

Course Description for Faculty Requirements

- 050110** **Physiology 1** **2**
7 **credits**
Prerequisite : (0304101)
This course is designed to introduce the students to the basic concepts of cardiovascular , respiratory and nervous systems physiology . The course begins with the basic concepts of physiological control and homeostasis . It focuses on the contribution of the above systems on the general functions of the human body . Special senses will be covered .
- 050210** **Anatomy of Head , Neck , and Thorax** **3**
7 **credits** **Prerequisite : (0304101)**
This course will cover head, neck and brain , and thorax . It concentrates on parts of the above subjects and their functions and relations It focuses on brain centers and the tracts which transmit orders to extremities , with special emphasis on functional anatomy and its relation to disabilities which require rehabilitation .
- 180414** **Introduction to Speech-Language and Hearing Disorders**
0 **3credits**
The nature of speech and language pathology , deviations from normal speech and language patterns , e.g. , disorders of language , articulation , voice , and stuttering , aphasia and neuromotor speech disorders . Types , degrees , causes , signs and symptoms of hearing loss ; mechanisms of hearing ; simple clinical tests and brief anatomy and physiology of the ear .
- 180424** **Research Methods in Rehabilitation Sciences** **3**
0 **credits**
This course focuses on evaluation of research designs and Biostatistics. Application of research on clinical practice and methodological considerations in rehabilitation sciences with emphasis on hypothesis statement, data collection, results and conclusions and students involvement in critique of published articles.
- 180244** **Management and Leadership** **3**
7 **credits**
This course includes management and leadership principles and concepts necessary to promote the student's ability to manage care and make appropriate decisions related to clients . It also covers concepts and principles necessary to facilitate student's growth to prepare them as future rehabilitation leaders able to affect quality of care and introduce change when necessary . The use of computers in rehabilitation programs is illustrated .

Course Description: BSc. in Hearing and Speech Sciences

(1804100) Anatomy & Physiology of Hearing & Speech (3 credits)

Study of the anatomy & physiology of hearing & speech mechanisms. It includes hearing & balance , respiratory , phonatory , articulatory & resonance mechanisms , and neurophysiological principles fundamental to the understanding of hearing & speech & voice production .

(1804110) Language Science (3 credits)

Analysis of syntax , pragmatic , and semantic aspects of language with emphasis on Arabic Language ; the linguistic and psycholinguistic theory and variables of normal development of speech , language , and hearing .

(1804141) Clinical Phonetics (3 credits)

Study of phonetics as applied to communication disorders ; International Phonetic Alphabet (IPA) . Transcription practice of normal and abnormal speech . Relationship of phonological transcription and analysis to communication disorders .

(1804211) Child Language Development (3 credits)

1014Prerequisite: 180

Major theories of language acquisition; early stages of language acquisition: birth to 3; collecting and analyzing data with a view to comparing their findings with available norms in the field .

(1804230) Bases of Hearing Science (3 credits)

0Prerequisite: 180410

Fundamentals of hearing: including the physics of sound, different parameters, types, production and transmission and it measurement. psychophysical procedures and perception; structure, function and disorders of conductive and sensory neural mechanisms.

(1804231) Introduction to Audiology (3 credits)

Prerequisite: 1804230

The field of Audiology: basic hearing testing: pure tone tests, speech tests, clinical masking, impedance measurements; evaluation and remediation of hearing loss.

(1804240) Research Methods in Rehabilitation Sciences (3 credits)

This course focuses on evaluation of research designs and Biostatistics. Application of research on clinical practice and methodological considerations in rehabilitation sciences with emphasis on hypothesis statement, data collection, results and conclusions and students involvement in critique of published article (1804310) **Language Disorders in Children**

(3 credits)

Prerequisite: 1804211

The basic concepts in this field such as language impairment, language delay, diagnosis, and treatment procedures; the various types of language disorders (syntactic, morphological, semantic, and pragmatic) will be highlighted. Student will also be trained to collect language samples and to analyze them.

(1804320) Articulation Disorders & Phonological theories (3 credits)

Prerequisite: 1804141

Etiology, diagnosis and early intervention of the articulatory disorders resulting from deviant phonological rule systems; review of traditional and innovative evaluation and treatment procedures; the importance of early intervention and the involvement of parents and school teachers will be highlighted.

