

# AUDIOLOGY

## SPAU 3341, SECTION 001, FALL 2016

### Course Information

Time: Tuesday and Thursday, 8:30-9:45 a.m.  
Location: Callier Richardson Addition (CRA), Room 12.120  
Course Credits: 3

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### Contact Information

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	Professor	Teaching Assistant
<b>Name</b>	Andrea Warner-Czyz, Ph.D., CCC-A	Christine Evans, M.A., CCC-SLP
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<b>Office hours</b>	Thursday, 10:00 a.m. – 11:00 a.m. or by appointment	Tuesday, 10:00 a.m. – 12:00 p.m. or by appointment
<b>Office location</b>	Callier Richardson 1.806	Green 4.608

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### Course Description

Instrumentation and calibration standards for audiology practice. The development and application of standard diagnostic audiology procedures. Administration and interpretation of standard audiometric tests. This course has been designed to ensure that students demonstrate required knowledge and skill as outlined in the Standards and Implementation Guidelines for the Certificate of Clinical Competence in Audiology.

**Course Pre-requisites, Co-requisites, and/or Other Restrictions:** None

### Student Learning Objectives (note: ASHA guideline in parentheses)

After completing this course, students should be able to:

1. Complete pure-tone audiograms on volunteer subjects (Standard IV- B2, B14, C1, C2, C3, C4, D1, D3, D4, D6, D7)
2. Complete audiometric audiograms on a computer simulator (Standard IV- B2, B14, C1, C2, C3, C4, D6, D7)
3. Interpret clinical audiograms from cases (Standard IV- B2, B3, B4, B5, B7, B8, B10, B12, B16, C2, C3, C4, D2, D6, D14, D16)
4. Interpret tympanograms from cases (Standard IV- B2, B4, B5, B8, B12, B14, B16, C2, C3, D2, D4, D6, D14, D16)
5. Identify and describe anatomic sites along the auditory system (Standard IV- B2, B4, B8)
6. Interpret impact of pathology on auditory system (Standard IV- B2, B4, B5, B7, B8, B10, B12, B16, C2, C3, D2, D6, D14, D16)
7. Describe and apply ethical considerations and professional issues and their impact on

### Required Textbooks and Materials

Required and supplemental readings will be posted online at eLearning or made available for students to photocopy or print online. The readings are meant to supplement and expand upon information presented in class.

### Required Course Materials

Martin, F.N., & Clark, J.G. (2014). *Introduction to Audiology: 12<sup>th</sup> edition*. Pearson: Boston. ISBN: 0133491463 or 978-0133491463.

### Recommended Course Materials

Martin, F.N., & Clark, J.G. (2006). *Elements of Audiology: A Learning Aid with Case Studies*. Pearson Education, Inc.: Boston. ISBN: 0205486967 or 978-0205486960

### ASSIGNMENTS & COURSE CALENDAR

*These descriptions and timelines are subject to change at the discretion of the Professor.*

Date	Topic	Readings
8/23/2016	Overview; Sound and measurement	Martin & Clark Chapters 1 and 3
8/25/2016	The human ear; Audiometry and the Audiogram	Martin & Clark Chapters 2; Hall Chapter 5
08/30/2016	Describing hearing loss <i>Lab 1: How loud is your world due</i>	Hall Chapter 5; Martin & Clark Chapter 4
9/1/2016	Speech audiometry	Martin & Clark Chapter 5
9/6/2016	Cross-hearing and masking	Martin & Clark Chapter 6
9/08/2016	Masking; Review <i>Lab 2: Pure-tone audiometry due</i>	
<b>9/13/2016</b>	<b>Exam 1</b>	
9/15/2016	Otoscopy and outer ear	Videos on eLearning; Martin & Clark Chapter 9
9/20/2016	Outer ear	Martin & Clark Chapter 9
9/22/2016	Middle ear	Martin & Clark Chapter 10
9/27/2016	Middle ear	Martin & Clark Chapter 10
09/29/2016	Acoustic immittance	Martin & Clark Chapter 7; Hall Chapter 8 (pp. 214-235)
10/04/2016	Inner ear	Martin & Clark Chapter 11; Hall Chapter 8 (pp. 235-247); Kramer Chapter 8 (pp. 250-255)
10/06/2016	Inner ear	Martin & Clark Chapter 11; Hall Chapter 10 (pp. 309-313)
10/11/2016	Case studies	
10/13/2016	Lab 3 plus review <i>Lab 3: Tympanograms due</i>	
<b>10/18/2016</b>	<b>Exam 2</b>	
10/20/2016	Auditory nerve; Central auditory pathways	Martin & Clark Chapter 12
10/25/2016	Electrophysiology and otoacoustic emissions	Hall Chapter 9 (pp. 272-284)

