

COMMUNICATION SCIENCES AND DISORDERS (CSAD)

CSAD 101. Introduction to Communication Sciences and Disorders. 3 Units

Term Typically Offered: Fall, Spring

This survey course serves as an introduction to the field of communication sciences and disorders (CSAD; speech-language pathology and audiology) and serves three general groups of students: (1) undergraduate majors in CSAD, (2) undergraduate students considering a major in CSAD, and (3) students from related fields, such as education, nursing, health sciences, etc. Through the course, students will gain a broad understanding of clinical work and research in the field of communication sciences and disorders.

CSAD 110. Physics of Sound and Phonetics. 4 Units

Prerequisite(s): CHAD 30 and STAT 1.

Term Typically Offered: Fall, Spring

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.

CSAD 111. Anatomy and Physiology of the Speech Mechanism. 3 Units

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

Corequisite(s): CSAD 110

Term Typically Offered: Fall only

Anatomical, physiological and neurological bases of speech. Covers development, normal structure and function. A general course in human anatomy is recommended as background.

CSAD 112. Language Science and Development. 3 Units

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

Corequisite(s): CSAD 110 and CSAD 111

Term Typically Offered: Fall only

Overview and comparison of normal and abnormal child language development from infancy through upper elementary school. Establishes a framework for understanding language disorders including autism and pervasive developmental delay. Includes theories of language acquisition, basic principles of language sampling, systems of language, elements of grammar, and preparation for informal and standardized assessment of language disorders. Introduces students to the impact of variables such as attention deficit disorder, poverty, bilingualism on developing language skills.

CSAD 123. Voice and Fluency. 3 Units

Prerequisite(s): CSAD 125, CSAD 126, CSAD 148, PSYC 2, STAT 1, CHAD 30, and DEAF 51.

Term Typically Offered: Fall, Spring

Fluency - Characteristics of stuttering, etiologic theories and their implications for treatment. Management of stuttering and other disorders of rhythm. Voice - Current concepts regarding anatomy and physiology, etiology, assessment and treatment of hyperfunctional and organic disorders.

CSAD 125. Developmental and Acquired Neurogenic Language Disorders Across the Lifespan. 3 Units

Prerequisite(s): CSAD 112, CHDV 30, PSYC 2, STAT 1, and DEAF 51.

Term Typically Offered: Spring only

Language disorders and the dynamic, reciprocal relationships between the disability, the client, his/her family, and the environment. Developmental and acquired neurogenic language disorders from infancy through adulthood will be covered including neurophysiology and neuropathology.

CSAD 126. Speech Sound Development and Disorders in Children: Aspects of Articulation and Phonology. 3 Units

Prerequisite(s): CSAD 110, CHDV 30, PSYC 2, STAT 1, and DEAF 51.

Term Typically Offered: Spring only

Study of normal articulation and phonological development in children. Discussion of etiologies and specific characteristics of articulatory-phonological disorders. Introductory description of foundational specific assessment and treatment principles. Analyzes case studies.

CSAD 127. Introduction to Medical Speech Pathology. 3 Units

Prerequisite(s): CSAD 123, CSAD 125, CSAD 126, PSYC 2, STAT 1, CHAD 30, and DEAF 51.

Term Typically Offered: Fall, Spring

Current concepts regarding anatomy and physiology, etiology, assessment, and treatment of craniofacial disorders, laryngectomy, tracheostomy and dysphagia.

CSAD 129. Audiometry and Hearing Screening for School Nurses. 3 Units

Prerequisite(s): Nursing major, nursing professional, or instructor permission

Term Typically Offered: Fall, Spring, Summer

Introduction to audiometry for school nurses. Covers the nature of sound, the anatomy and physiology of the auditory system, audiometry and other assessments, disorders of the auditory system, and practical experience with audiometry and hearing screening. Completion of this course meets the requirements for the school audiometrist certificate.

CSAD 130. Introduction to Audiology. 3 Units

Prerequisite(s): CHAD 30 & STAT 1.

Term Typically Offered: Fall, Spring

Introduction to the field of audiology. Covers the principles of sound, the anatomy and physiology of the auditory system, audiometry, physiological measures of auditory function, disorders of the auditory system, sound and various assessment approaches.

CSAD 133. Introduction to Aural Rehabilitation. 3 Units

Prerequisite(s): CSAD 110, CSAD 130, STAT 1, CHAD 30.

Term Typically Offered: Fall, Spring

Principles of aural (re)habilitation across the lifespan. Topics include psychosocial aspects of hearing impairment, communication strategies, amplification, and intervention approaches for children and adults with hearing loss.

