



California State University, Sacramento

Department of Communication Sciences and Disorders

GRADUATE (AuD) SYLLABUS

Table 1: Class Information

Semester/Year: Spring 2024	Course: CSAD653: Diagnosis and Management of Vestibular Disorders	Section: 01
Meeting Days: Mondays and Wednesdays	Meeting Times: 12-1:15 PM	Location: Folsom 2204
Instructor: Elaine Xu, Ph.D.	Email: c.xu@csus.edu	Phone: 916-278-4898
Office Location: Folsom 2306A or Zoom	Office Hours/Appointments: Mondays and Wednesdays 1:30-3 PM	

Catalogue Course Description:

CSAD 653. Diagnosis and Management of Vestibular Disorders.

3 Units

Prerequisite(s): Admission to Doctor of Audiology program; CSAD 611, CSAD 612, CSAD 613, CSAD 614, CSAD 621, CSAD 622, CSAD 622L, CSAD 623, CSAD 624, CSAD 631, CSAD 632, CSAD 641, CSAD 641L, CSAD 642, CSAD 643.

Term typically offered: Spring only

Description: Anatomical and physiological bases of the vestibular system, including congenital, peripheral and central, and neurologic factors will also be introduced. Physiological measures of the vestibular system, clinical assessment, and management and rehabilitation.

Place of Course in Program

Table 2: Sacramento State Graduate Learning Goals for the 21st Century (GLG)

This course is designed to provide second-year Doctor of Audiology students with an understanding of the pathophysiology of the vestibular system and the assessment and management of vestibular disorders. Clinical procedures that are used to diagnostically assess the vestibular system will also be covered.

WHY IS THIS COURSE IMPORTANT?

This course provides students with the foundations of disorders of the vestibular system, diagnostic procedures, and management of vestibular disorders. Students will learn the mechanisms behind common vestibular assessments and the support for rehabilitation techniques. This course will prepare students to perform these assessments at off-campus rotations.

Sacramento State Graduate Learning Goals (GLG)	Addressed by this course (Y/N)
Disciplinary knowledge: Master, integrate, and apply disciplinary knowledge and skills to current, practical, and important contexts and situations.	Y

Communication: <i>Communicate key knowledge with clarity and purpose both within the discipline and in broader contexts.</i>	Y
Critical thinking/analysis: <i>Demonstrate the ability to be creative, analytical, and critical thinkers.</i>	Y
Information literacy: <i>Demonstrate the ability to obtain, assess, and analyze information from a myriad of sources.</i>	Y
Professionalism: <i>Demonstrate an understanding of professional integrity.</i>	Y
Intercultural/Global Perspectives: <i>Demonstrate relevant knowledge and application of intercultural and/or global perspectives.</i>	N
Research: <i>Conduct independent research resulting in an original contribution to knowledge in the focused areas of their graduate program</i>	Y

Course Learning Outcomes:

GRADUATE LEARNING OUTCOMES

Mastery of each student-learning outcome listed below is indicated by a grade of B or better on each component of the corresponding measures listed in the table. Students are required to track their progress towards meeting each learning outcome and must make an appointment with the instructor for any grade equal to or less than a B. The instructor will suggest strategies to help you establish competence and knowledge in these areas.

You should track your progress towards meeting each learning outcome by listing your grades on the table below over the course of the semester.

CSAD 653 SPECIFIC STUDENT LEARNING OUTCOMES:

Upon completion of this course, students will be able to:

1. Identify the key structures and functions of the vestibular system
2. Describe the role of the nervous system (vestibular, ocular, motor) in maintaining balance and equilibrium
3. Explain the pathophysiology of common vestibular disorders
4. List the main components of a case history for evaluating patients with suspected vestibular disorders
5. Perform common clinical vestibular tests
6. Describe how disorders will impact testing and test results
7. Interpret the results of various diagnostic procedures
8. Develop recommendations (audiologic, medical, non-medical, referral) for patients based on test results
9. State examples of interprofessional management strategies with physical therapists.

