

University of Florida
College of Public Health & Health Professions Syllabus
Course Number: SPA 6340 – Amplification I
 Semester: Fall 2021
 Delivery Format: On-Campus
 Course E-Learning: Canvas

Instructor Name: Sterling W. Sheffield, Au.D., Ph.D., CCC-A
 Office: HPNP 2130
 Phone Number: 352-273-6161 (Office)
 Email Address: s.sheffield@ufl.edu
 Office Hours: After class in Dauer 42 and by appointment (please email me to coordinate)
Preferred Course Communications: canvas or email

Classroom: 42 Dauer Hall (basement)
 Class Meeting Time: Fridays, 8:30 to 10:30 AM

PURPOSE, CONTENT AND OUTCOME

Course Overview:

Theoretical and applied understanding of current technology in amplification systems for the hearing impaired. This course is combined with the lab course SPA 6133L.

Course Objectives and/or Goals: (as measured by examinations and assignments):

Students will demonstrate knowledge and application of:

The full hearing aid delivery and treatment process, including

1. Patient characteristics and counseling considerations
2. Types and styles of hearing aids
3. Hearing aid components and standards for hearing aid characteristics
4. Earmold acoustics and considerations
5. Hearing aid candidacy and evaluation protocols
6. Hearing aid selection
7. Hearing aid fitting and software
8. Hearing aid verification
9. Hearing aid validation

Course Materials and Technology:

Text: Essentials of Modern Hearing Aids: Selection, Fitting, and Verification by Todd Ricketts, Ruth Bentler, and H. Gustav Mueller, 1st ed., Plural Publishing 2019 – Required

Other readings will be available on Canvas.

Website: e-Learning in Canvas, accessed via <http://elearning.ufl.edu/>

For technical support for this class, please contact the UF Help Desk at:

- Learning-support@ufl.edu
- (352) 392-HELP - select option 2
- <https://kb.helpdesk.ufl.edu/FAQs/E-Learning>
- <https://lss.at.ufl.edu/help.shtml>

Topical Outline/Course Schedule. Schedule is subject to change based on class needs and changes will be posted in the syllabus section on Canvas. Additional reading assignments may be posted throughout the semester to Canvas in the Page for that day.

Week and/or Date(s)	Topic(s)	Readings	Assignments/labs/exams
Week 1 8/27	Syllabus, Introduction and history of hearing aid distribution, Evidence-based practice in hearing aids	EMHA Chapter 1	Hearing Aid Check Practice
Week 2 9/3	Hearing aid candidates and the hearing aid delivery process	EMHA Chapter 3	Hearing Aid Check Practice
Week 3 9/10	Hearing and styles and applications, Basic Acoustics Applied to Amplification, earmolds	EMHA Chapters 8-9	Hearing Aid Check Lab Due Earmold impression Practice
Week 4 9/17	The hearing aid evaluation and selection, pre-testing and measures	EMHA Chapters 5-6	Earmold impression Practice HA delivery concept map due
Week 5 9/24	Hearing aids: How they work	EMHA Chapters 10-11	HA fitting/programming practice
Week 6 10/1	Beginner HA Fitting	EMHA Chapter 14	HA fitting/programming practice Earmold impression lab due
10/8	Homecoming week, No class		
Week 7 10/15	Electroacoustic standards and checks and basic prescriptive formulae	EMHA Chapters 13-14	HA fitting/programming lab due
Week 8 10/22	Exam 1		Exam 1 in class Electroacoustic practice
Week 9 10/29	Basic Verification: Probe Mic Measurements and Behavioral tests Clinical applications of Verification	EMHA Chapter 15-16 ANSI HA standard Verifit manual	Electroacoustic practice HA gain concept map due
Week 10 11/5	Validation of hearing aids, Questionnaire presentations	EMHA Chapter 17 Verifit Manual ANSI HA standard	Electroacoustic lab due Real-ear measure practice Questionnaire presentations
Week 11 11/12	Basic Patient Orientation and HA troubleshooting	EMHA Chapter 19 Verifit Manual	Real-ear measures practice
Week 12 11/19	Advanced hearing aid features introduction, report writing	EMHA Chapter 18 Verifit Manual	Real-ear measures Lab due
11/26	Thanksgiving (No class)		
Week 13 12/3	Catch-up and review		Hearing aid report due Final Exam assigned
12/13	Final Exam		Final Exam Due

Blue font indicates labs and readings for lab course attached to this course.

