



Course Specification

— (Bachelor)

Course Title: **Speech and Language Development**

Course Code: **AUD 225**

Program: **Bachelor of Science in Audiology and Balance (BSc)**

Department: **Department of health Communication Sciences**

College: **College of Health and Rehabilitation Sciences**

Institution: **Princess Nourah bint Abdulrahman University (PNU)**

Version: **2**

Last Revision Date: **1 Oct 2023**



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A. General information about the course:

1. Course Identification

1. Credit hours: 3 hours (2 Theory, 1 Practical, 0 Clinical)

2. Course type

A. ☐ University ☐ College ☒ Department ☐ Track ☐ Others
B. ☒ Required ☐ Elective

3. Level/year at which this course is offered: (4th level, 2nd year)

4. Course general Description:

The course focuses on primary components of language development (morphology, phonology, semantics, syntax, pragmatics, literacy development, and multicultural and multilingual differences) with examples that illustrate children's speech and language behaviors.

The course describes the typical speech and language development of preschool-, early school-, and later school-aged children and studies the impact of these deficits on cognitive domains: Attention, memory, executive functioning, and reasoning.

5. Pre-requirements for this course (if any):

NA

6. Co-requisites for this course (if any):

NA

7. Course Main Objective(s):

What is the main purpose of this course?

The student will:

- Understand the sequence of development for speech and language development.
- Recognize integration of language components.
- Realization of the psychoacoustic parameters and influences involved in speech perception.
- The student will acquire the knowledge necessary to identify varying types and degrees of hearing loss and make decisions regarding their speech, language and educational implications.
- Understand how caregivers can positively affect the acquisition of communication, language, and speech
- Expose the student to basic issues associated with assessment, diagnosis of typical speech and



language skills for a variety of age ranges (e.g., formal language assessment tools normative curve, language sample analysis, formal speech assessment tools, speech sample analysis).

- Apprehend basic classroom modification which assists in the acquisition and maintenance of communication competencies.

2. Teaching mode (mark all that apply)

No	Mode of Instruction	Contact Hours	Percentage
1	Traditional classroom	60	100%
2	E-learning		
3	Hybrid <ul style="list-style-type: none"> • Traditional classroom • E-learning 		
4	Distance learning		

3. Contact Hours (based on the academic semester)

No	Activity	Contact Hours
1.	Lectures	30
2.	Laboratory/Studio	30
3.	Field	
4.	Tutorial	
5.	Others (specify)	
Total		60

B. Course Learning Outcomes (CLOs), Teaching Strategies and Assessment Methods

Code	Course Learning Outcomes	Code of CLOs aligned with program	Teaching Strategies	Assessment Methods
1.0	Knowledge and understanding			
1.1	Identify milestones of normal speech and language development within different components of language (syntax, semantics, pragmatics, phonology) as well as different modalities (e.g., oral, written).	K2	Lectures, Independent study, Active learning and group discussions, Problem-based learning, and Clinical	MCQ. MEQ (Modified essay questions) SEQ (Short essay questions) True/False Fill in the blanks.





Code	Course Learning Outcomes	Code of CLOs aligned with program	Teaching Strategies	Assessment Methods
			case presentation: role playing.	Matching
1.2	Use language learning theories and link them to communication and hearing.	K2	Lectures, Independent study, Active learning and group discussions, Problem-based learning, and Clinical case presentation: role playing.	MCQ. MEQ (Modified essay questions) SEQ (Short essay questions) True/False Fill in the blanks. Matching
2.0	Skills			
2.1	Identify red flags and high-risk factors that warrant speech and language services	S2	Lectures, Simulation, Group discussion, Case presentations	Assignments Projects Presentation Community service
2.2	Identify the effects of hearing loss on speech and language development.	S2	Lectures, Simulation, Group discussion, Case presentations	Assignments Projects Presentation Community service
3.0	Values, autonomy, and responsibility			
3.1	Demonstrate appropriate interprofessional collaboration skills in the prevention of communication disorders related to hearing loss.	V1	Demonstrations, Simulated experiences, Audio-visual material. Projects	Presentation Assignment Group Assignment

