

Department of Speech-Language-Hearing: Sciences and Disorders

Why study speech, language, and hearing?

Because communication is central to human behavior, and the treatment of communication disorders requires specialized knowledge and skills.

Career Opportunities

An undergraduate degree in SPLH contributes to preparation for careers in a range of fields related to communication disorders including neuroscience, medicine and related health professions, education, and assistive technology. In addition, an undergraduate degree in speech-language hearing is an entry point for graduate study in speech-language pathology or audiology. Most states have laws mandating that speech-language pathologists and audiologists be licensed to practice their profession. The minimum requirement for licensure in most states is a master's degree for speech-language pathology and the Au.D. for audiology. Speech-language pathologist and audiologists are in high demand with job growth expected to continue into the future. Individuals with bachelor degrees may work as an assistant to licensed professionals in settings such as schools and clinics, or may pursue employment in related fields.

Undergraduate Programs

Basic study in speech, language, and hearing is provided through B.A. and B.G.S. programs. Undergraduates study the basic processes of human communication. Programs are designed for the student who seeks a career related to speech, language, or hearing or to communication development and communication disorders. Courses are taught using interactive and flexible formats that provide ample opportunity for hands-on experiential learning. There are numerous opportunities to engage in learning outside the classroom through faculty-mentored research projects, collaborative clinical experiences, and study abroad opportunities. Courses and experiences set the stage for a successful career in audiology, speech-language pathology, neuroscience, medicine and related health professions, education, and assistive technology.

Qualified KU undergraduates may earn both a B.A. in Speech-Language-Hearing: Sciences and Disorders and M.A. in Speech-Language Pathology in approximately 5 years through the Accelerated M.A. program (<https://catalog.ku.edu/liberal-arts-sciences/speech-language-hearing/ama/>).

Graduate Programs

There are multiple graduate programs offered through the Department of Speech-Language-Hearing: Sciences and Disorders. Our graduate programs include the doctoral program in Child Language (<https://cldp.ku.edu/>), offered through the Lawrence campus.

Graduate study for Speech-Language Pathology and Audiology at KU is also offered through the Intercampus Program in Communicative Disorders (<https://www.kumc.edu/school-of-health-professions/academics/departments/hearing-and-speech.html>), which is a partnership between the Department of Speech-Language-Hearing on the Lawrence campus

and the Department of Hearing and Speech on the medical center campus in Kansas City. Degrees offered include a clinical doctorate in audiology, a master's degree in speech-language pathology, a post-master's clinical doctorate in speech-language pathology, and Ph.D. degrees in audiology and speech-language pathology. Students engage in classes, research, and clinical work in Lawrence and at KU Medical Center in Kansas City.

Students who are interested in enrolling in graduate level coursework in the Department of Speech-Language-Hearing without formal admission to a graduate program at KU are encouraged to apply for graduate non-degree seeking student status. Admission is highly selective and non-degree seeking students must consult with an advisor on class selection prior to enrollment. See the Department's website (<http://www.kumc.edu/school-of-health-professions/hearing-and-speech.html>) for further details.

Courses

CLDP 709. First Language Acquisition I. 3 Credits.

An introductory course in the acquisition of child language. The course will examine the fundamental claims of modern first language acquisition theories and evaluate these theories by discussing core findings in domains of children's acquisition of speech sounds, words, syntax, semantics, and pragmatics. The course will also cover relevant issues including bilingual first language acquisition, cross-linguistic research, child language processing, language and cognition in child development, methods in child language research, and atypical language development. This course is offered at the 400 and 700 level with additional assignments at the 700 level. Not open to students who have taken LING 425. (Same as LING 709.) Prerequisite: Graduate standing or consent of instructor.

CLDP 782. Research Methods in Child Language. 3 Credits.

A survey of methods for studying phonological, morphological, syntactic, and semantic change during language development. Methods include: diary interpretation, language sample analysis, probe elicitation tasks, and clinical assessment. (Same as LING 782 and PSYC 782.)

CLDP 799. Proseminar in Child Language. 2 Credits.

A review and discussion of current issues in children's language acquisition. May be repeated for credit. Graded on a satisfactory/unsatisfactory basis. (Same as ABSC 797, LING 799, PSYC 799 and SPLH 799.)

CLDP 852. Concepts in Human Molecular Genetics. 3 Credits.

This is a lecture course providing concepts in human genetics, fundamentals of gene pathways, Mendelian and non-Mendelian transmission of genetic diseases, gene regulation and expression, genotype/phenotype correlation, characteristics of human genome, Microarray and DNA cloning. The major goal is to introduce a breadth of genetic concepts to students and at the same time provide recent developments in human genetic research. Students are expected to actively participate in discussion of readings from text books, review articles and research papers. There will be at least 3 lab days to demonstrate methodologies like DNA purification from saliva, polymerase chain reaction and DNA electrophoresis. Prerequisite: Consent of instructor.

