Audiology, Au.D.

Degree Offered

- Doctor of Audiology

Nature of the Program

The Doctor of Audiology (AuD) program in Communication Sciences and Disorders uses approaches to pedagogy – the “how” of teaching and learning – that are based on current scholarship in higher education. These pedagogical approaches, influenced by constructivism, vary depending on the content and purpose of individual courses and may include:

- **Team-based learning**, in which students are strategically placed in small groups that work collectively to apply course content to rigorous structured activities and assignments
- **Project-based learning**, whereby students demonstrate the acquisition of knowledge and skills by investigating, evaluating, and solving authentic problems faced by clients, the field, or society, with less direction from instructors compared to team-based learning
- **Experiential learning**, in which a clinical or research experience is an opportunity to learn while the students’ analysis and reflection on the experience is where the learning occurs
- **Research-based learning**, where students use the latest knowledge and thinking, in dialogue with teaching, research, and clinical faculty, and each other, to engage in guided inquiry, knowledge seeking, and skill development

The purpose of the AuD program is to provide students with the academic and clinical preparation to diagnose and treat the full range of hearing and vestibular disorders in all age groups. It is the goal of the program to prepare audiologists who are competent to work effectively in a wide variety of clinical settings, including hospitals, clinics, special treatment centers, schools, industry, and private practice. The program consists of 98 credit hours of academic coursework and clinical practicum experiences, including a 12-month residency.

ADMINISTRATION

**CHAIR**

- Jayne Brandel - PhD, CCC-SLP (University of Kansas)
  - Associate Professor

**VICE CHAIRS**

- Nancy Aarts - PhD, CCC-A (Northwestern University)
  - Associate Professor and Vice Chair, Audiology
- Michelle Moore - PhD, CCC-SLP (University of Pittsburgh)
  - Associate Professor and Vice Chair, Speech-Language Pathology

FACULTY

**ASSOCIATE PROFESSORS**

- Nancy Aarts - PhD, CCC-A (Northwestern University)
  - Vice Chair, Audiology
- Jayne Brandel - PhD, CCC-SLP (University of Kansas)
  - Chair
- Ashleigh Callahan - PhD, CCC-A (James Madison University)
- Alex Hollo - PhD, BCBA-D (Vanderbilt University)
- Kimberly Meigh - PhD, CCC-SLP (University of Pittsburgh)
- Michelle Moore - PhD, CCC-SLP (University of Pittsburgh)
  - Vice Chair, Speech-Language Pathology

**ASSISTANT PROFESSORS**

- Christa Babjack - MA, CCC-SLP (Western Michigan University)
- Christina Dastolfo-Hromack - MS, CCC-SLP (University of Pittsburgh)
- Tori Gilbert - SLPD, CCC-SLP (Northwestern University)
- Anna Gravelin - PhD, CCC-SLP (Bowling Green State University)
- Almara Hutchinson - MA, CCC-SLP (Radford University)
Audiology, Au.D.

- Kenneth Morse - PhD, AuD, CCC-A (Syracuse University)
- Tracy Toman - MS, CCC-SLP (West Virginia University)
- Leah Valensi - AuD, CCC-A (Syracuse University)

Admissions

GRADUATE ADMISSIONS PHILOSOPHY

We commit to the mission and vision of the Division of Communication Sciences & Disorders by adopting a holistic review process that fosters a diverse and inclusive culture. We welcome students who are reflective critical thinkers and embody curiosity, compassion, collaboration, as well as an openness to feedback.

ADMISSION REQUIREMENTS

Applicants will be considered for our graduate programs if they have remarkable personal attributes that are predictive of academic and clinical success, high academic achievement, and English proficiency.

- **Personal attributes.** Applicants are expected to possess remarkable personal characteristics that are necessary for success in graduate study as well as in professional clinical practice. These characteristics are evaluated utilizing the Casper (https://takealtus.com/casper/) and interviews and include:
  a. a desire for lifelong learning,
  b. critical thinking ability,
  c. strong interpersonal and collaborative skills, and
  d. an openness to receiving constructive feedback.

