**SPEECH-LANGUAGE PATHOLOGY AND AUDIOLOGY (SLPA)**

SLPA 850 Audiology for Educators of the Deaf or Hard of Hearing
Crosslisted with: SLPA 450
Description: Anatomy and physiology of hearing; components of adequate evaluation for placement and educational planning; diagnosis using audiogram, functional and communication assessment; stimulation and utilization of residual hearing; and management of assistive and/or augmentative devices.
Credit Hours: 3
Max credits per semester: 3
Max credits per degree: 3
Format: LEC

SLPA 851 Clinical Phonology: Assessment and Management
Prerequisites: SLPA 250 and 464
Description: Theoretical foundations; applied clinical phonology.
Credit Hours: 2
Max credits per semester: 2
Max credits per degree: 2
Format: LEC
Prerequisite for: SLPA 981

SLPA 852 Normal Language Development During School Years
Crosslisted with: SLPA 452
Description: Normal syntactic, semantic, and pragmatic language development in school-age children and youth. Complex syntax, semantic development, pragmatic development, using language to learn, language-literacy relations, and abstract language development.
Credit Hours: 3
Max credits per semester: 3
Max credits per degree: 3
Format: LEC

SLPA 854 Research Methodology in Speech-Language Pathology and Audiology
Crosslisted with: SLPA 454
Prerequisites: Speech-language pathology and audiology major.
Description: Introduction to research principles, methods, and design. Survey and critique of research in special education and communication disorders.
Credit Hours: 3
Max credits per semester: 3
Max credits per degree: 3
Format: LEC
Prerequisite for: SLPA 487

SLPA 861 Language Disorders: Preschool Level
Crosslisted with: SLPA 461
Prerequisites: Parallel SLPA 461L/861L.
Description: Characteristics of language impaired preschool children and the nature of their disorders. Introduction to principles of assessment and treatment.
Credit Hours: 3
Max credits per semester: 3
Max credits per degree: 3
Format: LEC
Prerequisite for: SLPA 981

SLPA 861L Language Disorders: Preschool Level Lab
Crosslisted with: SLPA 461L
Prerequisites: Parallel with SLPA 461/861.
Description: Practical application of language assessment and intervention in preschool children with language disorders.
Credit Hours: 1
Max credits per semester: 1
Max credits per degree: 1
Format: LAB

SLPA 862A Language Disorders in Special Populations - Birth to Three: Communication Assessment & Intervention
Credit Hours: 2
Max credits per semester: 2
Max credits per degree: 2
Format: LEC

SLPA 862E Language Disorders in Special Populations - Preadolescents and Adolescents
Credit Hours: 2
Max credits per semester: 2
Max credits per degree: 2
Format: LEC

SLPA 862J Severe Disabilities and Autism: Communication Assessment and Intervention
Credit Hours: 2
Max credits per semester: 2
Max credits per degree: 2
Format: LEC

SLPA 863 Language Disorders in Elementary School-aged Populations
Description: Advanced information about language disorders, assessment, and intervention in elementary school-aged children.
Credit Hours: 3
Max credits per semester: 3
Max credits per degree: 3
Format: LEC

SLPA 863L Language Disorders in Elementary School-aged Population Lab
Prerequisites: Parallel enrollment in SLPA 863 required
Description: Practical application of language assessment and intervention in elementary school-aged children with language disorders.
Credit Hours: 1
Max credits per semester: 1
Max credits per degree: 1
Format: LAB

SLPA 865 Voice Disorders
Prerequisites: SLPA 455
Description: Etiology and symptoms of voice disorders, procedures used in clinical evaluation, and methods and procedures used in therapy.
Credit Hours: 2
Max credits per semester: 2
Max credits per degree: 2
Format: LEC
Prerequisite for: SLPA 981
SLPA 870 Evidence-based Practice
Description: Identification and weighing of levels of evidence relating to clinical and research activities. Develop an understanding of evidence-based medicine and outcomes-based education.
Credit Hours: 2
Max credits per semester: 2
Max credits per degree: 2
Format: LEC

