

2 Theory + 1 practical = 3 credits	Introduction to Hearing and Speech Sciences	HCS 111
<p>المتطلب السابق:</p> <p>Human Biology</p> <p>HFSB 101-1</p> <p>Biology for Health programs</p> <p>HFSB 102-1</p>	<p>Exposed to fundamentals of the theory and practice of hearing and speech sciences. Demonstrate understanding of the way in which speech sounds are produced in the vocal tract; the effect of the position of the articulators (tongue, lips, velum, etc.) on speech sounds and the acoustic principles of the auditory discrimination. In addition, demonstrate understanding of Basic concepts in hearing mechanism and assessment.</p> <p>Phonetics Learn Place, manner and voicing characteristics of speech sounds</p> <p>Analysis of speech sounds</p>	

3 Theory = 3 credits	Introduction to psychology	HCS 112
<p>المتطلب السابق:</p> <p>لا يوجد</p>	<p>Demonstrate knowledge of basic theoretical principles of psychology</p> <p>Apply the behavioral theories of psychology</p> <p>Demonstrate knowledge of the normal language and cognition related to development</p> <p>Describe the normal biological foundations for motor, speech, and cognition development and application</p>	

2 Theory = 2 credits	Human Growth and Development	HCS 113
<p>المتطلب السابق:</p> <p>Human Biology</p> <p>HFSB 101-1</p> <p>Biology for Health programs</p> <p>HFSB 102-1</p>	<p>This course focuses on the principles of human development but has a primary focus on infancy through adolescence. Emphasis is placed on theory and data related to the development of cognition, human movement, social, visual, auditory and linguistics skills. Apply the theories of development to best determine the greatest level of involvement. Demonstrate knowledge of the normal sequence of movement, hearing, speech, language, and cognition and describe the normal variations of the developmental sequence.</p>	

3 Theoretical = 3 Credits	Phonetics	SLS 221
<p>المتطلب السابق:</p> <p>Introduction to Hearing and Speech Sciences</p> <p>HCS 111</p>	<p>The course deals with the study of theoretical principles of phonetics and their application in assessment and treatment of speech disorders. It involves transcription of typical and atypical speech patterns using the International Phonetic Alphabet in broad transcription. Phonetic transcription is an important and helpful tool for speech-language pathologists, who will use it in clinical practice. This course will also cover the basic anatomical structures related to speech production and culturally influenced speech production. Students will interpret other's broad phonetic transcriptions using the IPA.</p> <p>Students will be able to broadly transcribe spontaneous speech using the International Phonemic Alphabet (IPA).</p> <p>Students will recognize cultural differences and influences on speech patterns.</p> <p>Students will identify and understand the purpose of specific phonetic markers used in narrow transcription using the IPA.</p> <p>Students will broadly identify the basic anatomical structures that support speech production and relate the movements of the speech mechanisms to the articulation of speech sounds.</p> <p>Students will demonstrate understanding of the purpose and use of phonologic transcription for speech-language pathologists in terms of recognizing how phonetic transcription may be used to analyze spontaneous speech samples of typical patterns, as well as atypical patterns, such as those related to developmental errors or structural differences</p>	

3 Theoretical + 1 Practical = 4 Credits	Anatomy and Physiology of Speech and Hearing	SLS 222
<p>المتطلب السابق:</p> <p>Introduction to Hearing and Speech Sciences</p> <p>HCS 111</p>	<p>Normal anatomy and physiology of speech, language and hearing will be presented. Specific breakdowns in anatomical and physiological functioning resulting in communication disorders will be discussed. This course is designed to also provide the undergraduate student with a functional clinical knowledge related to the anatomy and physiology of speech, language and hearing. Attention is given to the specific structures, muscles, and functions of respiration, phonation, resonance, and articulation. An overview is also provided of the central and peripheral nervous systems.</p> <p>Analyze, synthesize and evaluate knowledge re: swallowing disorders</p> <p>Analyze, synthesize and evaluate knowledge re: speech, resonance, and articulation disorders</p> <p>Analyze, synthesize and evaluate knowledge re: cognitive aspects of communication</p> <p>Analyze, synthesize and evaluate knowledge re: voice disorders</p> <p>Analyze, synthesize and evaluate knowledge re: hearing disorders</p> <p>Analyze, synthesize and evaluate knowledge re: receptive and expressive language disorders</p>	

