

## **COURSE TITLE: COMD 3316 Speech & Hearing Sciences**

**Term:** Spring 2026

**Course Dates:** Jan 12, 2026 - May 2, 2026

**Professor:** Amy Louise Schwarz, PhD, CCC-SLP

**Course Times:** Section 2: 11 am to 12:20 pm;  
Section 3: 3:30 pm to 4:50 pm

**Office Phone:** 1.903.877.5307

**Email:** AmyLouise.Schwarz@uttyler.edu

**Classroom:** Section 1: Herrington Patriot Center (HPC) 3055;  
Section 2: Herrington Patriot Center (HPC) 02255

**Office Hours:**

Graduate Students: Mondays 9 to 10 am, Wednesdays 3 to 4 pm, & by appointment

Undergraduate Students: Tuesdays & Thursdays by appointment, Fridays 11 am to 2 pm

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### **Course Overview**

This course integrates knowledge from 4 related disciplines including anatomy and physiology, phonetics, acoustics/physics of sound, speech production and processing, and audiology. The course promotes analytical skills and problem solving in speech language pathology and audiology. It integrates the physiology of the five body systems that serve communication with the various clinical applications and biophysiological measures. These include respiratory volumes and capacities in the general population and in individuals with speech disorder, dynamics of vocal fold vibration and airflow, and the various instruments and measures pertaining to the functionality of vocal fold production and pathology. Other major topics include the speech motor system and the instrumentation for sound analysis and vocal production. The course also discusses the acoustic and biophysiological bases for sound localization and perception, the instruments used for analyzing and interpreting sound, pathologies of the peripheral and sensory mechanisms, and implications for assessment and treatment.

### **Student Learning Outcomes**

Upon successful completion of this course, the student will demonstrate the ability to:

1. Explain the anatomy and physiology of speech production (ASHA Standard: IV-B: Basic Human Communication Processes: Biological, neurological)
2. Record and analyze voice samples and interpret various acoustical measurements commonly used in speech science. (ASHA Standard IV-B: Basic Human Communication Processes)
3. Describe sound as a physical phenomenon and explain sound by its physical dimensions (ASHA Standard: IV-B: Basic Human Communication and Swallowing Processes: Acoustic)

4. Explain the anatomy and physiology of the hearing mechanism (ASHA Standard: IV-B: Basic Human Communication Processes: Biological, neurological)
5. Define psychoacoustics and generalize the findings of this field to the workings of the auditory system and hearing (ASHA Standard: IV-B: Basic Human Communication Processes: Biological, neurological, acoustic, psychological)
6. use oral and written or other forms of communication sufficiently for entry into professional practice (Standard V-A).

## Assessment of Student Learning

#1-6 will be assessed using quizzes, lab assignments using PRAAT, video projects, midterm and final exams. Brief basic case studies will be used, when possible, to highlight how speech and hearing sciences integrates to affect normal and disordered communication.

## Required Textbooks and Freely Available Software

- Hixon, T. J., Weismer, G., & Hoit, J. D. (2020). *Preclinical speech science: Anatomy, physiology, acoustics, and perception*. Plural Publishing Inc.
- Lass, N. J., & Jeremy James Donai. (2023). *Hearing science fundamentals*. San Diego, Ca Plural Publishing, Inc.
- Boersma, Paul & Weenink, David (2021). Praat: doing phonetics by computer [Computer program]. Version 6.1.51, retrieved 22 July 2021 from <http://www.praat.org/Links to an external site>.

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## Instructional Methodology

Information for this course is primarily conveyed in-person classes, lectures, required readings, and demonstrations. Students receive guided and independent practice applying the concepts through in-class activities.

Technology is integrated into the instructional pedagogy through the Canvas learning management system, Studio, Zoom, PowerPoint slides, the use of online small group work, SharePoint, and CoPilot.

## Course Requirements

EMAIL COMMUNICATION: I prefer face-to-face communication to email communication. If you email me by 4:00 pm during the work week (Monday through Thursday), I will respond the same day. If you email me after 4:00 pm during the work week, I will respond the following work weekday. On Fridays after this class, I am seeing patients in the clinic so will not be available to meet or to respond by email. If you email me on Fridays, you will not receive a response until the following work weekday. *I will not respond to emails on the weekend.*

OFFICE HOURS: See the Contact section at the top of this syllabus for days of the week and times. I meet with students in HPR 251B for office hours. I conduct office hours on a first come first serve basis individually and in

groups depending upon how many students attend office hours on a given day and what their questions are. If you need to meet with me individually, please email me before office hours, so I can make time. Please come with questions. If your appointment is pushed back a few minutes, please be patient. I look forward to helping everyone access the course content.

