

**AUDIOLOGY
COURSES OFFERED
FALL 2024-SPRING 2025**

SLHS 50300 - Auditory Perception

Credit Hours: 3.00. Behavioral measurement of the capabilities of the normal and impaired auditory system. The laboratory experience includes an exposure to the measures and methods of hearing science.

SLHS 50401 - The Auditory Periphery

Credit Hours: 3.00. Acoustics and Fourier analysis; outer-ear resonance and interaural differences; middle-ear impedance and structure; inner-ear mechanical responses; hair-cell transduction, electrophysiology, motility; cochlear potentials; cochlear amplifier; suppression; otoacoustic emissions; efferent feedback to the cochlea; damage to the ear; treatments for damaged ears. **Permission of department required.**

SLHS 50601 - Neural Bases Of Hearing

Credit Hours: 3.00. Section I. Neuroanatomy. Anatomy terminology, overview of cochlear neuroanatomy; afferent and efferent cochlear innervation; auditory nerve formation and termination points in the cochlear nucleus; Neuroanatomy of Cochlear Nucleus, Superior Olivary complex, Nuclei of Lateral lemniscus, Inferior colliculus, Medial geniculate body and the auditory cortex, corticofugal efferent pathways complex. Section II. Physiology Neuronal Physiology; response properties of the auditory nerve, cochlear nucleus, superior olivary complex, inferior colliculus, medial geniculate body and auditory cortex, rate-place and temporal-place neural encoding schemes in the auditory nerve, intensity encoding, frequency tuning in normal and cochlear loss, binaural processing in the superior olivary complex and inferior colliculus, feature maps in the inferior colliculus and medial geniculate body and serial, parallel, hierarchical processing in the auditory cortex and role of cortico thalamic and corticocollicular pathways in shaping subcortical neural representation.

SLHS 51800 - Counseling In Speech-Language Pathology And Audiology

Credit Hours: 2.00. Application of counseling models, theories, and methods to persons with communicative disorders and their families. **Permission of instructor required.**

SLHS 54401 - School-Clinical Methods In Communication Disorders

Credit Hours: 1.00. The focus of this course is on the implementation of speech, language, and hearing services with preschool to secondary (P-12) school-aged children. Students develop a working knowledge of special education law, disability law, and other resources for school-aged children.

SLHS 55300 - Implantable Devices

Credit Hours: 3.00. Provides fundamental principles to assist audiologists and speech-language pathologists in the understanding of candidacy, principles of signal processing, and audiologic rehabilitation for children and adults who use cochlear implants.

SLHS 56000 - Audiologic Diagnostics

Credit Hours: 3.00. Audiometers, audiometric standards, and the use of pure tone and speech signals in the measurement of auditory abilities. Laboratory provides practical instruction in the procedures discussed in class.

SLHS 56100 - Medical Audiology

Credit Hours: 3.00. Study of the etiology, pathogenesis, symptomology, epidemiology, diagnosis and treatment of diseases, and injuries to the auditory system.

SLHS 56300 - Pediatric Audiology

Credit Hours: 3.00. Examination of protocols for the identification and evaluation of infants and children with hearing loss, using behavioral, physiologic, and electro-physiologic assessment methods. Course content places an emphasis on clinical decision-making and problem-solving skills.

SLHS 56400 - Hearing Aids I

Credit Hours: 3.00. An examination of amplification systems as applied in audiological rehabilitation; acoustic, electroacoustic, electronic, and clinical considerations. Laboratory exercises in measurement, modifications, maintenance, selection, and dispensing of hearing aid systems.

SLHS 56501 - Vestibular Assessment And Rehabilitation

Credit Hours: 3.00. This course will review anatomy and physiology of the vestibular system. Diagnostic assessment, interpretation and proper recommendation techniques will be discussed. Current research addressing dizziness and balance issues will be reviewed as well as case history discussions to help prepare students to see these patients in a clinic setting. The clinical practice of audiology encompasses the assessment and habilitation/rehabilitation vestibular and balance disorders arising from a wide variety of medical and environmental etiologies. It is essential that audiologists have a firm understanding of the most common causes and medical treatments of vestibular disorders for all age groups. Additionally, vestibular assessment and treatment options are expanding rapidly in the past 5-10 years. Student clinicians need exposure to this area of care so that they may grow as research and technology change. Audiologists practice in a medical setting and thus must be comfortable with the medical approaches and terminology used by otolaryngologists, otologists, neuro-otologists, pediatricians, physical therapists and other allied health professions.

SLHS 56700 - Auditory Evoked Responses I

Credit Hours: 3.00. Evaluation of peripheral and brainstem auditory system function using evoked potentials.