CLDP 854. Principles for the Study of Genetic Disorders. 3 Credits.

This course explores the fundamentals of disease gene identification methods and tools that are effective to explore the genetic components of inherited disorders. Fundamentals of pedigree based genetic analyses will be covered, along with Mendelian and non-Mendelian inheritance patterns, gene mapping methods, population allele

frequencies, heterogeneity, microarray expression, DNA sequencing, recent development in disease gene identification, online human genomic databases, genetic variations, pathogenicity and bioinformatic tools. Recent topics like gene editing, personalized medicine, and pharmacogenetics will be discussed. There will be at least 3 lab days to demonstrate DNA quantification, polymorphism, Sanger sequencing and bioinformatic tools like oligo design, prediction of pathogenicity of protein coding SNPs, and browsing human genome databases. Prerequisite: Consent of instructor.

CLDP 856. Epigenetics of Behavioral and Developmental Disorders. 3 Credits.

This course will include discussion of the epigenetic mechanisms involved in behavioral and developmental disorders. The topics reviewed will be DNA methylation, histone modification, genomic imprinting, neurogenesis, epigenetic control of gene expression, non-coding RNAs, prions, microbiota and epigenetics, influence of environment, life style, diet and exercise on gene regulation and cellular pathways. The topics of pharmacoepigenetics, personalized epigenetics and future perspectives of epigenetics in human health will be covered. Recent development in epigenetic research will be discussed. Prerequisite: Consent of instructor.

CLDP 874. Research Practicum. 1-3 Credits.

Master's level. Application of research methodology in a laboratory situation. Emphasis is on direct participation in designing and conducting an experimental investigation on topics related to child language acquisition and disorders, including quantitative methods. May be repeated for up to a maximum of 3 credits. Prerequisite: SPLH 660 or equivalent research methods course.

CLDP 876. Independent Study in Problems of Child Language. 1-6 Credits.

Investigation of special topics by individual master's level students. Paper required. Prerequisite: Consent of instructor.

CLDP 880. Seminar in Child Language: Research Methods. 1-3 Credits.

A seminar devoted to factors affecting children's language acquisition and language impairments, with some attention to theoretical formulations, causal pathways and mechanisms of change. Topics may vary. Prerequisite: Consent of instructor.

CLDP 898. Investigation and Conference (Masters). 1-8 Credits.

Directed research and experimentation for M.A. students in some phase of child language acquisition/disorders. Prerequisite: Consent of instructor.

CLDP 899. Master's Thesis. 1-6 Credits.

Development of Master's Thesis in the area of child language acquisition and/or disorders. Graded on a satisfactory progress/limited progress/no progress basis. Prerequisite: Consent of instructor.

CLDP 948. Latent Trait Measurement and Structural Equation Models. 3 Credits.

Contemporary measurement theory and latent variable models for scale construction and evaluation, including confirmatory factor analysis, item response modeling, diagnostic classification models, and structural equation modeling. (Same as EPSY 906.) Prerequisite: EPSY 905 and instructor permission.

CLDP 974. Research Practicum. 3 Credits.

Application of research methodology in a laboratory situation. Emphasis is on direct participation in designing and conducting a study related to child language acquisition or impairments, and analyzing outcomes. Prerequisite: Consent of instructor.

CLDP 975. Directed Teaching: Child Language. 1-3 Credits.

Provides experiences in classroom and laboratory instruction under supervision of graduate faculty. Variable credit to reflect amount of instructional responsibility assumed. Prerequisite: Consent of instructor.

CLDP 982. Issues in Scientific Conduct. 3 Credits.

Lectures and discussion on issues in the conduct of a scientific career, with emphasis on practical topics of special importance in behavioral science. Topics will include the academic and scientific roles of behavioral scientists, establishing a research lab, communicating research findings, tenure processes, gender equity, ethical conduct, and good scientific citizenship. Discussions will highlight important case studies. (Same as PSYC 982 and SPLH 982.)

CLDP 998. Investigation and Conference. 1-8 Credits.

Directed research, experimentation, and/or quantitative analysis for Ph.D. students in topics related to child language acquisition, language impairment, diagnosis, causation, or treatment. Prerequisite: Consent of instructor.

CLDP 999. Doctoral Dissertation. 1-12 Credits.

Doctoral Dissertation in topics related to child language acquisition, language impairment, diagnosis, causation, or treatment. Graded on a satisfactory progress/limited progress/no progress basis. Prerequisite: Consent of instructor.

