



Course Syllabus

# Audiology Rehabilitation/Habilitation

**HESP**

**635**

**Summer 2019**

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Office Hours: by  
appointment

Meeting Time: Mon-Wed (mostly), 3:15 pm to 6:30 pm  
Meeting Location: Susquehanna Hall, Room 2120

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## **Learner Outcomes\***

This course introduces students to the theories and procedures used to provide aural/audiological rehabilitation to children and adults who have hearing loss and to provide concomitant services to their family members. Students will develop competencies in the following areas:

Knowledge and understanding of basic concepts and components of aural/audiological rehabilitation.

1. Demonstrate knowledge of assessment procedures for determining aural rehabilitation needs, including means for assessing hearing status, auditory, visual, and audiovisual speech recognition, hearing-related disabilities, and conversational fluency.
2. Demonstrate knowledge of cultural and linguistic factors that may affect your aural rehabilitation programs.
3. Describe the role of auditory and visual cues in spoken communication.
4. Develop aural rehabilitation plans for children, adults, and their family members.
5. Describe elements of counseling, psychosocial support, and assertiveness training.
6. Describe the evidence for auditory neuroplasticity across the lifespan.

\*See p. 7 for the Audiology Knowledge and Skills addressed by specific learning outcomes

## **RECOMMENDED READING**

Nancy Tye-Murray (2018). *Foundations of Aural Rehabilitation: Children, Adults, and Their Family Members (5th ed.)*, Plural Publishing

# Course Schedule

## Reduction of disability and hearing handicap

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| May 28  | <p><u>Introduction, World Health Organization (WHO), Evidence-based practice</u><br/>           Kahoot!<br/>           Class introduction<br/>           Class discussion<br/>           Case studies<br/>           Evidence-based literature searches<br/>           Readings:</p> <ul style="list-style-type: none"> <li>• Chapter 1, Tye-Murray</li> <li>• <u>Research article:</u> Henshaw, H., and Ferguson, M. A. (2013). "Efficacy of individual computer-based auditory training for people with hearing loss: a systematic review of the evidence," PLoS ONE 8, e62836.</li> </ul> <p>➤ <u>Post on-line discussion article:</u> Hamilton, M.-B., Mont, E. V., McLain, C. (2018). <b>Deletion, omission, reduction: Redefining the language we use to talk about African American English. Perspectives of the ASHA Special Interest Groups, 3, 107-117. (Samira)</b></p> |
| June 3  | <p><u>Listening devices and related technology</u><br/>           Kahoot!<br/>           Class discussion<br/>           Case studies<br/>           Start working on ALD presentations<br/>           Readings:</p> <ul style="list-style-type: none"> <li>• Chapter 3, Tye-Murray</li> <li>• <u>Research article:</u> Atcherson, S. R., Franklin, C. A., and Smith-Olinde, L. (2015). Hearing assistive and access technology (Plural Publishing)</li> </ul> <p>➤ <u>Post on-line discussion article:</u> Nieman, C. L., Marrone, N., Szanton, S. L., et al. (2016). <b>Racial/ethnic and socioeconomic disparities in hearing health care among older Americans. Journal of Aging and Health, 28, 68-94. (Janani)</b></p>   |
| <b>June 4</b>   | <p>➤ <b>Discussion responses due for Hamilton et al. (2018)</b></p>  |
| June 5  | <p><u>Auditory-Only Speech Perception and Auditory Training</u><br/>           Kahoot!<br/>           Class discussion<br/>           Class activities: Research AT programs, vocoder activity<br/>           Case studies<br/>           Readings:</p> <ul style="list-style-type: none"> <li>• Chapter 4, Tye-Murray</li> <li>• <u>Research article:</u> Ferguson, M. A., Henshaw, H., Clark, D. P., and Moore, D. R. (2014). "Benefits of phoneme discrimination training in a randomized controlled trial of 50- to 74-year-olds with mild hearing loss," Ear Hear 35, e110-121.</li> </ul>  |
| June 6<br><br>In-class activities<br><br><br><br><br><br><br><br><br><br>Outside activities | <p><u>Audiovisual Speech Perception and Speechreading Training</u><br/>           Kahoot!<br/>           Class discussion<br/>           ALD Presentations<br/>           Class activities: Research speech reading programs, Speech-reading assessment<br/>           Case studies<br/>           Readings:</p> <ul style="list-style-type: none"> <li>• Chapter 5, Tye-Murray</li> <li>• <u>Research articles:</u></li> <li>• Lewis, D. E., Smith, N. A., Spalding, J. L., and Valente, D. L. (2018). "Looking behavior and audiovisual speech understanding in children with normal</li> </ul>  |

