



# California State University, Sacramento

## Department of Communication Sciences and Disorders

### UNDERGRADUATE SYLLABUS & COURSE OUTLINE

Semester/Year: Spring 2021	Course: CSAD 130 Audiology and Hearing Testing.	Section: 02
Meeting Days: MW	Meeting Times: 7:00 PM-8:15 PM	Location: Online Synchronous
Instructor: Dr. Charles Sanders	Email: csanders@csus.edu	Phone: 916-278-6631
Office Location: Folsom Hall 2000 Cubicle C	Office Hours/Appointments: By Appointment Through Zoom	

#### Catalogue Course Description:

**CSAD 130. Audiology and Hearing Testing.**

**3 Units**

**Prerequisite(s):** [CHDV 30](#), [DEAF 51](#), [PSYC 2](#), [STAT 1](#), [CSAD 110](#) and [CSAD 111](#)

**Term Typically Offered:** Spring only

Introduction to audiology; anatomy and physiology of the hearing mechanism; pathologies of the ear; basic acoustics of sound and its relation to hearing and speech; school hearing screening; hearing conversation; audiometric interpretation and its relationship to speech language and learning disorders.

#### Place of Course in Program

This course is ideally placed in the second semester of the junior year. Following CSAD 110 Phonetic Science and CSAD 111 Anatomy and Physiology, the Audiology and Hearing Testing course will use that knowledge and expand on it. This will then ready them for CSAD 133 Aural Rehabilitation. This is important to ensure that the students have an intimate knowledge of the auditory mechanism, its normal and abnormal function, and how to evaluate it. This is essential when assessing the receptive language systems.

Sacramento State Baccalaureate Learning Goals for the 21st Century (BLG)	Addressed by this course (Y/N)
<b>Competence in the Disciplines:</b> <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>	Yes
<b>Knowledge of Human Cultures and the Physical and Natural World</b> <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>	Yes
<b>Intellectual and Practical Skills, Including:</b> <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>	Yes
<b>Personal and Social Responsibility, Including:</b> <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>	Yes
<b>Integrative Learning**, Including:</b> <i>synthesis and advanced accomplishment across general and specialized studies</i>	Yes

## Course Learning Outcomes:

### UNDERGRADUATE

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.

### CSAD 130 SPECIFIC STUDENT LEARNING OUTCOMES:

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

Mastery of each student learning outcome listed below is indicated by a grade of C (73-76%) 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.

1. Outline the history and contemporary practices related to the profession of audiology.
2. Explain the nature of sound, including concepts related to acoustics (e.g., pressure, intensity, frequency) and psychoacoustics (e.g., loudness, pitch, and binaural hearing).
3. Describe the basic principles of and the behavioral and physiological procedures used to assess the auditory and vestibular systems in infants, children, and adults.
4. Perform pure-tone audiometric testing in a sound-treated booth.
5. Interpret behavioral and physiological test results.
6. Describe disorders of the auditory and vestibular system that impact communication.
7. Discuss appropriate assessment and rehabilitation procedures for children and adults with hearing impairment.

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	Quiz 1	
1	Quiz 2	
2	Assignment 1	
2	Assignment 2	
2	Midterm 1	
2	Quiz 4	

2	Quiz 5	
3	Midterm 2	
3	Assignment 3	
3	Quiz 6	
3	Midterm 3	
4	Quiz 7	
5	Project	
6	Assignment 4	
6	Midterm 3	
6	Assignment 5	
6	Assignment 6	
7	Midterm 4	
7	Final	

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

### CSAD 130 Audiology and Hearing Testing

#### 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: hearing disorders (including the impact on speech and language including the etiologies, characteristics, and anatomical physiological, acoustic, psychological, developmental, linguistic, and cultural correlates.)

#### Standard IV-D: Prevention, Assessment, and Intervention

- The student will demonstrate the ability to analyze, synthesize, and evaluate knowledge re: the principles and methods of prevention, screening, and intervention regarding hearing, including the impact on speech and language.

#### Standard IV-B: Basic Human Communication Processes

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

#### Textbooks and Materials:

Introduction to Audiology, 13<sup>th</sup> Edition, Frederick Martin and John Clark (Paperback or ebook)

ISBN: **0134695046**

ISBN-13: **9780134695044**

Authors: Frederick N Martin John Greer Clark

## Online Resources:

Access to CANVAS is a requirement of this course. Campus computers are available for student use in many locations. This course is posted on CANVAS. All lecture material and required readings not in the text book will be available only on CANVAS. I do not recommend printing the lectures until the day before class as the content could possibly change. 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. Required readings will be posted in WORD or PDF format on CANVAS. All submissions must be in WORD or PDF format. **Mac PAGES submissions will not be accepted.**