- CSAD 140. SLPA Methods.** **3 Units**
Prerequisite(s): CSAD 145 and instructor permission.
Corequisite(s): CSAD 140L.
Term Typically Offered: Fall, Spring
- Taken by students as one of their senior level courses when they wish to pursue a Speech-Language Pathology Assistant (SLPA) licensure. Graduate students who have not had a similar course and wish to obtain this licensure will also need to enroll prior to pursuing the licensure.
- CSAD 140L. SLPA Practicum, Ethical and Legal Parameters.** **3 Units**
Prerequisite(s): Undergraduate degree in CSAD from Sacramento State within the last 5 years and department admission. Evidence of passing all medical requirements and departmental background checks.
Corequisite(s): CSAD 140 or CSAD 146.
Term Typically Offered: Fall, Spring, Summer
- This course serves as extension coursework to the CSAD Bachelor of Science Program to prepare students for SLPA license application. This course is designed to meet the State of California's registration and licensing requirements for Speech-Language Pathology Assistants and the American Speech-Language-Hearing Association (ASHA) Code of Ethics. Supervised clinical practice takes place in schools, private practice or medical settings. Students are expected to conform to the schedules of assigned placement(s) and must furnish their own transportation to clinical site(s).
- CSAD 142. Topics in Autism Spectrum Disorders.** **2 Units**
Prerequisite(s): CSAD 112, CSAD 125, CSAD 148, PSYC 2, STAT 1, CHAD 30, and DEAF 51.
Term Typically Offered: Fall, Spring
- Detailed look at characteristics of autism spectrum disorders (including Asperger's Syndrome, PDD-NOS and Autism). Issues related to diagnosis/assessment, early intervention, school-based intervention, functional therapeutic techniques and theories, and current "hot topics" in Autism (Theory of Mind, joint attention, biomedical issues, dietary restrictions, sensory regulation and intervention paradigms) will be a part of this course.
- CSAD 142L. Service Learning in Autism and Related Neurodevelopmental Disabilities.** **1 Unit**
Prerequisite(s): CSAD 125, CSAD 126, CSAD 145, CSAD 148, PSYC 2, STAT 1, CHAD 30, and DEAF 51.
Corequisite(s): CSAD 142 Service Learning may be required.
Term Typically Offered: Fall only
- Service Learning in working with individuals on the autism spectrum and/or related neurodevelopmental disabilities. Hands-on pre-clinical internship work. Students must furnish travel to Community Partner Site.
- CSAD 143. Communication Disorders in Multicultural Populations.** **3 Units**
Prerequisite(s): CHAD 30, DEAF 51, PSYC 2, STAT 1, CSAD 110, CSAD 125, CSAD 126 and CSAD 148.
Term Typically Offered: Fall, Spring
- Identification, evaluation, and treatment of multicultural, multilingual clients with communication disorders. Discussion of normal second language acquisition, bilingual development, and cultural values related to effective service delivery for multicultural clients.
- CSAD 145. Supervised Field Observations.** **1 Unit**
Prerequisite(s): CSAD 110, CSAD 111, CSAD 112, PSYC 2, STAT 1, CHDV 30, and DEAF 51.
Corequisite(s): CSAD 125, CSAD 126, CSAD 130 and CSAD 148.
Term Typically Offered: Spring only
- Directed observations of speech and hearing testing (screening and diagnostic); therapy and case staffing in schools, service clinics and hospitals.
- CSAD 146. Introduction to Clinical Issues and Methods.** **3 Units**
Prerequisite(s): CHDV 30, DEAF 51, PSYC 2, STAT 1, CSAD 110, CSAD 111, CSAD 112, CSAD 125, CSAD 126, CSAD 130, and CSAD 145. Minimum major GPA of 3.2 with no CSAD course below a grade of "C."
Term Typically Offered: Fall, Spring
- Work with graduate students and clients. Introduction to clinical procedures, ASHA Code of Ethics, legal issues, funding sources, supervision and scope of practice. Survey of professional settings for speech and language services, including multidisciplinary settings. Required for applicants of the CSAD Master's program. Recommended for students who plan to apply to graduate programs at other universities. Optional for students who do not plan to attend graduate school. Background check, immunizations, and HIPPA training required prior to enrollment (see Department webpage).
- CSAD 147. Assessment Procedures.** **3 Units**
Prerequisite(s): CSAD 125, CSAD 126, CSAD 145, CSAD 148, PSYC 2, STAT 1, CHAD 30, and DEAF 51.
Term Typically Offered: Fall, Spring
- Current principles, methods and materials used by the speech-language pathologist to assess communication disorders are presented. Issues related to a model of assessment, informal and formal testing, dynamic assessment, interview techniques, administration, scoring and interpretation of test results, report writing and related issues will be discussed.
- CSAD 148. Research in Speech - Language Pathology and Audiology.** **3 Units**
Prerequisite(s): CHDV 30, DEAF 51, PSYC 2, STAT 1, CSAD 110, CSAD 111, CSAD 112.
Term Typically Offered: Fall, Spring
- Survey of research strategies and methods in Speech-Language Pathology and Audiology. Statistical procedures and single-subject designs. Emphasis on interpreting research reports in the literature and on developing research projects. Writing research proposals and reports.
- CSAD 173. Cognitive-Communication Connection Lab.** **1 Unit**
Prerequisite(s): CHAD 30, DEAF 51, PSYC 2, STAT 1.
Term Typically Offered: Fall, Spring
- Focused lab course on traumatic brain injury and concussion. Theory, practical training, research processes, observations, reflection on action, and experience in working with research participants in IRB approved protocols.

CSAD 175A. Experiential IPE: Facilitating Communication for Acquired Neurogenic Communication Disorders. 2 Units

Prerequisite(s): Formal admittance to university; student with a declared major in any department within the College of Health & Human Services, and in good standing within their department.

Term Typically Offered: Fall, Spring

Provides students with an interprofessional education opportunity. Learners will acquire and use literature-based communicative tools with adults who have an acquired neurogenic communication disorder due to stroke, traumatic brain injury, non-traumatic brain injury, and progressive disorders within the context of a weekly community program. Students will apply the concepts of models of disability, social versus medical models, interprofessional education and collaborative practice, as well as international and national policies to healthcare workers and the provision of communicative access for patients.

CSAD 177. Appreciation of Diversity in Communication Sciences and Disorders. 1 Unit

Prerequisite(s): CSAD Major.

Term Typically Offered: Fall, Spring

This peer-led course is designed to partner students enrolled within and outside of the department of Communication Sciences and Disorders (CSAD) for a mutual exchange opportunity. Information obtained in CSAD coursework will be used by CSAD students to provide them with hands-on learning experiences relating to the topics covered in those courses. Topics for discussion include concepts relating to intercultural sensitivity and diversity as they apply to communication sciences and disorders.

CSAD 199. Special Problems. 1 - 3 Units

Term Typically Offered: Fall, Spring

Individual projects or directed reading. Open only to students competent to carry on individual work.

Note: Departmental petition required.

Credit/No Credit

CSAD 217. AAC and Assistive Technologies. 2 Units

Term Typically Offered: Spring only

Biological, acoustic, psychological, development, linguistic, and cultural bases for motor speech disorders, focusing on augmentative and alternative communication an assistive technologies as well as their assessment and treatment techniques.

CSAD 218. Motor Speech Disorders. 3 Units

Prerequisite(s): Classified graduate status.

Term Typically Offered: Fall only

Background pertinent to understanding neurophysiology associated with congenital and acquired dysarthria and dyspraxia. Descriptions and classifications of disorders and their causes, methods of assessment and treatment.

CSAD 219. Counseling Techniques for Speech Pathologists and Audiologists. 3 Units

Term Typically Offered: Fall only

Development of strategies for counseling and interviewing clients with communication disorders and their families. Development of specific skills such as effective listening, dealing constructively with emotions, working with families, and leading support groups. Students will learn to deal effectively with the affective side of communication disorders to help clients benefit maximally from assessment and treatment.

