



California State University, Sacramento

Department of Communication Sciences and Disorders

UNDERGRADUATE SYLLABUS & COURSE OUTLINE

Semester/Year: Fall 2026	Course: CSAD 110 Physics of Sound and Phonetics.	Section: 02
Meeting Days: Monday/Wednesday	Meeting Times: 2:00 PM-3:50 PM	Location: Folsom Hall 1050
Instructor: Keith Haberstock, M.S. CCC-SLP	Email: keith.haberstock@csus.edu	Phone: 916-832-0745 (Text Only)
Office Location: Nursing 2000 Cubicle D	Office Hours/Appointments: TBD (By e-mail appointment request)	

Catalogue Course Description:

CSAD 110. Physics of Sound and Phonetics.

4 Units

Prerequisite(s): CHDV 30, [DEAF 51](#), [PSYC 2](#), and [STAT 1](#)

Corequisite(s): [CSAD 111](#)

Term Typically Offered: Fall only

Physical production, acoustic characteristics of sounds of speech. International Phonetic Alphabet as applied to speech sounds; practice in phonetic transcription of dialects and deviant speech; applications in speech education, speech and hearing therapy. Introduction to physiological acoustics, psychoacoustics, and acoustic phonetics. Perception of speech including voice, resonance, individual speech segments; instrumentation for acoustic and perceptual analysis of speech.

Sacramento State Baccalaureate Learning Goals

Sacramento State Baccalaureate Learning Goals for the 21st Century (BLG)	Addressed by this course (Y/N)
Competence in the Disciplines: <i>The ability to demonstrate the competencies and values listed below in at least one major field of study and to demonstrate informed understandings of other fields, drawing on the knowledge and skills of disciplines outside the major.</i>	Y
Knowledge of Human Cultures and the Physical and Natural World <i>through study in the sciences and mathematics, social sciences, humanities, histories, languages, and the arts. Focused by engagement with big questions, contemporary and enduring.</i>	Y
Intellectual and Practical Skills, Including: <i>inquiry and analysis, critical, philosophical, and creative thinking, written and oral communication, quantitative literacy, information literacy, teamwork and problem solving, practiced extensively, across the curriculum, in the context of progressively more challenging problems, projects, and standards for performance.</i>	Y
Personal and Social Responsibility, Including: <i>civic knowledge and engagement—local and global, intercultural knowledge and competence*, ethical reasoning and action, foundations and skills for lifelong learning anchored through active involvement with diverse communities and real-world challenges</i>	Y
Integrative Learning**, Including: <i>synthesis and advanced accomplishment across general and specialized studies</i>	Y

CSAD-110 Course Learning Objectives:

1. Identify speech and acoustic analysis materials used to assess certain types of disorders.
2. Explain the interconnectedness of language, phonetics, and speech production.
3. Effectively explain the relationship between the articulatory features and acoustic features of specific speech sounds.
4. Analyze spectrograms of vowels & consonants within words & phrases.
5. Transcribe typical speech sounds using the International Phonetics Alphabet (IPA).
6. Describe the features of articulatory phonetics along with clinical and research methods in evaluating and treating articulation disorders
7. Transcribe both typical and atypical productions of the sounds of American English during live transcription exercises using IPA notation.

CSAD-110 SPECIFIC STUDENT LEARNING OUTCOMES/MODULE OBJECTIVES:

1. Students will be able to identify the physical and perceptual properties of the production of specific sounds.
2. Students will be able to both accurately identify and describe both the articulatory and acoustic properties of speech sounds (vowels, consonants, diphthongs) using verbal descriptions and graphic representations of these properties.
3. Students will be able to critically evaluate how research in speech science is applied to clinical treatment in speech pathology and audiology.
4. Students will be able to use computer resources to improve learning process.
5. Students will be able to describe the psychoacoustic correlates of sound namely pitch, loudness and timbre.
6. Students will be able to identify the role played by the critical band in the understanding of auditory information.
7. Students will demonstrate competence in transcribing normal and abnormal speech into the International Phonetic Alphabet.
8. Students will identify and transcribe phonemic versus phonetic contrasts as well as the nature of sound variation in speech production.
9. Students will label basic anatomy and physiology of the speech mechanism.
10. Students will describe the basic process of early articulation and phonology development.
11. Students will explain the difference between an articulation approach and a phonological approach evaluating and treating speech disorders.
12. Students will discern between speech differences and a disorder based on an understanding of cultural pronunciation differences.
13. The student will be able to accurately describe the theory and practice of physiologic, psychoacoustic, acoustic and perceptual phonetics.