- **Academic achievement.** Students must have:
  a. Obtained a baccalaureate degree or equivalent from a properly recognized institution of higher learning prior to starting the program,
  b. Maintained an overall undergraduate grade point average of at least 2.8 (where ‘A’ = 4.0),
  c. Completed the prerequisite coursework listed below with a grade of ‘C’ or better. A minimum of two courses in the CSD coursework must be completed before the application deadline. The remaining prerequisite courses must be completed prior to starting the graduate program.
    - At least one course in each of the following CSD content areas:
      - Phonetics
      - Language Acquisition/Development
      - Anatomy & Physiology of Speech and Hearing
      - Speech & Hearing Science
      - Introduction to Audiology
    - At least one course in each related content area listed below:
      - Physics or Chemistry
      - Social/Behavioral Science
      - Statistics
      - Biological Science
    - For more information on related academic courses, see the ASHA Coursework requirements (https://www.asha.org/Certification/Course-Content-Areas-for-SLP-Standards/) related to certification standards.

- **English proficiency.** Applicants who did not complete their bachelor’s degree in the US, UK, Australia, Canada, or New Zealand must meet the minimum score requirements for English proficiency. WVU’s minimum score requirements for English proficiency are: Academic IELTS score of 6.5, TOEFL iBT score of 79, PTE Academic score of 53, or Duolingo English Test score of 105.

For specific information about how to apply, including the current application timeline and tests/materials required, please visit the Communication Sciences & Disorders webpage (https://medicine.hsc.wvu.edu/communications-sciences-and-disorders/).

Admission Requirements 2023-2024

The Admission Requirements above will be the same for the 2023-2024 Academic Year.

Major Code: 8363

Doctor of Audiology

MAJOR REQUIREMENTS

- A minimum cumulative GPA of 3.0 is required
- A minimum grade of B- or higher is required in all graduate coursework
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Take the Praxis Exam in Audiology
Successful Completion of Four Competency Based Assessments
Successful Completion of Culminating Project

Total Hours 98

**RESIDENCY REQUIREMENTS**

All students in the Au.D. program must be full-time in residence during the program of study. The minimum duration for graduate study is eleven consecutive semesters (including summer sessions). Part-time students are not eligible for admission to the Au.D. degree program.

**Suggested Plan of Study**

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Competency Assessment of Professional Skills #1

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Competency Assessment of Professional Skills #3

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Seventh Semester

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Eighth Semester

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Ninth Semester
Competency Assessment of Professional Skills #4

Total credit hours: 98

Note: Each cohort starts in the Summer Term, therefore, First Semester is a Summer Term.

Major Learning Outcomes

AUDIOLOGY

This intentional, relevant, and comprehensive curriculum provides future audiolists the knowledge and skills needed to independently practice the full scope of audiology as caring and competent members of the profession.

Graduates of the Au.D. Program should be able to:

• Provide audiology services using evidence-based best practices and professional skills consistent with an entry-level clinician
• Collaborate with clients and families and colleagues and interprofessional team members in order to provide evidence-based individualized services that respect and meet the needs of diverse people
• Advocate for clients and clinical populations related to issues, sites, regions, and legislation using a variety of strategies and methods based upon best professional practice.

Accreditation

The Doctor of Audiology (Au.D.) education program in audiology at West Virginia University is accredited by the Council on Academic Accreditation in Audiology and Speech-Language Pathology of the American Speech-Language-Hearing Association, 2200 Research Boulevard, #310, Rockville, MD 20850, 800-498-2071 or 301-296-5700.

COURSES

CSAD 602. Communication Disorders. 3 Hours.
Survey of normal processes and communication disorders of speech, language, and hearing in children and adults; professions of speech language pathology and audiology; and job opportunities, designed for students not majoring in speech pathology and audiology.

CSAD 604. Seminars Clinical Practice 1. 1 Hour.
PR: Consent. Includes topics necessary for successful completion of clinical practicum.

CSAD 605. Seminars Clinical Practice 3. 1 Hour.
Examines professional issues in Speech-Language pathology. Will be graded on a Pass/Fail basis.

CSAD 606. Seminars Clinical Practice 2. 1 Hour.
PR: Consent. Includes topics to enhance clinical skills of the beginning clinician.

