الجامعة الأردنية كلية علوم التأهيل قسم علوم السمع والنُطق Department of Hearing & Speech Sciences

Bachelor of Science Degree Curriculum In Hearing and Speech Sciences

2013/2012

Dept. of Hearing & Speech Sciences
Faculty of Rehabilitation Sciences
University of Jordan

CURRICULUM

Bachelor of Science (BSc) in "Hearing & Speech Sciences"

<u>A- Curriculum Contents</u>
135 credit hours are needed to obtain a Bachelor of Science degree in Rehabilitation Sciences College divided as follows:

NO.	SUBJECT	CREDIT HOURS
III II	University Requirements Faculty Requirements Specialty Requirements	27 27 81
Total		135

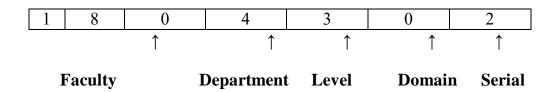
B- Numbering System 1- Departments Codes

No.	Department
1	Department of Physiotherapy
2	Department of Occupational Therapy
3	Department of Orthotics & Prosthetics
4	Department of Hearing & Speech Sciences

2- Courses Codes

Decimal Domain Numbers

No.	Domain	No.	Domain
0	Medical Sciences	5	Practicum Training
1	Language Sciences	6	Clinical Training
2	Speech	7	
3	Hearing	8	
4	Hearing & Speech	9	



First: University requirements: (27) credit hours

A. Obligatory requirements: (12) credit hours

B. Elective requirements: (15) credit hours

A. obligatory requirements: (12) credit hours.

Course No.	Name of course	Credit hours
1501100	Arabic communication skills	3
1502100	English communication skills	3
1700100	National Education	3
1500100	Military sciences	3
Total		12

Second: University requirements: (27) credit hours

A- Obligatory requirements: (12) credit hours B- Elective requirements: (15) credit hours

A- Elective requirements: (15) credit hours the student should choose from the first, second and the third fields minimum one subject from each field and maximum two subjects from each field and it should be from out side the department of specialization: First Field: Humintarian Sciences:

Course No.	course	Credit Hours	prerequisite
1041100	LEGAL EDUCATION	3	-
0401100	ISLAMIC EDUCATION	3	-
0402100	THE REGIME OF ISLAM	3	-
2302101	HUMANS CIVILIZATION	3	-
1601105	ADMINISTRATIVE SKILLS	3	-
2301100	CREATIVE WRTING	3	-
0803100	INTRODUCATION TO LIBRARY &	3	-
	INFORMATION		
1132100	HEALTH & SPORT	3	-
2001100	ARTISTIC TASTE	3	-
1502103	FOREIGN LANGUAGE	3	-
1032100	HUMAN RIGHTS	3	-

Second Field: Social & Economic Siences:

Course No.	course	Credit Hours	prerequisite
2302104	THE HISTORY OF JORDAN & PALISTINE	3	1
1607100	GLOBAL POLITICAL ECONOMY	3	-
2308100	PRINCIPLES OF POLITICAL SCIENCE	3	-
2303100	LOGIC CRITICAL THINKING	3	-
2305100	INTRODUCTION TO SOCIAL SCIENCE	3	-
2307100	PRINCIPLES PSYCHOLOGY	3	-
2304100	GEOGRAPHY OF JORDAN	3	-
2601100	JORDAN IMPLICATIONS	3	-
2701100	PRINCIPLES OF SOCIAL WORK	3	-

Third Field: Sience & Technolgy & Agriculture & Health:

Course No.	course	Credit Hours	prerequisite
0505100	PUBLIC HEALTH PRINCIPLES	3	-
0300100	RESEARCH METHODOLOGY	3	-
0342100	SIENCE & SOCIETY	3	-
0641100	HOME GARDEN	3	-
0905100	PRINCIPLES OF PUBLIC SAFTEY	3	-
0352100	PRINCIPLES OF ENERGY & ECONOMIC	3	-
0905101	JORDAN INDUSTRY	3	-
0603100	PRINCIPLES OF HUMAN NUTRITION	3	-
0305100	ENVIRONMENT	3	-
0700100	FIRST AID	3	-

Second: Faculty requirements: (27) credit hours

A- Obligatory requirements: (27) credit hours C- Elective requirements : None

A- Obligatory requirements: (27) credit hours includes the following:

