Faculty of Pharmacy and Medical Sciences

Department of Audiology and Speech Phathology

93111 General Chemistry (1) [3] [3-3]
Introduction to chemical sciences; Matter: Classification, Properties of different types of matter; Elements and the periodic table: Nomenclature, Simple ionic and covalent compounds, Measurements, and significant figures; Stoichiometry: % composition, formulas, and chemical equations; Chemical reactions of aqueous solutions: acids, Bases and salts; Oxidation-reduction reactions; Chemical configuration of atoms: Properties of ionic and covalent bonds, and Lewis structure.

Prerequisite: -

93113 General Chemistry Lab [1] [2-1]
Introduction to laboratory safety Rules; Physical Separation of mixtures: Distillation, extraction, and recrystallization; Empirical formula of compound; Determination of acid and base in vinegar; Indicators; buffers; measurement of pH; Identification of chemical substances; Solutions.

Prerequisite: -

93114 Biology (1) [3] [3-3]
Introduction to general biology; Water; Macromolecules; Cell; Membrane; Metabolism; Cellular Respiration; Cell Cycle; From Gene to Protein.

Prerequisite: -

93115 Biology (2) [3] [3-3]
The biological diversity; Diversity of the five kingdoms of living organisms: Organisms, Monerans, and Protists; The major phyla of the animal kingdom; The structure and function of systems and organs of the animals (using the human body as a model); Survey on plant: Structure, function diversity, and its ecological importance.

Prerequisite: 93114 Biology (1)

93116 Biology Lab [1] [2-1]
Introduction to Biology Lab; Compound light microscope; Preparing slides: Plant tissue, and animal tissue; Physical and chemical properties of cell; Histology; Animal tissue; Basic microbiological techniques to identify gram positive and gram negative bacteria; Plants and its life cycle: Algae, fungi, and bryophytes; Introduction to protozoan: vertebrate, and dissect example of vertebrates
Prerequisite: -

93120 Organic Chemistry [3] [3-3]
Introduction to organic chemistry; Bonding: Polarity, Structural formulas, Isomerism, and Hybridization; Classification of organic compounds; Aliphatic compounds: Nomenclature and reactions, Alkanes, alkenes, alkynes, and cycloalkanes; Aromatic compounds; Alcohols; Ethers; Aldehydes; Ketones; Carboxylic acids; Esters; Acyl halides; Amides; Amines.

Prerequisite: 93111 General Chemistry (1)

36129 General Physics [3] [3-3]
Introduction to Physics; Measurement and standards; Physical quantities; Vectors; Addition and multiplication of vectors; Motion in straight line: displacement, velocity, acceleration, finding the motion of an object, free fall, and vertical jumping; Motion in two dimensions; Projectile in Biomechanics; Newton’s laws: Static C.G., Levers in the body, muscles and, and jaws of animals; Collisions.

Prerequisite: -

36112 Mathematics [3] [3-3]
Introduction to Calculus; The rate of change of a function; Limits; Derivatives of algebraic functions and their applications; Integration; Application of the definite integral.

Prerequisite

91471 First Aid [1] [1-1]
Introduction; Manufacturing of pharmaceuticals; Basic principles of industrial processes: Mixing, Milling, Drying, Sterilization; Transfer processes; Unit operation.

Prerequisite: 91215 Physiology (2)

91316 Pathology [2] [2-2]
Introduction; Fundamental principles of pathophysiology; Cell and tissue injury; Acute and chronic inflammation; Tissue regeneration and repair; Disease of immune system; General pathology of infectious diseases; Neoplasia and hemodynamic disturbances.
Prerequisite: 91215 Physiology (2)

29101 Introduction to special education  (3) [3-3]
Introduction; Special education; Mental retardation; Hearing impairment, Visual impairment, and Physical impairment; Learning disabilities; Emotional disturbance; Autism; Speech and language disorders; Talent and giftedness.

Prerequisite: -

26152 Principles of Guidance and Counselling  (2) [2-2]
Introduction; Counseling and Guidance; Counseling as science and art; Personal qualities of effective helper; Scope of practice; Ethical and legal aspects of counseling.

Prerequisite: -

96111 Principles of Hearing and Speech  (3) [3-3]
Introduction; Basic concepts of human communication; Communication disorders: Basic information regarding various language, articulation, voice, fluency and hearing disorders; Brief orientation to the profession of speech pathology and audiology.

Prerequisite: -

96117 Anatomy Related to hearing and speech  (3) [3-3]
Introduction; Review of basic anatomical and physiological concepts; The outer and middle ears; The cochlea; Cranial Nerve VIII; The central auditory pathways; Vascular Anatomy of the Auditory System; The Respiratory System; The Laryngeal System; The Skull; The Articulators and Associated Structures.

