

Spring Semester 2019

SPPA 551 Educational Audiology

Course Description

A study of the hearing impaired child from birth through the education process. Course will include basic knowledge of audiograms, including type and degree of hearing loss, tympanometry, educational options, classroom acoustics, auditory processing, IEP meetings, and classroom management. The emphasis of the class will be on collaboration between educators, audiologists, speech-language pathologists and parents to determine best educational placement and curriculum for a child with hearing loss.

Course Credit

2.0

Location

BH Rm 118

Schedule

TR 9:30-11:20

Instructor

Darah Regal Au.D., CCC-A
Assistant Professor of Audiology

Required Materials

See attached References

Course Objectives

ASHA Standard	Outcome	Implementation	Evaluation Criteria
IV-B	Demonstrate the ability to analyze, synthesize, and evaluate knowledge of the acoustic basis of human communication	Quizzes, Examinations, Projects	80%



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IV C	Demonstrate the ability to integrate and apply information regarding hearing loss and the impact on learning speech	Quizzes, Examinations, Projects	80%
V B1a	Become familiar with the process and procedures of conducting hearing screenings (Competency requirements are also available)	Projects	Competency observation and documentation
IV D	Demonstrate understanding of how hearing ability may be prevented and assessed. Demonstrate knowledge of appropriate interventions/accommodations within the school setting.	Quizzes, Examinations, projects	80%
IV E	Demonstrate and discuss the ethical boundaries for dealing with hearing impaired children in the school setting.	Participation in class discussion, examinations	80%

MS in Speech-Language Pathology will prepare students for the professional workforce
MS students in Speech-Language Pathology will complete a terminal degree in speech-language pathology

MS students in Speech-Language Pathology will synthesize and Interpret comprehensive knowledge of communication sciences and disorders

MS student in Speech-Language Pathology will effectively integrate knowledge to formulate sound clinical judgments

By the end of this course, students will be able to:

1. Explain basic audio-metrics including audiograms, tympanograms and audiological reports.
2. Demonstrate proficiency for otoscopy and the following screening procedures: pure tone, oto-acoustic emissions (OAE) and tympanometry.
3. Determine educational significance of hearing loss based on type and degree of loss (minimal to profound, conductive, sensory/neural and mixed).
4. Determine significance of room acoustics and ways to modify acoustics for optimal listening.
5. Basic knowledge of hearing aids, cochlear implants and assistive listening devices including trouble shooting, daily checks and referral protocols.
6. Learn to collaborate with fellow professionals, children and parents to appropriately manage children with hearing loss.

Course Requirements

1. **Quizzes:** to be announced, usually weekly.



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Quizzes missed due to an excused absence will be prorated.

2. Examinations: There will be two examinations throughout the semester worth 75 – 100 points each. All exams remain within the department for a minimum of five years.

Tests missed due to an excused absence may be made up within three days after the absence.

3. **Practical Assignments:** The assignments are due at the beginning of the class period on the day specified in the course outline.

Assignment 1 Develop a screening form for the following tests: Otoscopy, pure tone screening, OAE screening, tympanometry screening. Develop appropriate forms/letters: Pass, medical referral, audiology consult/referral, letter to classroom teacher, letter to parent for all screening procedures. Screen 7 people for all areas (otoscopy, pure tone, OAE and tympanometry), fill out screening form and any appropriate paperwork. (80)

Assignment 2 -Choose 3 classrooms, one from each of the following buildings on Andrews University campus: Buller Hall, Bell Hall, and the Science Complex: Small (10-25 students), Medium (26-50 students) and Large (over 51 students) classroom

Read the following articles “*Assessing the Acoustics in Your Child's Classroom: A Guide for Parents*” and “*20Q: Improving Speech Understanding in the Classroom - Today's Solutions*”, and evaluate each classroom setting in the following categories: background noise, outside sounds, possible effects on learning (positive and negative) and acoustic materials used in the classroom.

Article 1: Nixon, M. (2002, May/June). Assessing The Acoustics In Your Child's Classroom: A Guide for Parents. *Hearing Loss: The Journal of Self Help for Hard of Hearing People*.