Table 2: Course Learning Outcomes, Components, and Grades Received

Course Learning Outcome	Components Indicating Competence	Grades Received
1	Exam 1, class participation	
2	Exam 1, class participation	
3	Exam 1, exam 4, disorders notebook	
4	Exam 1, class participation	
5	Exam 2-4, Labs 1-7	
6	Exam 2-4, Labs 1-7	
7	Exam 2-4, Labs 1-7	
8	Exam 2-4, Labs 1-7	

Textbooks and Materials:

American Psychological Association. (2020). *Publication Manual of the American Psychological Association (7th Ed.)*. Washington, DC: American Psychological Association.

Jacobson, G. P., Shepard, N. T., Barin, K., Janky, K., & McCaslin, D. L. (Eds.). (2021). *Balance function assessment and management*. Plural Publishing.

Readings on Canvas

Online Resources:

Canvas

Hamish MacDougall (2016). *aVOR* (Version 2.3) [Mobile App]. Apple App Store.

<https://apps.apple.com/us/app/avor/id497245573>

Course Requirements/Components:

Course Format:

In-person lectures and labs

Class Preparation:

All required readings are for the date listed in the course schedule, not the following class period. Students are responsible for all assigned readings, whether discussed in class or not.

Class Participation:

Students are expected to actively participate in class discussions and are required to have read the assigned material prior to class meetings.

Class Attendance:

Classroom attendance is necessary for this course. Students are expected to arrive on time as class begins at 12 pm on Mondays and Wednesdays. You are allowed **two unexcused absences** without penalty. Each additional unexcused absence will result in a **5% reduction per occurrence** from your attendance grade. An Academic Performance Improvement Plan (APIP) will also be initiated if you have more than two unexcused absences.

If you are sick, stay home and do not attend class. Notify your instructor. Please self-diagnose if you are experiencing any COVID- like symptoms (fever, cough, sore throat, muscle aches, loss of smell or taste, nausea, diarrhea, or headache) or have had exposure to someone who has tested positive for COVID contact Student Health & Counseling Services (SHCS) at 916-278-6461 to receive guidance and/or medical care. The CDC provides a good source of information regarding COVID-19 and a way to self-check symptoms: <https://www.cdc.gov/coronavirus/2019-ncov/index.html>

Students must adhere to COVID-19 policies regarding mask wearing and vaccinations as described on the CSUS website. Please see <https://www.csus.edu/compliance/risk-management/coronavirus.html> and <https://www.csus.edu/return-to-campus/return-to-campus-faq.html> for more information and updates.

Class Assignments:

Course grades will be based on four exams, seven lab assignments, a disorder notebook, and a resource binder.

Exams

- **Exam procedures:** Examinations will be in person and must be completed on Canvas during the scheduled timeframe (75-minute class time unless you have a documented accommodation). There will be four exams. Examinations will be based on class lectures, assigned readings, class activities/homework, and discussions. Exams will be composed of multiple choice and true/false questions.
- **Exam absences:** No make-up examinations will be given unless there is a documented emergency for which you have written proof. In the case of a documented medical emergency prior to the exam, you will be required to notify me in advance of the exam and provide documentation of the illness/injury or emergency. Any approved make-up exams will be scheduled at a later date and may be administered in a different format from the original exam, for example, essay format. If you do not complete one or more of the exams by the last day of the final exam period, you may receive a “0” on your exam(s) as per instructor discretion. Please note that you remain individually responsible for being aware of your exam dates and times posted in the course syllabus.

Labs

Students will perform seven lab assignments on a classmate, family member, etc. During the scheduled lab instruction days, 30-40 minutes will be used for demonstration. Remaining class time can be used to work on the assignment. You will likely need at least 30 minutes to complete the hands-on data collection of each subject, and 30 minutes for write up. Results should be turned in with a clinical report and interpretation of the results. Labs are due at 11:59 PM PT on the due dates listed in the course schedule below.

