SPEECH, LANGUAGE AND HEARING SCIENCES (SLHS)

Courses

SLHS 1010 (3) Disabilities in Contemporary American Society
Addresses the issue that 50 percent of all individuals experience disability in their lifetime. Introduces students to the social, cultural, psychological, economic, political, legal, and health-care issues related to society and individuals with disabilities.
Additional Information: Arts Sci Core Curr: Contemporary Societies
Arts Sci Gen Ed: Distribution-Social Sciences
Arts Sci Gen Ed: Diversity-U.S. Perspective
Departmental Category: Didactic: All-Department

SLHS 2000 (3) Introduction to Communication Disorders
Surveys communication disorders, including hearing impairments, learning disabilities, and speech-language disorders, as well as an introduction to basic speech and hearing science.
Additional Information: Arts Sci Gen Ed: Distribution-Social Sciences
Departmental Category: Didactic: All-Department

SLHS 2010 (3) Science of Human Communication
Discusses how human communication (the process by which a thought is transmitted from the brain of a speaker to the brain of a listener) involves a complex interaction of acoustics, anatomy, physiology, neurobiology, and psychology.
Additional Information: Arts Sci Core Curr: Natural Science Non-Sequence
Arts Sci Gen Ed: Distribution-Natural Sciences
Departmental Category: Didactic: All-Department

SLHS 2305 (4) American Sign Language 1
Introduces basic sign vocabulary, grammatical structures of ASL, and the culture of deaf people. Classes are taught using ASL without the use of spoken English.
Additional Information: Arts Sci Core Curr: Foreign Language
Arts Sci Gen Ed: Distribution-Arts Humanities
Arts Sci Gen Ed: Foreign Language
Departmental Category: American Sign Language

SLHS 2315 (4) American Sign Language 2
Develops more complex vocabulary and grammatical structures, and an understanding of deaf culture. Classes are taught using ASL without the use of spoken English.
Requisites: Requires a prerequisite course of SLHS 2305 (minimum grade C).
Additional Information: Arts Sci Core Curr: Foreign Language
Arts Sci Gen Ed: Foreign Language
Arts Sci Gen Ed: Distribution-Arts Humanities
Departmental Category: American Sign Language

SLHS 2325 (4) American Sign Language 3
Continuation of SLHS 2315. Covers ASL literature, advanced grammatical structures, idiomatic expressions, and deaf culture.
Requisites: Requires a prerequisite course of SLHS 2315 (minimum grade C).
Additional Information: Arts Sci Core Curr: Foreign Language
Arts Sci Gen Ed: Foreign Language
Arts Sci Gen Ed: Distribution-Arts Humanities
Departmental Category: American Sign Language

SLHS 3003 (3) Cognitive Science
Introduces cognitive science, drawing from psychology, philosophy, artificial intelligence, neuroscience, and linguistics. Studies the linguistic relativity hypothesis, consciousness, categorization, linguistic rules, the mind-body problem, nature versus nurture, conceptual structure and metaphor, logic/problem solving and judgment. Emphasizes the nature, implications and limitations of the computational model of mind.
Equivalent - Duplicate Degree Credit Not Granted: LING 3005 and PHIL 3310 and PSYC 3005 and CSCI 3702 and CSPB 3702
Recommended: Prerequisites two of the following CSCI 1300 or LING 2000 or PHIL 2240 or PSYC 2145.
Additional Information: Arts Sci Gen Ed: Distribution-Arts Humanities
Arts Sci Gen Ed: Distribution-Natural Sciences
Arts Sci Gen Ed: Distribution-Social Sciences

SLHS 3006 (3) Phonetics
Focuses on production of speech sounds, transcribing speech using the International Phonetic Alphabet, analyzing the acoustic properties of speech sounds, understanding how speech sounds vary depending on the context. Provides a foundation for understanding normal and atypical speech development, atypical speech problems and patterns, regional and foreign accents, and speech recognition by computers.
Requisites: Requires a prerequisite course of LING 2000 (minimum grade C).
Additional Information: Arts Sci Gen Ed: Distribution-Social Sciences
Departmental Category: Didactic: Speech-Hearing Science

SLHS 3014 (3) Hearing Loss Epidemiology
Introduces students to basic epidemiological concepts related to hearing loss. Provides an overview of the hearing mechanism, assessment and identification of hearing loss, prevalence of hearing disorders, treatment and intervention. Noise pollution, aging and toxic agents are discussed. Focuses on risk factors for hearing impairment and comorbidities.
Requisites: Restricted to students with 27-180 credits (Sophomores, Juniors or Seniors) only.
Additional Information: Arts Sci Gen Ed: Distribution-Social Sciences
Departmental Category: Didactic: Audiology

SLHS 3106 (3) Hearing Science
Focuses on the three main aspects of the hearing process: sounds in the environment (physical acoustics), sounds encoded within the auditory system (physiological acoustics) and perception of sound (psychological acoustics).
Requisites: Requires a prerequisite course of SLHS 2010 (minimum grade C). Restricted to Speech, Language and Hearing Sciences (SLHS) undergraduate or master's students or Audiology (AUDD) majors only.
Additional Information: Arts Sci Gen Ed: Distribution-Natural Sciences
Departmental Category: Didactic: Speech-Hearing Science

SLHS 3116 (3) Speech Science
Provides a basic understanding of the structural organization (anatomy), function (physiology), and neural controls of the structures used to produce speech, swallowing, respiration, and related behaviors in humans.
Requisites: Requires a prerequisite course of SLHS 2010 (minimum grade C).
Recommended: Prerequisite SLHS 3106.
Additional Information: Arts Sci Gen Ed: Distribution-Natural Sciences
Departmental Category: Didactic: Speech-Hearing Science
SLHS 4000 (3) Multicultural Aspects of Communication Differences and Disorders
Examines perceptions and attitudes regarding differences in communication as a function of cultural-linguistic diversity. Discusses implications of differing verbal and nonverbal communication styles of various cultural groups in terms of professional responsibilities.
**Requisites:** Restricted to students with 57-180 credits (Juniors or Seniors).
**Recommended:** Prerequisite upper-division standing and a minimum of 60 credit hours.
**Additional Information:** Departmental Category: Didactic: All-Department