3 Theoretical + 1 Practical = 4 Credits	Linguistics	SLS 223
<p>المتطلب السابق: لا يوجد</p>	<p>An introduction to the normal language acquisition, including the language components and the physical, social, and cognitive bases of language. In addition to language theories, and how language evolves from infancy through adulthood. Cultural influences language development will also be explored. Study of language components; linguistics including the description of phonology, morphology, syntax, semantics and pragmatics as the main branches. The syntactic structure of English and Arabic languages including the grammatical elements. An introduction to language assessment, remediation and screening procedures.</p> <p>Students must demonstrate understanding of etiologies and characteristics of receptive and expressive language (phonology, morphology, syntax, semantics, and pragmatics) in speaking, listening, reading, writing, and manual modalities.</p> <p>Students will demonstrate knowledge of basic human communication processes, including their psychological, developmental, linguistic and cultural bases.</p> <p>The student will describe the social-interactive bases of language.</p> <p>The student will describe the structural bases of human communication.</p> <p>The student will describe the major theories of language acquisition.</p> <p>The student will define language and its components.</p> <p>Students must define bilingualism</p> <p>Students must demonstrate understanding of etiologies and characteristics of cognitive aspects of communication (attention, memory, sequencing, problem-solving, executive functioning).</p> <p>The student will define emergent literacy and discuss the language base necessary for the development of reading skills.</p> <p>The student will discuss the development of each language component in infants, toddlers, preschoolers, school-age children, and adolescents.</p> <p>The student will discuss cultural and ethnic differences in language development.</p> <p>The student will discuss language changes across the lifespan.</p> <p>Students will be aware of the complex organization and systematic nature of language, the primary means of human communication.</p>	

2 Theoretical = 2 Credits	Professionalism and Ethics	SLS 224
<p>المتطلب السابق:</p> <p>لا يوجد</p>	<p>This program focuses on defining ethical behavior for speech pathology professionals. Information presented includes the theoretical basis for ethical decision-making, conflict of interest, confidentiality, informed consent, the ASHA Code of Ethics and other international codes. In addition to legal standards of behavior, and hypothetical case scenarios.</p> <p>Students will explore expectations for professional behavior based upon national and international standards.</p> <p>Students will demonstrate understanding of ethics, legal considerations and professional advocacy in the profession.</p> <p>Students will learn how to make the right decisions.</p> <p>Students will demonstrate understanding of ethical theories.</p> <p>Students will demonstrate understanding of professional relationships.</p> <p>Students will demonstrate understanding of consents and confidentiality.</p> <p>Students will contrast professional and business practices in different speech-language work settings.</p>	

1 Theoretical + 1 Practical= 2 Credits	Developmental Language Disorders-1	SLS 311
<p>المتطلب السابق:</p> <p>Linguistics</p> <p>SLS 223</p> <p>المتطلب المصاحب:</p> <p>Neuroanatomy and physiology of speech and hearing</p> <p>SLS 313</p>	<p>This course covers the nature of developmental language disorders , the assessment methods and procedures of language intervention in children with developmental disorders . The focus of this course is in children from preschool age to adolescence. The course begins with an introduction to definitions, models and prevalence of developmental language disorders. The course addresses the language and cognitive characteristics of children with language impairment including specific language impairment and nonspecific language impairment. In addition, the assessment of language competence and performance is covered that includes its goals, assessment methods and other related topics. It also addresses theoretical bases and practical consideration of intervention that include principles and goals of the intervention; intervention efficacy; and major intervention approaches. In addition, the course covers specific language interventions in prelinguistic, preschool and school-age children. Topics related to language disorders in special population are covered</p> <p>The objective of this course is to provide the student with an understanding of the nature of developmental language disorders and assessment and intervention methods; with clinical skills to plan and conduct an assessment and therapy for children with developmental language impairment.</p> <p>The objective of this course is to provide the student with an understanding of the principles and procedures of language intervention in children with developmental language impairment from preschool age to adolescence; and with clinical skills to plan and conduct an intervention to children with developmental language impairment.</p>	

