

COMD 7520 Introduction to Cochlear Implants

PROFESSOR: Cache Pitt, AuD
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PREREQUISITES

OFFICE HOURS: Monday 9-11 AM
PHONE: 797-9311
DEPT. WEB: <http://comd.usu.edu/>

None

Meeting Time/Location:

- Online for all students for the first 5 weeks (May 11 – June 12)
- The final 2 weeks for audiology students only (June 15-June 25). ECERC
- 2 semester hours for students in the first 5 weeks and 3 semester hours for audiology students taking all 7 weeks

See the end of this document for the tentative course schedule, reading, and assignments.

COURSE DESCRIPTION

In this course you will be presented with information that will allow you to know; what is a cochlear implant, to understand the candidacy criteria for receiving a cochlear implant, to understand the current expectations of cochlear implant users, and to become familiar with the three manufacturer's in the United States. Audiology students who will take the final 2 weeks of the course on site will also learn basic programming parameters.

REQUIRED TEXTBOOK/READINGS

Chute, P. & Nevins, M. (2002) The Parents' Guide to Cochlear Implants. ISBN 1-56368-129-3

Wolfe, J. & Schafer, E. (2015) Programming Cochlear Implants, 2nd Edition. Plural Publishing. ISBN 978-1-59756-552-3

COURSE OBJECTIVES AND/ OR ASHA KNOWLEDGE AND SKILLS ACQUISITION (KASA)

Course Outcomes The student will:	Related Assessment	KASA Professional Standards (ASHA) (see KASA form for specific knowledge and skills competencies)
State candidacy criteria for cochlear implantation for children and adults	Mid Term and Final exam and assignments	B2, B3, B16
State outcome expectations for children and adults with cochlear implants, including factors affecting outcomes	Mid Term exams and assignments	B2, B3, B16, B17, B21

Describe how a cochlear implant works, including the surgical process, and how to troubleshoot the external equipment.	Mid Term Exam	B16, B21
Describe the educational and the intervention aspects of cochlear implantation.	Final exam and assignments	B3, B17, B21
Describe the communication choices of children with cochlear implants and their impact on educational placements.	Assignments	B3, B17, B18, B21

Knowledge and Skills Assessment (KASA)

In this course each student will be provided with an opportunity to demonstrate required knowledge and/or skill development. These knowledge and skills will be assessed as delineated in the syllabus (by examination, paper, presentation, project, etc.). ASHA has specified that in order to be competent, you must achieve a level of 80% or better on each KASA item. If the student does not attain this level in this course, he/she will be provided with ONE additional opportunity (in the current class) to demonstrate this knowledge or skill. If the student does not pass the competency a second time, no action will be taken if another opportunity (course or clinic) remains available in which the skill can be acquired. However, if no such opportunity is available, the student will be asked to complete an exam/demonstration of the knowledge and/or skill as defined by the department. For students failing to attain the set criteria on a required competency assessment, the department head is not able to sign the KASA form required for ASHA certification, even though the student may receive an acceptable course/clinic grade or exceed the minimum GPA.

COURSE FEE

There is no course fee for this course.

EVALUATION/GRADING/ASSIGNMENTS/REQUIREMENTS

- There will be three exams over the course of the semester. Two will be during the first 5 weeks for all students and a third exam for audiology students at the end of the semester. All exams will be administered via Canvas. Exams will be worth 75% of the final grade.
- There will be 8 assignments throughout the course, 5 of which will occur during the first 5 weeks for all students and 3 of which will occur during the final 2 weeks for the audiology students only. Assignments will be worth 25% of the final grade.

Grading: The following university approved grading scale will be used:

93-100 = A
90-92 = A-
87-89 = B+
83-86 = B
80-82 = B-
77-79 = C+
73-76 = C
70-72 = C-
60-69 = D
< 60 = F

COURSE POLICIES (taken directly from Syllabus Resource page on USU website)
http://www.usu.edu/aa/faculty/syllabus_resources.cfm

Academic Integrity - "The Honor System"

Each student has the right and duty to pursue his or her academic experience free of dishonesty. The Honor System is designed to establish the higher level of conduct expected and required of all Utah State University students.

The Honor Pledge: To enhance the learning environment at Utah State University and to develop student academic integrity, each student agrees to the following Honor Pledge:

"I pledge, on my honor, to conduct myself with the foremost level of academic integrity." A student who lives by the Honor Pledge is a student who does more than not cheat, falsify, or plagiarize. A student who lives by the Honor Pledge:

- Espouses academic integrity as an underlying and essential principle of the Utah State University community;
- Understands that each act of academic dishonesty devalues every degree that is awarded by this institution; and
- Is a welcomed and valued member of Utah State University.

Grievance Process (Student Code)

Students who feel they have been unfairly treated [in matters other than (i) discipline or (ii) admission, residency, employment, traffic, and parking - which are addressed by procedures separate and independent from the Student Code] may file a grievance through the channels and procedures described in the Student Code:

<http://www.usu.edu/studentservices/pdf/StudentCode.pdf#Article7> (Article VII. Grievances, pages 25-30).

Plagiarism

Plagiarism includes knowingly "representing, by paraphrase or direct quotation, the published or unpublished work of another person as one's own in any academic exercise

or activity without full and clear acknowledgment. It also includes the unacknowledged use of materials prepared by another person or agency engaged in the selling of term papers or other academic materials." The penalties for plagiarism are severe. They include warning or reprimand, grade adjustment, probation, suspension, expulsion, withholding of transcripts, denial or revocation of degrees, and referral to psychological counseling.

