

# Introduction to Audiology 01:615:393

Fall 2015

**Instructor:** Maria T. Abel, M.A., CCC-A

**Email reply policy:** I will respond to emails within 24 hours during the work-week and by the next business day on weekends and holidays.

**FORUM:** We will be utilizing the FORUM feature of the course website this term. I have setup a general discussion forum for each lesson. I am hoping to use this feature to streamline questions throughout the semester. If you have a question about a topic specific to each unit, please ask your question in the forum. I will receive notification when questions/comments are posted. Please feel free to contribute to this forum when you feel you are able to. If you feel you are not getting adequate assistance in the forum, please feel free to email me directly. This forum is not graded, but I strongly encourage everyone's participation.

**Prerequisites:** LING 201

**Course Website:** access via sakai.rutgers.edu

**Course Meeting Time:** Online; asynchronous

## Course Description

The modern practice of audiology has evolved into its own distinct field which blends the science of hearing and differential diagnosis with the art of patient treatment for hearing loss and balance disorders. Hearing is crucial to speech development, affecting phonologic, morphologic, syntactic, and pragmatic aspects of human communication. This course introduces students to the profession and practice of audiology through an overview of the anatomy (structure) and physiology (function) of the auditory system, the physical properties of sound relevant to hearing assessment, techniques for hearing assessment, and auditory disorders. This course covers prerequisite content required for students planning to pursue a higher-level degree in the speech and hearing sciences, including speech pathology and audiology.

## Learning Goals

The learning goals for this course support 2012 ASHA Audiology Certification Standards IV-A and IV-C and will be assessed through written exams and quizzes.

Learning Goal	2012 ASHA Standard	Method of Assessment
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Learn the anatomy and physiology of the auditory system.	IV-A	Written Quizzes & Exams
Learn the physical properties of sound relevant to hearing assessment	IV-A	Written Quizzes & Exams
Identify basic audiological diagnostic and screening procedures	IV-C	Written Quizzes & Exams
Interpret basic audiometric test findings	IV-C	Written Quizzes & Exams
Recognize common auditory disorders	IV-C	Written Quizzes & Exams

### Required Text

Martin, Frederick N. and John G. Clark. 2015. Introduction to Audiology. 12<sup>th</sup> Edition. Pearson. ISBN: 978-0-13-349146-3.

The [textbook companion website](#) provides access to additional study materials, including interactive case studies.

[www.pearsonhighered.com/martinclark](http://www.pearsonhighered.com/martinclark)

### Assessments and Grading Policies

#### Quizzes (30%)

There are eight weekly reading quizzes. (see the schedule below for dates when the quiz will be available and/or needs to be completed).

Your lowest quiz grade will be dropped, so that only seven will count toward your final grade. Each quiz covers information from the PowerPoint notes and assigned chapters and may include multiple choice, matching, fill-in-the-blank, and diagram-labeling questions.

Each quiz will be available for three days and **may be opened at any time from 12:01 AM Wednesday morning until 11:59 PM Friday night**. Once you open a quiz, you will have a limited time to complete your work; depending on the quiz, you will have from 30 to 45 minutes to finish the quiz. If you do not complete the quiz within the allotted time, your quiz will close automatically and be submitted for grading.

*Your scores on reading quizzes will demonstrate that you have completed the assigned reading and have comprehended the material. You are **strongly** encouraged to prepare for the quizzes by answering the assigned study questions and using the supplemental*

*study materials on the textbook's companion website. Use your quiz scores to identify topics that you might need to review more carefully before the next exam. As a class, scores on reading quizzes will keep me apprised of our overall progress.*

### **Exams (60%)**

This course includes a midterm and a final exam, each of which contributes 30% toward your final grade. Exams may include multiple-choice, matching, fill-in-the-blank, diagram-labeling and short answer questions.

