

Physics 130: The Acoustics of Music and Speech

Online/Blackboard

Textbook: *The Fundamentals of Sound Science* by Elena Borovitskaya.

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You may use the most economical and environmentally friendly method you can find.

Instructor

Melinda Whitfield Thomas, MS

Melinda.thomas@wku.edu

Email is the best and quickest method of communication with me. I respond to ALL emails from students. If you do not get a response within 24 hours I did not receive your email. Please resend it.

Class Objective

The fundamental laws of mechanics and wave motion are studied with particular emphasis being placed upon their application to the production and control of music and speech. Laboratory experiments and field trips are an integral part of the course.

Learning Outcomes

Understanding the fundamentals of sound production, propagation and perception in relation to music and speech successful students will be able to:

1. Demonstrate an understanding of the methods of science inquiry as used in the acoustics special project.
2. Explain basic concepts and principles in the sound and acoustics areas.
3. Apply scientific principles to interpret and make predictions used in the labs setting applied to sound and acoustics.
4. Explain how scientific principles relate to issues of personal and/or public importance from an application of acoustics to sound production and usage.

Grades

Your grade will consist of the following.

Assignments, virtual labs and quizzes (20%),

3 regular exams (20%),

A comprehensive final exam (30%) AND

A special project (30%).

Your grade is NOT calculated using the points possible divided by points earned method.

Late work **WILL NOT** be accepted without PRIOR justification. Make-up exams **WILL NOT** be given unless the absence has been approved prior OR a doctor's statement is provided.

Assignments and/or Quizzes

Assignments and/or quizzes will be posted on a weekly basis. You will have a minimum of 5 days from the date of posting to complete them. It is advisable not to wait until the last day at the end of the day to complete them as technical difficulties can cause you to miss an assignment or quiz.

Individual assignments are NOT listed on this syllabus.

Special Project/ Paper

You will be required to present a special project or paper on a topic of your choosing related to the acoustics of music and speech. Projects can be PowerPoint presentations with narration, video presentations or research papers.

PowerPoint presentations and video presentations must be a minimum of 5 minutes long and no longer than 10 minutes.

Project papers will be a minimum of 5 pages double spaced (Including cover page, 3 full pages to text and references page.) They will be graded on content and grammar. Specific instructions will be given when the due date is posted.

Academic Honesty: Students are expected to adhere to the WKU standards of integrity and honesty with regards to cheating and plagiarism. All work you turn in must be your own, WKU uses *TERM PAPER*® to check against web resources for plagiarism, any violations will be handled by the Judicial Board.

Students caught cheating on quizzes or exams will receive a grade of zero for that particular quiz/exam and will be asked to sit elsewhere during subsequent quizzes/exams.

If you have questions or need more clarification about anything regarding this class, you should ask me. I will be happy to help you in any way I can.

Title IX Misconduct/Assault Statement

Western Kentucky University (WKU) is committed to supporting faculty, staff and students by upholding WKU's Title IX Sexual Misconduct/Assault Policy (#0.2070) at

<https://wku.edu/eoo/documents/titleix/wkutitleixpolicyandgrievanceprocedure.pdf> and

Discrimination and Harassment Policy (#0.2040) at

https://wku.edu/policies/hr_policies/2040_discrimination_harassment_policy.pdf.

Under these policies, discrimination, harassment and/or sexual misconduct based on sex/gender are prohibited. If you experience an incident of sex/gender-based discrimination, harassment and/or sexual misconduct, you are encouraged to report it to the Title IX Coordinator, Andrea Anderson, 270-745-5398 or Title IX Investigators, Michael Crowe, 270-745-5429 or Joshua Hayes, 270-745-5121.

*Please note that while you may report an incident of sex/gender based discrimination, harassment and/or sexual misconduct to a faculty member, WKU faculty are “Responsible Employees” of the University and **MUST** report what you share to WKU’s Title IX Coordinator or Title IX Investigator. If you would like to speak with someone who may be able to afford you confidentiality, you may contact WKU’s Counseling and Testing Center at 270-745-3159.*

ADA Accommodation Statement

In compliance with University policy, students with disabilities who require academic and/or auxiliary accommodations for this course must contact the Student Accessibility Resource Center located in Downing Student Union, 1074. SARC can be reached by phone number at 270-745-5004 [270-745-3030 TTY] or via email at sarc.connect@wku.edu . Please do not request accommodations directly from the professor or instructor without a faculty notification letter (FNL) from The Student Accessibility Resource Center.