CSAD 607. Seminars Clinical Practice 4. 1 Hour.
Examines professional issues in Speech-Language pathology including medical and educational settings. Will be graded on a Pass/Fail basis.

CSAD 608. Audiological Foundations. 2 Hours.
PR: Admission to the MS in Speech-Language Pathology program or consent. Develop knowledge and skills related to the screening of hearing and the assessment and treatment of secondary speech and language disorders for persons with hearing loss.

CSAD 609. Introduction to the Clinical Experience. 1 Hour.
PR: Admission to the MS Speech-Language Pathology program or consent. Development of foundational tools required for successful provision of services as a clinician for online Master of Science in Communication Sciences and Disorders students.

CSAD 610. Clinic 1. 3 Hours.
PR: Admission to MS in Speech-Language Pathology program or consent of instructor. Introduction to clinical practice of speech-language pathology including necessary clinic guidelines, policies, and procedures, as well as the foundational skills required to provide ethical, effective, and evidence-based services.

CSAD 611. Advanced Practice/Audiology 1. 1.2 Hour.
PR: Consent. Supervised clinical practicum that concerns the evaluation and treatment of children and adults with hearing disorders.

CSAD 612. Clinic 2. 3 Hours.
PR: CSAD 610 and admission to the MS in Speech-Language Pathology program or consent. Clinical practice of speech-language pathology with supervised clinical experiences and seminars.

CSAD 613. Advanced Practice/Audiology 2. 3 Hours.
PR: CSAD 611 or consent. Supervised clinical practicum that concerns the evaluation and treatment of children and adults with speech-language disorders.
CSAD 614. Clinic 3. 3 Hours.
PR: CSAD 612 and admission to the MS in Speech-Language Pathology program or consent. Clinical practice of speech-language pathology with supervised clinical experiences and seminars.

CSAD 615. Advanced Practice/Audiology 3. 4 Hours.
PR: CSAD 613 or consent. Supervised clinical practicum that concerns the evaluation and treatment of children and adults with hearing disorders.

CSAD 616. Clinic 4. 3 Hours.
PR: CSAD 614 and admission to the MS in Speech-Language Pathology program or consent. Advanced clinical practice of speech-language pathology with supervised clinical experiences and seminars.

CSAD 617. Advanced Practice/Audiology 4. 4 Hours.
PR: CSAD 615 or consent. Supervised clinical practicum that concerns the evaluation and treatment of children and adults with hearing disorders.

CSAD 618. Evidence-Based Practice in Communication Sciences and Disorders. 3 Hours.
An overview of evidence-based clinical practice in communication sciences and disorders with strategies for implementation. Application of the scientific method to clinical practice and critical review of the research literature is emphasized.

CSAD 620. Neurophysiological Bases of Speech and Language. 4 Hours.
PR: Admission to the MS Speech-Language Pathology program or consent. Basic and clinical applications of neuroanatomy and neurology. Includes lectures on neurophysiological basis of practice in individuals with disorders of speech, language, hearing and swallowing.

CSAD 622. Voice Disorders. 3 Hours.
PR: Admission to the MS in Speech-Language Pathology program or consent. The purpose of this class is to develop an understanding of normal phonation in comparison to a variety of laryngeal pathologies. Emphasis will be placed on the development of appropriate assessment procedures and evidence-based treatment approaches to voice disorders. Specific emphasis is placed on developing critical thinking skills related to clinical assessment and intervention of individuals with voice disorders.

CSAD 624. Speech Sound Disorders. 3 Hours.
PR: Admission to master's speech-language pathology program or consent. Development of knowledge and skills necessary to assess and treat developmental speech sound disorders of different etiologies. Apply concepts in transcription, phonetic analysis, and typical phonological development to implement evidence-based clinical practice and to mitigate secondary deficits in other domains of spoken and written language.

CSAD 625. Developmental Language Disorders: Early Stages. 3 Hours.
PR: Admission to the MS Speech-Language Pathology program or consent. Development of knowledge and skills to evaluate and treat persons with primary and secondary developmental language disorders who communicate nonverbally up to simple sentences. Assess and interpret data (testing and sampling results) to diagnose developmental language disorder and develop evidence-based treatment plans for persons communicating nonverbally up to simple sentences.