ACADEMIC REQUIREMENTS AND GRADING

Examinations

This course will have two exams. The midterm exam will cover the topics from weeks 1-7 and be worth 250 points (25% of grade) and will be completed in class with a time limit of two hours. A practice quiz will be available around a couple of weeks before to give you an idea of the format and types of questions to expect on the midterm exam. It will contain multiple choice, short answer, fill in the blank, and true-false questions. The final exam will be comprehensive in nature, worth 300 points (30% of grade), and completed out of class time and submitted on canvas for grading. References can be used to complete the final and the purpose is to help you continue learning and reinforcing the concepts, so expect some work to find and learn answers. The exams must be completed individually even if they are take-home. Any collaboration will be considered a breach of the honor code and will earn the student(s) a grade of 0 for the exam.

Reading Quizzes

Most weeks we will have a reading quiz to be completed in Canvas and due before the beginning of class. These quizzes are not meant to be punitive, but to ensure we can all be active participants in the class discussions. The questions will be mostly thought provoking to encourage to come to class with opinions and questions. Each quiz will be worth 10 points for a total of 100 points or 10% of your final grade.

Assignments

Concept map on hearing aid delivery to patients: The purpose of this assignment is to conceptualize how hearing aids are delivered to patients/clients, from start to finish with all the different components. This will include different methods of delivery, such as hearing instrument specialists and over-the-counter hearing aids. This link gives instructions on how to complete a concept map: <https://creately.com/blog/diagrams/ultimate-concept-map-tutorial/>. An example will also be provided on Canvas to help. These should be completed individually but you are encouraged to discuss the delivery methods and components with each other. This assignment is worth 100 points or 10% of your grade and is due on Canvas on 9/24/2021.

Concept map on hearing aid gain: The purpose of this assignment is to conceptualize how hearing aids provide frequency specific and safe and comfortable gain for all levels and frequencies of sound. This link gives instructions on how to complete a concept map: <https://creately.com/blog/diagrams/ultimate-concept-map-tutorial/>. An example will also be provided on Canvas to help. These should be completed individually but you are encouraged to discuss the delivery methods and components with each other. This assignment is worth 100 points or 10% of your grade and is due on Canvas on 10/29/2021.

Hearing aid questionnaire presentation: You will work in pairs or a group of three to give a presentation on a hearing aid questionnaire for validation of hearing aid fitting. The purpose is to familiarize yourselves with different hearing aid questionnaire options, their background, and purposes. The presentation should include the content of the questionnaire, background on the development and purpose, and instructions on how to use and score it. These presentations will be completed in class on 11/5/2021. This presentation will be worth 50 points or 5% of your grade.

Hearing aid evaluation report: Write a hearing aid evaluation report based on the information given in the assignment. This assignment provides an opportunity to familiarize yourself with reports for hearing aid appointments and to practice writing them. You will be provided with data from questionnaires, speech recognition tests, and real-ear measures and asked to compile it in a clinical based hearing aid evaluation report with an example report to help. This assignment is worth 100 points or 10% of your final grade and is due on Canvas on 12/3/2021

Requirement	Due		Points	% of final grade
Reading Quizzes	Varied	Canvas	100	10%
Concept map on hearing aid delivery methods	9/24	Canvas	100	10%
Concept map on hearing aid gain	10/29	Canvas	100	10%
Hearing Aid Questionnaire Presentation	11/5	Canvas and presented in class	50	5%
Hearing Aid Evaluation Report	12/3	Canvas	100	10%
Exam 1	10/22	Canvas	350	25%
Final Exam	12/13	Canvas	450	30%
Totals			1000	100%

Grading Scale

Points earned	95-100	90-94	87-89	83-86	80-82	77-79	73-76	70-72	67-69	63-66	60-62	<60	
Letter Grade	A	A-	B+	B	B-	C+	C	C-	D+	D	D-	E	W
Grade Points	4.0	3.67	3.33	3.0	2.67	2.33	2.0	1.67	1.33	1.0	0.67	0.0	0.0

Please be aware that a C+ is not an acceptable grade for any SPA course in the AuD program.