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|  | <p>hearing and children with mild bilateral or unilateral hearing loss," Ear Hear 39, 783-794.</p> <ul style="list-style-type: none"> <li>• Cohen, J. I., and Gordon-Salant, S. (2017). "The effect of visual distraction on auditory-visual speech perception by younger and older listeners," J Acoust Soc Am 141, E1470.</li> </ul> <p>➤ <b>Post on-line discussion article:</b> Flores, P., Martin, F. N., Champlin, C. A. (1996). <b>Providing audiological services to Spanish speakers.</b> <i>American Journal of Audiology</i>, 5, 69-73. (Jennifer)</p>   |
| <b>Communication Strategies</b>                |   |
| June 10  | <p><u>Communication Strategies and Conversational Styles</u></p> <p>Kahoot!</p> <p>Class discussion</p> <p>Role play activities</p> <p>Case studies</p> <p>Readings:</p> <ul style="list-style-type: none"> <li>• Chapter 6, Tye-Murray</li> <li>• <u>Research article:</u> Caissie, R., Campbell, M. M., Frenette, W. L., et al. (2005). Clear speech for adults with a hearing loss: does intervention with communication partners make a difference? <i>J Am Acad Audiol</i>, 16, 157-171.</li> </ul> <p>➤ <b>Post on-line discussion article:</b> Harris, J. L., Fleming, V. B., Harris, C. L. (2012). <b>A focus on health beliefs: What culturally competent clinicians need to know.</b> <i>Perspectives on Communication Disorders and Sciences in Culturally and Linguistically Diverse (CLD) Populations</i>, 19, 40-48. (Kathryn)</p> <p>➤ <b>Discussion responses due for Nieman et al (2016)</b></p> |
| June 12  | <p><u>Assessment of Conversational Fluency and Communication Difficulties</u></p> <p>Kahoot!</p> <p>Class discussion</p> <p>Create daily log</p> <p>Mock discussion of communication difficulties</p> <p>Readings:</p> <ul style="list-style-type: none"> <li>• Chapter 7, Tye-Murray</li> </ul> <p>➤ <b>Post on-line discussion article:</b> Jones, R. (2009). <b>Acquisition of information and the utilization of hearing health care services and related hearing aid technologies by parents of deaf and severely hard of hearing children.</b> <i>ECHO</i>, 4, 6-23. (Calli)</p>  |
| <b>June 13</b>                                 | ➤ <b>Discussion responses due for Flores et al. (1996)</b>  |
| <b>June 17</b>                                 | ➤ <b>Discussion responses due for Harris et al. (2012)</b>  |
| June 19  | <p><u>Communication strategies training, counseling, psychosocial report</u></p> <p>Kahoot!</p> <p>Class discussion</p> <p>Role play informational and affective counseling</p> <p>Readings:</p> <ul style="list-style-type: none"> <li>• Chapter 9, Tye-Murray</li> <li>• <u>Research article:</u> Barker, A. B., Leighton, P., and Ferguson, M. A. (2017). "Coping together with hearing loss: a qualitative meta-synthesis of the psychosocial experiences of people with hearing loss and their communication partners," <i>Int J Audiol</i> 56, 297-305.</li> </ul> <p>➤ <b>Discussion responses due for Jones (2009)</b></p> <p>➤ <b>ALD presentations</b></p>  |
| <b>Aural Rehabilitation/Habilitation Plans</b> |   |
| June 20  | <p><u>Aural rehabilitation for adults</u></p> <p>Kahoot!</p> <p>Class discussion</p>  |

