

# SLHS 4704: Audiological Evaluation

University of Colorado - Boulder

Department of Speech, Language, and Hearing Sciences

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**Course Mode:** Online via Desire2Learn (D2L)  
<https://learn.colorado.edu/>  
**Credit Hours:** 3

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## COURSE DESCRIPTION

Studies basic principles and techniques of hearing evaluation, including pure-tone, speech, immittance, and advanced audiometry; the profession of audiology; and identification and evaluation of auditory pathologies. Audiologic observations required.

## COURSE PURPOSE

My goal for this course is to give you a better perspective of audiology and provide you with information in the field that you can use wherever your career path takes you.

## LEARNING OUTCOMES

Upon successful completion of this course, students will be able 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 audiometric evaluation.

## COURSE OUTLINE

Unit 1: Aspects of Audiology

- A. Introduction to the Profession
- B. Job Settings
- C. Educational and Professional Requirements

Required Reading: Martin/Clark pp. 3-15 (12<sup>th</sup> ed.)

Unit 2: Anatomy and Physiology

- A. Outer Ear
- B. Middle Ear
- C. Inner Ear/Auditory Nerve

Required Reading: Martin/Clark pp. 217-224, pp. 238-245, pp. 273-286, & pp. 315-319 (12<sup>th</sup> ed.)

Unit 3: Pathologies and Disorders

- A. Outer Ear
- B. Middle Ear
- C. Inner Ear/Auditory Nerve

Required Reading: Martin/Clark pp. 224-237, pp. 245-272, pp. 286-314, & pp. 319-342 (12<sup>th</sup> ed.)

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. 221-223 (fig. 9.4, 9.5, 9.6, & 9.7) & pp. 54-97 (12<sup>th</sup> ed.)

Unit 5: Pure-tone Interpretation & Speech Audiometry

- A. Types/Degree/Configuration of Hearing Loss
- B. Affects of Hearing Loss on Communication
- C. Speech Awareness Threshold
- D. Speech Recognition Threshold
- E. Word Recognition Testing

Required Reading: Martin/Clark pp. 18-20 & pp. 98-125 (12<sup>th</sup> ed.)

Unit 6: Immittance Audiometry

- A. Tympanogram
- B. Physical Volume Test (PVT)
- C. Acoustic Reflex

Required Reading: Martin/Clark pp. 150-165 (12<sup>th</sup> ed.)

Unit 7: OAE & AEP

- A. Otoacoustic Emissions
- B. Auditory Evoked Potentials

Required Reading: Martin/Clark pp. 165-180 & 191-192 (12<sup>th</sup> ed.)

Unit 8: Pulling It All Together

Required Reading: None

**COURSE REQUIREMENTS AND POINTS**

Each unit you will have a textbook reading that provides the foundation for the factual course content, along with a PowerPoint (PPT) &/or handouts to supplement the information in the text. Some units require completion of activities, such as thought questions, worksheets, and observations, which help incorporate and pull together concepts presented in that unit's materials. In addition, the required audiology observations let you see some of the concepts in action. The quizzes will assess your learning of the factual course content. Each unit will be worth a total of 20 points. Assignments and exams necessary to obtain these points are described within each unit and are summarized in the Unit Objectives and Schedule link and in the following table:

Unit/Week	Graded Item	Points
Unit 1	Bio	5
	Thought Question	5
	Test	10
Unit 2	Observation	5
	Test	15
Unit 3	Test	20
Unit 4	Website Activity	5
	Observation	5
	Test	10
Unit 5	Worksheet	5
	Test	15
Unit 6	Observation	5
	Test	15
Unit 7	Test	20
Unit 8	Observation	5
	Test	15

	Total Points	160
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All assignments and exams must be completed and submitted for that unit BY MIDNIGHT ON SUNDAY at the end of the week for that specific unit. Assignments for the last unit will be accepted until midnight on Thursday of the last week for that unit. Dates indicating when specific units will become available are noted on both D2L and the course syllabus. Once available, the material in that unit will remain accessible for the duration of the course. Points for completed assignments and tests will be posted on D2L. It is my goal to have items graded and points posted within 48 hours following the due date. It is the student's responsibility to monitor these points and notify me in a timely manner if there are any discrepancies. We realize that sometimes things can be lost in electronic transmission during courses offered in an online format. Please save copies of submitted assignments and observations.