## Course Requirements/Components:

Microsoft Office Suite

- WORD
- EXCEL
- POWER POINT
- Adobe Reader

AudSim Flex v0.99 - [www.audsim.com](http://www.audsim.com) A single user license \$19.99

## Grading Policy:

**Midterms:** There will be 4 midterms (300) given throughout the semester and 1 final (50). The midterms will include a combination of multiple choice questions, short answer and essay type questions. Each midterm will be worth 75 points. Each midterm will cover the topics of each section. This class is cumulative. You will need to have a good understanding of the material to continue to the next section. All previous subject matter may be tested during these exams. All midterms are required. (400). The instructions for the Final will be in Canvas. **There are NO MAKE-UPS.**

**Quizzes:** There will be 10 short quizzes. The quizzes will be given each class period. **There are NO MAKE-UPS.** The quizzes will include areas covered in the previous class period and the current readings. Each quiz will be worth 10 points. (100)

**Discussions:** Student Meet Up! In the discussion section of canvas, please introduce yourself. You will receive 10 points. (10) Week 1 Discussions will be a continuing message board. After the initial post please continue to post, ask questions of each other, and form study groups. This is present for you to be able to communicate with each other outside of class. Your participation throughout the class will be logged and graded. Make sure to post at least one for each unit. (60) There will be 2 discussions for Feedback for the Instructor. (20)

**Assignments:** There are additional assignments, which are worth 50 points each. Use the Assignments section of CANVAS to access and submit the assignments. (300)

**Project:** Using the AudSim Software you will complete 10 simulated hearing tests in the assignment mode. (100)

**Readings:** The assigned readings are not optional you will be tested on the material. The material will only be covered briefly in class. All readings will be from our text or posted on CANVAS. This course requires extensive reading. Be prepared and read all reading assignments prior to class.

The Final Grade will be based on a percentage of total points (1000) and will be assigned as follows:

EXAMPLE

Source	Points	% of Grade
1-Midterm	75	7.5%
All Midterms	300	30%
1-Assignment	50	5%
All Assignments	350	35%
1-Quiz	10	1%
All Quizzes	100	10%
Project	100	10%
Discussion/Participation	100	10%
Final	50	5%

Letter grades are assigned according to the following scores:

Points	%	Letter
1000-950	100-95.0	A
949-900	94.9-90.0	A-
899-870	89.9-87.0	B+
869-830	86.9-83.0	B
829-800	82.9-80.0	B-
799-770	79.9-77.0	C+
769-730	76.9-73.0	C
729-700	72.9-70.0	C-
699-670	69.9-67.0	D+
669-630	66.9-63.0	D
629-600	62.9-60.0	D-
599 or below	59.9 or Below	F

## Course Policies/Procedures:

**Remediation:** *If you receive a midterm grade lower than a C-, you are required to sign up for an office hour to discuss your exam. If you cannot come during office hours, I will set up a special appointment time with you. I will analyze your exam with you and identify areas where you have had difficulty with specific course learning outcomes/competencies. I will give you specific strategies and suggestions that will help you establish competence and knowledge in these areas. You will need to follow through with these suggestions in order to receive a complete grade in the class.*

### Make-up Policy

There are no make-up quizzes or exams. Your attendance is required at every class period to take these quizzes and exams. The syllabus clearly states necessary dates. Your lowest quiz will be dropped. This is provided to you to allow unforeseeable events preventing you from taking a quiz.

**Policy on making up exams and quizzes:** No make-up exams are given unless there is a documented medical emergency with written proof. Being late for an exam or quiz will not 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 because you are late for class, or absent you will not be given another to make up.

**Policy on attendance:** Attendance to each class period is not mandatory. But there are no make up quizzes or exams. The information reviewed in class may not be found anywhere else. So it is strongly advised that you attend every class period.

**Group Discussions:** If you need to speak to your classmate on an issue not pertaining to the lecture please leave the room. If it pertains to the class please ask me or address the entire class. Please keep your behavior in class professional.

**Cell Phone Policy:** Please keep your cell phones turned off during class. If you absolutely need it to be on please keep it on “vibrate” mode and sit near the exit. If you need to take a call please leave the classroom silently and come back when you are finished. You do not need to ask permission to leave or enter the class.

**Drop/Add:** Students may drop and add classes only according to University Policy. Neither the department nor I are able to add or drop students from the course. You must go through the online system to add or drop. Students must fill out appropriate forms and meet University deadlines to drop or add classes.

**Special Needs/Accommodations:** Any student who does not understand or accept the contents or terms of this syllabus or has a disability or condition that compromises his or her ability to complete course requirements must notify the instructor in writing within one week of receiving this syllabus. They must then seek assistance from Disabled Students Services and/or the Learning.