See the AuD Student Handbook.

For greater detail on the meaning of letter grades and university policies related to them, see the Registrar's Grade Policy regulations at:

<http://catalog.ufl.edu/ugrad/current/regulations/info/grades.aspx>

Make up Exams or Other Work

Late assignments will not be accepted unless prior approval is granted by the instructor. If there is a documented illness, family emergency or university-sanctioned activity which requires you to miss an exam or assignment deadline please contact the instructor immediately so other arrangements can be made.

Class Attendance

You are expected to attend each class and, once in class, you are expected to participate. Your questions, comments, and observations make the class lively and interesting and are an intrinsic aspect of professionalism. Personal issues with respect to class attendance or fulfillment of course requirements will be handled on an individual basis. Attendance will be verified by the instructor at the start of class. Serial tardiness and absences will result in points off your semester grade. Please note all faculty are bound by the UF policy for excused absences. Excused absences must be consistent with university policies in the Graduate Catalog

(<http://gradcatalog.ufl.edu/content.php?catoid=10&navoid=2020#attendance>) and require appropriate documentation. Additional information can be found here:

<https://catalog.ufl.edu/ugrad/current/regulations/info/attendance.aspx>

Additional Academic Resources

[Career Connections Center](#): Reitz Union Suite 1300, 352-392-1601. Career assistance and counseling services.

[Library Support](#): Various ways to receive assistance with respect to using the libraries or finding resources.

[Teaching Center](#): Broward Hall, 352-392-2010 or to make an appointment 352- 392-6420. General study skills and tutoring.

[Writing Studio](#): 2215 Turlington Hall, 352-846-1138. Help brainstorming, formatting, and writing papers.

Student Complaints On-Campus: [Visit the Student Honor Code and Student Conduct Code webpage for more information](#).

On-Line Students Complaints: [View the Distance Learning Student Complaint Process](#).

Relation of course to program outcomes:

The content of this course is designed to help you meet the following 2020 Standards for the Certificate of Clinical Competence in Audiology. Content will be learned from assigned readings, lectures, and class discussions. Outcomes and will be assessed through the labs and exams.

- A5. **Calibration and use of instrumentation** according to manufacturers' specifications and accepted standards
- A7. Applications and limitations of specific audiologic assessments and interventions in the context of overall client/patient management
- A14. Assessment of diagnostic efficiency and treatment efficacy through the use of quantitative data (e.g., number of tests, standardized test results) and qualitative data (e.g., standardized outcome measures, client/patient-reported measures)
- A15. Client-centered, behavioral, cognitive, and integrative theories and methods of counseling and their relevance in audiologic rehabilitation
- D3. Facilitating and enhancing clients'/patients' and their families' understanding of, acceptance of, and adjustment to auditory and vestibular disorders
- D4. **Enhancing clients'/patients' acceptance of and adjustment to hearing aids, hearing assistive technologies, and osseointegrated and other implantable devices**
- E6. Engaging clients/patients (including, as appropriate, school-aged children/adolescents) and family members in shared decision making regarding treatment goals and options
- E7. Developing and implementing individualized intervention plans based on clients'/patients' preferences, abilities, communication needs and problems, and related adjustment difficulties
- 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**
- E12. **Incorporating sound field functional gain testing when fitting osseointegrated and other implantable devices**
- E13. Conducting individual and/or group hearing aid orientations to ensure that clients/patients can use, manage, and maintain their instruments appropriately

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

E18. Providing HATS for those requiring access in public and private settings or for those requiring necessary accommodation in the work setting, in accordance with federal and state regulations

