## SPEECH-LANGUAGE PATHOLOGY AND AUDIOLOGY (SLPA)

### SLPA 850 Audiology for Educators of the Deaf and Hard of Hearing
**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/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 or permission
**Description:** Theoretical foundations; applied clinical phonology.

**Credit Hours:** 2
**Max credits per semester:** 2
**Max credits per degree:** 2
**Format:** LEC

### SLPA 852 Normal Language Development During School Years
**Crosslisted with:** SLPA 452, SLPA 452H
**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
**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

### SLPA 861 Language Disorders: Preschool Level
**Crosslisted with:** SLPA 461
**Prerequisites:** Must enroll in both SLPA 861 (lecture) and SLPA 861L (lab)
**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

### SLPA 861L Language Disorders: Preschool Level Lab
**Crosslisted with:** SLPA 461L
**Prerequisites:** Must enroll in both SLPA 861 (lecture) and SLPA 861L (lab)
**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 862K Special Topics in Language Disorders
**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
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 891 Special Topics in Human Sciences
Crosslisted with: HUMS 891, NUTR 891, TEAC 891, TMFD 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
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
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:** 3
**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
**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
**Min credits per semester:** 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
**Min credits per semester:** 3
**Max credits per semester:** 3
**Max credits per degree:** 3
**Format:** LEC

SLPA 906 Evidence-Based Practice in Audiology
**Description:** Issues of professionalism and the development of best-practice models in Audiology. Relationship-centered patient care and the impact of multicultural issues on the practice of Audiology. Use of clinical decision analysis and evidence-based practice. Application to the common clinical assessment tools discussed in the Clinical Assessment course.
**Credit Hours:** 3
**Min credits per semester:** 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
**Min credits per semester:** 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
**Min credits per semester:** 3
**Max credits per semester:** 3
**Max credits per degree:** 3
**Format:** LEC
SLPA 912 Psychoacoustics
Description: Psychoacoustic aspects of audition, including psychoacoustic instrumentation, masking level differences, psychoacoustical scaling, difference limen for intensity and frequency, loudness, critical bands and critical ratios, absolute threshold measurement, differential threshold measurement, and temporal summation. Brief investigations of certain psychoacoustic phenomena.
Credit Hours: 3
Max credits per semester: 3
Max credits per degree: 3
Format: LEC

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
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
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 956 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 956 Language Study of Teachers of Deaf and Hard of Hearing (DHH)
Crosslisted with: SPED 956
Prerequisites: Admission to Graduate Degree or Certificate program in Special Education or Speech-Language Pathology or by permission of instructor.
Credit Hours: 2
Max credits per semester: 2
Max credits per degree: 2
Format: LEC
Offered: SUMMER
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
Description: Advanced seminar on research literature in the augmentative communication field.
Credit Hours: 3
Max credits per semester: 3
Max credits per degree: 3
Format: LEC

SLPA 985 Traumatic Brain Injury
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
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
Max credits per semester: 3
Max credits per degree: 3
Format: IND

SLPA 995 Doctoral Seminar
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
Max credits per semester: 3
Max credits per degree: 18
Format: IND

SLPA 996 Research Problems Other Than Thesis
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
Credit Hours: 1-24
Min credits per semester: 1
Max credits per semester: 24
Max credits per degree: 99
Format: IND