Instructor: Sharon Miller, Ph.D., CCC-A  
Office: SPHS 214  
Office Hours: By appointment

Class Schedule: Mondays, 4:00-6:50 PM  
Location: SPHS 212  
Course credits: 3 credits

Lecture Materials and Required Readings
All of my Power Point lecture slides, handouts, and required readings will be posted online to the Blackboard course site for students to print before each class meeting.

Course Description:
This advanced course in electrophysiologic assessment will cover the theoretical and clinical aspects of auditory evoked potentials for clinical audiology. Content will be presented and learned through lecture, labs, exams, individual presentations, and assignments.

Student Learning Outcomes

Knowledge and Skills
Upon completion of this course, students will be able to do the following:
- Administer and interpret electrophysiological assessments including ABR, MLR, LLR, and cABR. Stacked ABR, ECochG and CHAMP will also be discussed.
- Use electrophysiological measures to estimate hearing thresholds in infants and adults
- Use electrophysiological measures to diagnose conductive, sensorineural, and retrocochlear pathologies
- Use LLR to evaluate cochlear implant and hearing aid function
- Use of LLR to evaluate effects of rehabilitative treatment

Research and Writing
Upon completion of the course, student will be able to:
- Use evidence from lecture and assigned readings to complete an essay-based take home exam
- Read and critique a selected research article and present the paper to the class

Collaborative Learning and Oral Skills
Upon completion of the course, students will be able to:
- Engage in a collaborative problem solving learning environment.
- Work with other students to complete laboratory assignments on different electrophysiological measures

Course Requirements and Grading:
1. Attendance is required for all class sessions.  
2. In-class Exams (2) at 25% each  
3. Lab assignments (7 total)  
4. Article Presentation  
5. Final exam

E-mail: sharon.miller@unt.edu  
Office telephone: (940)-369-7385
**Grading:**

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<thead>
<tr>
<th>Grade</th>
<th>Percentage</th>
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<tbody>
<tr>
<td>A</td>
<td>100-90%</td>
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<tr>
<td>B</td>
<td>89-80%</td>
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<tr>
<td>C</td>
<td>79-70%</td>
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**Policy on Incompletes:** All writing assignments, exams, and presentations must be completed during the Fall semester. A grade of “I” will not automatically be given to students who cannot hand in the assignments on the due dates. Grades of “I” will only be given to students with specific health problems or emergencies. Each student must talk to the instructor in order to be considered for a grade of “I.” If a student and I agree that she or he has a reasonable request for the receipt of a grade of “I,” then the student must complete a written contract with me, stipulating the date that the incomplete will be finished.

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**Course Requirement Descriptions**

**In-class Exams**
There will be two in-class exams, each worth 25% of the final grade. Questions will primarily be in the short answer, graph interpretation, and multiple choice format. Exams will be based on my lectures, lab assignments, and assigned readings.

**Lab Reports:** There will be a 7 lab assignments introduced as part of class (although they will require time outside of class to complete). Active participation and completion of any assigned homework will account for 25% of your grade. Labs must be turned in on time or points will be deducted, as specified below. Please note that an incomplete lab assignment will be considered late. If you forget to bring a lab assignment to class on the due date, you may email it to the instructor by 10 p.m. that same day without it being considered late.

**Late/incomplete penalties:**
- 1 day late: -10%
- 2 days late: -25%
- 3 days late: -50%
- Lab assignments over 3 days late will not be accepted and you will receive no credit for those particular assignments.

**Lab “re-do” assignments:** You may be given the opportunity to redo a lab assignment to increase your score. If this is the case, your revised lab assignment must be received within 1 week. No late revisions will be accepted.

**Article Presentations:** Each student will prepare a class presentation on a selected journal article. You will each be assigned one article from the syllabus and will prepare and present power point slides that summarize the article’s introduction (including the historical background about why the study was done), methods, results (review each figure), and discussion. Make sure to discuss the clinical implications of the study and whether there were any limitations or design flaws. Please stop by and see me prior to your presentation to make sure you are presenting the important details of each study.

**Readings:**

   (http://www.audiology.org/resources/documentlibrary/Documents/201208_AudGuideAssessHear_youth.pdf)
7. Barker, S.E. Outcome of newborn hearing screening by ABR compared with four different DPOAE pass criteria. AJA, 9, online.
**Tentative Course Schedule***