SLPA 884 Speech and Language Development of the Hearing Impaired
Crosslisted with: SPED 884
Description: Theories of speech and language development as they apply to hearing impaired children. Evaluation and intervention of speech and language with emphasis on maintenance of communicative skills.
Credit Hours: 3
Max credits per semester: 3
Max credits per degree: 3
Format: LEC

SLPA 885 Fluency Disorders
Description: Research related to the nature, diagnosis and clinical management of stuttering is considered. Therapy models are presented along with data bearing on the efficacy of particular approaches. Specific rehabilitation procedures.
Credit Hours: 2
Max credits per semester: 2
Max credits per degree: 2
Format: LEC

SLPA 886 Augmentative Communication
Crosslisted with: SLPA 486
Description: Introduction to the augmentative communication options for persons unable to speak or write because of physical, language, or cognitive disability.
Credit Hours: 3
Max credits per semester: 3
Max credits per degree: 3
Format: LEC
Prerequisite for: SLPA 984

SLPA 887 Language and Learning Disorders
Prerequisites: For non-SLPA majors only
Description: Review of prominent theories relating language to cognitive development and learning; student interaction on how varying styles and abnormal skills influence normal learning; how modifications can be made in materials content and classrooms to accommodate a child that has a language and learning disorder.
Credit Hours: 3
Max credits per semester: 3
Max credits per degree: 3
Format: LEC

SLPA 888 Linguistic Needs of Bilingual and Culturally Different Students
Crosslisted with: SLPA 488
Prerequisites: SLPA 250 and 251.
Description: Theoretical and applied information about situational factors which have an impact on spoken and written language; addresses how individual differences due to gender, handicapping conditions, socioeconomic status, and cultural-ethnic background contribute to diversity in communication patterns and often act as a barrier to successful interactions in learning and social settings.
Credit Hours: 3
Max credits per semester: 3
Max credits per degree: 3
Format: LEC

SLPA 891 Special Topics in Human Sciences
Crosslisted with: HUMS 891, NUTR 891, TEAC 891, TMFD 891, CYAF 891
Description: Aspects of human sciences not covered elsewhere in the curriculum.
Credit Hours: 1-3
Min credits per semester: 1
Max credits per semester: 3
Max credits per degree: 3
Format: LEC

SLPA 892 Counseling and Behavior Issues in Communication Disorders
Description: Basic skills in counseling and behavior management as applied to the field of communication disorders. Practical, direct application to students' clinical work with individuals with a variety of communication disorders.
Credit Hours: 1-2
Min credits per semester: 1
Max credits per semester: 2
Max credits per degree: 3
Format: LEC

SLPA 893 Clinical Decision Making
Description: Critical thinking skills necessary for decision-making during the assessment and treatment of individuals with communication disorders. Understanding and applying clinical processes related to the practice of speech-language pathology.
Credit Hours: 1
Max credits per semester: 1
Max credits per degree: 1
Format: FLD

SLPA 896 Readings and Research in Speech-Language Pathology and Audiology
Crosslisted with: SLPA 496
Prerequisites: Permission.
Credit Hours: 1-3
Min credits per semester: 1
Max credits per semester: 3
Max credits per degree: 3
Format: IND

SLPA 897A Advanced Practicum: Audiology
Crosslisted with: SLPA 987
Description: Supervised practicum experiences provided with difficult speech, language and/or hearing problems in a variety of clinical, medical, geriatric, rehabilitational and public school settings.
Credit Hours: 1-3
Min credits per semester: 1
Max credits per semester: 3
Max credits per degree: 20
Format: FLD

SLPA 897B Advanced Practicum: Speech Language Pathology
Description: Supervised practicum experiences provided with difficult speech, language and/or hearing problems in a variety of clinical, medical, geriatric, rehabilitational and public school settings.
Credit Hours: 1-3
Min credits per semester: 1
Max credits per semester: 3
Max credits per degree: 3
Format: FLD
SLPA 897C Advanced Practicum: Speech-Language Pathology Year 2
Description: Supervised practicum experiences provided with difficult speech, language and/or hearing problems in a variety of clinical, medical, geriatric, rehabilitational and public school settings.
Credit Hours: 1-3
Min credits per semester: 1
Max credits per semester: 2
Max credits per degree: 6
Format: FLD

