Competency-Based Dynamic Curriculum for MD/ MS Unani

(PRESCRIBED BY NCISM)

Semester III-VI

Amraze Uzn Anaf wa Halaq

(Diseases of Ear, Nose and Throat)

(SUBJECT CODE : UNIPG-UAH)

(Applicable from 2024-25 batch, from the academic year 2025-26 onwards until further notification by NCISM)

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BOARD OF UNANI, SIDDHA AND SOWA-RIGPA

NATIONAL COMMISSION FOR INDIAN SYSTEM OF MEDICINE

NEW DELHI-110026

Preface

This is a fact and can't be denied that for a country to reach the pinnacle of success, it is very important for the people to remain completely healthy. As far as our country is concerned are continuously performing positive work for keeping the human body healthy. Among these disciplines the contribution of Unani System of medicine are to be appreciated which has been providing services for the health of people for hundreds of years. Especially health of ENT is an important, like other healthy system of human body. The NCISM New Delhi is determined to produce skilled and high-level scholars of ENT, and Head & Neck subject not only at graduate level but also at Postgraduate standard. Hope this curriculum and syllabus which will produce competent post graduate scholars/Physicians / teachers/Specialist to globalize Unani System of medicine.

The study of Ear, Nose, Throat, Head and Neck as a cornerstone in the field of medical sciences, playing a critical role in the diagnosis and treatment of conditions related to the subject. As one of the most diverse medical specialities, ENT encompasses a broad spectrum of clinical challenges, from routine care to complex surgeries, making it an indispensable field in both general and specialised medical practice.

Competency Based Curriculum and syllabus is designed to guide and educate post graduate scholars through an in-depth exploration of the Udhn, Anf, wa Halaq (ENT), equipping them advance knowledge, clinical skills, and the research acumen necessary to excel in this dynamic and evolving field. The curriculum builds on the foundational knowledge acquired during undergraduate studies and delves deeper into specialised topics, focusing on both theoretical and practical aspects of otorhinolaryngology. The objectives of the syllabus are to foster a comprehensive understanding of advance ENT disorders, their aetiologies, pathophysiology, and management, also to enhance clinical diagnostic skills through exposure to diverse ENT pathologies, with an emphasis on evidence -based treatment and Para surgical interventions. This syllabus will develop proficiency in the use of specialised diagnostic tools and techniques, including audiological tests, endoscopy, and imaging technologies and to cultivate research capabilities, encouraging the exploration of emerging trend and innovations in otorhinolaryngology. The scholars will prepare for independent practice, ensuring they are equipped to handle complex cases and provide high patients care. While preparing this syllabus, special care has been taken to include all the important topics related to subject so that post graduate students can be given high level education so that they can remain updated like, disorder hearing, balance, and the auditory system, cochlear implants, hearing aids, and vestibular disorders. Focused on advance understanding of nasal and sinus diseases, endoscopic sinus surgery and management of allergic and non-allergic rhinitis, also emphasises voice and airway disorders, phono-surgery, and the management of laryngeal cancers. An effective and detailed knowledgeable related to head and neck surgery classical and advance as reconstructive procedure, along with the managements of benign and malignant tumours. Paediatric ENT specially considered, covering congenital anomalies, hearing impairments, and airway disorders in children. Postgraduate programme also emphasizes the development of research skills, encouraging scholars to engage in clinical research, contribute to academic discourse, and stay updated with the latest development in ENT practical training through clinical rotations, surgeries, and case studies from

the core of the curriculum, allowing scholars to apply their knowledge in real-world setting under the guidance of experienced mentors. In addition to technical expertise, this syllabus aims to still professionalism, ethical practice, and a compassionate approach to the patient care. By the end of this program, postgraduate scholars will be fully equipped to pursue careers as specialists in otorhinolaryngology, advancing both their clinical practices and contributions to the field of medical science. This syllabus reflects the commitment of the academic and medical community to produce highly skilled, knowledgeable, and compassionate ENT specialists who can meet the demands of the health care sector while contributing to advancements in the field.

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Paper No : 4 (امراض اذن، انف، حلق، راس ورقبہ میں جدید تحقیقات .Amrāḍ-i-Udhun, Anf Wa Ḥalq, Rās Wa Raqaba Men Jadīd Taḥqīqāt (Recent Advances of Ear, Nose, Throat, Head and Neck Surgery)) 378

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NCISM

(NATIONAL COMMISSION FOR INDIAN SYSTEM OF MEDICINE)

Competency-Based Dynamic Curriculum for MD/ MS Unani

Amraze Uzn Anaf wa Halaq (UNIPG-UAH)