Mastery of each student-learning outcome listed below is indicated by a grade of C 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 C. The instructor will suggest strategies to help you establish competence and knowledge in these areas. 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 Module Objective:	Components Indicating Competence:	Grades Received
1	Quiz 1,2, & 3; Lab 1; Exam 1	

Course Module Objective:	Components Indicating Competence:	Grades Received
2	Quiz 3; Exam 1; Spectrogram	
3	Exam 1	
4	Lab 2	
5	Quiz 1, 2, & 3; Exam 1	
6	Lab 2, Exam 1	
7-8	Exams 3 & 4	
9	Exam 2	
10-11	Exams 3 & 4	
12	Exams 3 & 4	
13	Exam 4	

Textbooks, Materials and Online Resources:

NO TEXTBOOKS ARE REQUIRED FOR THIS COURSE. ALL TEXTBOOK CHAPTERS ARE PROVIDED IN PDF FORMAT WITHIN THE CANVAS MODULES.

Small, Larry. (2020). *Fundamentals of Phonetics: A Practical Guide for Students*, Fifth Edition. Boston: Pearson.

Raphael, L.J. Borden, G.J., Harris, K.S., (2011). *Speech Science Primer: Physiology, Acoustics, and Perception of Speech*. Sixth Edition. MA: Lippincott, Williams & Wilkins.

Canvas

This course is embedded into a Web Course format. You ***must*** have an active Sac Link account and use CSUS's Canvas to access lectures, course assignments, class discussions and class email. See participation note below.

Course Requirements/Components:

Assessment:

Student learning outcomes will be assessed with the following assessment strategies:

Assignments (5 points each to total 65 points): Thirteen assignments are scheduled throughout the semester. These are “no-fault” assignments that will receive full points if they are completed & submitted on time within Canvas. These assignments may be discussed in class, but individual feedback is limited unless you sign up/schedule an office visit with the instructor. The answers will be released to you after the homework submission date has passed. I encourage you to organize study groups and go over these assignments together to prepare for the exams.

Late Assignments: I will not accept **ANY** late assignments. I will be posting answers to Canvas. It is your responsibility to get them submitted on time. This is to prepare you for the many reports, letters, and IEPs that you as a clinician will be writing in the future. You simply cannot be late with these.

Quizzes (10 points each to total 30 points)

There will be three short quizzes at the beginning of the semester. These quizzes will be taken through the Canvas platform. Each quiz will be available to access for a 24-hour period with 15 minutes to complete once started.

Exams (100 points each to total 400 points): There will be four exams (including the final). All exams are cumulative. Exam dates are tentative except final exam. All exams will be taken **in-person** and include a combination of multiple choice, short answer, fill-in, essay and transcription. All exams will be cumulative covering all material from the course up to the date of the exam. This is necessary since the material requires a build up of knowledge throughout the semester. During the transcription sections of the course, the exams come up quickly after each other. Please pay close attention to the syllabus/schedule so you are well prepared for all exams. Please bring **Scantron Form 883-E** for every exam unless otherwise noted.

Labs (50 points each to total 100 points): There will be two lab exercises. Each lab day students will complete and turn in completed lab write-ups. Lab write-ups include written responses to questions. ***Labs may be completed in pairs/groups but the write-up of the lab should be done individually.*** Complete instructions will be available in the assignment box on Canvas.

Spectrogram (55 points): Students will be given one spectrogram of a sentence midway through the semester and will be asked to interpret what the sentence says over the remainder of the semester. Results will be graded according to how well the student identifies the sentence. This will be judged in terms of acoustically definable distinctive features and feasible linguistic entities.

Late Labs & Spectrograms: These may be turned in late; however, 10 points will be deducted for every day late (including weekend days) up to 50% of total points.

Grading Policy:

The CSUS Grading Policy (Policy# 11476953) can be found at:

<https://sacramentostate.policystat.com/policy/11476953/latest>.

The instructor will not reply to emailed requests to “bump up” a grade. There will be no additional opportunities for “extra credit” work. There are bonus questions added to some of the exams. Additionally, full credit will be awarded for completion of the chapter assignments (see above).