SLHS 4100 (1-3) Special Topics in Speech, Language, and Hearing Sciences
Studies selected topics in speech, language, hearing sciences, communication disorders, and other professional issues.
**Additional Information:** Departmental Category: Didactic: All-Department

SLHS 4502 (3) Language Disorders Across the Lifespan
Provides students with an introductory understanding of the causes, characteristics, assessment and treatment of developmental and acquired language disorders in children and adults. Examines a variety of disorders including specific language impairment, learning disabilities, and language and cognitive disorders due to brain damage. Considers the challenge of identifying language disorders in children and adults from culturally and linguistically diverse backgrounds.
**Requisites:** Requires a prerequisite or corequisite course of SLHS 4560 (minimum grade C-).
**Additional Information:** Arts Sci Gen Ed: Distribution-Social Sciences Departmental Category: Didactic: Speech-Language Pathology

SLHS 4512 (3) Speech Disorders Across the Lifespan
Provides students with an introductory understanding of the causes, characteristics, assessment and treatment of speech disorders including those involving articulation, voice, resonance, and fluency. Examines a variety of disorders including stuttering, speech sound disorders, cleft lip and palate, vocal pathology, as well as dysarthria and apraxia due to stroke, trauma, and progressive neurological diseases.
**Requisites:** Requires a prerequisite course of SLHS 2010 (minimum grade C-).
**Additional Information:** Arts Sci Gen Ed: Distribution-Social Sciences Departmental Category: Didactic: Speech-Language Pathology

SLHS 4560 (3) Language Development
Covers the development of language in childhood and into adult life, emphasizing the role of environmentand biological endowment in learning to communicate with words, sentences, and narratives.
**Equivalent - Duplicate Degree Credit Not Granted:** LING 4560 and PSYC 4560
**Requisites:** Restricted to Speech, Language and Hearing Sciences (SLHS) undergraduate or master's students or Audiology (AUDD) majors only.
**Additional Information:** Arts Sci Gen Ed: Distribution-Social Sciences Departmental Category: Didactic: All-Department

SLHS 4576 (3) Communication Neuroscience
Provides an introduction to neuroscience with an emphasis on the systems that support human communication including speech perception and production, language, memory and cognition. Topics areas will include auditory processing, language, memory and motor systems. Development of brain systems and structures will be explored, as well as neurologically based disorders. Neuroscientific methods surveyed will include MRI, fMRI, EEG, MEG, NIRS, lesion studies and electrophysiology.
**Requisites:** Requires a prerequisite course of SLHS 2010 or NRSC 2100 (both minimum grade C-). Restricted to students with 27-180 credits (Sophomores, Juniors or Seniors).
**Additional Information:** Arts Sci Gen Ed: Distribution-Natural Sciences Departmental Category: Didactic: Audiology

SLHS 4704 (3) Audiological Evaluation
Studies basic principles and techniques of hearing evaluation, including pure-tone, speech, immittance, and advanced audiology; hearing conservation in hospital, school, and industrial settings; and identification and evaluation of auditory pathologies. Required projects in screening and pure-tone audiometry.
**Requisites:** Requires a prerequisite course of SLHS 3106 (minimum grade C-).
**Additional Information:** Arts Sci Gen Ed: Distribution-Natural Sciences Departmental Category: Didactic: Audiology

SLHS 4714 (3) Audiological Rehabilitation
Covers basic principles and techniques related to the habilitation and rehabilitation of individuals who are deaf or hard of hearing: amplification, speech, language, auditory, speech reading, and educational issues.
**Requisites:** Requires prerequisite courses of LING 3100 or SLHS 3006. Requires a prerequisite or corequisite course of SLHS 4704 (all minimum grade C-).
**Additional Information:** Arts Sci Gen Ed: Distribution-Social Sciences Departmental Category: Didactic: Audiology

SLHS 4849 (1-6) Independent Study for Undergraduates
Faculty directed seminars, investigations, demonstrations, expositions, and problems in speech-language-hearing sciences.
**Instructor consent required.**
**Repeatable:** Repeatable for up to 8.00 total credit hours. Allows multiple enrollment in term.
**Additional Information:** Departmental Category: Independent Study

SLHS 4918 (2) Introduction to Clinical Practice
Introduces students to the clinical processes and key components of assessment and interventions. Explores the applications of the theoretical and scientific information to clinical settings. Students complete supervised observation of individuals with communication challenges.
**Requisites:** Requires a prerequisite course of SLHS 2000 (minimum grade C). Restricted to students with 57-180 credits (Junior or Senior) Speech, Language and Hearing Sciences (SLHS) majors only.
**Additional Information:** Arts Sci Gen Ed: Distribution-Social Sciences Departmental Category: Practica

SLHS 4938 (1-6) Internship: Speech-Language Intervention
Provides a supervised clinical experience with children who have communication challenges enrolled in the Child Learning Center programs; individuals demonstrating communication disorders as a cotherapist in the Speech, Language, and Hearing Center; or off-campus experience in an affiliated hospital or public school program. Instructor consent required.
**Repeatable:** Repeatable for up to 6.00 total credit hours. Allows multiple enrollment in term.
**Grading Basis:** Letter Grade
**Additional Information:** Departmental Category: Practica
SLHS 5002 (2) Evidence-based Practice and Research Methods 1
Provides opportunities for students to acquire the knowledge of evidence-based practice (EBP) in the areas of speech, language and hearing sciences (SLHS). Covers topics about EBP in SLHS, levels of evidence and strategies for using scientific evidence in the process of making clinical decisions.
**Grading Basis:** Letter Grade
**Additional Information:** Departmental Category: Didactic: Speech-Language Pathology

