



MAUD 211: Medical Audiology

Medical Audiology Sciences Program

Faculty of Health Sciences – Faculty of Medicine
American University of Beirut

Course Syllabus – Spring 2020

INSTRUCTOR INFORMATION:

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COURSE INFORMATION:

Days / Time: Monday, 9:00 – 10:15 a.m. (M. Abu-Safieh)
Monday, 10:30 – 11:45 a.m. (G. Zaytoun)
Place: **Classroom:** MAS Laboratory, Medical Center – Phase (1), Sub-Basement
Level/Credits: Undergraduate / 3 semester hours
Prerequisites: OHNS 240
Moodle Site: **AUDI 211 Moodle Site**

REQUIRED COURSE TEXTBOOK AND READINGS:

Textbook: Musiek, F.E. (2012), *Disorders of the Auditory System*, San Diego: Plural Publishing, Inc. (Online book found in the AUB Library Collection).

Supplemental Readings: Other readings will be assigned throughout the semester. Supplemental readings will either be accessible online (via the **AUDI 211 Moodle Site**) or distributed in class.

COURSE DESCRIPTION:

This course provides an introduction to the major pathologies of the peripheral and central auditory-vestibular systems. The course will include dysfunction arising from genetic factors, disease, and trauma, with an emphasis applied to presenting signs/symptoms, interpretation of laboratory / imaging results, and medical / surgical interventions.

COURSE FORMAT:

AUDI 211 is taught in a traditional format via classroom lectures and activities. Whenever feasible, graphics, color plates, or other visual media will be used to assist the student in recognizing normal and abnormal ear anatomy.

STUDENT LEARNING OBJECTIVES:

The objective of this course is to provide the student with an overview of medical aspects of audiology. The course will rely heavily on medical terminology and will be broken down into four general anatomical areas: (1) outer ear, (2) middle ear, (3) inner ear and (4) central auditory system. Comparisons will be made between the normal human ear and the abnormal hearing mechanism. Each general area will be further broken down into: relevant anatomy and physiology, etiology and pathology, and audiological evaluation and management (clinical implications and pragmatic approaches).

Throughout their career, audiologists will likely interface with their medical counterparts (*e.g.*, otolaryngologists, primary care physicians, family practitioners, pediatricians, and neurologists). In order to gain respect in the medical community, the truly professional audiologist needs to be able to relate to the physician. Medical terminology is one level of communication that the audiologist can master and wherein he/she may display competence. Speaking a foreign language when visiting another country is usually a good way to make friends and gain respect. It is no different within the field of hearing healthcare.

STUDENT LEARNING OUTCOMES:

1. Demonstrates ability to identify various outer and middle ear pathologies.
2. Recognizes presenting signs and symptoms of various outer ear, middle ear, inner ear, and central pathologies.
3. Describes typical audiological/vestibular findings for various pathologies affecting the hearing and balance systems.
4. Develops a differential diagnosis when given a case history, laboratory / imaging results and audiological findings.
5. Describes, in general terms, medical and/or surgical procedures for treatment of disorders affecting the auditory and vestibular systems.
6. Describes effects of chemical agents on the auditory and vestibular systems.
7. Identifies infectious/contagious diseases and their effect on the auditory and vestibular systems.
8. Describes an audiologic management plan for patient who have various auditory-vestibular dysfunctions.

ASSESSMENT METHODS AND GRADING CRITERIA:

The table below summarizes the ways in which your learning will be assessed throughout this course. Specifically, the table lists the assessment methods, along with the number of times each method will be used, the total number of points, and the percentage contribute to the final grade.

METHOD	% OF GRADE
Auditory Disorders Discussion	25%
Exam 1	25%
Exam 2	25%
Exam 3	25%
TOTAL:	100%

N.B: Passing grade for this course is 60

Auditory Disorders Discussion:

The Auditory Disorders Discussion is worth 25% of your course grade and is based on your ability to lead a class discussion on an assigned auditory disorder (15% of activity), as well as participate in the discussion of other disorders presented by your classmates throughout the semester (10% of activity).

Moderator: A topic will be assigned to you during Week 2, and you will be given a base chapter to use as a guide for the discussion of the auditory disorder. You will lead the class in a 30-minute discussion that includes: (a) a description of the disorder, (b) patient characteristics, (c) clinical course, (d) site of disorder, (e) general audiologic pattern/test results, and (f) sample case(s) from the base chapter. Beyond the information in the base chapter, you are responsible for adding to the discussion any recent discoveries, new test methods/findings, and changes in disorder management. **NOTE:** References for the added information must be submitted to the instructor in *pdf* format prior your project.

Contributor: All students in the class must read the base chapter ahead of time and be prepared to participate actively in the Auditory Disorders Discussion. Examples of active participation and professionalism include:

- Class preparation (*e.g.*, review of previous information / familiarity with assigned reading)
- Oral participation in class
- Treating your classmates/instructor with respect and tolerance, understanding that everyone learns differently, and understanding that nobody (including your instructor) is perfect and that everyone sometimes makes mistakes.
- Regular class attendance

Exams:

Three (3) exams will be given during the semester. Exams 1, 2 and 3 will cover the material presented during the Monday, 10:30 – 11:45 a.m. sessions. They will include general information from the lectures and course textbook. Additionally, Exam 3 will include questions from the Auditory Disorders Discussions. All exams will be in a multiple choice, true/false or short answer format.