2 Theoretical + 1 Practical= 3 Credits	Acquired Language Disorders	SLS 312
<p>المتطلب السابق:</p> <p>Linguistics</p> <p>SLS 223</p> <p>المتطلب المصاحب:</p> <p>Neuroanatomy and physiology of speech and hearing</p> <p>SLS 313</p>	<p>This course covers the theoretical and clinical issues related to the assessment and intervention of acquired language disorders in brain-damaged individuals. Causes and patterns of communication deficits including classification of aphasia are addressed. The course covers assessment and intervention approaches related to aphasia, right-hemisphere damage traumatic brain injury and dementia.</p> <p>The objective of this course is to provide the student with an understanding of the theoretical and clinical issues related to the assessment and intervention of acquired language disorders in brain-damaged individuals; and with clinical skills to plan and conduct appropriate assessment and intervention to adults with acquired language disorders including aphasia, right-hemisphere damage traumatic brain injury and dementia.</p>	

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3 Theoretical + 1 Practical= 4 Credits	Neuroanatomy and physiology of speech and hearing	SLS 313
<p style="text-align: right;">المتطلب السابق:</p> <p>Anatomy and Physiology of Speech and Hearing</p> <p>SLS 222</p> <p style="text-align: right;">المتطلب المصاحب:</p> <p>Acquired Language Disorders</p> <p>SLS 312</p>	<p>This course studies the anatomy and physiology of the nervous system. The course covers the anatomy and physiology of the central nervous system which includes the two gross divisions of the central nervous system (i.e., brain and spinal cord). In addition, the course covers the anatomy and physiology of the peripheral nervous system which includes the cranial nerves, the peripheral nerves. The protection and blood supply of the brain are covered. An introduction to speech and language disorders related to brain injuries is addressed.</p> <p>The objective of this course is to provide the necessary anatomical and physiological background to understand the neurological bases of normal speech-language, hearing and swallowing mechanisms.</p>	

2 Theoretical + 1 Practical= 3 Credits	Referral and Professional Counseling	SLS 314
<p style="text-align: right;">المتطلب السابق:</p> <p>English for Health Programs (2)</p> <p>ENGL 207M</p> <p>Introduction to Hearing and Speech Sciences</p> <p>HCS 111</p>	<p>Exposed to multidisciplinary work in communicative and swallowing disorders , practice and consultation in communicative disorders , demonstrate understanding of teamwork skills and role of other professionals in the team responsible for management of communicative and swallowing problems. In addition , demonstrate understanding basic concepts of writing a referral letter and a full medical files for patients.</p> <p>Understanding basic concepts of referral and medical consultation.</p> <p>Introduction to multidisciplinary management of communicative and swallowing disorders.</p> <p>Role of other professionals in managing swallowing and communicative problems.</p> <p>Basic concepts of counselling patients who and when to consult other specialists.</p>	