C. Course Content

No	List of Topics	Contact Hours
1.	An Introduction to Language Acquisition.	4
2.	Continue: An Introduction to Language Acquisition.	2
3.	Theories of Language Development.	4
4.	The Brain and Cognitive, Speech, and Language Development.	4
5.	Infant and Toddler Language Development.	8
6.	Preschool Language Development.	8



7.	High risk factors for developing speech and language disorders.	8
8.	First and second language acquisition: know the difference. Role of speech and language pathologists in prevention, and intervention of communication disorders.	8
9.	Relationship between hearing and speech and language development Speech and language characteristics for individuals with hearing loss.	8
10.	Collaborating and multidisciplinary team management for children with hearing disorders, speech, or language disorders.	8
Total		60

D. Students Assessment Activities

No	Assessment Activities *	Assessment timing (in week no)	Percentage of Total Assessment Score
1.	1st Midterm Examination	5th-7th week	20%
2.	2nd Midterm Examination	10th-11th week	20%
4.	Professional writing assignment, practical projects, quizzes and/or specific reviews	Throughout semester	20%
5.	Final Written Examination	16th – 18th week	40%

*Assessment Activities (i.e., Written test, oral test, oral presentation, group project, essay, etc.).

E. Learning Resources and Facilities

1. References and Learning Resources

Essential References	Introduction to language development by Sandra Levey (second edition) 2019 for chapters: 1, 2, 3, 4, 5, 9 Journal for speech, language, and hearing research.
Supportive References	Children with Hearing Loss: Developing Listening and Talking, Birth to Six Elizabeth Cole, and Carol Flexer Plural Publishing 2010. Owens Jr, R. E. (2019). Language Development: An Introduction Edition: 9. Pearson Publishing.
Electronic Materials	Blackboard University Library. Audiovisual Unit of the Department.
Other Learning Materials	E-Book, CD's and materials prepared by seminar, workshops and conferences conducted by similar department, which are available in the Audiovisual Unit.



2. Required Facilities and equipment

Items	Resources
facilities (Classrooms, laboratories, exhibition rooms, simulation rooms, etc.)	Lecture classroom with a seating capacity of at least 50; audio/visual capacity for electronic display; Internet access; white board or smart board capacity. Laboratory to accommodate 20 students in each session.
Technology equipment (Projector, smart board, software)	Microsoft teams, data show
Other equipment (Depending on the nature of the specialty)	Previous actual medical reports

F. Assessment of Course Quality

Assessment Areas/Issues	Assessor	Assessment Methods
Effectiveness of teaching	Students peer	<p>Students feedback:</p> <p>Direct: (one of the following):</p> <ul style="list-style-type: none"> Self-administered questionnaire Formal anonymous students' evaluation Personal consultation with past students of the same course <p>Indirect:</p> <ul style="list-style-type: none"> General students' performance in the course Review of Mid-Term Exams <p>Department feedback:</p> <p>Direct:</p> <p>Feedback from other faculty members using peer observation sheet</p>
Effectiveness of Students' assessment	Student peer	<p>Students feedback:</p> <p>Direct:</p> <ul style="list-style-type: none"> Formal anonymous students' evaluation <p>Indirect:</p> <ul style="list-style-type: none"> General students' performance in the course Review of Mid-Term Exams <p>Department feedback:</p> <p>Direct:</p> <p>Feedback from other faculty members using peer review sheet</p>
Quality of learning resources	Students	Direct/indirect

Assessment Areas/Issues	Assessor	Assessment Methods
The extent to which CLOs have been achieved	Instructor, program coordinator.	Direct

Assessors (Students, Faculty, Program Leaders, Peer Reviewer, Others (specify))

Assessment Methods (Direct, Indirect)

G. Specification Approval

COUNCIL /COMMITTEE	Department Council
REFERENCE NO.	7
DATE	04/10/2023



Course Specification

— (Bachelor)