Sexual Harassment

Sexual harassment is defined by the Affirmative Action/Equal Employment Opportunity Commission as any "unwelcome sexual advances, requests for sexual favors, and other verbal or physical conduct of a sexual nature." If you feel you are a victim of sexual harassment, you may talk to or file a complaint with the Affirmative Action/Equal Employment Opportunity Office located in Old Main, Room 161, or call the AA/EEO Office at 797-1266.

Students with Disabilities

The Americans with Disabilities Act states: "Reasonable accommodation will be provided for all persons with disabilities in order to ensure equal participation within the program. If a student has a disability that will likely require some accommodation by the instructor, the student must contact the instructor and document the disability through the Disability Resource Center (797-2444), preferably during the first week of the course.

Any request for special consideration relating to attendance, pedagogy, taking of examinations, etc., must be discussed with and approved by the instructor. In cooperation with the Disability Resource Center, course materials can be provided in alternative format, large print, audio, diskette, or Braille."

Withdrawal Policy and "I" Grade Policy

Students are required to complete all courses for which they are registered by the end of the semester. In some cases, a student may be unable to complete all of the coursework because of extenuating circumstances, but not due to poor performance or to retain financial aid. The term 'extenuating' circumstances includes: (1) incapacitating illness which prevents a student from attending classes for a minimum period of two weeks, (2) a death in the immediate family, (3) financial responsibilities requiring a student to alter a work schedule to secure employment, (4) change in work schedule as required by an employer, or (5) other emergencies deemed appropriate by the instructor.

Emergency Preparedness:

In the case of a drill or real emergency, classes will be notified to evacuate the building by the sound of the fire/emergency alarm system or by a building representative. In the event of a disaster that may interfere with either notification, evacuate as the situation dictates (i.e., in an earthquake when shaking ceases or immediately when a fire is discovered). Turn off computers and take any personal items with you. Elevators should not be used; instead, use the closest stairs.

TENTATIVE COURSE SCHEDULE/READING ASSIGNMENTS

The course is divided into two groups; Audiology students and all other disciplines. Both groups will follow the syllabus for the first 5 units. The Audiology students will complete the remainder of the syllabus. During the first 5 units there will be two power point presentations that consist of a lecture of the unit's topics. The recorded lecture is available via Canvas. At your disposal, you may download and print the slides for personal note taking. Please keep up with the lectures each week in order to maintain an appropriate pace.

Dates for individual topics and exams are **tentative** and may be altered based on class progress at the discretion of the professor.

Unit 1

Lectures

- Lecture 1 - History of Cochlear Implants
- Lecture 2 - Introduction to CI technology

Readings

- Chute/Nevins – chapter 3, “Options in Implant Devices”
- Wolfe & Schafer – chapter 1, “Basic Components and Operation of a Cochlear Implant
- Cochlear implants: A remarkable past and a brilliant future
- History of MedEl – available electronically

Assignment

- HOPE Session of choice

Unit 2

Lectures

- Lecture 3 CI Candidacy
- Lecture 4 Introduction to mapping

Readings

- Wolfe & Schafer – chapter 2, “Basic Terminology of Cochlear Implant Programming”
- Chute/Nevins – chapter 2, “Candidacy Evaluation”

Assignment

- “The Whole Child” – Candidacy Evaluations for Children

Unit 3

Lectures

- Lecture 5 – Troubleshooting the external processor
- Lecture 6 - Psychosocial aspects of cochlear implantation – adults and kids

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Readings

- Wolfe & Schafer – Chapter 8, “Patient Complaints and Complications.”
- Chute/Nevins, Chapter 10, “Deaf Culture and the Cochlear Implant”

Assignment

- Review of Candidate materials

Exam 1

Unit 4

Lectures

- Lecture 7 - Outcomes in the Adult population
- Lecture 8 –Habilitation in the Pediatric Population

Readings

- Wolfe & Schafer – Chapter 9, “Hearing Assistance Technology (HAT) and Cochlear Implants”
- Chute/Nevins Chapter 6 - “Learning about Listening through Home Activities”
- Chute/Nevins Chapter 7 - “The Cochlear Implant as a Tool for Language Development”
- Chute/Nevins Chapter 9 - “Cochlear Implants and the Whole Child: Implications for Performance”

Movie

- Hear and Now

Assignment

- HOPE Reaching Benchmarks of Performance

Unit 5

Lectures

- The Cochlear Implant Surgical Process and Considerations
- The Cochlear Implant Team

Readings

- Chute/Nevins, chapter 4, “The Surgical Stage”
- Wolfe & Schafer – Chapter 7, “Clinical Considerations: Putting All of the Pieces Together”

Assignment

- - HOPE Session of choice

Exam 2**Audiology Students Only****June 17**

Lecture: CI Candidacy Evaluations & CI Candidacy

Reading: Wolfe & Schafer – Chapter 3 “Basic Principles of Programming”
- Chute and Nevins Chapter 5 “The Post-Implantation Stage”

Assignment: Perform Candidacy Evaluations

June 19

Lecture: Device Programming

Reading: Wolfe & Schafer – Chapter 4 “Programming Advanced Bionics Implants”
- Wolfe & Schafer – Chapter 6, “Programming Med-El Cochlear Implants.”

Assignment: CI Device Programming Binder

June 23

Lecture: Device Programming

Reading: Wolfe & Schafer – Chapter 5 “Programming Cochlear Devices”
Wolfe & Schafer – Chapter 10 “Programming Recipients Using Electric-Acoustic Stimulation”

Assignment: CI Device Programming Binder

June 25

Lecture: Device Programming & Billing

Reading: Wolfe & Schafer – Chapter 11 “Case Studies”

Exam 3