2 Theoretical + 1 Practical= 3 Credits	Articulatory Disorders	SLS 321
<p>المتطلب السابق:</p> <p>Phonetics</p> <p>SLS 221</p>	<p>Study of the nature of different types of speech disorders in children and adults. Also, to show the basic theories, assessment procedures, therapeutic methods and how to use them in planning and applying treatment. The course develops the skills to handle patient with Artic/Phonological disorders clinically.</p> <p>Students will have Intellectual understanding and practical application of causes of Articulation and Phonological Disorders.</p> <p>Students will develop the skills to prevent effectively Articulation and Phonological Disorders.</p> <p>Students will develop the skills to , plan, and implement appropriate intervention strategies for persons presenting with articulation and/or phonological disorders .</p> <p>Students will develop the skills to assess effectively Articulation and Phonological Disorders.</p> <p>Students will have intelecual understaning and application of Report Writing and Developing Recommendations.</p> <p>Students will understand and apply Oral Peripheral Examination.</p> <p>Student will identify the regional or cultural dialectal variations of speech sound production.</p>	

2 Theoretical + 1 Practical= 3 Credits	Fluency Disorders	SLS 322
<p>المتطلب السابق:</p> <p>Neuroanatomy and physiology of speech and hearing</p> <p>SLS 313</p>	<p>The study of the development of normal fluency and the onset and development of stuttering, as well as the assessment and management of stuttering across the lifespan. In addition to the knowledge of the nature, etiology, theories, classifications and prognostic indicators of fluency disorders. Overview of formal and informal assessment, clinical treatment and counseling procedures.</p> <p>Students will demonstrate understanding of the nature, characteristics, and onset of stuttering.</p> <p>Students will Define and describe speech fluency and factors which interfere with it.</p> <p>Students will Evaluate and measure relevant aspects of the stuttering disorder and be able to integrate assessment information to provide an appropriate diagnosis, prognosis, developmental/treatment level, and recommendations for individual clients.</p> <p>Students will demonstrate understanding of various theoretical models concerning the etiology of stuttering and the continued development of the disorder as well as variables that contribute to its maintenance and prevention.</p> <p>Students will be able to develop individualized treatment programs by integrating elements from different approaches as appropriate for each client.</p> <p>Students will construct goals in counseling the parents/caregivers of children who stutter, as well as the client who stutters.</p> <p>Students will demonstrate understanding of differential diagnosis and treatment principles for clients who demonstrate cluttering, neurogenic disfluency, and psychogenic disfluency.</p> <p>Students will demonstrate understanding of the varied treatment approaches for those children who stutter and present with associated speech and/or language disorders.</p>	

2 Theoretical + 2 Practical= 4 Credits	Resonance Disorders	SLS 323
<p>المتطلب السابق:</p> <p>Neuroanatomy and physiology of speech and hearing</p> <p>SLS 313</p> <p>Anatomy and Physiology of Speech and Hearing</p> <p>SLS 222</p>	<p>This course deals with aspects of resonance disorders and laryngectomy. It examines anatomy and physiology of oral/nasal resonance, velopharyngeal valve, and normal embryology of the velopharynx. It also provides an introduction to laryngectomy indications and complications. Rehabilitation and therapeutic aspects of velopharyngeal incompetence and laryngectomy will be presented. Tools, techniques, and instruments used to diagnose individuals with resonance disorders.</p> <p>Anatomy and physiology of resonance structures. Therapeutic methods for resonance disorders. Normal embryological development of the velopharynx. Counseling individuals with resonance disorders and their families. Structural, pathological, and/or neurological etiologies associated with resonance problems. Common symptoms associated with resonance disorders</p>	

2 Theoretical + 1 Practical= 3 Credits	Neurogenic Speech Disorders	SLS 324
<p>المتطلب السابق:</p> <p>Neuroanatomy and physiology of speech and hearing</p> <p>SLS 313</p>	<p>The course describes and defines characteristics and underlying neuropathology of different types of dysarthria and apraxia of speech including differential diagnosis. In addition, this course covers the assessment and management of motor speech disorders that are related to developmental and acquired and neuromotor disorders, and swallowing disorders. The course describes and defines behavioral characteristics and underlying neuropathology of different types of dysarthria and apraxia of speech.</p> <p>The objectives of this course are to provide the student with an understanding of the characteristics and underlying neuropathology of different types of dysarthria and apraxia of speech; with clinical skills to plan and conduct appropriate assessment and intervention to individuals with neuromotor disorders; with knowledge and clinical skills to conduct differential diagnosis to distinguish motor speech disorders from psychogenic disorders and other neurogenic</p>	