SLPA 897E Advanced Practicum: Externship
Description: Supervised practicum experiences provided with difficult speech, language and/or hearing problems in a variety of clinical, medical, geriatric, rehabilitational and public school settings.
Credit Hours: 1-3
Min credits per semester: 1
Max credits per semester: 3
Max credits per degree: 3
Format: FLD

SLPA 897G Advanced Practicum: Public Schools
Description: Supervised practicum experiences provided with difficult speech, language and/or hearing problems in a variety of clinical, medical, geriatric, rehabilitational and public school settings.
Credit Hours: 1-3
Min credits per semester: 1
Max credits per semester: 3
Max credits per degree: 3
Format: FLD

SLPA 897T Advanced Practicum: Externship in Audiology
Description: Supervised practicum experiences provided with difficult speech, language and/or hearing problems in a variety of clinical, medical, geriatric, rehabilitational and public school settings.
Credit Hours: 1-6
Min credits per semester: 1
Max credits per semester: 6
Max credits per degree: 12
Format: FLD

SLPA 898 Special Topics in Speech Pathology and Audiology
Prerequisites: Permission
Description: Special topics in speech pathology and audiology.
Credit Hours: 1-24
Min credits per semester: 1
Max credits per semester: 24
Max credits per degree: 24
Format: LEC

SLPA 899 Masters Thesis
Prerequisites: Admission to masters degree program and permission of major adviser
Credit Hours: 1-10
Min credits per semester: 1
Max credits per semester: 10
Max credits per degree: 99
Format: IND

SLPA 902 Clinical Assessment
Description: Introduction to the basic psychological and physiological clinical measures for assessment of hearing in adults. The course includes instruction and practice in understanding, presentations and laboratory practice are used to facilitate the classroom to clinic transition.
Credit Hours: 3
Max credits per semester: 3
Max credits per degree: 3
Format: LEC

SLPA 904 Basic Instrumentation
Description: An introductory course for graduate and clinical students in life and health sciences which includes lectures and exercises in electronics, elecrophysiology, instrumentation, and signal processing. The focus is on the theory and practice of using laboratory and clinical instrumentation in the collection and analysis of signals. Signals commonly used in speech and hearing sciences will serve to illustrate general principles. Topics include basic electronics, cabling, grounding and connecting instruments, signal generation and monitoring, sensors, amplifiers, filters, electronic computation and calibration, analog and digital signal processing.
Credit Hours: 3
Max credits per semester: 3
Max credits per degree: 3
Format: LEC

SLPA 906 Evidence-Based Practice in Audiology
Credit Hours: 3
Max credits per semester: 3
Max credits per degree: 3
Format: LEC

SLPA 908 Auditory Physiology and Pharmacology
Description: Lectures exploring the fundamental nature of the auditory system from the level of the outer ear to the cerebral cortex. Emphasis will be placed on studying the genetic, anatomical, neurochemical, pharmacological, and physiological bases for both normal and pathological auditory function.
Credit Hours: 4
Max credits per semester: 4
Max credits per degree: 4
Format: LEC

SLPA 910 Auditory Signal Processing
Description: Principles of signal processing relevant to tests of hearing and to theories of functioning of the auditory system. Introduction of concepts in mathematics, vibration and acoustics. Time- and frequency-domain representations of signals, digital filtering, analysis of lumped-element circuits, linear and nonlinear signal analyses, modulation theory, and the effect of noise on measurements. Applications relevant to audiology including hearing aid performance and measurements, middle-ear transmission, cochlear mechanics, and auditory-nerve firing patterns. Application of these models to understanding physiological sources of conductive and sensorineural hearing loss.
Credit Hours: 3
Max credits per semester: 3
Max credits per degree: 3
Format: LEC
SLPA 912 Perception of Sound
Description: Psychoacoustic aspects of audition, including instrumentation, masking level differences, scaling, difference limen, loudness, critical bands and critical ratios, absolute threshold measurement, differential threshold measurement, temporal summation, and speech recognition.
Credit Hours: 4
Max credits per semester: 4
Max credits per degree: 4
Format: LEC
Offered: SPRING