Summary & Credit Framework

Semester III-VI

Module Number & Name	Credits	Notional Learning Hours	Maximum Marks of assessment of modules (Formative Assessment)
Semester No : 3			
Paper No : 1 (امراض اذن، انف وحلق کے سریری وتشخیصی اسالیب Amrāḍ-i-Udhun, Anf Wa Ḥalq Ke Sarīrī Wa Tashkhīṣī Asālīb (Clinical Methods and Diagnostic Techniques of Ear, Nose and Throat Diseases))			
M 1 امراض اذن، انف وحلق، جوف الفم وغدد لعابیہ کا طبی طریقہ (Amrāḍ-i-Uzn, Anf wa Ḥalq, Jauf-al- Fam, Ghudda Lu'ābiyya ka Tibbi tariqah) Clinical methods of ear, nose and throat, Oral cavity and Salivary glands)	2	60	50
M 2 سامعہ کا سریری اختبار اور دہلیزیہ کے عمل کا تعین Sāmi'a ka sarīrī ikhtibār aur Dehlīziyya 'amal ka ta'iyyūn (Clinical tests of hearing & Assessment of Vestibular function)	2	60	50
Paper No : 2 (امراض اذن، انف وحلق کے طبی وجراحی معالجات Amrāḍ-i-Udhun, Anf Wa Ḥalq Ke Ṭibbi Wa Jirāḥi Mu'alajāt (Medical and Surgical Management of Ear, Nose and Throat Diseases))			
M 9 امراض اذن Amrāḍ-i- Uzn (Diseases of Ear)	2	60	50
M 10 امراض اذن وسطی وداخلی Amrāz Uzn wasṭi wa dākhli (Diseases of Middle and internal Ear)	2	60	50
Paper No : 3 (امراض اذن، انف وحلق کی جراحی عملیات Amrāḍ-i-Udhun, Anf Wa Ḥalq Ki Jīraḥī 'Amalīyyāt (Operative Surgery of Ear, Nose and Throat Diseases))			
M 17 العملیات الاذن/Al-'amalīyā-al- Uzn (OPERATIONS ON EAR)	2	60	50

M 18 چہرہ کی عمل جراحی کے ساتھ انف اور جیوب الانف کی عمل جراحی Chehrā ki ‘AMALĪ JĪRAḤĪ ke sath, anf aur Jūyūb-al- Anf ki ‘AMALĪ JĪRAḤĪ (OPERATIONS ON FACE INCLUDING NOSE AND PARANASAL SINUSES)	2	60	50
Paper No : 4 (امراض اذن، انف، حلق، راس ورقبہ میں جدید تحقیقات Amrāḍ-i-Udhun, Anf Wa Ḥalq, Rās Wa Raqaba Men Jadīd Taḥqīqāt (Recent Advances of Ear, Nose, Throat, Head and Neck Surgery))			
M 25 Amraz-i-Uzn, Anf -wa-Ḥalq ki tashkhīṣ, al-tasab būb-fī- al-marḍ aur ‘Ilāj me jadīd pesh qad mī. (Recent Developments in the Diagnosis, Pathogenesis and Treatments of the ENT Diseases). لتطورات الحدیثۃ فی تشخیص وتسبب وعلاج أمراض الأنف والأذن والحنجرۃ	2	60	50
M 26 Genetic Testing, Molecular Biology & Radiological Advances in Ear, Nose & Throat الاختبارات الجینیۃ والبیولوجیا الجزیئیۃ والتقدم الإشعاعی فی الأذن والأنف والحنجرۃ	2	60	50
Semester No : 4			
Paper No : 1 (امراض اذن، انف وحلق کے سریری وتشخیصی اسالیب Amrāḍ-i-Udhun, Anf Wa Ḥalq Ke Sarīrī Wa Tashkhīṣī Asālīb (Clinical Methods and Diagnostic Techniques of Ear, Nose and Throat Diseases))			
M 3 راس اور رقبہ کا معائنہ Rās aur Raqba ka mu‘āyana’ (Examination of Head & Neck)	2	60	50
M 4 اطفال وبالغین میں وجع الاذن، سیلان الاذن، صریر اور غطیط کے کیس کی تشخیصی نقطہ نظر Aṭfāl wa Baligheen me Waja‘al-Uzn, Sayalān al-Uzn, Ṣarīr aur ghaṭīṭ ke case ki tashkhīṣi nūqta naẓar (Diagnostic approach of a case of Otalgia, Otorrhoea, Stridor and snoring in children and adults)	2	60	50
Paper No : 2 (امراض اذن، انف وحلق کے طبی وجراحی معالجات Amrāḍ-i-Udhun, Anf Wa Ḥalq Ke Ṭibbi Wa Jirāḥi Mu‘alajāt (Medical and Surgical Management of Ear, Nose and Throat Diseases))			
M 11 امراض انف Amrāḍ -i-Anf (Diseases of Nose-I)	2	60	50
M 12 امراض انف اور جیوب الانف Amrāḍ -i-anf aur Jūyūb-al- Anf (Diseases of Nose-II and PNS)	2	60	50

