SLHS 588L
Lab for Physiological Evaluation of the Auditory System:
FALL 2017
SLHS 209, MW 1:00 – 3:00

Description of Course:
Students will participate in practica regarding the use of auditory evoked potentials and otoacoustic emissions recorded from the cochlea, auditory nerve and brainstem to assess the auditory system. Students will learn the technique of auditory brainstem responses (ABR), electrocochleography (ECochG), and auditory steady-state evoked responses (ASSR) as evoked by acoustic stimuli. Students will also learn to administer evoked otoacoustic emissions in the evaluation of the cochlea and efferent (olivo-cochlear bundle) auditory system. The labs are designed to give students hands on experience with test protocols and reinforce clinical concepts discussed in classroom lectures.

Course Prerequisites or Co-requisites
SLHS 562A: Anatomy and Physiology of the Auditory and Vestibular system, or equivalent

Instructor and Contact Information
David S. Velenovsky, Ph.D., CCC-A
524 SLHS, Tel: 626-9507
email: dsv@email.arizona.edu (note: generally, I don’t look at email after 8:00 PM)
Office hours by appointment

Course Format and Teaching Methods
All notes and ancillary materials will be posted on D2L. Material will be discussed in lab in the form of hands on instruction. You are expected to actively participate in all lab exercises.

Course Objectives and Expected Learning Outcomes
As a result of completing the exercises, students will be able to:
1) Properly prepare and apply surface and extra-tympanic electrodes.
2) Properly set up evoked auditory potential and otoacoustic emission systems to collect data.
3) Understand what stimulus variables affect ABR, ASSR, ECochG, and evoked OAE recordings.
4) Perform, analyze, interpret and summarize an ABR, ECochG, ASSR, RF-Chirp and OAE test on a normally-hearing adult.
5) Trouble shoot issues in recording AEPs and EOAEs

Absence and Class Participation Policy
The UA’s policy concerning Attendance, Participation, and Administrative Drops is available at http://catalog.arizona.edu/2015-16/policies/classatten.htm
The UA policy regarding absences for any sincerely held religious belief, observance or practice will be accommodated where reasonable: http://policy.arizona.edu/human-resources/religious-
accommodation-policy.

Absences preapproved by the UA Dean of Students (or dean’s designee) will be honored. See http://uhap.web.arizona.edu/policy/appointed-personnel/7.04.02

Participating in the course and attending lectures and other course events are vital to the learning process. As such, attendance is required at all lectures. Students who miss class due to illness or emergency are required to bring documentation from their health-care provider or other relevant, professional third parties. Failure to submit third-party documentation will result in unexcused absences.

Course Communications

Information regarding course modifications will be posted on D2L and/or emails as well as announced in class.

Required Texts or Readings

There is no required text. However, lab exercises will be posted on D2L and students are required to be familiar with them before each lab.

Examinations, Grading Scale and Policies

Weighting of Assignments

6 lab write ups will be turned in during the semester = 10 points each.

Total number of points available = 60 pts

Lab write-ups are graded on organization, clarity and thoroughness.

Grading Scale:

90%-100% (60-54 pts) = A
80-89% (53-48 pts) = B
70-79% (47-42 pts) = C
< 70% (Don’t go there…)

Requests for incomplete (I) or withdrawal (W) must be made in accordance with University policies, which are available at http://catalog.arizona.edu/2015-16/policies/grade.htm#I and http://catalog.arizona.edu/2015-16/policies/grade.htm#W, respectively.

Dispute of Grade Policy Students have 7 days from the posting of lab scores on D2L to dispute a grade.

Laboratory Behavior Policy

To foster a positive learning environment, students and instructors have a shared responsibility. We want a safe, welcoming, and inclusive environment where all of us feel comfortable with each other and where we can challenge ourselves to succeed.

Please turn off all cell phones PLEASE DO NOT TEXT IN LAB. If you MUST take a call, please step out of the room. Laptops may be used for note taking. They may not be used for facebook, web surfing, etc. Open water bottles MUST remain on the desk by the door and nowhere near any of the instrumentation.

Threatening Behavior Policy

The UA Threatening Behavior by Students Policy prohibits threats of physical harm to any member of the University community, including to oneself. See http://policy.arizona.edu/education-and-student-affairs/threatening-behavior-students.
**Accessibility and Accommodations**

Our goal in this classroom is that learning experiences be as accessible as possible. If you anticipate or experience physical or academic barriers based on disability, please let me know immediately so that we can discuss options. You are also welcome to contact the Disability Resource Center (520-621-3268) to establish reasonable accommodations. For additional information on the Disability Resource Center and reasonable accommodations, please visit [http://drc.arizona.edu](http://drc.arizona.edu).