Course Title: Psychoacoustics and Sound Perception

Course Code: AUD 213

Program: Bachelor of Science in Audiology and Balance (BSc)

Department: Department of health Communication Sciences

College: College of Health and Rehabilitation Sciences

Institution: Princess Nourah bint Abdulrahman University (PNU)

Version: 2

Last Revision Date: 1 Oct 2023



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A. General information about the course:

1. Course Identification

1. Credit hours: 3 hours (2 Theory, 1 Practical, 0 Clinical)

2. Course type

A. ☐ University ☐ College ☒ Department ☐ Track ☐ Others
B. ☒ Required ☐ Elective

3. Level/year at which this course is offered: (3rd level, 2nd yaer)

4. Course general Description:

In this course the student will be Able to know the basic physics concepts including fundamental physical characteristics & areas of physics.

Acoustics include the basic concept of simple harmonic motion, concept of resonance.

The nature of sound with its fundamental aspects. Acoustics of speech. & Psychoacoustics. (Definition, basic principles of psychoacoustics, the auditory response area & the auditory phenomena that associated with hearing).

5. Pre-requirements for this course (if any):

NA

6. Co-requisites for this course (if any):

NA

7. Course Main Objective(s):

1. What is the main purpose of this course?

Through intensive lectures, tutorials, and independent studies, the student will:

- Able to know the basic physics concepts including fundamental physical characteristics & areas of physics.
- Acoustics include the basic concept of simple harmonic motion, concept of resonance.
- The nature of sound with its fundamental aspects.
- Acoustics of speech.
- Psychoacoustics.

2. Briefly describe any plans for developing and improving the courses that are being implemented. (e.g. increased use of IT or web-based reference material, changes in content as a result of new research in the field)





The course is being offered for the first time; thus, it will maximize use of IT and web-based reference material. The course is evidence based so it will be updated each time it is taught based on new evidence.

2. Teaching mode (mark all that apply)

No	Mode of Instruction	Contact Hours	Percentage
1	Traditional classroom	60	100%
2	E-learning		
3	Hybrid <ul style="list-style-type: none"> Traditional classroom E-learning 		
4	Distance learning		

3. Contact Hours (based on the academic semester)

No	Activity	Contact Hours
1.	Lectures	30
2.	Laboratory/Studio	30
3.	Field	
4.	Tutorial	
5.	Others (specify)	
Total		60

B. Course Learning Outcomes (CLOs), Teaching Strategies and Assessment Methods

Code	Course Learning Outcomes	Code of CLOs aligned with program	Teaching Strategies	Assessment Methods
1.0	Knowledge and understanding			
1.1	Understand the nature of sound with its fundamental aspects.	K2	Lectures and practical sessions	Written exam, Practical exams
1.2	Recognize the acoustics of speech.	K2	Lectures and practical sessions	Written exam, Practical exams
1.3	Understand the psychoacoustics of sound and speech.	K2	Lectures and practical sessions	Written exam, Practical exams
2.0	Skills			





Code	Course Learning Outcomes	Code of CLOs aligned with program	Teaching Strategies	Assessment Methods
2.1	Relate neurophysiological clinical findings to neurological diseases and injuries of hearing and balance.	S2	Practical sessions	Assignments and presentation
3.0	Values, autonomy, and responsibility			
	NA			

C. Course Content

No	List of Topics	Contact Hours
1.	Introduction of the syllabus and physical concepts.	4
2.	Acoustics of sounds and their propagation.	16
3.	Measurement of sound.	16
4.	Acoustics of speech.	12
5.	Psychoacoustics of the sound.	12
Total		60

D. Students Assessment Activities

No	Assessment Activities *	Assessment timing (in week no)	Percentage of Total Assessment Score
1.	1st Midterm Examination	6th-7th week	20%
2.	2nd Midterm Examination	10th-11th week	20%
3.	Professional writing assignment, and/or presentation	Throughout semester	20%
4.	Final Written Examination	16th – 18th week	40%

*Assessment Activities (i.e., Written test, oral test, oral presentation, group project, essay, etc.).