Prerequisite: 93115 Biology (2)

96118 Introduction to linguistics  (3) [3-3]
Introduction; Nature of language; Phonetics/phonology; Morphology; Syntax; Semantics; Pragmatics; Historical linguistics; Sociolinguistics.

Prerequisite: -

96119 Introduction to phonetics  (3) [3-3]
Introduction; The acoustical; Articulatory and auditory features of speech sounds.

Prerequisite: 91118 Introduction to linguistics
96213  **Language acquisition and development**  {3} [3-3]
Introduction; Language and its relation to communication and speech; Characteristics of human language; Language modalities; Communication competence; Biological basis of language; Development of language speech subsystem; The operant model: Skinner’s verbal behavior; Piaget’s theory of language; Chomsky’s language acquisition device; Fillmore’s case grammar; Searle’s Speech act theory; Infant communication development; Toddlers communication development; Preschoolers communication development.

*Prerequisite: 96119  Introduction to phonetics*

36231  **Acoustics**  {2} [2-2]
Introduction; Orientation to the acoustical features of sound and the sound transmission in the environment.

*Prerequisite: 36129  General Physics*

96218  **Psychoacoustics**  {2} [2-2]
Introduction; Orientation to the acoustical features of sound and the sound transmission in the environment.

*Prerequisite: 36231  Acoustics*

96201  **physiology of speech and Hearing**  {3} [3-3]
Introduction; Illustrative models and computer software to highlight physiological functions of speech and hearing systems.

*Prerequisite: 96117  Anatomy Related to hearing and speech*

96417  **Instrumentation for speech**  {2} [2-2]
Introduction; Illustrative models and computer software to highlight physiological functions of speech and hearing systems.

*Prerequisite: 96201  physiology of speech and Hearing*

96228  **Hearing Evaluation (I)**  {2} [2-2]
Introduction; Technique and interpretation of conventional hearing investigations: pure tone audiometry, masking, speech audiometry, tympanometry, acoustic reflexes, reflex decay, acoustic reflex decay, SISI, and ABLB; Interpretation and reporting the results of hearing; Assessment for medical legal aspects.
Prerequisite: 36213 Acoustics

96229 Hearing Evaluation Lab (I) {1} [2-1]
Introduction; Clinical training on the use of different audiometric equipment: a tuning fork, otoscope, pure tone hearing test, examination of the middle ear pressure, muscle contraction passenger screening, and hearing test verbal; Interpretation of conventional audiological investigation of adults and children over 5 years old. Interpretation of audiometry results.

Prerequisite: -

96234 Language disorders for children {3} [3-3]
Introduction; Principle issues and research concerning various speech and language disorders in children; Assessment and management of such disorders.

Prerequisite: 36231 Acoustics

96235 Language disorders for children {3} [3-3]
Introduction; Stuttering causing factors; Development of stuttering; Stuttering assessment; Stuttering treatment.

Prerequisite: 96201 physiology of speech and Hearing

96236 Articulation and Phonolgocal disorders {3} [3-3]
Introduction; Articulatory Phonetics: Phonetic Transcription; Normal Phonological Development; Prelinguistic Stages; Assessment and Evaluation: Evaluation by the Clinician, Initial Impression, Articulation Tests, and Diagnosis; Preliminary Analysis; Decision Making; Measures of Intelligibility and Severity; Articulation versus; Phonological Disorders; Therapy for Phonetic Errors.

Prerequisite: 96201 physiology of speech and Hearing

96243 Language disorders of hearing impaired children {1} [1-1]
Introduction; Language disorders of hearing: Hearing disorders, Study of the language level, and Description of language and speech development for the hearing impaired children; Assessment of communicative difficulties in these children, and the various lines of management.

Prerequisite: 96228 Hearing Evaluation (I)

96251 Learning Disabilities {3} [3-3]
Introduction; Language disorders of hearing: Hearing disorders, Study of the language level, and Description of language and speech development for the hearing impaired children; Assessment of communicative difficulties in these children, and the various lines of management.

**Prerequisite:** 29101 Introduction to special education

**96252 Behavior Modification** [3] [3-3]
Introduction; Aims of counseling and Guidance; Principles of counseling and Guidance; Famous theories used in counseling and Guidance; Means of getting information to help clients; Method of counseling and Guidance and the characteristics of the counselor.

