

**SLHS 4704: AUDIOLOGICAL EVALUATION**  
**Speech-Language Pathology Prerequisites (SLPP) Program**  
**University of Colorado Boulder**

<b>CREDITS</b>	3
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**COURSE DESCRIPTION**

Studies basic principles and techniques of hearing evaluation, including pure-tone, speech, immittance, and advanced audiometry; hearing conservation in hospital, school, and industrial settings; and identification and evaluation of auditory pathologies. Required projects in screening and pure-tone audiometry.

**COURSE MODALITY**

SLHS 4704 is a fully online, asynchronous course delivered across the standard academic term. Instruction occurs through structured weekly modules, and students are required to progress according to scheduled release dates and assignment deadlines. Although there are no synchronous class meetings, the course is instructor-paced and follows the university semester calendar. The instructor will hold regular virtual office hours to provide additional support and clarification. Participation is optional, and recordings are made available for students who are unable to attend.

**COURSE LEARNING OBJECTIVES**

SLHS 4704: Audiological Evaluation will enable learners to:

1. Define the field of audiology and the audiology profession.
2. Identify basic anatomy and physiology of the ear.
3. Recognize disorders of the ear and associated hearing losses.
4. Identify basic audiometric testing procedures and interpret results obtained during a basic audiometric evaluation.

**COURSE ALIGNMENT MAP**

**Teaching Materials:** Slides & Video Lectures, Canvas Resources (course materials and support content), Review Guides (quiz preparation materials), Answer Keys (assignment and lab solutions)

**Required Texts** (e-text, used, and previous editions are acceptable):

1. Introduction to Audiology, Martin, F.N. and Clark, J.G. (13th ed.)

<b>MODULES</b>	<b>CONTENT/READING</b>	<b>MODULE/UNIT OBJECTIVES</b>
Unit 1: Aspects of Audiology	A. Introduction to the Profession B. Job Settings C. Educational and Professional Requirements Required Reading: Martin/Clark pp. 3-16	Define audiology Define the audiologist's scope of practice Summarize job settings in the field of audiology Describe audiology's professional and educational requirements
Unit 2: Anatomy and Physiology	A. Outer Ear B. Middle Ear C. Inner Ear/Auditory Nerve Required Reading: Martin/Clark pp. 223-230, pp. 245-251, pp. 279-290, & pp. 322-326	Describe the general anatomy of the hearing mechanism and its pathways of sound
Unit 3: Pathologies and Disorders	A. Outer Ear B. Middle Ear C. Inner Ear/Auditory Nerve Required Reading: Martin/Clark pp. 230-244, pp. 252-278, pp. 290-321, & pp. 326-338	List a variety of common disorders/pathologies that may affect the outer, middle, and inner ear Describe how common ear disorders/pathologies are caused and treated
Unit 4: Audiometric Testing	A. Case History B. Otoscopy C. Air Conduction Pure-tone Audiometry D. Bone Conduction Pure-tone Audiometry Required Reading: Martin/Clark pp. 40-100 & review figures and examples on pp. 228-230	Describe basic audiology case history and otoscopic procedures Describe the fundamentals underlying pure-tone audiometry and the components of a reliable audiogram
Unit 5: Pure-tone	A. Types/Degree/Configuration of Hearing Loss	List and describe the three types of hearing loss Interpret basic pure-tone tests