Course	course	Weekly	Hours	Credit	prerequisite
N0.		Theory	Practicum	Hours	
0304101	General biology I	3	-	3	-
1942102	Computer Skills	3	-	3	-
0342103	General physics for life sciences	3	-	3	-
0501107	Physiology I	2	-	2	0304101
0502107	Anatomy of head, neck & thorax	2	2	3	0304101
1802131	Psychology of Rehabilitation	2		2	-
1801101	Rehabilitation Principles and Ethics	3	-	3	-
1801381	Bio-Statistics for rehabilitation students	2	-	2	-
1804340	Research methods in rehabilitation sciences	3	-	3	1801381
1802447	Management & Leadership	3	-	3	-

Third: Specialty requirements: (81) credit hours divided as follows:-

A. Obligatory requirements: (69) credit hours
B. Elective requirements: (12) credit hours
A- Obligatory requirements: (69) credit hours include the following:-

G 330	Name of course	Week	ly Hours	Credit hours	
Course No.		Theory	Practicum		prerequisite
1804100	Anatomy & Physiology of Hearing & Speech	3	-	3	-
1804110	Language Science	3	-	3	-
1804140	Introduction to speech-language & hearing disorders	3	-	3	-
1804141	Clinical Phonetics	3	-	3	-
1804211	Child Language Development	3	-	3	1804110
1804230	Bases of Hearing Science	3	-	3	1804100
1804231	Introduction to Audiology	3	-	3	1804230
1804310	Language Disorders in Children	3	-	3	1804211
1804220	Articulation Disorders & Phonological theories	3	-	3	1804141
1804321	Fluency Disorders	2	-	2	-
1804227	Evaluation , Diagnosis & Reports Writing in communication disorders	3	-	3	1804220
1804323	Medical Aspects of speech & language disorders	2	-	2	1834320
1804331	Hearing Disorders in Children	3	-	3	1804231
1804436	Medical Aspects of Hearing Loss	3	-	3	1804231
1804350	Clinical Practicum in Speech -Observation	-	4	1	1834320
1804351	Clinical Practicum in Speech -1	-	4	1	1804350
1804354	Clinical Practicum in Audiology-Observation	-	4	1	1804231
1804355	Clinical Practicum in Audiology -1	-	4	1	1804354
1804309	Aphasia	2	-	2	-
1804420	Voice Disorders	3	-	3	-
1804428	Dysphagia	2	-	2	1804100
1804452	Clinical Practicum in Speech -2	-	4	1	1804351
1804456	Clinical Practicum in Audiology -2	-	4	1	1804355
1804462	Clinical training in Speech	-	8	2	1804452
1804463	Clinical training in Audiology	-	8	2	1804456
0805220	Introduction to Special Education	3	-	3	-
0805212	Behavior Modification	3	-	3	-
1804432	Aural rehabilitation	3	-	3	1804331
1804433	Hearing aids	3	-	3	1804331
					Or concurrent

B- Elective requirements : (12) credit hours from the following groups. Minimum 3 hours from any group.

	First Group (Audiology)						
Course	ourse Name of course Weekly Hours		Weekly Hours		prerequisite		
N0.	T (unite of course	Theory	Practicum	hours	Proceduration		
1804357	Clinical Practicum in Audiology- Special topic	3	12	3	Dept. Approval		
1804400	Craniofacial Anomalies and Hearing Loss	3	-	3	-		
1804401	Introduction to Cochlear Implant	3	-	3	1804231		
1804430	The Life of Hearing-impaired Child	3	-	3	1804331		
1804431	Special Topic in Audiology	3	-	3	-		
1804434	Balance Disorders	3	-	3	1804231		
1804435	Noise & the Ear	3	-	3	-		

	Second Group (Speech)					
Course	Name of course	Week	y Hours	Credit hours	prerequisite	
N0.		Theory	Practicum			
1804356	Clinical Practicum in Speech- Special topic	3	12	3	Dept. Approval	
1804411	Dyslexia	3	-	3	-	
1804421	Rehabilitation for Clients with Special Needs	3	-	3	-	
1804422	Principles of Clinics Management in Speech Pathology	3	-	3	-	
1804423	Communication Disorders Related to Cleft Palate	3	-	3	1834220	
1804424	Speech and Language Rehabilitation for Hearing Impaired	3	-	3	1804231	
1804425	Neuromotor speech Disorders	3	-	3	-	
1804426	Instrumentation in Speech and Language Pathology	3	-	3	1804230 Or concurrent	
1804427	Special Topic in Speech and Language Pathology	3	-	3	-	