Paper No : 3 (امراض اذن، انف وحلق کی جراحی عملیات Amrāḍ-i-Udhun, Anf Wa Ḥalq Ki Jīraḥī ‘Amalīyyāt (Operative Surgery of Ear, Nose and Throat Diseases))			
M 19 البلعوم الانفی اور البلعوم الفمی Al- bal‘ūm –al-anfī aur al- bal‘ūm –al-fammī (Operations on Nasopharynx & Oropharynx)	2	60	50
M 20 حنجرہ کا عمل جیراہی/Ḥanjra ka ‘amal jīrāhī (Operations on Larynx.....	2	60	50
Paper No : 4 (امراض اذن، انف، حلق، راس ورقبہ میں جدید تحقیقات Amrāḍ-i-Udhun, Anf Wa Ḥalq, Rās Wa Raqaba Men Jadīd Taḥqīqāt (Recent Advances of Ear, Nose, Throat, Head and Neck Surgery))			
M 27 زراع قوقع الاذن، مساعد سمعیہ اور مادہ حیویہ Zarā Q wq ‘a-al-Udhun, sā id s m iyyā ur Mā ā H iwwiyy (Cochlear Implants, Other Hearing aids & Biomaterials)	2	60	50
M 28 راس مہ کی عمل جرا Rās, Raqaba wa Jumjuma ki amal Jīrāḥī. (Head & Neck & Skull Base Surgery	2	60	50
Semester No : 5			
Paper No : 1 (امراض اذن، انف وحلق کے سریری وتشخیصی اسالیب Amrāḍ-i-Udhun, Anf Wa Ḥalq Ke Sarīrī Wa Tashkhīṣī Asālīb (Clinical Methods and Diagnostic Techniques of Ear, Nose and Throat Diseases))			
M 5 امراض اذن، انف وحلق میں استعمال ہونے والے یونانی تشخیصی ذرائع Amrāḍ-i-Uzn, Anf -wa- Ḥalq me iste‘māl hone wale Unani tashkhīṣi Zarāye (Unani Diagnostic tools used in ear, nose and throat)	2	60	50
M 6 امراض اذن، انف وحلق میں خصوصی تشخیصی آلات اور اختبار تشخیصی Amrāḍ-i-Uzn, Anf wa Ḥalq me khūṣūṣi tashkhīṣi Ālāt aur ikhtibār tashkhīṣi (Special diagnostic apparatus and Diagnostic tests in otorhinolaryngology)	2	60	50
Paper No : 2 (امراض اذن، انف وحلق کے طبی وجراحی معالجات Amrāḍ-i-Udhun, Anf Wa Ḥalq Ke Ṭibbi Wa Jirāḥi Mu‘alajāt (Medical and Surgical Management of Ear, Nose and Throat Diseases))			
M 13 امراض بلعوم اور حنجرہ Amrāḍ -i- Bal‘ūm aur Ḥanjra (Diseases of Pharynx and Larynx)	2	60	50

M 14 امراض حلق جوف الفم اور غدہ لعابیہ Amrāḍ -i- Halq, Jauf-al- Fam aur Ghudda Lu'ābiyyah (Diseases of Throat, Oral cavity and Salivary gland)	2	60	50
Paper No : 3 (امراض اذن، انف وحلق کی جراحی عملیات Amrāḍ-i-Udhun, Anf Wa Ḥalq Ki Jīraḥī 'Amalīyyāt (Operative Surgery of Ear, Nose and Throat Diseases))			
M 21 غدد لعابیہ کا عمل جیراہی/Ghudda Lu'ābiyya ka amal jīrāhī (Operations on salivary glands)	2	60	50
M 22 رقبہ کا عمل جراحی Raqaba ka amal jīrāhī (Operations on Neck)	2	60	50
Paper No : 4 (امراض اذن، انف، حلق، راس ورقبہ میں جدید تحقیقات .Amrāḍ-i-Udhun, Anf Wa Ḥalq, Rās Wa Raqaba Men Jadīd Taḥqīqāt (Recent Advances of Ear, Nose, Throat, Head and Neck Surgery))			
M 29 طب النوم .Sleep Medicine. Tibu Alnawm	2	60	50
M 30 المعرفۃ الأساسیۃ لعلم الأورام فی أمراز آزن عناف حلق Basic Knowledge of Oncology in Amraz-e Uzn Anaf Halq almaerifat al'asasiat lieilm al'awram fi 'amraz 'azn eanaaf halaq	2	60	50
Semester No : 6			
Paper No : 1 (امراض اذن، انف وحلق کے سریری وتشخیصی اسالیب Amrāḍ-i-Udhun, Anf Wa Ḥalq Ke Sarīrī Wa Tashkhīṣī Asālīb (Clinical Methods and Diagnostic Techniques of Ear, Nose and Throat Diseases))			
M 7 طب شعاعی اور دیگر تشخیصی طریقہ کار Ṭibb-i-shū'āi aur dīgar-al tiqniyyah-al-tashkhīṣi Tarīqa kār (Radiology and Other Diagnostic techniques)	2	60	50
M 8 تنظیر داخلی اور دیگر تشخیصی عملیات Tanẓīr dākhlī aur dīgar tashkhīṣī amaliyāt (Endoscopy & other Diagnostic Procedures)	2	60	50
Paper No : 2 (امراض اذن، انف وحلق کے طبی وجراحی معالجات Amrāḍ-i-Udhun, Anf Wa Ḥalq Ke Ṭibbi Wa Jirāḥi Mu'alajāt (Medical and Surgical Management of Ear, Nose and Throat Diseases))			
M 15 اذن، انف وحلق اور راس ورقبہ کے متعدی امراض Uzn, Anf wa Ḥalq aur Rās wa Raqaba ke muta'addi Amrāḍ (Infectious disease of otorhinolaryngology and head & neck region)	2	60	50