E. Learning Resources and Facilities

1. References and Learning Resources

Essential References	Hearing Science, Diana C. Emanuel., Tomasz Letowski (2009). Basic of Hearing Science by Charles Berlin.
Supportive References	NA
Electronic Materials	Digital Library
Other Learning Materials	Black board



2. Required Facilities and equipment

Items	Resources
facilities (Classrooms, laboratories, exhibition rooms, simulation rooms, etc.)	Classrooms with at least 30-40 seats
Technology equipment (Projector, smart board, software)	Smart Board Computer Data show projector or E-podium
Other equipment (Depending on the nature of the specialty)	Related to the topics.

F. Assessment of Course Quality

Assessment Areas/Issues	Assessor	Assessment Methods
Effectiveness of teaching	Students / program coordinator.	Direct /Indirect
Effectiveness of Students' assessment	Students / exam and assessment committee	Direct /Indirect
Quality of learning resources	Students	Direct /Indirect
The extent to which CLOs have been achieved	Instructor, program coordinator	Direct

Assessors (Students, Faculty, Program Leaders, Peer Reviewer, Others (specify))

Assessment Methods (Direct, Indirect)

G. Specification Approval

COUNCIL /COMMITTEE	Department Council
REFERENCE NO.	7
DATE	04/10/2023



Course Specification

— (Bachelor)

Course Title: Anatomy and physiology of the Hearing and Balance mechanisms

Course Code: AUD 212

Program: Bachelor of Science in Audiology and Balance (BSc)

Department: Department of Health Communication Sciences

College: College of Health and Rehabilitation Sciences

Institution: Princess Nourah bint Abdulrahman University (PNU)

Version: 2

Last Revision Date: 1 Oct 2023



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A. General information about the course:

1. Course Identification

1. Credit hours: 3 hours (2 Theory, 1 Practical, 0 Clinical)

2. Course type

A. ☐ University ☐ College ☒ Department ☐ Track ☐ Others
B. ☒ Required ☐ Elective

3. Level/year at which this course is offered: (3rd level, 2nd year)

4. Course general Description:

This course is an introduction to basic anatomical structures involved in balance and hearing mechanisms. It also provides discussion of the physiology of these two functions.

5. Pre-requirements for this course (if any):

Human Anatomy and Physiology (HRS 111)

6. Co-requisites for this course (if any):

NA

7. Course Main Objective(s):

What is the main purpose of this course? By the end of this course and by using class presentations and material from textbooks and references the student will be able to:

1. Understand basic anatomical structures for hearing and balance systems.
2. Connect function with anatomical structure.
3. Incorporate knowledge from different disciplines including this course to be able to comprehend the mechanism of balance production.
4. Analyze and appreciate the physiology of the hearing mechanism from outer ear up to the auditory cortex

Global Objectives:

The main aim of this course is to provide detailed discussion of basic anatomical structures involved in balance and hearing. In addition, this course should focus on analyzing function based on the structure and physiology as well as based on knowledge from other sources like biology and chemistry.





2. Teaching mode (mark all that apply)

No	Mode of Instruction	Contact Hours	Percentage
1	Traditional classroom	60	100%
2	E-learning		
3	Hybrid <ul style="list-style-type: none"> Traditional classroom E-learning 		
4	Distance learning		

3. Contact Hours (based on the academic semester)

No	Activity	Contact Hours
1.	Lectures	30
2.	Laboratory/Studio	30
3.	Field	
4.	Tutorial	
5.	Others (specify)	
Total		60

B. Course Learning Outcomes (CLOs), Teaching Strategies and Assessment Methods

Code	Course Learning Outcomes	Code of CLOs aligned with program	Teaching Strategies	Assessment Methods
1.0	Knowledge and understanding			
1.1	Understand knowledge of anatomy and physiology of normal hearing and balance system.	K2	Lectures and practical sessions	Written exams, Practical exams
2.0	Skills			
2.1	Identify different parts of hearing and balance system	S1	Lectures and practical sessions	Written exams, Practical exams
2.2	Research relevant literature	S3	Group discussion	Assignment
3.0	Values, autonomy, and responsibility			
	NA			



