

MS SPEECH-LANGUAGE PATHOLOGY
Course Description University of Puerto Rico – Medical Sciences Campus

COURSES IN BASIC AND FOUNDATIONAL CONCEPTS COMPONENT		
COURSES	CREDITS	COURSE DESCRIPTION
PHAL 6105 Anatomy & Physiology for SLP	3	This course is a comprehensive study of the anatomical and physiological bases of speech production, hearing and swallowing. Topics include structures and function of the articulatory, respiratory, vocal, auditory and nervous systems. Information is applied to the field of speech-language pathology and audiology. This is a hybrid course.
PHAL 6106 Linguistic and Acoustics in Communication Sciences and Disorders	3	This is an introductory course on basic assumptions, methods and concepts of studying linguistics and acoustics, as applied sciences to communication and its disorders. The linguistics component will focus on the way language influences human experience and the organization of human behavior. The nature, structure and use of language will be examined, as well as the application of linguistic theories to speech and language clinical intervention. The acoustics component will examine the relationship of sound to the human hearing, and the acoustic consequences of phonetically-relevant articulatory movements. Perceptual phenomena of normal audition supported by reviews of methods and principles of psychophysical measurement of hearing theory will also be addressed. The acoustic characteristics of different dialects of the Spanish language, as well as of American English, will be discussed. This is a hybrid course.
PHAL 6115 Language Acquisition	3	Study of language development from infancy through adolescence, with emphasis in the Spanish-speaking typical child. The course will cover theories of language acquisition and development, the biological basis of acquisition and development, and the basic stages of typically and atypically developing populations, regarding language. Procedures for language analysis and child screenings for referral to a complete diagnosis are also discussed. This is a hybrid course.
PHAL 6417 Neuroscience of the Cognitive, Communication and Swallowing Mechanism	3	This course discusses the structure and function of the human nervous system as related to speech, language, hearing and swallowing. The course emphasizes on the study of the reception and integration of sensation, language learning and usage, production of verbal and non-verbal responses, and swallowing processes. Typical and atypical neurological functions for communication and swallowing are examined as well as associated disorders. This is an online course.
Audi 7118 Principles of Audiology	3	This course will provide an overview of the discipline of audiology designed to introduce students in Audiology and Speech-Language Pathology Programs to the areas of educational, (re)habilitative, and diagnostic audiology. The course presents the theoretical and practical aspects of basic diagnostic audiological testing and how to relate these procedures to the structure and function of the auditory system. Basic audiological procedures include pure tone audiometry, speech audiometry and middle ear measurements. Discussions of the relevance of each procedure in diagnosing disorders of the auditory mechanism will be conducted. Lectures, readings, group discussions, collaborative learning, and case studies are some of the instructional strategies that will be used in this course.
COURSES IN BASIC AND FOUNDATIONAL CONCEPTS COMPONENT		
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PHAL 6120 Child Language Disorders: Infancy through Preschool Years	3	This course addresses the nature and characteristics of language disorders in school-age children, including adolescents. The course discusses contrasting views on the study of language problems, examines the relationship between oral language development and literacy skills, and studies the language characteristics of children with specific language impairments, learning disabilities, intellectual disabilities, autism spectrum disorders, hearing impairment, auditory processing problems, and acquired aphasia. The course