Interpretation & Speech Audiometry	B. Effects of Hearing Loss on Communication C. Speech Awareness Threshold D. Speech Recognition Threshold E. Word Recognition Testing Required Reading: Martin/Clark pp. 60-63 & pp. 101-132	Describe basic speech audiometry measures
Unit 6: Immittance Audiometry	A. Tympanogram B. Physical Volume Test (PVT) C. Acoustic Reflex Required Reading: Martin/Clark pp. 161-177	Discuss the principle and purpose of acoustic immittance testing Identify the expected immittance results for various ear disorders/pathologies
Unit 7: OAE & AEP	A. Otoacoustic Emissions B. Auditory Evoked Potentials Required Reading: Martin/Clark pp. 177-194 & 199-201	Describe how otoacoustic emissions are measured and what these measures can reveal about hearing function Describe how auditory evoked potentials are measured and what these measures can reveal about hearing function
Unit 8: Pulling It All Together	Required Reading: None Type, configuration, and degree of loss, expected immittance results (tympanogram type and physical volume measurement/ PVT), expected speech audiometry results, expected OAE and ABR results (would they be normal or abnormal), possible pathology (for example, if it is a sensorineural loss, it will be a pathology that affects the cochlea or VIIIth nerve such as presbycusis; if it is a conductive loss, it is a pathology that affects the outer or middle ear such as otitis media or cerumen impaction), is a medical referral or is a hearing aid recommended, and what sounds or parts of speech would individuals with certain losses hear or not hear.	Identify the probable results on auditory tests as they may relate to various ear disorders and degrees of hearing loss

### ASHA 2020 CERTIFICATION STANDARDS ADDRESSED IN THIS COURSE

This upper-division course provides foundational knowledge aligned with the American Speech-Language-Hearing Association (ASHA) 2020 KASA Standards, including:

- Standard IV-B: Biological, neurological, acoustic, psychological, developmental, linguistic, and cultural bases of human communication and swallowing across the lifespan.
- Standard IV-C: Characteristics of communication and swallowing disorders and differences, including the etiologies, signs and symptoms, and impact on individuals across the lifespan.

### COURSE REQUIREMENTS

You will complete the following assignments over the course of the semester:

Unit	Content	Graded Item	Points
Unit 1	Aspects of Audiology	Bio	5
		Thought Question	5
		Quiz/Test	10
Unit 2	Anatomy & Physiology	The Silent Child	5
		Quiz/Test	15
Unit 3	Pathologies & Disorders	Quiz/Test	20
Unit 4	Audiometric Testing	Simulation Website Activity	5
		Observation	5
		Quiz/Test	10
Unit 5	Pure-tone Interpretation and Speech Audiometry	Worksheet	5
		Quiz/Test	15
Unit 6	Immittance Audiometry	Observation	5

		Quiz/Test	15
Unit 7	OAE & ABR	Worksheet	5
		Quiz/Test	15
Unit 8	Pulling It All Together	Quiz/Test	20
		Total Points	160

## AUDIOLOGY OBSERVATIONS

Two of the units will require completing an observation of a posted audiology assessment. Each observation will be worth 5 points. An observation sheet must be completed for each session. These forms can be downloaded from the weekly unit in which they are due. Please complete as much of the form as possible and include all test results. Once you have recorded your observation, scan and submit it by clicking on the observation assignment link for that unit.

## GRADING SCALE

Grades are assigned based on the percentage of the total points earned and calculated using the following scale.

Letter Grade	A	A-	B+	B	B-	C+	C	C-	D+	D	D-	F
Percentage Grade *	93+-100	90- <93	87- <90	83- <87	80- <83	77- <80	73- <77	70- <73	67- <70	63- <67	60- <63	<60

\*< indicates less than

## SUBMISSION POLICIES

Assignments and quizzes are submitted in Canvas and due on the date posted in Canvas. Late submissions will be reduced by 25% of the total possible points per day late (i.e., on the 4th day late, the submission is worth 0 points).

## COURSE PLAGIARISM POLICY

Students should submit their own work in this course. Review Honor Code and Student Conduct for University policies.

## GENERATIVE ARTIFICIAL INTELLIGENCE (AI) COURSE POLICY

Students should not use AI tools during quizzes. Students should give credit to AI tools when used on assignments.

## INCLUSIVITY

This course is committed to creating a learning environment where everyone feels respected, valued, and supported. Diverse perspectives, identities, and experiences strengthen our learning community, and all students are encouraged to participate fully. We strive to maintain a classroom culture that is accessible, inclusive, and free from discrimination. If you encounter barriers to your learning or have needs that are not being met, please reach out so we can work together to ensure your success.