E19. Ensuring compatibility of HATS when used in conjunction with hearing aids, cochlear implants, or other devices and in different use environments

E20. Providing or referring for consulting services in the installation and operation of multi-user systems in a variety of environments (e.g., theaters, churches, schools)

F5. Selecting age/developmentally appropriate amplification devices and HATS to minimize auditory deprivation and maximize auditory stimulation

F6. Instructing parents and/or child(ren) regarding the daily use, care, and maintenance of amplification devices and HATS

Instructional Methods: SPA6340 is a graduate level course providing an introduction and detailed examination of hearing aids as well as their practical application. To successfully address all of these topics during the semester a combination of online lecture, online class discussion, and in-person labs (as the attached lab course) will comprise the majority of the class sessions. E-learning in Canvas will be used to facilitate discussion, distribute materials, and for assignment submissions during the semester.

You are expected to actively engage in the course throughout the semester. Please come to class prepared by completing all out-of-class assignments. This preparation gives you the knowledge or practice needed to engage in higher levels of learning during the live class sessions. Similarly, you are expected to actively participate in the live class, whether virtual or in person. Your participation fosters a rich course experience for you and your peers that facilitates overall mastery of the course objectives.

STUDENT EXPECTATIONS, ROLES, AND OPPORTUNITIES FOR INPUT

Expectations Regarding Course Behavior

You are expected to be respectful to the course instructors, your classmates and all guest lecturers. This includes listening when others are speaking, no sideline chatter and playing your part in class discussions and activities. Communication between students and instructor should be respectful at all times. This includes class and lab interactions, e-mail, discussion boards, and other electronic communication.

Using personal electronic devices is not permitted, unless related to course activity. If you are found to be using devices inappropriately, you will be asked to put the device away and possibly leave class.

Academic Integrity

Students are expected to act in accordance with the University of Florida policy on academic integrity. As a student at the University of Florida, you have committed yourself to uphold the Honor Code, which includes the following pledge:

“We, the members of the University of Florida community, pledge to hold ourselves and our peers to the highest standards of honesty and integrity.”

You are expected to exhibit behavior consistent with this commitment to the UF academic community, and on all work submitted for credit at the University of Florida, the following pledge is either required or implied:

“On my honor, I have neither given nor received unauthorized aid in doing this assignment.”

It is your individual responsibility to know and comply with all university policies and procedures regarding academic integrity and the Student Honor Code. Violations of the Honor Code at the University of Florida will not be tolerated. Violations will be reported to the Dean of Students Office for consideration of disciplinary action. For additional information regarding Academic Integrity, please see Student Conduct and Honor Code or the Graduate Student Website for additional details: <https://www.dso.ufl.edu/sccr/process/student-conduct-honor-code/>
<http://gradschool.ufl.edu/students/introduction.html>

Please remember cheating, lying, misrepresentation, or plagiarism in any form is unacceptable and inexcusable behavior.

Professionalism and COVID

As students pursuing a path in the health professions or public health, it is crucial to demonstrate professional behaviors that reflect integrity and commitment to the health of patients, fellow health professionals, and to populations we serve. To accomplish this, a strong responsibility for the well-being of others must be evident in our decisions, along with accountability for our actions. Professionalism in the health disciplines requires adherence to high standards of conduct that begin long before graduation. This is particularly true during times of health emergencies such as the COVID pandemic, given our professional habits can have a direct impact upon the health of persons entrusted to us.

If you are not vaccinated, get vaccinated. Vaccines are readily available at no cost and have been demonstrated to be safe and effective against the COVID-19 virus. Visit this link for details on where to get your shot, including options that do not require an appointment: <https://coronavirus.uflhealth.org/vaccinations/vaccine-availability/>. Students who receive the first dose of the vaccine somewhere off-campus and/or outside of Gainesville can still receive their second dose on campus.

In response to COVID-19, the following professional practices are in place to maintain your learning environment, to enhance the safety of our in-classroom interactions, and to protect the health and safety of ourselves, our patients, our neighbors, and our loved ones.

