

LING 393: Introduction to Audiology (01:615:393)

Fall 2022

Professor:	Ann Marie Olson, Sc.D. ,CCC-A, FAAA
Email:	annmarie.olson@rutgers.edu
Office Hours:	online Tuesday 7pm by appointment or other time by appointment
Prerequisites:	LING 201
Course Website:	Access via https://canvas.rutgers.edu
Course Modality:	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, and emphasizes clinically-relevant information.

Course Delivery:

This course is fully online and meets asynchronously. You can review lectures, videos and other course activities at anytime but you are required to complete assignments by the posted deadlines. Your weekly activity and submissions will impact your course grade. For more information about course access or support, contact OIT Help Desk; help@oit.rutgers.edu; 833-OIT-HELP (833-648-4357). In addition to contacting the OIT Help Desk please alert me as soon as possible if you run into any problems using Canvas.

Learning remotely presents new challenges. For assistance with learning how to address these challenges, please consult the resources available here: https://rlc.rutgers.edu/remote_instruction.

Required text:

Martin, Frederick N. and John G. Clark. 2019. Introduction to Audiology. 13th Edition. Pearson. ISBN: 9780134694900.

The e-textbook version is acceptable.

Course Learning Goals:

The learning goals for this course support 2020 ASHA Speech Language Pathology Certification Standards and will be assessed through written exams, discussions, student presentations and quizzes.

Department Learning Goals for this Course:

This course supports the learning goals of Rutgers' Linguistics' Department including the student's ability to reason about language scientifically, demonstrate knowledge of universal patterns in language and identify what someone knows when they know a language.

Course Learning Goal	ASHA Standard	Method of Assessment
Describe the anatomy and physiology of the speech mechanism pertaining to normal and abnormal human development across the life span	IV-B	Written Quizzes & Exams
Recognize common speech and language disorders	IV-C	Written Quizzes, Exams, Discussion Posts & Student Presentations
Describe speech sound production, fluency, voice and resonance, receptive and expressive language	IV-C	Written Quizzes & Exams
Identify basic audiological diagnostic and screening procedures	IV-D	Written Quizzes & Exams
Interpret basic audiometric test findings	IV-D (+V-B e)	Written Quizzes & Exams
Identify importance of hearing conservation and the impact hearing loss has on social, cognitive, psychological and communication abilities	IV-C	Written Quizzes, Exams & Discussion Posts

Important Dates:

The class begins on Tuesday 9/6 and ends on Wednesday 12/14. Final exam week for the University is Friday 12/16 – Thursday 12/22. The last day to drop this class without a W grade is Thursday 9/15. There will be a scheduled midterm and final exam, with at least two possible dates given for each exam, TBD. See Canvas for more information.

Communication Etiquette/Rules of Engagement:

EMAIL: Any general course related questions should be asked in the discussion forum labeled: Class help: Ask a Question. You are welcome and expected to answer your peers' questions to the best of your ability. However, if you have a specific or personal concern that you would like to discuss privately, please do not hesitate to email me. I will respond to your email as soon as possible but definitely within 24 hours during the work week and the next business day on weekends and holidays. When emailing, please include LING393 in the subject line and always sign off with your first and last name so that I can easily search for emails as needed.

APPOINTMENTS: Requests to meet virtually by appointment should be made formally, via email. When writing to request a virtual appointment, please do the following:

- Specify what you wish to discuss
- Propose at least 3 time/day options that you are available to meet
- Note your preference regarding the format of our meeting (e.g., Zoom, phone, Google Hangout, instant messaging/chat)
- Include your first and last name.

ACCESSIBILITY: I will make every effort to respond to all correspondence within 24 hours.

Office Hours:

Weekly office hours are Tuesdays at 7pm by appointment or another time by appointment. I will be online and available on **Tuesdays at 7pm**. If students do not request a meeting before 7:30pm on Tuesdays another meeting time will need to be arrange. Students can use the appropriate (content-related or chapter-related) discussion forum on Canvas to ask general questions throughout the week. Student attendance and/or participation in the weekly office hour is voluntary. Time and day of the chat sessions are subject to change in order to best accommodate the maximum number of students.