10/27/2016	Pediatric assessment	TBD
11/01/2016	Geriatric assessment	TBD
11/03/2016	Non-organic hearing loss	Martin & Clark Chapter 13; Hall Chapter 15 (pp. 447-455)
11/08/2016	Hearing aids and cochlear implants	Martin & Clark Chapter 14
11/10/2016	Hot topics in audiology <i>Lab 4: Clinical case studies due</i>	
11/15/2016	Audiologic rehabilitation - adults and children	Martin & Clark Chapter 15
11/17/2016	FM systems and educational audiology	
11/22/2016	No class – Fall break	
11/24/2016	No class – Thanksgiving	
11/29/2016	Clinical case interpretations	
12/01/2016	Review	
<b>12/06/2016</b>	<b>Exam 3 (no make-up!)</b>	

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## Grading policy

### **Exams (300 points)**

1. *Exam 1 (100 points)* will consist of short answer, fill in the blank, true/false, matching and/or multiple choice questions AND practical questions regarding basic audiology, sound and its measurement, and basic hearing assessment.
2. *Exam 2 (100 points)* will consist of short answer, fill in the blank, true/false, matching and/or multiple choice questions AND practical questions regarding anatomy and disorders at different levels of the auditory system as well as non-organic hearing loss.
3. *Final exam (100 points)* will consist of short answer, fill in the blank, true/false, matching and/or multiple choice questions AND practical questions regarding description and interpretation of audiologic cases.

### **Labs (100 points, 25 points each)**

1. How loud is your world? – **due 08/30/2016**
2. 1 pure-tone audiogram on volunteers – **due 09/08/2016**
3. 2 tympanograms on volunteers – **due 10/13/2016**
4. Interpreting complete clinical audio cases that are distributed in class – **due 11/10/2016**

**Team project (60 points)**

You will be assigned to a group of 3-4 students who will work as a team to complete the project. Your other team members will rate your participation in the project. Their feedback will be part of your grade. This will be an area for you to be creative. The team project consists of two parts: A Peccha Kucha presentation (15 images x 15 seconds per image, no words) and an online review source for your classmates (e.g., quizlet, online quiz, handout, youtube video, etc.). The project must be comprehensive enough to warrant giving a grade to 3-4 people. Groups will be formed the first day of class for the topics, listed below:

- |   |                                   |   |
|---|-----------------------------------|---|
| • Type, degree, and configuration of hearing loss | • Inner ear anatomy (auditory)    | • Inner ear conditions (vestibular)     |
| • Outer ear anatomy                               | • Inner ear conditions (auditory) | • Auditory nerve anatomy and conditions |
| • Outer ear conditions                            | • Inner ear anatomy (vestibular)  |   |
| • Middle ear anatomy                              |                                   |   |
| • Middle ear conditions                           |                                   |   |

**Class participation (40 points)**

Periodically, you will complete “minute papers,” or papers literally written in 1-2 minutes. I will interrupt my lecture so that you may write a minute paper on a topic derived from the lecture, the most important item that you have learned, a summary of the lecture, or the “muddiest point” (the most unclear section of the lecture or topic). I will collect these papers and grade them depending upon the thought and effort put into the responses. A 0 would reflect lack of class attendance. A 1 would indicate basic thought processes, such as reciting facts or lists. A 2 would suggest higher cognition levels, such as mentioning the underlying organization of the material or considering application of the topic. Other types of class participation include, but are not limited to, contributions to classroom discussions and participating in online discussion forums.

**A total of 500 points are possible. Requirements for each letter grade are indicated below:**

- Requirements for an A: Acquire a minimum of 450 points (450-500)
- Requirements for a B: Acquire a minimum of 400 points (400-449)
- Requirements for a C: Acquire a minimum of 350 points (350-399)
- Requirements for a D: Acquire a minimum of 300 points (300-349)
- Requirements for an F: Acquire <300 points

To ensure fairness, all values are absolute. The instructor will not round grades and will not employ a plus/minus grading system.

**Course & Instructor Policies**

**Lectures.** Regular attendance and active participation in discussion are strongly encouraged. Some lectures cover material in the readings, but most present supplementary material. No copies of instructional materials delivered in class will be provided for students who choose not to attend.

**Make-up assignments.** Make-up assignments or additional assignments for extra credit will be given in the event of student absence from the class that cannot be documented as an emergency or death in the family.

**Digital etiquette.** Please turn off ring-tones and other audible alerts on cell phones before class begins. Students may use technology during class to take notes or accomplish tasks pertaining to class discussion. However, abuse of technology during class time (e.g., texting, checking email, social media, etc.) is unacceptable and will result in revoking the student’s privilege to use technology for the remainder of the semester in this course.

**UT Dallas Syllabus Policies and Procedures**

The information contained in the following link constitutes the University’s policies and procedures segment of the course syllabus. Please go to <http://go.utdallas.edu/syllabus-policies> for these policies.

**The descriptions and timelines contained in this syllabus are subject to change at the discretion of the Professor.**