Courses

SPLH 161. Survey of Communication Disorders. 3 Credits. GE3S SBS

Provides a general understanding of normal and deviant speech, language, and hearing in adults and children. This course considers the normal development of communication behavior, the nature of communication disorders, and the interaction of speech pathology and audiology with allied fields (e.g., education, medicine, psychology, special education).

SPLH 220. The Physics of Speech. 4 Credits. GE12 MTS

An introduction to the acoustic structure of speech intended for nonscience majors. Emphasis will be placed on the methods and standards by which scientists measure and evaluate the physical characteristics of speech. Topics will include: simple harmonic motion, the propagation of sound waves, aerodynamic aspects of vocal fold vibration, resonance, digital speech processing, frequency analysis, and speech synthesis. Three class hours and one laboratory per week. (Same as LING 120.) Prerequisite: MATH 101 or 104 or equivalent.

SPLH 264. Topics in: _____. 1-3 Credits.

Course organized any given semester to study particular subject matter or to take advantage of special competence by an individual faculty member. Topics change as needs and resources develop including class discussion, readings, and individual projects. Course may be repeated for credit if topic varies.

SPLH 352. Examining Global Perspectives in Speech-Language-Hearing: _____. 3 Credits. AE42 GLBC

For students enrolled in an SPLH-sponsored Study Abroad program. Students participate in 12 hours of meetings in preparation for the Study Abroad experience. Pre-trip meetings focus generally on multi-cultural issues relevant to speech-language-hearing practice as well as specific cultural, linguistic, and service delivery issues for the target country. Students spend two weeks abroad, visiting sites to observe different types of service delivery for people with disabilities and places that are culturally and historically relevant. Periodic debriefing and small group discussions are conducted during the time abroad. A daily journal and post-visit reflection paper is required. May be repeated for credit if the content differs. Prerequisite: Instructor permission required.

SPLH 418. Introduction to Cognitive Science. 3 Credits.

Examines the data and methodologies of the disciplines that comprise Cognitive Science, an interdisciplinary approach to studying the mind and brain. Topics may include: consciousness, artificial intelligence, linguistics, education and instruction, neural networks, philosophy, psychology, anthropology, evolutionary theory, cognitive neuroscience, human-computer interaction, and robotics. (Same as LING 418, PHIL 418, and PSYC 418.) Prerequisite: Consent of instructor.

SPLH 430. Communication in Autism. 3 Credits.

This course will provide you with an introduction to the characteristics and communication of individuals with Autism Spectrum Disorder (ASD). This course will focus on diagnostic criteria, early identification, communication assessment and intervention considerations, and partnering with families who have family members with ASD. This course is offered at the 400 and 800 levels with additional assignments at the 800 level. Not open to students with credit in SPLH 830.

SPLH 436. Introduction to Augmentative and Alternative Communication Technologies. 1 Credits.

This course provides students with opportunities to learn about operational and linguistic features of current augmentative and alternative (AAC) technologies by participating in hands-on practice and exploration of these technologies. Content will primarily focus on advanced technology speech generating devices and include discussion of basic and advanced features of hardware and software, language representation and organization, programming processes, access methods, and AAC integration with other technologies. This online course requires students to visit the AAC lab in-person to access AAC systems and complete hands-on learning experiences. This course is offered at the 400 and 800 level with additional assignments at the 800 level. Not open to students with credit in SPLH 836.

SPLH 449. Laboratory/Field Work in Human Biology. 1-3 Credits. LFE AE61 CAP

This biological anthropology lab course builds upon concepts introduced in ANTH 150 and ANTH 304. It provides students with practical, hands-on experience in biological anthropology laboratory methods and theory. Topics include: genetics, osteology, forensic anthropology, modern human biological variation, primatology, paleoanthropology, and human evolution. Students integrate their knowledge of human variation, genetics, and critical approaches to the concept of social and biological race. For the final project, students analyze genetic markers using a commercial ancestry test. They will either be given anonymous data to work with, or, if they pay an optional laboratory fee, they can investigate their own genome for the final project. This fee for self-study is not required for full participation in the final project. (Same as ANTH 449, BIOL 449, and PSYC 449.) Prerequisite: Either ANTH 304, ANTH 340, Human Biology major, or permission of instructor.

SPLH 451. Directed Study Abroad in Speech-Language-Hearing. 1-3 Credits.