Article 2: Ostergren, D. (2013, November). 20Q: Improving speech understanding in the classroom-today's solutions. *AudiologyOnline*, Article 12285. Retrieved from: <http://www.audiologyonline.com>

Article 3: Find a research article(s) on Assistive Technology (FM systems for example) and the benefits for classroom learning.

Article 4: Find a research article (s) on: Effects of a mild to moderate hearing loss on education/language/literacy.

1. Write a proposal to the school principal/board **for each classroom** regarding classroom acoustics, ways to improve the acoustics in the classroom (with supporting evidence based practice) and recommendations for a student with a mild to moderate sensorineural hearing loss with appropriately fit hearing devices bilaterally.
2. Use the articles found (and please feel free to find additional articles) as supporting documents and source appropriately within your proposal. (50 points)

Assignment 3 You will be assigned a therapy technique to research and determine the effectiveness of the technique for auditory processing. Develop a user guide/useful therapy document for defending the use or non-use of the technique assigned for the different areas of auditory processing deficit. This document should be something you could use to determine if the



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technique would be appropriate for a client you are working with. Include evidence based practice information to support your conclusion. The document will be shared electronically with the class so a therapy guide/overview will be helpful for all speech pathologists. For example after all the information is compiled each one of you should have a document that you can reference for possible treatment of a decoding deficit versus an auditory organization deficit. (50 points)

→ To search for peer-reviewed references and articles: jstor.org

4. Discussions, reading and articles. We will be reviewing case studies. The articles listed in the syllabus may be used for assignments and for case study discussions. Specific articles will be assigned for discussion.
5. Other assignments as deemed necessary during the semester.
6. All assignments must be submitted following APA guidelines. APA style requires a specified title page, 11 or 12 point font, double spaced, one inch margins all around, and appropriate headers, and page number. Each written document must follow APA style and Andrews University
7. Each student is required to have access to and a working knowledge of technology such as PC or MAC. Each student is also required to have working knowledge and understanding of Andrews University online learning management system – Learning Hub.

Schedule/Course Outline

Tentative Course Schedule

Read research articles appropriate for each topic listed in the schedule

Jan.	8	Introduction – Educational audiology, prevalence of hearing loss in children, Hearing loss simulation, Basic audiogram, pure tone screening
	10	Audiogram interpretation, otoscopy, tympanometry, OAE
	15	Speech Pathology scope of practice for audiology services – ASHA document, curriculum adjustments for hearing impaired children, language and literacy Physics review
	17	Physics review, formants, speech sound acoustics
	22	Classroom Acoustics, FM systems, hearing aids, Cochlear implants ASSIGNMENT 1 DUE
	24	Hearing aids and cochlear implants
	29	EXAM 1
	31	Guest Speaker – speech pathologist
Feb.	5	Central Auditory Processing ASSIGNMENT 2 DUE



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7 Central Auditory Processing

12 Presentations

ASSIGNMENT 3 DUE

14 FINAL EXAM

Final Exam Schedule

Final exam will be February 14 from 9:30-11:30

Attendance Policy

Class Attendance: Records will be taken during the first five minutes of class. Promptness is vitally important to the continuity of class discussion. If you find you will be unable to attend class, please notify the teacher **prior to the class** to make arrangements for making up the work and obtaining handout material. Three absences will be allowed. Absences beyond that will jeopardize our grade.

Disability Accommodation

Andrews University is committed to the education of all students on campus. "If you qualify for accommodations under the American disabilities Act, please see the instructor as soon as possible for referral and assistance in arranging such accommodations."

