**COURSE SYLLABUS**

# **CSD 857: Amplification I Lab, 1 s.h.**

# **UW-Stevens Point**

**Spring 2020**

**Friday 9-11 am**

**Room 051 (Hearing Aid Lab), CPS**

**Professor:** Dr. Rebecca L. Warner Henning

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**Office Hours:** Monday & Wednesday 10:30-11:30, Friday 11-noon, & by appointment

**Teaching Assistant:** Danny DiBenedetto

**Prerequisites:**

* 850 Hearing Science
* 854 & 855 Electroacoustics and Instrument Calibration
* 852 & 853 Hearing Assessment
* concurrent enrollment in 856 Amplification I

**Required Readings:**

Harvey Dillon, *Hearing Aids, 2nd edition*

ANSI S3.22 (posted on Canvas)

Verifit manuals (required reference, posted on Canvas)

Possible other sources TBA, will be posted on Canvas

**Course Description:**

This lab course is the companion to CSD 856 Amplification I. In this class, you will have the chance to practice “hands-on” clinical applications of the concepts taught in 856. Topics will include: hearing aid repairs and troubleshooting, earmold impressions, electroacoustic evaluation of hearing aids, probe microphone measurements, prescriptive procedures, and earmold and earshell acoustics.

**Student Requirements:**

**You must complete all of the following in order to pass this course:**

#### Class Preparation

Any assigned readings must be completed *before class.* You should review and be familiar with the corresponding topics in the 856 class. Most of the readings and topics overlap with those assigned for 856. You are expected to review these readings and topics *again* before coming to lab.

Attendance

You are required to attend lab. *Any unexcused absences may result in a failing grade for the course.* Excused absences will be granted for reasons such as illness/injury, family emergency or major event, travel to a professional conference, etc. Please be prepared to provide documentation for excused absences.

Lab Assignments

There will be a lab assignment most weeks. Most lab sessions will begin with an overview and some demonstration of what you’ll need to, and you will have any remaining time to begin work on the assignment. Lab assignments will usually need to be completed outside of class, and will usually be due one week after they are assigned.

*Please see the “requirements for lab reports” at the end of this syllabus.*

*Revising Lab Assignments:*

A maximum of two lab assignments may be revised / re-done for a higher grade, up to a maximum of 85%. A student may choose to revise a lab if desired, but I may also require a lab revision if a student has not fully demonstrated the required competencies. It is possible for more than two lab revisions to be required during the semester, but grade improvements will only be allowed on a maximum of two labs.

Revised / re-done labs must be turned in to me within one week after you receive your original graded lab. You are also free to revise a lab on which you received an 85% or greater, but your original grade will not change. You might choose this option if you would like practice or more feedback on something you missed points on.

Practical Exams

There will be practical exams during the later part of the semester that will cover three topics: ANSI tests, electroacoustic tests at user settings, and probe microphone measures. The exams will cover set-up procedures and interpretations for all of the tests. *You must earn the minimum passing score (82%) on each topic of the exam in order to pass the class. If you do not achieve the minimum passing score on any topic, you must repeat each non-passing portion of the exam until you pass.*

#### Grading:

70%: the mean (average) of your *percent correct* (NOT total number of points) on each lab

30%: the percent correct on your first attempt at each practical exam

Please see the information on “requirements for lab reports” at the end of this syllabus for information on how I will grade your lab reports.

Grading Scale

|  |  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| **UW – SP** Letter Grade | A | A- | B+ | B | B- | C+ | C | C- | D+ | D | F |
| **Percentage** | 100-92 | 91.9-90 | 89.9-88 | 87.9-82 | 81.9-80 | 79.9-78 | 77.9-72 | 71.9-70 | 69.9-68 | 67.9-60 | <60 |

**Students with Disabilities:**

I would like to hear from anyone who has a disability and may require accommodations. Please contact me as soon as possible at the beginning of the semester.

**Religious Observances:**

I will accommodate religious beliefs according to UWS 22.03 if you notify me within the first three weeks of the semester regarding specific dates that you will need to change course requirements.

