



California State University, Sacramento

Department of Communication Sciences and Disorders

GRADUATE (AuD) SYLLABUS

Table 1: Class Information

Semester/Year: Summer/2026	Course: CSAD 631: Amplification II	Section: 01
Meeting Days: Monday, Wednesday	Meeting Times: 4:30 AM-6:55 PM	Location: Folsom Hall 2604
Instructors: Hamid Motallebzadeh, Ph.D.	Email: h.motallebzadeh@csus.edu	Phone: 916-278-3589
Office Location: 2404E	Office Hours/Appointments: Tuesday 4:30–6:00 PM, Wednesday and Thursday 1:15–2:00 PM, Friday 10:00–11:00 AM <u>by appointment only.</u>	

Catalogue Course Description

CSAD 631: Amplification II

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

Term Typically Offered: Summer only.

Description: This course is designed to provide first-year Doctor of Audiology students with a deeper understanding and exploration of the concepts introduced in CSAD622: Amplification I, as well as more advanced topics in amplification and hearing assistive technology.

Place of Course in Program

The topics presented in CSAD Amplification I will be presented in greater detail and accompanied by additional practice. Amplification is part of the rehabilitative process, so understanding patient needs, addressing concerns, and troubleshooting devices is necessary for clinical practice.

Table 2: Sacramento State Graduate Learning Goals (GLG)

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.	Y
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.	Y
Research: Conduct independent research resulting in an original contribution to knowledge in the focused areas of their graduate program.	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 631 specific student learning outcomes

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

1. Describe candidacy and communication needs for patients with hearing loss
2. Obtain MCL and UCL using clinical procedures
3. Compare hearing aid manufacturers, hearing aid styles, and electronic/acoustic features
4. State the steps in the decision-making process for audiologists and patients selecting amplification
5. Explain physical characteristics of hearing aids that can be modified for patients based on patient needs and common complaints
6. Identify hearing aid styles, features, and characteristics based on a clinical case report
7. Troubleshoot hearing aid problems (earmold, devices, electroacoustic analyses) based on a clinical case report
8. Fundamentals of the hearing aid engineering aspects
9. Future directions for hearing aid development

Table 3: Course Learning Outcomes, Components, and Grades Received

Course Learning Outcome	Components Indicating Competence	Grades Received
1-9	Assignments, labs, quizzes, mid-term, and final exam.	

Textbooks and Materials

Required textbook:

Ricketts, T.A., Bentler, R. & Mueller, G.H. (2019). Essentials of modern hearing aids: Selection, fitting and verification. Plural Publishing.

(Get a student discount of 15% using the code ST15- if purchased from Plural Publishing)

Publication Manual of the American Psychological Association: 7th Edition, 2020; ISBN-13: 978-1433832178, ISBN-10: 1433832178

Recommended textbook:

Popelka, G. R., Moore, B. C., Fay, R. R., & Popper, A. N. (Eds.). (2016). Hearing aids (Vol. 56). New York: Springer. ISBN: 978-3319330341

Course Requirements/Components

Course Format

Lecture.

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. 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 two unexcused absences are allowed. Students are expected to arrive on time. 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. APIP will be initiated for students who do not meet the attendance policies.

Exams & Makeups

Exams take place in the classroom on the day of the exam or through the testing center on campus. Makeups are allowed only with documentation of need (e.g., doctor's note, police report). Make-up exams will be scheduled during the last week of classes and must be completed at the testing center (\$6). If you plan to take the exams in the Testing Center, make sure to book at least 2 weeks in advance, for the same day within 1 hour of the scheduled test hour. Exams are closed book with no prepared notes and composed of True/False, multiple choice, short answer, and descriptive questions. Students remain individually responsible for being aware of your exam dates and times posted in the course syllabus or announcements in the class or Canvas.

Course projects

Research is an important part of every class in the Au.D. program. Students are required to follow the APA format and use peer-reviewed research in all papers and written assignments.

Late Assignments

Late assignments are accepted with a 20% penalty per day late up to 5 days late (at which point the grade would be 0%). This is true for both individual and group assignments.

Audio Recording

Students may audio record lectures only if they have official accommodations.

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.

TENTATIVE Course Schedule/Outline

Table 4: Course schedule and outline

Date (Day)	Topic	Reading	Assessment
Mon Jun 8	Intro & syllabus; HA hardware & software	Ch 10	—
Wed Jun 10	HA hardware & software (rechargeable, sensors)	Ch 10	—
Mon Jun 15	HA hardware & software	Ch 10	Quiz 1
Wed Jun 17	HA engineering fundamentals	Ch 10; Popelka	—
Mon Jun 22	Signal classification & sound cleaning	Ch 11	—
Wed Jun 24	Signal classification & sound cleaning	Ch 11	Quiz 2; Assign. 1 due
Mon Jun 29	Signal classification; activity 1	Ch 11	—
Wed Jul 1	Midterm; HA features & algorithms	Ch 12	Midterm
Mon Jul 6	HA features & algorithms; LE Audio/Auracast	Ch 12	—
Wed Jul 8	Prescriptive formulas & programming	Ch 14	Quiz 3
Mon Jul 13	Prescriptive formulas; activity 2	Ch 14	Assign. 2 due
Wed Jul 15	HA troubleshooting	Ch 18	—
Mon Jul 20	HA troubleshooting	Ch 18	Quiz 4
Wed Jul 22	OTC hearing aids; prescription/OTC landscape	Articles	—
Mon Jul 27	Bone-conduction candidacy; tinnitus & combination devices	Articles	—
Wed Jul 29	Future directions (DNN/AI, hearables)	Articles	Assign. 3 due
Mon Aug 3	Project presentations	—	Project
Wed Aug 5	Final exam	—	Final

Important Notice: As in previous years, we plan to invite representatives from hearing aid manufacturers to visit our class and present their products, software, and services to audiologists. The scheduling of these presentations will depend on the availability of the representatives. Once their attendance is confirmed, we may need to adjust portions of the course schedule. You will be notified in advance as soon as the date and time are finalized.