Assessments and Grading Policies:

Assessment	%
Quizzes:	30%
Exams (Midterm & Final)	40%
Homework: Assignments & Discussion Forum	20%
Student Presentations	10%
Total	100%

QUIZZES (30%)

8 unit reading quizzes will be administered. Your lowest quiz grade will be dropped. Each quiz covers information from the PowerPoint notes and assigned chapters, and will include a variety of formats including but not limited to: multiple choice, matching, fill-in-the-blank, and diagram-labeling questions.

You are strongly encouraged to complete each quiz without the use of other resources. However, you are allowed to use your textbook, class notes and other resources EXCEPT for another student. Quizzes are designed to enhance your learning and help you prepare for the midterm and final exams.

Each quiz will be available for five days and **may be opened at any time from 12:01 AM Wednesday morning until 11:55 PM Sunday night.**

*Your scores on 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. Do not hesitate to post a question in the forum or contact me with any material specific information. As a class, scores on quizzes will keep me apprised of your overall progress and areas that may need revision or reinforcement.*

EXAMS (40%)

This course includes a midterm and a final exam, each of which contributes 20% toward your final grade. Exams may include multiple-choice, matching, fill-in-the-blank, diagram-labeling and short answer questions.

Exams are “closed book” and timed. The midterm and final exam will be available within the allocated exam week. See the class schedule for details.

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

HOMEWORK (20%)

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 work will be available in Canvas.

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.

STUDENT PRESENTATION: Auditory Pathology (10%)

In teams of 2, prepare a 10 minute video including PowerPoint presentation on a pathology of the outer ear, middle ear, inner ear or central pathway (possible topics listed below)

Content and Knowledge of the project will be worth 60 points, the presentation will be worth 40 points. A grading rubric will be provided in Canvas.

Presentations should include:

- Description of disorder
- Etiology

- Prevalence/incidence
- Effect on hearing
- Potential Audiogram
- Impact on language development and/or speech understanding, if any
- Treatment options
- Other professionals on a multidisciplinary team (or how can an SLP add value/treatment)

Presentation topic is due by **Sunday 9/25**. Sign up via the People tab in Canvas.

2 slide Pathology Presentation introduction with audio of each student stating their name and topic choice due **Sunday 10/16** via Assignment tab in Canvas

A recorded video/VoiceThread should be submitted via the Assignments tab by **Sunday 12/5** 11:59pm. Acceptable formats are a video recording (Zoom recording is acceptable) or powerpoint slides with audio. If the audio is not included or audible during your presentation points will be deducted.

Possible Topics:

Outer ear	Middle ear	Inner ear	Central Pathway
Microtia/Atresia	Otitis Media	Presbycusis	Acoustic Neuroma
Otitis Externa	Cholesteatoma	Noise induced hearing loss	Auditory Neuropathy (ANSO)
Perforated tympanic membrane	Otosclerosis	Ototoxicity	Auditory Processing Disorder
Tympanosclerosis	Mastoiditis	Meniere’s disease	Tinnitus
Herpes Zoster Oticus	Eustachian Tube Dysfunction	Temporal bone fracture	
	Glomus tumor	Perilymphatic Fistula	
		Superior Canal Dehiscence	
		Enlarged Vestibular Aqueduct	

Extra Credit Opportunity: (max of 2 points toward final grade)

Students can complete one of two extra credit opportunities

1. Volunteer for a Rutgers’ Linguistic Research study. At time of participation, you must specify with the lab coordinator that you would like your participation to count toward extra credit for this class. Experiments are offered through the Linguistics Department experimental management system (sona) website (<https://rutgerslinguistics.sona-systems.com/>)
2. Write a two page article summary on a pre-determined audiology topic. Please contact Dr. Olson before the last week of class to discuss a topic.