**Academic Misconduct:**

#### Information on the policies that apply to all UW System students and faculty regarding academic misconduct can be found at this website: <https://conduct.students.wisc.edu/misconduct/academic-integrity/>. You are also responsible for reviewing and understanding the information on how to avoid plagiarism available from this link, especially the information on successful and unsuccessful paraphrases: <https://writing.wisc.edu/handbook/assignments/quotingsources/>. *Plagiarism and/or cheating on any exam or assignment in this class may result in a failing grade for the cheated/plagiarized portion of the exam or assignment.*

**Objectives for Students:**

The following course objectives line up with the requirements of the American Speech-Language-Hearing Association (ASHA) for certification of audiologists, which also correspond to the expectations of the UW AuD program. The ASHA standards are available at <https://www.asha.org/Certification/2020-Audiology-Certification-Standards/>.

If a student fails to meet any or all ASHA standards for the course, the student will most likely be required to complete an improvement plan and/or re-do some assignments or portions of the course in order to meet the ASHA standards. These revisions/assignments/re-takes will not necessarily result in an improved course grade, but (if completed adequately) they will allow the instructor to sign off on the corresponding ASHA standard(s).

Course grades and ASHA competencies are related, but don’t necessarily exactly correspond to each other. Usually, if a student earns a passing grade on every course assignment, then that student will also meet the ASHA competencies for the course. It is possible, however, for a student to pass the course but not fully meet one or several individual ASHA competencies, especially if the student has not passed every assignment. On the other hand, some ASHA competencies are covered in multiple assignments; if this is the case, then it’s possible that a student may not meet a standard on one assignment, but may meet the standard on a different assignment. The instructor will notify any student who does not meet ASHA competencies. It is also highly recommended that any student who receives a less-than-passing grade on any assignment contact the instructor to discuss how the student can get back on track for passing the course and for meeting ASHA competencies.

|  |  |
| --- | --- |
| **The student will demonstrate knowledge of. . .** | **Standard Fully or Partially Covered in this Course;**  **Knowledge vs. Skill Coverage** |
| A5. Calibration and use of instrumentation according to manufacturers’ specifications and accepted standards | Partial (knowledge-only standard) |
| A6. Standard safety precautions and cleaning/disinfection of equipment in accordance with facility-specific policies and manufacturers’ instructions to control for infectious/contagious diseases | Partial (knowledge-only standard) |
| E8. Selecting and fitting appropriate amplification devices and assistive technologies | Partial knowledge |
| E9. Defining appropriate electroacoustic characteristics of amplification fittings based on frequency-gain characteristics, maximum output sound-pressure level, and input–output characteristics | Full knowledge, partial skill |
| E10. Verifying that amplification devices meet quality control and American National Standards Institute (ANSI) standards | Full knowledge and skill |
| E11. Conducting real-ear measurements to (a) establish audibility, comfort, and tolerance of speech and sounds in the environment and (b) verify compression, directionality, and automatic noise management performance | Full knowledge and skill |
| E13. Conducting individual and/or group hearing aid orientations to ensure that clients/patients can use, manage, and maintain their instruments appropriately | Partial knowledge and skill |

**Instructor’s Objectives:**

In order to help you achieve the above objectives, I will do the following:

1. Provide you with suggestions for study skills and strategies;
2. Come to class prepared to demonstrate the assignment;
3. Explain difficult concepts to the best of my ability;
4. Be available during office hours to answer questions or discuss the material;
5. Provide a non-threatening environment in which it is acceptable to “learn out loud,” learn by trying new things and new ideas, and not always have the “right” answer.

**Class Schedule**

The following is a tentative schedule that is subject to change. I will announce all changes in class. There will be lab write-ups and/or practical assignments associated with nearly every lab.