	speech disorders.
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1Theoretical + 1 practical= 2 Credits	Developmental Language Disorders-2	SLS 327
<p>المتطلب السابق:</p> <p>Developmental Language Disorders-1</p> <p>SLS 311</p>	<p>This course covers the nature of developmental language disorders , the assessment methods and procedures of language intervention in children with developmental disorders . The focus of this course is in children from preschool age to adolescence. The course begins with an introduction to definitions, models and prevalence of developmental language disorders. The course addresses the language and cognitive characteristics of children with language impairment including specific language impairment and nonspecific language impairment. In addition, the assessment of language competence and performance is covered that includes its goals, assessment methods and other related topics. It also addresses theoretical bases and practical consideration of intervention that include principles and goals of the intervention; intervention efficacy; and major intervention approaches. In addition, the course covers specific language interventions in prelinguistic, preschool and school-age children. Topics related to language disorders in special population are covered.</p> <p>The objective of this course is to provide the student with an understanding of the nature of developmental language disorders and assessment and intervention methods; with clinical skills to plan and conduct an assessment and therapy for children with developmental language impairment.</p> <p>The objective of this course is to provide the student with an understanding of the principles and procedures of language intervention in children with developmental language impairment from preschool age to adolescence; and with clinical skills to plan and conduct an intervention to children with developmental language impairment.</p>	

2 Theoretical + 1 Practical= 3 Credits	Research Project I	SLS 411
<p>المتطلب السابق:</p> <p>Biostatistics</p> <p>HRS 116</p>	<p>The course covers fundamental topics related to research methodology. The following research issues will be addressed: key components of a research project/proposal/paper, ethical issues related to health-related research, how to develop clear and effective research questions, key descriptive components of quantitative research, how to conduct essential comparison of means statistical tests, correlation and reliability analyses, regression and factor analyses, and how to conduct statistical measurement, methods of analysis, and interpretation of results.</p> <p>Essential comparison of means statistical tests. Key components of a research project/proposal/paper. Correlation, reliability analyses. Ethical issues related to health-related research. Regression and factor analyses. Clear, effective research questions. Statistical measurement, methods of analysis, and interpretation of results. Key descriptive components of quantitative research</p>	

2 Theoretical + 1 Practical + 1 clinical = 4 Credits	Clinical Preparation	SLS 412
<p>المتطلب السابق:</p> <p>Referral and Professional Counseling</p> <p>SLS 314</p>	<p>The course covers:</p> <p>1- clinical foundations and principles for conducting speech and language assessment and treatment for individuals with communication disorders. The course covers the nature of speech-language pathology services and service delivery and practical issues in variety of settings (hospitals, rehabilitation centers, schools). Treatment plan, session plan and target selection across disorders are addressed. In addition, report writing including record keeping, treatment plan report and diagnostic report and other reports are covered.</p> <p>2- advanced topics related to clinical practice of speech-language pathologist. The course covers the scope of practice of other related professions and their relationship with SLP; referral patterns and procedures; behavioral managements on children with disabilities; evidence-based practice and counseling for clients with communication disorders and their families.</p> <p>The objectives of this course are: 1- to provide the student with an understanding and knowledge of clinical foundations and principles for conducting speech and language assessment and treatment for individuals with communication disorders; with understanding of the nature of speech-language pathology services and service delivery including practical issues in variety of settings; with clinical skills to develop treatment plan, session plan, to write different reporte and to select appropriate target across disorders.</p> <p>2- to provide the student with an understanding and knowledge on advanced topics related to clinical practice of speech-language pathologist that include behavioral managements on children with disabilities, evidence-based practice and counseling for clients with communication disorders and their families.</p>	

