



MAUD 207: Auditory Evoked Potentials

Medical Audiology Sciences Program
FHS-FM Division of Health Professions
American University of Beirut

Course Syllabus – Spring 2020

INSTRUCTOR INFORMATION:

Name: James W. Hall III, PhD
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Office Hours: By appointment

COURSE INFORMATION:

Day / Time: M-T-W-R-F / 8:30 a.m. – 4:00 p.m.
Dates: 7 – 17 January 2020
Place: Medical Audiology Sciences (MAS) Laboratory
Level/Credits: Undergraduate / 3 credits
Prerequisites: MAUD 201 or consent of instructor
Moodle Site: MAUD 207 Moodle Site

TEXTBOOK/READINGS:

Required: Hall JW III (2015). *eHandbook of Auditory Evoked Responses*

COURSE DESCRIPTION:

The course will provide a practical and clinically focused review of auditory evoked responses with an emphasis on measurement, analysis, and clinical application of the auditory brainstem response.

COURSE FORMAT:

MAUD 207 will be taught in an intensive format, with classroom lectures given within a 10-day on-campus period supplemented with online lectures. Lectures will be enhanced through PPT presentations, hands-on demonstrations, laboratory activities, and the use of other audiovisual supporting materials.

STUDENT LEARNING OBJECTIVES/OUTCOMES:

1. Develop a vocabulary of appropriate terminology to effectively communicate information related to auditory evoked responses.
2. Recognize the anatomical and physiological bases of auditory evoked responses.
3. Explain the rationale for test parameters and protocols used to record auditory evoked responses.
4. Identify non-pathological factors influencing auditory evoked response recordings.
5. Identify clinical applications for auditory evoked responses in pediatric and adult patient populations.
6. Demonstrate ability to record an auditory brainstem response from a cooperative normal adult subject.

7. Demonstrate ability to trouble shoot technical problems in ABR measurement. Brief review with questions/answers.
8. Demonstrate active participation and professionalism.
9. Demonstrate ability to synthesize course concepts.

GUIDELINES FOR SUCCESS IN THE COURSE:

Develop good study habits: Don't just cram for the tests! Always be prepared for class sessions by reading the chapter assigned for the day's lecture and accompanying slides. Reserve some time each day to review the material from the last lecture, and to read the material for the next.

Break assigned readings into manageable chunks: Once you have gone through the assigned reading, break up the text into 3-4 sections. Read and underline one section at a time before moving on to the next section.

Utilize the module study guides: Once you read and underlined the chapter, go directly to the review questions provided in the module study guides. This is an important way to test your knowledge. Don't be discouraged if you don't get everything right at the first time. Read again the sections where you missed the review questions and go over the review questions again. If you have any lingering questions, make a note of them so you can ask your teacher or fellow students about them.

Don't hesitate to ask your teacher or fellow students: It is important to find answers to any problems that keep you from understanding the material. There is heavy use of terms that have origins in Latin or Greek, and the sheer number of these terms requires the development of a new vocabulary. Call a fellow student or your teacher; email works just as well. Don't be shy, because there are no stupid questions!

Prepare flash cards or other memory-enhancing tools: This is important when studying material where memorization is important. Find another student to form a study pair, or start or join a student group where you can test each other's memorization.

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 number of points per assessment, the total number of points, and the percentage contribute to the final grade. A description of each assessment method is provided in the paragraphs that follow the table.

METHOD	TOTAL POINTS	% OF GRADE	Course Objective
Exam 1: Principles of auditory evoked responses	100	30%	1 – 9
Exam 2: ABR measurement	100	30%	1 – 9
Exam 3: Cumulative	100	40%	1 – 9

N.B: Passing grade for this course is 60

Exams:

Three conventional written exams will be given during the course. Each exam is worth 100 points and consists of multiple-choice or true/false questions. Students will be given one hour to complete each exam. The instructor will proctor the exams and will be able to assist with any questions.