M 16 Ilāj bi'l-Dawā' and 'Ilāj bi'l-Tadbīr in Uzn, Anf wa Ḥalq, rās aur Raqaba) Pharmacotherapy and treatment in Ear, nose and throat and head and neck) علاج بالدواءاور علاج بالتدبیراذن،انف، حلق، راس اور رقبہ	2	60	50
Paper No : 3 (امراض اذن،انف وحلق کی جراحی عملیات Amrāḍ-i-Udhun, Anf Wa Ḥalq Ki Jīraḥī 'Amalīyyāt (Operative Surgery of Ear, Nose and Throat Diseases))			
M 23 غدہ درقیہ کا عمل جراحی Guddah darqiyya ka amal jīrāhī (Operations on the thyroid gland)	2	60	50
M 24 امراض اذن، انف وحلق میں دیگر عام جراحی Amraz-i-Uzn, Anf -wa- Ḥalq me dīgar 'Ām Jirāḥi (Other common surgeries in Ear, Nose & Throat)	2	60	50
Paper No : 4 (امراض اذن،انف، حلق، راس ورقبہ میں جدید تحقیقات Amrāḍ-i-Udhun, Anf Wa Ḥalq, Rās Wa Raqaba Men_Jadīd Taḥqīqāt (Recent Advances of Ear, Nose, Throat, Head and Neck Surgery))			
M 31 الجراحات التجمیلیۃ والتجمیلیۃ المتعلقۃ بالأنف والحنجرۃ Plastic & Cosmetic Surgeries related to ENT	2	60	50
M 32 Lasers, Fibre-optics, Cryosurgery, Powered Instrumentation & Other novel methods used in ENT.	2	60	50
	64	1920	1600

Credit frame work

UNIPG-UAH consists of 32 modules totaling 64 credits, which correspond to 1920 Notional Learning Hours. Each credit comprises 30 hours of learner engagement, distributed across teaching, practical, and experiential learning in the ratio of 1:2:3. Accordingly, one credit includes 5 hours of teaching, 10 hours of practical training, 13 hours of experiential learning, and 2 hours allocated for modular assessment, which carries 25 marks.

Important Note: The User Manual MD/MS Unani is a valuable resource that provides comprehensive details about the curriculum file. It will help you understand and implement the curriculum. Please read the User Manual before reading this curriculum file. The curriculum file has been thoroughly reviewed and verified for accuracy. However, if you find any discrepancies, please note that the contents related to the MSE should be considered authentic. Each paper has 16

credits and each semester covers 16 credits across 4 papers. In case of difficulty and questions regarding the curriculum, write to syllabus24uni@ncismindia.org

Credit Analysis Overview					
Sem/Paper	**Paper No 1**	**Paper No 2**	**Paper No 3**	**Paper No 4**	**Credits**
Semester 3	M-1 | 2 Crs M-2 | 2 Crs	M-9 | 2 Crs M-10 | 2 Crs	M-17 | 2 Crs M-18 | 2 Crs	M-25 | 2 Crs M-26 | 2 Crs	**16**
Semester 4	M-3 | 2 Crs M-4 | 2 Crs	M-11 | 2 Crs M-12 | 2 Crs	M-19 | 2 Crs M-20 | 2 Crs	M-27 | 2 Crs M-28 | 2 Crs	**16**
Semester 5	M-5 | 2 Crs M-6 | 2 Crs	M-13 | 2 Crs M-14 | 2 Crs	M-21 | 2 Crs M-22 | 2 Crs	M-29 | 2 Crs M-30 | 2 Crs	**16**
Semester 6	M-7 | 2 Crs M-8 | 2 Crs	M-15 | 2 Crs M-16 | 2 Crs	M-23 | 2 Crs M-24 | 2 Crs	M-31 | 2 Crs M-32 | 2 Crs	**16**
Credits	**16**	**16**	**16**	**16**	**64**

Semester VI University examination					
Theory			Practical*		
Paper	Marks	Total	Practical Heads	Marks	Total
Paper -1	100	400	Long case or procedure/Major practical as applicable	100	400
			Short case or procedure/Minor practical	50	
Paper -2	100		Spotters	50	
			Assessing teaching ability	25	
Paper -3	100		Assessing presentation skills	25	
			Viva (4 examiners: 25 marks/each examiner)#	100	
Paper -4	100		Logbook (Activity record)	25	

			Practical/Clinical Record	25	
Semester VI University examination – 800 Marks					

* Details in 6H table; # No separate marks for dissertation viva.