Exams are “**closed book**”, completed without referring to notes, textbook, or other resources, and must be taken **in-person**, at the New Brunswick campus, in the College Avenue Computer Center (CACC) in Room 157. The CACC is located in Records Hall (<http://rumaps.rutgers.edu/location/records-hall>). Sign up for one of the available dates and times using the “Sign-up” tool on the course Sakai site.

<b>Midterm</b>	<b>Oct. 23</b>	<b>Oct. 23</b>	<b>Oct. 24</b>
	9:00 – 10:30 am	11:00am – 12:30pm	12:00 – 1:30 pm
<b>Final</b>	<b>Dec. 17</b>	<b>Dec. 18</b>	<b>Dec. 19</b>
	6:00 - 8:30pm***	9:00 am- 11:30am	12:00 - 2:30pm

\*\*\* (12/17) this session is scheduled in the Satellite Lab

You must bring a photo I.D. to the exam, and may be required to bring a laptop as well.

You are allowed 1.5 hours to complete the midterm and 2.5 hours to complete the final once it is opened. If you do not complete the exam by the allotted time, your exam will be automatically closed and submitted for grading.

*Your scores on exams will demonstrate your sustained work effort and comprehensive knowledge of the course material.*

### **Homework (10%)**

Four activities have been assigned as homework during weeks that do not include scheduled quizzes or exams. To demonstrate that you have completed the assignment, follow the instructions and submit your work/answers. Specific directions for locating the activity and uploading your score will be available on the course website.

*Your completion of homework assignments will demonstrate your class participation in the assigned weeks and will help you to prepare for the upcoming chapter quizzes.*

## **Academic Integrity Policy**

All students in this course must agree to the following Honor Policy:

Honor Policy:

By my honor, I agree that I will complete all weekly reading quizzes and exams without helping or receiving help from others, and without referring to my notes, textbook, or other resources.

You will see this Honor Policy appear on the Course Introduction Quiz you take during Week 1. By clicking “yes”, you will signal your agreement with this policy. In addition, you are expected to be familiar with and abide by Rutgers University’s Academic Integrity Policy.

**Any** collaboration with other students to answer questions in reading quizzes or the exams is a violation of our class Honor Policy and Rutgers’ Academic Integrity Policy. Students caught cheating or committing plagiarism will be penalized, as per Rutgers policy.

## **Attendance and Late Work Policy**

Because all work will be completed asynchronously for this course, there is no formal attendance policy; however, class engagement will be assessed through frequent quizzes. All exams and quizzes are available for multiple days. Please take note of the availability periods on the attached schedule and plan accordingly. Except for documented cases of illness or religious observance, no credit will be awarded for late work.

## **Accommodations for Special Needs**

Rutgers University welcomes students with disabilities into all of the University's educational programs. In order to receive consideration for reasonable accommodations, a student with a disability must contact the appropriate disability services office at the campus where you are officially enrolled, participate in an intake interview, and provide documentation:

<https://ods.rutgers.edu/students/documentation-guidelines>.

If the documentation supports your request for reasonable accommodations, your campus's disability services office will provide you with a Letter of Accommodations. Please share this letter with your instructors and discuss the accommodations with them as early in your courses as possible. To begin this process, please complete the Registration form on the ODS web site at: <https://ods.rutgers.edu/students/registration-form>.

## **Is an online course right for you?**

An online course requires different skill sets for success than a traditionally-delivered course. In particular, you must be more responsible for managing your own success in an online course, such as by ensuring you have the time and resources to complete the work, completing the

assigned study questions, using the supplemental textbook materials, and contacting me early for help with challenging material.

The material covered in this class will require a great deal of memorization and comprehension of challenging concepts. I will provide study questions to guide you, but it is up to **you** to find and use the methods that work best for you.

This course is designed to have the same workload as a traditional, face-to-face class – approximately nine hours of work per week – but instead of simply showing up for lectures, you will demonstrate your work effort primarily through your success on the frequent quizzes and the cumulative exams.