(1804321) Fluency Disorders (3 credits)

Theories of etiology (constitutional, developmental and environmental factors); normal and abnormal dysfluency; evaluation and diagnosis procedures; stages of stuttering; therapeutic approaches of stuttering; the psychological, social, and academic effects.

(1804322) Evaluation , Diagnosis & Reports Writing in communication disorders (1 credit)

Prerequisite: 1804320

The basic formal and informal assessment used in communication disorders: language, articulation, voice, and stuttering, the analysis of the results obtained and the differential diagnostic procedures; the use of formal diagnostic instruments and informal observations are considered. How to write clinical reports in communication disorders .

(1804323) Medical Aspects of speech & language disorders (3 credit)

Prerequisite: 1804320

This course surveys a broad range of speech and language pathologies frequently encountered in medical facilities including hospitals , rehabilitation centers and skilled nursing facilities. These disorders includes aphasia , traumatic brain injury , dementia and right hemisphere brain damage , swallowing and voice and speech disorders (dysarthria , stuttering) . The nature of these disorders and underlying bases will be surveyed and the role of the medical speech-language pathologist in their assessment and management .

(1804331) Hearing Disorders in Children (3 credits)
Prerequisite: 1804231

The importance of hearing for children; normal auditory, behavioral and language development, testing and evaluation of hearing for different age groups; screening and early detection of hearing impairment; high risk register will also be introduced.

(1804332) Medical Aspects of Hearing Loss (3 credits)
Prerequisite: 1804231

Clinical examination of the ear; disorders and pathologies of the external, middle, and inner ear that affect hearing and balance; symptoms, diagnosis, complications and treatment of the different ear disorders; facial nerve disorders and hearing.

(1804350) Clinical Practicum in Speech -Observation (1 credit)

Supervised observations of assessment, treatment, parent counseling, and other clinical services provided in speech clinics; referrals and cooperation with other specialists .

(1804351) Clinical Practicum in Speech - 1 (1 credit)
Prerequisite: 1804350

Gradual implementation and evaluation of individualized therapy programs for clients in the clinic; presentation and discussion of clinical issues related to patients during clinicians' meetings.

(1804354) Clinical Practicum in Audio logy-Observation (1 credit)

Observation of the system of work in Audio logy clinics; different audio logical disorders; techniques used in diagnosis and treatment; assistance to department activities.

(1804355) Clinical Practicum in Audiology- 1 (1 credit)
Prerequisite: 1804354

Training to students to practice evaluation, diagnosis and treatment of individuals with hearing impairments under the direct supervision of the audiologist; participation in department discussions and activities.

(1804400) Craniofacial Anomalies and Hearing Loss
credits)

(3

Embryology , anatomy , and physiology of craniofacial structures . Diagnosis and treatment of congenital craniofacial anomalies , and hearing loss associated with congenital mxillo – palatal and ophthalmic anomalies and syndromes . Counseling and management of these cases .

(1804401) Introduction to Cochlear Implant (3 credits)

An introduction to the cochlear implant technology, how it functions and how it is implanted. The criteria for candidacy of adult and pediatric patients, as well as the pre and post implant testing, counseling, treatment, and the post-surgical audiologic rehabilitation .

(1804410) Aphasia (3 credits)

The field of neurolinguistics and neurogenic language disorders such as Broca's aphasia, wernike's aphasia and conduction aphasia, etc; the concept of diagnosis and evaluation; methods of training and family members' counseling .

(1804411) Dyslexia (3 credits)

Learning disabilities in general; reading and spelling problems in particular; various theories on dyslexia and agraphia; causes of these disabilities; diagnosis of reading difficulties, and their academic, social, and psychological impact on the patient.

(1804420) Voice Disorders (3 credits)

Various functional and organic voice disorders, e.g., vocal nodules, spasmodic dysphonia, aphonia, laryngeal cancer, and contact ulcer; the principles and methods of evaluation and intervention for vocal disorders found in adults and children will be highlighted.

(1804421) Rehabilitation for Clients with Special Needs (3 credits)

Acquainting students with the various types of handicaps such as mental retardation, cerebral palsy, autism, Down Syndrome; the effects of these handicaps on speech and language: the basic principles of evaluation and treatment; aspects of cooperation with professional in special education

(1804422) Principles of Clinics Management in Speech Pathology (3 credits)

Principles and procedures underlying patient selection, appropriate placement, clinical settings, organizing, administering, and supervising speech, language and hearing programs. Students will be introduced to the various types of clinical settings (hospitals, universities and schools).