If you have reasonable accommodations, please plan to meet with me by appointment or during office hours to discuss accommodations and how my course requirements and activities may impact your ability to fully participate.

Please be aware that the accessible table and chairs in this room should remain available for students who find that standard classroom seating is not usable.

**Code of Academic Integrity**

Students are encouraged to share intellectual views and discuss freely the principles and applications of course materials. However, graded work/exercises must be the product of independent effort unless otherwise instructed. Students are expected to adhere to the UA Code of Academic Integrity as described in the UA General Catalog. See [http://deanofstudents.arizona.edu/academic-integrity/students/academic-integrity](http://deanofstudents.arizona.edu/academic-integrity/students/academic-integrity).

The University Libraries have some excellent tips for avoiding plagiarism, available at [http://www.library.arizona.edu/help/tutorials/plagiarism/index.html](http://www.library.arizona.edu/help/tutorials/plagiarism/index.html).

* Selling class notes and/or other course materials to other students or to a third party for resale is not permitted under ANY circumstances. Violations to this and other course rules are subject to the Code of Academic Integrity and may result in course sanctions. Additionally, students who use D2L or UA e-mail to sell or buy these copyrighted materials are subject to Code of Conduct Violations for misuse of student e-mail addresses. This conduct may also constitute copyright infringement.

**UA Nondiscrimination and Anti-harassment Policy**

The University is committed to creating and maintaining an environment free of discrimination; see [http://policy.arizona.edu/human-resources/nondiscrimination-and-anti-harassment-policy](http://policy.arizona.edu/human-resources/nondiscrimination-and-anti-harassment-policy).

Our classroom is a place where everyone is encouraged to express well-formed opinions and their reasons for those opinions. We also want to create a tolerant and open environment where such opinions can be expressed without resorting to bullying or discrimination of others.

**Additional Resources for Students**

UA Academic policies and procedures are available at [http://catalog.arizona.edu/2015-16/policies/aaindex.html](http://catalog.arizona.edu/2015-16/policies/aaindex.html)

Student Assistance and Advocacy information is available at [http://deanofstudents.arizona.edu/student-assistance/students/student-assistance](http://deanofstudents.arizona.edu/student-assistance/students/student-assistance)

**Confidentiality of Student Records**

[http://www.registrar.arizona.edu/ferpa/default.htm](http://www.registrar.arizona.edu/ferpa/default.htm)

**Subject to Change Statement**

Information contained in the course syllabus, other than the grade and absence policy, may be subject to change with advance notice, as deemed appropriate by the instructor.
**Lab Schedule:** This listing is a guide and will likely change

<table>
<thead>
<tr>
<th>Date</th>
<th>Week</th>
<th>Lab Details</th>
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<tbody>
<tr>
<td>08/21</td>
<td>1</td>
<td>NO LAB</td>
</tr>
<tr>
<td>08/28</td>
<td>2</td>
<td>ABR Lab 1 The basics</td>
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<tr>
<td>09/04</td>
<td>3</td>
<td>No Lab</td>
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<tr>
<td>09/11</td>
<td>4</td>
<td>ABR Lab 1 continued</td>
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<tr>
<td>09/18</td>
<td>5</td>
<td>ABR Lab 2 ABR Thresholds</td>
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<td>09/25</td>
<td>6</td>
<td>ABR Lab 3 Tone Bursts</td>
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<tr>
<td>10/02</td>
<td>7</td>
<td>ABR Lab 4 Rising Frequency Chirp, and bone cond. ABR</td>
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<tr>
<td>10/09</td>
<td>8</td>
<td>Lab 5 ECochG</td>
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<td>10/16</td>
<td>9</td>
<td>Lab TBA</td>
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<td>10/23</td>
<td>10</td>
<td>Lab 6 ASSR</td>
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<td>10/30</td>
<td>11</td>
<td>OAE Lab 7 TEOAE: reading the screen, interpretation</td>
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<td>OAE Lab 7 TEOAE continued</td>
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<td>13</td>
<td>Lab 7 DPOAEs</td>
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<td>14</td>
<td>Lab 7 DPOAEs continued</td>
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<td>11/27</td>
<td>15</td>
<td>Lab 8 Suppression of OAEs</td>
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<tr>
<td>12/04</td>
<td>16</td>
<td>Finish up Suppression</td>
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