#### **COURSE SYLLABUS**

CSD 856: Amplification I, 2 s.h.
University of Wisconsin AuD Program
Spring 2023
MW 1:00-1:50
Room 234 in CPS, UWSP

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

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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.

#### **Course Description:**

This course will cover much of the beginning to intermediate knowledge and skills that you will need to begin successfully fitting your patients with hearing aids! Amplification I is the first part of a roughly 2 1/2-semester course sequence on hearing aids. The goal of this course is to cover the topics that will allow you to begin hands-on work with hearing aids in the clinic as soon as possible. Between lab and lecture, some topics include: the components and features of hearing aids, electroacoustic measurement and verification of hearing aids in couplers and real ears, taking earmold impressions, earmold and earshell acoustics, assessing patient needs and determining hearing aid candidacy, using prescriptive fitting strategies, and hearing aid repair and troubleshooting.

Even across 2 1/2 semesters, it is not possible to cover all the information you will need to know about hearing aids, and the specific technology <u>will change</u> by the time you graduate. Thus, my goal is to cover the important foundation information upon which you can build the necessary habit of continued learning.

#### **Prerequisites:**

- At least second-semester AuD student status
- Concurrent enrollment in CSD 857 Amplification I Lab

#### **Required Readings:**

- Harvey Dillon, Hearing Aids, 2nd edition
- Additional required readings on Canvas.

### **Credit Hour Policy Standard:**

This class meets for two 50-minute class periods each week, and carries the expectation that students will work on course learning activities (reading, studying, viewing recorded lectures, completing quizzes, reviewing and organizing your notes, preparing for class, etc.) for about 2 hours outside of the classroom for every class period. More information about class meeting times and expectations for student work are included in this syllabus.

#### **Course Format and Expectations:**

- This class will meet in person in the UWSP and UW-Madison distance rooms as much as possible, unless unforeseen circumstances require remote or virtual classes.
- You are expected to attend class regularly, and absences should be reserved for circumstances such
  as illness, caring for someone who is ill, personal or family emergency, etc. Class absences should
  NOT be requested or used for routine or controllable circumstances like vacation, personal time off,
  or work.

#### **E-mail communication:**

You are expected to check your school e-mail account at least once per weekday for any important class announcements. I typically reply to emails within two business days or sooner. I cannot guarantee that I will check email on evenings and weekends, so please plan ahead to avoid last-minute weekend or latenight "emergencies".

You are not permitted to turn in an assignment late because you are waiting for a reply from me. If you've emailed me with reasonable advance notice (see later in this paragraph), but I haven't replied within the timeframe given above, there is a chance I did not receive your message. Please check your sent-mail to see if it was actually sent, and try re-sending it or calling me. If you are emailing a question within 1-2 days or less of the deadline, I may not have time to reply/answer before the deadline. (I will do my best to reply, but sometimes it's not possible). If I do not reply before the deadline, then you should submit your assignment by the deadline, using your best judgment to answer your question.

#### **Student Privacy and Intellectual Property of Recorded Lectures:**

Lecture materials and recordings for this class are protected intellectual property at UW-Stevens Point. Students in this course may use the materials and recordings for their personal use related to participation in this class. Students may also take notes solely for their personal use. If a lecture is not already recorded, you are not authorized to record my lectures without my permission unless you are considered by the university to be a qualified student with a disability requiring accommodation [Regent Policy Document 4-1]. (You may contact me to request permission to record lectures). **Students may not copy or share lecture materials and recordings outside of class,** including posting on internet sites or selling to commercial entities. **Students are also prohibited from providing or selling their personal notes to anyone else or being paid for taking notes by any person or commercial firm without the instructor's express written permission. Unauthorized use of these copyrighted lecture materials and recordings constitutes copyright infringement and may be addressed under the university's policies, UWS Chapters 14 and 17, governing student academic and non-academic misconduct.** 

#### **Student Requirements:**

#### Personal situations and/or difficulty meeting course requirements:

If you are concerned that a family or personal situation may affect your ability to meet the class requirements, please discuss this with me (or with the graduate advisor or another faculty member on your home campus with whom you feel comfortable) so that we can be aware of the situation and figure out alternative arrangements if needed. It is far better to be proactive about discussing possible difficulties than to wait until your performance in the class has already suffered. I will not ask you for specific medical or personal information if you do not wish to share it; however, you will typically need to provide some type of documentation to at least one faculty member (either myself or the graduate

advisor on your home campus) if a short-term accommodation is needed, or to the Disability Center on your home campus if ongoing or repeated accommodations are needed.