CSAD 221. Neurogenic Language Disorders. 4 Units

Term Typically Offered: Spring only

In-depth study of language and cognitive disorders in adult, secondary to cerebrovascular accident, dementia, and/or traumatic brain injury. Assessment and intervention strategies are covered with particular emphasis on functional outcomes.

CSAD 222. Curriculum in Relation to Language -- Learning Disabilities in School-age Children. 3 Units

Prerequisite(s): Instructor permission.

Term Typically Offered: Spring only

Language acquisition as a continuum from oral language to reading and writing, the role of the speech-language specialist in working with reading disabilities; the interactions among speech-language intervention and curricula areas including mathematics, spelling, handwriting, social studies and language arts; and various service delivery models, including collaborative consultation and learning centers.

CSAD 223. Advanced Seminar in Child Language Disorders. 3 Units

Prerequisite(s): CSAD 125 or equivalent

Term Typically Offered: Fall only

In-depth study of childhood language disorders emphasizing the use of critical thinking to integrate evidence-based practice into discussion of current assessment and intervention practices for children with primary and secondary language impairment. Specific topics include language sampling, early intervention, connecting intervention with Common Core State Standards, and team-based service delivery. Populations addressed include bilingual learners, those with working memory deficits, and autism spectrum disorder. The impact of the digital era and screen exposure on children with language impairment is discussed.

CSAD 227. Dysphagia and the Medical Setting. 3 Units

Prerequisite(s): CSAD 218, CSAD 221, instructor permission.

Term Typically Offered: Fall, Spring

Swallowing problems from infancy through old age; growth patterns and failures in younger populations; feeding and swallowing problems related to normal aging processes and those associated with neurogenic disorders. Assessment and treatment. Includes theoretical and experiential components. Overview of the role of Speech-Language Pathologist in the hospital setting including learning how to read medical charts, basic insurance information, understanding other disciplines and how they affect the job and career of an SLP in the hospital, and medical terms/abbreviations.

CSAD 228A. Speech Sound Disorders: Concepts and Methods. 2 Units

Prerequisite(s): Admission to the graduate program. CSAD 125, CSAD 126, CSAD 143, CSAD 145, CSAD 146, CSAD 148.

Corequisite(s): CSAD 229A.

Term Typically Offered: Fall, Spring

Speech sound disorders for graduate students in speech-language pathology. Foundations of speech sound disorders, as well as techniques and materials for assessing and treating speech sound differences and disorders of varying etiologies and presentations. Weekly content will be integrated with practical experiences to promote learning.

CSAD 228B. Voice and Fluency: Concepts and Methods. 3 Units**Prerequisite(s):** CSAD 123, CSAD 127, CSAD 228A, instructor permission.**Corequisite(s):** CSAD 229B.**Term Typically Offered:** Fall, Spring

Foundations of fluency, voice and resonance, as well as techniques and materials for assessing and treating speech disorders, emphasizing fluency and voice. Staffings and discussion of cases on the current caseload. Weekly content integrated with practical experiences to promote learning.

CSAD 228C. Methods: Speech Disorders III. 1 Unit**Prerequisite(s):** CSAD 218, CSAD 228B; CSAD 221 may be concurrent; instructor permission.**Corequisite(s):** CSAD 229C.**Term Typically Offered:** Fall, Spring

Techniques and materials for assessing and treating clients with disordered speech secondary to developmental disabilities and syndromes, degenerative diseases or complex problems associated with English as a second language (ESL). Discussions of cases in the current caseload.

CSAD 229A. Practice: Speech Disorders I. 2 Units**Prerequisite(s):** Instructor permission**Corequisite(s):** CSAD 228A**Term Typically Offered:** Fall, Spring

Supervised clinical practice emphasizing articulation and phonological disorders, and phonological difficulties associated with English as a second language (ESL). Clients may include both children and adults.

CSAD 229B. Practice: Speech Disorders II. 2 Units**Prerequisite(s):** Instructor permission.**Corequisite(s):** CSAD 228B.**Term Typically Offered:** Fall, Spring

Supervised clinical practice emphasizing clients whose speech is disrupted by abnormal rhythm and rate (e.g. stuttering and cluttering) or abnormal vocal pitch, loudness, and/or quality.

CSAD 229C. Practice: Speech Disorders III. 2 Units**Prerequisite(s):** Instructor permission**Corequisite(s):** CSAD 228C**Term Typically Offered:** Fall, Spring

Supervised clinical practice emphasizing children and adults whose speech is disrupted secondary to developmental disorders and syndromes, degenerative disorders or complex problems.

CSAD 241S. Practice: Hearing Screenings. 1 Unit**Prerequisite(s):** CSAD 130**Term Typically Offered:** Fall, Spring

Supervised clinical practice in the administration of hearing screening tests. The student must furnish his/her own transportation. Fifteen to twenty hours for one unit.

Credit/No Credit

CSAD 242A. Methods: Language Disorders I & Professional Writing-Field of Speech-Language Pathology & Audiology. 2 Units**Prerequisite(s):** Admission to Graduate Program**Corequisite(s):** CSAD 243A**Term Typically Offered:** Fall, Spring

Methods, materials and procedures in language disorders with emphasis on working with children and adults with peripheral hearing loss or central auditory processing disorders (CAPD). Includes staffing and discussion of cases in the current caseload. Focus on professional writing in the field of Speech-Language Pathology through the development of treatment plan proposals, critical responses, and clinic reports.

CSAD 242B. Methods: Language Disorders II. 1 Unit**Prerequisite(s):** CSAD 223, CSAD 242A; instructor permission.**Corequisite(s):** CSAD 243B.**Term Typically Offered:** Fall, Spring

Techniques and materials for assessing and treating children with disordered language secondary to a myriad of contributing factors including delayed development, neurological problems and various genetic conditions. Discussion of cases in the current caseload.