SLHS 5012 (3) Evidence-based Practice and Research Methods
Focuses on the knowledge of research methods and the application of research principles into clinical practice. In particular, covers quantitative research methods that are in speech-language pathology clinical settings. Will cover (1) clinical practice and research methods in speech, language and hearing sciences; (2) single-subject designs in clinical settings; (3) introduction to data collection, data organization and data analysis; (4) interpretation and presentation of clinical data. Formerly SLHS 5000.
**Grading Basis:** Letter Grade
**Additional Information:** Departmental Category: Didactic: Speech-Language Pathology

SLHS 5032 (3) Competencies and Strategies for the SLPA
Includes roles and responsibilities for the Speech Language Pathology Assistant (SLPA) working in the public schools, service delivery models, health and safety, screening assistive technology, intervention and self reflection and evaluation. Must be accepted in the SLPA certification program.
**Requisites:** Requires a prerequisite course of SLHS 4918 (minimum grade D).
**Additional Information:** Departmental Category: Didactic: Speech-Language Pathology

SLHS 5112 (2) Clinical Practice I
Provides entering graduate students a framework for beginning their clinical education and building the relationship of theory and research to current clinical practice in speech-language pathology. Key topics for exploration include contemporary professional issues, licensure, professionalism, ethics and ethical conduct, scope of practice, competency development, teaming and collaboration, accountability and multicultural issues. Formerly SLHS 5110.
**Requisites:** Restricted to Speech, Language and Hearing Sciences (SLHS) or Audiology (AUDD) graduate students only.
**Grading Basis:** Pass/Fail
**Additional Information:** Departmental Category: Didactic: Speech-Language Pathology

SLHS 5122 (1) Clinical Practice II: Assessment and Treatment Planning
Explores critical elements associated with assessment and treatment planning in speech-language pathology. Topic areas include assessment style, interviewing, test selection and techniques of test administration. Diagnosis and treatment planning section includes differential diagnoses, ethics of diagnoses, goal writing and treatment rationale.
**Requisites:** Requires a prerequisite course of SLHS 5112 (minimum grade B). Restricted to Speech, Language and Hearing Sciences (SLHS) or Audiology (AUDD) graduate students only.
**Grading Basis:** Pass/Fail
**Additional Information:** Departmental Category: Didactic: Speech-Language Pathology

SLHS 5132 (1) Clinical Practice II: School Based Skills
Targeted skills for implementation in educationally-based settings for speech-language pathologists. Specific coursework will address writing IEPs/IFSPs, expanded work with service delivery models and implementation of state and federal requirements for school based services.
**Requisites:** Requires a prerequisite course of SLHS 5122 (minimum grade B).
**Grading Basis:** Pass/Fail

SLHS 5142 (1) Clinical Practice III: Clinical Practice in Medical and Private Practice Settings
Explores skills specific to working in medically-based settings and private practice. Topics include billing, coding and reimbursement, working with an interdisciplinary team and measures and documentation specific to these settings.
**Requisites:** Restricted to Speech, Language and Hearing Sciences (SLHS) or Audiology (AUDD) graduate students only.
**Grading Basis:** Pass/Fail
**Additional Information:** Departmental Category: Didactic: Speech-Language Pathology

SLHS 5242 (3) Language Disorders in School Age Children
Addresses the nature, assessment, and treatment of developmental language disorders in school age children.
**Requisites:** Restricted to graduate students only.
**Recommended:** Prerequisite undergraduate background in SLHS.
**Additional Information:** Departmental Category: Didactic: Speech-Language Pathology

SLHS 5252 (3) Acquired Language Disorders in Adults
Introduces the neural bases and medical etiologies of acquired language disorders in adults, explores the ways in which normal language processing may become disordered, and studies current methods of evaluation and treatment design.
**Requisites:** Restricted to Speech, Language and Hearing Sciences (SLHS) or Audiology (AUDD) graduate students only.
**Recommended:** Prerequisite undergraduate background in SLHS.
**Additional Information:** Departmental Category: Didactic: Speech-Language Pathology

SLHS 5262 (3) Dysphagia
Provides students with background in the anatomical, physiological, and neurological bases of swallowing function and disorders across the lifespan. Etiological factors are presented, as well as various assessment tools and principles of treatment of swallowing disorders in children and adults.
**Requisites:** Restricted to Speech, Language and Hearing Sciences (SLHS) or Audiology (AUDD) graduate students only.
**Additional Information:** Departmental Category: Didactic: Speech-Language Pathology

SLHS 5272 (1) Augmentative Alternative Communication: Theory and Use
Provides an overview of the application of current technology to alternative/augmentative communication. Emphasizes assessment and intervention with nonverbal children and adults with need for alternative/augmentative communication systems. Presents various technological devices and systems. Addresses system selection, programming, development and integration of use in environmental contexts.
**Requisites:** Restricted to Speech, Language and Hearing Sciences (SLHS) or Audiology (AUDD) graduate students only.
**Additional Information:** Departmental Category: Didactic: Speech-Language Pathology
SLHS 5282 (3) Acquired Cognitive Disorders
Explores the theoretical and clinical management of acquired cognitive disorders that impact communication. Includes basic functional neuroanatomy.
**Requisites:** Restricted to Speech, Language and Hearing Sciences (SLHS) or Audiology (AUDD) graduate students only.
**Additional Information:** Departmental Category: Didactic: Speech-Language Pathology

SLHS 5292 (3) Neurogenic Speech Disorders in Adults
Examines the anatomical and physiological bases for normal and disordered laryngeal function. Explores structural, neuropathologic, and/or rare diagnoses, medical complications, socioeconomic factors and/or cross-cultural and cross-linguistic issues in selection and implementation of assessment and intervention procedures. Discuss various intervention strategies for working with bilinguals and their families.
**Requisites:** Restricted to Speech, Language and Hearing Sciences (SLHS) or Audiology (AUDD) graduate students only.
**Additional Information:** Departmental Category: Didactic: Speech-Language Pathology

