AUDI 22274- Diagnostic Audiology 1: Behavioral Assessment

Status	**Optional (A)**
No of Hours	60 hours
No of Credits	4
Learning Outcomes	• Describe physiology of human external ear and neurophysiology of the central auditory pathway • Describe modes of bone conduction • Summarize and clarify the procedures of masking, tests for pseudohypacusis, and tests for CAPD. • Summarize and clarify the procedures of testing tinnitus and hyperacusis. • Determine audiological test battery for a given case • Explain how to derive a differential diagnosis of hearing impairment using the test battery approach
Methods of Teaching and Learning	Lectures, Problem-based learning, lab-based learning, case studies, CAL
Module content	**Unit 1: Masking** • Role of the pinna and external auditory meatus (resonance and diffraction properties) • Modes of bone conduction • Definition and need for masking (AC, BC, Speech) • Different types of noise employed as maskers • Factors that affect interaural attenuation-when to mask-how much to mask • Procedures for masking • Masking dilemma **Unit 2: Special tests** • Tests to identify pseudohypacusis a. Stenger test, Lombard test, Doefler-Stewart test b. Identification of functional hearing loss in children • Assessment of tinnitus and hyperacusis **Unit 3: Tests to detect central auditory processing disorders (CAPD)** • Neurophysiology of the CANS • Principles of auditory processing. • Monoaural low redundancy tests including filtered speech test, time compressed speech test, SPIN, SSI-ICM • Dichotic speech tests including dichotic digits test, staggered spondaic word test, dichotic CV test, SSI-CCM

	• Temporal ordering tests including pitch pattern test, duration pattern test • Variables influencing assessing central auditory processing – procedural and subject variables • Test findings in subjects with CAPD • Brainstem lesions, cortical lesions, hemispheric lesions, intra-hemispheric dysfunction • CAPD in children and elderly **Unit 4: Test battery approach** • Need for test battery approach, integration of audiological test results in audiological diagnosis • Indications for administering audiological tests to identify a. Cochlear pathology b. Retrocochlear pathology c. Functional hearing loss **d.** Central auditory processing disorders
Assessment	MCQ 40%, (1 hr), SEQ 40% (2 hrs), Continuous Assessment 20%