CSAD 242C. Methods: Language Disorders III. 1 Unit**Prerequisite(s):** CSAD 218, CSAD 242B; CSAD 221 may be taken concurrently; instructor permission.**Corequisite(s):** CSAD 243C.**Term Typically Offered:** Fall, Spring

Techniques and materials for assessing and treating speech and language disorders emphasizing disorders secondary to cerebral vascular accidents, traumatic brain injury, or other neurological disorders. Discussion of cases in the current caseload.

Note: May be repeated.**CSAD 243A. Practice: Language Disorders I. 2 Units****Prerequisite(s):** Instructor permission**Corequisite(s):** CSAD 242A**Term Typically Offered:** Fall, Spring

Supervised clinical practice in language disorders emphasizing children and adults with peripheral hearing loss or central auditory processing disorders (CAPD).

CSAD 243B. Practice: Language Disorders II. 2 Units**Prerequisite(s):** Instructor permission**Corequisite(s):** CSAD 242B**Term Typically Offered:** Fall, Spring

Supervised clinical practice with children demonstrating language disorders secondary to a myriad of contributing factors including delayed development, neurological problems, and various genetic conditions.

CSAD 243C. Practice: Language Disorders III. 2 Units**Prerequisite(s):** CSAD 243B; instructor permission**Corequisite(s):** CSAD 242C**Term Typically Offered:** Fall, Spring

Supervised clinical practice emphasizing adult clients whose speech and language are disordered secondary to neurogenically related problems such as cerebrovascular accident, traumatic brain injury, or other neurological disorders.

<p>CSAD 244. Methods: Speech -- Language Assessment. 1 Unit Prerequisite(s): CSAD 147 or equivalent; CSAD 228B, CSAD 242B; instructor permission. Corequisite(s): CSAD 245. Term Typically Offered: Fall, Spring</p>	<p>CSAD 295S. Internship: Special Class Authorization Eligibility. 4 Units Prerequisite(s): CSAD 250. All previous semester's clinical practica and coursework must be completed, achievement of a passing score on the CBEST. Graded: Credit/No Credit Units: 4 Term Typically Offered: Fall, Spring</p>
<p>Methods and materials for initial assessment in Speech-Language Pathology.</p> <p>CSAD 245. Practice: Speech -- Language Assessment. 1 Unit Prerequisite(s): Instructor permission Corequisite(s): CSAD 244 Term Typically Offered: Fall, Spring</p>	<p>Supervised clinical practice in a medical setting. Students are expected to conform to the schedules of the placement(s) to which they are assigned. The student must furnish his/her own transportation. Credit/No Credit</p> <p>CSAD 299. Special Problems. 1 - 3 Units Term Typically Offered: Fall, Spring</p>
<p>Supervised clinical practice in assessment with a variety of communication disorders in children and adults. Experience with interdisciplinary teams.</p> <p>CSAD 250. Speech/Language Internships Seminar. 2 Units Prerequisite(s): CSAD 228A, CSAD 228B, CSAD 228C, CSAD 229A, CSAD 229B, CSAD 229C, CSAD 241S, CSAD 242A, CSAD 242B, CSAD 242C, CSAD 243A, CSAD 243B, CSAD 243C, CSAD 244, CSAD 245. Corequisite(s): CSAD 295I, or CSAD 295M, or CSAD 295P, or CSAD 295S. Term Typically Offered: Fall, Spring</p>	<p>Individual projects or directed reading. Open only to students who appear competent to carry on individual work. Note: Departmental petition required.</p> <p>Credit/No Credit</p> <p>CSAD 500C. Culminating Experience: Comprehensive Exam. 2 Units Prerequisite(s): Advanced to Candidacy. Term Typically Offered: Fall, Spring</p>
<p>Assessment, scheduling and conducting language speech and hearing programs in schools. Related issues including scope of practice, managed care, interagency cooperation and transdisciplinary approaches.</p> <p>CSAD 295I. Internship: Speech-Language and Hearing Services in Schools (SLHS). 4 Units Prerequisite(s): All previous semester's clinical practica and coursework must be completed, achievement of a passing score on the CBEST. Corequisite(s): CSAD 250. Graded: Credit/No Credit Units: 4 Term Typically Offered: Fall, Spring</p>	<p>Written exam comprised of multiple questions. Examinees are given one and a half hours to complete each question. Credit/No Credit</p> <p>CSAD 500P. Culminating Experience: Project. 2 Units Prerequisite(s): Advancement to Candidacy. Term Typically Offered: Fall, Spring</p>
<p>Supervised clinical practice in the school setting. Students are expected to conform to the schedules of the placement(s) to which they are assigned. The student must furnish his/her own transportation. Credit/No Credit</p> <p>CSAD 295M. Internship: Speech-Language Pathology in a Medical Setting. 4 Units Prerequisite(s): All previous semester's clinical practica and coursework must be completed, achievement of a passing score on the CBEST. Corequisite(s): CSAD 250. Graded: Credit/No Credit Units: 4 Term Typically Offered: Fall, Spring</p>	<p>Independent work conducted under the supervision of faculty members. A project is a significant undertaking appropriate to the professional fields of Speech-Language Pathology or Audiology. It must evidence originality, independent thinking, appropriate form and organization, and a rationale. It must be described and summarized in a written document that includes the project's significance, objectives, methodology, and a conclusion or recommendation. Students must follow all department and university project guidelines. Credit/No Credit</p> <p>CSAD 500T. Culminating Experience: Thesis. 2 Units Prerequisite(s): Advanced to Candidacy. Graded: Credit/No Credit. Term Typically Offered: Fall, Spring</p>
<p>Supervised clinical practice in a medical setting. Students are expected to conform to the schedules of the placement(s) to which they are assigned. The student must furnish his/her own transportation. Credit/No Credit</p> <p>CSAD 295P. Internship: Speech-Language Pathology in Private Practice. 4 Units Prerequisite(s): CSAD 250. All previous semester's clinical practica and coursework must be completed, achievement of a passing score on the CBEST. Graded: Credit/No Credit. Units: 4 Term Typically Offered: Fall, Spring</p>	<p>Independent research study, conducted under the supervision of faculty members. Thesis must involve a research question or hypothesis, review of pertinent literature, collection and analysis of data. It is the student's responsibility to locate and recruit subjects, to collect data, and to write the thesis. Students must follow all department and university thesis guidelines.</p> <p>CSAD 501. Audiology Doctoral Project I. 1 Unit Prerequisite(s): CSAD 510 Term Typically Offered: Fall only</p>
<p>Supervised clinical practice in a private practice setting. Students are expected to conform to the schedules of the placement(s) to which they are assigned. The student must furnish his/her own transportation. Credit/No Credit</p>	<p>Independent research conducted under the supervision of audiology faculty members. Must include research question, literature review, hypotheses, data collection, and analysis. Students are responsible for identifying and recruiting participants, collecting data, and developing a plan for analysis. Case studies and systematic reviews should follow program guidelines. Credit/No Credit</p>

