

AUDI 22284- Diagnostic Audiology 2: Physiological Methods

Status	Optional (A)
No of Hours	60 hours
No of Credits	4
Learning Outcomes	<ul style="list-style-type: none"> • Describe physiology related to immittance, otoacoustic emissions and auditory evoked potentials • Describe general principles of immittance, otoacoustic emissions and auditory evoked potentials • Describe instrumentation for immittance, otoacoustic emission and evoked potential measurements • Record responses from the middle ear, inner ear, auditory nerve and central auditory nervous system • Analyze physiologic responses • Interpret test results • Outline clinical applications of immittance audiometry, otoacoustic emissions and auditory evoked potentials • Outline factors affecting physiologic hearing assessment
Methods of Teaching and Learning	Lectures, Problem-based learning, lab-based learning, case studies, CAL
Module content	<p>Unit 1: Immittance Audiometry: Introduction, principle, instrumentation, clinical applications and patient management</p> <ul style="list-style-type: none"> • Introduction, physiology of the middle ear, principles of immittance, and instrumentation • Single-component tympanometry • Multiple-frequency tympanometry/wideband tympanometry • Reflexometry • Special tests <ol style="list-style-type: none"> a. Eustachian tube function test b. Acoustic reflex decay test c. Acoustic reflex latency test • Clinical applications • Factors affecting immittance audiometry <p>Unit 2: Otoacoustic emissions (OAE)</p> <ul style="list-style-type: none"> • Introduction, cochlear mechanics, classification, instrumentation • Measurement of OAEs, analysis and interpretation of results • Clinical applications • Factors affecting otoacoustic emissions <p>Unit 3: Auditory Evoked Potentials- Introduction, classification and general principles of evoked potential measurements</p> <ol style="list-style-type: none"> a) Auditory brainstem response (ABR) <ol style="list-style-type: none"> a. Introduction and recording procedure b. Analysis and interpretation c. Clinical applications

- d. Factors influencing ABR
- b) Auditory Middle Latency Response (AMLR)
 - a. Introduction and recording procedure
 - b. Analysis and interpretation
 - c. Clinical applications
 - d. Factors influencing AMLR
- c) Cortical Evoked Potentials: Auditory Late Latency Response (ALLR)
 - a. Introduction and recording procedure
 - b. Analysis and interpretation
 - c. Clinical applications
 - d. Factors influencing ALLR

Unit 4: Auditory Steady State Response (ASSR)

- Introduction and recording procedure
- Analysis and interpretation
- Clinical applications and patient management
- Factors influencing ASSR

Unit 5

- Assessment of Auditory Neuropathy Spectrum Disorder

Assessment

MCQ 40%, (1 hr), SEQ 40% (2 hrs), Continuous Assessment 20%