**STRUCTURE OF CLASSROOM TIME:** A combination of lecture and small group work will be used. During small group work, students will be randomly assigned to groups. Together, each group will work through hands-on activities designed to promote learning.

**STUDENT ATTENDANCE POLICY - 5% of Course Grade:** Class attendance is expected, as important material and learning activities will occur during class time. Please choose the seat you want by the second class period. I will use a seating chart in this class, so I learn everyone's name. If you will need to be absent or late, please notify me in advance. I take attendance at the beginning of class. If you are late, you will be marked absent. If you are late to class, it is your responsibility to meet with me just before the beginning of the next class to ask me to change your previous day's attendance from absent to late. For purposes of your grade, 3 lates equal one class absence. It is the responsibility of the student to get missed material from a fellow student should an absence occur. If you are struggling with the material or feel discouraged in any way, please visit me during office hours. I am here to help you access the course material. I want every student to be successful. The last day I will take attendance in class is Thursday April 2nd.

**QUIZZES:** Most Fridays by 11:59pm, students will complete *independently and without collaboration* a brief quiz over material and readings covered in the previous two or more classes. No make up quizzes will be given. Students with SAR accommodations will be given the extra time to complete the quizzes as agreed to by the student, Dr. Schwarz, and SAR.

**MIDTERM & FINAL EXAM VIDEO PROJECTS:** For the Midterm Video Project, each student will create videos that demonstrate synthesis of key concepts in speech science. For the Final Video Project, each student will create videos that demonstrate synthesis of key concepts in hearing science. Students may not use scripts or notes in their videos. Students need to show command of the information. In terms of grading, equal weight will be given to each project. *These projects are not a group assignment. Students are encouraged to bring questions to class so we can brainstorm ideas and solutions together as a class.* I will *not* meet with students (individually or collectively) during office hours to discuss or review rough drafts of their video projects. To do so would give students who attend office hours an unfair advantage over those who cannot attend office hours due to clinic and/or other obligations. Students will upload their final videos to Studio in Canvas.

## SUMMARY OF ASSIGNMENTS

Assignment	Percentage
Attendance	5%
Quizzes	75%
Midterm & Final Video Projects (weighted equally)	20%
Total	100%

**GRADE APPEALS:** *Within 7 days* after I release a grade that a student wishes to appeal, the student must make a *written appeal* that includes a well-reasoned argument as to why the grade should be changed with concrete citations from the text and/or supporting course material. *I will not consider written grade appeals received after*

*the 7-day period. I will not consider grade appeals made in-person.* If a student appeals a grade on an exam or an assignment that I have curved, students will automatically lose the points from the curve that were added to their grade in favor of the points in their written appeal. Therefore, it only makes sense for a student to appeal a curved grade, if the student's written appeal exceeds the number of points added by the curve.

**TIMELINESS:** Students are required to take quizzes and submit assignments as scheduled. If a student thinks they might miss an assignment or a quiz date because they are ill or caring for someone who is ill, please email me before the due date of the quiz or assignment. If the absence is due to a University sanctioned class field trip/athletic event and/or religious holiday, please let me know in email by Friday, January 16th at 5:00 pm. What is most important is that we regularly communicate. I want everyone to be successful.

**STUDENT PREGNANCY AND PARENTING NONDISCRIMINATION POLICY:** The purpose of this policy is to maintain a learning environment that is free from discrimination of pregnant or parenting students, in accordance with the [Texas Education Code, Title 3, Section 51.982: Protections for Pregnant and Parenting Students](#)[Links to an external site.](#) and other applicable laws. This policy entitles pregnant and parenting students to academic accommodations, including flexible attendance and extended dates for assignments. If you are a pregnant or parenting student, please complete the [Self-Reporting Form](#)[Links to an external site.](#) and the UT Tyler Parent and Family Programs will contact the professors to provide the necessary accommodations. Detailed information about this policy are available at: <https://uttyler.smartcatalogiq.com/uttyler/ut-tyler-hop/series-500-student-success/5-14-3-student-pregnancy-and-parenting-nondiscrimination/Links to an external site.>