- You are required to wear approved face coverings at all times while in Health Science Center classrooms and within Health Science Center buildings even if you are vaccinated.
- If you are sick, stay home and self-quarantine. Please visit the UF Health Screen, Test & Protect website about next steps, retake the questionnaire and schedule your test for no sooner than 24 hours after your symptoms began. Please call your primary care provider if you are ill and need immediate care or the UF Student Health Care Center at 352-392-1161 (or email covid@shcc.ufl.edu) to be evaluated for testing and to receive further instructions about returning to campus. UF Health Screen, Test & Protect offers guidance when you are sick, have been exposed to someone who has tested positive or have tested positive yourself. Visit the UF Health Screen, Test & Protect website for more information.
- Continue to follow healthy habits, including best practices like frequent hand washing.
- Avoid crowded places (including gatherings/parties with more than 10 people)

Sanitizing supplies are available in the classroom if you wish to wipe down your desks prior to sitting down and at the end of the class. Hand sanitizing stations will be located in every classroom.

Course materials will be provided to you with an excused absence, and you will be given a reasonable amount of time to make up work. If you are withheld from campus by the Department of Health through Screen, Test & Protect you are not permitted to use any on campus facilities. Students attempting to attend campus activities when withheld from campus will be referred to the Dean of Students Office.

Continue to regularly visit coronavirus.UFHealth.org and coronavirus.ufl.edu for up-to-date information about COVID-19 and vaccination.

COVID-19 Symptoms

See <https://www.cdc.gov/coronavirus/2019-ncov/symptoms-testing/symptoms.html> for information about COVID-19 symptoms, which may include fever, cough, shortness of breath or difficulty breathing, fatigue, chills, muscle or body aches, headache, sore throat, congestion or runny nose, nausea or vomiting, diarrhea, and loss of taste or smell.

Recording Within the Course:

Students are allowed to record video or audio of class lectures. However, the purposes for which these recordings may be used are strictly controlled. The only allowable purposes are (1) for personal educational use, (2) in connection with a complaint to the university, or (3) as evidence in, or in preparation for, a criminal or civil proceeding. All other purposes are prohibited. Specifically, students may not publish recorded lectures without the written consent of the instructor.

A “class lecture” is an educational presentation intended to inform or teach enrolled students about a particular subject, including any instructor-led discussions that form part of the presentation, and delivered by any instructor hired or appointed by the University, or by a guest instructor, as part of a University of Florida course. A class lecture does not include lab sessions, student presentations, clinical presentations such as patient history, academic exercises involving solely student participation, assessments (quizzes, tests, exams), field trips, private conversations between students in the class or between a student and the faculty or lecturer during a class session.

Publication without permission of the instructor is prohibited. To “publish” means to share, transmit, circulate, distribute, or provide access to a recording, regardless of format or medium, to another person (or persons), including but not limited to another student within the same class section. Additionally, a recording, or transcript of a recording, is considered published if it is posted on or uploaded to, in whole or in part, any media platform, including but not limited to social media, book, magazine, newspaper, leaflet, or third party note/tutoring services. A student who publishes a recording without written consent may be subject to a civil cause of action instituted by a person injured by the publication and/or discipline under UF Regulation 4.040 Student Honor Code and Student Conduct Code.

Our class sessions may be audio visually recorded for students in the class to refer back with added captioning and for enrolled students who are unable to attend live.

Policy Related to Guests Attending Class:

Only registered students are permitted to attend class. However, we recognize that students who are caretakers may face occasional unexpected challenges creating attendance barriers. Therefore, by exception, a department chair or his or her designee (e.g., instructors) may grant a student permission to bring a guest(s) for a total of two class sessions per semester. This is two sessions total across all courses. No further extensions will be granted. Please note that guests are **not** permitted to attend either cadaver or wet labs. Students are responsible for course material regardless of attendance. For additional information, please review the Classroom Guests of Students policy in its entirety. Link to full policy: <http://facstaff.php.ufl.edu/services/resourceguide/getstarted.htm>

Online Faculty Course Evaluation Process

Students are expected to provide professional and respectful feedback on the quality of instruction in this course by completing course evaluations online via GatorEvals. Guidance on how to give feedback in a professional and respectful manner is available at <https://gatorevals.aa.ufl.edu/students/>. Students will be notified when the evaluation period opens, and can complete evaluations through the email they receive from GatorEvals, in their Canvas course menu under GatorEvals, or via <https://ufl.bluer.com/ufl/>. Summaries of course evaluation results are available to students at <https://gatorevals.aa.ufl.edu/public-results/>.

