

University of Florida
College of Public & Health Professions Syllabus
SPA 7354 Hearing Conservation and Noise Control (3 credits)
Spring 2022

Delivery Format: On-Campus
Course: E-Learning: Canvas

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Course Meets: Tuesdays 8:30-11:30 am, HPNP Rm G-307
Office Hours: By appointment only
Preferred Course Communications: email, or by appointment

PURPOSE AND OUTCOME

Course Overview

This course explores the role of audiologist in hearing conservation. The purpose of this course is to introduce you to the effects of noise on the auditory system. You will learn about the pathophysiology associated with noise exposure, how to prevent/reduce the risk of damage and how to measure/assess noise in various environments.

Relation to Program Outcomes

The content of this course is designed to help you meet the following CCC-A Standard II: Knowledge and Skills Outcomes and will be assessed through the assignments and exams.

A2. Effects of pathogens, and pharmacologic and teratogenic agents, on the auditory and vestibular systems

A3. Language and speech characteristics and their development for individuals with normal and impaired hearing across the life span

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 and use of instrumentation according to manufacturers' specifications and accepted standards

A6. Standard safety precautions and cleaning/disinfection of equipment in accordance with facility-specific policies and manufacturers' instructions to control for infectious/contagious diseases

A7. Applications and limitations of specific audiologic assessments and interventions in the context of overall client/patient management

A18. The role, scope of practice, and responsibilities of audiologists and other related professionals

- B1. Educating the public and those at risk on prevention, potential causes, effects, and treatment of congenital and acquired auditory and vestibular disorders**
- B2. Establishing relationships with professionals and community groups to promote hearing wellness for all individuals across the life span**
- B3. Participating in programs designed to reduce the effects of noise exposure and agents that are toxic to the auditory and vestibular systems**
- B4. Utilizing instrument(s) (i.e. sound-level meter, dosimeter, etc.) to determine ambient noise levels and providing strategies for reducing noise and reverberation time in educational, occupational, and other settings**
- B5. Recognizing a concern on the part of medical providers, individuals, caregivers, or other professionals about hearing and/or speech-language problems and/or identifying people at risk to determine a need for hearing screening**
- B6. Conducting hearing screenings in accordance with established federal and state legislative and regulatory requirements**

- C1. Gathering, reviewing, and evaluating information from referral sources to facilitate assessment, planning, and identification of potential etiologic factors**
- C2. Obtaining a case history and client/patient narrative**
- C3. Obtaining client/patient-reported and/or caregiver-reported measures to assess function**
- C4. Identifying, describing, and differentiating among disorders of the peripheral and central auditory systems and the vestibular system**
- C5. Providing assessments of tinnitus severity and its impact on patients' activities of daily living and quality of life**
- C6. Providing assessment of tolerance problems to determine the presence of hyperacusis**
- C7. Selecting, performing, and interpreting a complete immittance test battery based on patient need and other findings; tests to be considered include single probe tone tympanometry or multifrequency and multicomponent protocols, ipsilateral and contralateral acoustic reflex threshold measurements, acoustic reflex decay measurements, and Eustachian tube function**
- C8. Selecting, performing, and interpreting developmentally appropriate behavioral pure-tone air and bone tests, including extended frequency range when indicated**
- C9. Selecting, performing, and interpreting developmentally appropriate behavioral speech audiometry procedures to determine speech awareness threshold (SAT), speech recognition threshold (SRT), and word recognition scores (WRSs); obtaining a performance intensity function with standardized speech materials, when indicated**
- C10. Evaluating basic audiologic findings and client/patient needs to determine differential diagnosis and additional procedures to be used**
- C12. Selecting, performing, and interpreting otoacoustic emissions testing**
- C13. Selecting, performing, and interpreting tests for nonorganic hearing loss**

- D4. Enhancing clients'/patients' acceptance of and adjustment to hearing aids, hearing assistive technologies, and Osseo integrated and other implantable devices**
- D5. Addressing the specific interpersonal, psychosocial, educational, and vocational implications of hearing impairment for the client/patient, family members, and/or caregivers to enhance their well-being and quality of life**
- D6. Facilitating patients' acquisition of effective communication and coping skills**

D7. Promoting clients'/patients' self-efficacy beliefs and promoting self-management of communication and related adjustment problems

D8. Enhancing adherence to treatment plans and optimizing treatment outcomes

D9. Monitoring and evaluating client/patient progress and modifying counseling goals and approaches, as needed

Course objectives

Students completing this course will demonstrate knowledge of:

Knowledge Objectives and/or Goals: *Students will be able to:*

1. Discuss factors related to the prevention and minimization of hearing loss
2. Describe how to reduce the effects of noise exposure
3. Explain the physical characteristics and measurement of acoustic stimuli
4. Generate recommendations resulting from noise assessment and screening processes
5. Collect information that needs to be included in reports related to results and recommendations
6. Select and fit adequate hearing protection devices
7. Operate a sound level meter
8. Measure noise levels