2 Theoretical + 1 Practical = 3 Credits	Swallowing and Dysphagia in Adult	SLS 413
<p>المتطلب السابق:</p> <p>Neuroanatomy and physiology of speech and hearing</p> <p>SLS 313</p> <p>Anatomy and Physiology of Speech and Hearing</p> <p>SLS 222</p> <p>المتطلب المصاحب:</p> <p>Feeding and Dysphagia in Children</p> <p>SLS 414</p>	<p>The purpose of this course is to help prepare the student for working with adult populations with swallowing disorders. Anatomical bases of normal and disordered swallowing in adults will be presented. Etiologies of dysphagia will be presented including the role of respiratory and digestive systems and abnormalities in each that may cause dysphagia. Specific information on ways to evaluate and manage adults with dysphagia will be stressed. Oral motor assessment and intervention will also be presented. Current research in this area will be presented</p> <p>Clinical evaluation of swallowing abilities.</p> <p>Anatomical structures associated with feeding and swallowing.</p> <p>Instrumental assessments of swallowing and when to refer patients for the appropriate assessment.</p> <p>Physiology of deglutition during each stage of swallowing.</p> <p>Treatment goals and recommendations.</p> <p>Feeding and swallowing similarities and differences in adults vs children.</p> <p>Non-oral options for nutritional intake and ethical guidelines.</p> <p>Risk factors of dysphagia</p>	

2 Theoretical + 1 Practical = 3 Credits	Feeding and Dysphagia in Children	SLS 414
<p>المتطلب السابق:</p> <p>Neuroanatomy and physiology of speech and hearing</p> <p>SLS 313</p> <p>Anatomy and Physiology of Speech and Hearing</p> <p>SLS 222</p> <p>Human Growth & Development</p> <p>HCS 113</p> <p>المتطلب المصاحب:</p> <p>Swallowing and Dysphagia in Adult</p> <p>SLS 413</p>	<p>Students will be introduced to assessment and treatment plans for the infant, child and/or adolescent presenting with oro-pharyngeal swallowing and feeding disorders. Anatomical bases of normal and disordered swallowing in pediatric population will be presented. Etiologies of feeding disorders and dysphagia will be presented including the role of respiratory and digestive systems. Specific information on ways to evaluate and manage pediatric population with dysphagia and feeding problems will be stressed. Oral motor assessment and intervention will also be presented. Current research in this area will be introduced.</p> <p>Alternative models of service delivery to meet the individual needs of the child.</p> <p>Differences in the physiology and anatomy of the swallowing mechanism of the child and the adult.</p> <p>Instrumentation assessment of dysphagia.</p> <p>Normal developmental sequence of oro-motor, swallowing and feeding skills.</p> <p>Pediatric dysphagia treatment options.</p> <p>Etiologies associated with pediatric dysphagia.</p> <p>Legal and ethical issues regarding the assessment and treatment of pediatric dysphagia.</p> <p>Children from neonates through adolescents with developmental disabilities</p>	

2 Theoretical + 1 clinical = 3 Credits	Aural Rehabilitation	SLS 415
<p>المتطلب السابق:</p> <p>Audiology</p> <p>ADU326</p>	<p>Aural Rehabilitation is a study of the management of children and adults with hearing impairments, with emphasis on the development and maintenance of functional communication through: amplification, auditory training (auditory aural and auditory verbal), speech reading, and speech and language intervention. The effects of auditory deprivation on communication abilities of children and adults will be described. Emphasis will be provided on cochlear implantation (re)habilitation. Students will observe and practice the clinical application of these approaches. Hearing aids and cochlear implants.</p> <p>Components and process of aural rehabilitation for children and adults.</p> <p>Assistive listening devices and needs of children in the educational setting.</p> <p>Basic principles of, counseling persons with hearing impairments and their families.</p> <p>Aural (re)habilitation techniques, including those related to cochlear implantation (re)habilitation.</p> <p>(Re)habilitation assessment needs in children and adults.</p>	