Vestibular Disorders Notebook

Each student will be given three vestibular disorders and write a report for each disorder. The report on each assigned disorder will consist of two pages. The first page will contain the definition, characteristics, symptoms, cause, audiometric profile, complications, and source citations in APA format. The second page will consist of an audiogram and audiometric testing results. Please see the posted example on Canvas. The reports will be due on 05/12/2024 for review and grading. All students will combine the reports for a Vestibular Disorders Notebook due 05/15/2024. This notebook will be returned to each student to serve as a reference source.

Resource Binder

This is an ongoing project throughout the semester. It is suggested you include ANY material you found helpful from the course that you might use in future settings (4th year or jobs). You will likely need at least 2 hours cumulatively to complete the organization and references sections of the binder.

Extra Credits

- **Wellness activities (1 point on total grade):** Mental and physical wellness are incredibly important but are often neglected by graduate students in times of stress. To incentivize you to take care of yourselves, I am offering 1 wellness point that can be added to your total score. You must upload a picture or write a paragraph of description of your wellness activity to earn this extra credit.
- **Vestibular illustration (1 point on total grade):** To earn this extra credit, you will be required to provide a model of the peripheral and central vestibular system. This can be done through any medium of your choice (e.g., drawing, painting on paper or electronically). Components of the system must be properly labeled to earn full extra credit that can be added to your total score.
- **BPPV maneuver video instruction (1 point on total grade):** You must create a short video explaining how to perform a non-Epley BPPV maneuver to instruct other professionals (will not be published but think of it in terms of a YouTube instructional video).

Grading Policy:

Table 3: Course Requirements and Grade Distribution

Source	Points	% of Grade
Attendance and participation	25	5
Syllabus quiz	5	1
Exam #1	50	10
Exam #2	50	10
Exam #3	50	10
Exam #4	50	10
Lab assignments (7 labs during the semester)	210 (30 * 7)	42
Disorder Notebook (3 disorders)	30 (10 * 3)	6
Resource Binder	30	6
Total	500	100%
Extra Credit: Wellness Activity	1	
Extra Credit: Vestibular Illustration	1	
Extra Credit: BPPV Video Instruction	1	

Letter grades are assigned according to the following scores:

Table 4: Points, Percentages and Letter Grades

Grading

Points	Letter	%
465-500	A	93-100%
450-464	A-	90-92.99%
435-449	B+	87-89.99%
415-434	B	83-86.99%
400-414	B-	80-82.99%
385-399	C+	77-79.99%
365-384	C	73-76.99%
350-364	C-	70-72.99%
335-349	D+	67-69.99%
315-334	D	63-66.99%
300-314	D-	60-62.99%
< 300	F	< 60%

Course Policies/Procedures:

Academic conduct

Students enrolled in the Au.D. program must adhere to the Department and University policies on academic misconduct. Please see the department's policy on academic misconduct ("Policy on Student Academic and Clinical Conduct"). The following are expectations for professional behavior in the classroom:

- **Ethics:** Students must uphold the ethical standards set forth by professional bodies in the field (see Appendices C and D).
- **Respect:** Students should demonstrate respect to their peers, instructors, and staff.
- **Feedback:** Students are expected to self-reflect and modify their work in response to feedback, while displaying non-defensive behavior to suggestions.
- **Health:** Students should maintain their personal wellness and health, attending to any needs in a timely fashion in order to support their academic and professional growth.
- **Attire:** Students should dress appropriately for class. Classes may be held in clinic space, so students are expected to observe the clinic dress code.
- **Accountability:** Students are expected to be accountable, honest, and professional for their activities and communications. The general principles of ethical behavior should be applied to their coursework, evaluations, and examinations.
- **Language:** Students should demonstrate professional oral and written communication, including emails. Discretion and professional language should be used in all modalities, emphasizing constructive rather than reactive use.
- **Scholarship:** Students should take an active role in their learning, recognizing their deficiencies and seeking to correct them, as part of their commitment to lifelong learning.
- **Effort:** Students should collaborate and work to complete tasks and assignments on time or by the set deadline. Students are expected to follow through on all activities while maintaining professionalism and intellectual curiosity.

Attendance

Students are expected to arrive in class on time, prepared to participate and engage in classroom activities for both in-person and synchronous/virtual interactions. Students are responsible for class content, lecture materials, assignments, announcements, and must be aware of changes in the class schedule. Students are advised that instructional faculty may include an attendance policy in courses, which may require attendance as part of the student's course grade. These policies will be set in the syllabus.