C. Course Content

No	List of Topics	Contact Hours
1.	Discussion of the syllabus Introduction to anatomy and physiology of the auditory system (parts of the auditory system – transduction of signal)	6
2.	Anatomy and physiology of the external ear	6
3.	Anatomy and physiology of the middle ear	12
4.	Anatomy and physiology of the inner ear	12
5.	Anatomy and physiology of the central auditory pathway	8
6.	Anatomy and physiology of the peripheral vestibular system	16
Total		60

D. Students Assessment Activities

No	Assessment Activities *	Assessment timing (in week no)	Percentage of Total Assessment Score
1.	1st Midterm Examination	6 th -7 th week	20%
2.	2nd Midterm Examination	11 th -12 th week	20%
3.	Professional writing assignment, case presentation, quizzes and/or specific reviews	Throughout semester	10%
4.	Practical lab	15th week	10%
5.	Final Written Examination	16th-18th week	40%

*Assessment Activities (i.e., Written test, oral test, oral presentation, group project, essay, etc.).

E. Learning Resources and Facilities

1. References and Learning Resources

Essential References	Aage Moller Hearing: Anatomy, Physiology, and Disorders of the Auditory System Plural Publishing; 3 edition (Jan 01, 2015). ISBN-10: 1597564273
Supportive References	William clark & kevinohlemiller Anatomy and physiology of hearing ISBN-10: 1401814441 Singular; 1 edition (2008)
Electronic Materials	Digital Medical Library
Other Learning Materials	Blackboard



2. Required Facilities and equipment

Items	Resources
facilities (Classrooms, laboratories, exhibition rooms, simulation rooms, etc.)	Classrooms with at least 30-40 seats
Technology equipment (Projector, smart board, software)	Smart Board Computer Data show projector or E-podium
Other equipment (Depending on the nature of the specialty)	Related to the topics.

F. Assessment of Course Quality

Assessment Areas/Issues	Assessor	Assessment Methods
Effectiveness of teaching	Students / program coordinator.	Direct /Indirect
Effectiveness of Students' assessment	Students / exam and assessment committee	Direct /Indirect
Quality of learning resources	Students	Direct /Indirect
The extent to which CLOs have been achieved	Instructor, program coordinator	Direct
Other	NA	

Assessors (Students, Faculty, Program Leaders, Peer Reviewer, Others (specify)

Assessment Methods (Direct, Indirect)

G. Specification Approval

COUNCIL /COMMITTEE	Department Council
REFERENCE NO.	7
DATE	04/10/2023





Course Specification

— (Bachelor)

Course Title: **Neurology of Hearing and Balance**

Course Code: **AUD 211**

Program: **Bachelor of Science in Audiology and Balance (BSc)**

Department: **Department of health Communication Sciences**

College: **College of Health and Rehabilitation Sciences**

Institution: **Princess Nourah bint Abdulrahman University (PNU)**

Version: **2**

Last Revision Date: **1 Oct 2023**



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A. General information about the course:

1. Course Identification

1. Credit hours: 3 hours (2 Theory, 1 Practical, 0 Clinical)

2. Course type

- A. ☐ University ☐ College ☒ Department ☐ Track ☐ Others
- B. ☒ Required ☐ Elective

3. Level/year at which this course is offered: (4th level, 2nd yaer)

4. Course general Description:

Neurology of Hearing and Balance (AUD 211) is considered a required course in audiology and balance program, in bachelor Communication Science department that teach in 2nd year level 4, with 3 credit hours. The objective of this course is to provide the necessary anatomical and physiological background to understand the neurological bases of normal hearing and balance mechanisms. The course covers the anatomy and physiology of the central nervous system that 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 that includes the cranial and spinal nerves. The protection and blood supply of the brain are covered. Neural processing of hearing is covered. Congenital and vascular lesions that affect hearing and balance and disorders related to brain injuries are also addressed.