|  |  |  |  |
| --- | --- | --- | --- |
| **Day** | **Date** | **Topic** | **Reading** |
| T | Jan. 21 | Intro to HA duty: HA repairs and troubleshooting;  Earmold impressions | Dillon, chpt. 4 pp. 121-125;  ANSI S3.22 |
| F | Jan. 24 | Mandatory earmold impression practice time |  |
| F | Jan. 31 | HA Components | Verifit manual for reference |
| F | Feb. 7 | Earmold impression practice |  |
| F | Feb. 14 | Electroacoustic measurement | ANSI S3.22 |
| F | Feb. 21 | TBD |  |
| F | Feb. 28 | Compression |  |
| F | March 6 | Modifying earmolds & earshells  (practical assignment; no lab write-up) | Dillon pp. 167-169 |
| F | March 13 | Probe microphone measures I | Verifit manual for reference |
| **F** | **March 20** | **No lab: spring break** |  |
| **F** | **March 27** | **Practical exams: ANSI and electroacoustic testing** |  |
| **F** | **April 3** | **No lab meeting: AAA conference**  Earmold & earshell acoustics assignment |  |
| **F** | April 10 | Probe microphone measures II | Verifit manual for reference |
| F | April 17 | Fitting strategies/prescriptive procedures assignment | Dillon chpt. 5 |
| **F** | **April 24** | **Practical exams: probe microphone measures** |  |
| **F** | **May 1** | **Capstone day: no lab** |  |
| **Final Exam Week** | | **Practical exam re-takes if necessary** |  |

**Requirements for Lab Reports**

1. *Lab reports are to be written up individually.* You are permitted to consult with your classmates about the concepts covered in the lab, but *each student must write up his/her own lab report in his/her own words.* If a student does not follow this requirement, it will be considered academic misconduct.
2. Each student is to obtain his/her own measurements from beginning to end. You are permitted to verbally help each other, but each student must complete all of his/her own physical measurements. If a student does not follow this requirement, it will be considered academic misconduct.
3. The lab report must begin with a statement of the purpose(s) of the lab.
4. Lab reports must be typed. If sketches are required, they may be completed neatly by hand or by computer. Graphs may be neatly hand-drawn on graph paper or created using a computer.
5. All attachments to the lab report (e.g., ANSI printouts, probe mic. printouts, etc.) must be neatly labeled and attached at the end of the lab report. They must be labeled so that it is clear which attachment you are referring to in your written report. For example, your report may say, “ANSI test #1 shows that the hearing aid meets specifications…”, and you must be sure that ANSI test #1 is neatly and clearly labeled.
6. All parts of the lab report must be neatly organized and labeled.
7. If the data gathered in lab lends itself to presentation in a table format, please do so.
8. If a table is included in the lab report, then the accompanying text (i.e., the body of the lab report) should explain and interpret the information in the table. Information in a table does NOT need to be simply re-stated in the text, but again, you should use the text to *explain* and *interpret* the information in the table.
9. Lab reports must be written in complete, grammatically correct sentences. Paragraphs should be used as needed.
10. Spelling errors should be minimized.
11. Technical terms must be used and spelled correctly. Refer to your textbook, references, or class notes for the correct usage and spelling.
12. If you refer to information from the textbook or any other outside references, you must cite the source using APA style and include a reference list in APA style at the end of your lab report.
13. Please feel free to ask me if you have questions about your lab report. I am happy to answer questions about your report before you turn it in.

**Labs will be graded on a 30-point scale using the following criteria:**

1. Information and accuracy:All essential main points and information are included and accurate, and all relevant details and concise supporting information (i.e., information that explains, defines, or illustrates the main points) are included and accurate.
2. Clarity and quality of student’s own explanations: The issue/problem/concepts are presented and discussed clearly in a way that demonstrates the student has gained his/her *own* understanding, rather than simply reiterating information from readings or class. May contain original insights into an issue or problem, and/or may include examples or explanations that illustrate the issue or concept.
3. Statements and conclusions are supported with evidence: Statements, conclusions, and/or opinions are supported by accurate, relevant, and clearly presented evidence.
4. Applying information: The student applies information learned in class and/or readings to the lab results.
5. Precision: Written material is precise and specific. For instance, units are fully specified (such as Hz, dB HL, mmho, mL, etc.), descriptions are precise (Instead of writing, “She heard better,” you might write, “Her thresholds were 5-10 dB better.”), etc.
6. Graduate-level writing and mechanics: It is clearly written or presented, with very minimal or no spelling or grammatical errors. The writing structure and style are consistent with graduate-level academic writing. Technical terms are spelled and used correctly. References are used appropriately and cited and listed correctly in APA style.