SLHS 57000 - Hearing Conservation

Credit Hours: 2.00. A study of noise as a health hazard and as a nuisance; an examination of the ways in which hearing problems related to noise may be reduced. **Permission of instructor required.**

SLHS 57401 - Hearing Aids II

Credit Hours: 2.00. The focus of this course is on the evolving technology in hearing aids with an emphasis on the information students will need to make efficacious clinical decisions not only for the hearing aids of today but also for the hearing aids of tomorrow. For each of the hearing aid features that are discussed, we review (1) the need or potential benefit to the patient, (2) the engineering behind the feature, (3) research supporting its efficacy and effectiveness, (4) its limitations, and (5) how to conduct routine clinical measurements to document its functioning.

SLHS 57900 - Clinical Practice In Audiology

Credit Hours: 1.00 to 12.00. Supervised clinical practicum in evaluation of hearing and communication status and in remediation of communication problems. Clinical practices include, but are not limited to, auditory site of lesion, sensory aid selection, fitting and evaluation and communication training for children and adults. Clinical practicum is available in the M. D. Steer Audiology Center and off-campus facilities. **Permission of instructor required. Students are required to take this course Fall, Spring, and Summer of their first two years, and Fall and Spring of their third year.**

SLHS 58800 - Evaluating Research In Evidence-Based Practice

Credit Hours: 2.00. The focus of this course is on developing the skills necessary to critically consume literature and apply it to clinical practice as speech-language pathologists and audiologists. Students complete a comprehensive evidence-based practice project, which includes developing a clinical question, conducting a literature review, and critiquing acquired research articles. They gain guidance from a skilled mentor in their research area and receive course instruction on best practices in appraising research necessary for evidence-based practice.

SLHS 61900 - Advanced Topics In Audiology And Speech Pathology

Credit Hours: 0.00 to 3.00. Study of advanced topics, varying from semester to semester. Course content will be drawn from areas for which there are no permanent courses. **Students are required to take 1 credit hour in the Fall & Spring of their second year.**

SLHS 65900 - Audiology Practice Management

Credit Hours: 2.00. An examination of business and professional issues related to audiology. Practice management topics include conducting a feasibility analysis, writing a business plan, employee management, marketing, reimbursement, and practice growth. Professional issues include licensing, certification, liability issues, and career planning.
Prerequisite: SLHS 57900 and Doctor of Audiology majors only.

SLHS 66100 - Advanced Medical Audiology

Credit Hours: 3.00. The clinical practice of audiology encompasses the audiological assessment and habilitation/rehabilitation of hearing loss arising from a wide variety of medical and environmental etiologies. It is essential that audiologists have a firm understanding of the most common causes and medical treatments of hearing impairment for all age groups. Additionally, the future clinician will be better served by recognizing the how rapidly information changes in this arena and becoming comfortable with reliable educational resources that are available for life-long learning in this area. Audiologists also practice in a medical setting and thus must be comfortable with the medical approaches and terminology used by otolaryngologists, otologists, neuro-otologists, pediatricians, radiologists, anesthesiologists and other physicians. Additionally, audiologists may be the first contact with a hearing-impaired patient and their role in the referral process will be emphasized.

SLHS 67000 - Integrative Audiology Grand Rounds

Credit Hours: 1.00. This course provides advanced audiology students an opportunity to share and think deeply about the complex cases they are experiencing on off-campus placements. Students share cases online with their peer students who will provide thoughtful responses and reflections based on their own experiences. This course also provides a summative assessment of the students' knowledge in the final two years of their education. Due to the highly complex nature of the cases, students must use past clinical experiences and knowledge learned in multiple courses in order to successfully present cases and to respond in thoughtful ways that contribute to the online learning environment. Permission of department required; must also be currently enrolled in SLHS 57900 or SLHS 67900 completing an audiology externship. Students are required to take this in the Fall & Spring of their third and fourth years in conjunction with SLHS 579 or SLHS 67900.

SLHS 67900 - Advanced Clinical Practice In Audiology

Credit Hours: 4.00. An advanced-level clinical practicum in audiology. Permission of instructor required. Students are required to take this in the Summer of their third year, and in the Fall & Spring of their fourth year in conjunction with SLHS 67000.

SLHS 68800 - Research Integration And Dissemination For Evidence Based Practice

Credit Hours: 2.00. The focus of this course is on developing skills integrating current research and communicating about research in clinical practice. Students complete a comprehensive project involving a literature review, clinical decision and poster. They gain guidance from a skilled mentor in their research area and receive course instruction on best practices in scientific communication in a variety of modes, including developing an oral pitch, preparing a literature review and evaluation, and creating and delivering a poster and writing a research abstract. Pre-Requisite: Students must complete Evaluating Research - currently offered as SLHS 51900.