#### You must complete <u>all</u> of the following in order to pass this course:

#### Respect & Professionalism

As doctoral students, I expect you to <u>be prepared for class</u>, and to regularly attend and participate in class (including any remote classes) with an attitude of respect, engagement, enjoyment, and professionalism. <u>I expect you to behave respectfully toward everyone in the class and myself.</u>

#### **In-Class Activities**

During some class sessions, there will be in-class, small-group or individual activities which require you to submit your work. These will typically be graded based on whether they reflect a reasonable effort to complete the requirements, **not** on whether the answers are "correct."

#### Online Quizzes

You are required to complete online quizzes in each unit of this course, and you must receive a 90% or better on each quiz. The quizzes are not timed, and you are permitted to re-take each quiz an unlimited number of times until the deadline, and your highest grade on each quiz, by the deadline, will count toward your class grade. (If you receive a grade above 90% but less than 100%, you are welcome—but not required—to continue re-taking the quiz if you want to aim for 100%). The quizzes are designed to assess your knowledge of the foundation material, and to help you identify and correct any holes or misunderstandings in your own knowledge. Quizzes will also help you prepare for the types of questions and knowledge assessed on the Praxis exam. For this reason, you are expected to complete the quizzes independently; however, you are allowed to refer to your own notes, textbook, and any other course materials while taking the quizzes. You are allowed to discuss the general concepts on the quizzes with classmates, but you are not permitted to share answers or to take the quizzes together with any classmates.

#### Take-Home Assignments / Exams

There will be several take-home assignments / exams throughout this course. You are expected to complete these exams independently without consulting with other students; however, you are allowed to refer to your own notes, textbook, and other materials. Answers on these exams must be written in your own format and using your own words, which helps demonstrate that you understand the material.

#### Reflection / Clinic Application Assignment

To encourage the process of learning and applying information, you are required to submit a clinical application reflection assignment during this class. See the separate assignment description for more information.

#### Final Reflection Assignment

You will be required to complete a final assignment reflecting on some things you have learned this semester. See the assignment description for more information. You are expected to complete this assignment independently.

#### **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 Center on your home campus.

#### **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:**

I expect all students to follow the course requirements for academic honesty. If you are tempted by academic dishonesty, I recommend asking yourself why: Are you having trouble meeting an assignment deadline? Are you struggling to understand some course material? Are you having trouble understanding why an assignment is relevant or important? Are you unsure how to get started? Are you struggling with confidence? These are all understandable problems (I've had all of them myself at times!), and I'm happy to discuss some possible strategies or solutions with you.

The policies that apply to all UW System students and faculty regarding academic misconduct can be found here: <a href="https://conduct.students.wisc.edu/academic-misconduct/">https://conduct.students.wisc.edu/academic-misconduct/</a>. (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: <a href="https://writing.wisc.edu/handbook/assignments/quotingsources/">https://writing.wisc.edu/handbook/assignments/quotingsources/</a>.

#### **Grading:**

**Grading Scale** 

Also see the information on the separate general grading information handout posted on Canvas. Your final grade is determined by averaging your *percentage* (NOT total number of points) on the following components:

| Online Quizzes: average of all                | 24% |
|---|-----|
| In-Class Work: average of all                 | 8%  |
| Reflection / Clinic Application Assignment    | 12% |
| Take-Home Assignments / Exams: average of all | 44% |
| (each one worth 14.67%)                       |     |
| Final Reflection                              | 12% |

| <b>UW – SP</b><br>Letter Grade  | А          | A-          | B+      | В       | B-      | C+      | С       | C-      | D+      | D       | F   |
|---------------------------------|------------|-------------|---------|---------|---------|---------|---------|---------|---------|---------|-----|
| Percentage                      | 100-<br>92 | 91.9-<br>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 |
| UW –<br>Madison<br>Letter Grade | А          | Δ           | λB      | В       | В       | С       | С       | С       | D       | D       | F   |

**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). For standards that are partially covered, **the portion covered in this class is bolded.** 

Method of Assessing Competency: All of these competencies are assessed via all of the assignments. For each competency, a grade of at least 90% on the quizz(es) and a passing grade on the exam(s) / assignment(s) covering the corresponding material will serve as documentation that the student has met competency. A passing grade is a B or better. If a student fails to meet competency on a task, 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.