**Prerequisite:** 96251 Learning Disabilities

**96308 Introduction to speech training** [2] [2-2]
Introduction; Team work: Professions the co-operate, with SLPs in the rehabilitative process, and SLPs role in the rehabilitative process; The clinic; Instrumentation in speech language pathology; Assessment of language disorders: SLI, aphasia, stuttering, phonological, disorders, voice disorders, and motor speech disorders; Treatment.

**Prerequisite:** 96213 Language acquisition and development

**96302 Speech evaluation (Observation)** [1] [1-1]
Introduction; Sessions in the speech clinics; Standard operating procedures of a speech clinic; Instruments of Speech Pathology.

**Prerequisite:** -

**96303 Hearing Evaluation (2)** [2] [2-2]
Introduction; Comprehensive survey of theoretical and applied auditory physiological measures; Evoked neural responses; Otoacoustic emission; Cochlear implant selection procedures.

**Prerequisite:** 96228 Hearing Evaluation (I)

**96304 Hearing Evaluation Lab (2)** [1] [2-1]
Practical training of students to test the hearing of adults

**Prerequisite:** -

**96305 Hearing Evaluation (3) Pediatric** [2] [2-2]
Introduction; Application of audiologic test procedures; Rehabilitation techniques: Study of risk criteria and screening protocols for neonatal, infants, preschool and school children; Habilitation programs for: Neonates, infants, and children.

**Prerequisite: 96303 Hearing Evaluation (2)**

**96306 Noise induced hearing loss [2] [2-2]**
Introduction; Orientation to the possible environmental causes that results in hearing loss, prevention and the measurement of noise in nature.

**Prerequisite: 96303 Hearing Evaluation (2)**

**96307 Neurogenic speech and language disorders [3] [3-3]**
Introduction; Neuroanatomy; Neurophysiological aspects related to speech and language functions: Neurological insults that result in neurological voice, and speech.

**Prerequisite: 96209 Neurology**

**96318 Clinical practicum in speech (1) [2] [2-2]**
Introduction; Clinical practicum in speech: Profession, code of ethics, organization of the clinics, filing system, and general lines of evaluation; Orientation to filling of all the record forms: report writing, and treatment progress sheets; Observation and partial involvement in assessment and therapy of language: articulation, and phonological disordered patients.

**Prerequisite: 96308 Introduction to speech training**

**96323 Voice Disorders [3] [3-3]**
Introduction: Physiology of the vocal mechanism; Pathologies of the vocal mechanism; Assessment of voice including elementary: Clinical, and additional instrumental measures; Discussion of various therapeutic approaches including: pharmacological, behavioral, surgical, and technical aid devices.

**Prerequisite: 96201 physiology of speech and Hearing**

**96324 Clinical Practicum in Speech (2) [2] [2-2]**
Introduction; Training in the speech clinic; Assessment; Treatment of different types of disorders in children and adults; Clinical presentation and submission of diagnostic reports; Administration of various language and speech tests.
**Prerequisite: 96318 Clinical practicum in speech (1)**

96325 Clinical Practicum in Audiology (1) [2] [2-2]
Introduction; Orientation of all hearing tests of adults with application of such tests on normal’s.

**Prerequisite: 96304 Hearing Evaluation Lab (2)**

96335 Auditory-Verbal therapy [3] [3-3]
Introduction; The designed Therapy to teach a child to use the hearing provided by a hearing aid or a cochlear implant for understanding speech and learning to talk; Auditory-Verbal Therapy Methods; Theory and application of the auditory-verbal approach to the habilitation.

**Prerequisite: 96236 Articulation and Phonological disorders**

96409 Hearing Evaluation (4) Electrophysiology [3] [3-3]
Introduction; Advanced audiological investigation of hearing; Evohed pohengal measurements; Acoustic emission.

**Prerequisite: 96305 Hearing Evaluation (3) Pediatric**

96414 Instrumentation for hearing [3] [3-3]
Introduction; Basic electronics, electroacoustic equipment, technique for measuring sound properties and equipment of calibration.

**Prerequisite: 96409 Hearing Evaluation (4) Electrophysiology**

96415 Clinical Practicum in speech (3) [2] [2-2]
Introduction; The course includes involvement of the students in working with patients; Full assessment and therapy; Counseling and Interviewing techniques; Writing full reports; Treatment plans; Progress notes.

**Prerequisite: 96324 Clinical Practicum in Speech (2)**

96415 Clinical Practicum in speech (3) [2] [2-2]
Introduction; The course includes involvement of the students in working with patients; Full assessment and therapy; Counseling and Interviewing techniques; Writing full reports; Treatment plans; Progress notes.