		addresses evidence-based practice procedures for the assessment and intervention of language learning problems in school-age children including those who are from culturally-linguistically diverse groups. In addition, the course peruses the laws that regulate services to children with language learning problems. This is a hybrid course.
PHAL 6121 Language Disorders in School Age Children	3	This course introduces students to the scientific and clinical study of the nature, causes, diagnosis, treatment, and life span issues of language disorders in infants, toddlers and preschoolers. Topics will include discussions on the etiological factors; current hypotheses used to explain children’s language disorders, and associated problems. Students will learn to describe and to create profiles of children’s language skills. In addition, students will develop the knowledge required to use appropriate assessment and intervention procedures. The course also addresses the different service delivery models, language-teaching techniques, and current approaches for intervention. This is a hybrid course.
PHAL 6119 Fluency Disorders	3	This course will present students with the theoretical and clinical basis of fluency disorders, including their nature, etiologies and characteristics. Fluency disorders will be discussed in relation to biological, neurological, acoustic, psychological, developmental, linguistic and cultural bases. The student will learn about the principles and methods of counseling, prevention, evaluation/diagnosis and intervention for children and adults with fluency disorders in relation to current theories and research. Clinical considerations will be discussed when dealing with fluency disorders that affect the function, activity and participation of the individual considering their personal and contextual factors. This is a hybrid course.
PHAL 6116 Swallowing Disorders in Children & Adults	3	Study of the etiology, characteristics, evaluation, intervention and clinical management of feeding and swallowing problems in children and adults. The etiological factors of evaluation and treatment related to individuals of various cultural groups are discussed. This is a hybrid course.
PHAL 6118 Voice & Resonance Disorders	3	This course teaches preventive, evaluative and therapeutic aspects of voice and resonance disorders. Students will examine biological, neurological, acoustic, psychological, developmental, linguistic and cultural bases of phonation and oral/nasal resonance. Embryology of the vocal mechanism is also reviewed, including nasal, oropharyngeal, laryngeal, and pulmonary regions. Assessment and intervention of a variety of common voice and resonance disorders will be discussed, including those associated with craniofacial anomalies and neurological disorders. This is a hybrid course.
PHAL 6519 Articulation Problems & Phonological Disorders	3	This course will study anatomical, physiological, acoustic and perceptual aspects related to the articulatory mechanism. Students will describe the normal phonological system of the Spanish-speaking child and adult, as well as of English-speakers. An emphasis will be placed on the investigation of normal phonological development, as well as delay and disordered in both languages. The course includes discussion of the most important theories related to phonological development, and their application to the assessment, diagnosis and intervention processes for articulation and phonological problems. Formal and informal aspects of assessment, diagnosis and treatment are discussed related to these areas. This is a hybrid course.
PHAL 6512 Disorders of Communication in Children & Adults with Neurological Problems	3	This course addresses the study of the etiology, characteristics, assessment, intervention and clinical management of speech and language problems in children and adults with neurogenic disorders. The course addresses the etiological factors, assessment, and intervention issues associated with varied cultural groups. This is a hybrid course.
PHAL 6305 Assessment & Diagnostics in SLP	3	This course focuses on the evaluation and diagnosis process as it related to a variety of communication disorders across cultures. This includes indices of diagnostic accuracy (sensitivity and specificity) for test selection and test interpretation, as well as non-biased assessment methods for individuals from culturally-diverse backgrounds.

		Students will learn to interpret, integrate and synthesize information in order to reach informed clinical decisions regarding treatment, referrals, and related recommendations. The course also includes discussions regarding the process of clinical reporting as well as discussions of concepts related to formal testing, such as: instruments, normative data, reliability, and validity.
PHAL 6308 Research Design in SLP	2	This course is designed to increase graduate students understanding and appreciation of the role of research in enhancing clinical practice in Speech-Language Pathology. Students will be provided with sufficient information about research design, data collection, analysis and reporting to become knowledgeable consumers of research with his/her field. Students will recognize the value of systematic inquiry as a part of clinical practice and research in communication sciences disorders. This is a hybrid course.
PHAL 6542 Introduction to Assistive Technology in the Area of Augmentative and Alternative Communication	3	This course will lead the student towards the development of knowledge and skills required for the use of Augmentative and Alternative Communication (AAC). Students will learn about terminology and application of AAC, augmentative communication system components, the evaluation process for an appropriate selection of an assistive device, and intervention strategies for individuals with limited or nonfunctional speech. A discussion of recent trends and future needs, professional credentials, as well as strategies for keeping up with new technology will be included. Students will participate of practical experiences where they will have the opportunity to obtain hands-on experience with electric and non-electric low and high tech AAC systems. This is a hybrid course.
PHAL 6235 Seminar: Evidence Based Practice in SLP	1	This seminar is an introduction to the basics of the evidence-based practice approach and the implementation tools available to make evidence-based care decisions for patients with communication disorders. Through the course, the student will learn about development of answerable clinical questions, which will define the criteria for effective literature search strategies. The student will know about available resources essential to a successful literature search. This is as a distance-learning course.
PHAL 6236 Seminar: Ethical, Legal, Professional and Public Health Issues	1	This seminar examines professional and ethical issues related to speech-language pathology (SLP). The seminar also includes a review of regulations and requirements for professional practice, service provision and management of health information in SLP. Through the course, students will learn about current issues related to professional practice and clinical service delivery in SLP. This is as a distance-learning course.
PHAL 6315 Seminar: Multilingual and Multicultural Issues in SLP	1	This course introduces students to principles related to linguistic variation and multiculturalism, and the influence of these aspects in the management of communication and swallowing disorders in children and adults. Theoretical and clinical issues related to individuals who have a diverse social, cultural and linguistic background are correlated. Discussions on multilingual children's language development, second language learning and later acquired language disorders in adults are included. The principles related to nonbiased assessment and intervention of communication and swallowing disorders in multicultural populations across the life span are presented. This is as a distance-learning course.
PHAL 6316 Assessment and Intervention of Individuals with Hearing Loss	2	The course deals with the effects of hearing loss on perceptual, cognitive, communicative, educational, occupational, social and emotional aspects of life across the life span. Specifically, the student will be exposed to common pathologies which cause hearing loss across the different stages of life. How hearing impairment impacts speech understanding and communication will also be analyzed. The historical development of oral as well as manual philosophies, as well as the principles of amplifications systems and assistive technology for the hearing impaired will also be addressed. The different assessment and intervention approaches that are used to habilitate and rehabilitate hearing impaired individuals through the lifespan will be discussed. The student will also gain an understanding of the psychosocial aspects of

