

University of Florida
College of Public Health & Health Professions
Syllabus
SPA 6581: Cochlear Implants 1 (3 credit hours)
Class Number / Section: 19362 / 348E
 Semester: Spring 2021
 Delivery Format: On-Campus

Instructor Name: Yonghee Oh, Ph.D.
 Room Number: HPNP G312
 Course Time: Wednesday, Period 7-9 (1:55 PM to 4:55 PM)
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 Office Hours: Wednesday 5PM – 6PM or by appointment
 Preferred Course Communications: Email

PURPOSE AND OUTCOME

Course Overview

This course covers the fundamental and applied principles in cochlear implants including: candidacy, programming considerations, outcomes, signal coding strategies, and other new technology options for individuals with hearing loss.

Relation to Program Outcomes

The content of this course is designed to allow you to fulfill the following CCC-A Standard IV: *Knowledge and Skills Outcomes*.

- **Standard IV-A: Foundations of Practice**

- A7. Effects of hearing loss on communication and educational, vocational, social, and psychological functioning
- A9. Patient characteristics (e.g., age, demographics, cultural and linguistic diversity, medical history and status, cognitive status, and physical and sensory abilities) and how they relate to clinical services
- A11. Principles, methods, and applications of psychometrics
- A12. Principles, methods, and applications of psychoacoustics
- A14. Physical characteristics and measurement of electric and other non-acoustic stimuli
- A15. Assistive technology
- A18. Principles and practices of research, including experimental design, statistical methods, and application to clinical populations

Course Objectives and/or Goals

Students will demonstrate knowledge of:

1. Functional and physiological operation of cochlear implantation
2. Protocol and terminology of cochlear implant programming
3. Various signal coding strategies including cochlear implant simulation
4. Benefits and limitations of cochlear implants.
5. Pediatric/adult candidacy, outcomes, and factors affecting outcomes
6. Psychophysical studies with cochlear implant patients

Instructional Methods

Lectures, reading, instructional videos and resources, and paper presentation

DESCRIPTION OF COURSE CONTENT

Topical Outline/Course Schedule

Week	Date(s)	Agenda/Topic(s)
1	1/13/21	<ul style="list-style-type: none"> • Course Introduction • Basic Operation and History of CI Technology (Ch1) • Physics and Electronics of CI (Ch2)
2	1/20/21	<ul style="list-style-type: none"> • Anatomy and Physiology Associated with CI (Ch3) • Medical and Surgical Aspects of CI (Ch12)
3	1/27/21	<ul style="list-style-type: none"> • Article Presentation • Basic Terminology of CI Programming (Ch7) • CI Signal Coding Strategies (Ch8, 9, 10, 11)
4	2/3/21	<ul style="list-style-type: none"> • Article Presentation • CI Signal Coding Strategies (Ch8, 9, 10, 11)
5	2/10/21	<ul style="list-style-type: none"> • Article Presentation • CI Candidacy / Outcome (Ch4, 5, 6) • Factor Affecting Outcomes (Ch21, 22)
6	2/17/21	<ul style="list-style-type: none"> • Article Presentation • Speech Processing Strategies
7	2/24/21	<ul style="list-style-type: none"> • Article Presentation • Benefits and limitations of cochlear implants.
8	3/3/21	Midterm Exam (on class)
9	3/10/21	<ul style="list-style-type: none"> • Article Presentation • Psychophysical studies: Place information
10	3/17/21	<ul style="list-style-type: none"> • Article Presentation • Psychophysical studies: Temporal Information
11	3/24/21	<ul style="list-style-type: none"> • Article Presentation • Psychophysical studies: Intensity Information
12	3/31/21	<ul style="list-style-type: none"> • Article Presentation • Psychophysical studies: Non-speech perception
13	4/7/21	<ul style="list-style-type: none"> • Article Presentation • Psychophysical studies: Speech perception
14	4/14/21	<ul style="list-style-type: none"> • Article Presentation • Psychophysical studies: Music perception
15	4/21/21	<ul style="list-style-type: none"> • Article Presentation • Course Review
16	4/29/21	Final Exam (10:00 AM – 12:00 PM)

***Review the weekly agenda and all materials and readings each week prior to class.**

Please note: The instructor reserves the right to change the schedule of the course and the topics. The above schedule of weekly topics is subject to change depending upon availability of guest lecturers and unforeseen circumstances.

Course Materials and Technology

Text: Wolfe, J. (2018). *Cochlear Implants: Audiological management and considerations for implantable hearing devices*. San Diego, CA: Plural Pub.

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>

ACADEMIC REQUIREMENTS AND GRADING

Requirement	Due date	Points or % of final grade
Participation in weekly class sessions/Discussions	Every class meeting	15%
Midterm Examination	3/3/21	25%
Article Review/Presentations	Every class (Week 3 – 15)	25%
Final Examination	4/29/21	35%

Letter grade to grade point conversions are fixed by UF and cannot be changed.

Letter Grade	A	A-	B+	B	B-	C+	C	C-	D+	D	D-	E
Percentage	93-100	90-93	87-90	83-87	80-82	77-80	73-77	70-72	67-69.9	63-67	60-62	<60
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

Please be aware that a C- is not an acceptable grade for graduate students. The GPA for graduate students must be 3.0. in all 5000 level courses and above to graduate. A grade of C counts toward a graduate degree only if a sufficient number of credits in courses numbered 5000 or higher have been earned with a B+ or higher. In addition, the Bachelor of Health Science Program does not use C- grades.

More information on UF grading policy may be found at:

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

Exam Policy

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

If you are sick on the date of an exam, you must email the instructor before the class begins, and provide a note from a doctor per the UF policies on excused absences. If you know in advance you will be absent for a particular exam, please let the instructor know before you go to set up a time to take the exam before the next class.

Policy Related to Make up Exams or Other Work

In general make-up exams will not be given. Any requests for make-ups due to technical issues MUST be accompanied by the ticket number received from LSS when the problem was reported to them. The ticket number will document the time and date of the problem. You MUST e-mail me within 24 hours of the technical difficulty if you wish to request a make-up.

Policy Related to Required Class Attendance

Attendance and Participation: Students are expected to be present for all class sessions. Attendance will be recorded at the beginning of each class session, and will be available in CANVAS for you to view. If a student has to leave early, they need to notify the instructor prior to the start of the class so that attendance can be documented appropriately. More than 1 unexcused absence will result in a loss of the 10% participation portion of the final grade.

Please note all faculty are bound by the UF policy for excused absences. For information regarding the UF Attendance Policy see the Registrar website for additional details:

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

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>

STUDENT EXPECTATIONS, ROLES, AND OPPORTUNITIES FOR INPUT

Expectations Regarding Course Behavior

Students are expected to participate and engage actively in class discussions. Students are expected to contribute to class discussions, and offer time for others to speak. Students are expected to not engage in disruptive activities (i.e., using a cellphone in class, dominating the conversation). Laptops are permitted provided that their use is relevant to class discussions, materials, and sessions.

Communication Guidelines

Please make sure you utilize appropriate etiquette in all in person and online communication opportunities. Please see this guide for additional information:

<http://teach.ufl.edu/wp-content/uploads/2012/08/NetiquetteGuideforOnlineCourses.pdf>

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/>.

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.phhp.ufl.edu/services/resourceguide/getstarted.htm>

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.
- 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.

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