An independent study designed to enhance international experience in topic areas related to speech-language hearing. Investigation of special topic or project selected by the student with advice, approval, and supervision by a KU SPLH instructor and an authorized agent of the study abroad site. Experience must be arranged through the Office of KU Study Abroad. Such study may take the form of directed reading and/or directed research/clinical observation. A daily journal and final report is required. A maximum of six hours of credit may be counted, with no more than three in a single area of study. Prerequisite: Consent of instructor

SPLH 462. Principles of Speech Science. 3 Credits.

Survey of the physiology of speech production, and the physics of sound. Emphasis upon methodologies in the laboratory study of normal speech.

Prerequisite: SPLH 220, or concurrent enrollment in SPLH 220 or consent of instructor.

SPLH 463. Principles of Hearing Science. 3 Credits.

This class discusses the concepts and principles relevant to normal hearing processing: anatomy, psychophysical methods, and basic subjective correlates of the auditory system. Prerequisite: SPLH 220, or concurrent enrollment in SPLH 220, or consent of instructor.

SPLH 464. Undergraduate Seminar in: _____. 1-3 Credits.

Course organized any given semester to study particular subject matter or to take advantage of special competence by an individual faculty member. Topics change as needs and resources develop. Class discussion, readings, and individual projects. (Distribution credit given for two-three hours only.)

SPLH 465. Fundamentals of Clinical Phonetics. 1 Credits.

Introduction to classification of American English speech sounds based on articulatory phonetics. Practice in phonetic transcription and analysis of normal and abnormal speech. Laboratory exercises to give students hands-on experience with selected topics from lecture. Prerequisite: Corequisite: SPLH 220.

SPLH 466. Language Science. 3 Credits.

Introduction to structure/function of human languages as it relates to language development and disorders; processes involved in the expression and reception of language and the methodologies employed to study these processes.

SPLH 498. Departmental Research. 1-8 Credits. AE61 CAP

Study may be directed toward either reading for integration of knowledge and insight in Speech-Language-Hearing, or original research in the field. Student creates a plan of activities at the beginning of each semester under the mentor's guidance. Student and mentor review this plan at the end of each semester to evaluate progress. Departmental Honors students must complete a written report or a public oral presentation detailing the purpose, methods, results, and impact of the research. This final product partially fulfills the requirements for Departmental Honors. (Eight hours maximum credit, which may be distributed through 4 semesters. No student may enroll for more than 4 hours of credit in a given semester). Prerequisite: Consent of Departmental Research Coordinator.

SPLH 499. Directed Study in Speech-Language-Hearing. 1-3 Credits. AE61 CAP

Investigation of special topic or project selected by the student with advice, approval, and supervision of an instructor. Such study may take the form of directed reading and/or directed research/clinical observation. Individual reports and conferences. (Distribution credit given for two-three hours only.) A maximum of six hours of credit may be counted, with not more than four in a single area of study.) Prerequisite: Consent of instructor.

SPLH 516. Speech Perception. 2 Credits.

Acoustic and perceptual characteristics of phonemes, words, and connected speech for normal-hearing adults and infants; how speech perception is assessed clinically and is affected by hearing loss, aging, use of amplification, talker differences, and linguistic factors. Prerequisite: SPLH 220. Corequisite: SPLH 463.

SPLH 565. Language Sample Analysis Lab. 1 Credits.

The study of the analysis of language produced by children with respect to its phonological, lexical, morphological, syntactic, and pragmatic characteristics. Prerequisite: Corequisite: SPLH 566.

SPLH 566. Language Development. 3 Credits. GE3S

Study of language acquisition in children, including phonologic, morphologic, syntactic, and semantic components. Methods of language measurement, the role of comprehension, and pragmatic aspects of language use are included. May be taught in lecture or online format. Prerequisite: One 400-level SPLH course.

SPLH 568. Introduction to Audiological Assessment and Rehabilitation. 4 Credits.

Introduction to methods for assessing and treating hearing disorders in adults and children, as well as conditions that result in hearing loss. Course includes clinical observation and extensive hands-on experience with clinical techniques. Prerequisite: SPLH 463.

SPLH 571. Introduction to Speech-Language Pathology. 4 Credits.

This course provides training in clinical management of communicative disorders in children and adults. Principles of evaluation, application of diagnostic information, intervention planning, intervention process, data collection and application, report writing, and interactions with parents and other professionals are examined. Participation in observation and laboratory activities is required.

SPLH 588. Multicultural Considerations in Speech-Language-Hearing I. 1 Credits.

This course introduces foundational concepts of culture and diversity, bilingualism, bias, and components and processes leading to cultural competency. Students explore health and educational disparities in the United States and beyond. Students will reflect on their cultural identity, and how their experiences and perspectives may differ from others, and how their experiences can influence service delivery in speech-language pathology and audiology. Prerequisite: SPLH 566 or LING 415 or consent of instructor.