SLPA 916 Disorders of the Auditory System
Description: An overview of disorders of the peripheral and central auditory systems along with an in-depth discussion of neurophysiological model, assessment and treatment of tinnitus. Considerations in the screening, assessment and management of Auditory Processing Disorders are included. In addition, there is a review of cranial nerves and temporal bone anatomy. Students are required to complete presentations on selected disorders of the auditory system.
Credit Hours: 3
Max credits per semester: 3
Max credits per degree: 3
Format: LEC

SLPA 918 Auditory Assessment of Infants and Children
Prerequisites: SLPA 271 or equivalent
Description: Development of the auditory system in infants and young children. Techniques used in differential diagnosis, and screening of auditory disorders in the pediatric population.
Credit Hours: 3
Max credits per semester: 3
Max credits per degree: 3
Format: LEC

SLPA 920 Auditory Electrophysiological Assessment
Description: This course focuses on current auditory electrophysiological assessment procedures, and includes theory, instrumentation, techniques and procedures. Test result interpretation is discussed in relation to underlying anatomy and physiology. Laboratory exercises are included.
Credit Hours: 3
Max credits per semester: 3
Max credits per degree: 3
Format: LEC

SLPA 924 Amplification I
Prerequisites: SLPA 271 or equivalent
Description: Design and operation of basic digital amplification systems. Discussion of advanced signal processing strategies used in current hearing aids. Instruction and laboratory practice in the electroacoustic analysis and real-ear probe microphone measurements of hearing aid systems and making earmold impressions. Introduction to earmold/plumbing acoustics.
Credit Hours: 4
Max credits per semester: 4
Max credits per degree: 4
Format: LEC

SLPA 926 Amplification II
Prerequisites: SLPA 271 or equivalent
Description: Evaluation, candidacy and selection of hearing aids for adults and children. Discussion of current and emerging prescriptive and fitting verification methods. Instruction and laboratory experience in verification of hearing aid fittings using real-ear probe microphone measurements along with administration of validation measures. The course will also address special hearing aid fittings and troubleshooting hearing aid problems.
Credit Hours: 3
Max credits per semester: 3
Max credits per degree: 3
Format: LEC

SLPA 928 Hearing Conservation and Industrial Audiology
Description: Theories and basic resources for participation in industrial, government, or community hearing conservation programs.
Credit Hours: 2
Max credits per semester: 2
Max credits per degree: 2
Format: LEC

SLPA 930 Genetic Basis of Communication and Learning
Description: Study of embryology and genetics related to communication and learning. Embryology of human development is discussed with specific emphasis on development of the brain, craniofacial, and inner ear structures. The genetic basis of normal development is examined, as well as disorders of hearing, balance, communication, and learning.
Credit Hours: 3
Max credits per semester: 3
Max credits per degree: 3
Format: LEC

SLPA 932 Vestibular Assessment I
Description: The first of a two-course series on the normal and pathophysiology of the human balance system and tools for its investigation and treatment. Normal anatomy and physiology of the balance and ocular motor systems, contrasted with a wide range of pathological conditions. Electro-nystagmography (video-nystagmography two- and three-dimensional recordings) and assessment of the otolith organs. Students will initiate and carry out directed laboratory assignments.
Credit Hours: 4
Max credits per semester: 4
Max credits per degree: 4
Format: LEC

SLPA 934 Vestibular Assessment II
Description: The second of a two-course series on the normal and pathophysiology of the human balance system and tools for its investigation and treatment. Advanced techniques for patient assessment using rotational chair and posturography protocols. Techniques for full assessment in an office situation without extensive equipment. Options for treatment and management of this group of patients. Vestibular and balance rehabilitation therapy program development.
Credit Hours: 3
Max credits per semester: 3
Max credits per degree: 3
Format: LEC
SLPA 936 Implantable Prosthetics
Description: Design, operation, candidacy, assessment, surgical procedures, fitting, verification, and rehabilitation procedures related to implantable prosthetic devices for individuals who are deaf and hard of hearing. Cochlear implants, bone anchored hearing aids, implantable middle ear devices, and auditory brainstem implants.
Credit Hours: 3
Max credits per semester: 3
Max credits per degree: 3
Format: LEC