		hearing loss and adequate counseling strategies for the patient, family and significant others. This is a hybrid course.
PHAL 6520 Seminar: Supervision in SLP	1	This seminar will provide students with guidelines to fulfill roles and responsibilities related to supervision, as specified in the scope of practice of the speech-language pathologist. Emphasis will be placed on professional issues and regulations relevant to supervision of support personnel, such as the speech-language therapist in Puerto Rico. This is a distance-learning course.
PHAL 6117 Seminar: Intervention Strategies in SLP	1	This course is an overview of planning, implementing and evaluating on intervention in speech language pathology. The students will learn to plan the intervention with measurable and achievable goals that meet the client's needs. Topics covered will include time management in therapy sessions, materials selection, therapeutic techniques, data collection, use of technology for therapy, and the maintaining of records to demonstrate the person's achievement and to assist with monitoring and review of the general intervention plan. The course strategies consist of lectures, demonstrations, and videos to accompany assigned readings.
PHAL 6420 Capstone Course in SLP	3	In this course, the students will integrate the knowledge and skills acquired in previous courses through the realization of a capstone project. Students will work in the capstone project to solve a problem using the evidence-based practice (EBP) framework. Presentation of case scenarios will be used, and students will formulate the key question(s), search educational and health-related databases, and select and appraise available evidence. At the end of the course, the students will apply the evidence in a clinical context through a written document and an oral presentation.

COURSES IN CLINICAL EDUCATION COMPONENT

COURSES	CREDIT	COURSE DESCRIPTION
PHAL 6601 Clinical Practicum I in SLP (Clinical Observations)	0.5	Through this course, the student completes 25 guided observation hours within the ASHA Scope of Practice in Speech-Language Pathology. The clinical observations allow students: to learn about the professional activities and clinical scenarios where speech-language pathologists work; to learn about communication and swallowing disorders and its characteristics; to relate with clinical procedures and standards of practice in SLP; and to get involved in the regular activities of the clinical settings where clinical practicum will be completed. This course includes visit to clinical facilities for direct observations and observations through video recordings of clinical interventions. All observations are completed under the supervision of a qualified SLP professional, who reviews and approves written reports submitted by the student.
PHAL 6602 Clinical Practicum II in SLP	1	Clinical Practicum II is the second of four clinical practicum courses in speech-language pathology. The clinical practicum component allows the students to demonstrate his/her knowledge and to develop skills within the scope of practice of the profession with client/ patient population populations across the life span and from culturally/ linguistically diverse backgrounds. The student will acquire and demonstrate prevention, assessment/diagnosis and intervention skills, as well as interactional and professional/ personal qualities at the beginner level. The student will begin to develop skill in oral and written communication towards entry level of professional practice. This second course will provide introductory practice of direct clinical contact under the direct supervision of a qualified clinical instructor with a maximum level (75-100%) of supervision to facilitate the student's acquisition of essential clinical skills.
PHAL 6603 Clinical Practicum III in SLP	3	Clinical Practicum III is the third of four clinical practicum courses in speech-language pathology. The clinical practicum component allows the student to demonstrate his/her knowledge and to develop skills within the scope of practice of the profession with client/ patient population populations across the life span and from culturally/ linguistically diverse backgrounds. The student will acquire and demonstrate prevention, assessment/diagnosis and intervention skills, as well as interactional and professional/ personal qualities at the intermediate level. The student will begin to

		develop skill in oral and written communication towards entry level of professional practice. This third course will enable students to complete at least 55% of the required hours of direct clinical contact. This will be conducted under the direct the direct supervision of a qualified clinical instructor with at least a moderate level of supervision (50%) to facilitate the student's acquisition of essential clinical skills.
PHAL 6604 Clinical Practicum IV in SLP	3.5	Clinical Practicum IV is the fourth and final clinical practicum course in speech-language pathology. The clinical practicum component allows the student to demonstrate his/her knowledge and to develop skills within the scope of practice of the profession with client/ patient population populations across the life span and from culturally/ linguistically diverse backgrounds. The student will acquire and demonstrate prevention, assessment/diagnosis and intervention skills, as well as interactional and professional/ personal qualities at the intermediate level. The student will begin to develop skill in oral and written communication towards entry level of professional practice. In this course, the student will complete the required hours of direct clinical contact. This will be conducted under the direct supervision of a qualified clinical instructor with at least a minimum level of supervision (25%) to facilitate the student's acquisition of essential clinical skills.
TOTAL : 62 CREDIT HOURS		