# 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):

- A4. Principles, methods, and applications of acoustics, psychoacoustics, and speech perception, with a focus on how each is impacted by hearing impairment throughout the life span
- A5. Calibration [calibration only covered to a limited extent] and use of instrumentation according to manufacturers' specifications and accepted standards
- A16. Principles and practices of client/patient/person/family-centered care, including the role and value of clients'/patients' narratives, clinician empathy, and shared decision making regarding treatment options and goals
- A18. The role, scope of practice, and responsibilities of audiologists and other related professionals
- D4. Enhancing clients'/patients' acceptance of and adjustment to hearing aids, hearing assistive technologies, and osseointegrated and other implantable devices
- E1. Engaging clients/patients in the identification of their specific communication and adjustment difficulties by eliciting client/patient narratives and interpreting their and/or caregiver-reported measures
- E3. Responding empathically to clients'/patients' and their families' concerns regarding communication and adjustment difficulties to establish a trusting therapeutic relationship
- E8. Selecting and fitting appropriate amplification devices and assistive technologies
- E9. Defining appropriate electroacoustic characteristics of amplification fittings based on frequency-gain characteristics, maximum output sound-pressure level, and input—output characteristics
- E10. Verifying that amplification devices meet quality control and American National Standards Institute (ANSI) standards
- 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
- E13. Conducting individual and/or group hearing aid orientations to ensure that clients/patients can use, manage, and maintain their instruments appropriately
- E14. Identifying individuals who are candidates for cochlear implantation and other implantable devices
- E17. Identifying the need for—and fitting—electroacoustically appropriate hearing assistive technology systems (HATS) based on clients'/patients' communication, educational, vocational, and social needs when conventional amplification is not indicated or provides limited benefit

## **Class Schedule**

The following is a tentative schedule that is subject to change.

| Day    | Date     | Topic   | Required <u>Text</u> Reading (see<br>Canvas for additional<br>required readings) |  |  |
|--------|----------|---|--|--|--|
| М      | Jan. 23  | Intro to the course and to the HA fitting       | Dillon chpt. 1   |  |  |
|        |          | process; HA components & features?              |  |  |  |
| W      | Jan. 25  | HA components & features                        | Dillon chpt. 2   |  |  |
| M      | Jan. 30  | HA components & features                        | Dillon chpt. 2;  |  |  |
|        |          | ·   | chpt. 4 pp. 121-25;  |  |  |
|        |          |   | chpt. 3 pp. 56-68, 73-80,  |  |  |
|        |          |   | highlighted sections   |  |  |
| W      | Feb. 1   | HA components & features                        | Dillon chpt. 7, read all   |  |  |
|        |          |   | through top of p. 204, and   |  |  |
|        |          |   | then only highlighted  |  |  |
|        |          |   | sections   |  |  |
| M      | Feb. 6   | HA components & features                        | Dillon chpt. 4 pp. 118-121;  |  |  |
|        |          |   | Dillon chpt. 8 pp. 234-239   |  |  |
| W      | Feb. 8   | HA components & features;                       | Dillon chpt. 9   |  |  |
|        |          | HA fitting process                              | Dillon chpt. 11 pp. 336-349  |  |  |
| M      | Feb. 13  | HA Components & Features, Feedback, and         |  |  |  |
|        |          | Directionality Quizzes due                      |  |  |  |
|        |          | HA fitting process                              |  |  |  |
| W      | Feb. 15  | Electroacoustic measurement of HAs in the       | Dillon chpt. 4 pp. 82-96   |  |  |
|        |          | test box  |  |  |  |
| Friday | Feb. 17  | Take-Home Exam #1 available at noon             |  |  |  |
| M      | Feb. 20  | HA Fitting Process Quiz due                     |  |  |  |
|        |          | Electroacoustic measurement of HAs in the       |  |  |  |
|        |          | test box  |  |  |  |
| W      | Feb. 22  | Electroacoustic measurement                     |  |  |  |
| Friday | Feb. 24  | Take-Home Exam #1 due by 4 pm                   |  |  |  |
| M      | Feb. 27  | Electroacoustic measurement                     |  |  |  |
| W      | March 1  | Compression                                     | Dillon chpt. 6;  |  |  |
|        |          | No class meeting due to SP IPE with Green       | chpt. 12 section 12.1.7 (pp.   |  |  |
|        |          | Bay med students; view recorded lectures or     | 362-365)   |  |  |
|        |          | other required asynchronous activity            |  |  |  |
| M      | March 6  | Electroacoustic Testing Quiz due                |  |  |  |
|        |          | Compression                                     |  |  |  |
| W      | March 8  | Compression                                     |  |  |  |
| M      | March 13 | Compression                                     |  |  |  |
|        |          | No class meeting: spring break for Madison      |  |  |  |
|        |          | SP students view recorded lectures or other     |  |  |  |
|        |          | required class activity                         |  |  |  |
|        |          | First possible day to submit clinic application |  |  |  |
|        |          | reflection (due no later than April 24 by 1     |  |  |  |
|        | 1        | pm)   |  |  |  |