SUPPORT SERVICES

Accommodations for Students with Disabilities

If you require classroom accommodation because of a disability, it is strongly recommended you register with the Dean of Students Office <http://www.dso.ufl.edu> within the first week of class or as soon as you believe you might be eligible for accommodations. The Dean of Students Office will provide documentation of accommodations to you, which you must then give to me as the instructor of the course to receive accommodations. Please do this as soon as possible after you receive the letter. Students with disabilities should follow this procedure as early as possible in the semester. The College is committed to providing reasonable accommodations to assist students in their coursework.

Counseling and Student Health

Students sometimes experience stress from academic expectations and/or personal and interpersonal issues that may interfere with their academic performance. If you find yourself facing issues that have the potential to or are already negatively affecting your coursework, you are encouraged to talk with an instructor and/or seek help through University resources available to you.

- The **Counseling and Wellness Center** 352-392-1575 offers a variety of support services such as psychological assessment and intervention and assistance for math and test anxiety. Visit their web site for more information: <http://www.counseling.ufl.edu>. On line and in person assistance is available.
- **U Matter We Care** website: <http://www.umatter.ufl.edu/>. If you are feeling overwhelmed or stressed, you can reach out for help through the You Matter We Care website, which is staffed by Dean of Students and Counseling Center personnel.
- The **Student Health Care Center** at Shands is a satellite clinic of the main Student Health Care Center located on Fletcher Drive on campus. Student Health at Shands offers a variety of clinical services. The clinic is located on the second floor of the Dental Tower in the Health Science Center. For more information, contact the clinic at 392-0627 or check out the web site at: <https://shcc.ufl.edu/>
- Crisis intervention is always available 24/7 from: Alachua County Crisis Center: (352) 264-6789 <http://www.alachuacounty.us/DEPTS/CSS/CRISISCENTER/Pages/CrisisCenter.aspx>
- **University Police Department:** [Visit UF Police Department website](#) or call 352-392-1111 (or 9-1-1 for emergencies).
- **UF Health Shands Emergency Room / Trauma Center:** For immediate medical care call 352-733-0111 or go to the emergency room at 1515 SW Archer Road, Gainesville, FL 32608; [Visit the UF Health Emergency Room and Trauma Center website.](#)

Do not wait until you reach a crisis to come in and talk with us. We have helped many students through stressful situations impacting their academic performance. You are not alone so do not be afraid to ask for assistance.

Inclusive Learning Environment

Public health and health professions are based on the belief in human dignity and on respect for the individual. As we share our personal beliefs inside or outside of the classroom, it is always with the understanding that we value and respect diversity of background, experience, and opinion, where every individual feels valued. We believe in, and promote, openness and tolerance of differences in ethnicity and culture, and we respect differing personal, spiritual, religious and political values. We further believe that celebrating such diversity enriches the quality of the educational experiences we provide our students and enhances our own personal and professional relationships. We embrace The University of Florida's Non-Discrimination Policy, which reads, "The University shall actively promote equal opportunity policies and practices conforming to laws against discrimination. The University is committed to non-discrimination with respect to race, creed, color, religion, age, disability, sex, sexual orientation, gender identity and expression, marital status, national origin, political opinions or affiliations, genetic information and veteran status as protected under the Vietnam Era Veterans' Readjustment Assistance Act." If you have

questions or concerns about your rights and responsibilities for inclusive learning environment, please see your instructor or refer to the Office of Multicultural & Diversity Affairs website: www.multicultural.ufl.edu