SLHS 5302 (3) Articulation and Phonological Disorders
Provides overview of phonological development, perception, and production. Presents factors related to articulation and focuses on critical evaluation of traditional and phonological based assessment and intervention procedures. Includes coverage of phonological awareness, metaphonological skills as related to literacy, as well as treatments and principles specific to children with motor speech disorders.
**Requisites:** Restricted to Speech, Language and Hearing Sciences (SLHS) or Audiology (AUDD) graduate students only.
**Additional Information:** Departmental Category: Didactic: Speech-Language Pathology

SLHS 5312 (2) Aging and Communication
Examines normal age-related changes to communication systems. Anatomic and physiological changes to the mechanisms of speech production, audition and the brain will be included, with a focus on the functional impacts of such changes for speech production and perception, cognition, language and social communication.
**Requisites:** Restricted to Speech, Language and Hearing Sciences (SLHS) or Audiology (AUDD) graduate students only.
**Grading Basis:** Letter Grade

SLHS 5322 (2) Complex Medical Speech-Language Pathology Cases
Expands upon the basic knowledge learned in SLHS 5252 (acquired language disorders), 5332 (voice disorders), 5282 (acquired cognitive disorders), 5262 (dysphagia), 5292 (neurogenic speech disorders) and 5362 (fluency disorders). Students will explore clinical management options for complex medical cases created by factors such as multiple and/or rare diagnoses, medical complications, socioeconomic factors and/or cross-cultural and cross-linguistic issues.
**Requisites:** Requires prerequisite courses SLHS 5252 and SLHS 5332 and SLHS 5282 (all minimum grade B). Requires corequisite course SLHS 5292. Restricted to Speech, Language and Hearing Sciences (SLHS) or Audiology (AUDD) graduate students only.
**Additional Information:** Departmental Category: Didactic: Speech-Language Pathology

SLHS 5332 (2) Voice Disorders
Examines the anatomical and physiological bases for normal and disordered laryngeal function. Explores structural, neuropathologic, functional/behavior and idiopathic voice disorders. Emphasis on assessment and treatment of individuals with voice disorders, including special populations.
**Requisites:** Restricted to Speech, Language and Hearing Sciences (SLHS) or Audiology (AUDD) graduate students only.
**Additional Information:** Departmental Category: Didactic: Speech-Language Pathology

SLHS 5342 (2) Counseling in Speech-Language Pathology
Designed to demonstrate the principles of counseling for individuals with communication disorders and their families throughout the client's lifespan. Counseling systems and techniques for specific communication disorders will be included. The course will focus on the basic theory of counseling and how counseling skills can be used in the treatment of various communication disorders. Provides an introduction to the basic counseling skills necessary to help speech-language pathologists achieve the greatest success possible when working with individuals exhibiting communication disorders.
**Additional Information:** Departmental Category: Didactic: Speech-Language Pathology

SLHS 5352 (3) Bilinguals with Communication Disorders
Covers current empirical research regarding the linguistic and cognitive system of bilinguals with and without communication disorders. Address cross-cultural and cross-linguistic issues in selection and implementation of assessment and intervention procedures. Discuss various intervention strategies for working with bilinguals and their families.
**Requisites:** Restricted to Speech, Language and Hearing Sciences (SLHS) or Audiology (AUDD) graduate students only.
**Grading Basis:** Letter Grade

SLHS 5362 (3) Fluency Disorders
Exploration of the nature, differential diagnosis and treatment of fluency disorders across the life-span. Students will develop the requisite skills and knowledge base to provide prevention, consultation, assessment and intervention for fluency disorders. Research bearing on affective, behavioral and cognitive components of stuttering will be reviewed, along with recent data on the neural bases of the disorder. A broad range of treatment approaches will be discussed and demonstrated.
**Requisites:** Restricted to Speech, Language and Hearing Sciences (SLHS) or Audiology (AUDD) graduate students only.

SLHS 5372 (1) Cleft and Resonance: Fundamentals for Evaluation and Treatment
Provides an overview of fundamental awareness and knowledge of the etiology, development and treatment of children with cleft lip and palate and other disorders of resonance. It covers general parameters of care for speech language pathologists across various age groups (birth, toddler, preschool, and school age) with this population. Students will learn the methods for identifying and treating compensatory misarticulation patterns and abnormal resonance patterns and the aspects of multidisciplinary team care for families and individuals with cleft lip and palate.
**Additional Information:** Departmental Category: Didactic: Speech-Language Pathology

SLHS 5555 (3) Advanced Topics in Social Communication: Autism Spectrum Disorders
Students will acquire knowledge and skills in the appropriate selection, application and evaluation of interventions for children, adolescents and adults with autism spectrum disorders (ASD) and their families. Evaluation and diagnosis, including development of the IFSP and IEP, will be addressed.
**Grading Basis:** Letter Grade

SLHS 5555 (3) Advanced Topics in Social Communication: Autism Spectrum Disorders
Students will acquire knowledge and skills in the appropriate selection, application and evaluation of interventions for children, adolescents and adults with autism spectrum disorders (ASD) and their families. Evaluation and diagnosis, including development of the IFSP and IEP, will be addressed.
**Grading Basis:** Letter Grade

SLHS 5555 (3) Advanced Topics in Social Communication: Autism Spectrum Disorders
Students will acquire knowledge and skills in the appropriate selection, application and evaluation of interventions for children, adolescents and adults with autism spectrum disorders (ASD) and their families. Evaluation and diagnosis, including development of the IFSP and IEP, will be addressed.
**Grading Basis:** Letter Grade
SLHS 5576 (3) Neuroanatomy and Neurophysiology of Communication
Provides an introduction to the neuroanatomy and neurophysiology that collectively give rise to human communication including speech perception and production. We will consider how speech, language and hearing are represented in and controlled by the central nervous system and how neuropathologies affect processes of communication.
Requisites: Restricted to Speech, Language and Hearing Sciences (SLHS) or Audiology (AUDD) graduate students only.
Additional Information: Departmental Category: Didactic: All-Department