Course Code and Name of Course

Course code	Name of Course
UNIPG-UAH	Amraze Uzn Anaf wa Halaq (Diseases of Ear, Nose and Throat)

Table 1 : Course learning outcomes and mapped Program learning outcomes

CO No	A1 Course learning Outcomes (CO) UNIPG-UAH At the end of the course UNIPG-UAH, the students should be able to	B1 Course learning Outcomes mapped with program learning outcomes.
CO1	Practice their specialty proficiently, ethically and adhering to legal guidelines prioritizing the needs of patients	PO1,PO2
CO2	Conduct clinical examinations, establish diagnoses, manage diseases related to Uzn, Anf-o-Ḥalq (Ear, Nose and throat), and Ras wa Raqba (Head & Neck) through both medical and surgical methods under suitable anaesthesia.	PO1,PO2
CO3	Attain comprehensive knowledge and skill of the subject with modern scientific, technological advancement and execute Pure Tone Audiometry, Tympanometry, Biopsy, FNAC, endoscopy and interpret the results of common diagnostic tests, including Pure Tone Audiometry, Tympanometry, BERA, ASSR, X-ray, CT scan, MRI, PET Scan, Biopsy, FNAC, endoscopy and cultures.	PO2,PO5
CO4	Manage medical emergencies associated with Uzn, Anf-o-Ḥalq (Ear, Nose, and Throat), Ras, and Raqba (Head and neck), and adopt a referral mechanism on a need basis.	PO1
CO5	Apply research concepts in clinical practice and projects; engage in interdisciplinary research within Unani medicine.	PO4,PO6,PO7

CO6	Perform as a health care leader and skilled communicator in National health initiatives and proactively engage in the prevention and rehabilitation of diseases related to Uzn, Anf-o-Ḥalq (Ear, Nose and Throat).	PO3
CO7	Exhibit proficiency as an experimenter, educator, instructor, and continuous learner in Unani medicine, capable of translating and interpreting classical Unani texts.	PO8

Table 2: Course contents (Modules - Credits and Notional Learning Hours)

Paper No : 1 امراض اذن، انف وحلق کے سریری وتشخیصی اسالیب Amrāḍ-i-Udhun, Anf Wa Ḥalq Ke Sarīrī Wa Tashkhīṣī Asālīb (Clinical Methods and Diagnostic Techniques of Ear, Nose and Throat Diseases)						
Semester No : 3						
2A Module Number	**2B Modules & units**	**2C Number of Credits**	**Notional Learning hours**			
			2D Lectures	**2E Practical Training**	**2F Experiential Learning including Modular Assessment**	**2G Total**
	M-1 امراض اذن، انف وحلق، جوف الفم وغدد لعابیہ کا طبی طریقہ (Amrāḍ-i-Uzn, Anf wa Ḥalq, Jauf-al-Fam, Ghudda Lu'ābiyya ka Tibbi tariqah) Clinical methods of ear, nose and throat, Oral cavity and Salivary glands) The module 'Clinical methodology of Amrāḍ-i-Uzn, Anf wa Ḥalq, Oral cavity and Salivary glands' offers a comprehensive understanding of History taking & Symptomatology related to Amrāḍ-i-Uzn, Anf wa Ḥalq including Oral cavity and Salivary glands in adult & children. It covers the Examination of the ear with and without an Otoscope and the Examination of the Nose, Paranasal sinuses (PNS), Oral Cavity, Salivary glands،Throat and Larynx. The module emphasizes the importance of History taking, Symptomatology, and Examination of patients in clinical practices. The module also guides in	2	10	20	30	60

	identifying and diagnosing the disease with the help of the Unani concept of Kayfiyāt Arba'a. **• M 1U 1 بالغ اور اطفال میں امراض اذن، انف وحلق، جوف الفم، غدد لعابیہ کی روداد مریض اور علامات ونشانیاں Bāligh aur aṭfāl me Amrāḍ-i-Uzn, Anf wa Ḥalq, Jauf-al- Fam, Ghudda Lu'ābiyya ki rūdād-i-Marīḍ aur 'Alāmāt wa Nishāniya (History taking & Symptomatology of Amrāḍ-i-Uzn, Anf wa Ḥalq, Oral cavity and Salivary glands in adult & children)** 1.1.1 History taking of Amrāḍ-i-Uzn, Anf wa Ḥalq 1.1.2 Symptomatology of Amrāḍ-i-Uzn, Anf wa Ḥalq 1.1.3 History taking of Oral cavity and Salivary glands in adults & children 1.1.4 History taking & Symptomatology of the Oral cavity and Salivary glands in adults & children **• M 1U 2 معائنہ/Minẓār-al-uzn ke sath wa beghair, uzn ka Mu'āyana' (Examination of ear with and without Otoscope)** 1.2.1 صدفۃ الاذن، منطقہ ماقبل الاذن ومابعد الاذن، قنات استاکیوس کا معائنہ Ṣadafa al-Udhun, minṭiqā mā qabl-al-uzn wa mā ba'd-al-uzn, Qanat Astākīūs ka mu'āyana' (Examination of Pinna, pre & post auricular area, Eustachian tube) 1.2.2 قناۃ سمعی ظاہرہ کا منظار الاذن معائنہ Qanāt sam'i ẓāhīrā ka minẓār-al-uzn mu'āyana'(Otoscopic examination of External auditory canal) 1.2.3 غشاء طبلی کا منظار الاذن معائنہ Ghishā' ṭablī ka minẓār-al-uzn mu'āyana'(Otoscopic examination of Tympanic membrane) 1.2.4 اذن کا وظیفی معائنہ Uzn ka waẓīfī mu'āyana' (Functional examination of ear)					

