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CSD 222.01: Introduction to Audiology

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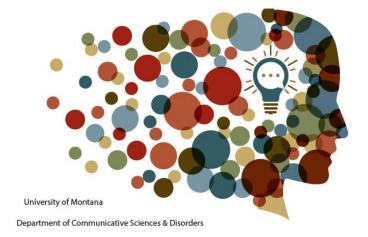
Communication. Innovation. Transformation.

CSD 222: Introduction to Audiology

Fall 2022 | 3 credits Tues. and Thurs. at 6pm-7:20pm Curry 008

Contact Information

Kevin Duffy, Au.D Email: kevin.duffy@mso.umt.edu Appointments: Please schedule



Course Catalogue Description

CSD 222 – Introduction to the principles of acoustics as a basis for understanding hearing assessment. Development of ability to interpret audiograms as well as the results from a hearing evaluation. Includes pure, tone audiometry, speech audiometry, acoustic immittance and acoustic reflex testing. Hearing screening procedures are also included.

Course Format

This course is offered in a lecture format. Each week invites active student engagement in several types of activities, including reflecting on the readings and lectures, engaging in discussions, and completing individual assignments.

Course Objectives

Meets the following requirements for ASHA Certification in Speech-Language Pathology and Audiology:

- III-B Demonstrate knowledge of basic human communication and swallowing processes, including their biological, neurological, acoustic, psychological, developmental, and linguistic and cultural bases.
- III-C Demonstrate knowledge of the nature of speech, language, hearing, and communication disorders and differences and swallowing disorders, including their etiologies, characteristics, anatomical/physiological, acoustic, psychological, developmental, and linguistic and cultural correlates.
- III-D Possess knowledge of the principles and methods of prevention, assessment, and intervention for people with communication and swallowing disorders, including consideration of anatomical/physiological, psychological, developmental, and linguistic and cultural correlates of the disorders).

Upon successful completion of this course, students will be able to:

1. Describe the physical and psychological properties of sound (III-B)

- 2. Recall basic anatomy and physiology of the auditory system (III-B)
- 3. Identify basic diagnostic and screening procedures of the auditory mechanism (III-D)
- 4. Perform basic audiometric tests in a virtual environment (III-D)
- 5. Interpret basic audiometric test findings (III-C, III-D)
- 6. Identify site-of-lesion and specialty tests in audiology (III-D)
- 7. Recognize common auditory (and related) disorders (III-C)
- 8. Discuss basic approaches to managing auditory (and related) disorders (III-D)

Course Guidelines and Policies

Required Textbook

The text is offered in digital format (listed below).

Hall, James W. Introduction to Audiology Today, Pearson, New Jersey. 2014 ISBN-13: 9780133347890

Required readings and materials will be posted throughout the term on the course website (Moodle). In addition, several sessions will involve interaction with media. Please follow the detailed course information that will be released each week on Moodle.

Virtual Audiometer

A virtual audiometer simulator is available on the <u>audsim.com</u> website. This simulator offers ample opportunity for practice and guidance to build student confidence with this skill. Using the simulator is encouraged but not required. Additional information is available on Moodle regarding the simulator.

Assignment Submission Format

All written assignments must be submitted in Word format. This will allow for instructor feedback directly in the document for student review. References should be formatted in accordance with the Publication Manual of the American Psychological Association.

Absences

Students must notify Dr. Duffy of serious circumstances that result in a missed exam or final to be considered for rescheduling. Should an unforeseen event such as hospitalization or family emergency result in missing an exam, students must consult with Dr. Duffy regarding possible accommodations to be determined at the discretion of the instructor; furthermore, students may be asked to provide written verification of the circumstances.

Late assignments

Work submitted late will result in the reduction of 5 percent per day the assignment is late. Students are encouraged to turn assignments in on-time.

Academic Honesty

Students are expected to adhere to academic conduct policies of the University of Montana as explained in Section V of your University of Montana Student Conduct Code: "Academic misconduct is subject to an academic penalty by the course instructor and/or a disciplinary sanction by the University. Academic misconduct is defined as all forms of academic dishonesty, including but not limited to: (1) plagiarism, (2) misconduct during an examination or academic exercise, (3) unauthorized possession of examination or other course materials, (4) tampering with course materials, (5) submitting false information, (6) submitting work previously presented in another course, (7) improperly influencing conduct, (8) substituting, or arranging substitution, for another student during an examination or other academic exercise, (9) facilitating academic dishonesty, and (10) Altering transcripts, grades, examinations, or other academically related documents."