CSAD 626. Acquired Motor Speech Disorders. 3 Hours.
PR: Admission to the MS Speech-Language Pathology program or consent. The purpose of this class is to develop an understanding of the anatomy and physiology of speech production in relation to motor speech disorders and their treatment. Differential diagnosis will be stressed in discussion of etiology and basic characteristics of motor speech disorders across the age continuum. Specific emphasis is placed on critical thinking related to clinical assessment and intervention.

CSAD 628. Fluency Disorders. 2 Hours.
PR: Admission in the master's speech-language pathology program or consent. Study of the symptomatology, epidemiology, etiology, research findings, assessment, prevention, and remediation of stuttering and related fluency disorders.

CSAD 630. Acquired Language Disorders. 3 Hours.
PR: Admission to the MS Speech-Language Pathology program or consent. The purpose of this class is to develop an understanding of acquired language impairments associated with focal lesions to the left or right hemisphere, traumatic brain injury, and dementia. Emphasis will be placed on the development of assessments and evidence-based treatments with specific emphasis placed on developing critical thinking and analytical skills.

CSAD 632. Craniofacial Anomalies. 3 Hours.
PR: CSAD 624 or consent. Investigation of the etiology, diagnosis, nature, and therapy approaches of communicative disorders in persons with cleft palate.

CSAD 634. Language Disorders in Children: Assessment. 2 Hours.
PR: CSAD 324. Assessment procedures utilized to identify children with language disorders. Standardized tests and non-standardized analysis procedures are introduced.

CSAD 635. Developmental Language Disorders: Advanced Stages. 3 Hours.
PR: Admission to the MS Speech-Language Pathology program or consent. Development of knowledge and skills to evaluate and treat persons with primary and secondary developmental language disorders at advanced language stages (oral and written language). Assess and interpret data (testing and sampling results) to diagnose primary and secondary developmental language disorders and develop evidence-based treatment plans for persons in the advanced language stages (complex language, reading, and writing).

CSAD 636. Augmentative/Alternative Communication. 3 Hours.
Discussion of augmentative/alternative communication options for persons who are unable to meet their daily needs through natural modes of verbal, manual, or written communication. Demographics, assessment, and treatment of candidates for AAC interventions.
CSAD 642. SLP Service Provision: Education. 2 Hours.
PR: Admission to the MS SLP program or consent. Development of knowledge base and skills in speech-language pathology services provided in an educational setting with content focusing on educational terminology, policies, federal and state laws and legal mandates, interpretation of educational documentation, the design of service provision with alignment to educational curriculum standards, service delivery models, and other educational service delivery considerations.

CSAD 648. Central Auditory Disorders. 3 Hours.
PR: CSAD 642 or consent. Pathology and audiometric site-of-lesion testing of the central auditory nervous system.

CSAD 658. Auditory Processing Disorders. 3 Hours.
PR: Consent. A transdisciplinary approach to evaluation and management of auditory processing disorders in children and adults is presented. This course is for graduate students in speech-language pathology and audiology and professional speech-language pathologists and audiologists.

CSAD 660. Neuropathology of Speech and Language. 3 Hours.
PR: CSAD 620. Explores methods of identifying and treating speech and language problems associated with nonprogressive and progressive neurological disorders.

CSAD 662. Dysphagia. 3 Hours.
PR: Admission to the MS in Speech-Language Pathology program or consent. Assessment and treatment of feeding and swallowing disorders in children and adults.

CSAD 663. Principles of Intervention. 2 Hours.
PR: Admission to the MS Speech-Language Pathology program or consent. Development of knowledge and skills associated with the treatment of communication disorders regardless of disorder type or age of client. Includes instruction and assessment of effective development, implementation, evaluation and documentation of treatment.

CSAD 664. Principles of Diagnostics in Communication Sciences and Disorders. 2 Hours.
PR: Admission to the MS program in Speech-Language Pathology or consent. Development of knowledge and skills associated with the diagnosis and reporting (oral and written) of speech and language disorders, including reviewing of case histories/medical records, interviewing, observation, and evaluation using and interpreting standardized tests.

