

University of Florida
College of Public Health & Health Professions Syllabus
Course Number: SPA 6133L – Hearing Aid Analysis Lab
 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, 10:30 to 11:30 AM

PURPOSE, CONTENT AND OUTCOME

Course Overview:

Analysis and description of the electroacoustical properties and fitting of hearing aids. This course is combined with the lecture course SPA 6340.

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

Students will demonstrate knowledge and application of:

- Make earmold impressions
- Complete electroacoustic analysis on hearing aids through lab activities
- Perform a listening check and trouble shoot a hearing aid
- Perform the hearing aid check in procedure
- Complete real ear analysis on hearing aids through lab activities

Course Materials and Technology:

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, 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 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 AudiologyOnline slides and article on Earmolds | 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 checks and prescriptive formulae | EMHA Chapters 13-14 | HA fitting/programming lab due |
| Week 8 10/22 | Exam 1 | EMHA Chapters 15-16 | Exam 1 in class Electroacoustic practice |
| Week 9 10/29 | Basic Verification: Probe Mic Measurements and Behavioral tests Clinical applications of Verification | EMHA Chapter 17 ANSI HA standard Verifit manual | Electroacoustic practice HA gain concept map due |
| Week 10 11/5 | Validation of hearing aids, Questionnaire presentations | EMHA Chapter 19 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 18 Verifit Manual | Real-ear measures practice |
| Week 12 11/19 | Advanced hearing aid features introduction, report writing | 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 |

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

ACADEMIC REQUIREMENTS AND GRADING

Lab Assignments

1. Hearing aid check lab (due 9/10/2020) (20 points)
 - a. The purpose of this lab is to learn how to check the function of a hearing aid, including its sound and features. You will complete a hearing aid check on 5 hearing aids of different style and manufacturer, noting the settings and any issues with the hearing aids. We will first practice these in class and the rest of lab can be completed in your own time. This lab is worth 20% of your final grade.
2. Earmold impression (EMI) lab (due 10/1/2020 with an option to continue to turn in new ones for improvement) (20 points)
 - a. Complete two “perfect” earmold impressions on another person. You will receive video and written instructions on how to complete earmold impressions as well as practice them in class, first with a manakin and then with each other. Complete at least ten impressions (five per ear) before 10/1/2021. Choose one pair for grading that will be turned in before 10/1/2021. You can continue to turn in more earmold impressions throughout the rest of the semester to improve your grade and practice if you want. The impressions will be graded based on Westone’s five criteria, parts of the impression (i.e., concha, canal length, helix, tragus, and oto-dam). This lab is worth 20% of your final grade.
3. Hearing aid fitting/programming lab (due 10/15) (20 points)
 - a. This lab is designed to give you experience with hearing aid software and connecting and making changes to hearing aids. Complete the initial fitting of three hearing aids or pairs of hearing aids from different manufacturers using NOAH and the appropriate software according to instructions provided and instruction videos. Save settings to both the hearing aids and the NOAH software. Submit a printed report with feedback and issues. This lab is worth 20% of your final grade.
4. Electroacoustic and hearing aid check lab (due 11/5) (20 points)
 - a. This lab is designed to practice checking hearing aid function relative to ANSI standards for quality. You will complete electroacoustic testing on three hearing aids from different manufacturers. This includes both ANSI testing at full-on gain and user gain according to the ANSI standard. Save the measurements on the Verifit to a USB drive and submit them as PDFs on Canvas. This lab is worth 20% of your final grade.
5. Real-ear measures (REM) and verification lab (due 11/19) (20 points)
 - a. This lab is designed to give you experience with real-ear measures and how to program hearing aids to meet prescriptive output targets. You will complete real-ear measures for program three hearing aids from different manufacturers to fit a mild to moderate sensorineural hearing loss. Save the measurements on the Verifit to a USB drive and submit them as PDFs on Canvas. Also save the settings and session in NOAH and submit a report on Canvas. This lab is worth 20% of your final grade.

| <i>Requirement</i> | <i>Due</i> | | <i>Points</i> | <i>% of final grade</i> |
|--------------------|------------|--------|---------------|-------------------------|
| HA Check Lab | 9/10 | Canvas | 20 | 20% |
| EMI Lab | 10/1 | Canvas | 20 | 20% |
| Fit Lab | 10/15 | Canvas | 20 | 20% |
| EA Check Lab | 11/5 | Canvas | 20 | 20% |
| REM Lab | 11/19 | Canvas | 20 | 20% |
| Totals | | | 100 | 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>

Relation 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

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

Instructional Methods: SPA6133L is a graduate level course focused on hands-on hearing aid application. You are expected to actively engage in the course throughout the semester. Please come to class prepared by completing all

out-of-class assignments/readings. This preparation gives you the knowledge or practice needed to efficiently complete the lab assignments.

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.ufhealth.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](https://www.cdc.gov/coronavirus/2019-ncov/symptoms-testing/symptoms.html) and [coronavirus.ufl.edu](https://www.cdc.gov/coronavirus/2019-ncov/symptoms-testing/symptoms.html) 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.bluera.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