SLHS 5602 (3) Communication Challenges in Children: Birth to Six
Emphasizes nature and profile of language and communication disorders affecting infants and young children. Facilitates integration of clinical and theoretical perspectives with specific approaches for family-centered assessment and intervention principles, models and techniques.
Requisites: Restricted to Speech, Language and Hearing Sciences (SLHS) or Audiology (AUDD) graduate students only.
Grading Basis: Letter Grade
Additional Information: Departmental Category: Didactic: Speech-Language Pathology

SLHS 5612 (3) Language Learning Disabilities
Expands upon the nature of Language Disorders in SLHS 5242 (School Age Language Disorders) including language-based difficulties in reading, written language and mathematical achievement, as well as deficits in executive functioning. Students will explore clinical management options through studies of intervention methods as well as through clinical case examples. Specifically, we will examine adaptive instruction and evidence-based intervention.
Requisites: Requires a prerequisite course of SLHS 5242 (minimum grade B).
Additional Information: Departmental Category: Didactic: Speech-Language Pathology

SLHS 5622 (2) Advanced Topics in Learning Disabilities
Expands upon the nature of Language Learning Disabilities learned in SLHS 5612 (Language Learning Disabilities) and SLHS 5242 (School Age Language Disorders) including language-based difficulties in reading, written language and mathematical achievement, as well as deficits in executive functioning. Students will explore clinical management options through studies of intervention methods as well as through clinical case examples. Specifically, we will examine adaptive instruction and evidence-based intervention.
Requisites: Requires prerequisite courses of SLHS 5242 and SLHS 5612 (all minimum grade B).
Additional Information: Departmental Category: Didactic: Speech-Language Pathology

SLHS 5632 (1-3) Special Clinical Focus in Speech-Language Pathology
Provides opportunity for students to develop clinical area(s) of deeper knowledge and skill, via courses approved for professional-level continuing education units (CEU) by the American Speech Language Hearing Association (ASHA), in areas that may not be available through the SLHS curriculum. Courses may be taken via ASHA approved Online resources or through courses offered at professional scholarly meetings.
Repeatable: Repeatable for up to 3.00 total credit hours. Allows multiple enrollment in term.
Grading Basis: Pass/Fail

SLHS 5674 (3) Signals and Systems in Audiology
Provides in-depth study of instrumentation used by audiologists for hearing aid evaluation and fitting, signal generation and modification, and signal measurement and calibration.
Requisites: Restricted to Speech, Language and Hearing Sciences (SLHS) or Audiology (AUDD) graduate students only.
Additional Information: Departmental Category: Didactic: Audiology

SLHS 5848 (1-4) Independent Study
Repeatable: Repeatable for up to 7.00 total credit hours. Allows multiple enrollment in term.
Additional Information: Departmental Category: Practica

SLHS 5849 (1-4) Independent Study 1, M.A.
Repeatable: Repeatable for up to 7.00 total credit hours. Allows multiple enrollment in term.
Requisites: Restricted to Speech, Language and Hearing Sciences (SLHS) or Audiology (AUDD) graduate students only.
Additional Information: Departmental Category: Independent Study

SLHS 5859 (1-4) Independent Study 2, M.A.
Repeatable: Repeatable for up to 7.00 total credit hours. Allows multiple enrollment in term.
Requisites: Restricted to Speech, Language and Hearing Sciences (SLHS) or Audiology (AUDD) graduate students only.
Additional Information: Departmental Category: Independent Study

SLHS 5918 (1-3) Audiology Clinical Practicum: Lab
Provides clinical training in the on site Speech, Language and Hearing Center in skills including audiology identification, evaluation and management for adults and children with hearing loss.
Repeatable: Repeatable for up to 16.00 total credit hours.
Requisites: Requires prerequisite course of SLHS 6544 (minimum grade B). Restricted to Speech, Language, and Hearing Sciences (SLHS) OR Audiology (AUDD) graduate students only.
Grading Basis: Letter Grade

SLHS 5928 (1-4) Audiology Clinical Practicum: Level 1
Provides clinical training in an off-campus educational audiology facility in identification, evaluation and management for adults and children with hearing loss. Schedule is variable with a minimum requirement of 16 hours on rotation per week.
Repeatable: Repeatable for up to 15.00 total credit hours.
Requisites: Requires a prerequisite course of SLHS 5918 (minimum grade B). Restricted to Speech, Language and Hearing Sciences (SLHS) or Audiology (AUDD) graduate students only.
SLHS 5930 (4) Speech Language Pathology Assistant Internship
Placement for a minimum of 12 hours per week for a total of 180 hours including 100 direct student contact hours under the supervision of a fully credentialed SLP to fully develop requisite skills as an SLPA and become employed in a public school setting. Must be accepted into the SLPA certificate program.

Requisites: Requires a prerequisite course of SLHS 4918 (minimum grade D).

Additional Information: Departmental Category: Didactic: Speech-Language Pathology

SLHS 5938 (1-4) Audiology Clinic Practicum: Level 2 Educational
Provides advanced study in hearing science, including physical, physiological, and psychological acoustics of both normal and impaired hearing loss. Schedule is variable with a minimum requirement of 16 hours on rotation per week.

Repeatable: Repeatable for up to 15.00 total credit hours.

Requisites: Requires prerequisite courses of SLHS 5918 and SLHS 6544 and SLHS 6614 (all minimum grade B). Restricted to Speech, Language and Hearing Sciences (SLHS) or Audiology (AUDD) graduate students only.

Grading Basis: Letter Grade

Additional Information: Departmental Category: Practica

SLHS 5948 (1-4) Audiology Clinic Practicum: Level 2 Medical
Provides advanced study in the neural bases of hearing. Includes identification, evaluation and management for adults and children with hearing loss. Schedule is variable with a minimum requirement of 16 hours on rotation per week.