CSAD 502. Audiology Doctoral Project II.**1 Unit****Prerequisite(s):** CSAD 501**Term Typically Offered:** Spring only

Independent research conducted under the supervision of audiology faculty members. Must include research question, literature review, hypotheses, data collection, and analysis. Students are responsible for identifying and recruiting participants, collecting data, and developing a plan for analysis. Case studies and systematic reviews should follow program guidelines.

Credit/No Credit

CSAD 503. Audiology Doctoral Project III.**1 Unit****Prerequisite(s):** CSAD 502**Term Typically Offered:** Summer only

Independent research conducted under the supervision of audiology faculty members. Must include research question, literature review, hypotheses, data collection, and analysis. Students are responsible for identifying and recruiting participants, collecting data, and developing a plan for analysis. Case studies and systematic reviews should follow program guidelines.

Credit/No Credit

CSAD 504. Audiology Doctoral Project IV.**1 Unit****Prerequisite(s):** CSAD 503**Term Typically Offered:** Fall only

Independent research conducted under the supervision of audiology faculty members. Must include research question, literature review, hypotheses, data collection, and analysis. Students are responsible for identifying and recruiting participants, collecting data, and developing a plan for analysis. Case studies and systematic reviews should follow program guidelines.

Credit/No Credit

CSAD 505. Audiology Doctoral Project V.**1 Unit****Prerequisite(s):** CSAD 504**Term Typically Offered:** Spring only

Dissemination, written and oral, of capstone research.

Credit/No Credit

CSAD 510. Audiology Progress Exam.**1 Unit**

Prerequisite(s): Admission to Doctor of Audiology program; CSAD 611, CSAD 612, CSAD 613, CSAD 614, CSAD 620, CSAD 620C, CSAD 621, CSAD 622, CSAD 622L, CSAD 623, CSAD 624, CSAD 630, CSAD 630C, CSAD 631, CSAD 632.

Term Typically Offered: Summer only

Formative written and practical exam based on coursework and clinical experiences from the first year of the Doctor of Audiology program.

Credit/No Credit

CSAD 520. Audiology Comprehensive Exam.**1 Unit**

Prerequisite(s): Admission to Doctor of Audiology program: CSAD 610, CSAD 611, CSAD 612, CSAD 613, CSAD 614, CSAD 620, CSAD 620C, CSAD 621, CSAD 622, CSAD 622L, CSAD 623, CSAD 624, CSAD 630, CSAD 630C, CSAD 631, CSAD 632, CSAD 340, CSAD 640C, CSAD 641, CSAD 642, CSAD 643, CSAD 850, CSAD 650C, CSAD 651, CSAD 652, CSAD 653, CSAD 660, CSAD 660C, CSAD 661, CSAD 662, CSAD 663, CSAD 670, CSAD 670C, CSAD 671, CSAD 672, CSAD 673, CSAD 651, CSAD 652, CSAD 653, CSAD 660, CSAD 660C, CSAD 661. CSAD 662, CSAD 663, CSAD 670, CSAD 670C, CSAD 671, CSAD 672, CSAD 673

Term Typically Offered: Spring only

Summative written and practical exam based on coursework and clinical experiences from the first three years of the Doctor of Audiology program.

Credit/No Credit

CSAD 610. Introduction to Clinic.**1 Unit****Prerequisite(s):** Admission to doctorate program in audiology.**Term Typically Offered:** Fall only

Introduction to on-campus clinic operations, including electronic documentation procedures, clinic policies, and documentation.

CSAD 611. Anatomy and Physiology of the Auditory and Vestibular Systems.**3 Units****Prerequisite(s):** Admission to doctorate program in audiology.**Term Typically Offered:** Fall only

Anatomical, physiological, and neurological bases of the auditory system and central nervous system and central nervous system. Covers embryologic development, including genetic factors, and normal structure and function.

CSAD 612. Acoustics and Psychoacoustics.**3 Units****Prerequisite(s):** Admission to Doctorate program in Audiology.**Term Typically Offered:** Fall only

Basic properties of the acoustics of simple and complex sounds. Psychophysical aspects of frequency and pitch, intensity and loudness, and temporal processes will be discussed. Speech perception for listeners with normal hearing and those with hearing loss.

CSAD 613. Instrumentation in audiology.**3 Units****Prerequisite(s):** Admission to doctorate program in audiology.**Term Typically Offered:** Fall only

Basic principles of electrical systems, calibration, signal processing, and analysis. Review of national standards related to calibration and instrumentation used in audiology.

CSAD 614. Audiologic Evaluation.**3 Units****Prerequisite(s):** Admission to doctorate program in audiology.**Term Typically Offered:** Fall only

Introduction to the purpose, diagnostic use, and procedures for basic clinical tests of auditory function in children and adults. Assessments including pure-tone audiometry, speech audiometry, masking, and immittance measures are discussed. Supervised, hands-on experiences will accompany lecture topics.

CSAD 620. Clinical Methods: Communicating with Patients. 1 Unit**Prerequisite(s):** Admission to doctorate program in audiology; CSAD 610.**Corequisite(s):** CSAD 620C.**Term Typically Offered:** Spring only

Communicating with patients. The nature of health communication among providers, patients, families, and caregivers. Topics related to multicultural issues will also be presented.

CSAD 620C. Audiology Clinic II. 1.5 Units**Prerequisite(s):** Admission to Doctor of Audiology program; CSAD 610.**Corequisite(s):** CSAD 620.**Term Typically Offered:** Spring only

Supervised clinical practice in audiology with an emphasis on developing second-semester clinical skills for audiologic evaluations, amplification, and aural rehabilitation.