|         |  |
|---------|--|
|         | <p>Work on rehabilitation plan</p> <p>Readings:</p> <ul style="list-style-type: none"> <li>• Chapter 10, Tye-Murray</li> <li>• <u>Research article</u>: Barcroft, J., Spehar, B., Tye-Murray, N., et al. (2016). Task- and Talker-Specific Gains in Auditory Training. <i>J Speech Lang Hear Res</i>, 59, 862-870.</li> </ul> <p>➤ <u>Post on-line discussion article</u>: Calendruccio, L. (2010). Sentence recognition for non-native speakers: Researchers reduce linguistic bias in audiology assessment. <i>The ASHA Leader</i>, 15, 5-6. (Mary)</p>  |
| June 24 | <p><u>Aural rehabilitation for older adults</u></p> <p>Kahoot!</p> <p>Class discussion</p> <p>Work on rehabilitation plan</p> <p>Readings:</p> <ul style="list-style-type: none"> <li>• Chapter 11, Tye-Murray</li> <li>• <u>Research article</u>: Michaud, H. N., Duchesne, L. (2017). Aural rehabilitation for older adults with hearing loss: Impacts on quality of life-a systematic review of randomized controlled trials. <i>J Am Acad Audiol</i>, 28, 596-609.</li> </ul> <p>➤ <u>Post on-line discussion article</u>: Simpson, A. N., Matthews, L. J., Cassarly, C., et al. (2019). Time from hearing aid candidacy to hearing aid adoption: A longitudinal cohort study. <i>Ear Hear</i>, 40, 468-476. (Caitlin)</p>   |
| June 26 | <p><u>Aural rehabilitation for children</u></p> <p>Kahoot!</p> <p>Class discussion</p> <p>Work on rehabilitation plan</p> <p>Readings:</p> <ul style="list-style-type: none"> <li>• Chapters 13-14, Tye-Murray</li> <li>• <u>Research article</u>: Loo, J. H., Rosen, S., Bamiau, D. E. (2016). Auditory training effects on the listening skills of children with auditory processing disorder. <i>Ear Hear</i>, 37, 38-47.</li> </ul> <p>➤ <b>Communication options debate</b></p> <p>➤ <u>Post on-line discussion article</u>: Bunta, F., Douglas, M., Dickson, H., et al. (2016). Dual language versus English-only support for bilingual children with hearing loss who use cochlear implants and hearing aids. <i>International Journal of Language &amp; Communication Disorders</i>, 51, 460-472. (Rachel)</p>   |
| June 27 | <p>➤ <b>Discussion responses due for Calendruccio (2010)</b></p>   |
| July 1  | <p><u>Neuroplasticity across the lifespan</u></p> <p>Kahoot!</p> <p>Class discussion</p> <p>Work on rehabilitation plan</p> <p>Readings:</p> <p><u>Research articles</u>:</p> <ul style="list-style-type: none"> <li>• Anderson, S., Jenkins, K. (2015). Electrophysiologic assessment of auditory training benefits in older adults. <i>Semin Hear</i>, 36, 250-262.</li> <li>• Tzounopoulos, T., Balaban, C., Zitelli, L., et al. (2019). Towards a Mechanistic-Driven Precision Medicine Approach for Tinnitus. <i>Journal of the Association for Research in Otolaryngology</i>, 20, 115-131.</li> <li>• Kuchinsky, S. E., Ahlstrom, J. B., Cute, S. L., et al. (2014). Speech-perception training for older adults with hearing loss impacts word recognition and effort. <i>Psychophysiology</i>, 51, 1046-1057.</li> </ul> <p>➤ <b>Discussion responses due for Simpson et al. (2019)</b></p> |
| July 3  | <p>Final exam</p> <p>➤ <b>Discussion responses due for Bunta et al. (2016)</b></p> <p>➤ <b>Present rehabilitation plans</b></p>  |