	• M 1U 3 انف اور جیوب الانفی کا معائنہ/Anf aur Jūyūb-al- Anfi ka mu'āyana' **(Examination of the Nose & PNS)** 1.3.1 خارجی انف کا معائنہ Khārjī anf ka mu'āyana' (Examination of the external nose) 1.3.2 تنظیر الانف الخلفی، تنظیر الانف الامامی، البلعوم الانفی، تجویف الانف، اور دہلیز کا معاینہ Tazīr,al-anf al-khalfi, Tazīr,al-anf al-amami, Al-buľūm–al-anfī, tijwīf-al-anf aur dehlīz ka mu'āyana'(Examination of vestibule, Nasal cavity, Nasopharynx, Anterior rhinoscopy, Posterior rhinoscopy 1.3.3 جیوب الانفی کا معائنہ Jūyūb-al- Anfi ka mu'āyana' (Examination of Para nasal sinuses) 1.3.4 انف کا وظیفی معائنہ Anf ka waẓīfī mu'āyana' (Functional examination of nose) **• M 1U 4 معائنہ/Jauf-al- Fam, Ghudda Lu'ābiyya ka mu'āyana' (Examination of Oral Cavity and Salivary glands)** 1.4.1 شفہ، مخاطیہ الفم، لثہ، حنک صلب، لسان، ارضیہ الفم اور المثلث الطواحن الرجعیہ کا معائنہ Shafa, mūkhātiyyah-al-fam, litha, asnān, ḥanak ṣulb, lisān, arḍiyy-al-fam aur al-raja'iyy-al-Ṭawāḥin thālith (Examination of Lips, Buccal mucosa, Gums, Teeth, Hard palate, Tongue, Floor of mouth and retro molar trigone) 1.4.2 غدہ اصل الاذن، غدہ تحت الفک، غدہ تحت اللسان کا معائنہ Ghudda aṣl- al-Udhun, Ghudda taḥt- al- Fakk, Ghudda taḥt- al- lisān ka mu'āyana'(Examination of Parotid, Submandibular and Sublingual salivary glands) **• M 1U 5 معائنہ/Ḥalq aur Ḥanjara ka mu'āyana' (Examination of Throat and Larynx)**					

	1.5.1 حنجرہ کا خارجی معائنہ Ḥanjara ka khārjī mu‘āyana’ (External examination of larynx) 1.5.2 بالواسطہ تنظیر الحنجرہ Bi’l Wāsiṭa tanẓīr-al-Ḥanjara (Indirect laryngoscopy) 1.5.3 صوت کا تعین Ṣaut ka ta‘iyyūn (Assessment of voice)					
	M-2 سامعہ کا سریری اختبار اور دہلیزیہ کے عمل کا تعین Sāmi‘a ka sarīrī ikhtibār aur Dehlīziyya ‘amal ka ta‘iyyūn (Clinical tests of hearing & Assessment of Vestibular function) The module ' Clinical tests of hearing & assessment of vestibular function' focuses on key elements of assessment of hearing and vestibular function. It covers clinical tests of hearing, special tests of hearing and correct technique & interpretation of tuning fork tests, assessment of hearing in infants and children, clinical tests, and laboratory tests of vestibular function. It emphasizes the importance of assessment of hearing and assessment of vestibular function. **• M 2U 1 سامعہ کا سریری اختبار، سامعہ کا خاص اختبار، صحیح تقنیہ اور اختبار الشوکہ الرنانہ کی تشریح Sāmi‘a ka sarīrī ikhtibār, Sāmi‘a ka khāṣ ikhtibār, ṣaḥīyy tiqniyyah aur ikhtibār –al-shawkah-al-ranānā ki tashrīh (Clinical tests of hearing, special tests of hearing, correct technique & interpretation of tuning fork tests)** 2.1.1 Tuning fork tests (Rinne test, weber test, Schwabach's test, Absolute bone conduction (ABC) test, Bing test, Gelle’s test) 2.1.2 Recruitment test 2.1.3 Short increment sensitivity index (SISI Test) 2.1.4 Threshold tone decay test	2	10	20	30	60

	• M 2U 2 اطفال میں سامعہ کا تعین/Aṭfāl me sāmi'a ka ta'iyyūn (Assessment of hearing in infants and children) 2.2.1 Screening procedures, 2.2.2 Behavior observation audiometry 2.2.3 Distraction techniques of assessment of hearing 2.2.4 Conditioning techniques 2.2.5 Objective tests of hearing in infants and children **• M 2U 3 دہلیز یہ عمل کا سریری اختبار/Dehlīziyya 'amal ka sarīrī ikhtibār (Clinical tests of vestibular function)** 2.3.1 Spontaneous nystagmus 2.3.2 fistula test 2.3.3 Rhomberg test 2.3.4 Gait to assess the vestibular function 2.3.5 Past pointing and falling 2.3.6 Positional tests to assess the vestibular function 2.3.7 Test of cerebral Dysfunction **• M 2U 4 دہلیز یہ عمل کا معمل اختبار/Dehlīziyya 'amal ka mū'ammal ikhtibār (Laboratory tests of vestibular function)** 2.4.1 Caloric test to assess the vestibular function 2.4.2 Electronystagmography 2.4.3 Optokinetic test 2.4.4 Rotation test 2.4.5 Galvanic test					