SLPA 938 Business and Financial Management
Description: An overview of principles and procedures as they relate to an audiology practice. Topics discussed include budgeting, pricing, billing, and coding, regulatory issues, and human resource management. Students are required to design an audiology practice and develop a business plan as part of this course.
Credit Hours: 2
Max credits per semester: 2
Max credits per degree: 2
Format: LEC

SLPA 940 Aural Rehabilitation Across the Lifespan
Description: This course provides students with a survey of approaches to aural rehabilitation for adults and children with hearing loss in various rehabilitative and habilitative settings. Principles of early intervention and family-centered practices are presented for infants and toddlers with hearing loss. Information and techniques for the development of auditory perception and spoken language skills for children with hearing loss. For adults information regarding psychosocial, emotional, and vocational consequences of hearing loss is presented. Speech perception training and communication effectiveness approaches for adults with hearing loss are viewed. Principles of auditory + visual communicaion are discussed.
Credit Hours: 3
Max credits per semester: 3
Max credits per degree: 3
Format: LEC

SLPA 942 Seminar in Audiology
Description: Research and clinical procedures; findings and implications in audiology and hearing science.
Credit Hours: 2
Max credits per semester: 2
Max credits per degree: 2
Format: LEC

SLPA 956 Speech Perception and Processing
Prerequisites: SLPA 250 and 456
Description: Human and computer perception and processing of speech. The speech code and its representation in the brain, laboratory techniques for perceptual experimentation, acoustic analysis of speech, and computer synthesis of speech.
Credit Hours: 3
Max credits per semester: 3
Max credits per degree: 3
Format: LEC

SLPA 964 Speech Perception and Processing
Prerequisites: SLPA 250 and 456
Description: Human and computer perception and processing of speech. The speech code and its representation in the brain, laboratory techniques for perceptual experimentation, acoustic analysis of speech, and computer synthesis of speech.
Credit Hours: 2
Max credits per semester: 2
Max credits per degree: 2
Format: LEC

SLPA 966 Swallowing Disorders
Prerequisites: Parallel registration with SLPA 966L
Description: Swallowing disorders of children and adults. Procedures used in assessment, diagnosis, and intervention.
Credit Hours: 1
Max credits per semester: 1
Max credits per degree: 1
Format: LAB

SLPA 966L Swallowing Disorders
Prerequisites: Parallel registration with SLPA 966
Description: Practical application of assessment, diagnosis, and treatment of swallowing disorders in children and adults.
Credit Hours: 1
Max credits per semester: 1
Max credits per degree: 1
Format: LAB

SLPA 967 Cleft Palate
Prerequisites: SLPA 464 or equivalent
Description: Communication, dental, medical, and associated problems related to cleft palate.
Credit Hours: 2
Max credits per semester: 2
Max credits per degree: 2
Format: LEC
Prerequisite for: SLPA 981

SLPA 968 Motor Speech Disorders
Prerequisites: SLPA 853
Description: Motor speech disorders resulting from neuropathology of the central and peripheral nervous systems as found in cerebral palsy, Parkinsonism, and other developmental and acquired neuromotor problems of children and adults.
Credit Hours: 2
Max credits per semester: 2
Max credits per degree: 2
Format: LEC
Prerequisite for: SLPA 981

SLPA 980B Seminar in Speech Acoustics
Prerequisites: SLPA 455 and 456 or equivalent
Description: Research procedures, findings, and implications in speech and hearing science (experimental phonetics) in the areas of physiology, acoustics, and psychoacoustics.
Credit Hours: 3
Max credits per semester: 3
Max credits per degree: 3
Format: LEC
SLPA 981 Seminar in Speech Pathology
Prerequisites: SLPA 851, 865, 967, and/or 968
Description: Research procedures, findings and clinical implications.
Credit Hours: 1-3
Min credits per semester: 1
Max credits per semester: 3
Max credits per degree: 6
Format: LEC

