

Syllabus
Physics 1270, Science and Technology of Musical Sound
Fall 2025

(Lecture) Class Meeting Times: MoWeFr 1:00PM - 1:50PM, Phys 102

Instructor's Office Hours: MoWeFr 1:50PM - 2:50PM or by appointment

Instructor: Gabriel Rodriguez Guijarro

Office: PHYS 209; Phone: 940-565-2626

Email: GabrielRodriguezGuijarro@my.unt.edu

Course Packet: A course packet is required for all class meetings, exams and assignments for this course. PHYS 1270 Course Packet is available at Eagle Images, University Services Building, Room 124.

Scientific Calculator: A scientific calculator is required for all class meetings, exams and assignments for this course. The calculator should have the $\sqrt{x}$, $\ln(x)$, and y^x functions and scientific notation.

Supplemental Textbook: Musical Acoustics by D. E. Hall (any edition)

Attendance: Attendance is required.

Laboratory: The lab portion of this course must be completed to fulfill a laboratory science requirement. The lab portion of this course is completely separate from the lecture portion. The lab portion and lecture portion have different instructors.

Course Requirements:

Three Exams: Each Counts 25%
Final Exam: Counts 25%
Laboratory: Counts 25%

Exams: The lowest of the four exam grades is dropped. If an exam is missed for any reason, it will be the one dropped. Make-up exams will **not** be given. Exams are multiple choice and open: book/notes/course packet and a scientific calculator is required.

Learning Objective: To develop analytical problem-solving skills and learn about the science and technology of musical sound. The class meetings are optimized to maximize the efficiency at which problem-solving skills are developed. A typical class meeting includes a class lecture with an interactive problem-solving component.

Learning Activities: Typical learning activities should include attending class, reading the course packet, reworking the examples worked in class, and working the extra practice problems before each exam. There are also practice exams located at the end of the course packet that you can use to test how well prepared you are for each exam.

Schedule

Aug. 18 - Sept. 19		Math Review, Basic Physics Concepts
Sept. 22, 24		Extra Practice Problems
Sept. 26	F	Exam 1
Sept. 29 - Oct. 10		Sound: Intensity, Perception, Acoustics
Oct. 13, 15		Extra Practice Problems
Oct. 17	F	Exam 2
Oct. 20 - Nov. 12		Strings, Tubes, Voice, Waves, Electricity
		Magnetism, Musical Scales, Digital Recordings
Nov. 14, 17		Extra Practice Problems
Nov. 19	W	Exam 3
Nov. 21	F	Review
Nov. 24, 26, 28	MWF	Thanksgiving Break (no class)
Dec. 1	M	Review
Dec. 3	W	Pre-finals Day
Dec. 5	F	Reading Day (no class)
Dec. 6	Sa	10:30AM - 12:30PM Final Exam

Additional Information

Academic Integrity Standards and Consequences. According to UNT Policy 06.003, Student Academic Integrity, academic dishonesty occurs when students engage in behaviors including, but not limited to cheating, fabrication, facilitating academic dishonesty, forgery, plagiarism, and sabotage. A finding of academic dishonesty may result in a range of academic penalties or sanctions ranging from admonition to expulsion from the University. A finding of academic dishonesty associated with an exam would result in a grade of zero for the exam.

ADA Accommodation Statement. The University of North Texas makes reasonable accommodation for students with disabilities. Students needing a reasonable academic accommodations must first register with the Office of Disability Access (ODA) to verify their eligibility. If a disability is verified, the student will request their letter of accommodation. ODA will provide faculty with a reasonable accommodation letter via email to begin a private discussion regarding a student's specific needs in a course. Students may request reasonable accommodations at any time, however, ODA notices of reasonable accommodation should be provided as early as possible in the semester to avoid any delay in implementation. Note that students must obtain a new letter of reasonable accommodation for every semester and

must meet with each faculty member prior to implementation in each class. Students are strongly encouraged to meet with faculty regarding their accommodations during office hours or by appointment. Faculty members have the authority to ask students to discuss such letters during their designated office hours to protect the privacy of the student. For additional information, refer to the Office of Disability Access website.

Emergency Notification & Procedures. UNT uses a system called Eagle Alert to quickly notify students with critical information in the event of an emergency (i.e., severe weather, campus closing, and health and public safety emergencies like chemical spills, fires, or violence). In the event of a university closure, please refer to the UNT Learning Management System (LMS) for contingency plans for covering course materials.