OTHER IMPORTANT INFORMATION:

Attendance:

You are expected to attend all classes and participate in classroom activities. If you miss a class, it is your responsibility to make up for the material missed and inquire about any announcements made. As per [AUB General Regulations](#), a student who is absent one-fourth of the sessions without a valid excuse will not be entitled to a final grade in the course.

Missed Exam:

All exams must be completed within the time period specified. *(The only delays for exams 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 in this course. Students should check the *Moodle* course site at least once per week for announcements, guidelines, resources, and assessment instructions/due dates. Should you have any difficulty with *Moodle*, you can consult the [Moodle Orientation for Students](#) video and the [Moodle Student Guide](#). Additionally, you can contact AUB's *Moodle* Administrator via email (moodle@aub.edu.lb) or by telephone at extensions: 3580. Finally, you may consult the instructor or your classmates by posting your *Moodle* questions in the "[News & Housekeeping Forum](#)", 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](#). Students can request technical support/assistance from CNS by contacting them directly by telephone (ext: 2260), or via their online [CNS Help Desk](#).

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. Please make a point to turn off your cell phone / pager before entering class.

Students with Disabilities:

Staff members of the AUB Office of Student Affairs, Room 113, West Hall, coordinate accommodations and services for students with special needs. If you have a disability, for which you may request accommodation in AUB classes, consult the website for more information and make arrangements with the [Coordinator](#). Also, please see the instructor of this course privately in regard to possible support services that can be provided to you.

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. Kindly, review AUB's [Student Code of Conduct](#) about plagiarism.

COURSE SCHEDULE:

Further details or any changes to the schedule will be provided to you during class and the “*News & Housekeeping Forum*”.

Day	Date	Topics Covered	Linked to Objective(s)	Chapter (s) in eHandbook
TUE	January 7	<ul style="list-style-type: none"> - Review syllabus - Historical perspective - Auditory brainstem response (ABR) test protocol: Stimulus parameters - Principles of auditory evoked responses 	1,2,3,8 (ABR)	1, 4, 5
WED	January 8	<ul style="list-style-type: none"> - Review with questions/answers - ABR test protocol: Stimulus parameters (<i>continued</i>) - ABR test protocol: Acquisition parameters 	3,8 (ABR)	5, 6
THU	January 9	<ul style="list-style-type: none"> - Review with questions/answers - ABR analysis of non-pathological factors in ABR recording - Estimation of auditory thresholds with ABR - ABR in diagnosis of neural auditory dysfunction 	4,5,7,8,9 (ABR)	7, 8
FRI	January 10	<ul style="list-style-type: none"> - Review with questions/answers - Objective pediatric hearing assessment with OAEs, aural immittance measures & ABR 	4,5,8,9 (ABR)	Hall, 2016 a, b
MON	January 13	<ul style="list-style-type: none"> - Hands-on ABR demonstration: Protocols 	6,7,8,9 (ABR)	
TUE	January 14	<ul style="list-style-type: none"> - Exam 1 - Review with questions/answers - Auditory steady state response (ASSR) 	1-9 (ABR) 5,6,8,9 (ASSR)	9
WED	January 15	<ul style="list-style-type: none"> - Review with questions/answers - Introduction to ECoChG - ECoChG in auditory neuropathy spectrum disorder 	5,6,8,9 (ECoChG)	2, 3
THU	January 16	<ul style="list-style-type: none"> - Directed ABR/ASSR student practicum laboratories 	5,6,8,9	
FRI	January 17	<ul style="list-style-type: none"> - Introduction to cortical responses - Clinical applications of cortical responses 	5,6,8,9 (Cortical Responses)	10, 11, 12
TBD	TBD	<ul style="list-style-type: none"> - Exam 2 	1 – 9	
TBD	TBD	<ul style="list-style-type: none"> - Exam 3 	1 – 9	