Note: PPE is required and students need to wear scrubs, gloves (at times), aprons (for cerumen management) and closed-toe shoes.**CSAD 621. Research Methods in Audiology. 3 Units****Prerequisite(s):** Admission to Doctor of Audiology program; CSAD 611, CSAD 612, CSAD 613, CSAD 614**Term Typically Offered:** Spring only

Treatment of human subjects and research methods. Overview of the research process, including research designs, development of data collection instruments, and data collection, and introduction to basic statistical concepts for the Au.D. doctoral project. Ethical considerations of research are also discussed.

CSAD 622. Amplification I. 3 Units**Prerequisite(s):** Admission to the Doctor of Audiology program; CSAD 611, CSAD 612, CSAD 613, and CSAD 614.**Corequisite(s):** CSAD 622L**Term Typically Offered:** Spring only

Introduction to electroacoustic analysis and characteristics of hearing aids. Includes components of hearing aids, hearing aid gain and fitting formulae, and basic signal processing.

CSAD 622L. Amplification I Lab. 1 Unit**Prerequisite(s):** Admission to Doctor of Audiology program; CSAD 611, CSAD 612, CSAD 613, and CSAD 614.**Corequisite(s):** CSAD 622.**Term Typically Offered:** Spring only

Laboratory component of CSAD 622: Amplification I. Hands-on experience with concepts presented in CSAD 622.

CSAD 623. Disorders of the Auditory System. 3 Units**Prerequisite(s):** Admission to Doctor of Audiology program; CSAD 611, CSAD 612, CSAD 613, and CSAD 614.**Term Typically Offered:** Spring only

Pathologies of the auditory system, including diagnosis, management, and treatment.

CSAD 624. Genetics for Audiology. 1 Unit**Prerequisite(s):** Admission to Doctor of Audiology program; CSAD 611, CSAD 612, CSAD 613, CSAD 614.**Term Typically Offered:** Spring only

Introduction to genetics, inheritance, and causes of hearing loss and balance disorders.

CSAD 630. Clinical Methods: Report writing. 1 Unit**Prerequisite(s):** Admission to Doctor of Audiology program; CSAD 610, CSAD 620.**Corequisite(s):** CSAD 630C.**Term Typically Offered:** Summer only

Principles of clinical report writing. Foundations of professional writing and recordkeeping for the diagnostic and rehabilitative processes. Writing requirements for practicum experiences will be discussed.

CSAD 630C. Audiology Clinic III. 1.5 Units**Prerequisite(s):** Admission to Doctor of Audiology program; CSAD 610, CSAD 620C.**Corequisite(s):** CSAD 630.**Term Typically Offered:** Summer only

Supervised clinical practice in audiology with an emphasis on developing third-semester clinical skills for audiologic evaluations, amplification, and aural rehabilitation.

Note: PPE is required and students need to wear scrubs, gloves (at times), aprons (for cerumen management) and closed-toe shoes.**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

Advance study of digital amplification systems, including hearing aids and assistive listening devices. Practical approaches to the fitting of devices are discussed.

CSAD 632. Pediatric and Educational Audiology. 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

Introduction to etiologies of childhood hearing impairment, including genetics, syndromic and non-syndromic causes of hearing loss, and risk factors. Objective and behavioral measures of assessing auditory function and hearing in newborns, infants, toddlers, and children. Review of screening procedures.

CSAD 640. Clinical Methods: Current Topics in Audiology. 1 Unit**Prerequisite(s):** Admission to Doctor of Audiology program; CSAD 610, CSAD 620, CSAD 630**Corequisite(s):** CSAD 640C**Term Typically Offered:** Fall only

Review and discussion of current topics in audiology such as hidden hearing loss, cerumen management, tinnitus, speech perception in noise, central auditory processing, or technological advancements in amplification.