2 Theoretical + 1 practical= 3 Credits	Research Project II	SLS 421
<p>المتطلب السابق:</p> <p>Research Project I</p> <p>SLS 411</p>	<p>The course covers advanced topics related to research methodology. The following research-related issues will be addressed: elements of effective literature review based on APA guidelines, the quality of a research article, how to create a methodology section based on APA guidelines, conducting content analysis, creating a results section (including tables and figures) based on APA guidelines, creating discussion section based on APA guidelines, creating a reference and abstract sections based on APA guidelines, and evaluating research articles and discussing appropriateness of research objective, methods, and interpretations</p> <p>Results section (including tables and figures). Key elements in an effective literature review. Discussion section. The quality of a research article. Reference and abstract sections. Methodology section based on APA guidelines. General evaluation of research articles. Content analysis.</p>	

2 Theoretical + 1 practical= 3 Credits	Voice Disorders	SLS 422
<p>المتطلب السابق:</p> <p>Research Project I Neuroanatomy and physiology of speech and hearing</p> <p>SLS 313</p> <p>Anatomy and Physiology of Speech and Hearing</p> <p>SLS 222</p> <p>المتطلب المصاحب:</p> <p>Voice assessment and rehabilitation</p> <p>SLS 423</p>	<p>This course will provide students with a foundation for working clinically with adults and children with voice disorders. Aspects of normal voice production, classification of voice disorders and a review of the anatomy and physiology of phonation will be addressed. Information regarding voice disorders.</p> <p>. Anatomy and physiology of the human vocal production and changes across the lifespan.</p> <p>Etiology, features, and outcomes of common voice disorders.</p>	

3 Theoretical + 1 practical= 4 Credits	Voice assessment and rehabilitation	SLS 423
<p>المتطلب السابق:</p> <p>Neuroanatomy and physiology of speech and hearing</p> <p>SLS 313</p> <p>Anatomy and Physiology of Speech and Hearing</p> <p>SLS 222</p> <p>المتطلب المصاحب:</p> <p>Voice Disorders</p> <p>SLS 422</p>	<p>This course will provide students with a foundation for working clinically with adults and children with voice disorders.. Information regarding voice evaluation, and voice therapy will be reviewed and discussed. Instrumental voice evaluation will be demonstrated. Related current research will be introduced.</p> <p>Assessment methods of voice disorders</p> <p>Medical treatment procedures for vocal pathologies.</p> <p>Voice therapy techniques</p>	

2 Theoretical + 1 practical= 3 Credits	Augmentative and Alternative Communication	SLS 424
<p>المتطلب السابق:</p> <p>Research Project I Neuroanatomy and physiology of speech and hearing</p> <p>SLS 313</p>	<p>The course describes augmentative and alternative communication systems used by individuals with moderate to severe speech and writing developmental and acquired disabilities. The course covers planning and administration of appropriate assessment and intervention for AAC users considering characteristics of AAC users including their communication modes</p> <p>The objectives of this course are to provide the student with an understanding and knowledge of augmentative and alternative communication systems used by individuals with moderate to severe speech and writing developmental and acquired disabilities; and with clinical skills to plan and conduct appropriate assessment and intervention to select and implement AAC systems that meet individual needs of AAC users.</p>	