| W            | March 15                      | Compression                                  |                           |
|--------------|-------------------------------|--|---------------------------|
|              |                               | No class meeting: spring break for Madison   |                           |
|              |                               | SP students view recorded lectures or other  |                           |
|              |                               | required class activity                      |                           |
| M            | March 20                      | No class meeting: spring break for Stevens   |                           |
|              |                               | Point  |                           |
|              |                               | Madison students view recorded lectures or   |                           |
|              |                               | other required class activity                |                           |
| W            | March 22                      | No class meeting: spring break for Stevens   |                           |
|              |                               | Point  |                           |
|              |                               | Madison students view recorded lectures or   |                           |
|              |                               | other required class activity                |                           |
| M            | March 27                      | Take-Home Exam #2 available at 9:30 am       | Dillon chpt. 4 pp. 97-118 |
|              |                               | Compression Quiz due                         |                           |
|              |                               | Verification & probe microphone              |                           |
|              |                               | measurements                                 |                           |
| W            | March 29                      | Verification & probe microphone              |                           |
|              |                               | measurements                                 |                           |
| M            | April 3                       | Take-Home Exam #2 due by 3 pm                |                           |
|              |                               | Verification & probe microphone              |                           |
|              |                               | measurements                                 |                           |
| W            | April 5                       | Verification & probe microphone              |                           |
|              |                               | measurements                                 |                           |
| M            | April 10                      | Probe Mic. Measurements Quiz due             | Dillon chpt. 10           |
|              |                               | Fitting strategies / prescriptive procedures |                           |
| W            | April 12                      | Fitting strategies / prescriptive procedures |                           |
| М            | April 17                      | Fitting strategies / prescriptive procedures |                           |
| W            | April 19                      | No class meeting due to AAA conference       |                           |
|              |                               | Fitting strategies / prescriptive procedures |                           |
| M            | April 24                      | Fitting Strategies/Prescriptive Procedures   | Dillon chpt. 5            |
|              |                               | Quiz due                                     |                           |
|              |                               | Clinic application reflection due            |                           |
|              |                               | Earmold & earshell acoustics                 |                           |
| W            | April 26                      | Earmold & earshell acoustics                 |                           |
| M            | May 1                         | Take-Home Exam #3 available at 9:30 am       |                           |
|              |                               | Earmold & earshell acoustics                 |                           |
| W            | May 3                         | Earmold & Earshell Acoustics Quiz due        |                           |
|              |                               | Catch up                                     |                           |
| W May 10 by  |                               | Take-Home Exam #3 due by <u>noon</u>         |                           |
| Noo          | <u>n</u> <u>for take-home</u> | Final Reflection due by 4 pm                 |                           |
| exam,        | <u>.</u>                      |  |                           |
| and <u>b</u> | y 4 pm for final              |  |                           |
| reflec       | <u>tion</u>                   |  |                           |