

CMDS 272 | Anatomy and Physiology: Speech/Hearing Mechanisms | 3 Credit Hours

Instructor: TBD

Rank: TBD

Email: TBD

Phone: TBD

Office Hours: TBD

Schedule: TBD

Description: CMDS 272 introduces students to the anatomical and physiological principles relevant to communication sciences and disorders by integrating clinical information with everyday experiences.

Required Text: Seikel JA, Drumright DG, and Hudock DJ. (2019) Anatomy & physiology for speech, language, and hearing, 6th edition. San Diego: Plural Publishing.

Lecture Notes: Students will be able to access PowerPoint slides from Blackboard. Each student is responsible for printing and/or accessing course documents as appropriate.

Academic Dishonesty: Academic dishonesty is prohibited at the University of Louisville. It is a serious offense because it diminishes the quality of scholarship, makes accurate evaluation of student progress impossible, and defrauds those in society who must ultimately depend upon the knowledge and integrity of the institution and its students and faculty.

Diversity: The University of Louisville strives to foster and sustain an environment of inclusiveness that empowers us all to achieve our highest potential without fear of prejudice or bias. We commit ourselves to building an exemplary educational community that offers a nurturing and challenging intellectual climate, a respect for the spectrum of human diversity, and a genuine understanding of the many differences—including race, ethnicity, gender, gender identity/ expression, sexual orientation, age, socioeconomic status, disability, religion, national origin, or military status—that enrich a vibrant metropolitan research university. We expect every member of our academic faculty to embrace the underlying values of this vision and to demonstrate a strong commitment to attracting, retaining, and supporting students, faculty, and staff who reflect the diversity of our larger society.

Title IX & Clery Act: Sexual misconduct (sexual harassment, sexual assault, and sexual/dating/domestic violence) and sex discrimination are violations of University policies. Anyone experiencing sexual misconduct and/or sex discrimination has the right to obtain confidential support from the PEACC Program 852-2663, Counseling Center 852-6585 and Campus Health Services 852-6479. Reporting your experience or incident to any other University employee (including, but not limited to, professors and instructors) is an official, non-confidential report to the University. To file an official report, please contact the Dean of Student's Office 852-5787 and/or the University of Louisville Police Department 852-6111.

Accommodations: The University of Louisville is committed to providing access to programs and services to programs and services for qualified students with disabilities. If you are a student with a disability and require accommodation to participate and complete requirements for this class,

notify the instructor immediately and contact the Disability Resource Center (502.852.6938) for verification of eligibility and determination of specific accommodations.

Attendance:

An essential element of a graduate student's professional development is the consistent demonstration of dependability and accountability. Therefore, students are expected to be present and on-time for all class meetings, clinical assignments (i.e., practicum), special seminars outside of scheduled classes, guest lectures, and laboratory sessions. Students are reminded to adhere to the attendance policy described in the Academic and Clinic Policy Manuals regarding excused absences. Any student who is absent from an academic or clinical assignment and has not been granted an excused absence will receive an unexcused absence and the student will receive a ZERO for any scheduled academic activity that is missed. The student may still be required to complete the scheduled learning activity or an alternate learning activity without receiving a grade, if deemed necessary by the course director in order to proceed through the remainder of the course.

Learning Objectives:

- #1. Identify anatomical structures associated with the respiratory, phonatory, resonatory, and articulatory subsystems of speech.
- #2. Describe the physiology of speech production (i.e., respiration, phonation, resonance, articulation) and swallowing.
- #3. Demonstrate basic comprehension of the neurological systems underlying speech production and swallowing.
- #4. Demonstrate knowledge of normal development and maturation of speech subsystems across the lifespan.
- #5. Synthesize knowledge about the speech mechanism to apply toward the comprehension of communication disorders.

Grading Scale:

A+	100%	B+	87-89%	C+	77-79%	D+	67-69%	F	0-59%
A	93-99%	B	83-86%	C	73-76%	D	63-66%		
A-	90-92%	B-	80-82%	C-	70-72%	D-	60-62%		

Course Activities:

- Exams = 50%
- Quizzes = 25% (online via Blackboard)
- Assignments = 25%

Tentative Schedule:

The following is a tentative schedule of topics which may vary somewhat in order to facilitate adequate coverage of course materials. Assignments are due to Blackboard by 11:59pm unless otherwise noted.

Meetings	Topics	Readings	Assignments/Topics Specified
#1	Syllabus Review; Basic Elements of Anatomy/Physiology	Chapter 1	
#2	Basic Elements of Anatomy/Physiology Continued	Chapter 1	Planes of Reference; Head/Neck Diagram
#3	Basic Elements of Anatomy/Physiology Continued	Chapter 1	5 Domains of Speech Sound Production/Why A&P in SLP; Quiz #1
#4	Respiration	Chapters 2-3; Supplemental	Pressure, Volume, and Boyle's Law
#5	Anatomy of Respiration	Chapters 2-3; Supplemental	Inspiratory/Expiratory Musculature
#6	Anatomy of Respiration Continued	Chapters 2-3; Supplemental	Quiz #2
#7	Physiology of Respiration Continued	Chapters 2-3; Supplemental	Respiratory Measurement
#8	Physiology of Respiration Continued	Chapters 2-3; Supplemental	Posture and Positioning

#9	Exam #1		
#10	Anatomy of Phonation	Chapters 4-5; Supplemental	Laryngeal Cartilages; Vocal Folds (Coronal View)
#11	Anatomy of Phonation Continued	Chapters 4-5; Supplemental	Intrinsic/Extrinsic Laryngeal Musculature
#12	Physiology of Phonation	Chapters 4-5; Supplemental	Vocal Fold Vibration and Sound Waveforms; Quiz #3
#13	Physiology of Phonation Continued	Chapters 4-5; Supplemental	Vocal Registers
#14	Exam #2		
#15	Anatomy/Physiology of Speech Sound Production and Resonance	Supplemental	Source-Filter Theory; Head/Neck Diagram; Bones of the Cranium
#16	Anatomy/Physiology of Speech Sound Production and Resonance Continued	Supplemental	Facial Bones
#17	Anatomy/Physiology of Speech Sound Production and Resonance Continued	Supplemental	Muscles of the Tongue and Velum; Dentition
#18	Anatomy/Physiology of Speech Sound Production and Resonance Continued	Supplemental	Mandible; Measurement of Articulatory Movements; Quiz #4
#19	Exam #3		
#20	Neuroanatomy	Chapter 7	Divisions; Nerve Cells
#21	Neuroanatomy Continued	Chapter 7	Cerebral Cortex; Subcortical Structures; Cerebellum
#22	Neuroanatomy Continued	Chapter 7	Brainstem; Spinal Cord; Cranial Nerves; Spinal Nerves; Quiz #5
#23	Neuroanatomy Continued	Chapter 7; Supplemental	Brain Blood Supply; Circle of Willis
#24	Neurophysiology	Chapter 7; Supplemental	Action Potentials
#25	Neurophysiology Continued	Chapter 7; Supplemental	Neuromuscular Junctions; Quiz #6
#26	Exam #4		
#27	Anatomy/Physiology of Hearing I	Chapter 9; Supplemental	Hearing; Hearing Loss
#28	Anatomy/Physiology of Hearing II	Chapter 9; Supplemental	Balance/Vestibular
#29	Exam #5		