2 Theoretical + 1 clinical= 3 Credits	Report writing and counseling in speech	SLS 425
<p>المتطلب السابق:</p> <p>Clinical Preparation</p> <p>SLS 412</p> <p>Referral and Professional Counseling</p> <p>SLS 314</p>	<p>This course is designed to explore theories of counseling related to the management of persons with communicative and swallowing disorders. Different approaches for interacting with patients and their families individually and in groups will be addressed. In addition to report writing and using this materials in counseling and referral to other professions.</p> <p>Deal with child's emotional response to their communicative problems.</p> <p>Use basic knowledge of counseling skills to enhance clinical communication and decision-making.</p> <p>documenting and report writing of language, speech ,voice and swallowing results</p> <p>.Providing patients with data regarding speech and with advice regarding equipment and strategies that will make communication easier</p> <p>Provide informational counseling to children about hearing loss or communicative strategies</p>	

2 Theoretical + 1 Practical= 3 Credits	Audiology	ADU326
<p>المتطلب السابق:</p> <p>Introduction to Hearing and Speech Sciences</p> <p>HCS 111</p>	<p>course introduces students to audiology and provides an overview of audiological anatomy, physiology, function and the basic principles of audiological assessment and therapy. The effects of hearing impairment on communication abilities will be stressed. The need for audiological screening and prevention will be presented.</p> <p>Therapeutic interventions related to hearing impairment</p> <p>Anatomy, embryology, and physiology of hearing.</p> <p>Effects of hearing impairment on communication abilities.</p>	

<p>3 Theory + 2 practical = 4 credits</p>	<p>Human Anatomy and physiology</p>	<p>HRS 111</p>
<p>المتطلب السابق:</p> <p>Human Biology</p> <p>HFSB 101-1</p>	<p>This course deals with the structure and function of the human body and mechanisms for maintaining homeostasis within it. It includes the study of cells, tissues, the integumentary, skeletal, muscular and nervous systems. The endocrine, cardiovascular, lymphatic, respiratory,</p>	

	<p>Etiologies underlying hearing loss. and prevention Audiological screening. Measures used to assess hearing impairment.</p>
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<p>Biology for Health programs</p> <p>HFSB 102-1</p>	<p>digestive, urinary and reproductive systems, as well as the concepts of development, metabolism, fluid and electrolyte balance, and acid-base balance are included. Identification of anatomical structures on a Human Anatomy Torso model will be required in the laboratory. Moreover students are required to perform some laboratory tests related to certain organ systems.</p>
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<p>2 Theory + 1 practical = 3 credits</p>	<p>Emergency life support techniques</p>	<p>HRS 11</p>
<p>المتطلب السابق:</p> <p>Human Biology</p> <p>HFSB 101-1</p> <p>Biology for Health programs</p> <p>HFSB 102-1</p>	<p>The course is a 3 unit course of lectures and laboratory which develops the students knowledge on the basic concepts first aid and cardiorispiratory resuscitation. The student will also be learning how to assess emergency situations such as bleeding, fractures , wounds and shock. The student will also be learning how to prevent disease transmittion, and isolation concepts. To realize the general concepts and the basis of first aid and perform CPR effectively To deal with and manage common first aid emergencies. To deal with and manage common first aid emergencies. To assess the emergency situation and categorize the patients according to the periorities and degree of illness To communicate with the operator , colleagues and patients relatives effectively based on professional ethics and control protocols</p>	

2 Theory + 1 practical = 3 credits	Biostatistics	HRS 116
<p>المتطلب السابق:</p> <p>Human Biology</p> <p>HFSB 101-1</p>	<p>After the introductory course “Introduction to biostatistics”.The goal of this course is to learn advanced techniques in data analysis for quantitative and categorical variables. In this course, students will perform inference about means, correlation, regression and inference about proportion, using hand calculations and computational support (SPSS)</p> <p>Multiple linear regression</p> <p>Students will learn inference about mean</p> <p>Inference about a proportion</p> <p>Comparing independent means</p> <p>Comparing two proportions</p> <p>Comparing several means –ANOVA-</p> <p>Cross tabulated counts</p> <p>Correlation</p> <p>Stratified 2 by 2 tables</p> <p>Regression Multiple linear regression</p>	