



California State University, Sacramento
Department of Communication Sciences and Disorders

GRADUATE SYLLABUS & COURSE OUTLINE

Semester/Year: Fall/2023	Course: CSAD 611- Anatomy and Physiology of the Auditory and Vestibular Systems	Section: 01
Meeting Days: T, TH	Meeting Times: 3:00 PM-4:15 PM	Location: Folsom Hall 1051
Instructor: Hamid Motallebzadeh, Ph.D.	Email: h.motallebzadeh@csus.edu	Phone: 916-278-3589
Office Location: 2404E	Office Hours/Appointments: Monday and Wednesday 10:30 am -11:30 am and Tuesday 2:00-3:00 pm <u>by appointment only.</u>	

Catalogue Course Description

CSAD 611: Anatomy and Physiology of the Auditory and Vestibular Systems

3 Units

Prerequisite(s): Admission to the Doctor of Audiology program

Description: Anatomical, physiological, and neurological bases of the auditory system and central nervous system. Covers embryologic development, including genetic factors, and normal structure and function. Anatomical and physiological bases of the vestibular system, including congenital, peripheral and central, and neurologic factors will also be introduced.

Term Typically Offered: Fall only.

Place of Course in Program

This course is designed to provide first-year Doctor of Audiology students with an understanding of the anatomy and physiology of the peripheral and central auditory and vestibular systems. The focus of this course will be on the structure and function of normal auditory and vestibular systems. Basic neuroscience, including the biochemistry of hearing and balance, will also be discussed.

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: Communicate key knowledge with clarity and purpose both within the discipline and in broader contexts.	N
Critical thinking/analysis: Demonstrate the ability to be creative, analytical, and critical thinkers.	Y
Information literacy: Demonstrate the ability to obtain, assess, and analyze information from a myriad of sources.	Y
Professionalism: Demonstrate an understanding of professional integrity.	Y
Intercultural/Global Perspectives: Demonstrate relevant knowledge and application of intercultural and/or global perspectives.	N

Research: Conduct independent research resulting in an original contribution to knowledge in the focused areas of their graduate program	Y
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Course Learning Outcomes

Graduate

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.

CSAD 611: specific student learning outcomes

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

1. Identify key structures of the peripheral and central auditory system and vestibular system.
2. Describe the normal developmental anatomy of the various structures in the auditory and vestibular systems.
3. Explain the physiology of key anatomical structures.
4. Explain the role and interaction of various structures in the transduction and perception of sound.

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

Course Learning Outcome	Components Indicating Competence	Grades Received
1-4	Quizzes	10x2
1-4	Exams	3x20
2-4	Assignments	3x4
2-4	Course project (report and presentation)	(6+6)

Required Textbooks and Materials:

Musiek, F. & Baran, J. (Eds.) (2020). *The Auditory System: Anatomy, Physiology, and Clinical Correlates, (2nd edition)*. San Diego: Plural Publishing.

Recommended Textbooks and Materials:

1. Rousseau, B., & Branski, R. C. (Eds.). (2018). *Anatomy and physiology of speech and hearing*. Thieme.
2. Puria, S., Fay, R. R., & Popper, A. N. (Eds.). (2013). *The middle ear: Science, otosurgery, and technology* (Vol. 46). Springer Science & Business Media.
3. Dallos, P., & Fay, R. R. (Eds.). (2012). *The cochlea* (Vol. 8). Springer Science & Business Media.
4. Jacobson, G. P., Shepard, N. T., Barin, K., Janky, K., & McCaslin, D. L. (Eds.). (2020). *Balance function assessment and management*. plural publishing.

Online Resources:

CSUS Library

Access the CSUS Library is a requirement of this course. Please become familiar with library access and login information as quickly as possible. As a CSUS student you should have free access to the library and its resources. The Department has access to the Health Sciences Librarian Rachel Stark. She is available to you for assistance and questions on how to utilize the library effectively. <https://library.csus.edu/directory/rachel-stark>

CANVAS

This course is posted on CANVAS. All lecture material and required readings not in the textbook will be available only on CANVAS. Access to CANVAS is a requirement of this course. Laptops are available to loan out as needed. Please contact the Department for further information. Grades and statistics for the tests will be posted on CANVAS.