Grading Policy

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

The Final Grade will be based on a percentage of total points (100) and will be assigned as follows:

Table 5: Course Requirements and Grade Distribution

Source	Point	%
Quizzes	4x5	20
Exams	2x20	40
Assignments	3x4	12
Course project	8	8
Class activities and attendance	18+2	20
Total + extra credit assignment(s)	100+4	100+4

Table 6: Course Grade Scheme

%	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

Knowledge And Skills Acquisition (KASA) For Certification in Audiology

CSAD 631 Amplification 2

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

- 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
- 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)
- A22. Legal and ethical practices, including standards for professional conduct, patient rights, confidentiality, credentialing, and legislative and regulatory mandates

Standard II-B: Prevention and Screening

- 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

Standard II-C: Audiologic Evaluation

- C2. Obtaining a case history and client/patient narrative
- C3. Obtaining client/patient-reported and/or caregiver-reported measures to assess function

Standard II-D: Counseling

- D1. Identifying the counseling needs of individuals with hearing impairment based on their narratives and results of client/patient and/or caregiver responses to questionnaires and validation measures
- D4. Enhancing clients'/patients' acceptance of and adjustment to hearing aids, hearing assistive technologies, and osseointegrated and other implantable devices

Standard II-E: Audiologic Rehabilitation Across the Life Span

- E8. Selecting and fitting appropriate amplification devices and assistive technologies
- E9. Defining appropriate electroacoustic characteristics of amplification fittings based on frequency-gain characteristics, maximum output sound-pressure level, and input–output characteristics
- E10. Verifying that amplification devices meet quality control and American National Standards Institute (ANSI) standards
- E11. Conducting real-ear measurements to (a) establish audibility, comfort, and tolerance of speech and sounds in the environment and (b) verify compression, directionality, and automatic noise management performance
- E13. Conducting individual and/or group hearing aid orientations to ensure that clients/patients can use, manage, and maintain their instruments appropriately
- E14. Identifying individuals who are candidates for cochlear implantation and other implantable devices
- E17. Identifying the need for—and fitting—electroacoustically appropriate hearing assistive technology systems (HATS) based on clients'/patients' communication, educational, vocational, and social needs when conventional amplification is not indicated or provides limited benefit
- E18. Providing HATS for those requiring access in public and private settings or for those requiring necessary accommodation in the work setting, in accordance with federal and state regulations

- E19. Ensuring compatibility of HATS when used in conjunction with hearing aids, cochlear implants, or other devices and in different use environments
- E20. Providing or referring for consulting services in the installation and operation of multi-user systems in a variety of environments (e.g., theaters, churches, schools)
- E23. Counseling clients/patients to promote the effective use of ear-level sound generators and/or the identification and use of situationally appropriate environmental sounds to minimize their perception of tinnitus in pertinent situations
- E25. Monitoring and assessing the use of ear-level and/or environmental sound generators and the use of adaptive coping strategies to ensure treatment benefit and successful outcome(s)

Standard II-F: Pediatric Audiologic (Re)habilitation

- F2. Counseling parents to resolve their concerns and facilitate their decision making regarding early intervention, amplification, education, and related intervention options for children with hearing impairment
- F4. Educating parents regarding optional and optimal modes of communication; educational laws and rights, including 504s, individualized education programs (IEPs), individual family service plans (IFSPs), individual health plans; and so forth
- F5. Selecting age/developmentally appropriate amplification devices and HATS to minimize auditory deprivation and maximize auditory stimulation
- F6. Instructing parents and/or child(ren) regarding the daily use, care, and maintenance of amplification devices and HATS

ACAE Competencies

Foundation:

- Explain theoretical and applied principles of acoustics, psychoacoustics, non-acoustic stimuli, and electronics as applied to the normal and disordered auditory and vestibular systems.
- Describe the science and methods employed, e.g., acoustical and pharmacological, for the preservation of hearing and balance disorders.

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 audiologic diagnosis, treatment and management principles in diverse settings including, for example, private practice-based, educational and occupational/industrial environments.
- Formulate a treatment plan and understand the implications of various treatment options.
- 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.
- Integrate all aspects of a patient's life (development, participation, environment and culture), as identified by the International Classification of Functioning (ICF), World Health Organization (WHO) and World Health Assembly, May 2001, into the treatment management of patients with hearing and/or balance disorders (See Explanations).

Communications:

- Communicate effectively, both orally and in written form, with patients, families, caregivers, and other healthcare and service providers.
- Model and apply the skills needed to provide effective patient/family-centered counseling and shared decision-making when providing information, resources and evidence-based options for diagnosis and treatment.

Professional Responsibilities and Values:

- Describe the value of life-long learning in order to stay current with changing medical, technologic and business advances.

Online Resources

CSUS Library

Access to 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.

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.

Additional Information

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 resources.
- Willingness to share your experiences with others.
- Strong analytical and critical thinking skills for when you "get stuck".
- Resourcefulness - don't be afraid to explore and ask questions.
- Time management

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.

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/umanual/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 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](#).

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:

<http://www.csus.edu/umannual/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
- 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>