Instructional Methods

Lectures, readings, course assignments, quizzes and exams

Course Materials and Technology

Required Textbook:

Other required readings will be articles listed for the class and will be accessible online via Canvas

Date	Topic	Readings
01/11	SYLLABUS	
01/18	Occupational Hearing Conservationists: Their Mission, Training, and Role The Effects of Noise and the Conservation of Hearing	No reading- listen and take notes
01/25	Introduction to Sound (review) Standards and Regulations	Optional Supplement: Rawool Chapter 1
01/25	The Audiometric Testing Program Understanding the Audiogram and Follow-up Procedures	Optional Supplement: Rawool Chapter 4

02/01	WORK ON PROJECT	
02/08	Noise Measurement and Control Hearing Protection/Proper fit	Optional Supplement Rawool Chapter 3, Chapter 6
02/15	Training and Motivation Record Keeping and Evaluation	Rawool Chapter 7,8

02/22	MIDTERM	
03/01	Conservation and Management of Hearing Loss in Musicians	Rawool, Chapter 9
03/08	SPRING BREAK	Rawool, Chapter 10
03/15	Noise Control and Hearing Conservation in Nonoccupational Settings	
03/22	Workers' Compensation for Noise- Induced Hearing Loss and Forensic Audiology	Rawool, Chapter 11
03/29	Hearing Conservation in Educational Settings Quiz 2	Rawool Chapter 13
04/05	PRESENTATIONS	
04/12	FINAL EXAM	

Topic schedules are subject to change.

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

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

NOISE PROJECT:

You will be divided into 4 groups of 5. You will pick a topic that involves noise exposure, pollution, toxicity, regulations, military, etc to research and present on in class. You may think outside the box. Your responsibilities will be to complete a literature review and be able to discuss the topic intelligently in class with supporting data and resources. Each member of your group will be grading you on your participation and all members are expected to participate in the presentation on 04/05. You will be graded on the following:

Topic/Introduction

Background

Supporting literature review

Support/opinions/ skepticism on your findings

**Future Directives
Sources**

Please approve all topics with me before proceeding

ACADEMIC REQUIREMENTS AND GRADING

Requirement	% of final grade
Midterm	30
Final Exam	40
Noise Project	20
Participation	10

Point system used (i.e., how do course points translate into letter grades).

Letter Grade	A	A-	B+	B	B-	C+	C	D+	D	D-	E
Percentage	93-100	90-93	87-90	83-87	80-82	77-80	70-77	67-69.9	63-67	60-62	<60
Points	925+	895-924	865-894	825-864	795-824	765-794	700-764	665-699	625-664	601-624	<600
Grade points	4.0	3.67	3.33	3.0	2.67	2.33	2.0	1.33	1.0	0.67	0.0

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

<http://gradcatalog.ufl.edu/content.php?catoid=8&navoid=149>

Exam Policy

Exams will be given in class in paper and pencil format. Exams are closed book will be administered and proctored by the course instructor. The final exam will be cumulative.

Policy Related to Make up Exams or Other Work

In general make-up exams will not be given. If you have an extenuating circumstance I must be contacted ahead of time so we can decide. Typically, an exam would be given before the actual exam date if you could not take it on the assigned day. You will not be given the same exam as the class for any approved makeup exams.

Policy Related to Required Class Attendance

Attendance is required. Personal issues with respect to class attendance or fulfillment of course requirements will be handled on an individual basis. Any unexcused absence will result in a 3-point reduction in your final grade. DO NOT BE TARDY.

****Any negative acts that go against the student expectations, roles and opportunities will affect your participation and professionalism grade.

STUDENT EXPECTATIONS, ROLES, AND OPPORTUNITIES FOR INPUT

Expectations Regarding Course Behavior

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.

Communication Guideline

Your participation in classroom discussions is essential to this course. Group discussion related to assigned readings and weekly lecture topics will be an integral part of the class meeting time and full participation is expected. Laptops may be used for note taking in class; laptop use during class for reasons outside of the course is distracting and will not be permitted.

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.

Online Faculty Course Evaluation Process

Students are expected to provide feedback on the quality of instruction in this course by completing online evaluations at <https://evaluations.ufl.edu>.

Evaluations are typically open during the last two or three weeks of the semester, but students will be given specific times when they are open. Summary results of these assessments are available to students at <https://evaluations.ufl.edu/results/>

SUPPORT SERVICES

Accommodations for Students with Disabilities

If you require classroom accommodation because of a disability, you must register with the Dean of Students Office <http://www.dso.ufl.edu> within the first week of class. 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 make sure you provide this letter to me by the end of the second week of the course. 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.
- You 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>

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.