Courses Offered by the Department

Course No.	Name of course	Credit hours	
1804100	Anatomy & Physiology of Hearing & Speech	3	
1804110	Language Science	3	
1804140	Introduction to speech-language & hearing disorders	3	
1804141	Clinical Phonetics	3	
1804211	Child Language Development	3	
1804220	Articulation Disorders & Phonological theories	3	
1814227	Evaluation , Diagnosis & Reports Writing in communication disorders	3	
1804230	Bases of Hearing Science	3	
1804231	Introduction to Audiology	3	
1804310	Language Disorders in Children	3	
1804309	Aphasia	2	
1804321	Fluency Disorders	2	
1804323	Medical Aspects of speech & language disorders	2	
1804328	Dysphasia	2	
1804331	Hearing Disorders in Children	3	
1804436	Medical Aspects of Hearing Loss	3	
1804340	Research Methods in Rehabilitation Sciences	3	
1804350	Clinical Practicum in Speech -Observation	1	
1804351	Clinical Practicum in Speech -1	1	
1804354	Clinical Practicum in Audio logy-Observation	1	
1804355	Clinical Practicum in Audiology -1	1	
1804356	Clinical Practicum in Speech- Special topic	3	
1804357	Clinical Practicum in Audiology- Special topic	3	
1804400	Craniofacial Anomalies and Hearing Loss	3	
1804401	Introduction to Cochlear Implant	3	
1804411	Dyslexia	3	
1804420	Voice Disorders	3	
1804421	Rehabilitation for Clients with Special Needs	3	
1804422	Principles of Clinics Management in Speech Pathology	3	
1804423	Communication Disorders Related to Cleft Palate	3	
1804424	Speech and Language Rehabilitation for Hearing Loss	3	
1804425	Neuromotor speech Disorders	3	
1804426	Instrumentation in Speech and Language Pathology	3	
1804427	Special Topic in Speech and Language Pathology	3	

1804430	The Life of the Child with Hearing-Loss	3		
1804431	Special Topic in Audiology	3		
1804432	Aural Rehabilitation	3		
1804433	33 Hearing Aids			
1804434	Balance Disorders	3		
1804435	Noise & the Ear	3		
1804452	Clinical Practicum in Speech -2	1		
1804456	Clinical Practicum in Audiology -2	1		
1804462	Clinical training in Speech	2		
1804463	Clinical training in Audiology	2		

Dept. of Hearing & Speech Sciences Guidelines for Courses Registration

First Year

First Semester			Second Semester			
Course No.	Name of Course	Credit hours	Course No.	Name of Course	Credit hours	
0342103	General physics for life sciences	3	1804141	Clinical phonetics	3	
0304101	General biology	3	0501107	Physiology I	2	
1804140	Introduction to Speech- Language & Hearing Disorders	3	1802131	Psychology of Rehabilitation	3	
1942102	Computer skills 2	3	1801101	Rehabilitation Principles and Ethics	3	
1804110	Language science		1804100	Anatomy & physiology of hearing & speech	3	
				University Requirement	3	
	TOTAL 1:			TOTAL	17	

Second Year

First Semester			Second Semester		
Course No.	Name of Course	Credit hours	Course No.	Name of Course	Credit hours
0502107	Anatomy of head, neck, & thorax	3	1804231	Introduction to audiology	3
1804211	Child language development	3	1804220	Articulation disorders & phonological theories	3
0805220	Introduction to Special Education	3	0805212	Behavior modification	3
1804230	Bases of hearing science	3	1804227	Evaluation, diagnosis & reports writing in communication disorders	3
	University requirement	3		University requirement	3
	University requirement	3		University requirement	3
TOTAL		18		TOTAL	18

Third Year

First Semester			Second Semester		
Course No.	Name of Course	Credit hours	Course No.	Name of Course	Credit hours
1804321	Fluency disorders	2	1804309	Aphasia	2
1804310	Language disorders in children	3	1804331	Hearing disorders in children	3
1804350	Clinical practicum in speech -observation	1	1802447	Management & leadership	3
1804354	Clinical practicum in audiology -observation	1	1804351	Clinical practicum in speech- 1	1
1804323	Medical aspects of Speech & Language Disorders	2	1804355	Clinical practicum in audiology- 1	1
1801381	Bio-Statistics	2	1804340	Research method in rehabilitation sciences	3
	Elective Course	3	1804328	Dysphasia	2
	University Requirement	3		University Requirement	3
TOTAL		17		TOTAL	18

