**COURSE SYLLABUS**

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

# **UW-Stevens Point**

**Spring 2024**

**Friday 9-11 am**

**Rooms 018 and 051 (Hearing Aid Labs 1 and 2), CPS**

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

**Office:** 050, CPS

**Phone:** 715-346-2351

**e-mail:** [rhenning@uwsp.edu](mailto:rhenning@uwsp.edu)

**Office Hours:** Wednesday 3:30-4:30, Thursday 1:30-2:30, Friday 11-noon, & by appointment

*Zoom and phone “office hours” appointments can also be arranged as needed, either during my regular office hours times or at other times. Please email or call me to schedule Zoom or phone appointments.*

**Teaching Assistant:** Kadie Biese

**Co-rerequisite:**

* 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 TBD, 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 responsible for attending lab unless you are ill, including if you have symptoms of COVID-19, or have a personal or family emergency. You are not permitted to miss lab for routine or controllable circumstances like vacation, work, convenience, or errands. **DO NOT attend lab if you have a fever or other symptoms of COVID-19 or other contagious illness, or if you have tested positive for COVID-19 or other contagious illness.**

* **If you have a non-COVID-19 respiratory illness and are fever-free without the use of fever-reducing medications and with improving symptoms after a few days, you may attend lab, but I strongly encourage you to wear a mask and keep a few feet of distance from others (when possible) until you are symptom-free. This can help prevent illness from spreading to everyone else and will hopefully minimize disruptions to the semester.**
* **If you have/had COVID-19, then you may attend lab when the following conditions are met. For labs and clinic, we are following the CDC guidelines for healthcare workers (**<https://www.cdc.gov/coronavirus/2019-ncov/hcp/guidance-risk-assesment-hcp.html>**):**
  + At least 7 days have passed since symptoms first appeared if a negative viral test is obtained on days 5 and 7, and
  + At least 24 hours have passed since last fever without the use of fever-reducing medications, and
  + Symptoms (e.g., cough, shortness of breath) have improved.
  + You must wear a well-fitting mask through day 10 since the onset of your illness.
* If you must miss lab, please contact the instructor as soon as possible. Repeated **unexcused** absences may result in a reduced grade or a failing grade for the course. **If you are concerned that a family or personal situation will cause you to miss lab repeatedly, please discuss this with me so that we can come to an acceptable solution.** Please also refer to the CSD 856 “Grading Explanations” handout.

## 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 / write-ups will usually need to be completed outside of class, and will usually be due 1-2 weeks 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, one time per lab assignment, for a higher grade up to a maximum of 90%. 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 assignment revisions to be required during the semester, but grade improvements will only be allowed on a maximum of two lab assignments.

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 90% 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** | 100-93 | 92.9-90 | 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 |

# **Accommodations for Disability or Health Condition:**

If you have a short- or long-term disability or health condition that requires accommodations, please contact the Disability and Assistive Technology Center (DATC).

# **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:**

#### The policies that apply to all UW System students and faculty regarding academic misconduct can be found here: <https://conduct.students.wisc.edu/academic-misconduct/>. (Although this is a UW-Madison link, these are UW System-wide policies). You are also responsible for reviewing and understanding all of the information about avoiding plagiarism at this link, especially the information on successful and unsuccessful paraphrases: <https://writing.wisc.edu/handbook/assignments/quotingsources/>.

**ASHA Standards/Competencies:** The following American Speech-Language-Hearing Association (ASHA) Council for Clinical Certification (CFCC) 2020 standards for the Certificate of Clinical Competence in Audiology (CCC-A) are covered in this course (see table below).

|  |  |
| --- | --- |
| **ASHA CCC-A/CFCC (2020) standard; The student will demonstrate knowledge of (for items lettered A) and knowledge and skills in (for items lettered B-F):** | **Method of Assessing Competency** |
| A5. Calibration [calibration only covered to a limited extent] and use of instrumentation according to manufacturers’ specifications and accepted standards | Passing grade on all labs that utilize the test box and/or probe microphone equipment;  Passing grades on all practical exams |

|  |  |
| --- | --- |
| A6. Standard safety precautions and cleaning/disinfection of equipment in accordance with facility-specific policies and manufacturers’ instructions to control for infectious/contagious diseases | Earmold impression lab successfully checked off |
| E8. Selecting and fitting appropriate amplification devices and assistive technologies | Passing grades on all labs, and  Passing grades on all practical exams |
| E9. Defining appropriate electroacoustic characteristics of amplification fittings based on frequency-gain characteristics, maximum output sound-pressure level, and input–output characteristics | Passing grades on the electroacoustic measurement lab and the compression lab, and  Passing grades on the ANSI and electroacoustic testing practical exams |
| E10. Verifying that amplification devices meet quality control and American National Standards Institute (ANSI) standards | Passing grade on the electroacoustic measurement lab, and  Passing grades on the ANSI and electroacoustic testing practical exams |
| 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 | Successful check-off of the probe microphone 1 lab, and  Passing grade on the probe microphone 2 lab, and  Passing grade on the probe microphone measures practical exam |
| E13. Conducting individual and/or group hearing aid orientations to ensure that clients/patients can use, manage, and maintain their instruments appropriately | Passing grade or successful check-off on the hearing aid orientation lab |

**A passing grade is a B or better.  If a student fails to complete any of the tasks listed above, they will work with the course instructor to either redo the task or complete an additional task in order to demonstrate competency.  If a student is not able to successfully complete this task, then an improvement plan will be initiated to remediate the skill in question.  See the AuD handbook section on improvement plans.**

# **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. 23 | Intro to HA duty: HA repairs and troubleshooting;  Earmold impressions | Dillon, chpt. 4 pp. 121-125;  ANSI S3.22 |
| F | Jan. 26 | Mandatory earmold impression practice |  |
| F | Feb. 2 | Mandatory earmold impression practice |  |
| F | Feb. 9 | HA Components | Verifit manual for reference |
| F | Feb. 16 | Hearing aid orientation |  |
| F | Feb. 23 | Electroacoustic measurement | ANSI S3.22 |
| F | March 1 | Modifying earmolds & earshells  (practical assignment; no lab write-up) | Dillon pp. 167-169 |
| F | March 8 | Compression |  |
| **F** | **March 15** | **Practical exams: ANSI and electroacoustic testing** |  |
| **F** | **March 22** | **No lab: spring break** |  |
| F | March 29 | Probe microphone measures I | Verifit manual for reference |
| F | April 5 | Probe microphone measures II | Verifit manual for reference |
| F | April 12 | **Catch-up / make-up as needed** |  |
| **F** | **April 19** | **No lab meeting due to AAA conference;**  Fitting strategies/prescriptive procedures assignment: recommend completed by this date, or by Monday 4/22 |  |
| **F** | **April 26** | **Practical exams: probe microphone measures**  Vent sizes/feedback assignment | Dillon chpt. 5 |
| **F** | **May 3** | **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.
   1. Students should NOT use AI/ChatGPT for writing lab reports. You will most likely have opportunities to use AI in other classes taught by me, but the questions in lab reports are highly specific (which AI is not always helpful for) AND are good practice for the types of concepts and answers you will need to readily know “on the fly” in clinic and on closed-book exams in the Amplification I lecture class. Therefore, using AI on lab reports will tend to be less helpful, and/or may prevent you from learning the material well enough to meet competency. If you have questions about this, I am happy to discuss your questions or concerns.
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.