| <b>Learning Assessments</b>            | <b>#</b> | <b>Points Each</b> | <b>Category Total</b> | <b>Category Weight</b> |
|--|----------|--------------------|-----------------------|------------------------|
| <b>Class participation</b>             | 11       | 4                  | 44                    | 19%                    |
| <b>On-line discussions</b>             | 1        | 16                 | 16                    | 7%                     |
| <b>Communication options debate</b>    | 1        | 20                 | 20                    | 9%                     |
| <b>ALD presentation</b>                | 1        | 20                 | 20                    | 9%                     |
| <b>Auditory rehabilitation program</b> | 1        | 40                 | 30                    | 13%                    |
| <b>Final exam</b>                      | 1        | 100                | 100                   | 43%                    |
| <b>Total Points:</b>                   |          |                    | <b>230</b>            |                        |

| <b>Final Grade Cutoffs</b> |        |   |        |   |        |   |        |   |        |
|----------------------------|--------|---|--------|---|--------|---|--------|---|--------|
| +                          | 98.00% | + | 88.00% | + | 78.00% | + | 68.00% |   |        |
| A                          | 94.00% | B | 84.00% | C | 74.00% | D | 64.00% | F | <60.0% |
| -                          | 90.00% | - | 80.00% | - | 70.00% | - | 60.00% |   |        |

## Learning Assessments

### *Class participation*

Each student will be expected to contribute to the class discussion at least two times per class to receive the full four percentage points. A powerpoint presentation will be posted prior to each scheduled class. This presentation and the assigned readings should help you to prepare for the discussion.

### *Post on-line article discussion*

You will be responsible for leading and participation in on-line discussions of articles focused on cultural and linguistic diversity. Each person will take the lead on one article, but each person must participate in each discussion. Refer to the rubric on ELMS.

### *ALD presentation*

You will each be asked to act in the role of accessibilities coordinator for an event. You will be given a description of the event and you will need to determine what is necessary to make the event accessible to people with different listening/visual needs. You will present your recommendations in a powerpoint to the class. See ELMS for rubric.

### *Communication Options Debate*

You will research the pros and cons of a particular communication option for a child with hearing loss or deafness and will participate in a debate regarding the merits of communication options with your classmates. See ELMS for rubric.

### *Aural Rehabilitation Plan*

You will work in pairs to develop an adult/child rehabilitation program for a specific individual/family or group and will present your plan to the class on the last day. See ELMS for details.

## Campus Policies

It is our shared responsibility to know and abide by the University of Maryland's policies that relate to all courses, which include topics like:

- Academic integrity
- Student and instructor conduct
- Accessibility and accommodations
- Attendance and excused absences
- Grades and appeals
- Copyright and intellectual property

Please visit <http://apps.gradschool.umd.edu/Catalog/policy.php?the-academic-record> for the Graduate School's full list of campus-wide policies and follow up with me if you have questions.

### Make-up /Assignments

If you are aware ahead of time that you will be absent on the day of a presentation, you may schedule a make-up presentation provided that (1) you have an approved University Acceptance (e.g., religious observance) and (2) I am notified in writing within the first weeks of the semester. Assignments are expected to be submitted by the dates indicated on the syllabus or in advance of the due date if you anticipate being absent from class on the due date. You should inform me that you will be absent ahead of time to make arrangements to submit the assignment.