COURSE GRADING SCALE: (Source: Rutgers standard undergraduate grade scale)

Grade	Range
A	90-100
B+	85-89
B	80-84
C+	75-79
C	70-74
D	60-69
F	Below 60

Academic Integrity Policy:

You are expected to be familiar with and abide by [Rutgers University's Academic Integrity Policy](#). Any collaboration with other students or non-allowed materials to answer questions in reading quizzes or the exams is a violation of Rutgers' Academic Integrity Policy.

All students are expected to know, understand, and abide by the Academic Integrity Policy. These short and engaging videos will help explain the policy, the difference between the types of violations, and possible sanctions for students found responsible for violating the policy. In addition, students will be introduced to the Honor Pledge which asks students to verify that they have not received or provided unauthorized assistance on an assignment or examination. The link below reviews Rutgers' academic integrity violations and outcomes.

<https://nbprovost.rutgers.edu/academic-integrity-students>

Plagiarism: Plagiarism is the use of another person's words, ideas, or results without giving that person appropriate credit. To avoid plagiarism, every direct quotation must be identified by quotation marks or appropriate indentation and both direct quotation and paraphrasing must be cited properly according to the accepted format for the particular discipline or as required by the instructor in a course. Some common examples of plagiarism are:

- Copying word for word (i.e. quoting directly) from an oral, printed, or electronic source without proper attribution.
- Paraphrasing without proper attribution, i.e., presenting in one's own words another person's written words or ideas as if they were one's own.
- Submitting a purchased or downloaded term paper or other materials to satisfy a course requirement.
- Incorporating into one's work graphs, drawings, photographs, diagrams, tables, spreadsheets, computer programs, or other nontextual material from other sources without proper attribution.ⁱ

Students caught cheating or committing plagiarism will be penalized, as per Rutgers policy.

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

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

Attendance, Participation, and Student Responsibility Policies:

Because all work will be completed asynchronously for this course, there is no formal attendance policy. However, students are expected to participate in weekly office hour chat sessions, and 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.

Each student is responsible for monitoring his/her grades and checking the accuracy of the grades throughout the semester. *It is the student's responsibility to contact both of the instructors via email within one week of the posted grade, to inform instructors of any discrepancy.* Additionally, course information on the Sakai website will be updated frequently. It is your responsibility to stay up to date on course material

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://webapps.rutgers.edu/student-ods/forms/registration>.

Student-Wellness Services:

Counseling, ADAP & Psychiatric Services (CAPS)

(848) 932-7884 / 17 Senior Street, New Brunswick, NJ 08901

<http://health.rutgers.edu/medical-counseling-services/counseling/>

CAPS is a University mental health support service that includes counseling, alcohol and other drug assistance, and psychiatric services staffed by a team of professional within Rutgers Health services to support students' efforts to succeed at Rutgers University. CAPS offers a variety of services that include: individual therapy, group therapy and workshops, crisis intervention, referral to specialists in the community and consultation and collaboration with campus partners.

Violence Prevention & Victim Assistance (VPVA)

(848) 932-1181 / 3 Bartlett Street, New Brunswick, NJ 08901 / <http://vpva.rutgers.edu/> Violence

Prevention and Victim Assistance provides confidential crisis intervention, counseling and advocacy for

victims of sexual and relationship violence and stalking to students, staff and faculty. To reach staff during office hours when the university is open or to reach an advocate after hours, call 848-9321181.

Disability Services

(848) 445-6800 / Lucy Stone Hall, Suite A145, Livingston Campus, 54 Joyce Kilmer Avenue, Piscataway, NJ 08854 / <https://ods.rutgers.edu/>

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://webapps.rutgers.edu/student-ods/forms/registration>.

Report a Concern: <http://health.rutgers.edu/do-something-to-help/>

Important: 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. We will provide study questions and activities (e.g., VoiceThread videos) to guide you and will offer study tips, but it is up to you to find and use the methods that work best for you.

Students who are most successful in online courses tend to be independent, organized, disciplined, and flexible. 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.

This class allows for you to interact with your classmates in chat room office hours and discussion forums on the course website. It is important that we all be mindful of how our written words can be interpreted by others and that we be respectful and courteous in our interactions.

