

# **INSTITUTE OF SPECIAL EDUCATION**

**University of the Punjab, Lahore**

**BS (5th to 8th Semester) in  
Special Education Audiology and  
Hearing Disorders Course Code:**

**SEBS-277  
Fifth Semester  
(3 Credit Hours)**

## **Prerequisites of course requirements/Skills**

<b>Course Code</b>	<b>Course Title</b>
SEBS- 142	Sign Language

## **Learning Outcomes**

After the course completion the learners will be able to:

1. Understand anatomy and physiology of the hearing mechanism
2. Explore areas of hearing disorders
3. Understand the concept of audiology and audiometry process
4. Interpret audiological findings and relate/use it in daily teaching

## **Contents:**

### **Unit-1: Concepts and Definitions**

- 1.1 Etiology of Deafness
- 1.2 Anatomy of the Ear
- 1.3 Acoustic and Sound Physics
- 1.4 Hearing and Hearing Mechanism
- 1.5 Hearing Impairment

### **Unit-2: Hearing Disorders**

- 2.1 Hearing Loss, Nature and Types
- 2.2 Consequences of Hearing Disorders
- 2.3 Etiology of Childhood Hearing Impairment
- 2.4 Pre and Peri-Natal Causes
- 2.5 Post-natal Causes
- 2.6 Risk Factors for Childhood Hearing Impairment

**Unit-3:        Audiology: An Introduction**

- 3.1    Concept of Audiology
- 3.2    Protocol of Hearing Screening According to Age
- 3.3    Importance of Early Intervention

**Unit-4:        Behavioral Hearing Tests**

- 4.1    Testing babies 6 Months to 18 Months
- 4.2    Testing Techniques 18-30 Months
- 4.3    Testing Techniques 2-6 & 3-6 Years
- 4.4    Visual Reinforcement Audiometry

**Unit-5:        Pure-Tone Audiometry**

- 5.1    Hearing Assessment and the Pure-tone Signal
- 5.2    PTA Procedure
- 5.3    Sound Discovered and Sound Re-Gained
- 5.4    Tympanometry
- 5.5    Masking
- 5.6    Audiogram and Threshold Measurement
- 5.7    Interpretation of Audiograms

**Unit-6:        Auditory Evoked Potentials**

- 6.1    Introduction of AEP's
- 6.2    Methodology
- 6.3    Interpretation of ABR
- 6.4    Application of ABR
- 6.5    Hearing Screening

**Unit-7:        Oto-acoustic Emissions**

- 7.1    Introduction
- 7.2    Classification
- 7.3    Origin of OAE's
- 7.4    Clinical Application of OAE's

**Unit-8:        Hearing Aid Systems**

- 8.1    Types of Hearing Aid Systems
- 8.2    Hearing Aid Selection
- 8.3    Hearing Aid Management

**Unit-9:        Cochlear Implants**

- 9.1    Introduction to Cochlear Implantation

- 9.2 Benefits of Cochlear Implant
- 9.3 Classroom Management for Children with Cochlear Implanted

**Teaching Learning Strategies:**

*Text Book Review, Presentation, Group work, Lab Work*

**Assignment Types and Number with Calendar**

*Development of hearing assessment reports of 05 cases before midterm*

**Assessment and Examination**

Sr. No.	Elements		Details
1.	Midterm Assessment		It takes place at the mid-point of the semester. 9 <sup>th</sup> Week
2.	Formative Assessment		It is continuous assessment. It includes: classroom participation, attendance, assignment and presentations, homework, attitude and behavior, hands-on-activities, short tests, quizzes etc.
3.	Final Assessment		It takes place at the end of the semester. It will be a written test

**Suggested Readings**

Farrel, M. (2008). *Educating special children*. New York: Routledge.

Gargiulo, R.M. (2006). *Special education in contemporary society: an introduction to exceptionality*. Austria: Thomson.

Martin, F.N.& Clark, J.G. (2012). *Introduction to audiology* (11<sup>th</sup> ed.). Boston: Pearson.

Nerbonne, M.A. &Schow, R.L. (2013). *Introduction to audiologic rehabilitation* (6<sup>th</sup> ed.). Boston: Pearson.

Richerg, C.M., & Smily, D.F. (2012). *School based audiology*. San diego: Plural Publishing.

Sahu, B.K. (2002). *Education of exceptionalities children*. Ludhiana: Kalyani Publisher.

Schow, R.L. (1996). *Introduction to audiologic rehabilitation*. Boston: Allyn & Bacon.

Smith, D.D. (1998). *Introduction to special education*. Boston: Allyn & Bacon.

Wilmshurst, L. (2010). *The complete guide to special education* (2<sup>nd</sup>ed.). San Francisco: Jossey-Bass.