Your final Grade will be computed as follows:

Assessment	Points	Percentage of Total Points (approx.)
Assignments	65	10%
3 Quizzes	30	5%
4 Exams	400	62%
2 Lab Reports	100	15%
Spectrogram	55	8%
TOTAL POINTS	650 points	100%

Letter grades will be computed as a % of points earned out of a total of 650 points are assigned according to the following scores:

%	Letter	%	Letter
94.5-100	A	73.5 – 76.4	C
89.5 – 94.4	A-	69.5 – 73.4	C-
86.5 – 89.4	B+	66.5 – 69.4	D+
83.5 – 86.4	B	63.5 – 66.4	D
79.5 – 83.4	B-	59.5 – 63.4	D-
76.5 – 79.4	C+	below 59.5	F

Course Policies/Procedures:

Policy on making up exams & quizzes: No make-up exams are given unless there is a documented medical emergency with written proof. **Any make up exams will be scheduled during dead week and will be taken in the Academic Testing Center.** It is the responsibility of the student to schedule a make-up exam with the Academic Testing Center: <https://www.csus.edu/student-affairs/centers-programs/testing-center/>

Being late for an exam will not automatically entitle you to extra time. Please make sure you arrange your schedules to be here on time for the exams. If you miss a short quiz for whatever reason, you will NOT be able to make it up, so try not to miss any quizzes.

Students who have testing accommodations based on documentation provided by Disability Access Center (DAC) will be required to schedule their exams within the Academic Testing Center: <https://www.csus.edu/student-affairs/centers-programs/testing-center/> Testing must be scheduled on the day of the exam as listed in the Syllabus unless prior arrangements have been made with Professor Habersstock. Any scheduled accommodated exams that are missed due to documented medical reasons will be made up during dead week.

Policy on attendance: *Students are expected to attend class on a regular basis.* If you are unable to attend a class, I need to be informed by you before class begins. If you arrive to class late, please enter quietly and make certain your phone is on mute. This is a very lecture heavy class with difficult concepts and needed practice. I have found that students who have three or more absences typically receive a final course grade below C. I will ALWAYS offer time at the beginning of each lecture to answer questions regarding previously covered material. Following each class period, I expect you to be reading and studying the lecture material so this will allow you time for confirmation of ideas or clarification. I will be posting all Power Points but will not be available to answer questions that were covered in a lecture you missed. Please communicate with fellow students to get notes, explanations, etc. as needed.

E-MAIL: I check emails Monday through Friday during the school year between the hours of 8:00 A.M.-5:00 P.M. Thus, for 45 hours a week, I answer email and will do my best to reply within 1-2 days. I do not answer emails on weekends or during vacations. Any emails, which come to me during vacations unrelated to letters of recommendation, will be answered during the first week of the next semester.

Drop/Add: Students may drop classes according to University/Department Policy. You should speak to me if you would like to add the course before attempting to do so. Students must fill out appropriate forms and meet University deadlines to drop or add classes.

Student Concerns/Course Accommodations: Any student who does not understand or accept the contents or terms of this syllabus must notify the instructor in writing within one week of receiving this syllabus to schedule a meeting to discuss the student's concerns. Any student that requires course accommodations based on documentation provided by Disability Access Center (DAC) must provide required documentation from Disability Access Center (DAC) within one week of receiving this syllabus and before examinations (if appropriate).

TENTATIVE Course Schedule/Outline:

<u>Week</u>	<u>Date</u>	<u>Topic</u>	<u>Readings/Practice</u>
1	Aug 31	Introduction: Course Overview Language, Phonetics and Speech Production	Assignment 1: Log on to Canvas and see instructions for Assignment 1 (Due Sept 3)
	Sept 2	Acoustics 1 and 2: Simple Harmonic Motion, Complex Waves, etc.	Reading: Raphael, Chapter 2: pp. 17-29
2	Sept 7	LABOR DAY HOLIDAY	
	Sept 9	Quiz #1 Acoustics 2 & 3: Physical and Perceptual Properties	Reading: Raphael, Chapter 2: pp. 29-37 Assignment 1 Due
3	Sept 14	Acoustics 3: Physical and Perceptual Properties Acoustic Analysis/Measurement Techniques	Reading: Raphael, Chapter 13: pp. 276-285 Raphael, Chapter 14: pp. 287-297
	Sept 16	Quiz #2 Resonance & Source Filter Theory	Reading: Raphael, Chapter 2: pp. 37-39 Raphael, Chapter 5: pp 96-98
4	Sept 21	Lab 1 (Class and Home project) Resonance & Source Filter Theory	Have the Bottle Lab available to you. Bring a ruler and calculator.
	Sept 23	Quiz #3 Acoustics of Vowel Production	Reading: Raphael, Chapter 5: pp. 93-104
5	Sept 28	Front Vowels, Back Vowels, Diphthongs and Formant Transitions.	Reading: Raphael, Chapter 5: pp 104-112 Lab 1 Due
	Sept 30	Phonetic Sciences (<i>Not on exam 1</i>)	Reading: Small, Chapter 1
6	Oct 5	Lab 2: Acoustics Lab Folsom Hall 1029A	Bring ALL course materials to Class
	Oct 7	Linguistic Phonetics: Speech vs. Language and Spelling vs. Sound Review for Exam 1	Reading: Small, Chapter 2: pp 9-18
7	Oct 12	Lab 2: Acoustics Lab Folsom Hall 1029A	Bring ALL course materials to Class
	Oct 14	Exam 1	Reading: Small, Chapter 2: pp 9-18
8	Oct 19	Linguistic Phonetics (cont.): Language Systems, Morphology, Phonology Phonemes vs. Allophones/Min Pair	Reading: Small, Chapter 2: pp 19-20 Small, Chapter 2: pp 30-31 Assignment 2-1 (due Oct 20) Assignment 2-2 items #1 & #2 (due Oct 20)
	Oct 21	Phonology Phonotactics: Syllables, Lexical Stress, Exercises in Stress	Reading: Small, Chapter 2 pp 20-25 Small, Chapter 2 pp 25-34 Assignment 2-2 Items #3 <u>through</u> #8 (due Oct. 20)

<u>Week</u>	<u>Date</u>	<u>Topic</u>	<u>Readings/Practice</u>
9	Oct 26	Speech Production Systems	Reading: Small, Chapter 3 Assignments 2-1 & 2-2 Due
	Oct 28	Exam 2	
10	Nov 2	Vowels Front Vowels	Reading: Small, Chapter 4 Assignment 4-1 (due Nov 12) Lab 2 Due
	Nov 4	Back and Central Vowels r-Colored Vowels & Diphthongs	Assignment 4-2 (due Nov 12) Assignment 4-3 (due Nov 12) Assignment 4-4 (due Nov 12)
11	Nov 9	Classification Systems of Consonants Place, Manner, Voicing Distinctive Features	Reading: Small, Chapter 5 pp 109-143 Assignment 5-1 and 5-2 (due Dec 1)
	Nov 11	VETERAN'S DAY HOLIDAY	
12	Nov 16	Stops, Nasals, Fricatives and Affricates	Reading: Small, Chapter 5 pp 143-154 Assignment 5-3, 5-4, and 5-5 (due Dec 1)
	Nov 18	Approximant Consonants: Glides and Liquids <i>Review for Exam 3</i>	Assignments 4-1 through 4-4 Due
13	Nov 23	Exam 3	
	Nov 25	Independent Study-NO Lecture Acoustics: Resonant Consonants	Work on Spectrograms ☺ /it əlat ʌv fud/
14	Nov 30	Acoustics: Resonant Consonants	Reading: Raphael: Ch. 6, pp. 114-123
	Dec 2	Non-Resonant Consonants	Reading: Raphael: Ch. 6, pp. 123-135
15	Dec 7	Non-Resonant Consonants	Assignment 5-1 through 5-5 Due
	Dec 9	Finish Lecture Spectrogram Review	
FINALS WEEK		TIME TBA	Spectrograms Due

Study Tips

1. Review each day's lecture notes later that **same day** to aid retention.
2. FORM YOUR OWN STUDY GROUPS & study with others as much as possible. Do not rely on study groups facilitated by Instructional Student Assistants. These are supplemental and are not always guaranteed to occur.
3. Recite and write. Repeat material out loud. Write it out in longhand. Writing out material by hand may help solidify information in your memory. Use the PowerPoint slides and your class notes to create your own Word document that is organized for your unique brain with headings and connections.
4. Study a little every day rather than having 1-2 cram sessions. It is better to study 10-30 minutes a day than in two 5-6 hour sessions.
5. Remember, every course unit = 3 hours of studying outside of class a week. So, for a 4-unit class, you would need to study/do homework 12 hours a week.
6. DO THE READINGS **BEFORE** CLASS.
7. Make flashcards for key terms. Carry these flashcards everywhere you go and review them whenever you have a minute. Put the term/definition on one side and the exact definition from the book on the other side.
8. When answering Multiple Choice questions, look at *each* option and prove each one true or false.