- CSAD 640C. Audiology Clinic IV. 1.5 Units**
Prerequisite(s): Admission to Doctor of Audiology program; CSAD 610, CSAD 620C, CSAD 630C.
Corequisite(s): CSAD 640.
Term Typically Offered: Fall only
- Supervised clinical practice in audiology with an emphasis on developing fourth-semester clinical skills for audiologic evaluations, amplification, and aural rehabilitation.
Note: PPE is required and students need to wear scrubs, gloves (at times), aprons (for cerumen management) and closed-toe shoes.
- CSAD 641. Auditory Evoked Potentials. 3 Units**
Prerequisite(s): Admission to Doctor of Audiology program; CSAD 611, CSAD 612, CSAD 613, CSAD 614, CSAD 621, CSAD 622, CSAD 622L, CSAD 623, CSAD 624, CSAD 631, CSAD 632
Corequisite(s): CSAD 641L
Term Typically Offered: Fall only
- Physiological measures for evaluating the integrity of the auditory system. Emphasis on the administration and interpretation of the auditory brainstem response.
- CSAD 641L. Auditory Evoked Potentials Lab. 1 Unit**
Prerequisite(s): Admission to Doctor of Audiology program; CSAD 611, CSAD 612, CSAD 613, CSAD 614, CSAD 621, CSAD 622, CSAD 622L, CSAD 623, CSAD 624, CSAD 631, CSAD 632
Corequisite(s): CSAD 641
Term Typically Offered: Fall only
- Lab component includes administration and reporting of physiological assessments presented in CSAD 641: Auditory Evoked Potentials.
- CSAD 642. Industrial Audiology and Hearing Conservation. 3 Units**
Prerequisite(s): Admission to Doctor of Audiology program; CSAD 611, CSAD 612, CSAD 613, CSAD 614, CSAD 621, CSAD 622, CSAD 622L, CSAD 623, CSAD 624, CSAD 631, CSAD 632.
Term Typically Offered: Fall only
- Study of the effects of noise on the auditory system and measurement of noise levels. Theories and resources for the implementation of hearing conservation programs for recreational/leisure noise exposure, industrial settings, and schools.
- CSAD 643. Tinnitus. 3 Units**
Prerequisite(s): Admission to Doctor of Audiology program; CSAD611, CSAD612, CSAD 613, CSAD 614, CSAD 621, CSAD 622, CSAD 622L, CSAD 623, CSAD 624, CSAD 631, CSAD 632.
Term Typically Offered: Fall only
- Psychological and physiological models of tinnitus and hyperacusis, diagnostic methods, and management.
- CSAD 650. Clinical Methods: Billing and Coding. 1 Unit**
Prerequisite(s): Admission to Doctor of Audiology program; CSAD 610, CSAD 620, CSAD 630, CSAD 640
Corequisite(s): CSAD 650C
Term Typically Offered: Spring only
- Overview of coding, billing, and reimbursement for audiology services and devices. Students will learn current federal regulations and laws that affect audiology practice.
- CSAD 650C. Audiology Clinic V. 1 Unit**
Prerequisite(s): Admission to Doctor of Audiology program; CSAD 610, CSAD 620C, CSAD 630C, CSAD 640C
Corequisite(s): CSAD 650
Term Typically Offered: Spring only
- Supervised clinical practice in audiology with an emphasis on refining second-year clinical skills and working independently.
 Credit/No Credit
- CSAD 651. Objective Measures. 3 Units**
Prerequisite(s): Admission to Doctor of Audiology program; CSAD 611, CSAD 612, CSAD 613, CSAD 614, CSAD 621, CSAD 622, CSAD 622L, CSAD 623, CSAD 624, CSAD 631, CSAD 632, CSAD 641, CSAD 641L, CSAD 642, CSAD 643.
Term Typically Offered: Spring only
- Fundamentals of otoacoustic emissions, and advanced study of immittance testing and the auditory brainstem response with some practical exercises.
- CSAD 652. Pediatric Habilitation. 3 Units**
Prerequisite(s): Admission to Doctor of Audiology program; CSAD 611, CSAD 612, CSAD 613, CSAD 614, CSAD 621, CSAD 622, CSAD 622L, CSAD 623, CSAD 624, CSAD 631 CSAD 632, CSAD 641, CSAD 641L, CSAD 642, CSAD 643.
Term Typically Offered: Spring only
- Early identification, assessment, and rehabilitation for infants and children with hearing loss. Focus on speech and language outcomes, communication strategies, technology, and counseling of families.
- CSAD 653. Diagnosis and Management of Vestibular Disorders. 3 Units**
Prerequisite(s): Admission to Doctor of Audiology program; CSAD 611, CSAD 612, CSAD 613, CSAD 614, CSAD 621, CSAD 622, CSAD 622L, CSAD 623, CSAD 624, CSAD 631, CSAD 632, CSAD 641, CSAD 641L, CSAD 642, CSAD 643.
Term Typically Offered: Spring only
- Anatomical and physiological bases of the vestibular system, including congenital, peripheral and central, and neurologic factors will also be introduced. Physiological measures of the vestibular system, clinical assessment, and management and rehabilitation.
- CSAD 660. Clinical Methods: Legal and Ethical Issues. 1 Unit**
Prerequisite(s): Admission to Doctor of Audiology program; CSAD 610, CSAD 620, CSAD 630, CSAD 640, CSAD 650
Corequisite(s): CSAD 660C
Term Typically Offered: Summer only
- Ethics for clinical practice and research and legal issues for audiologists. Focuses on local and national issues that influence service delivery.
- CSAD 660C. Audiology Clinic VI. 2 Units**
Prerequisite(s): Admission to Doctor of Audiology program; CSAD 610, CSAD 620C, CSAD 630C, CSAD 640C, CSAD 650C.
Corequisite(s): CSAD 660
Term Typically Offered: Summer only
- Supervised clinical practice in audiology with an emphasis on refining advanced clinical skills and working independently.
 Credit/No Credit

- CSAD 661. Aural Rehabilitation. 3 Units**
Term Typically Offered: Summer only
- Rehabilitative techniques and communication needs for adults and the aging population. Focus on minimizing communication difficulties and managing psychosocial aspects of hearing loss. Prerequisite: Admission to Doctor of Audiology program; CSAD 611, CSAD 612, CSAD 613, CSAD 614, CSAD 621, CSAD 622, CSAD 622L, CSAD 623, CSAD 624, CSAD 631, CSAD 632, CSAD 641, CSAD 641L, CSAD 642, CSAD 643, CSAD 651, CSAD 652, CSAD 653.
- CSAD 662. Implantable Devices and Technology. 2 Units**
Prerequisite(s): Admission to Doctor of Audiology program; CSAD 611, CSAD 612, CSAD 613, CSAD 614, CSAD 621, CSAD 622, CSAD 622L, CSAD 623, CSAD 624, CSAD 631, CSAD 632, CSAD 641, CSAD 641L, CSAD 642, CSAD 643, CSAD 651, CSAD 652, CSAD 653
Term Typically Offered: Summer only
- Pre-operative assessment and post-operative management of cochlear implants and other implantable devices. Includes patient counseling for expectations, introduction to surgical procedures, mapping, use of assistive devices, and current developments in research.
- CSAD 670. Clinical Methods: Professional Issues. 1 Unit**
Prerequisite(s): Admission to Doctor of Audiology program; CSAD 610, CSAD 620, CSAD 630, CSAD 640, CSAD 650, CSAD 660
Corequisite(s): CSAD 670C
Term Typically Offered: Fall only
- Professional issues for audiologists. Topics covered include licensure, certification, and professional involvement at the local, state, and national levels.
- CSAD 670C. Audiology Clinic VII. 2 Units**
Prerequisite(s): Student must be admitted to Doctor of Audiology program; complete CSAD 610, CSAD 620C, CSAD 630C, CSAD 640C, CSAD 650C and CSAD 660C to enroll in this course.
Corequisite(s): CSAD 670.
Term Typically Offered: Fall, Spring
- Supervised clinical practice in audiology with an emphasis on refining third-year clinical skills and working independently. Corequisite: CSAD 670C
- CSAD 671. Counseling in Audiology. 3 Units**
Prerequisite(s): Admission to Doctor of Audiology program; CSAD 611, CSAD 612, CSAD 613, CSAD 614, CSAD 621, CSAD 322, CSAD 622L, CSAD 623, CSAD 624, CSAD 631, CSAD 632, CSAD 641, CSAD 641L, CSAD 642, CSAD 643, CSAD 651, CSAD 652, CSAD 653, CSAD 661, CSAD 662.
Term Typically Offered: Fall only
- Introduction to the principles and theories of counseling. Emphasis on communication skills and applied techniques. Considerations for assessing multicultural populations. Influences of cultural background on attitudes, beliefs, disabilities, utilization of health care services, and deafness.
- CSAD 672. Central Auditory Processing Disorders. 3 Units**
Prerequisite(s): Admission to Doctor of Audiology program; CSAD 311, CSAD 312, CSAD 613, CSAD 614, CSAD 621, CSAD 622, CSAD 622L, CSAD 623, CSAD 624, CSAD 331, CSAD 332, CSAD 641, CSAD 641L, CSAD 642, CSAD 643, CSAD 651, CSAD 652, CSAD 653, CSAD 661, CSAD 362.
Term Typically Offered: Fall only
- Definition and role of audiologists in the assessment, diagnosis, and management of children, adults, and older adults with auditory processing disorder.
- CSAD 673. Pharmacology and Ototoxicity. 1 Unit**
Prerequisite(s): Admission to Doctor of Audiology program; CSAD 611, CSAD 612, CSAD 613, CSAD 614, CSAD 621, CSAD 622, CSAD 622L, CSAD 623, CSAD 624, CSAD 631, CSAD 632, CSAD 641, CSAD 641L, CSAD 642, CSAD 343, CSAD 651, CSAD 652, CSAD 653, CSAD 661, CSAD 662.
Term Typically Offered: Fall only
- Introduction to the basic concepts of pharmacology, including pharmacokinetics, polypharmacy, and ototoxicity (cochleotoxicity, vestibulotoxicity, and neurotoxicity), for audiologists. Overview of drug classifications, interactions, and regulations.
- CSAD 680. Clinical Methods: Differential Diagnosis. 1 Unit**
Prerequisite(s): Admission to Doctor of Audiology program; CSAD 610, CSAD 620, CSAD 630, CSAD 640, CSAD 650, CSAD 660, CSAD 670
Corequisite(s): CSAD 680C
Term Typically Offered: Spring only
- Discussion of clinical cases to encourage critical thinking and decision-making processes.
- CSAD 680C. Audiology Clinic VIII. 2 Units**
Prerequisite(s): Admission to Doctor of Audiology program; CSAD 610, CSAD 620C, CSAD 630C, CSAD 640C, CSAD 650C, CSAD 660C, CSAD 670C.
Corequisite(s): CSAD 680
Term Typically Offered: Spring only
- Supervised clinical practice in audiology with an emphasis on refining clinical skills and working independently in preparation for the externship. Credit/No Credit
- CSAD 681. Practice Management. 2 Units**
Prerequisite(s): Admission to Doctor of Audiology program; CSAD 611, CSAD 612, CSAD 613, CSAD 614, CSAD 621, CSAD 622, CSAD 622L, CSAD 623, CSAD 624, CSAD 631, CSAD 632, CSAD 641, CSAD 641L, CSAD 642, CSAD 643, CSAD 651, CSAD 652, CSAD 653, CSAD 661, CSAD 662, CSAD 671, CSAD 672, CSAD 673
Term Typically Offered: Fall, Spring
- Topics relating to business models, terminology, accounting, reimbursement, equipment needs, and office management. Focus on private practice and managed care.

- CSAD 682. Aging and the Auditory System. 2 Units**
Prerequisite(s): Admission to Doctor of Audiology program; CSAD 611, CSAD 612, CSAD 613, CSAD 614, CSAD 621, CSAD 622, CSAD 622L, CSAD 623, CSAD 624, CSAD 631, CSAD 632, CSAD 341, CSAD 641L, CSAD 642, CSAD 643, CSAD 651, CSAD 652, CSAD 653, CSAD 661, CSAD 662, CSAD 671, CSAD 672, CSAD 673.
Term Typically Offered: Spring only
- Overview of physical, psychological, social, and cognitive changes that are associated with normal aging. Prevalent disorders, diseases, and conditions in older adults will be discussed. Effects of aging on diagnostic tests and rehabilitation for older adults. Interdisciplinary in nature.
- CSAD 683. Speech-Language Pathology for Audiologists. 1 Unit**
Prerequisite(s): Admission to Doctor of Audiology program; CSAD 611, CSAD 612, CSAD 613, CSAD 314, CSAD 621. CSAD 622, CSAD 622L, CSAD 623, CSAD 624, CSAD 331, CSAD 332, CSAD 641, CSAD 641L, CSAD 642, CSAD 643, CSAD 651, CSAD 652, CSAD 653, CSAD 661, CSAD 662, CSAD 671, CSAD 672, CSAD 673
Term Typically Offered: Spring only
- Overview of speech and language development, including screening for speech and language disorders and risk factors for speech and language delay, from the perspective of audiology. Principles of auditory-verbal therapy.
- CSAD 710. Clinical Methods: Externship I. 2 Units**
Prerequisite(s): CSAD 520
Corequisite(s): CSAD 710E
Term Typically Offered: Summer only
- Seminar and discussion of cases from externship placements.
- CSAD 710E. Audiology Externship 1. 7 Units**
Prerequisite(s): CSAD 520
Corequisite(s): CSAD 710
Term Typically Offered: Summer only
- First full-time externship in audiology I.
 Credit/No Credit
- CSAD 720. Clinical Methods: Externship II. 2 Units**
Prerequisite(s): CSAD 710.
Corequisite(s): CSAD 720E.
Term Typically Offered: Fall only
- Seminar and discussion of cases from externship placements.
- CSAD 720E. Audiology Externship 2. 7 Units**
Prerequisite(s): CSAD 710E.
Corequisite(s): CSAD 720.
Term Typically Offered: Fall only
- Second full-time externship in audiology II.
 Credit/No Credit
- CSAD 730. Clinical Methods: Externship III. 2 Units**
Prerequisite(s): CSAD 720.
Corequisite(s): CSAD 730E.
Term Typically Offered: Spring only
- Seminar and discussion of cases from externship placements.
- CSAD 730E. Audiology Externship 3. 7 Units**
Prerequisite(s): CSAD 720E.
Corequisite(s): CSAD 730.
Term Typically Offered: Spring only
- Third full-time externship in audiology III.
 Credit/No Credit