**SNE 431 EDUCATIONAL AUDIOLOGY**

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| Program | **BS Honors in Special needs Education** |
| Credit Hours | **3+0** |
| Duration | One Semester |
| Prerequisites |  |
| Resource Person |  |
| Counseling Timing |  |
| Contact |  |

**Resource Person’s Signature …………………….**

**Chairman/Director signature ……………………**

**Dean’s signature…………… Date………………**

**Learning Objective:**

The student will be able to:

* Acquire knowledge of international regulations and guidelines involving services for children with disabilities.
* Gain understanding of the psychoacoustic parameters and influences involved in speech perception.
* Develop an understanding of the principles of auditory learning and speech reading.
* Acquire the knowledge necessary to manage and rehabilitate the children with hearing impairment in the classroom.

Objectives:

The objective of this course is to enable students to learn about Educational Audiology, Hearing screening, diagnostic tests for hearing loss, Management techniques for hearing loss and assistive devices.

Syllabus:

Physiology of Sound, Anatomy and physiology of hearing mechanism, basic pathways of hearing sound, Nature of Educational Audiology , Role of Audiologist, Importance of Screening, Screening options and all screening tests, Diagnostic tests for neonatal and adults along with their applications, Individual and group Hearing aids their types advantages and disadvantages, cochlear Implant Requirements of cochlear Implant.

**Learning Methodology:**

* Lectures as provided in the Weekly Semester Activities
* Assignments related to the studied topics
* Case Studies inside and outside Pakistan
* Presentation on allocated topics
* Discussion with experts

**Grade Evaluation Criteria**

Following is the criteria for the distribution of marks to evaluate final grade in a semester.

**Marks Evaluation Marks in percentage**

Quizzes 10%

Attendance & Class Participation 10%

Assignments 10%

Mid Term 20%

Presentations 10%

Final exam 40%

Total 100%

**Recommended Text Books:**

Humes, L. E. & Ben, H. F. (1995). Audiology: The fundamentals (2nd ed.). Williams & Wilkins: London

**Reference Books:**

1. Hand Book of Clinical Audiology by Jack Katz 1978
2. Comprehensive Hand Book of Pediatric Audiology by Richard C. Seewald (2010).
3. Audiology: The Fundamentals by Fred H. Bess (1990).
4. Hearing Aids by Harvey Dillon (2001).
5. Raising Kids with Cochlear Implant by Amy Millani (2014).
6. Noise: A human History of sound and listening by David Handy (2013).
7. Audiology Diagnosis by Ross J. Roeser (2000).

**Calendar of Course contents to be covered during Fall Semester 2019**

**Course Code: SNE- 630**

**Course Title: EDUCATIONAL AUDIOLOGY**

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| **Week** | **Course Contents** | **Reference Chapter(s)** |
| 1 | Definition, Historical development of audiology | Introduction to Audiology |
| 2 | Educational audiology (Definition, Nature & Scope), Audiology in the schools | Introduction to Audiology |
| 3 | Sound waves and their characteristics, Waveforms and their associated spectra, Sound Measurement | The Nature of Sound |
| 4 | Peripheral auditory system, Auditory central nervous system  Perception of sound | The Nature of Sound |
| 5 | Intensity parameters, Frequency parameters, Durational parameters, Linguistic constraints | Psychoacoustic aspects of speech perception |
| 6 | Definition of Screening, Importance of screening, how, when and why screen out the children | Hearing Screening |
| 7 | Hints for parents to screen their children, Types and options for screening | Hearing Screening |
| 8 | Mid Term Examination | Audiological Measurement |
| 9 | Pure tone audiometry, Speech audiometry | Audiological Measurement |

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| 10 | Acoustic emittance measurement, Basic audiological test battery, Additional Special tests | Audiological Measurement |
| 11 | Kinds of hearing aids, The hearing aid as a system, Technical aspects related to the efficient use of hearing aids, Amplification requirement of children | Assistive Devices and Hearing Aids |
| 12 | Types of Individual hearing aids along with their advantages and disadvantages and requirement.  Types and features of Group Hearing aids. | Assistive Devices and Hearing Aids |
| 13 | Cochlear Implant, Definition, Requirements, how it works, cochlear Implant Team, Components and procedure. | Assistive Devices and Hearing Aids |
| 14 | Aural rehabilitation process, Amplification for the Hearing impaired persons, Rehabilitation of the child with hearing impairment, Teacher responsibilities, Child responsibilities, Environmental modifications, Curriculum modifications | Management Techniques |
| 15 | All submissions finalized and review of the course taught and consideration of meeting the learning objectives | Class Notes |