Given the full-time, intensive nature this doctoral program, it is important that students contact instructors if they are absent or are anticipating absence, especially over an extended period of time. In the case of the latter, the Au.D. Program Director must also be notified. Attendance for clinical practica is outlined in the clinic handbook.

Email

Students in the Au.D. program are required to maintain an active CSUS email address, which is linked to the student ID number. Official emails will be sent through CSUS email. Students are expected to regularly check their CSUS emails.

Late work/ regrading

All assignments must be submitted by the scheduled deadline. In the case that life events or other reasons prevent the student from submitting the assignment on time, contact the instructor to request for an extension. This request should be made one week in advance, or as early as possible. This extension will not be provided more than twice during the semester. Late submission will result in **reduction by 10% per day of delay in submission**. Grades will not be changed under any circumstances to elevate a grade level (e.g. B to B+) and no emails regarding the same will be entertained.

TENTATIVE Course Schedule/Outline:

Date	Topic/Class Content	Readings	Assignment	Notes
1/22	<ul style="list-style-type: none"> • Introduction to Course • Syllabus Review • Ontogeny of Vestibular System 	Course Syllabus Jacobson et al. Chapter 2	Syllabus quiz	
1/24	Anatomy and Physiology of Vestibular System	Jacobson et al. Chapter 4		
1/29	Neurophysiology of Vestibular and Oculomotor Systems	Jacobson et al. Chapter 3		
1/31	Case History & Quality of Life Measures	Jacobson et al. Chapter 7 & 8		
2/5	Exam 1		Exam 1	ARO Conference
2/7	Bedside Evaluation of the Vestibular System (Synchronous Zoom lecture)	Jacobson et al. Chapter 9	Vestibular illustration	ARO Conference
2/12	VNG: Eye Movement Recording and Ocular Motility Testing	Jacobson et al. Chapter 10		
2/14	Lab 1: Ocular Motility			
2/19	VNG: Positional/Positioning Testing	Jacobson et al. Chapter 11		
2/21	Non-medical management of positional vertigo: Canalith Repositioning Procedures	Jacobson et al. Chapter 11 Clendaniel, R.A. (2016). Nonmedical management of positional vertigo. In G.P. Jacobson & N.T. Shepard (Eds.), <i>Balance Function Assessment and Management</i> (2 nd ed., pp. 653-684). Plural Publishing.	Lab 1 due 2/23/2024	
2/26	Lab 2: Positional/Positioning Testing			
2/28	VNG: Calorics	Jacobson et al. Chapter 12		
3/4	Lab 3: Calorics Testing			
3/6	Exam 2		Exam 2	
3/11	vHIT	Jacobson et al. Chapter 14		
3/13	Lab 4: vHIT		Lab 2 and Lab 3 due 3/15/2024	
3/18	NO CLASS – Spring break			