Fourth Year

	First Semester			Second Semester	
Course No.	Name of Course	Credit hours	Course No.	Name of Course	Credit hours
1804420	Voice disorders	3	1804336	Medical aspects of	3
				hearing loss	
1804452	Clinical practicum in	1	1804462	Clinical training in	2
	speech- 2			speech	
1804456	Clinical practicum in	1	1804463	Clinical training in	2
	audiology- 2			audiology	
1804432	Aural Rehabilitation	3	1804433	Hearing Aids	3
	Elective Course	3		Elective course	3
	University Requirement	3			
	University Requirement	3			
TOTAL		17		TOTAL	13

Faculty Requirements Course Description

0501107 Physiology 1

(2 credit hours)

Prerequisite: (0304101)

This course is desgined to inreduce the students to the basic concepts of cardiovascular, respiratory, and nerveous 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.

0502107 Anatomy of Head, Neck, and Thorax Prerequisite: (0304101)

(3 credit hours)

Prerequisite: (0304101)
This course will cover head no

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 centres and the tracts which transmit orders to extremities, with special emphasis on functional anatomy and its relation to disabilities which require rehabilitation.

1804340 Research Methods in Rehabilitaion Sciences (3 Prerequiste: 1801381

(3 credit hours)

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.

1802447 Management and Leadership

(3 credit hours)

This course discusses the general principles of management and leadership with emphasis on those needed by rehabilitation professionals in healthcare management. Examples of such skills include communication skills with the medical team, crisis management, delegating responsibilities, time management and improving service quality. Also important skills for resume preparation, job interviews and presentation skills are discussed.

1802131 Psychology in Rehabilitation Sciences (2 credit hours)

This course discusses the psychosocial aspects of disability commonly encountered in rehabilitation settings. The course will help students communicate with patients in a therapeutic manner while consider important factors that may affect intervention planning and implementation in all rehabilitation fields for children and adults. Common conditions include congenital, physical, mental, and long term disabilities.

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 neuropheysiological principles fundamental to the understanding of hearing & speech & voice production.

1804110 <u>Language Science</u>

(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.

1804140 <u>Introduction to Speech-Language and Hearing Disorders</u> (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.

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)

Prerequisite: (1804110)

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.

1804220 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.

1804227 Evaluation, Diagnosis & Reports Writing in communication disorders

(3 credit)

Prerequisite: (1804220)

The basic formal and informal assessment used in communication disorders, 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.

1804230 Bases of Hearing Science

(3 credits)

Prerequisite: (1804100)

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 <u>Introduction to Audiology</u>

(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.

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.

1804309 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.

1804321 Fluency Disorders

(2 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.

1804323 Medical Aspects of speech & language disorders

(2 credits)

This course surveys a broad range of speech and language pathologies frequently incountered 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 .

1804328 <u>Dysphagia</u>

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.

1804331 Hearing Disorders in Children

(3 credits)

(2 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.

1804436 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.

1804340 Research Methods in Rehabilitation Sciences

(3 credits)

Prerequisite: (1801381)

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.

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 <u>Clinical Practicum in Speech - 1</u>

(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)

Prerequisite: (1804231)

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.

1804356 <u>Clinical Practicum in Speech-A Special Topic</u>

(3 credit)

Prerequisite: (Department approval)

A clinical topic of interest in speech and language pathology is determined by the faculty member who teaches the course, and the needs of the students.

1804357 <u>Clinical Practicum in Audiology- A Special Topic</u>

(3 credit)

Prerequisite: (Department approval)

A clinical topic of interest in audiology is determined by the faculty member who teaches the course, and the needs of the students.

1804400 Craniofacial Anomalies and Hearing Loss

(3 credits)

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

1804401 <u>Introduction to Cochlear Implant</u>

(3 credits)

Prerequisite: (1804231)

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 .

1804411 <u>Dyslexia</u>

(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

(3credits)

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 <u>Communication Disorders Related to Cleft Palate</u>

(3 credits)

Prerequisite: (1804220)

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 theses 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 <u>Instrumentation in Speech and Language Pathology</u>

(3 credits)

Prerequisite: (1804230 or concurrent)

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.

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 or concurrent)

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 vestibncar 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.

1804452 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 <u>Clinical training in Speech</u>

(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 <u>Clinical training in Audiology</u>

(2 credit)

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.