CSAD 665. Culturally Responsive Practices in Communication Sciences and Disorders. 2 Hours.
PR: Admission to the MS Speech-Language Pathology program or consent. Facilitate knowledge of diverse populations in our society and to examine how differences among both individuals and cultures can affect interpersonal and group communication, as well as clinical practice.

CSAD 666. Updating Trends in Augmentative and Alternative Communication. 2 Hours.
Recent research in augmentative and alternative communication assessment and intervention.

CSAD 668. Clinical Experience in AAC. 2 Hours.
Hands on AAC and AAC assessment and intervention experience at Camp Gizmo in Romney, West Virginia.

CSAD 691. Advanced Topics. 1-6 Hours.
PR: Consent. Investigation of advanced topics not covered in regularly scheduled courses.

CSAD 692. Directed Study. 1-6 Hours.
Directed study, reading, and/or research.

CSAD 693. Special Topics. 1-6 Hours.
A study of contemporary topics selected from recent developments in the field.

CSAD 694. Seminar. 1-6 Hours.
Special seminars arranged for advanced graduate students.

CSAD 695. Independent Study. 1-9 Hours.
Faculty supervised study of topics not available through regular course offerings.

CSAD 696. Graduate Seminar. 1-3 Hours.
PR: Consent. Each graduate student will present at least one seminar to the assembled faculty and graduate student body of his or her program.

CSAD 697. Research. 1-9 Hours.
PR: Consent. Research activities leading to thesis, problem report, research paper or equivalent scholarly project, or a dissertation. (Grading may be S/U.)

CSAD 698. Thesis or Dissertation. 1-6 Hours.
PR: Consent. This is an optional course for programs that wish to provide formal supervision during the writing of student reports (698), or dissertations (798). Grading is normal.

CSAD 702. Anatomy/Physiology of the Ear. 3 Hours.
PR: Consent. Detailed study of the anatomy and physiology of the auditory and vestibular systems, and detailed investigation of physiological aspects of auditory and vestibular sensitivity.
CSAD 704. Instrumentation in Audiology. 3 Hours.
PR: Consent. A study of instrumentation utilized in the evaluation of hearing disorders, including calibration, maintenance, minor repair, and use of such instrumentation. The course includes foundational study of electricity and electrical components.

CSAD 706. Advanced Audiological Assessment 1. 4 Hours.
PR: CSAD 440 or consent. Audiological test procedures utilized in the evaluation of hearing loss including differential diagnosis, test administration and interpretation.

CSAD 709. Practical/Clinical Experience 1. 1 Hour.
PR: Admission to the AuD program or consent of the Chair. Enrollment includes supervised clinical experience, cases presented in weekly class meetings, and Department Grand Rounds during which students will use clinical knowledge and practice clinical skills in order to provide ethical, effective, interprofessional, culturally competent, and evidence-based services. Clinical experiences will be actual and simulated, including otoscopy; hearing, language and speech screening; and history taking.

CSAD 710. Psychoacoustics and Anatomy and Physiology. 3 Hours.
PR: Admission to the AuD program or consent from Chair. Students will use cases, team-based and experiential learning and recent best evidence to examine the role of genetics in auditory vestibular disorders, the diagnosis and management of genetic hearing losses; cultural competence; communicating results to patients and families; participating on interprofessional teams; patient and family roles in decision-making; referrals, and recommendations.

CSAD 714. Neurophysiological Bases of Hearing. 4 Hours.
PR: Admission to the AuD program or consent from Chair. Introduction to basic neuroanatomy and neurophysiology in a clinically meaningful format for audiologists.

CSAD 715. Communication Technologies for Adults 1. 3 Hours.
PR: Admission to the AuD program or consent of Chair. Students will use project- and team-based activities, case studies and recent best evidence to learn about communication technologies including ear-level, bone- and middle-ear implants, and hearing assistive technologies; comprehensive objective and subjective assessment protocol for determining technology candidacy; the process of selecting devices and their features; making earmold impressions; and cultural competence, communicating with patients, their families, and other professionals.

CSAD 716. Amplification Lab 1. 1 Hour.
PR: CSAD 706 and Coreq: CSAD 715. Demonstration and introductory experience selecting, fitting and servicing basic hearing aids for individuals with hearing impairment.