Hornet Honor Code

<https://www.csus.edu/student-affairs/internal/documents/hornet-honor-code.pdf>

As proud members and representatives of the Sacramento State Hornet community, we commit ourselves to actively promoting honesty, integrity, respect, and care for every person, ensuring a welcoming campus environment, and striving to help every member of our Hornet family feel a strong sense of belonging.

As Hornets, we will:

- Promote an inclusive campus and community
- Listen and respect each other's thoughts, interests, and views Value diversity and learn from one another
- Engage daily with mutual trust, care, and integrity
- Support a culture of honor and adhere to campus policies for honesty, ethics, and conduct
- Be proud to be Sac State Hornets.

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://sacramentostate.policystat.com/policy/11300038/latest>

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, may be reported to the office of student affairs.

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. Prefer 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.

C- Grades for Prerequisite Courses

The Academic policy on prerequisite coursework posted in the Sac State Catalog Academic Policies (<https://catalog.csus.edu/academic-policies/>) within the Grading System Policies states:

"C-" Grades for Prerequisite Courses

A grade of "C-" or better is required for prerequisite courses. If a department requires a "C" or better in a prerequisite course and will not accept a "C-" grade, then the department must specify so in the catalog course description. This policy applies to all undergraduate-level courses.

Students who receive a grade below a "C-" may petition to continue in the CSAD BS program without repeating a major pre-requisite course at the link posted on the CSAD Handbooks: Resources, Forms and Information webpage: <https://www.csus.edu/college/health-human-services/communication-sciences-disorders/csad-handbooks.html>

Please note: filing a petition does not guarantee acceptance of prerequisite waiver. Each form will be reviewed on a case-by-case basis.

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 SSWD and meet with a SSWD counselor to request special accommodation before classes start. **Sacramento State Disability Access Center (DAC)** 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 Additional information can be found on the DAC website: <https://www.csus.edu/student-affairs/centers-programs/disability-access-center/>

Crisis Assistance & Resource Education Support (CARES) Support

If you are experiencing challenges in the area of food and/or stable housing, help is just a click, email or phone call away! Sacramento State offers basic needs support for students who are experiencing challenges in these areas. Please visit our Crisis Assistance & Resource Education Support (CARES) website to learn more about your options and resources available. <https://www.csus.edu/student-affairs/crisis-assistance-resource-education-support/>

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: <https://www.csus.edu/student-life/health-counseling/counseling/>

Campus Confidential Advocate Email: weave@csus.edu

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

WEAVE 24/7 Hotline: 916-920-2952

Student Health and Counseling at the WELL on Campus

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. More information available here: : <https://www.csus.edu/student-life/health-counseling/>

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/>
- Sacramento State Disability Access Center (DAC): <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/>
- 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/>
- 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/>

Knowledge And Skills Acquisition (KASA) For Certification in Speech-Language Pathology

CSAD 110 Physics of Sound and Phonetics.

This course has been designed to be in direct support of the following American Speech-Language Hearing Association (ASHA) 2017 Knowledge and Skills Acquisition for certification in Speech-Language Pathology:

Standard IV-A

- The student will demonstrate prerequisite knowledge of the physical sciences.

Standard IV-C: Speech, Language, Hearing, Communication, and Swallowing Disorders and Differences

- The student will demonstrate the ability to analyze, synthesize and evaluate knowledge re: phonology, articulation disorders (including the etiologies, characteristics, and anatomical physiological, acoustic, psychological, developmental, linguistic, and cultural correlates.)
- The student will demonstrate the ability to analyze, synthesize and evaluate knowledge re: voice and resonance disorders (including the etiologies, characteristics, and anatomical physiological, acoustic, psychological, developmental, linguistic, and cultural correlates.)
- The student will demonstrate the ability to analyze, synthesize and evaluate knowledge re: receptive and expressive language disorders (phonology, morphology, syntax, semantics, pragmatics, prelinguistic communication, and paralinguistic communication) in speaking, listening, reading, writing, and manual modalities (including the etiologies, characteristics, and anatomical physiological, acoustic, psychological, developmental, linguistic, and cultural correlates.)

Standard IV-B: Basic Human Communication Processes

- The student will demonstrate the ability to analyze, synthesize and evaluate knowledge re: acoustic bases of human communication.
- The student will demonstrate the ability to analyze, synthesize and evaluate knowledge re: linguistic bases of human communication.