(s). Include the date, the assignment number, and the problems assigned. Write on only one side of the paper. Number each problem by writing both the chapter number and the problem number. Do not write the problem numbers where they will be covered by a staple. You can read some useful homework guidelines on the class web page. These guidelines were originally written for an ECE3050 class to minimize student complaints about a GTA grader who the students felt was treating them unfairly in grading their papers.

**Design Project Collaboration** On the design project, two students may work together and submit a single report. In special circumstances, three students will be allowed to work together and submit a single report.

**Cheating on Quizzes** Cheating off of another person's test or quiz is unethical and unacceptable. Cheating off of anyone else's work is a direct violation of the GT Academic Honor Code, and you will be dealt with by the Dean of Students according to the GT Academic Honor Code.

**Use of Old Quizzes** Use of any previous semester course materials as study guides is allowed. While this material may serve as examples for you, they are not guidelines for any tests, quizzes, homework, projects, or any other course work that may be assigned during this semester.

**Academic Honor Code Issues** For any questions involving these or any other Academic Honor Code issues, please consult me, the class GTA, or the url <http://www.honor.gatech.edu/>.