Repeatable: Repeatable for up to 15.00 total credit hours. Allows multiple enrollment in term.

Requisites: Requires prerequisite courses of SLHS 5918 and SLHS 6544 and SLHS 6614 (all minimum grade B). Restricted to Speech, Language and Hearing Sciences (SLHS) or Audiology (AUDD) graduate students only.

Grading Basis: Letter Grade

Additional Information: Departmental Category: Practica

SLHS 6000 (1-4) Problems in Speech, Language and Hearing Sciences
Studies selected topics related to the theory and management of communication disorders, and theoretical/scientific information related to speech, language, and hearing.

Repeatable: Repeatable for up to 7.00 total credit hours. Allows multiple enrollment in term.

Requisites: Restricted to Speech, Language and Hearing Sciences (SLHS) or Audiology (AUDD) graduate students only.

Additional Information: Departmental Category: Didactic: All-Department

SLHS 6006 (3) Advanced Hearing Science
Provides advanced study in hearing science, including physical, physiological, and psychological acoustics of both normal and impaired auditory systems. Department enforced prerequisite: graduate standing in SLHS; undergraduate course work in biology or anatomy.

Additional Information: Departmental Category: Didactic: Speech-Hearing Science

SLHS 6402 (3) Issues and Methods in Cognitive Science
Interdisciplinary introduction to cognitive science, examining ideas from cognitive psychology, philosophy, education, and linguistics via computational modeling and psychological experimentation. Includes philosophy of mind; learning; categorization; vision and mental imagery; consciousness; problem solving; decision making, and game-theory; language processing; connectionism. No background in Computer Science will be presumed.

Equivalent - Duplicate Degree Credit Not Granted: CSCI 6402 and EDUC 6504 and LING 6200 and PHIL 6310 and PSYC 6200

Requisites: Restricted to graduate students only.

SLHS 6504 (1) Professional Ethics in Audiology
Overview of ethics and ethical issues in the profession of audiology. Topics to be discussed include code of ethics by professions, approaches to analyzing ethical dilemmas, ethics in relationships with manufacturers, and ethical considerations in teaching, clinical practice and research.

Recommended: Prerequisite undergraduate background in SLHS.

Additional Information: Departmental Category: Didactic: Audiology

SLHS 6514 (1) Professional Issues in Audiology
Overview of professional issues related to the profession of audiology. Topics to be discussed include certification, licensure, professional associations, infection control, practice management, federal regulations related to audiology, professional communications and professional relationships.

Recommended: Prerequisite undergraduate background in SLHS.

Grading Basis: Letter Grade

Additional Information: Departmental Category: Didactic: Audiology

SLHS 6544 (3) Auditory Processes: Adult Assessment
Advanced study on the current science surrounding hearing assessment of adults across the age span. Includes theoretical foundations and clinical applications.

Requisites: Restricted to Speech, Language and Hearing Sciences (SLHS) or Audiology (AUDD) graduate students only.

Additional Information: Departmental Category: Didactic: Audiology

SLHS 6554 (3) Auditory Processes: Child Assessment
Provides advanced study in hearing assessment and management of children across the age span. Topics include epidemiological, medical, audiological, developmental, and habilitative aspects of normal and impaired hearing in children.

Requisites: Restricted to Speech, Language and Hearing Sciences (SLHS) or Audiology (AUDD) graduate students only.

Recommended: Prerequisite undergraduate background in SLHS.

Additional Information: Departmental Category: Didactic: Audiology

SLHS 6564 (3) Auditory Processes: Neurodiagnostics
Provides advanced study in the neural bases of hearing. Includes theoretical foundations and clinical assessment of neurological functioning in auditory systems with both normal and impaired function.

Requisites: Restricted to Speech, Language and Hearing Sciences (SLHS) or Audiology (AUDD) graduate students only.

Additional Information: Departmental Category: Didactic: Audiology
### SLHS 6614 (3) Fundamentals of Amplification
Discusses theoretical and clinical issues regarding the design, fitting, and evaluation of amplification technology for individuals with hearing loss. Includes the use of behavioral, psychological, electroacoustic, and physiological (real ear) measures in the selection and evaluation of digital and analog hearing aid technology.

**Requisites:** Restricted to Speech, Language and Hearing Sciences (SLHS) or Audiology (AUDD) graduate students only.

**Additional Information:** Departmental Category: Didactic: Audiology

### SLHS 6642 (3) Development and Intervention in Childhood Hearing Loss
Reviews development and intervention with children who are deaf and hard-of-hearing, birth through school age. Focuses on speech, auditory training, language, literacy and cognitive development. Formerly SLHS 6640.

**Requisites:** Restricted to graduate students only.

**Additional Information:** Departmental Category: Didactic: Speech-Language Pathology

### SLHS 6650 (2) Counseling and Professional Ethics
Explores counseling theories and techniques following the diagnosis of a disability across the life span. Considers issues related to grieving and mourning, parenting, disability, cultural customs, attachment, and relationships. Covers professional ethics and ethical responsibilities.

**Requisites:** Restricted to Speech, Language and Hearing Sciences (SLHS) or Audiology (AUDD) graduate students only.

**Additional Information:** Departmental Category: Didactic: Speech-Language Pathology

### SLHS 6660 (1) Multicultural Issues in SLHS and Communication Theory
Provides an in-depth understanding and first-hand knowledge of different racial, ethnic and religious communities, which is necessary to develop and refine multicultural clinical competence. Incorporates scholarly readings and experiential learning in multicultural settings and fosters participants’ qualitative research skills.

**Requisites:** Restricted to Speech, Language and Hearing Sciences (SLHS) or Audiology (AUDD) graduate students only.

**Additional Information:** Departmental Category: Didactic: All-Department

### SLHS 6660 (3) Adult Aural Rehabilitation
Provides an investigation of the impact of hearing loss on adults. Psychosocial aspects, communication challenges, assessment and intervention for adult hearing disorders including presbycusis, tinnitus, vestibular disorders, auditory central processing disorders and sudden hearing loss.

**Requisites:** Requires a prerequisite course of SLHS 6544 (minimum grade B-). Restricted to graduate students only.

**Recommended:** Prerequisites SLHS 7418 and SLHS 7540.

**Additional Information:** Departmental Category: Didactic: All-Department

### SLHS 6670 (3) Adult Aural Rehabilitation
Provides an off-campus supervised experience providing extended and in-depth practice involving school-age children in a school classroom.

**Repeatable:** Repeatable for up to 14.00 total credit hours. Allows multiple enrollment in term.

**Requisites:** Restricted to Speech, Language and Hearing Sciences (SLHS) or Audiology (AUDD) graduate students only.

**Additional Information:** Departmental Category: Practica

### SLHS 68918 (7) Practicum 2: Speech-Language-Learning Internship
Gives an off-campus experience in a clinical or hospital setting that provides in-depth practice in management of communication disorders of children and adults.

**Repeatable:** Repeatable for up to 14.00 total credit hours. Allows multiple enrollment in term.

**Requisites:** Restricted to Speech, Language and Hearing Sciences (SLHS) or Audiology (AUDD) graduate students only.

**Additional Information:** Departmental Category: Practica

### SLHS 6928 (7) Practicum 2: Public School Internship
Provides an off-campus supervised experience providing extended and in-depth practice involving school-age children in a school classroom.

**Repeatable:** Repeatable for up to 14.00 total credit hours. Allows multiple enrollment in term.

**Requisites:** Restricted to Speech, Language and Hearing Sciences (SLHS) or Audiology (AUDD) graduate students only.

**Additional Information:** Departmental Category: Practica

### SLHS 6938 (1-10) Audiology Clinic Externship Educational
Provides students with full time off campus experience in an educational audiology facility offering in-depth and advanced procedures for identification, evaluation and management of hearing loss in adults and children.

**Repeatable:** Repeatable for up to 21.00 total credit hours.

**Requisites:** Restricted to Speech, Language and Hearing Sciences (SLHS) or Audiology (AUDD) graduate students only.

**Additional Information:** Departmental Category: Practica

### SLHS 6948 (1-10) Audiology Clinic Externship: Medical
Provides students with full time off campus experience in a medical audiology facility offering in-depth and advanced procedures for identification, evaluation and management of hearing loss in adults and children.

**Repeatable:** Repeatable for up to 21.00 total credit hours. Allows multiple enrollment in term.

**Requisites:** Restricted to Speech, Language and Hearing Sciences (SLHS) or Audiology (AUDD) graduate students only.

**Grading Basis:** Letter Grade

**Additional Information:** Departmental Category: Didactic: Audiology

### SLHS 6950 (1-7) Master’s Thesis

**Requisites:** Restricted to Speech, Language and Hearing Sciences (SLHS) or Audiology (AUDD) graduate students only.

**Additional Information:** Departmental Category: Didactic: All-Department

### SLHS 7000 (3) Research Designs in Human Communication Sciences and Disorders
Offers an advanced seminar in research designs for human behavior: efficacy, ethnographic, single-subject, quasi-experimental, and experimental designs. Designed to familiarize students with terminologies and research designs frequently used in speech-language-hearing areas.

**Recommended:** Prerequisite basic statistics.

**Additional Information:** Departmental Category: Didactic: All-Department

### SLHS 7200 (3) Business, Management and Ethics in Audiology
Focuses on the business aspects of managing an audiology practice. Addresses developing a business plan, contracting for services, legal issues, financial reporting, budgeting, pricing, billing and reimbursement, regulatory issues, marketing, personnel management, risk abatement, and business ethics.

**Requisites:** Restricted to Speech, Language and Hearing Sciences (SLHS) or Audiology (AUDD) graduate students only.

**Recommended:** Prerequisite good standing in the SLHS graduate program or instructor consent will be required.

**Additional Information:** Departmental Category: Didactic: All-Department
SLHS 7418 (2) Cognitive Science Research Practicum
Independent, interdisciplinary research project in cognitive science for advanced graduate students pursuing a joint PhD in an approved core discipline and cognitive science. Research projects integrate at least two areas within the cognitive sciences: psychology, computer science, linguistics, education, philosophy. Students need commitments from two mentors for their project.
Equivalent - Duplicate Degree Credit Not Granted: CSCI 7412 and EDUC 6506 and LING 7415 and PHIL 7415
Requisites: Restricted to graduate students only.
Recommended: Prerequisite EDUC 6505.

SLHS 7428 (2) Cognitive Science Research Practicum 2
Independent, interdisciplinary research project in cognitive science for advanced graduate students pursuing a joint Ph.D in an approved core discipline and cognitive science. Research projects integrate at least two areas within the cognitive sciences: psychology, computer science, linguistics, education, philosophy. Students need commitments from two mentors for their project.
Equivalent - Duplicate Degree Credit Not Granted: CSCI 7422 and EDUC 6516 and LING 7425 and PHIL 7425 and PSYC 7425
Requisites: Restricted to graduate students only.