This course follows the requirements of Texas Laws SB 412, SB 459, SB 597/HB 1361 to meet the needs of pregnant and parenting students. Part of the supports afforded pregnant students includes excused absences. Faculty who are informed by a student of needing this support should make a referral to the Parenting Student Liaison. NOTE: Students must work with the Parenting Student Liaison in order to receive these supports. Students should reach out to the Parenting Student Liaison at [parents@uttyler.edu](mailto:parents@uttyler.edu) and also complete the [Pregnant and Parenting Self-Reporting Form](#)[Links to an external site.](#)

**MILITARY AFFILIATED STUDENTS:** UT Tyler honors the service and sacrifices of our military-affiliated students. If you are a student who is a veteran, on active duty, in the reserves or National Guard, or a military spouse or dependent, please stay in contact with your faculty member if any aspect of your present or prior service or family situation makes it difficult for you to fulfill the requirements of a course or creates disruption in your academic progress. It is important to make your faculty member aware of any complications as far in advance as possible. Your faculty member is willing to work with you and, if needed, put you in contact with university staff who are trained to assist you. The [Military and Veterans Success Center \(MVSC\)](#)[Links to an external site.](#) has campus resources for military-affiliated students. The MVSC can be reached at [MVSC@uttyler.edu](mailto:MVSC@uttyler.edu) or via phone at 903.565.5972.

**DISABILITY/ACCESSIBILITY SERVICES:** In accordance with Section 504 of the Rehabilitation Act, Americans with Disabilities Act (ADA) and the ADA Amendments Act (ADAAA) the University of Texas at Tyler offers accommodations to students with learning, physical and/or psychological disabilities. If you have a disability, including a non-visible diagnosis such as a learning disorder, chronic illness, TBI, PTSD, ADHD, or you have a history of modifications or accommodations in a previous educational environment, you are encouraged to visit <https://hood.accessiblelearning.com/UTTylerLinks to an external site.> and fill out the New Student application.

**ACCOMMODATIONS FOR QUALIFIED STUDENTS WITH DISABILITIES:** Please contact me as soon as possible if you are a student with a disability who will require an accommodation(s) to participate in this course. You will be asked to provide documentation from the Student Accessibility Office (SAR). Failure to contact me and provide the necessary documentation in a timely manner may delay your accommodations. All students with SAR accommodations must make arrangements to take the final exam at the testing center.

**NO RECORDING OF CLASS LECTURES &/OR ACTIVITIES:** Students do not have my permission to audio or video record class lectures and/or activities.

LIMITED USAGE OF COPILOT & OTHER ARTIFICIAL INTELLIGENCE LANGUAGE MODELS: You may not use the internet or AI when taking your at-home and open-note quizzes. In this course, there really isn't a need to use Artificial intelligence (AI) language models, given the study material provided by the publisher's companion site. You may use AI, such as CoPilot, to generate ideas on how to organize the information for your midterm and final video projects. However, you will be graded on your synthesis of information provided in class, not on information from other sources. Click here [Artificial IntelligenceLinks to an external site.](https://subjectguides.uwaterloo.ca/chatgpt_generative_ai/aigeneratedcontentcitationLinks to an external site) for UT Tyler's AI resources. If you are in doubt as to whether you are using AI language models appropriately in this course, I encourage you to discuss your situation with me. Examples of citing AI language models are available at [https://subjectguides.uwaterloo.ca/chatgpt\\_generative ai/aigeneratedcontentcitationLinks to an external site.](https://subjectguides.uwaterloo.ca/chatgpt_generative_ai/aigeneratedcontentcitationLinks to an external site) You are responsible for fact checking statements composed by AI language models.