	2.4.6 Posturography to assess the vestibular function					
		4	20	40	60	120
Semester No : 4						
2A Module Number	**2B Modules & units**	**2C Number of Credits**	**Notional Learning hours**			
			2D Lectures	**2E Practical Training**	**2F Experiential Learning including Modular Assessment**	**2G Total**
	M-3 راس اور رقبہ کا معائنہ Rās aur Raqba ka mu'āyana' (Examination of Head & Neck) The module 'Examination of head & neck' offers a comprehensive understanding of the examination of head & neck and cranial nerves. It covers the examination of lymph nodes neck mass, neck muscles, thyroid swelling, cranial nerves and examination of a case of facial nerve palsy, head injury and vertigo. It emphasizes the significance of conducting of examination of head & neck and examination of patients of facial nerve palsy, head injury and vertigo. The module also guides learners in diagnosing a case of facial nerve palsy and vertigo by the Unani concept of Akhlā arba'a	2	10	20	30	60

	• M 3U 1 راس اور رقبہ کی غدہ لمفاویہ کا معائنہ/Rās aur Raqaba ki Gudda Limphāwiyyah ka mu'āyana (Examination of Lymph nodes of Head & Neck) 3.1.1 Minṭiqā ki Rās aur Raqaba ki 'Uqdah ki darja bandī (Classification of Lymph nodes of Head & Neck region) 3.1.2 Rās aur Raqaba ki 'Uqdah ka mu'āyana' (Examination of Lymph nodes of Head & Neck) **• M 3U 2 Kūtlā –al- raqaba, 'aḍlāt raqaba aur Al-Intifākh Darqiyya ka mu'āyana'(Examination of Neck mass, Neck Muscles and thyroid swelling)** 3.2.1 Examination of Neck mass and Neck Muscles 3.2.2 Examination of the thyroid gland 3.2.3 Examination of thyroid Swelling **• M 3U 3 اعصاب دماغیہ کا معائنہ/A'ṣāb-al-Dimāghiyya ka mu'āyana' (Examination of Cranial nerves)** 3.3.1Examination of Olfactory, Optic, Oculomotor, Trochlear, Trigeminal and abducens nerve 3.3.2 Examination of facial, Vestibulocochlear, Glossopharyngeal, Vagus, Accessory and Hypoglossal nerve **• M 3U 4 عصب وجہی کا معائنہ/Shalal 'Asāb Wajhī ka mu'āyana' aur ikhtibār al-tashkhīṣ-al- kaharbāī (Examination of a Facial nerve Palsy and Electrodiagnostic tests)** 3.4.1 Examination of a case of Facial nerve Palsy 3.4.2 Electrodiagnostic tests for facial nerve					

	• M 3U 5 راس کاضربہ اور دوار کے کیس کا معائنہ/Rās ka ḍarba aur duwār ke Case ka mu‘āyana' (Examination of a case of Head injury and Vertigo) 3.5.1 Examination of a case of Head injury 3.5.2 Examination of a case of vertigo					
	M-4 اطفال و بالغین میں وجع الاذن، سیلان الاذن، صریر اور غطیط کے کیس کی تشخیصی نقطہ نظر/Aṭfāl wa Baligheen me Waja‘al-Uzn, Sayalān al-Uzn, Ṣarīr aur ghaṭīṭ ke case ki tashkhīṣi nūqta naẓar (Diagnostic approach of a case of Otalgia, Otorrhoea, Stridor and snoring in children and adults) This module elaborates on the complete Diagnostic approach of some common clinical presentations. The module focuses on four common clinical presentations: otalgia, otorrhoea, stridor, and snoring in children and adults. • M 4U 1 وجع الاذن کے کیس کی تشخیصی نقطہ نظر/Waja‘al-Uzn, ke case ki tashkhīṣi nūqta naẓar (Diagnostic approach of a case of Otalgia) 4.1.1 Description of otalgia 4.1.2 Investigations required to diagnose a case of otalgia 4.1.3 Examination of a case of otalgia • M 4U 2 سیلان اذن کے کیس کی تشخیص/Sayalān al-Uzn ke case ki tashkhīṣ (Diagnosis of a case of Otorrhoea) 4.2.1 Description of Otorrhoea 4.2.2 Investigations required to diagnose a case of Otorrhoea 4.2.3 Examination of a case of Otorrhoea	2	10	20	30	60

	• **M 4U 3 صریر کے کیس کی تشخیص/Ṣarīr ke case ki tashkhīṣ (Diagnoses of a case of Stridor)** 4.3.1 Description of Stridor 4.3.2 Investigations required to diagnose a case of Stridor 4.3.3 Examination of a case of Stridor • **M 4U 4 اطفال اور بالغین میں غطیط کے کیس کی تشخیصی نقطہ نظر/Aṭfāl wa Baligheen me ghaṭīṭ ke case ki tashkhīṣi nūqta naẓar (Diagnostic approach of a case of Snoring in children and adults)** 4.4.1 Description of the Snoring in children 4.4.2 Description of the Snoring in adults 4.4.3 Examination of a case of snoring 4.4.4 Investigations required for diagnosis of snoring in children and adult					
		4	20	40	60	120