CSAD 717. Ototoxicity, Genetics, & Pharmacology. 1 Hour.
PR: Admission to the AuD program or consent from Chair. Students will use case studies, project- and team-based learning activities and recent best evidence to examine the role of genetics in auditory vestibular disorders, the diagnosis and management of genetic hearing losses; cultural competence; communicating with patients, families, and care providers; team management of syndromic and non-syndromic hearing loss; and the effect of ototoxins on auditory and vestibular function.

CSAD 718. Externship in Speech-Language Pathology. 4-9 Hours.
PR: CSAD 616 and Admission to the MS in Speech-Language Pathology program or consent. Clinical practice of speech-language pathology externship with supervised clinical experiences and seminars.

CSAD 720. Hearing Loss Prevention and Advocacy. 1 Hour.
PR: Admission to the AuD program or consent from Chair. Students will use cases, team-based and experiential learning and recent best evidence to examine role of audiologists in leading or participating in efforts to prevent hearing loss, and create and pass legislation to improve educational, vocational, and other opportunities for people with hearing loss; and how to provide education about the needs of individuals with hearing loss to various groups.

CSAD 721. Communication Technologies for Adults 2. 3 Hours.
PR: Admission to the AuD program or consent of Chair. Students will use case studies, project- and team-based learning activities, and recent best evidence to examine objective and subjective assessments used when fitting, verifying, and validating a range of communication technologies; instructing patients and families in technology care and use; referring and making recommendations; cultural competence and communicating results to patients, families, and other professionals.

CSAD 722. Amplification Lab 2. 1 Hour.
PR: CSAD 715 and CSAD 716 and Coreq: CSAD 721. Demonstrations and introductory experience selecting and fitting amplification systems for individuals with hearing impairment.
CSAD 723. Developmental Audiology & Pediatric Assessment. 2 Hours.
PR: Admission to the AuD program or consent from Chair. Students will use case studies, project- and team-based learning activities and recent best evidence to examine embryology; developmental, physiology and auditory perception; principles of behavioral and objective hearing screening and assessment techniques; test interpretation; effects of hearing loss on pediatric populations; collaborative team management; cultural competence; referring and making recommendations; and communicating results to patients, families and professionals.

CSAD 725. Electrophysiologic Assessments. 3 Hours.
PR: Admission to the AuD program or consent from Chair. Students will use case studies, team-based, or experiential learning and recent best evidence to examine electrophysiological properties and the anatomy and physiology of peripheral and central human auditory systems; stimuli and equipment used otoacoustic emission and auditory evoked response testing; test result interpretation; making referrals and recommendations cultural competence, and relaying results to patients, families and other providers.

CSAD 726. Physiological Measures Lab. 1 Hour.
PR: CSAD 711 and CSAD 714 and Coreq: CSAD 725. Demonstration and introductory experiences with otoacoustic emissions and evoked potential test procedures.

CSAD 729. Practical/Clinical Experience 2. 1 Hour.
PR: Admission to the AuD program or consent of Chair. Enrollment includes supervised clinical experience, experiential learning, cases presented in weekly class meetings and Department Grand Rounds and interprofessional education events. Clinical knowledge and skills will be practiced and solidified in order for students to provide ethical, effective, culturally competent, and evidence-based services. Clinical skills may include conducting an audiology assessment and communicating with patients, families, and other professionals.

CSAD 731. Pediatric Audiologic Habilitation. 3 Hours.
PR: Admission to the AuD program or consent from the Chair. Students will use cases, project- and team-based learning and recent best evidence to examine pediatric audiological (re)habilitation assessment battery; candidacy for and application of different spoken and manual language interventions; working with families; educational audiology and classroom acoustics; cultural competence; communicating results to patients and families, patient and family role in decision-making, working with teams, recommendations, and referrals.

CSAD 734. Auditory Processing Disorders & Non-Organic Hearing Loss. 3 Hours.
PR: Admission to the AuD program or consent from Chair. Students will use cases, project- and team-based learning and recent best evidence to examine anatomy and physiology of central auditory nervous system; behavioral, physiologic, self-assessments and interventions for auditory processing disorders; behavioral and physiologic assessments for non-organic hearing loss; team management; cultural competence; communication of results to patients, families and other care providers, patient role in decision-making, recommendations, and referrals.