<table>
<thead>
<tr>
<th>Date</th>
<th>Topics</th>
<th>Required Reading(s)/Assignment(s)</th>
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</thead>
<tbody>
<tr>
<td>January 22</td>
<td>Syllabus Overview</td>
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<tr>
<td></td>
<td>Introduction to Course</td>
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<td></td>
<td>Short latency evoked potentials: ABR</td>
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<tr>
<td>January 29</td>
<td>Short latency evoked potentials: ABR, contd.</td>
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<tr>
<td>February 5</td>
<td>Evoked potentials: Patient preparation, electrode montage, instrumentation</td>
<td>Lab 1: ABR for a click stimulus</td>
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<tr>
<td>February 12</td>
<td>ABR: Threshold assessment, tone-burst ABR, latency-intensity functions</td>
<td>Lab 2: L-I functions for a click stimulus and threshold estimation</td>
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<td>Class presentation #1</td>
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<tr>
<td>February 19</td>
<td>Otoneurologic assessment (SNHL vs. conductive vs. retrocochlear losses)</td>
<td>Lab 3: Click stimulus measured ipsi-and contralaterally</td>
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<td>Class presentation #2</td>
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<tr>
<td>February 26</td>
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<td>Exam 1</td>
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<tr>
<td>March 5</td>
<td>Otoneurologic assessment, contd.</td>
<td>Lab 4: Click stimulus with tip-trodes</td>
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<td>Class presentation #3</td>
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<tr>
<td>March 12</td>
<td></td>
<td>NO CLASS – SPRING BREAK!</td>
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<tr>
<td>March 19</td>
<td>ABR: Pediatric populations</td>
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<tr>
<td>March 26</td>
<td>Newborn hearing screening: ABR, OAE ASSR</td>
<td>Lab 5: ABR, OAE pediatric protocols</td>
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<td>Class presentation #4</td>
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<td>April 2</td>
<td>ECochG</td>
<td>Lab 6: ECochG</td>
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<tr>
<td>April 9</td>
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<td>Exam 2</td>
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<td>April 16</td>
<td>Stacked ABR, CHAMP</td>
<td>Class presentation #5</td>
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<td>April 23</td>
<td>cABR, MLR, LLR</td>
<td>Lab 7: LLR</td>
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<td>April 30</td>
<td>LLR, contd.</td>
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<td>May 5</td>
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<td>FINAL EXAM: Saturday, May 5, 1:30-3:30 PM</td>
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*Topics and dates subject to change at instructor’s discretion*
Student Policy Statements

1. Office of Disability Accommodation (ODA): “The University of North Texas makes reasonable academic accommodation for students with disabilities. Students seeking reasonable accommodation must first register with the Office of Disability Accommodation (ODA) to verify their eligibility. If a disability is verified, the ODA will provide you with a reasonable accommodation letter to be delivered to faculty to begin a private discussion regarding your specific needs in a course. You may request reasonable accommodations at any time, however, ODA notices of reasonable accommodation should be provided as early as possible in the semester to avoid any delay in implementation. Note that students must obtain a new letter of reasonable accommodation for every semester and must meet with each faculty member prior to implementation in each class. Students are strongly encouraged to deliver letters of reasonable accommodation during faculty office hours or by appointment. Faculty members have the authority to ask students to discuss such letters during their designated office hours to protect the privacy of the student. For additional information see the Office of Disability Accommodation website at http://www.unt.edu/oda. You may also contact them by phone at 940.565.4323.”

2. Academic Dishonesty: “UNT promotes the integrity of learning processed and embraces the core values of trust and honesty. Academic integrity is based on educational principles and procedures that protect the rights of all participants in the educational process and validate the legitimacy of degrees awarded by the university. In the investigation and resolution of allegations of student academic dishonesty, the university’s actions are intended to be corrective, educationally sound, fundamentally fair, and based on reliable evidence.”

The faculty expects a high level of responsibility and academic honesty. Any form of academic dishonesty will not be tolerated and will result in formal disciplinary action.

3. Statement of Diversity and Inclusion “The University of North Texas values diversity and individuality as part of advancing ideals of human worth, dignity and academic excellence. Diverse viewpoints enrich open discussion, foster the examination of values and exposure of biases, help educate people in rational conflict resolution, responsive leadership and prepare us for the complexities of a pluralistic society. As such, the University of North Texas is committed to maintaining an open, welcoming atmosphere that attracts qualified students, staff, and faculty from all groups to support their success. The University of North Texas does not discriminate on the basis of race, color, national or ethnic origin, religion, sex, sexual orientation, gender identity or expression, age, political affiliation, disability, marital status, ancestry, genetic information, citizenship, or veteran status in its application and admission process, educational programs and activities, employment policies and use of university facilities.”

4. Student Absence Due to Religious Holy Day. “A student may be excused from attending classes or other activities, including examinations, for observance of a religious holy day, including travel for that purpose. A. A student should notify a faculty member of anticipated absence to observe religious holy days as early in the semester as possible. B. An excused student may not be penalized for the absence and must be allowed to complete any examination or an assignment missed during the absence within a reasonable period after the absence. The faculty member may take appropriate action if a student fails to satisfactorily complete an assignment or examination
within a reasonable time. C. If a student and faculty member disagree about whether the absence is due to observance of a religious holy day or whether the student has been given reasonable time to complete any missed assignment or examination, they may appeal the decision using the process outlined in UNT Policy 07.016, Student Complaint Policy or UNT Policy 06.040, Grade Appeals.”

5. **Sexual Harassment.** “It is the policy of the University of North Texas that acts of sexual harassment, as defined herein, toward guests of and visitors to the campus or any member of the University community including faculty, staff, students and candidates for positions at the University (regardless of the individual's gender) will not be tolerated. All members of the administration, faculty, staff and students will be subject to disciplinary action for violation of this policy. Members of the public doing business with the University who violate this policy may be subject to sanctions.” Full policy available at https://policy.unt.edu/sites/default/files/16.005_SexualHarassment_2003.pdf

This syllabus is available in alternative formats upon request.