Plagiarism

Plagiarism is further defined in the University of Montana's Student Conduct Code as "Representing another person's words, ideas, data, or materials as one's own." Students must acknowledge the work of others using appropriate referencing procedures as described in the APA Manual. Students may be penalized for plagiarism under academic misconduct policies, which may include disciplinary sanctions, suspension, or expulsion.

Grades Examinations (100 points for midterm; 200 for final)

Understanding of the course material will be assessed with two examinations. Exams will be based on materials from the videos, course materials, websites, readings, and assignments. Exams will be in the form of multiple choice, short answer and written essays.

Literature Review (50 points each)

To gain a better understanding of the material, each student will submit two journal review papers. The papers will cover two separate main topics: (1) pathologies of the hearing system and (2) rehabilitation of hearing loss. Beyond that, the student can choose the subtopic most interesting to him/her. Each paper will be 2-4 pages and will cite at least one peer reviewed journal. Further details are posted on Moodle.

Participation (100 points total)

Students are expected to participate in class discussions, Moodle forums, written exercises, and simulation activities. These activities will occur throughout the term, during each class session. Students will not be able to make-up participation points if activities are missed. Absent students obviously cannot participate as expected, therefore absences WILL affect the class participation grade. Attendance will be taken at each session to aid the instructor in this regard. Participation in class discussions and forums will be graded based on the quality, thoughtfulness and overall contribution to the class. One-word responses and "cheerleading" (such as "good

job", "nice work", etc.) are NOT considered to be a quality contribution and will not be given credit. Voluntarily answering questions and offering insights in class are a good way to gain class participation points. Speaking in class will be weighted heavily in the overall participation grade.

Grading Criteria

Students may earn a total of 500 points from exams, assignments, and participation. The grading scale is as follows:

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

Calendar

Please see the following table for an overview of course sessions, topics, and deadlines. Assignments, exams and papers will be due no later than 5:00 PM on the date they are listed.

CSD 222 Fall 2021: Tentative Class Calendar is subject to change as needed. On the days listed "Bozeman," I will be in Bozeman for clinic. I will pre-record lectures or provide a reading.

Week	Dates	Topic and Readings	Due
01	08/30 and 09/01	Course introduction; Audiology as a	Read Chapter 1
		Profession	
02	09/06 and 09/08	Properties of Sound/Acoustics	Read Chapter 2
03	09/13 and 09/15	Bozeman (9/13); The Hearing Mechanism	Read Chapter 3
		(Outer and Middle Ear);	
04	09/20 and 09/22	The Hearing Mechanism (Inner ear and	Read Chapter 3
		"Brain Hearing")	
05	09/27 and 09/29	Types of Hearing Loss; Introduction to	Pathologies Lit
		Hearing Assessment	Review Due (29 th)
06	10/04 and 10/06	Hearing Assessment Part 1 and	Read Chapter 4
		Interpretation Part 1	
07	10/11 and 10/13	Bozeman (10/11); Assessment Part 2	Reach Chapters 5,
			6, and 7

08	10/18 and 10/20	Interpretation Part 2; MID-TERM	Reach Chapters 8
			and 9
09	10/25 and 10/27	Hearing Disorders	Read Chapter 11
10	11/01 and 11/03	Masking	Read Chapter 11
			and 7 (masking)
11	11/08 and 11/10	Election Day, No class (11/08) Masking	
		Cont'd	
12	11/15 and 11/17	Intro to Rehab- Hearing Aids	
13	11/22 and 11/24	Bozeman (11/22) Introduction to Rehab-	Read Chapter 13
		Bone Conduction Devices; Thanksgiving	
		Day-no class on Thursday 11/24	
14	11/29 and 12/01	Introduction to Rehab- Cochlear Implants	Rehabilitation Lit
14	11/29 and 12/01	introduction to Kenao- Cocinear implants	Review Due 12/01
14	12/06 and 12/08	Management Techniques	Read Chapter 16
15	12/13 and 12/15	Management Techniques con'd; FINAL	
		EXAM (12/15)	

Student Resources

Please see the course Moodle shell for a list of campus resources available to help students be successful across UM courses. UM provides a wide range of supports for tutoring, financial, and personal development.