CSAD 735. Tinnitus & Hyperacusis. 1 Hour.
PR: Admission to the AuD program or consent from the Chair. Students will use cases, project- and team-based learning and recent best evidence to examine the psychological and physical effects of tinnitus; objective and subjective assessments of tinnitus and hyperacusis; technological and psychological interventions and their efficacy and limitations; team management; cultural competence; communication of results to patients, families and other care providers, patient role in decision-making, recommendations, and referrals.

CSAD 736. Vestibular Disorders: Assessment. 4 Hours.
PR: Admission to the AuD program or consent from the Chair. Students will use cases, team-based and experiential learning and recent best evidence to examine the anatomy and physiology of the mechanisms involved in maintenance of balance; techniques and interpretation of clinical vestibular system and balance function assessment; indicators for balance rehabilitation; cultural competence; team membership; communicating results to patients and families; patient and family role in decision-making; referrals, and recommendations.

CSAD 737. Vestibular Disorders: Intervention. 2 Hours.
PR: Admission to the AuD program or consent from the Chair. Students will use cases, team- and research-based learning to interpret vestibular assessments in order to differentiate vestibular test abnormalities; use empirical data in treatment planning; manage and treat vestibular and balance system disorders; use outcome measures of treatment success; communicate results to patients and families; participate on interprofessional teams; patient and family roles in decision-making; referrals, and recommendations.

CSAD 738. Approaches to Care in Audiology. 1 Hour.
PR: Admission to the AuD program or consent from Chair. Students will engage in team- and project-based learning activities and case studies to discover how professional skills and issues, service-delivery models, licensure and certification, client characteristics, and other factors affect clinical practice.

CSAD 739. Practical/Clinical Experience 3. 2 Hours.
PR: Admission to the AuD program or consent from Chair. Enrollment includes supervised clinical experience, experiential learning with cases presented in class meetings, Grand Rounds, and interprofessional education events. Clinical knowledge and skills will be or students to provide ethical, effective, culturally competent, and evidence-based services, including conducting and interpreting audiology assessments, technology selection and fitting, patient/family role in decision-making and communicating with patients, families and other professionals.

CSAD 741. Business Practices & Supervision. 3 Hours.
PR: Admission to the AuD program or consent from the Chair. Students will use cases, project- and team-based learning and recent best evidence to examine business planning, financial and managerial accounting, marketing, human resources management, and other audiology practice management topics involved in daily operations of a private audiology practice; leadership and supervisory styles and practices, working with employees and supervisees; communication, cultural competence, and conflict resolution.
CSAD 743. Hearing Conservation. 2 Hours.
PR: Admission to the AuD program or consent from the Chair. Students will use cases, project- and team-based learning and recent best evidence to examine the effect of noise on auditory and related systems; principles and practices of noise-induced hearing loss prevention in occupational, recreational, and other settings; regulations; hearing conservation programs; noise reduction technologies; outcome measures; cultural competence; communicating with workplace leadership employees, schools and individuals; referrals, and recommendations.

CSAD 745. Clinic Supervision Seminar. 2 Hours.
An investigation into methods and techniques for clinical supervision in audiology.

CSAD 747. Cochlear Implants. 2 Hours.
PR: Admission to the AuD program or consent from the Chair. Students will use cases, project- and team-based learning and recent best evidence to examine implant manufacturers and their technologies; cultural competence in service delivery; programming; verification measures; implant orientation and troubleshooting; other follow up services; patient and family role in decision-making; the audiologists’ role on related interprofessional teams; and communicating with the patient, family, and team members.

CSAD 748. Communication Technologies for Children. 2 Hours.
PR: Admission to the AuD program or consent from the Chair. Students will use cases, project- and team-based learning and recent best evidence to examine pediatric objective and subjective assessments for determining technology candidacy; process of selecting devices and their features; making earmold impressions; fitting, verification and validation measures for children, families and educators; cultural competence; patient and family roles in decision-making; communicating with patients, families and professionals; referrals, and recommendations.