Students who are most successful in online courses tend to be independent, organized, disciplined, and flexible. Please consider carefully whether your learning style and work traits are conducive to success in an online environment, and contact me if you have any questions or concerns. The University of Missouri offers [this self-assessment](#) for evaluating your potential for success in an online course, as well as these useful [Tips for Academic Success in Online Study](#).

### **Course Evaluations**

Anonymous evaluations of this course are welcome at any time; the sooner I become aware of a problem, the sooner it can be addressed.

## Weekly Schedule

Unit	Reading	Topics	Assignments
<b>Unit 1</b> 9/1 – 9/5	Syllabus  Text - Ch. 1	<p style="text-align: center;"><b><i>Course Introduction</i></b></p> <ul style="list-style-type: none"> <li>• Course Website, Materials &amp; Policies</li> </ul> <p style="text-align: center;"><b><i>Unit 1: Audiology as a Profession</i></b></p> <ul style="list-style-type: none"> <li>• Prevalence of Hearing Loss</li> <li>• Audiology Specialties</li> </ul>	<ul style="list-style-type: none"> <li>• Course Intro./Unit 1 Quiz               <ul style="list-style-type: none"> <li>• Available 9/2 – 9/4</li> </ul> </li> </ul>
<b>Unit 2</b> 9/7 – 9/13	Ch. 3	<p style="text-align: center;"><b><i>Unit 2: Sound and Its Measurement</i></b></p> <ul style="list-style-type: none"> <li>• Frequency, Period, Intensity, Wavelength</li> <li>• The Decibel</li> <li>• Complex Sounds</li> <li>• The Audiometer</li> <li>• Sound Level Meter</li> <li>• Calibration</li> </ul>	<ul style="list-style-type: none"> <li>• HW 1               <ul style="list-style-type: none"> <li>• Due by Friday 9/11 at 11:59 PM</li> </ul> </li> </ul>
<b>Unit 2 Cont.</b> 9/14 – 9/19			<ul style="list-style-type: none"> <li>• Unit 2 Quiz Available 9/16 – 9/18</li> </ul>
<b>Unit 3</b> 9/21 – 9/26	Ch. 9 p. 218-224	<p style="text-align: center;"><b><i>Unit 3: The Human Ear</i></b></p> <p style="text-align: center;"><b><i>The Outer Ear</i></b></p> <ul style="list-style-type: none"> <li>• Anatomy &amp; Physiology</li> </ul> <p style="text-align: center;"><b><i>The Middle Ear</i></b></p> <ul style="list-style-type: none"> <li>• Anatomy &amp; Physiology</li> </ul> <p style="text-align: center;"><b><i>The Inner Ear</i></b></p> <ul style="list-style-type: none"> <li>• Anatomy &amp; Physiology</li> </ul>	<ul style="list-style-type: none"> <li>• HW 2               <ul style="list-style-type: none"> <li>• Due by Friday 9/25 at 11:59 PM</li> </ul> </li> </ul>
<b>Unit 3 Cont.</b> 9/28 – 10/3	Ch. 10 p. 238 - 244  Ch. 11 p. 273 - 285		<ul style="list-style-type: none"> <li>• Unit 3 Quiz Available 9/30 – 10/2</li> </ul>

