

**CMSD 4150  
HEARING SCIENCE  
FALL, 2003**

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**Course Description UGA Bulletin:** Physics of sound and the physiological and psychological bases of auditory function.

**Dr. De Chicchis' Course Description:** This course discusses the physics of sound, anatomy and physiology of the auditory system and the psychological bases of auditory function.

**Prerequisite or Co-requisite:** CMSD 4120 or permission of the department.

**Learner Outcomes:** At the end of this course the student should be able to:

1. Define the basic principles of sound.
2. Identify anatomical structures in the human auditory system.
3. Explain basic physiologic principles associated with the human auditory system.
4. Discuss psychoacoustic aspects of auditory function.

**Course Text:** Introduction to Sound, Charles E. Speaks, Third Edition.

**OFFICE HOURS:** Office hours will be held on Monday 10:00 - 11:00 AM and Wednesdays from 2:15 to 3:15 PM in Aderhold 585. Lauren Nolan, a graduate student in speech-language pathology, and I will be available to answer your questions during those times. If you cannot meet during those times and need some help please see me in advance to arrange another time.

**Course Requirements:**

- A. There will be four examinations during the semester including the final exam, which will be comprehensive in nature. **NOTE: YOUR FINAL EXAM FOLLOWS THE OFFICIAL EXAM SCHEDULE.**
- B. Each exam will constitute 25% of your grade.
- C. Make-up exams will be given **only** when a written medical excuse is provided to the instructor.
- D. You will be allowed 3 un-excused absences, after which, 1 point per absence will be deducted from your final grade.

**COURSE OUTLINE:**

Nature of Sound  
Simple Harmonic Motion  
Logarithms/Antilogarithms/Decibels

Chapters 1-4

**Test 1**

Complex Waves

Resonance and Filtering

Distortion

Sound Transmission

**Test 2**

Anatomy:

Outer Ear

Middle Ear

Inner Ear

Central Auditory Nervous System

**Test 3**

Psychoacoustic Phenomena

Loudness

Pitch

Differential Sensitivity (Difference Limen - DL)

Intensity Discrimination

Frequency Discrimination

Binaural Hearing

**Final Exam - Comprehensive**

**HONOR CODE AND ACADEMIC HONESTY POLICY:**

All academic course work must meet the standards contained in “A culture of Honesty.” All students are responsible for informing themselves about those standards before performing academic work. The policy, a portion of which is shown below, can be found at [www.uga.edu/ovip/academic\\_honesty/culture\\_honesty.htm](http://www.uga.edu/ovip/academic_honesty/culture_honesty.htm)

All exams, and any academic work (e.g. homework, projects, term papers) are to be completed without assistance from former or current students, and without plagiarizing from the internet or other sources. Those violating this policy will be referred for disciplinary action.

The University of Georgia (the university) seeks to promote and ensure academic honesty and personal integrity among students and other members of the University community. A policy on academic honesty has been developed to serve these goals. Academic honesty is defined broadly and simply—the performance of all academic work without cheating, lying, stealing, or receiving assistance from any other person or using any source of information not appropriately authorized or attributed. Academic honesty is vital to the very fabric and integrity of the University. All students must comply with an appropriate and sound academic honesty policy and code of honest behavior. All members of the University community are responsible for and involved in bringing about an honest university, and all must work together to ensure the success of the policy and code of behavior. All members of the University community are responsible for knowing and understanding the policy on academic honesty. The statement on policy and procedures will be made readily available to all students and faculty to ensure understanding of the academic honesty system and its proper functioning. The entire University Community works together to operate the academic honesty.