When the reason for an absence on the day of an exam or assignment is not foreseeable, you must inform me as soon as possible. Please make every effort to contact me by phone or by email prior to class if you will be absent due to illness or other emergency. Campus Senate policy requires students who are absent due to illness/injury to furnish documentary support to the instructor. You must provide written documentation verifying your illness/injury on the day that you return to class. You will not be allowed to turn in missed assignments or make up exams if you have not provided this documentation. In addition, if it is found that you have falsified the documentation provided, you will be referred to the University's Student Conduct Office.

Make-up presentations will be scheduled at a time that is mutually agreeable to both the instructor and the student. Assignments are due immediately by electronic submission if possible or upon the student's return to school. All missed assignments not turned in will result in a grade of zero for that exam/assignment.

### Problems/Questions

Please do not hesitate to make an appointment to speak with me if you are having difficulty with the material or with an assignment, if you have questions about how something was graded, or if you have other problems or issues related to the course you wish to discuss. Email is an excellent way to reach me outside of course meetings.

## Get Some Help!

You are expected to take personal responsibility for your own learning. This includes acknowledging when your performance does not match your goals and doing something about it. Everyone can benefit from some expert guidance on time management, note taking, and exam preparation, so I encourage you to consider visiting <http://ter.ps/learn> and schedule an appointment with an academic coach. Sharpen your communication skills (and improve your grade) by visiting <http://ter.ps/writing> and schedule an appointment with the campus Writing Center. Finally, if you just need someone to talk to, visit <http://www.counseling.umd.edu>.



Everything is free because you have already paid for it, and **everyone needs help**... all you have to do is ask for it.

## **Audiology Knowledge and Skills addressed by specific learning outcomes:**

### **3.1.1A PROFESSIONAL PRACTICE COMPETENCIES**

- Clinical Reasoning (Outcomes 1 to 5)
- Evidence-Based Practice (Outcomes 1 to 6)
- Concern for Individuals Served (Outcomes 1 to 5)
- Cultural Competence (Outcomes 1 to 5)
- Collaborative Practice (Outcomes 1 to 5)

### **3.1.2A FOUNDATIONS OF AUDIOLOGY PRACTICE**

- Normal aspects of auditory and vestibular function across the lifespan (Outcomes 1 to 4)
- Normal aspects of speech perception across the lifespan (Outcomes 1 to 4)
- Interaction and interdependence of speech, language, and hearing in the discipline of human communication sciences and disorders (Outcomes 1 to 4)
- Effects of hearing loss on the speech and language characteristics of individuals across the life span and the continuum of care (Outcomes 1 to 4)
- Effects of hearing impairment on educational, vocational, social, and psychological function and, consequently, on full and active participation in life activities (Outcomes 1 to 4)
- Administer clinically appropriate and culturally sensitive assessment measures (Outcomes 1 and 2)
- Principles and practices of research, including experimental design, evidence-based practice, statistical methods, and application of research to clinical populations (Outcome 1)

### **3.1.3A IDENTIFICATION AND PREVENTION OF HEARING LOSS, TINNITUS, AND VESTIBULAR DISORDERS**

- The prevention of the onset of loss of auditory system function, loss of vestibular system function, development of tinnitus, and development of communication disorders (Outcomes 1 to 5)
- The use of protocols to minimize the impact of the loss of hearing, tinnitus, loss of vestibular system function, and development of communication disorders (Outcomes 1 to 6)
- The use of screening protocols, including clinically appropriate and culturally sensitive screening measures, to assess individuals who may be at risk for hearing impairment and activity limitation or participation restriction (Outcomes 1 and 2)
- The screening of individuals for speech and language impairments and other factors affecting communication function using clinically appropriate and culturally sensitive screening measures (Outcomes 1 and 2)
- The use of screening tools for functional assessment (Outcomes 1 and 2)
- Applying the principles of evidence-based practice (Outcomes 1 to 6)
- Selection and use of outcomes measures that are valid and reliable indicators of success of prevention programs (Outcomes 1 to 5)