Please forward interesting links to me as I will post them for the benefit of the entire class. All submissions must be in WORD or PDF format.

Class policies

Course Format

Lecture, Zoom lectures asynchronous and synchronous.

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 Preparation

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. No more than three unexcused absences are allowed. Students are expected to arrive on time as class begins at 3:00 pm. Students must email the instructor if they are not able to attend the class and are responsible to learn the material that was covered during their absence.

Student travel policy: https://www.csus.edu/college/health-human-services/communication-sciences-disorders/_internal/_documents/policy/csad-student-travel-policy.pdf

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 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.

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.

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.

TENTATIVE Course Schedule/Outline:

Date	Topic/Lecture	Reference	Assignment/activity
8/29	Course overview Expectation Overview of the auditory system	Syllabus Musiek & Baran (Ch.1)	
8/31	Overview of the auditory system Foundations of human anatomy and physiology	Musiek & Baran (Ch.1) Rousseau & Branski (Ch.1)	
9/5	Foundations of Human Anatomy and Physiology	Rousseau & Branski (Ch.1)	Quiz 1
9/7	Foundations of Human Anatomy and Physiology	Rousseau & Branski (Ch.1)	
9/12	Temporal bone External ear 1	Rousseau & Branski (Ch.1) Musiek & Baran (Ch.2)	Quiz 2
9/14	External ear 2	Musiek & Baran (Ch.2)	
9/19	External ear 3	Musiek & Baran (Ch.2)	Quiz 3
9/21	Middle ear 1	Musiek & Baran (Ch.3) Puria et al. (Ch.2)	
9/26	Middle ear 2	Musiek & Baran (Ch.3) Puria et al. (Ch.3-4)	Quiz 4
9/28	Middle ear 3	Musiek & Baran (Ch.3) Puria et al. (Ch.4)	
10/3	Middle ear 4	Musiek & Baran (Ch.3) Puria et al. (Ch.8)	Quiz 5
10/5	Review 1		Assignment 1 (external/middle ear)
10/10	Exam 1		
10/12	Cochlea 1	Musiek & Baran (Ch.4) Dallos & Fay (Ch. 2)	Assignment 2
10/17	Cochlea 2	Musiek & Baran (Ch.4) Dallos & Fay (Ch. 2)	Quiz 6
10/19	Cochlea 3	Musiek & Baran (Ch.4) Dallos & Fay (Ch. 4)	
10/24	Cochlea 4	Musiek & Baran (Ch.4) Dallos & Fay (Ch. 7)	Quiz 7
10/26	Membrane potential Endocochlear potential	Musiek & Baran (Ch.6)	Assignment 2 (cochlea/ electrophysiology)
10/31	Auditory neural system	Musiek & Baran (Ch.7)	Quiz 8
11/2	Review 1		
11/7	Exam 2		
11/9	Auditory neural system	Musiek & Baran (Ch.8-9)	
11/14	Vestibular system	Jacobson et al. (Ch. 2)	
11/16	Vestibular system	Jacobson et al. (Ch. 3)	
11/21	Vestibular system and assessment	Jacobson et al. (Ch. 10-16)	Quiz 9
11/23	No class (Thanksgiving)		
11/28	Genetics and Embryology	Rousseau & Branski (Ch.3-4)	Quiz 10
11/30	Presentation 1	Course project	Assignment 3 (vestibular system)
12/5	Presentation 2	Course project	

12/7	Review		
12/12	Exam 3 (Final)		

The Final Grade will be based on a percentage of total points (500) and will be assigned as follows:

Source	Point	%
Quizzes	10x2	20%
Exams	3x20	60%
Assignments	3x4	12%
Course project (report and presentation)	(6+6)	12%
Total	100+4	100+4%

Letter grades are assigned according to the following scores:

%	Letter
93 – 100	A
90 – 92	A-
87 – 89	B+
83 – 86	B
80 – 82	B-
77 – 79	C+
73 – 76	C
70 – 72	C-
67 – 69	D+
63 – 66	D
60 – 62	D-
< 60	F