SPLH 589. Multicultural Considerations in Speech-Language-Hearing II. 1 Credits.

This course builds on foundational concepts from SPLH 588 by exploring potential cultural and linguistic characteristics of populations that are typically underrepresented in many sectors of the United States, including education and health care. Case studies are implemented to examine cultural and linguistic influences on assessment and treatment processes in speech-language pathology and audiology. Prerequisite: SPLH 588.

SPLH 620. The Communicating Brain: The Ultimate Personal Computer. 3 Credits.

This course introduces the study of human neuroscience with a particular focus on human communication. The course provides an overview of the relevant anatomical structures and function along with an introduction to the basic methods used to investigate central nervous system function. Students are introduced to the study of perceptual, motor, and language function in the nervous system through a series of examples drawn from normal function and clinical cases. The examples are selected to highlight how these systems develop and are influenced by experience, implantable devices developed to interface with the nervous system, and how computers and animals are used as models to learn about nervous system function. Prerequisite: A 400-level course in SPLH, or consent of instructor.

SPLH 660. Research Methods in Speech-Language-Hearing. 3 Credits. AE61 CAP

Research Methods is about the methods used to conduct, describe and evaluate science in communication disorders. Goals for learner outcomes include: 1) evaluation of research including adequacy of research to address scientific and clinical problems, 2) reading, summarizing and describing research through a literature review, 3) describing a hypothetical research study that addresses a specific question or hypothesis identified by the student, and 4) providing constructive peer

reviews of research paper drafts. Prerequisite: 9 credits of SPLH course work; English 101 and ENGL 102 (or course meeting core skill in written communication); or consent of instructor.

SPLH 668. Introduction to Audiological Rehabilitation. 2 Credits.

Introduction to methods for treating hearing disorders in adults and children, as well as conditions that result in hearing loss. Course includes clinical observation and extensive hands-on experience with clinical techniques. This course should only be taken by graduate students in SPLH who have not completed this prerequisite. Not open to students with credit in SPLH 568. Prerequisite: Graduate standing.

SPLH 670. Beginning Clinical Practice in Audiology. 1-3 Credits.

Testing of hearing using pure tone air and bone conduction tests with both normal and hearing-impaired individuals. Prerequisite: SPLH 568, or concurrent enrollment in SPLH 568, overall GPA 3.0 and consent of instructor.

SPLH 672. Clinical Practice in Speech-Language Pathology. 3 Credits.

Clinical practice with children and adults. Group and individual conferences with staff required. Repeatable once for credit. Prerequisite: SPLH 571 and overall GPA of 3.0.

SPLH 716. Speech Perception. 2 Credits.

Acoustic and perceptual characteristics of phonemes, words, and connected speech for normal-hearing adults and infants; how speech perception is assessed clinically and is affected by hearing loss, aging, use of amplification, talker differences, and linguistic factors. (Same as AUD 816.)

SPLH 736. Foundations of Early Intervention. 3 Credits.

This course explores evidence-based principles and practices of providing early intervention services, including requirements of IDEA Part C, mission and key principles of early intervention and recommended practices and standards. Students will engage in guided field observations of assessment, intervention and collaborative practices, reflective practice and teaming/coaching activities. (Same as SPED 736.)

SPLH 737. Infants and Toddler with Significant Needs. 3 Credits.

This course explores the challenges infants and toddlers with significant developmental needs face and how to best support their participation in daily activities. Challenges faced by medical, physical, communication, social-emotional, hearing, vision, and mental health issues will be discussed along with how to support these needs across disciplines and in the home and community activities. This course will provide in-depth review of the unique challenges these children and families face and how providers from various backgrounds can work together to best support children and families. Environmental adaptations and direct instructional techniques to maximize independence tailored to the infant and toddler's strengths and needs will be explored. Information is also provided on assistive technology designed to provide supports. Functional behavioral assessment procedures, proactive intervention strategies and psycho-educational approaches as well as the development of collaborative support plans will be studied. (Same as SPED 737.)

SPLH 752. Examining Global Perspectives in Speech-Language-Hearing: _____. 2-3 Credits.

For students enrolled in an SPLH-sponsored Study Abroad program. Students may be required to participate in pre-program meetings in preparation for the Study Abroad experience. Pre-trip meetings will focus generally on multi-cultural issues relevant to speech-language-hearing practice as well as specific cultural, linguistic, and service delivery issues for the target country. Students may be required to facilitate discussions or prepare presentations for these meetings. While abroad, students will observe and/or provide different types of service delivery for people with

disabilities and visit places that are culturally and historically relevant. Periodic debriefing and small group discussions will be conducted during the time abroad. Credit hours will be determined based on the specific experience in consultation with the instructor(s).

