

Course: SPPA 332 Audiological Procedures, 3 Semester Credits
Spring 2016
M-W-F 9:30 A.M. BH 181

Instructor: Darah Regal, AuD., CCC-A
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Required Textbooks: Martin, F. N. Introduction to Audiology, 11th edition (2011).
Englewood Cliffs, N.J., Prentice Hall, Inc.

Martin, F. N. Exercises in Audiometry (1998). Needham Heights,
MA, Allyn & Bacon.

**For ISBN and price information, please see the listing at the
bookstore www.andrews.edu/bookstore.**

Course Description: Study of auditory testing with an overview of differential diagnostic testing in the identification of auditory pathologies. Testing procedures include clinical masking and acoustic immittance measures. Special testing techniques for infants and the pseudohypacusis will be presented.

Course Objectives: By the end of this course, you will be able to:

1. Use masking appropriately for obtaining ear specific thresholds for air and bone conduction and speech.
2. Administer and interpret the immittance test battery of tympanometry, reflexes and reflex decay.
3. Explain the development of auditory behavior as it impacts the testing of infants and young children.
4. Identify characteristics in the test battery that suggest malingering, and administer at least one test to ascertain true thresholds.
5. Describe auditory response characteristics associated with cochlear, retrocochlear lesions and central auditory processing deficits. Identify tests useful in diagnosing these characteristics.

Course Requirements:

1. Class Attendance: Record will be taken during the first five minutes of class. Promptness is vitally important to the continuity of class discussion. If you will be

unable to attend class, please notify the teacher **prior to the class. It is your responsibility to obtain notes/assignments from classmates for information missed during class. Three absences will be allowed.** Three late entrances will be equivalent to one absence. More than 3 absences will negatively affect your final grade. When the number of absences exceeds 20% of the total course appointments for undergraduate classes the teacher may assign a failing grade. (See Andrews bulletin for more information)

2. **Quizzes:** To be announced, usually weekly.
3. **Examinations:** There will be four examinations throughout the semester worth 75-100 points each. The final examination will be comprehensive worth 100-150 points. All examinations will remain in the possession of the instructor. After they have been graded they will be distributed for your review. They must be returned to the instructor to be recorded.

Quizzes missed due to an excused absence will be prorated or made up within 2 days after the absence. Exams missed due to an excused absence may be made up within three days after the absence. Exams missed due to illness require a note from a physician for the date of the exam or quiz.

4. **Practical Assignments:** The assignments are due at the beginning of the class period on the day specified in the course outline. **For each test, interpret the test results in the comments sections of the audiogram.**

Assignment 1 Masking Lab -Pure tone air and bone (all octaves and necessary inter-octaves between 250-8000 Hz), SRT and discrimination on 4 people (at least two clients can not be SPLAD majors or minors) with an earplug firmly placed in **one** ear or one earphone placed on the head rather than the ear. Interpret results in the comments section of the audiogram. 10 points each (total 40 points)

Assignment 2 On two class members and two NON-SPLAD majors or minors do Acoustic immittance testing: tympanograms, ipsilateral and contralateral reflexes at 500, 1000, 2000, and 4000. Ipsilateral reflex decay at 1000Hz - both ears. Transfer tympanograms, static compliance, ear canal volumes and reflex information to the audiogram. Interpret all measures, including ear canal volumes and static compliance according to the norms, at the bottom of the audiogram. 10 points each (total 40 points)

Assignment 3 On two NON-SPLAD majors or minors, conduct a hearing test. Instruct you client to fake a significant hearing loss in one ear. Complete the following tests: Pure tone air and bone (all octaves and any necessary inter-octaves between 250-8000 Hz. SRT, Speech discrimination ability, and Stenger pure tone test at 1000 and 2000 Hz, and at least one other clever trick to prove malingering. Fill out an audiogram and write appropriate comments at the bottom of the audiogram.

Assignment 4

You will be writing letters to physicians for different disorders. The audiogram may be at different stages of completion for you to finish. These will be due at different times during the semester and will be announced at least one week in advance during class. (70-100)

Possible information to be completed:

1. Audiogram - pure tone air, bone and speech
2. Immittance, reflex, tone decay.
3. Interpret your results on the bottom of the audiogram.

Assignment 5 Audiogram quiz. There will be an audiogram quiz on Learning Hub. To receive points for this quiz, you must have 100% accuracy. The quiz will be worth 20 points and can be taken multiple times. It is required that this quiz be taken independently and you need to sign a statement that you took the quiz without notes, books or help from any person.

Assignment 6 Audiometer proficiency. You will need to schedule an appointment with the audiology lab assistant to demonstrate your ability to correctly operate the audiometer for pure tone air, bone, Speech Recognition Threshold (SRT) and Speech Recognition Score. If the score is below 80%, you will need to schedule appointment with the teacher assistant to improve skills.

5. Other assignments as deemed necessary during the semester.

6. LATE POLICY

Assignments may only be turned in during class time. Assignments will no longer be accepted in my in box, handed to me outside of class or placed in my office. A new system has been developed for receiving assignments. 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 four 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.

7. 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-
77.7 - 79.99%	C+
73.5 - 77.99%	C
70.0 - 73.49%	C-
65.0 - 69.99%	D
Below 65%	F

Disability Information

If you qualify for accommodation under the American Disabilities Act, please see contact Student Success in Nethery Hall 100 (disabilities@andrews.edu or 269-471-6096) as soon as possible so that accommodations can be arranged.