Weekly schedule continued

<p><b>Unit 4</b> 10/5 – 10/10</p>	<p>Ch. 2 p. 16-20</p>	<p><b><i>Unit 4: Pure-Tone Audiometry</i></b></p> <ul style="list-style-type: none"> <li>• Types of Hearing Loss</li> <li>• AC vs. BC Pathways</li> <li>• Procedures for AC &amp; BC Audiometry</li> </ul>	<ul style="list-style-type: none"> <li>• HW 3             <ul style="list-style-type: none"> <li>- Due by Friday 10/9 at 11:59 PM</li> </ul> </li> </ul>
<p><b>Unit 4 Cont.</b> 10/12 – 10/17</p>	<p>Ch. 4</p>	<ul style="list-style-type: none"> <li>• Audiogram Interpretation</li> <li>• Masking</li> </ul>	<ul style="list-style-type: none"> <li>• Unit 4 Quiz</li> </ul> <p>Available 10/14 – 10/16</p>
<p><b>Midterm</b> 10/19 – 10/24</p>	<p><b>Midterm</b></p> <p>10/23 – 9:00 – 10:30 am</p> <p>10/23 – 11:00 – 12:30 pm</p> <p>or</p> <p>10/24 – 12:00 – 1:30 pm</p>		
<p><b>Unit 5</b> 10/26 – 10/31</p>	<p>Ch.5</p>	<p><b><i>Unit 5: Speech Audiometry</i></b></p> <ul style="list-style-type: none"> <li>• Equipment</li> <li>• Environment</li> <li>• Speech-Threshold &amp; Word-Recognition Tests</li> </ul>	<ul style="list-style-type: none"> <li>• Unit 5 Quiz             <ul style="list-style-type: none"> <li>- Available 10/28 – 10/30</li> </ul> </li> </ul>
<p><b>Unit 6</b> 11/2 – 11/7</p>	<p>Ch.7</p>	<p><b><i>Unit 6: Physiological Tests of the Auditory System</i></b></p> <ul style="list-style-type: none"> <li>• Acoustic immittance measurements</li> <li>• Auditory evoked potentials</li> <li>• Acoustic reflexes</li> </ul>	<ul style="list-style-type: none"> <li>• Unit 6 Quiz             <ul style="list-style-type: none"> <li>- Available 11/4 – 11/6</li> </ul> </li> </ul>

**Weekly Schedule Cont.**

<p><b>Unit 7</b> 11/9 – 11/14</p>	<p>Ch. 9 p. 224-237</p>	<p><b>Unit 7: Disorders of the Ear</b> <b>The Outer Ear</b></p> <ul style="list-style-type: none"> <li>Disorders</li> </ul>	<ul style="list-style-type: none"> <li>HW 4 <ul style="list-style-type: none"> <li>Due by Friday 11/13 at 11:59 PM</li> </ul> </li> </ul>
<p><b>Unit 7 Cont.</b> 11/16 – 11/21</p>	<p>Ch.10 p. 245-272  Ch.11 p. 286-314</p>	<p><b>The Middle Ear</b></p> <ul style="list-style-type: none"> <li>Disorders</li> </ul> <p><b>The Inner Ear</b></p> <ul style="list-style-type: none"> <li>Disorders</li> </ul>	<ul style="list-style-type: none"> <li>Unit 7 Quiz Available 11/18 – 11/20</li> </ul>
<p>11/23 – 11/27</p>		<p><i>Thanksgiving Holiday</i></p>	
<p><b>Unit 8</b> 11/30 – 12/5</p>	<p>Ch.8</p>	<p><b>Unit 8: Hearing Tests for Children</b>  <b>Audiological Screening Programs</b></p>	<ul style="list-style-type: none"> <li>Unit 8 Quiz <ul style="list-style-type: none"> <li>Available 12/2 – 12/4</li> </ul> </li> </ul>
<p><b>Unit 9</b> 12/7 – 12/11 (regular classes end Wed 12/10)</p>	<p>Textbook Companion Website</p>	<p><b>Unit 9: Case Studies</b></p>	<ul style="list-style-type: none"> <li>Look at Case Studies in partial preparation for Final Exam</li> </ul>
<p><b>Finals</b> 12/15 – 12/20</p>	<p><b>Final Exam</b></p> <p>12/17 – 6:00 – 8:30 pm</p> <p>12/18 – 9:00 -11:30 am</p> <p>or</p> <p>12/19 – 12:00 – 2:30pm</p>		