SPLH 764. Seminar in: _____. 1-3 Credits.

The subject matter of this seminar will be special topics from speech pathology and audiology. Special prerequisite may be established for a given topic.

SPLH 799. Proseminar in Child Language. 2 Credits.

A review and discussion of current issues in children's language acquisition. May be repeated for credit. Graded on a satisfactory/unsatisfactory basis. (Same as ABSC 797, CLDP 799, LING 799 and PSYC 799.)

SPLH 816. Language Development. 3 Credits.

Study of language acquisition in children, including the morphologic, syntactic, and semantic components. Methods of language measurement, the role of comprehension, and pragmatic aspects of language use will be included. Not open to students who have credit for SPLH 566. Laboratory by appointment.

SPLH 820. Developmental Phonological Disorders. 2 Credits.

Focuses on speech and non-speech characteristics of children with developmental phonological disorders. Emphasis placed on collection and phonetic transcription of speech samples, phonological analysis of transcribed data, and decision-making processes in assessment and intervention.

SPLH 822. Neuromotor Speech Disorders. 2 Credits.

This course describes the neuroanatomic bases of motor-speech processes, the diagnosis, classification, assessment, prognosis, and treatment of neuromotor speech disorders across the lifespan including dysarthria(s) and apraxia(s) of speech.

SPLH 824. Fluency Disorders. 2 Credits.

The nature of stuttering in children and adults is discussed. Theories regarding etiology, development, and maintenance of the disorder are presented. Emphasis is placed on various clinical approaches to assessment, measurement, and treatment.

SPLH 826. Phonatory Disorders. 2 Credits.

This course reviews the function of the laryngeal and respiratory mechanisms including the parameters and processes of phonation. Primary content addresses diagnosis, description, and treatment of organic and non-organic disorders of phonation.

SPLH 830. Communication in Autism. 3 Credits.

This course will provide an introduction to the characteristics and communication of individuals with Autism Spectrum Disorder (ASD). This course will focus on diagnostic criteria, early identification, communication assessment and intervention considerations, and partnering with families who have family members with ASD. This course is offered at the 400 and 800 levels with additional assignments at the 800 level. Not open to students with credit in SPLH 430.

SPLH 832. Dysphagia. 2 Credits.

This course covers normal and disordered swallowing. Evaluation and treatment of swallowing disorders, the dysphagia team, and dysphagia in special populations are considered.

SPLH 833. Dysphagia Treatment in Adults. 2 Credits.

This course is designed to build critical thinking and analysis skills for developing and implementing appropriate treatment plans for adults with dysphagia. Foundations of non-instrumental swallow assessment, rehabilitation, and compensation will be addressed. This course will also cover issues of ethics, cultural considerations in dysphagia management,

and professional communication. Learning experiences will include evidence-based curriculum, hands-on practice, and critical thinking activities. Prerequisite: SPLH 832.

SPLH 834. Augmentative and Alternative Communication and Literacy. 2 Credits.

This course is designed to provide resources and information to prepare students to collaborate with others in increasing the literacy opportunities and skills of individuals with complex communication needs, particularly those who use augmentative and alternative communication.

SPLH 836. Introduction to Augmentative and Alternative Communication Technologies. 1 Credits.

This course provides students with opportunities to learn about operational and linguistic features of current augmentative and alternative (AAC) technologies by participating in hands-on practice and exploration of these technologies. Content will primarily focus on advanced technology speech generating devices and include discussion of basic and advanced features of hardware and software, language representation and organization, programming processes, access methods, and AAC integration with other technologies. This course requires students to visit the AAC lab in-person to access AAC systems and complete hands-on learning experiences. This course is offered at the 400 and 800 level with additional assignments at the 800 level. Not open to undergraduate students with credit in SPLH 436.

SPLH 838. Augmentative and Alternative Communication in Schools. 2 Credits.

This course provides information about augmentative and alternative communication (AAC) services in school settings. Students will participate in readings and activities that will provide information concerning the roles, responsibilities, and contributions of school speech-language pathologists relative to AAC.

SPLH 840. Communication of Infants and Toddlers: Early Intervention Supports and Services. 2 Credits.

This course provides information on speech, language and communication in the birth - three year old population, including assessment and intervention. Topics include early intervention policy, principles and practices with a focus on family-centered practice; use of natural learning opportunities and routines; collaborative partnerships; and coaching practices.

SPLH 842. Language Disorders of Children: Preschool. 2 Credits.