3/20	NO CLASS – Spring break			
3/25	cVEMP	Jacobson et al. Chapter 16 Wester, M. (2012). Vestibular evoked myogenic potentials. In S.R. Atcherson & T.M. Stoody (Eds.), <i>Auditory electrophysiology: A clinical guide</i> (pp. 289-306). Thieme Medical Publishers.		
3/27	Lab 5: cVEMP		Lab 4 due 3/29/2024	
4/1	NO CLASS - Cesar Chavez Birthday Observed (Holiday, Campus Closed)			
4/3	oVEMP	Jacobson et al. Chapter 16 Wester, M. (2012). Vestibular evoked myogenic potentials. In S.R. Atcherson & T.M. Stoody (Eds.), <i>Auditory electrophysiology: A clinical guide</i> (pp. 289-306). Thieme Medical Publishers.	Lab 5 due 4/5/2024	
4/8	Lab 6: oVEMP		BPPV maneuver video instruction	
4/10	Computerized Dynamic Posturography	Jacobson et al. Chapter 15		
4/15	Exam 3		Exam 3	
4/17	Rotary Chair Testing	Jacobson et al. Chapter 13	Lab 6 due 4/19/2024	
4/22	Lab 7: Rotary Chair			
4/24	Vestibular Disorders: Congenital	Jacobson et al. Chapter 18 & 22 Crane B.T. & Minor L.B. (2023). Third mobile window syndromes. In B.T. Crane, L. Lustig, & C. de Souza (Eds.), <i>Disorders of the vestibular system: Diagnosis and management</i> (pp. 103-120). Springer Cham.		
4/29	Vestibular Disorders: Acquired	Jacobson et al. Chapter 18 Sakano, H. & Crane, B.T. (2023). Menière's disease. In B.T. Crane, L. Lustig, & C. de Souza (Eds.), <i>Disorders of the vestibular system: Diagnosis and management</i> (pp. 103-120). Springer Cham. Lindemaan, T.L., & Rohem, P.C. (2023). Vestibular neuritis. In B.T. Crane, L. Lustig, & C. de Souza (Eds.), <i>Disorders of the vestibular system: Diagnosis and management</i> (pp. 103-120). Springer Cham.		

5/1	Vestibular Disorders: Acquired	Jacobson et al. Chapter 18 Gillard, D.M., & Sharon, J.D. (2023). Vestibular migraine. In B.T. Crane, L. Lustig, & C. de Souza (Eds.), <i>Disorders of the vestibular system: Diagnosis and management</i> (pp. 103-120). Springer Cham. De Souza, C., De Souza, R., & Patil A. (2023). Vestibular ototoxicity. In B.T. Crane, L. Lustig, & C. de Souza (Eds.), <i>Disorders of the vestibular system: Diagnosis and management</i> (pp. 103-120). Springer Cham.	Lab 7 due 5/1/2024 Wellness activity	
5/6	Vestibular Rehabilitation	Jacobson et al. Chapter 24 & 25		
5/8	Exam 4		Exam 4 Individual disorder reports due 5/12/2024 Group disorder notebook due 5/15/2024	

Please note that dates, class format/location, topics, and assignments are subject to change. In the event of a change, you will be given ample notice.

Additional Information

Commitment to Integrity:

As a student in this course (and at this university) you are expected to maintain high degrees of professionalism, commitment to active learning and participation in this class and also integrity in your behavior in and out of the classroom.

Sac State's Academic Honesty Policy & Procedures:

"The principles of truth and honesty are recognized as fundamental to a community of scholars and teachers. California State University, Sacramento expects that both faculty and students will honor these principles, and in so doing, will protect the integrity of academic work and student grades." Read more about Sac State's Academic Honesty Policy & Procedures at the following website: <https://www.csus.edu/umannual/student/stu-100.htm>

Definitions: At Sac State, "cheating is the act of obtaining or attempting to obtain credit for academic work through the use of any dishonest, deceptive, or fraudulent means." **Plagiarism** is a form of cheating. At Sac State, "plagiarism is the use of distinctive ideas or works belonging to another person without providing adequate acknowledgement of that person's contribution." Source: Sacramento State University Library Note: Any form of academic dishonesty, including cheating and plagiarism, shall be reported to the [Office of Student Conduct](#).

Department Policy on Use of APA format:

The Department of Communication Sciences and Disorders requires the use of the APA format and style. All students are required to reference the APA manual. All assignments are to be composed using APA format and style unless otherwise noted.

Understand When You May Drop This Course:

It is the student's responsibility to understand when he/she need to consider disenrolling from a course. Refer to the Sac State Course Schedule for dates and deadlines for registration. After this period, a serious and compelling reason is required to drop from the course. Serious and compelling reasons include: (a) documented and significant change in work hours, leaving student unable to attend class, or (b) documented and severe physical/mental illness/injury to the student or student's family. Under emergency/special circumstances, students may petition for an incomplete grade. An incomplete will only be assigned if there is a compelling extenuating circumstance. All incomplete course assignments must be completed by the department's policy.