Online Learning

For additional information, please review the [CSAD Handbooks](#) website:

<https://www.csus.edu/college/health-human-services/communication-sciences-disorders/student-resources.html>

Zoom/ Online Instruction privacy and relevant rights and responsibilities:

Any time that a class session is recorded during the COVID-19-related Remote Instruction Period, students will be notified. If students do not want their likeness during class participation included in the recorded class session, they may elect to not participate via video recordings. Recordings will be available for viewing during the Remote Instruction Period subject to the following:

Only students enrolled in the subject class during the Remote Instruction Period may view the recording.

- Students may not post or use the recordings in any other setting (e.g., social media) for any purpose. Students who violate this will be subject to student discipline, up to and including expulsion.
- Federal and California law as well as University policies protecting intellectual property rights and use of instructional materials (including any recordings of class sessions) remain in effect during the Remote Instruction Period.
- If faculty have any plan to use the recording for a different class in the future, the faculty member will need written FERPA consent from those students in the current class who are identifiable in any of the recordings. A FERPA consent form signed by all students in the course will also be needed if the recordings are made available to others beyond the classroom on a nonsecure digital platform.

Important Tips for Success as an Online Learner

There are some basic technical skills and requirements that you will need to have to be successful in this online course. If you have difficulties using Canvas, please go to this website: <https://www.csus.edu/information-resources-technology/canvas/canvas-for-students.html>

- Begin planning now for private, uninterrupted time in your schedule to complete the assignments – preferably in at least one-hour blocks and at least three times a week. It can be easy to fall behind!
- Check your email account regularly for updated information. We will be using your Saclink email account for communication. Use Saclink e-mail for private messages to the instructor and other students.
- Read directions carefully.
- For online communication, conventions of on-line etiquette ("netiquette"), which include a courtesy to all users, will be observed.

Attitudes & Technical Skills Required

You will find that the following attitude will significantly contribute to your success in this online class:

- A positive attitude towards technology.
- An open mind towards online education.
- Willingness to share your experiences with others.
- Strong analytical and critical thinking skills for when you "get stuck".
- Resourcefulness - don't be afraid to click on links and explore and ask questions.
- Time management

Online learning requires only basic technical skills:

- Be competent with file management (for example, creating a folder on your desktop, moving files from one location to another, finding a saved file)
- Possess internet navigation skills
- Update your Internet browser
- Send and receive email
- Create and save documents (Word, PowerPoint, Excel or HTML)
- Toggle between two open software applications on your computer

- Copy text from a word processing program and paste them into another program.

Technical Assistance

Seek help when you can't access Canvas or class materials.

- For technical assistance, contact the IRT Help Desk. Visit AIRC 2005 during [open hours](#) to speak with the IRT Service Desk Team, or call (916)278-7337. [IRT website.](#)
- For assistance with course materials, contact your instructor.

Spam and Phishing Scams

- Learn how to stay safe and protect yourself from hackers who may try to access your personal information: [Don't Fall for a Phishing Scam](#)
- Use anti-virus, anti-spyware, and anti-malware software. [Sac State's Software and Tools](#) available for download.
- Use pins and passwords to secure your computer and devices- don't share your password with anyone. Use strong passwords that include a combination of letters and numbers that no one can guess.

Canvas Student App

Canvas is fully functional on many types of smartphones and tablets. Compatible devices include platforms such as iPhone/iPad/iPod Touch, and Android. However, it is recommended that you do not solely rely on one of these devices to complete your online course work. Access to a computer is still needed for many online activities.

Visit the [Mobile section](#) of the [Canvas Guides](#) website for more information.

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.

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 Office of Services to Students with Disabilities (SSWD), 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 SSWD and meet with a SSWD counselor to request special accommodation before classes start. **Sacramento State Services to Students with Disabilities (SSWD)** 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, SSWD provides consultation and serves as the information resource on disability related issues to the campus community. SSWD 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 sswd@csus.edu.