Academic Integrity

University learning thrives on the rigor of individual investigation, the authentic exchange of ideas, and a corporate commitment to integrity and mutual respect. University learning requires all members of the academic community to behave honestly. Andrews University anchors its practices in the teachings of the Bible as well as in widely established and honorable academic traditions. As the apostle Paul calls us to authenticity in our Christian walk, so the educational institution demands of its participants true and accurate self-representation. In Ephesians, Paul invites believers “to be renewed in the spirit of your minds, and to clothe yourselves with the new self, created according to the likeness of God in true righteousness and holiness” (Eph. 4:23-24, NRSV). As scholars and as Christ servants, we build His living body through our honesty in all things, both small and great. To that end, Andrews University’s faculty and students pledge to learn and grow together, committing to the following Standards and affirming honesty as a core component of an Andrews University education.

Academic dishonesty including plagiarism, copying other students work, stealing quizzes or accepting stolen quizzes or exams is a serious offense. Possible consequences are a warning, reduced or failing grade, suspension or dismissal from the class, expulsion from the university, and/or degree cancellation

Emergency Protocol

Andrews University takes the safety of its student seriously. Signs identifying emergency protocol are posted throughout buildings. Instructors will provide guidance and direction to students in the classroom in the event of an emergency affecting that specific location. It is important that you follow these instructions and stay with your instructor during any evacuation or sheltering emergency.

Professionalism

To prepare students for the professional world, certain behaviors/activities are not allowed 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 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

Tentative Class Schedule

Month	Date	Topic	Assignment	Martin Reading
Jan	4	Intro. – Review of audiogram – need for masking		6
	6	What is masking?		6
	8	When to mask	Quiz	6
Jan	11	When to mask/Masking for air conduction		6
	13	Masking techniques for air conduction		6
	15	Masking techniques for bone conduction	Quiz / ASSIGNMENT 5 due.	6
Jan	18	NO CLASS		
	20	Masking techniques for speech		6
	22	EXAM 1		6
Jan	25 Class starts at 8:10	Masking review		6
	27 Class starts at 8:10	Acoustic Immittance – basic principles	WSE	7
	29 Class starts at 8:10	Tympanogram	WSE	7
Feb	1	Tympanogram	ASSIGNMENT 6 DUE	7
	3	Acoustic reflex - anatomy		7
	5	Acoustic reflex	Quiz / Prac Assignment 4	7
Feb	8	Acoustic reflex		7
	10	Acoustic reflex decay		7
	12	Tone Decay	Quiz	7

Feb	15	NO CLASS		
	17	Cochlear Pathology	Prac. Assignment 4 due	7
	19	Retro-Cochlear pathology	Quiz	7
Feb	22	Pseudohypacusis		13
	24	EXAM 2		13
	26	Pseudohypacusis	Quiz / Practical assign. 1 due	13
Feb	29	Pseudohypacusis		13
March	2	Development of auditory behavior		8
	4	Testing infants under age 3 months		
	7	Testing infants 6 months to age 2	Prac. Assign 4	8
March	9	OAE		7,8
	11	NO Class – Spring Break		
	14	NO Class – Spring Break		
March	16	NO Class – Spring Break		
	18	NO Class – Spring Break		
	21	ABR		7,8
March	23	ABR		7,8
	25	Testing children ages 2-5	Practical Assignment 2 due	8
	28	Testing children ages 2-5	Quiz	8
March	30	Central auditory processing (CAP)		12

April	1	Central auditory processing (CAP)		12
	4	EXAM 3	Quiz	
April	6	Central auditory processing (CAP)		12
	8	Central auditory processing (CAP)		12
	11	Central auditory processing (CAP)		12
April	13	ENG	Pract. Assign. 3 due	7
	15	In- Class project	Quiz	
	18	Review – Case studies		
April	20	Review for Final	Prac. Assign. 4 due	
	22	NO CLASS - EXAM PREPARATION DAY - MSHA conference		
Monday of exam week from 10:30-12:30		FINAL EXAM	COMPREHENSIVE	Everything

Masking Lab

Neatness 1 1 1 1 ____/4

Used proper symbols/air 1 1 1 1 ____/4

Used proper symbols/bone 1 1 1 1 ____/4

Speech - SRT – masking 1 1 1 1 ____/4
(Appropriate boxes filled in)

Speech - Discrimination – masking 1 1 1 1 ____/4
(Appropriate boxes filled in)

Used proper amount of masking 2 2 2 2 ____/8
(Pure tone and speech)

Details 1 1 1 1 ____/4

Comments 2 2 2 2 ____/8

Total ____/40

Name _____

Date _____

Immittance Lab

Neatness	1	1	1	1	____/4
Type and ECV correct box and accurate	1	1	1	1	____/4
Peak – recorded, drawn correctly	2	2	2	2	____/8
Volume – recorded, drawn correctly	2	2	2	2	____/8
Acoustic Reflex Decay	1	1	1	1	____/4
Acoustic reflex	2	2	2	2	____/8
Details	1	1	1	1	____/4
Comments	2	2	2	2	____/8
				Total	____/40

Name _____

Date _____

Malingering Lab

Neatness	1	1	____/2
Pure Tone Stenger	2	2	____/4
Symbols	2	2	____/4
Other methods used To determine malingering	2	2	____/4
Details	1	1	____/2
Comments Include comments about All methods used to determine Malingering.	2	2	____/4
		Total	____/20

Name: _____

Date: _____