**Prerequisite: 96324 Clinical Practicum in Speech (2)**
96421 *Hearing aids* (2) [2-2]
Introduction; Hearing aids; Acoustical and Electronic features; The Ear moulds, and manufacturing; The acoustical issues of the ear moulds.

*Prerequisite:* 96303 Hearing Evaluation (2)

96422 *Hearing aids Lab* (1) [2-1]
Introduction; Applied study of the hearing aids components and preparing the ear moulds.

*Prerequisite:* -

96424 *Clinical practicum in Audiology* (2) [2] [2-2]
Introduction; Orientation of the different hearing tests in the hearing impaired adults.

*Prerequisite:* 96325 Clinical Practicum in Audiology (1)

96425 *Clinical practicum in Audiology* (3) [2] [2-2]
Introduction; Orientation of the different hearing tests; Children suffering hearing loss; Actual application of such tests and completing the evaluation and diagnosis process.

*Prerequisite:* 96424 Clinical practicum in Audiology (2)

96434 *Aural rehabilitation* [2] [2-2]
Introduction; Importance of Hearing; Impact of Hearing Problems; Hearing Loss; Assessment of Hearing & Speech Recognition; Listening Devices; Management of Cochlear Implants; Emotional Response to Hearing Loss; Family Counseling for Children with Hearing Loss; Primary Language Development; Auditory Training; Strategies for Facilitating Hearing and Listening; Communication Strategies Training.

*Prerequisite:* 96421 Hearing aids

96435 *Nonverbal Communication* [2] [2-2]
Introduction; Message and vocabulary; Symbols and communication; Alternative access to the device; Assessment in Augmentative and Alternative Communication (AAC); Assessment of specific capabilities; AAC and developmental disabilities; AAC in language learning and development; Training programs.

*Prerequisite:* 96307 Neurogenic speech and language disorders
96440  Introduction to Balance Disorders and Evaluation [2] [2-2]
Introduction; The basic principles of vestibular: Evaluation including case history, procedures, and interpretation.

Prerequisite: 96409  Hearing Evaluation (4) Electrophysiology

96441  Resonance disorders and cleft palate [2] [2-2]
Introduction; Anatomy & Physiology of the VP Port; Embryology & Classifications of Cleft Lip & Palate; Genetics in Craniofacial Anomalies; The Interdisciplinary Team for Management of Craniofacial Anomalies; Surgical Intervention; Prosthodontic Management; Audiological Management; Etiology of the Speech Disorders in Patients with Cleft Palate; Assessment & Evaluation of Velopharyngeal Function & Cleft Palate Speech Disorders; Nasometry & VP Inadequacy; Speech Intervention, Rationale & Principles; Early Speech Intervention; Speech Intervention for Preschool-Age Children; Speech Intervention for School-Age & Adults with Clefts.

Prerequisite: 96323  Voice Disorders

96440  Swallowing disorders [2] [2-2]
Introduction; Anatomy of Swallowing; Physiology of Swallowing; Clinical Assessment of Dysphagia: Radiographic Contrast Examination of the Mouth, Pharynx, and Esophagus I; Radiographic Contrast Examination; Mouth, Pharynx, and Esophagus II; Neurologic Diseases Affecting Oropharyngeal Swallowing; Diseases and Operation of Head and Neck Structures Affecting Swallowing; Development of Feeding Skills; Etiologies of Feeding and Swallowing; Disorders in Children; Compensatory Treatment Procedures; Therapy Procedures; Medical Intervention; Surgical Management of Impaired Bolus Transit; Nutritional Support Bypassing Oropharyngeal Swallowing.

Prerequisite: 96307  Neurogenic speech and language disorders

96226  Otology [3] [3-3]
Introduction; Ear pathologies; Ear pathologies affecting both hearing and vestibular functions; Diagnosis and medical treatment of those pathologies.

Prerequisite: 91316  Pathology

25151  Developmental Psychology [3] [3-3]
Introduction; Definitions and concepts in developmental psychology; Comprehend principles of developmental psychology; Methods of research in developmental psychology Basic; Theories of developmental psychology; Understand psychoanalysis theories; Theories of developmental psychology; Cognitive theories, and Social cognitive theories; Prenatal stage; New born infant stage; Comprehend Sensation development; Early childhood stage; Adolescence stage.
Prerequisite: 96325 Clinical Practicum in Audiology (1)

26209 Neurology (3) [3-3]
Introduction; Functional anatomy, physiology, and Pathology of relevant nervous system structures involved in the speech; Language and hearing processes of communication.

Prerequisite: 96117 Anatomy Related to hearing and speech

96443 Methods of scientific research (1) [1-1]
Introduction; Scientific method of research; Tools of research; Statistical measurements.

Prerequisite: