The course satisfies the 4-hour requirement in the Natural Science Core Curriculum.

Lecture: Tuesday, Thursday 11:00-12:20 a.m., Science Room 10

Laboratory Sections, Science Building, Room 302:
PHYS 1406-501 M 4:00-5:50 p.m.  PHYS 1406-502 Tue 2:00-3:50 p.m.
PHYS 1406-503 Tue 4:00-5:50 p.m.  PHYS 1406-504 W 4:00-5:50 p.m.

Required:
The Guide contains the lectures in short form, past homework, quizzes and examinations. The laboratory manual is part of the Guide. You must have this combined Guide. Always bring it with you to the lectures and laboratory. Add your own notes to it.
Purchase the Guide only at CopyOutlet, 2402 Broadway, Lubbock, Tel. 744-7772.

Recommended (not required)
Other books of interest with material relating to the course are mentioned in the Guide.

Course objectives and expected learning outcomes:
Become familiar with scientific principles. Apply them to sound, acoustics, music, and everyday life.

Topics
- Principles of sound and music.
- Fourier analysis and synthesis of sound.
- Architectural acoustics.
- Musical instruments.
- Energy, work, power.
- Recording and reproduction.
- Class demonstrations.
- Performances by faculty and students.
- Harmonics, overtones, quality of sound.
- Voice and hearing.
- Environmental sound and noise.
- Musical intervals and harmony.

Grades
3 Examinations 45% total; homework=quizzes 20%; laboratory 15%; final examination 20%. Grade Scale:
100-A-86-B-72-C-58-D-44-F-0 For extra credit see below.

Laboratory (see also calendar)
The laboratory is an integral part of the course. Participation and laboratory reports are required.
You must have a minimum laboratory score of 75% to pass this course.
Always bring the combined Course Guide and Laboratory Manual with you to the laboratory. Add your own notes to it for the laboratory reports.
Homework and Quizzes (see also calendar)
Seven homework sets are assigned evenly during the semester. Questions from the homework and class will be on the quizzes. Your quiz grades are your homework grades and vice versa.

Examinations and Quizzes
They cover what is discussed in class and in the Course Guide, in the lecture demonstrations and homework. You may use the Course Guide as an “open book” during the examinations and quizzes. Bring a simple calculator and ruler with you. You will need them.
Make-up examinations and quizzes are generally not given. In case of an emergency, give your excuse to Dr. Borst in person or by e-mail as soon as possible and find out how a missed grade will be determined (assuming a valid excuse).

Extra Credit
1. Attending Music Performances (5%): Take advantage of the wonderful performances by the School of Music. Consult its calendar for dates of the performances. Most of them are free. Hand in a typed 1-page report for each performance and staple the program to it. Each report counts as 1% extra towards the course grade, with a total up to 5%. Performances of the Lubbock Symphony and the TTU Music Theater, as well as some others, also count. Tickets often are free or available at a reduced price. Include the highlights of the performances in your reports, including applications of the topics from our class. The reports are due within one week of the performance attended. Start early attending performances!
2. Research Paper (5%): Topics may include human hearing and voice, room acoustics, environmental sound, musical instruments, basic music theory, electronic recording and sound processing. Propose a topic to your instructor and consult with him about suitability and details. Submit your paper no later than two weeks before the last day of classes.

Required - Class Attendance
Please sign your name on the attendance sheet before the start of each class. In case of an emergency, please send your excuse by e-mail to walter.borst@ttu.edu. Each unexcused absence means 1% off your course total.
Study Time: Experience shows that you need to study about 4-5 hours each week outside of class to obtain a decent grade.

Disability
Any student who, because of a disability, may require special arrangements in order to meet the course requirements should contact the instructor as soon as possible to make any necessary arrangements. Students should present appropriate verification from Student Disability Services during the instructor’s office hours. Please note instructors are not allowed to provide classroom accommodations to a student until appropriate verification from Student Disability Services has been provided. For additional information, you may contact the Student Disability Services office in 335 West Hall or 806-742-2405.

“Methods for assessing learning outcomes”:
1. Examinations, quizzes, and grades.
2. Class discussions.
3. Feedback from students about the usefulness of the course.
Academic honesty is assumed (see also Student Handbook).