Professionalism

"Andrews University is a community of scholars where academic honesty is the expected norm for faculty and students. All members of this community are expected to exhibit academic honesty in keeping with the policy outlined in the University bulletin. In addition, the student is expected to comply with ethical and scientific standards in research as recognized by the US Office of Human Subjects Protection and the US Office of Research Integrity. It is expected that members of the scholarly community will act with integrity at all times, however, should an individual choose to demonstrate dishonesty, it should be understood that acts of academic dishonesty are taken extremely seriously. Acts of dishonesty are classified by level and reported centrally. The consequences of academic dishonesty will be determined by the instructor unless a student's record demonstrates repeated offenses (either three level-one offenses or two level-two offenses, or a level three and any other level violation). In the situation where the student record demonstrates such repeated violations, or where the student is accused of a level-four violation, the case will be referred to an Academic Integrity Panel for resolution. Serious or repeated violations can result in the issuance of an "XF" grade by Academic Integrity Panels, which indicates that the student failed the class for breach of academic integrity. The XF is placed on the student's permanent record and can only be removed under certain circumstances (see the University Bulletin)."

To prepare students for the professional world, certain behaviors/activities are expected in the classroom.

1. Cell Phones, Personal Laptops, and Recording devices: Cell phones should be turned off before entering the classroom. Picture-taking during class is not allowed. Recording devices are



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allowed only if pre-approved by instructor, and if approved, under no circumstance are recordings—visual or verbal—to be posted on a public website. If there is a family emergency and cell phone contact is necessary, please talk with me prior to class.

Laptops should not be used for surfing the web or watching movies during class. It is disrespectful and unprofessional to use these devices inappropriately during class.

2. Late Assignments are unacceptable unless prearranged with instructor. (Refer to late policy specifics)
3. Tardiness is strongly discouraged and may reflect on your level of professionalism
4. Eating in class: Please do not bring food or beverages to class. Water is permitted.

Presentation is important. Your attention to detail, demeanor, and attire factor into how you are perceived as a professional. Active participation in class discussions and critiques is an essential part of learning. Without participating and expressing opinions and thoughts, it is impossible to clarify your goals and develop a personal style.

Student Responsibility

E-mail is the official form of communication at Andrews University. Students are responsible for checking their Andrews University e-mail, Learning Hub, and iVue alerts regularly. Please inform fellow classmates of important e-mail information, especially for cancellation of classes, changes in assignments and/or exam information. If you choose to send an e-mail to me please send them to dregal@andrews.edu. Please understand that I will be responding to e-mail during normal business hours (8-5 M-Th and 8-12 on Friday). You should receive a response within 48 hours. If you have not received a response, please re-send the e-mail.

Assessment and Grading Scale

Grading: Grades will be calculated on a percentage basis as follows:

94.0 – 100%	A
90.0 – 93.99%	A-
87.5 – 89.99%	B+
83.5 – 87.49%	B
80.0 – 83.49%	B-
78.0 – 79.99%	C+
73.5 – 77.99%	C
70.0 – 73.49%	C-
65.0 – 69.99%	D

Late work will be discounted as follows: Assignments may only be turned in during class time. Assignments will not be accepted in my in box, handed to me outside of class or placed in my office. There will be a folder and a turn in sheet to sign when the assignment is placed in the folder during class. If you do not have your assignment during class it may be turned in during a subsequent class period for the following discounts: 1. One class period late during the same week 10%, 2. One class period late over a weekend 15%, 3. Two class periods late 25%, 4. Three class periods late 50%, NO assignment accepted three class periods after the due date. If you are not going to be in class, it is your responsibility to have someone in the class submit your assignment and sign their name. No assignments will be returned to the class until after the fourth class period or all assignments for the class have been received.

References

Books

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Articles

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INSTRUCTOR PROFILE



Darah Regal, AuD., CCC-AUD
Assistant Professor Audiology

Education

Au.D, Arizona School of Health Sciences
MA, Ball State University
Certificate of Clinical Competence in Audiology (CCC-A)
Fellow of the American Academy of Audiology

Biography

Darah Regal, Au.D., CCC-A is an assistant professor of audiology at Andrews University. Dr. Regal has worked in a private ENT office, giving her a solid medical and clinical background. As a school audiologist in Elkins, West Virginia, she developed a program for testing Auditory Processing Disorders (APDs) and significantly increased the number of children receiving services for Auditory Processing Disorders (APDs). Dr. Regal worked with teachers and administrators to create strong support and proactive help for hearing impaired and children with APD in order to facilitate optimal learning.



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Dr. Regal is married to Jeff Regal who is also an audiologist and they have two sons.