(1804423) Communication Disorders Related to Cleft Palate (3 credits)

Communication problems related to velopharyngeal incompetence or VPI caused by a deficiency of the velum or an increased size of the pharynx; imaging techniques used for evaluating these disorders and designing, along with other team members; the prosthetic means to reduce or eliminate VPI; speech therapy techniques.

(1804424) Speech and Language Rehabilitation for Hearing Impaired (3 credits)

Prerequisite: 1804231

Speech and language problems associated with hearing impairment, the study, analysis, and application of various therapeutic procedures for developing and improving communication skills in hearing impaired children and adults.

(1804425) Neuromotor speech Disorders (3 credits)

Evaluation and treatment of dysarthria, apraxia and other speech and voice problems associated with neuropathologies in children and adults, e.g., cerebral palsy.

(1804426) Instrumentation in Speech and Language Pathology (3 credits)

Prerequisite: 1804230

Major methods for measuring acoustic and aerodynamic signals of speech and voice; whenever possible, actual instrumentation will be used to obtain and analyze actual patient data and use it in the evaluation and treatment of speech and voice.

(1804427) Special Topic in Speech and Language Pathology (3 credits)

An in-depth treatment of a topic of interest in speech and language pathology; the exact topic is determined by the faculty member who teaches the course and the needs of the students.

(1804428) Dysphagia (2 Credits)

Prerequisite: 1804100

The basics of the anatomy and physiology of normal swallow; etiologies for dysphagia; the framework for the physical and laboratory evaluation and treatment of dysphagia.

(1804430) The Life of Hearing-impaired Child (3 credits)

Prerequisite: 1804331

Social, familial, and psychological aspects of the hearing-impaired child; causes, evaluation, treatment, and remediation; speech and linguistic effects of hearing loss; counseling, rehabilitation and educational alternatives.

(1804431) Special Topic in Audiology
(3 credits)

An in-depth treatment of a topic of interest in audiology; the exact topic is determined by the faculty member who teaches the course and the needs of the students.

(1804432) Aural Rehabilitation

(3 credits)

Prerequisite: 1804331

The effect of hearing disorders on speech and language; theory, procedures for assessment and rehabilitation of hearing impaired children and adults; hearing aids use and evaluation; cochlear implant and training programs.

(1804433) Hearing Aids

(3 credits)

Prerequisite: 1804331

Components, acoustic and electronic characteristics of hearing aids; evaluation; measurement procedures; prescription and fitting of hearing aids; types of hearing aids and other devices.

(1804434) Balance Disorders

(3

credits)

Prerequisite: 1804231

This course surveys the anatomical and physiological basis of balance and the role of vestibular system. Normal balance, types and causes of dizziness. Also the history, examination, investigations, and management of the dizzy patient will be covered in this course.

(1804435) Noise & the Ear

(3

credits)

Consideration of the impact of environmental noise on society. Emphasis on measurement, damage risk criteria and the legal aspects of noise control and hearing conservation approaches.

(1804352) Clinical Practicum in Speech - 2

(1 credit)

Prerequisite: 1804351

Gradual implementation and evaluation of individualized therapy programs for clients in the clinic; presentation and discussion of clinical issues related to patients during clinicians' meetings.

(1804456) Clinical Practicum in Audiology - 2

(1

credit)

Prerequisite: 1804355

Training to students to practice evaluation, diagnosis and treatment of individuals with hearing impairments under the direct supervision of the audiologist; participation in department discussions and activities.

(1804462) Clinical training in Speech

(2

credits)

Prerequisite: (1804452)

This course intends to help students conduct all assessment measures and write clinical reports in the field of speech language pathology in speech clinics, hospitals and specialized, accredited public and private centers, it

also helps students to participate in research activities in the department , under the supervision and licensed speech – language pathologist .

(1804463) Clinical training in Audiology
credit)

(2

Prerequisite: (1804456)

Training to students to take case history of hearing and balance disorders and perform different audiological tests in the hearing clinics of accredited hospitals and centers in public and private sectors (internship and externships) under the supervision of audiologists . Participate in teaching and research activities of the department .