Inclusivity:

Students in this class are encouraged to be active participants in all aspects of the course, including but not limited to lectures, synchronous and asynchronous activities, discussion posts, etc. Each of us must show respect for each other, as our class represents a diversity of beliefs, backgrounds, and experiences. This enriches all of our learning experiences together. Our individual differences deepen our understanding of one another and the world around us, rather than divide us. In this class, people of all ethnicities, genders and gender identities, religions, ages, sexual orientations, disabilities, socioeconomic backgrounds, regions, and nationalities are strongly encouraged to share their rich array of perspectives and experiences. If you feel your differences may in some way isolate you from our classroom community, or if you have a specific need, please contact the instructor early in the semester. Your instructor will work with you to ensure that you become an active and engaged member of our class and community.

Locations of gender-neutral restrooms on campus:

Maryjane Rees Language, Speech and Hearing Clinic, 2nd Floor of Folsom Hall

Equal Access:

California State University-Sacramento, Department of Communication Sciences and Disorders, seeks to provide equal access to its programs, services, and activities for people with disabilities. If you have a documented disability and verification from the Disability Access Center (DAC), and wish to discuss academic accommodations, please contact your instructor as soon as possible. It is the student's responsibility to provide documentation of disability to DAC and meet with a DAC counselor to request special accommodation before classes start. **Sacramento State Disability Access Center** offers a wide range of support services and accommodations for students in order to ensure students with disabilities have equal access and opportunity to pursue their educational goals. Working collaboratively with students, faculty, staff and administrators, DAC provides consultation and serves as the information resource on disability related issues to the campus community. DAC is located in Lassen Hall 1008 and can be contacted by phone at (916) 278-6955 (Voice) or (916) 278-7239 (TDD only) or via email at dac@csus.edu

Basic Needs Support

If you are experiencing challenges with food, housing, financial or other unique circumstances that are impacting your education, help is just a phone call or email away! The CARES office provides case management support for any enrolled student. Email the CARES office at cares@csus.edu to speak with a case manager about the resources available to you. Check out the [CARES website](#).

Other Resources

- The Office of Student Affairs maintains a list of campus resources/centers: <https://www.csus.edu/center/>
- Testing Center: <https://www.csus.edu/student-affairs/centers-programs/testing-center/>

- Library: <https://library.csus.edu/> for consultation: Rachel Stark, MS, AHIP, stark@csus.edu
- Disability Access Center: <https://www.csus.edu/student-affairs/centers-programs/disability-access-center/>
- Student Health and Counseling Services at The WELL: <https://www.csus.edu/student-life/health-counseling/>
- Student Academic Success and Education Equity Programs: <https://www.csus.edu/student-affairs/retention-academic-success/>
- Crisis Assistance and Resource Education Support (CARES): <https://www.csus.edu/student-affairs/crisis-assistance-resource-education-support/>
- CHHS Student Success Center: <https://www.csus.edu/college/health-human-services/student-success/>
- Reading & Writing Center: <https://www.csus.edu/undergraduate-studies/writing-program/reading-writing-center.html>
- Peer & Academic Resource Center: <https://www.csus.edu/student-affairs/centers-programs/peer-academic-resource/>
- SMART Thinking (tutoring resource): https://www.csus.edu/student-affairs/centers-programs/degrees-project/_internal/_documents/smarthinking.pdf

Knowledge And Skills Acquisition (KASA) For Certification in Audiology

Scientific and Research Foundations

- The basics of communication sciences (e.g., acoustics, psychoacoustics and neurological processes of speech, language, and hearing)

Standard II-A: Foundations of Practice

- A1. Genetics, embryology and development of the auditory and vestibular systems, anatomy and physiology, neuroanatomy and neurophysiology, and pathophysiology of hearing and balance over the life span
- A2. Effects of pathogens, and pharmacologic and teratogenic agents, on the auditory and vestibular systems
- 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
- A9. Implications of biopsychosocial factors in the experience of and adjustment to auditory disorders and other chronic health conditions
- A12. Effective interaction and communication with clients/patients, families, professionals, and other individuals through written, spoken, and nonverbal communication
- A13. Principles of research and the application of evidence-based practice (i.e., scientific evidence, clinical expertise, and client/patient perspectives) for accurate and effective clinical decision making
- 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)
- A17. Importance, value, and role of interprofessional communication and practice in patient care
- A18. The role, scope of practice, and responsibilities of audiologists and other related professionals