### TENTATIVE Course Schedule/Outline:

<i>Week</i>	<i>Lectures</i>	<i>Readings</i>	<i>Assessments</i>
<b>Week 1</b> <b>January 25</b>	What is an Audiologist? <b>Movie Discussion</b>	Audiometric Threshold; Measure of Intensity; Salaries; Sound has a huge impact; Intro Text chapter 1; AAA Brochure; HH_FALL_2014 pgs 17-18 & 20-21	Quiz 1 Assignment 1 Student Meet Up! Week 1 Introduction
<b>Week 2</b> <b>February 1</b>	<b>Sound Waves and Their Properties</b>	Infection Control Why Me?; Reading 1 & 2; Intro Text Chapter 2	Assignment 2 Quiz 2
<b>Week 3</b> <b>February 8</b>	<b>Anatomy of the External Ear; Disorders of the External Ear</b>	Courtois 1, 2, 3; Ear Wax Gene; External Auditory Canal; Keratosis Obturans; Otoscopic Conditions; Intro Text Chapter 8	Quiz 3 External Ear
<b>Week 4</b> <b>February 15</b>	The Box; <b>The Ossicular Chain;</b> <b>Muscles and Functions;</b> Transformer Action	Intro Text Chapter 9	Quiz 4
<b>Week 5</b> <b>February 22</b>	<b>Disorders of the Middle Ear ;</b> The Inner Ear		Quiz 5
<b>Week 6</b> <b>March 1</b>	The Cochlea; Cochlear Hearing Loss	Intro Text Chapter 10	<b>Midterm 1</b>
<b>Week 7</b> <b>March 8</b>	Nerves; Auditory Pathway; Neural	Intro Text Chapter 11	Quiz 6

	<b>Hearing Loss</b>		
<b>Week 8 March 15</b>	<b>Hearing</b>  The Vestibular System; Vestibular Disorders	Theories of Hearing 1 & 2 Intro Chapter 13	<b>Assignment 5 Quiz 7</b>
<b>Week 9 March 22</b>  <b>Spring Break</b>			
<b>Week 10 March 29</b>	<b>Case History</b> Otoscopy	Intro Chapter 15	<b>Midterm 2</b>
<b>Week 11 April 5</b>	<b>Principles of Hearing Testing</b>	Intro Chapter 3, 4 &5  Audiogram  Audiometric Interpretation Chapter 1, 2 & 3	Quiz 8
<b>Week 12 April 12</b>	Immittance, Tympanometry & Acoustic Reflex	Intro Chapter 3 & 6.1  Acoustic Reflex; Acoustic Impedance; Evaluation of the Child Patient; Nozza	<b>Assignment 3</b>  <b>Quiz 9</b>
<b>Week 13 April 19</b>	<b>Pure Tone Audiometry</b>  Bone Conduction; Speech Audiometry	Intro Chapter 3, 4, &5 Audiometric Interpretation Chapter 3, 4, & 5  Hall; Thornton and Raffin; word lists	<b>Assignment 4</b>  <b>AudSim Flex Quiz 10</b>
<b>Week 14 April 26</b>	Audiometric Interpretation	Intro to Audiology 3.4  Hearing Evaluation; Audiometric Interpretation; Otosclerosis; Why does the Carhardt notch?; Sample Reports; Lecture 1,2,3	<b>Midterm 3</b> <b>Assignment 6</b>
<b>Week 15 May 3</b>	Non-Behavioral Testing; Report Writing; Hearing Conservation; School Hearing Screenings	Retrocochlear Testing; Intro Text Chapter 13, 14, & 15; Criteria for a Recommended Standard; Noise 01; HPD; Unit 3 Lecture; Audmanschool; CFR; NIOSH 2&3	



<b>Week 16</b> <b>May 10</b>	Exam Prep		<b>Midterm 4</b>
<b>Week 17</b> <b>May 17</b>			Final Exam

## 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: <http://www.csus.edu/umannual/student/stu-0100.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, may be reported to the office of student affairs.

### 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.

### 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](mailto:sswd@csus.edu).

## Basic Needs 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 Basic Needs website to learn more about your options and resources available.

<https://www.csus.edu/basicneeds/>

## Other Resources

Testing Center: <https://www.csus.edu/testing/>

Library: <https://library.csus.edu/>

Services to Students with Disabilities: <https://www.csus.edu/sswd/>

Student Health and Counseling Services at The WELL: <https://www.csus.edu/shcs/>

Peer & Academic Resource Center: <https://www.csus.edu/parc/>

Student Academic Success and Education Equity Programs: <https://www.csus.edu/saseep/>

Case Manager, Office of Student Affairs: <https://www.csus.edu/student/casemanager/>