This course examines language disorders of preschool-age children in the late preschool years. The course includes information on incidence, characteristics, assessment, and intervention. Theoretical issues and their implication for language intervention are also examined.

SPLH 844. Language Disorders of Children: School Age. 2 Credits.

This course examines language development during the school years and how problems in this development interact with school performance. Emphasis is placed on the role of the speech-language pathologist in the early identification, assessment, and remediation of language-learning problems.

SPLH 846. Language Disorders of Adults. 2 Credits.

Neurological aspects of language processes, classification of aphasia, and assessment of language deficits are discussed. Management approaches including intervention strategies and rehabilitation are also considered.

SPLH 848. Language Disorders of Special Populations. 2 Credits.

This course focuses on communication differences in individuals with intellectual disabilities, autism, cerebral palsy, dual sensory impairments, and other conditions affecting communication competence. Communication characteristics as well as assessment and intervention strategies are studied.

SPLH 850. Cognitive-Linguistic Disorders of Adults. 2 Credits.

This course will prepare students to work with adults with acquired cognitive-linguistic disorders, with a focus on: Alzheimer's Disease, Traumatic Brain Injury, and Right Hemisphere Disorder, including etiologies and disease processes. Theoretical and practical knowledge will be presented regarding the primary cognitive domains of attention, memory, and executive function, as well as their impact on discourse-level language. The course will cover neuroanatomy, assessment procedures, interventions, family/communication partner training, and psychosocial aspects of cognitive-linguistic disorders.

SPLH 852. Augmentative and Alternative Communication in Developmental and Intellectual Disabilities. 2 Credits.

This course describes augmentative and alternative communication (AAC) assessment and intervention issues as they apply to children and adults with intellectual and developmental disabilities. Areas of study include AAC systems, assessment strategies and procedures, intervention strategies, and AAC information resources.

SPLH 853. Augmentative and Alternative Communication and Adult Acquired Disorders. 2 Credits.

This course will discuss the concepts and evidence related to assessment and intervention in the area of augmentative and alternative communication for adults with acquired disorders. Content will be related specifically to adults with acquired communication disorders and focus more on high tech than low tech but information and evidence related to both will be presented. Information about AAC systems appropriate for adults, assessment protocols, approaches to intervention, and advocacy will be applied in a case-based format.

SPLH 854. Reading Disorders. 2 Credits.

This course addresses the perceptual, linguistic, and cognitive processes utilized in written communication. Acquired and developmental disorders of written language are examined in relation to issues concerning characteristics, etiology, early identification, assessment, and remediation.

SPLH 856. Bilingual Child Speech-Language Assessment and Intervention. 2 Credits.

This course will address best practices for conducting appropriate, least-biased assessment and intervention with bilingual populations, specifically English learners (ELs). We will examine topics covering the assessment, diagnosis, and treatment of speech (phonology; fluency) and language (morphosyntax; semantics) skills distributed across two languages in bilingual individuals with speech and or language disorders. We will also explore issues pertinent to bilingual clinical service delivery including federal law mandates, working with interpreters, cultural sensitivity and humility with multicultural populations (children and caregivers), consideration of dialectal variation, non-standardized assessment and intervention approaches, ongoing assessment during intervention, writing measurable intervention goals for bilingual speakers, advocating for bilingual families, and problematic clinical scenarios. The course will primarily focus on bilingual speech-language assessment and intervention with Spanish-speaking ELs. However, the underlying core clinical principles and approaches apply to ELs who speak languages other than Spanish.

SPLH 858. Bilingual Speech-Language Pathology: Practice and Research. 2 Credits.

This graduate seminar will address hands-on development of speech-language assessment and intervention with bilingual populations as

guided by clinical research evidence. Students will engage in cutting-edge clinical and/or research applications including assessment and intervention tools, approaches, and considerations for bilingual speakers. Implementation of these aspects will include in-class clinical administrations from the context of being either a bilingual or a monolingual clinician, and collaborating with interpreters. Students may participate in direct clinical applications administering speech-language screenings with bilingual children. SPLH 856, doctoral study, and/or completed coursework in assessment and intervention of bilingual children with speech-language disorders is highly recommended. Knowing a language other than English is not a prerequisite.

SPLH 860. Evaluation of Speech and Language. 2 Credits.

Provides a general framework for speech and language evaluations. Issues related to initiation and termination of treatment are discussed. Practice is provided in evaluating norm- and criterion-referenced information used in diagnostic, referral, and treatment decisions.

SPLH 862. Clinical Processes. 1 Credits.

Orients student to clinical procedures, policies, requirements, and expectations of program. Therapy models, planning, and philosophies are discussed along with implementation and evaluation of therapy procedures. Professional issues are also considered. May be repeated for credit.