Standard II-B: Prevention and Screening

- 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

Standard II-C: Audiologic Evaluation

- 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
- C14. Selecting, performing, and interpreting vestibular testing, including electronystagmography (ENG)/videonystagmography (VNG), ocular vestibular-evoked myogenic potential (oVEMP), and cervical vestibular evoked myogenic potential (cVEMP)
- C16. Electrophysiologic testing, including but not limited to auditory steady-state response, auditory middle latency response, auditory late (long latency) response, and cognitive potentials (e.g., P300 response, mismatch negativity response)
- C17. Posturography
- C18. Rotary chair tests
- C19. Video head impulse testing (vHIT)

Standard II-D: Counseling

- D3. Facilitating and enhancing clients'/patients' and their families' understanding of, acceptance of, and adjustment to auditory and vestibular disorders

Standard II-E: Audiologic Rehabilitation Across the Life Span

- E2. Identifying the need for, and providing for assessment of, concomitant cognitive/developmental concerns, sensory-perceptual and motor skills, and other health/medical conditions, as well as participating in interprofessional collaboration to provide comprehensive management and monitoring of all relevant issues
- E26. Providing canalith repositioning for patients diagnosed with benign paroxysmal positional vertigo (BPPV)
- E27. Providing intervention for central and peripheral vestibular deficits

ACAE Competencies

Foundation:

- Explain basic cell, organ, and body systems, with special emphasis on the auditory and vestibular/balance systems and their interrelationships to the body as a whole over the lifespan, including newborns, infants, children, adolescents, adults, elderly and individuals with special needs.
- Describe the development of normal auditory and communication processes, including the embryology and development of the auditory/vestibular, central nervous and related systems.
- Describe the effect that disease processes can have on the body and major organ systems, with special emphasis on the auditory and vestibular systems.
- Describe the structures and processes contributing to the development of auditory, vestibular and communication disorders and abnormalities.
- Critically evaluate the research foundation for hearing, balance and communication sciences.

Diagnosis and Management:

- Diagnose, triage, treat and manage auditory and vestibular/balance conditions and diseases for patients over the lifespan, including newborns, infants, children, adolescents, adults, elderly and special needs individuals.
- Apply critical thinking skills to assess the patient's auditory and vestibular status.
- Prescribe, perform and interpret clinical, laboratory and other diagnostic procedures and tests in consultation with other health professionals as may be required for proper management of the patient.
- Interpret and synthesize the findings from the patient's history, examination and other diagnostic tests and procedures in order to identify the etiology, the pathogenesis of the condition, and the diagnosis.
- Formulate a treatment plan and understand the implications of various treatment options.
- Explain any relevant limitations for diagnosis and treatment and formulate a plan for consultation or referral, as appropriate.
- Discuss the findings, diagnosis and treatment options with the patient, parent or guardian, family, other health care or service providers, as well as any modifications or consequences that may occur over the course of treatment.
- Plan and implement treatment and rehabilitation methods used for the management of auditory and vestibular disorders, including all forms of personal amplification and hearing assistance technology.
- Characterize and implement evidence-based practice methods and a critical evaluation of the literature to provide optimal outcomes for diagnosis and treatment of auditory and vestibular disorders.

Communication:

- Communicate effectively, both orally and in written form, with patients, families, caregivers, and other healthcare and service providers.
- Produce professional written reports on the diagnoses, evaluations and consultations encountered during clinical experiences.

Professional Responsibilities and Values:

- Describe Current Procedural Terminology (CPT), Healthcare Common Procedure Coding System (HCPCS), International Classification of Diseases (ICD-10) billing and coding as well as implications of different professional settings on reimbursement.
- Respect the unique cultures, values, roles/responsibilities, and expertise of other health professions, including the value of inter-professional education and collaboration for patient care.
- Describe the value of life-long learning in order to stay current with changing medical, technologic and business advances.