### 3.1.4A ASSESSMENT OF THE STRUCTURE AND FUNCTION OF THE AUDITORY AND VESTIBULAR SYSTEMS

- Evaluate information from appropriate sources to facilitate assessment planning (Outcomes 1 to 5)
- Obtain a case study (Outcomes 1 to 5)
- Administer clinically appropriate and culturally sensitive assessment measures (Outcomes 1 and 2)
- Perform assessment to plan for rehabilitation (Outcomes 1 to 5)
- Document evaluation procedures and results (Outcomes 1 to 5)
- Interpret results of the evaluation to establish type and severity of disorder (Outcomes 1 to 5)
- Generate recommendations and referrals resulting from the evaluation processes (Outcomes 1 to 5)
- Provide counseling in a culturally sensitive manner to facilitate understanding of the hearing loss, tinnitus, or balance disorder of the individual being served (Outcomes 1 to 5)
- Maintain records in a manner consistent with legal and professional standards (Outcomes 1 to 5)
- Communicate results and recommendations orally and in writing to the individual being served and other appropriate individual(s) (Outcomes 1 to 5)
- Apply the principles of evidence-based practice (Outcomes 1 to 6)
- Select and use outcomes measures that are valid and reliable indicators of success in assessment protocols that are used (Outcomes 1 to 5)

### 3.1.5A ASSESSMENT OF THE IMPACT OF CHANGES IN THE STRUCTURE AND FUNCTION OF THE AUDITORY AND VESTIBULAR SYSTEMS

- Administer clinically appropriate and culturally sensitive self-assessment measures of communication function for individuals across the lifespan and the continuum of care (Outcomes 1 to 5)
- Administer clinically appropriate and culturally sensitive scales of communication function to communication partners of the individual being served (Outcomes 1 and 2)
- Select and use outcomes measures that are valid and reliable indicators of success in determining the impact of changes in structure and function of the auditory and vestibular systems (Outcomes 1 to 5)

### 3.1.6A INTERVENTION TO MINIMIZE THE EFFECTS OF CHANGES IN THE AUDITORY AND VESTIBULAR SYSTEMS ON AN INDIVIDUAL'S ABILITY TO PARTICIPATE IN HIS OR HER ENVIRONMENT

- Perform assessment for aural (re)habilitation (Outcomes 1 to 5)
- Perform assessment for tinnitus intervention (Outcomes 1 to 5)
- Develop and implement treatment plans using appropriate data (Outcomes 1 to 5)
- Counsel individuals served, families, and other appropriate individuals regarding prognosis and treatment options (Outcomes 1 to 5)

- Develop culturally sensitive and age-appropriate management strategies (Outcomes 1 to 5)
- Perform hearing aid, assistive listening device, and sensory aid assessment (Outcomes 1 to 5)
- Perform assessment of device used to manage tinnitus (Outcomes 1 to 5)
- Recommend, dispense, and service prosthetic and assistive devices (Outcomes 1 to 5)
- Provide hearing aid, assistive listening device, and sensory aid orientation (Outcomes 1 to 5)
- Conduct audiologic (re)habilitation and engage in interprofessional practice to maximize outcomes for individuals served (Outcomes 1 to 5)
- Serve as an advocate for individuals served, their families, and other appropriate individuals (Outcomes 1 to 5)
- Monitor and summarize treatment progress and outcomes (Outcomes 1 to 5)
- Assess efficacy of interventions for auditory, tinnitus, and balance disorders (Outcomes 1 to 6)
- Apply the principles of evidence-based practice (Outcomes 1 to 6)
- Document treatment procedures and results (Outcomes 1 to 5)
- Maintain records in a manner consistent with legal and professional standards (Outcomes 1 to 5)
- Communicate results, recommendations, and progress in a culturally sensitive and age-appropriate manner to appropriate individual(s) (Outcomes 1 to 5)
- Select and use outcomes measures that are valid and reliable indicators of success in determining the impact of the interventions used to minimize the effects of changes in structure and function of the auditory and vestibular systems (Outcomes 1 to 5)