SPLH 864. Advanced Clinical Practice in Speech-Language Pathology. 1-6 Credits.

Students conduct supervised clinical work in a variety of settings. May be repeated for credit. Prerequisite: Department approval. Group and individual conferences with staff required.

SPLH 866. Field Study in Speech-Language Pathology. 5 Credits.

The field study provides work experiences in clinical activities. The student takes this course near the end of the degree program. Assignments include supervised work in a variety of approved settings. May be repeated for credit. Prerequisite: Advisor's consent.

SPLH 868. Professional Issues. 1 Credits.

Forum for the presentation and discussion of scientific and professional issues by faculty and advanced graduate students. May be repeated for credit.

SPLH 874. Master's Research Practicum. 1-3 Credits.

This course is designed to give students experience in conducting research. Students apply and extend their knowledge and skills by participating in a research project under the supervision of a mentor. Students may assist with or independently conduct research in speech, language, or hearing. Prerequisite: SPLH 660 or equivalent research methods course.

SPLH 876. Independent Study in Problems of Speech, Language, and Hearing. 1-6 Credits.

Investigation of special topics by individual master's level students. Paper required. Prerequisite: Consent of instructor.

SPLH 888. Multicultural Considerations in Speech-Language-Hearing I. 1 Credits.

This course introduces foundational concepts of culture and diversity, bilingualism, bias, and components and processes leading to cultural competency. Students explore health and educational disparities in the United States and beyond. Students will reflect on their cultural identity, and how their experiences and perspectives may differ from others, and how their experiences can influence service delivery in speech-language pathology and audiology. This course is offered at the 500 and 800 levels, with additional assignments at the 800 level.

SPLH 889. Multicultural Considerations in Speech-Language-Hearing II. 1 Credits.

This course builds on foundational concepts from SPLH 888 by exploring potential cultural and linguistic characteristics of populations that are typically underrepresented in many sectors of the United States, including education and health care. Case studies are implemented to examine cultural and linguistic influences on assessment and treatment processes in speech-language pathology and audiology. This course is offered at the 500 and 800 levels, with additional assignments at the 800 level. Prerequisite: SPLH 888 or consent of instructor.

SPLH 899. Master's Thesis. 1-6 Credits.

Thesis Hours. Graded on a satisfactory progress/limited progress/no progress basis.

SPLH 900. Proseminar in Communicative Disorders. 1 Credits.

A weekly forum for students and faculty to discuss professional issues and interdisciplinary research in communicative disorders and related fields. May be repeated for credit. Limited to two hours credit counted toward an MA or AuD degree. Limited to four hours credit counted toward the PhD degree. Graded on a satisfactory/unsatisfactory basis.

SPLH 964. Seminar in: _____. 1-3 Credits.

The subject matter of this seminar will be special topics from speech pathology and audiology, including those related to research methodology and research or academic careers. Special prerequisites may be established for a given topic.

SPLH 970. Independent Study in Problems of Speech and Hearing. 1-6 Credits.

Investigation of special topics by individual students. Paper required.

SPLH 974. Doctoral Research Practicum. 1-6 Credits.

Application of research methodology in a laboratory situation. Emphasis is on direct participation in designing and conducting an experimental investigation in speech or hearing.

SPLH 975. Directed Teaching: Speech Pathology and Audiology. 1-3 Credits.

Provides experiences in classroom and laboratory instruction under supervision of graduate faculty. Variable credit to reflect amount of instructional responsibility assumed. May be repeated up to a maximum of six semester hours.

SPLH 976. Independent Study in Grant Writing. 1-3 Credits.

Students will identify a funding agency appropriate for their research, learn the application procedures for that agency, and draft a grant application following the identified agency's format. The faculty mentor will arrange for a review of the grant application following the agency's review criteria and format. May be repeated up to a maximum of three credits.

SPLH 982. Issues in Scientific Conduct. 3 Credits.

Lectures and discussion on issues in the conduct of a scientific career, with emphasis on practical topics of special importance in behavioral science. Topics will include the academic and scientific roles of behavioral scientists, establishing a research lab, communicating research findings, tenure processes, gender equity, ethical conduct, and good scientific citizenship. Discussions will highlight important case studies. (Same as CLDP and PSYC 982.)

SPLH 998. Investigation and Conference (For Doctoral Candidates). 1-8 Credits.

(Limited to eight hours credit towards the Ph.D. degree.) Readings, critical thinking, and scientific writing in preparation for the oral comprehensive exam.

SPLH 999. Doctoral Dissertation. 1-12 Credits.

Dissertation Hours. Graded on a satisfactory progress/limited progress/no progress basis.