### Course Grade:

150 - 160 points = A  
144 - 149 points = A-  
139 - 143 points = B+  
134 - 138 points = B  
128 - 133 points = B-  
123 - 127 points = C+  
118 - 122 points = C  
112 - 117 points = C-  
96 - 111 points = D  
95 & below = F

### AUDIOLOGY OBSERVATIONS

Four hours of audiology observation are required for this course. You will need to contact an audiologist in your area and request permission to observe audiometric evaluations, hearing aid fittings, &/or aural rehabilitation in their clinical setting. Observation sheets must be filled out to document all four hours. Please attempt to complete as much of the form as possible. Occasionally, it may be necessary to modify your answers if the session you are observing doesn't follow the traditional hearing evaluation format. For example, if you watch a hearing aid fitting, you may not have the audiometric test results available to fill in the audiogram. So, instead, just describe what you observed during the session.

You may do all four hours at one time or divide them into four different sessions. Early observations will be accepted, but points will be deducted if they are handed in late. Failure to complete all four observations will result in a lowering of the final grade by one letter. If you are having difficulty scheduling observations or finding a local audiologist in your area, let your instructor know prior to the due date of that observation so alternative arrangements can be made.

### SOME UNIVERSITY POLICIES

#### *Disabilities*

If you qualify for accommodations because of a disability, please submit to me a letter from Disability Services in a timely manner so that your needs will be addressed. Disability Services determines accommodations based on documented disabilities. Contact: 303-492-8671 or by e-mail @ [dsinfo@colorado.edu](mailto:dsinfo@colorado.edu). If you have a temporary medical condition or injury, see guidelines at <http://www.colorado.edu/disabilityservices/go.cgi?select=temporary.htm>.

#### *Religious Observances*

Campus policy regarding religious observances requires that faculty make every effort to deal reasonably and fairly with all students who, because of religious obligations, have conflicts with scheduled exams, assignments or required attendance. Please let me know as soon as possible about any conflicts. Exams will be available over a 2-day period in order to try to reduce this possibility. See full details at [http://www.colorado.edu/policies/fac\\_relig.html](http://www.colorado.edu/policies/fac_relig.html).

#### *Learning Environment*

Students and faculty each have responsibility for maintaining an appropriate learning environment. Those who fail 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 differences of race, culture, religion, politics, sexual orientation, gender, gender variance, and nationalities. Class rosters are provided to the instructor with the student's legal name. I will gladly honor your request to address you by an alternate name or gender pronoun. Please advise me of this preference early in the semester so that I may make appropriate changes. See policies at <http://www.colorado.edu/policies/classbehavior.html> and at <http://www.colorado.edu/studentaffairs/judicialaffairs/code.html#studentcode>.

#### *Discrimination & Harassment*

The University of Colorado at Boulder policy on Discrimination and Harassment, the University of Colorado policy on Sexual Harassment and the University of Colorado policy on Amorous Relationships apply to all students, staff and faculty. Any student, staff or faculty member who believes s/he has been the subject of sexual harassment or discrimination or harassment based upon race, color, national origin, sex, age, disability, creed, religion, sexual orientation, or veteran status should contact the Office of Discrimination and Harassment (ODH) at 303-492-2127 or the Office of Judicial Affairs at 303-492-5550. Information about the ODH, the above referenced policies and the campus resources available to assist individuals regarding discrimination or harassment can be obtained at <http://www.colorado.edu/odh>.

#### *Academic Honesty*

All students of the University of Colorado at Boulder are responsible for knowing and adhering to the academic integrity policy of this institution. Violations of this policy may include: cheating, plagiarism, aid of academic dishonesty, fabrication, lying, bribery, and threatening behavior. All incidents of academic misconduct shall be reported to the Honor Code Council ([honor@colorado.edu](mailto:honor@colorado.edu); 303-735-2273). Students who are found to be in violation of the academic integrity policy will be subject to both academic sanctions from the faculty member and non-academic sanctions (including but not limited to university probation, suspension, or expulsion). Other information on the Honor Code can be found at <http://www.colorado.edu/policies/honor.html> and at <http://www.colorado.edu/academics/honorcode/>.