OTHER IMPORTANT INFORMATION:

Missed Exams:

Exams, including the final exam must be completed within the time period specified; zero points will be given for an exam if the student does not adhere to the time guidelines. (*The only delays for the final exam that will be considered by the instructor are for documented illness, death in the family, and personal/family emergency*).

Moodle Support:

Moodle will be used extensively in this course. Students should check the *Moodle* course site frequently (at least 1 time per week) for announcements, module guidelines, readings, resources, and assessment instructions/due dates. Should you have any difficulty with *Moodle*, you can consult the [Moodle for Students](#) and the [Moodle Student Guide](#). Additionally, you can contact AUB's *Moodle* Administrator via email (moodle@aub.edu.lb) or by telephone at extensions: 3518 / 3588 / 3586. Finally, you may consult the instructor or classmates by posting your *Moodle* questions in the "**News & Housekeeping Forum**", again, which is located in the *Course Resources* section of Module 0.

Technology Support:

This course requires that you have access to a computer (*e.g.*, personal or lab computer). The AUB Computing and Networking Service (CNS) can help you with hardware and software requirements for

this course. Specifically, the CNS can assist you with (a) account creation and management, (b) computer/system configuration, (c) AUB wireless LAN, (d) online resources, and (e) locating computer labs on campus. For more information about student services, visit the **CNS website** at <http://www.aub.edu.lb/cns/students/Pages/index.aspx>. Students can request technical support/assistance from CNS by contacting them directly by telephone (ext: 2260), or via their online **CNS Help Desk** (<http://www.aub.edu.lb/cns/helpdesk/Pages/index.aspx>).

Cell Phones:

The use of cell phones is **prohibited in the classroom**, even when set to vibrate. Cell phones are extremely disruptive to your classmates and to the instructor. **You must turn off your cell phone and place it face down on your desk at the beginning of each class.**

Students with Disabilities:

AUB strives to make learning experiences accessible for all. If you anticipate or experience academic barriers due to a disability (such as ADHD, learning difficulties, mental health conditions, chronic or temporary medical conditions), please do not hesitate to inform the Accessible Education Office. In order to ensure that you receive the support you need and to facilitate a smooth accommodations process, you must register with the Accessible Education Office (AEO) as soon as possible: accessibility@aub.edu.lb; [+961-1-350000](tel:+961-1-350000), x3246; West Hall, 314'.

Student Code of Conduct:

Any dishonesty related to academic work or records constitutes academic misconduct. Academic misconduct is a serious ethical violation and will not be tolerated. Acts such as cheating and plagiarism are viewed as moral and intellectual offenses that are subject to investigation and disciplinary action through appropriate University procedures. Penalties may range from loss of credit for a particular assignment to dismissal from the University. The AUB Student Code of Conduct can be read at: <https://www.aub.edu.lb/sao/Documents/Student%20Handbook%202016-2017.pdf>

Non-Discrimination – Title IX - AUB:

AUB is committed to facilitating a campus free of all forms of discrimination including sex/gender-based harassment prohibited by Title IX. The University's non-discrimination policy applies to, and protects, all students, faculty, and staff. If you think you have experienced discrimination or harassment, including sexual misconduct, we encourage you to tell someone promptly. If you speak to a faculty or staff member about an issue such as harassment, sexual violence, or discrimination, the information will be kept as private as possible, however, faculty and designated staff are required to bring it to the attention of the University's Title IX Coordinator. Faculty can refer you to fully confidential resources, and you can find information and contacts at www.aub.edu.lb/titleix. **To report an incident**, contact the University's Title IX Coordinator Trudi Hodges at 01-350000 ext. 2514, or titleix@aub.edu.lb. An anonymous report may be submitted online via EthicsPoint at www.aub.ethicspoint.com.

COURSE SCHEDULE:

Topic(s) – Planned Schedule Monday, 10:30 – 11:45 am	Textbook Readings
A. Conductive Hearing Disorders	Chapters 4 & 9
1. Congenital external and middle ear anomalies	
2. External auditory canal disorders	
3. Diseases of the middle ear	
4. Tympanic membrane perforation/tympanosclerosis	
5. Cholesteatoma	
B. Mixed Hearing Loss	Chapter 5
1. Otosclerosis	
2. Barotrauma	
C. Sensory Hearing Loss	Chapters 5, 6 & 9
1. Congenital and inherited disorders of the inner ear	
2. Inner ear infections	
3. Ototoxicity	
4. Acquired sensory disorders	
5. Sudden sensorineural hearing loss	
6. Immune mediated inner ear disease	
7. Presbycusis	
8. Auditory neuropathy	
D. Vestibular Disorders	Chapter 5
1. Meniere’s disease	
2. Migraine related vertigo	
3. BPPV	
4. Superior semicircular canal dehiscence syndrome	
5. Mal de Debarquement	
E. Temporal bone tumors	Chapter 6
1. Tumors of the 8 th nerve	
2. Temporal bone malignancies	

NOTE: The schedule for the Auditory Disorders Discussion will be agreed upon during the first class period and then posted on Moodle.