ACADEMIC HONESTY POLICY: UT Tyler expects students to do their own work on all graded material submitted for all program course requirements. *Students guilty of knowingly using, or attempting to use, another person's work as though the work were their own, and students guilty of knowingly permitting, or attempting to permit, another student to use their work, will receive at minimum a zero on the assignment and at maximum a grade of 'F' for the course.* Such conduct may also constitute grounds for dismissal from the University. Specific expectations for academic integrity and sanctions for academic dishonesty are outlined on the following website: [Chapter 8 of the UT Tyler Manual of Policies and Procedures for Student Affairs Links to an external site.](#)

GRADES: I will only post each student's course grades in CANVAS to protect confidentiality. Final course grades will be determined according to the following scale based on the total number of points earned:

A = 90 to 100%

B = 80 to 89%

C = 70 to 79%

D = 60 to 69%

F = 0 to 59%

CLASS POLICIES:

Tardiness: Each class will start on time and end on time. Please arrive a few minutes before class so that I can begin on time. If you are late, please enter quietly. Please do not disturb those who are already engaged in classroom activities.

Electronic Devices: Please silence your mobile phones and other signaling devices when you enter the room.

Please do not engage in conversation during the lecture. Doing so is distracting to the speaker and inconsiderate of others.

EMERGENCY MANAGEMENT: In the event of an emergency or natural disaster the campus community will be notified immediately through several means of communication. This includes Campus Alert E-mail, the University's website, campus and local media, text-messaging, Fire Alarm Systems, Indoor Warning System and Outdoor Warning System. [University of Texas at Tyler - Emergency Response, Fire Safety, False Alarm or Report, and SecurityLinks to an external site.](#)

## Other General Information

Monday 1/19th is Martin Luther King, Jr. Holiday; all offices are closed and there are no classes.

Monday 3/9th through Friday 3/13th is spring break for faculty and students. We will not have classes that week.

## Tentative Course Schedule

I reserve the right to modify the syllabus. All major modifications will be reviewed with students.

Week	Date	Topics & Readings Due Before Class	Due @ 11:59 pm
Week 1	1/13	Introduction to Speech Science	<u>Friday 1/16</u>
	1/15	Anatomy & Physiology of the Speech Mechanism	Quiz
		Read: Chapter 2	
Week 2	1/20	Anatomy & Physiology of the Speech Mechanism	<u>Friday 1/23</u>
	1/22	Read: Chapters 3 & 4	Quiz
Week 3	1/27	Anatomy & Physiology of the Speech Mechanism	<u>Friday 1/30</u>
	1/29	Read: Chapters 5 & 6	Quiz
Week 4	2/3	Introduction to Praat Software	<u>Friday 2/6</u>
	2/5	Acoustics (from a speech science perspective)	Quiz
		Read Chapter 7	
Week 5	2/10	Acoustic Theory of Vowel Production	<u>Friday 2/13</u>
	2/12	Read: Chapter 8	Quiz
Week 6	2/17	Theory of Consonant Acoustics	<u>Friday 2/20</u>
	2/19	Speech Acoustic Analysis	Quiz
		Chapters 9 & 10	
Week 7	2/24	Speech Acoustic Analysis	<u>Friday 2/27</u>
	2/26	Acoustic Phonetics Data	Quiz
		Read: Chapter 11	
Week 8	3/3	Acoustic Phonetics Data	<u>Friday 3/6</u>
	3/5	Speech Perception	Quiz
		Read: Chapter 12	
Week 9	3/10	Spring Break for Faculty & Students	
	3/12		
Week 10	3/17	Wrap up Speech Science Content	<u>Friday 3/20</u>
	3/19		Midterm Video Project
Week 11	3/24	Basic Acoustics	<u>Friday 3/27</u>

	3/26	Anatomy & Physiology of the Auditory Mechanism Read: Chapters 1 & 4	Quiz
Week 12	3/31	Anatomy & Physiology of the Auditory Mechanism	<u>Friday 4/3</u>
	4/2	Read: Chapters 5 & 6	Quiz
Week 13	4/7	Psychoacoustics: Normal Hearing	<u>Friday 4/10</u>
	4/9	Psychoacoustics: Binuaral Hearing Read: Chapters 7 & 8	Quiz
Week 14	4/14	Psychoacoustics: Temporal Processing	<u>Friday 4/17</u>
	4/16	Read: Chapters 10	Quiz
Week 15	4/21	Psychoacoustics: Loudness & Pitch	<u>Friday 4/24</u>
	4/23	Psychoacoustics: Signal Detection Theory Chapters 11 & 13	Quiz
Final	4/28	<u>Final Video Project Due</u>	
	Tues	Section 1 - 11:00 am Section 2 - 3:30 pm	