## UNIVERSITY POLICIES

### Honor Code

All students enrolled in a University of Colorado Boulder course are responsible for knowing and adhering to the [Honor Code](#). Violations of the Honor Code may include but are not limited to: plagiarism (including use of paper writing services or technology [such as essay bots]), cheating, fabrication, lying, bribery, threat, unauthorized access to academic materials, clicker fraud, submitting the same or similar work in more than one course without permission from all course instructors involved, and aiding academic dishonesty. Understanding the course's syllabus is a vital part of adhering to the Honor Code. All incidents of academic misconduct will be reported to Student Conduct & Conflict Resolution: [StudentConduct@colorado.edu](mailto:StudentConduct@colorado.edu). Students found responsible for violating the Honor Code will be assigned resolution outcomes from Student Conduct & Conflict Resolution and will be subject to academic sanctions from the faculty member. Visit [Honor Code](#) for more information on the academic integrity policy.

### Accommodation for Disabilities, Temporary Medical Conditions, and Medical Isolation

If you qualify for accommodations because of a disability, please submit your accommodation letter from Disability Services to your faculty member in a timely manner so that your needs can be addressed. Disability Services determines accommodations based on documented disabilities in the academic environment. Information on requesting accommodations is located on the [Disability Services website](#). Contact Disability Services at 303-492-8671 or [DSinfo@colorado.edu](mailto:DSinfo@colorado.edu) for further assistance. If you have a temporary medical condition, see [Temporary](#)

[Medical Conditions](#) on the Disability Services website. If you have a temporary illness, injury or required medical isolation for which you require adjustment, please contact the instructor as soon as possible.

### **Accommodation for Religious Obligations**

Campus policy requires faculty to provide reasonable accommodations for students who, because of religious obligations, have conflicts with scheduled exams, assignments, or required attendance. Please communicate the need for a religious accommodation in a timely manner. See the [campus policy regarding religious observances](#) for full details.

### **Preferred Student Names and Pronouns**

CU Boulder recognizes that students' legal information does not always align with how they identify. If you wish to have your preferred name (rather than your legal name) and/or your preferred pronouns appear on your instructors' class rosters and in Canvas, visit the [Registrar's website](#) for instructions on how to change your personal information in university systems.

### **Classroom Behavior**

Students and faculty are responsible for maintaining an appropriate learning environment in all instructional settings, whether in person, remote, or online. Failure to adhere to such behavioral standards may be subject to discipline. Professional courtesy and sensitivity are especially important with respect to individuals and topics dealing with race, color, national origin, sex, pregnancy, age, disability, creed, religion, sexual orientation, gender identity, gender expression, veteran status, marital status, political affiliation, or political philosophy.

Additional classroom behavior information

- [Student Classroom and Course-Related Behavior Policy.](#)
- [Student Code of Conduct.](#)
- [Office of Institutional Equity and Compliance.](#)
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### **Sexual Misconduct, Discrimination, Harassment and/or Related Retaliation**

CU Boulder is committed to fostering an inclusive and welcoming learning, working, and living environment. University policy prohibits [protected-class](#) discrimination and harassment, sexual misconduct (harassment, exploitation, and assault), intimate partner abuse (dating or domestic violence), stalking, and related retaliation by or against members of our community on- and off-campus. The Office of Institutional Equity and Compliance (OIEC) addresses these concerns, and individuals who have been subjected to misconduct can contact OIEC at 303-492-2127 or email [OIEC@colorado.edu](mailto:OIEC@colorado.edu). Information about university policies, [reporting options](#), and [OIEC support resources](#) including confidential services can be found on the [OIEC website](#). Please know that faculty and graduate instructors are required to inform OIEC when they are made aware of incidents related to these concerns regardless of when or where something occurred. This is to ensure the person impacted receives outreach from OIEC about resolution options and support resources. To learn more about reporting and support a variety of concerns, visit the [Don't Ignore It page](#).

### **Mental Health and Wellness**

The University of Colorado Boulder is committed to the well-being of all students. If you are struggling with personal stressors, mental health or substance use concerns that are impacting academic or daily life, please contact [Counseling and Psychiatric Services \(CAPS\)](#), located in C4C, or call (303) 492-2277, 24/7.