Sacramento State is committed to ensuring an accessible learning environment where course or instructional content are usable by all students and faculty. If you believe that you require disability-related academic adjustments for this class (including pregnancy-related disabilities), please immediately contact Services for Students with Disabilities (SSWD) to discuss eligibility. A current accommodation letter from SSWD is required before any modifications, above and beyond what is otherwise available for all other students in this class will be provided. Please be advised that disability-related academic adjustments are not retroactive. SSWD is located on the first floor of Lassen Hall 1008. Phone is 916-278-6955 and e-mail is sswd@csus.edu. For a complete listing of services and current business hours visit <https://www.csus.edu/student-affairs/centers-programs/services-students-disabilities/>

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](#).

Title IX

The University requires faculty and staff to report any personal disclosures of sexual misconduct including rape, dating/domestic violence and stalking to the Title IX Coordinator. Students who do not wish to report their experience to me or the Title IX Coordinator may speak to someone confidentially by contacting Student Health and Counseling Services.

Sac State is committed to supporting students and fostering a campus environment free of sexual misconduct and gender-based discrimination. If a student chooses to disclose to a faculty or staff member an experience related to sexual misconduct which includes rape, relationship violence, or stalking, all faculty and staff are obligated to report this disclosure to the university's Title IX Coordinator. Sac State's Title IX Coordinator is Mary Lee Vance. Please email equalopportunity@csus.edu or (916) 278-5770. Upon receipt of the report, the Title IX Coordinator will contact you to inform you of your rights and options as a survivor and connect you with support resources, including resolution options for holding accountable the person who harmed you. Students who elect not to discuss their experience with the Title IX Coordinator can speak confidentially to the following confidential resources:

Student Health & Counseling Services at The WELL On Campus

Phone Number: 916-278-6461

Website: www.csus.edu/shcs

Campus Confidential Advocate – Laura Swartzen

Email: weave@csus.edu

On Campus Phone Number: 916-278-5850 (during business hours)

WEAVE 24/7 Hotline: 916-920-2952

CSUS Grading Policy

Information for students regarding grading is provided here:

<https://www.csus.edu/umanual/acad/umg05150.htm>

As an instructor, one of my primary responsibilities is to help foster a safe learning environment in the classroom and throughout our campus. It is my goal that you feel able to share information related to your life experiences in classroom discussions, in your written work, and in our one-on-one meetings. In this class, sexual topics may emerge in readings, assignments, and class discussions. Making a personal connection with the topics addressed in this class can be meaningful. However, please be advised that the University requires faculty and staff to report any personal disclosures of sexual misconduct including rape, dating/domestic violence and stalking to the Title IX Coordinator. Students who do not wish to report their experience to me or the Title IX Coordinator may speak to someone confidentially by contacting the following confidential resources:

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
- Services to Students with Disabilities: <https://www.csus.edu/student-affairs/centers-programs/services-students-disabilities/>
- Student Health and Counseling Services: Your physical and mental health are important to your success as a college student. Student Health and Counseling Services (SHCS) in The WELL offers medical, counseling, and wellness services to help you get and stay healthy during your time at Sac State. SHCS offers: Primary Care medical services, including sexual and reproductive healthcare, transgender care, and immunizations; urgent care for acute illness, injuries, and urgent counseling needs; pharmacy for prescriptions and over-the-counter products; mental health counseling, including individual sessions, group counseling, support groups, mindfulness training, and peer counseling; athletic training for sports injury rehabilitation; wellness services, including nutrition counseling, peer led health education and wellness workshops, and free safer sex supplies; violence and sexual assault support services. Most services are covered by the Health Services fee and available at no additional cost.
- 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): 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. <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>
- Campus Confidential Advocate – Laura Swartzen

Email: weave@csus.edu

On Campus Phone Number: 916-278-5850 (during business hours)

WEAVE 24/7 Hotline: 916-920-2952

- Students who wish to report sexual misconduct or violence that occurred while the student or the perpetrator were at Sacramento State may do so by contacting Sacramento State's Title IX Coordinator:

Skip Bishop

Director of Equal Opportunity

Del Norte Hall 2005

william.bishop@csus.edu

916-278-5770