5. Pre-requirements for this course (if any):

Human Anatomy and Physiology (HRS 111)

6. Co-requisites for this course (if any):

NA

7. Course Main Objective(s):

The aim of this course is to provide the necessary anatomical and physiological background to understand the neurological bases of normal hearing and balance mechanisms.





2. Teaching mode (mark all that apply)

No	Mode of Instruction	Contact Hours	Percentage
1	Traditional classroom	60	100%
2	E-learning		
3	Hybrid <ul style="list-style-type: none"> Traditional classroom E-learning 		
4	Distance learning		

3. Contact Hours (based on the academic semester)

No	Activity	Contact Hours
1.	Lectures	30
2.	Laboratory/Studio	30
3.	Field	
4.	Tutorial	
5.	Others (specify)	
Total		60

B. Course Learning Outcomes (CLOs), Teaching Strategies and Assessment Methods

Code	Course Learning Outcomes	Code of CLOs aligned with program	Teaching Strategies	Assessment Methods
1.0	Knowledge and understanding			
1.1	Describe the anatomy and physiology of the nervous system	K1	Lectures and practical sessions	Written exam, Practical exams
1.2	Understand neurological hearing and balance disorders	K2	Lectures and practical sessions	Written exam, Practical exams
2.0	Skills			
2.1	Relate neurophysiological clinical findings to neurological diseases and injuries of hearing and balance	S2	Lectures and practical sessions	Written exam, Practical exams
2.2	Research relevant literature	S3	Group discussion	Assignment
3.0	Values, autonomy, and responsibility			
	NA			





C. Course Content

No	List of Topics	Contact Hours
1.	Introduction, discussion of the course syllabus Introduction to the Nervous System (peripheral and central)	6
2.	Basic Structure and Function of the Nervous System	12
3.	Structure of the Brain and its Blood Supply	8
4.	Cranial Nerves with more details on facial and vestibulocochlear nerves	12
5.	Ascending auditory pathway	4
6.	Auditory neurophysiology	6
7.	Central auditory Processing	6
8.	Neurological Hearing and Balance Disorders	6
Total		60

D. Students Assessment Activities

No	Assessment Activities *	Assessment timing (in week no)	Percentage of Total Assessment Score
1.	1st Midterm Examination	5th-7th week	20%
2.	2nd Midterm Examination	10th-11th week	20%
3.	Professional writing assignment, case presentation, quizzes and/or specific reviews	Throughout semester	10%
4.	Final Practical Examination	15th week	10%
5.	Final Written Examination	16th – 18th week	40%

*Assessment Activities (i.e., Written test, oral test, oral presentation, group project, essay, etc.).

E. Learning Resources and Facilities

1. References and Learning Resources

Essential References	Review of Neurology: A Workbook for Speech and Hearing Students with CD-ROM (2003) Author: Jayanti Ray Publisher: Mosby The Auditory System, Anatomy, physiology, and clinical correlates (2018) Author: Frank E. Musiek & Jane A. Baran Publisher: Pearson
Supportive References	NA
Electronic Materials	Medical Center Library
Other Learning Materials	Black board





2. Required Facilities and equipment

Items	Resources
facilities (Classrooms, laboratories, exhibition rooms, simulation rooms, etc.)	Classrooms with at least 30-40 seats
Technology equipment (projector, smart board, software)	Smart Board Computer Data show projector or E-podium
Other equipment (depending on the nature of the specialty)	Related to the topics.

F. Assessment of Course Quality

Assessment Areas/Issues	Assessor	Assessment Methods
Effectiveness of teaching	Students / program coordinator.	Direct /Indirect
Effectiveness of Students' assessment	Students / exam and assessment committee	Direct /Indirect
Quality of learning resources	Students	Direct /Indirect
The extent to which CLOs have been achieved	Instructor, program coordinator	Direct
Other	NA	

Assessors (Students, Faculty, Program Leaders, Peer Reviewer, Others (specify)

Assessment Methods (Direct, Indirect)

G. Specification Approval

COUNCIL /COMMITTEE	Department Council
REFERENCE NO.	7
DATE	04/10/2023