CSAD 749. Practical/Clinical Experience 4. 2 Hours.
PR: Admission to the AuD program or consent from Chair. Enrollment includes supervised clinical experience, experiential learning and cases presented in weekly class meetings and Department Grand Rounds. Clinical knowledge and skills will be practiced in order for students to provide ethical, effective, culturally competent, and evidence-based services, including a range of assessment and intervention tasks, communicating results to patient, patient’s role in decision-making; communicating with patients, families and professionals; referrals, and recommendations.

CSAD 750. Information Literacy in Communication Sciences and Disorders. 3 Hours.
PR: Consent. Practical and theoretical issues in the use of the professional literature to advance research and practice in audiology and speech-language pathology.

CSAD 752. Research Design in Communication Sciences and Disorders. 3 Hours.
PR: Consent. Practical and theoretical issues in the selection and implementation of quantitative and qualitative research designs common in communication sciences and disorders.

CSAD 754. Teaching and Supervision in Communication Sciences and Disorders. 3 Hours.
PR: Consent. Principles, concepts, and processes involved in effective classroom instruction and clinical supervision of students in audiology and speech-language pathology programs.

CSAD 759. Practical/Clinical Experience 5. 2 Hours.
PR: Admission to the AuD program or consent from Chair. Enrollment includes supervised clinical experience, experiential learning and cases presented in weekly class meetings and Department Grand Rounds. Clinical knowledge and skills will be practiced in order for students to provide ethical, effective, culturally competent, and evidence-based services, including a range of assessment and intervention tasks, communicating results to patient, patient’s role in decision-making, referrals, and recommendations.

CSAD 769. Practical/Clinical Experience 6. 3 Hours.
PR: Admission to the AuD program or consent from Chair. Enrollment includes supervised clinical experience, experiential learning, and cases presented in weekly class meetings and Department Grand Rounds. Clinical knowledge and skills will be practiced in order for students to provide ethical, effective, culturally competent, and evidence-based services, including a range of assessment and intervention tasks, communicating results to patient, patient’s role in decision-making, referrals, and recommendations.

CSAD 770. Cultural Diversity in Communication Sciences and Disorders. 1 Hour.
PR: Consent and Suggested as CoReq: CSAD 771. Issues and differences related to communication sciences and disorders within diverse subcultures in the USA and Canada.

CSAD 771. Cultural Diversity Lab. 1 Hour.
PR: Consent. Suggested CoReq: CSAD 770. Hands-on experience related to practice in communication sciences and disorders within diverse cultural settings in the USA and Canada.

CSAD 779. Audiology Clinic 7. 6 Hours.
PR: CSAD 769. Supervised clinical practicum that concerns the evaluation and treatment of children and adults with hearing disorders.

CSAD 780. Global Initiatives in Communication Sciences and Disorders. 1 Hour.
PR: Consent and Suggested CoReq: CSAD 781. Issues and differences related to communication sciences and disorders in settings outside the United States and Canada.

CSAD 781. Global Initiatives Lab. 1 Hour.
PR: Consent and Suggested CoReq: CSAD 780. Hands-on experiences related to professional practices and perspectives in communication sciences and disorders outside the United States and Canada.
CSAD 789. Final Year Clinical Experience. 7-9 Hours.
PR: Admission to the AuD program or consent from the Chair. Enrollment in the Final Year Clinical Experience includes the supervised clinical practice of audiology as well as participation in weekly online seminars that will address various advanced professional issues.

CSAD 793. Special Topics. 1-6 Hours.
A study of contemporary topics selected from recent developments in the field.

CSAD 795. Independent Study. 1-9 Hours.
Faculty supervised study of topics not available through regular course offerings.

CSAD 797. Research. 1-9 Hours.
PR: Consent. Research activities leading to thesis, problem report, research paper or equivalent scholarly project, or a dissertation. (Grading may be S/U).

CSAD 900. Professional Development. 1-6 Hours.
Professional development courses provide skill renewal or enhancement in a professional field or content area (e.g. education, community health, geology.) The continuing education courses are graded on a pass/fail grading scale and do not apply as graduate credit toward a degree program.

CSAD 930. Professional Development. 1-6 Hours.
Professional development courses provide skill renewal or enhancement in a professional field or content area (e.g., education, community health, geology.) These tuition-waived continuing education courses are graded on a pass/fail grading scale and do not apply as graduate credit toward a degree program.