SLHS 7450 (3) Audiology Capstone Project
Provides an individualized project for AUD, completed prior to initiation of final clinical year. May be in the form of research-based investigation, an evidence-based position paper, a clinical protocol based on peer-reviewed literature, a grant proposal, or another format approved by AUD committee. Project requires approved proposal by AUD committee and focused study supervised by capstone advisor.
Requisites: Restricted to Audiology (AUD) graduate students only.
Additional Information: Departmental Category: Didactic: All-Department

SLHS 7520 (3) Auditory Processes: Medical and Genetic Bases
Requisites: Restricted to Speech, Language and Hearing Sciences (SLHS) or Audiology (AUD) graduate students only.
Additional Information: Departmental Category: Didactic: Audiology

SLHS 7530 (3) Auditory Processes: Theory and Application in the School Environment
Focuses on application of routine audiological practices such as screening, assessment, rehabilitation, and instrumentation to children in educational settings. Emphasizes federal education regulations and pertinent case law.
Requisites: Restricted to Speech, Language and Hearing Sciences (SLHS) or Audiology (AUD) graduate students only.
Additional Information: Departmental Category: Didactic: Audiology

SLHS 7540 (3) Auditory Processes: Physiology, Assessment, and Management of the Vestibular System
Emphasizes current research on physiology of the vestibular system, including both structure and function. Considers the etiology of both peripheral and central pathologies of the vestibular system. Discusses ways to assess function of the vestibular system as well as theoretical and practical considerations of vestibular rehabilitation.
Requisites: Restricted to Speech, Language and Hearing Sciences (SLHS) or Audiology (AUD) graduate students only.
Additional Information: Departmental Category: Didactic: Audiology

SLHS 7550 (2) Mgmt and Prev of Noise and Noise Induced Hearing Loss
Discusses effects of noise and other damaging agents on the physiology of the auditory system. Highlights principles of hearing conservation programs. Focuses on prevention, identification, and management of occupational hearing loss and current legislation as it pertains to occupational safety and hazards.
Requisites: Restricted to Speech, Language and Hearing Sciences (SLHS) or Audiology (AUD) graduate students only.
Additional Information: Departmental Category: Didactic: Audiology

SLHS 7554 (1) Audiometric Instrumentation and Calibration
Introduces students to the basic concepts of electroacoustic transduction, and demonstrates the application of these concepts to the measurement and calibration of audiometric instrumentation. Students will become familiar with standard measurement equipment including multimeters, oscilloscopes, and sound level meters; and will become familiar with calibration standards for instruments including the audiometer, tympanometer, and electrophysiologic amplifiers.
Requisites: Restricted to graduate students only.
Additional Information: Departmental Category: Didactic: Audiology

SLHS 7614 (3) Implantable Devices: Technology and Clinical Application
Examines technological aspects and clinical applications of implantable prostheses such as cochlear implants, brainstem implants, hybrid cochlear implants, Baha devices and middle ear implants. Topics will include: history of implantable devices, anatomy and histopathology of the inner ear, speech processing in implants, mapping devices, candidacy criteria, behavioral and electrophysiologic techniques for assessment and outcomes in implanted children and adults.
Requisites: Restricted to Speech, Language and Hearing Sciences (SLHS) or Audiology (AUD) graduate students only.
Recommended: Prerequisite good standing in the SLHS graduate program or instructor consent will be required.
Additional Information: Departmental Category: Didactic: Audiology

SLHS 7640 (3) Communication Processes and Hearing Loss: Birth through Six
Provides in-depth study of current research literature and its implications for clinical practice regarding development of communication processes in the first six years of life and impact of hearing loss. Investigates development of language, auditory perception, speech production, social-emotional abilities, and cognition.
Requisites: Restricted to Speech, Language and Hearing Sciences (SLHS) or Audiology (AUD) graduate students only.
Additional Information: Departmental Category: Didactic: Audiology

SLHS 7714 (3) Advanced Topics in Amplification
Discusses advanced issues in the design and fitting of hearing aid technology, including advanced signal processing, outcomes assessment, evidence-based practice and specialized fitting protocols for pediatric and geriatric populations. Current research is integrated with clinical cases to guide the development of evidence-based practice in hearing aid fittings.
Requisites: Restricted to graduate students only.
Additional Information: Departmental Category: Didactic: Audiology
SLHS 7775 (1) Topics in Cognitive Science
Reading of interdisciplinary innovative theories and methodologies of
cognitive science. Students participate in the ICS Distinguished Speakers
series that hosts internationally recognized cognitive scientists who
share and discuss their current research. Session discussions include
analysis of leading edge and controversial new approaches in cognitive
science.
Equivalent - Duplicate Degree Credit Not Granted: CSCI 7772 and
EDUC 7775 and LING 7775 and PHIL 7810 and PSYC 7775
Repeatable: Repeatable for up to 4.00 total credit hours.
Requisites: Restricted to graduate students only.
Additional Information: Departmental Category: Didactic: All-Department

SLHS 7849 (1-4) Independent Study 1, PhD
Repeatable: Repeatable for up to 7.00 total credit hours. Allows multiple
enrollment in term.
Requisites: Restricted to Speech, Language and Hearing Sciences (SLHS)
or Audiology (AUDD) graduate students only.
Additional Information: Departmental Category: Independent Study

SLHS 7859 (1-4) Independent Study 2, PhD
Repeatable: Repeatable for up to 7.00 total credit hours. Allows multiple
enrollment in term.
Requisites: Restricted to Speech, Language and Hearing Sciences (SLHS)
or Audiology (AUDD) graduate students only.
Additional Information: Departmental Category: Independent Study

SLHS 7918 (3) Practicum 3: Clinical Supervision
Requisites: Restricted to Speech, Language and Hearing Sciences (SLHS)
or Audiology (AUDD) graduate students only.
Additional Information: Departmental Category: Practica

SLHS 8918 (3) Practicum 3: Classroom Instruction
Requisites: Restricted to Speech, Language and Hearing Sciences (SLHS)
or Audiology (AUDD) graduate students only.
Additional Information: Departmental Category: Practica

SLHS 8928 (3) Practicum 3: Research Coordination
Requisites: Restricted to Speech, Language and Hearing Sciences (SLHS)
or Audiology (AUDD) graduate students only.
Additional Information: Departmental Category: Practica

SLHS 8990 (1-10) Doctoral Dissertation
All doctoral students must register for not fewer than 30 hours of
dissertation credit as part of the requirements for the degree. For a
detailed discussion of doctoral dissertation credit, refer to the Graduate
School section.
Repeatable: Repeatable for up to 30.00 total credit hours.
Requisites: Restricted to Speech, Language and Hearing Sciences (SLHS)
or Audiology (AUDD) graduate students only.
Additional Information: Departmental Category: Didactic: All-Department