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.

Week/Unit	Reading	Topics	Assignments
Unit 1 9/6 – 9/11	Syllabus Text: Chapter 1	<p><i>Course Introduction</i></p> <ul style="list-style-type: none"> • Course Website, Materials & Policies • Unit 1: Audiology as a Profession • Prevalence of Hearing Loss • Audiology Specialties 	Due Sun. 9/11 Student Introductions: Flipgrid Syllabus Quiz HW1: Discussion Forum
Unit 2 9/12-9/18	Text: Chapter 3	Sound and Its Measurement <ul style="list-style-type: none"> • Frequency, Period, Intensity, Wavelength • Complex Sounds • The Decibel • Audiometer • Sound Level Meter • Calibration 	Unit 1 & 2 Quiz Due Sunday 9/18
Unit 2 cont'd 9/19 – 9/25			Due Sunday 9/25: Unit 2 Quiz Sign up for Presentation Topic
Unit 3 9/26 - 10/2	Text: Chapter 9 p. 218 – 224 Text Chapter 10 p. 238-244	Anatomy & Physiology of the Human Ear <ul style="list-style-type: none"> • The Outer Ear • The Middle Ear 	HW 2 Due Sunday 10/2
Unit 3 cont'd 10/3 – 10/9	Text: Chapter 11 p. 273-285	Anatomy & Physiology of the Human Ear <ul style="list-style-type: none"> • The Inner Ear 	Unit 3 Quiz Due Sunday 10/9
Unit 4 10/10 – 10/16	Text: Chapter 3	Pure Tone Audiometry <ul style="list-style-type: none"> • Types of Hearing Loss • AC vs BC Pathways • Intro to Audiogram 	Due Sunday 10/16: HW 3 Pathology 2 slide intro w/ audio
Unit 4 Cont'd 10/17 – 10/23	Text: Chapter 3	Pure Tone Audiometry <ul style="list-style-type: none"> • Procedures for AC & BC Audiometry • Intro to Speech Testing • Audiogram Interpretation • Masking Audiogram Interpretation	Unit 4 Quiz Due Sunday 10/23
10/24 – 10/30	MIDTERM: AVAILABILITY TO BE ANNOUNCED		
Unit 5 10/31 – 11/6	Text: Chapter 5	Speech Audiometry <ul style="list-style-type: none"> • Equipment • Environment • Speech Threshold & Word Recognition Tests 	Unit 5 Quiz Due Sunday 11/6
Unit 6 11/7– 11/13	Text: Chapter 7	Physiological Tests of the Auditory System <ul style="list-style-type: none"> • Acoustic immittance • Auditory Evoked Potentials 	Unit 6 Quiz Due Sunday 11/13

		<ul style="list-style-type: none"> • Acoustic Reflexes 	
Unit 7 11/14 – 11/20	Text: Chapter 9 p. 224-237 Text: Chapter 10 p. 245-272	Disorders of the Ear <ul style="list-style-type: none"> • Outer Ear Disorders • Middle Ear Disorders 	HW 4 Due Sunday 11/20
Unit 7 cont'd 11/21 – 11/28 (Thanksgiving)	Text: Chapter 11 p. 286 – 314	<ul style="list-style-type: none"> • Inner Ear Disorders 	Unit 7 Quiz Due Monday 11/28
Unit 8 11/28 – 12/4	Text: Chapter 8	<ul style="list-style-type: none"> • Hearing Tests for Children • Audiological Screening Programs 	Due Sunday 12/4: Unit 8 Quiz Student Presentations
Unit 9 12/5 – 12/11		<ul style="list-style-type: none"> • Student Presentations: Auditory Pathologies 	Email topics/questions you would like to review the final week of class (Due Sunday 12/4, optional assignment)
12/12-12/14		<ul style="list-style-type: none"> • Review Week 	
12/15	READING DAY		
12/16 -12/22	UNIVERSITY FINAL EXAM WEEK Friday 12/16 – 12/22 AVAILABILITY TO BE ANNOUNCED		