SLPA 981D Voice Disorders
Credit Hours: 1-3
Min credits per semester: 1
Max credits per semester: 3
Max credits per degree: 3
Format: LEC

SLPA 981E Motor Speech Disorder
Credit Hours: 1-3
Min credits per semester: 1
Max credits per semester: 3
Max credits per degree: 3
Format: LEC

SLPA 983A Child Language Development and Disorders
Credit Hours: 1-3
Min credits per semester: 1
Max credits per semester: 3
Max credits per degree: 3
Format: LEC

SLPA 983B Adolescent/Adult Language Development and Disorders
Credit Hours: 1-3
Min credits per semester: 1
Max credits per semester: 3
Max credits per degree: 3
Format: LEC

SLPA 983E Augmentative/Alternative Communication
Credit Hours: 1-3
Min credits per semester: 1
Max credits per semester: 3
Max credits per degree: 3
Format: LEC

SLPA 984 Seminar in Augmentative Communication
Prerequisites: SLPA 886
Description: Advanced seminar on research literature in the augmentative communication field.
Credit Hours: 3
Min credits per semester: 1
Max credits per semester: 3
Max credits per degree: 3
Format: LEC

SLPA 985 Traumatic Brain Injury
Prerequisites: SLPA 853
Description: Assessment and treatment of child and adult cognitive and communication disorders resulting from traumatic brain injury.
Credit Hours: 2
Max credits per semester: 2
Max credits per degree: 2
Format: LEC

SLPA 986 Right Hemisphere Dysfunction
Description: Communication disorders resulting from stroke or other acquired nervous insult to the non-language dominant hemisphere of the brain. Cognitive and communication assessment, intervention issues pertaining to problems with orientation, visual perception, visual motor skills, abstract language and reasoning, and pragmatic behaviors.
Credit Hours: 2
Max credits per semester: 2
Max credits per degree: 2
Format: LEC

SLPA 987 Aphasia in Adults
Prerequisites: SLPA 853
Description: Adult language disorders resulting from stroke or other acquired central nervous system insult. Includes historical/theoretical development of understanding, cerebral dominance for language, classifications, rationale for diagnostic and therapeutic management, prognostic factors, agnosias and apraxia.
Credit Hours: 2
Max credits per semester: 2
Max credits per degree: 2
Format: LEC

SLPA 988 Dementia
Description: Etiology, characteristics, assessment, and intervention pertaining to cognitive and communication disorders associated with various types and stages of dementia.
Credit Hours: 1
Max credits per semester: 1
Max credits per degree: 1
Format: LEC

SLPA 994 Doctoral Capstone
Description: Selection of the topic for this project should take place no later than Fall of the second year by consultation with the project advisor. Enrollment in SLPA 994 is required during each semester that the project is underway. Students must receive prior permission from their advisor before registering for capstone hours. The capstone experience represents a major research project containing a significant treatment of some aspect of audiology.
Credit Hours: 1-3
Min credits per semester: 1
Max credits per semester: 3
Max credits per degree: 9
Format: IND

SLPA 995 Doctoral Seminar
Prerequisites: Permission
Description: The course is intended primarily for doctoral students, although non-doctoral graduate students may be admitted with special permission of the instructor. Students are immersed in outcome-based scholarly activities with a faculty mentor. Working on either an individualized or small group basis, students develop, execute and report one or more projects addressing the interaction between research and practice.
Credit Hours: 3
Min credits per semester: 1
Max credits per semester: 3
Max credits per degree: 18
Format: IND
SLPA 996 Research Problems Other Than Thesis
Prerequisites: Permission
Credit Hours: 1-9
Min credits per semester: 1
Max credits per semester: 9
Max credits per degree: 9
Format: IND

SLPA 999 Doctoral Dissertation
Prerequisites: Admission to doctoral degree program and permission of supervisory committee chair
Credit Hours: 1-24
Min credits per semester: 1
Max credits per semester: 24
Max credits per degree: 99
Format: IND