Place of Course in Program

Purpose

The purpose of this three-credit course is to provide students with a working knowledge of the profession of audiology. This includes common test practices and treatment options. The students will be able to understand the hearing mechanism, various types of hearing loss and will be able to interpret basic auditory tests. Students will be able to perform basic audiograms using a portable audiometer. The course fulfills the introduction to audiology course requirement for a major in Communicative Sciences and Disorders.

Conceptual Framework for Learning Community and Diversity

As part of the Phyllis J. Washington College of Education and Human Sciences, this course provides a learning community that a) integrates ideas, b) encourages cooperative endeavors and c) respects diversity and individual worth. These concepts are illustrated through the following course experiences: a) drawing on personal experiences and education for the completion of problem solving assignments and discussions, b) participating in online forums where interactions will be based on course concepts and c) writing assignments using a culturally unbiased manner and participating in course content related to services with individuals from diverse backgrounds.

Mission of the School of Speech, Language, Hearing, and Occupational Sciences

The mission of the School of Speech, Language, Hearing & Occupational Sciences is to prepare students for progressive, collaborative, and research-minded careers in speech-language pathology, audiology, and related fields through rigorous academic and clinical training. We strive to be innovative in the use of technology and program delivery to provide services to traditionally under-served regions and populations. Through our emphasis on typical and atypical speech, language, cognition, swallowing, and hearing function, students gain knowledge and skills along with ethical and culturally competent values that foster a commitment to lifelong learning and civic engagement.

Disability Modifications

Students with disabilities may request reasonable modifications by contacting me. The University of Montana assures equal access to instruction for students with disabilities in collaboration with instructors and the Office for Disability Equity, which is located in Lommasson Center 154. The University does not permit fundamental alterations of academic standards or retroactive modifications. https://www.umt.edu/disability/

COVID Safety

- Mask use is required within the classroom
- Each student is provided with a cleaning kit. The expectation is that students will clean their personal work space when they arrive for class, and before they leave the classroom
- Classrooms may have one-way entrances / exits to minimize crowding
- Students should be discouraged from congregating outside the classroom before and after class Specific seating arrangements will be used to ensure social distancing and support contact tracing efforts
- Class attendance will be recorded to support contact tracing efforts
- Drinking liquids and eating food is discouraged within the classroom (which requires mask removal)
- Information on the nearest "refill" stations for cleaning supplies/hand sanitizer if applicable
- Stay home if you feel sick and/or if exhibiting COVID-19 symptoms
- If the student is sick or displaying symptoms, please contact the Curry Health Center at (406) 243-4330
- Up-to-Date COVID-19 Information from the University of Montana
- UM Coronavirus Website: https://www.umt.edu/coronavirus
- UM COVID-19 Fall 2020 website: https://www.umt.edu/coronavirus/fall2020.php

COVID-19 Procedures for SLHOS – August 2021 Updates:

- 1. The UM **requires face masks** for all indoor courses including lectures, discussions, and teaching labs. Lecturers may remove their masks when speaking.
- 2. For Campus-based courses (i.e., not fully online or hybrid distance courses), the mode of delivery is face-to-face instruction. There is an expectation that students are attending in-person classes and not connecting via Zoom (unless they have ADA accommodation

- or health reason). It is expected that the instructor keeps original modality. Any changes in course modality will need to be approved by the Dean.
- 3. The UM would like assigned seating and attendance information in the event there is a need to do **contact tracing**. Lacking some method for identifying who is seated near someone who is positive, the entire class could be quarantined. This could clearly impact multiple courses in the SLHOS programs if that occurs. For classes in the Curry Health 008 and 073 classrooms, here are some specific recommendations.
- Students should choose a seat to use all semester. Every-other-chair seating is requested whenever possible; cleaning the area before and after class is recommended.
 - 4. **Missed classes due to Covid-19**: Campus does not require instructors to provide zoom or recorded lectures just because a student requests it. It does say students who miss class due to isolation or quarantine should be given accommodations similar to what is usually done for a medical absence.

Land Acknowledgement

The University of Montana acknowledges that we are in the aboriginal territories of the Salish and Kalispel people, a number of whom our within our community today. Today, we honor the path they have always shown us in caring for this place for the generations to come.