Semester No : 5

2A Module Number	2B Modules & units	2C Number of Credits	Notional Learning hours			
			2D Lectures	2E Practical Training	2F Experiential Learning including Modular Assessment	2G Total

	M-5 امراض اذن، انف وحلق میں استعمال ہونے والے یونانی تشخیصی ذرائع Amrāḍ-i-Uzn, Anf -wa- Ḥalq me iste'māl hone wale Unani tashkhīṣi Zarāye (Unani Diagnostic tools used in ear, nose and throat) The module 'Unani diagnostic tools used in Amrāḍ-i-Uzn, Anf wa Ḥalq provides a comprehensive foundation in Unani principles of diagnosis and Unani diagnostic tools used in Amrāḍ-i-Uzn, Anf wa Ḥalq. It covers the diagnosis of bilious, consanguineous, phlegmatic, melancholic diseases related to ear, nose and throat on the basis of pulse, urine, and faeces examination. It emphasizes the significance of Unani principles of diagnosis and Unani diagnostic tools used in Amrāḍ-i-Uzn, Anf wa Ḥalq. Additionally, it also guides learners in diagnosing the simple & substantial morbid temperament related to ear, nose and throat. **• M 5U 1 امراض اذن، انف وحلق سے متعلق امراض صفراویہ کی تشخیص بذریعہ نبض، بول اور براز Amrāḍ-i-Uzn, Anf wa Ḥalq se mūtā'lliq Amrāḍ Ṣafrāwiyya ki tashkhīṣ bazariya Nabḍ, bawl aur Barāz (Diagnosis of bilious diseases related to ear, nose and throat by the interpretation of pulse, urine, and faeces)** 5.1.1 Amrāḍ Ṣafrāwiyya of Uzn, Anf wa Ḥalq 5.1.2 interpretation of Nabz, Boul wa Barāz in the diagnosis of Amrāḍ Ṣafrāwiyya of Uzn, Anf wa Ḥalq **• M 5U 2 امراض اذن، انف وحلق سے متعلق امراض دمویہ کی تشخیص بذریعہ نبض، بول اور براز Amrāḍ-i-Uzn, Anf wa Ḥalq se mūtā'lliq Amrāḍ Damawiyya ki tashkhīṣ, bazariya Nabḍ, bawl aur Barāz (Diagnosis of sanguineous diseases related to ear, nose and throat by the interpretation of pulse, urine and faeces)**	2	10	20	30	60

	5.2.1 Amrāḍ Damawiyya of Uzn, Anf wa Ḥalq 5.2.2 interpretation of Nabz and bawl in the diagnosis of Amrāḍ Damawiyya of Uzn, Anf wa Ḥalq **• M 5U 3 امراض اذن، انف وحلق سے متعلق امراض بلغمیہ کی تشخیص بذریعہ نبض، بول اور براز/Amrāḍ-i-Uzn, Anf wa Ḥalq se mūtā'lliq Amrāḍ Balghamiyya ki tashkhīṣ, bazariya Nabḍ, bawl aur Barāz (Diagnosis of phlegmatic diseases related to ear, nose and throat by the interpretation of pulse, urine and faeces)** 5.3.1 Amrāḍ Balghamiyya of Uzn, Anf wa Ḥalq 5.3.2 interpretation of Nabz, bawl wa Barāz in the diagnosis of Amrāḍ Balghamiyya of Uzn, Anf wa Ḥalq **• M 5U 4 امراض اذن، انف وحلق سے متعلق، سوداوی امراض کی تشخیص بذریعہ نبض بول اور براز/Amrāḍ-i-Uzn, Anf wa Ḥalq se mūtā'lliq Ṣawdawī Amrāḍ ki tashkhīṣ bazariya Nabḍ, bawl aur Barāz (Diagnosis of melancholic diseases related to ear, nose, and throat by the interpretation of pulse, urine, and faeces)** 5.4.1 Amrāḍ Sawdāwiyya of Uzn, Anf wa Halq 5.4.2 Interpretation of Nabz, bawl wa Barāz in the diagnosis of Amrāḍ Sawdāwiyya of Uzn, Anf wa Ḥalq **• M 5U 5 امراض اذن، انف وحلق سے متعلق سوء مزاج سادہ و مادّی/Amrāḍ-i-Uzn, Anf wa Ḥalq se mūtā'lliq Sū'-i-Mizāj Sāda wa Māddī (Simple & substantial morbid temperament related to ear, nose and throat)** 5.5.1 Concept of Sue Mizaj sada of Amrāḍ-i-Uzn, Anf wa Ḥalq 5.5.2 Concept of sue mizaj maddi of Amrāḍ-i-Uzn, Anf wa Ḥalq 5.5.3 Diagnosis of Sue Mizaj sada of Amrāḍ-i-Uzn, Anf wa Ḥalq					

	5.5.4 Diagnosis of Sue Mizaj Maddi of Amrāḍ-i-Uzn, Anf wa Ḥalq					
	M-6 امراض اذن، انف وحلق میں خصوصی تشخیصی آلات اور اختبار تشخیصی Amrāḍ-i-Uzn, Anf wa Ḥalq me khūṣūṣi tashkhīṣi Ālāt aur ikhtibār tashkhīṣi (Special diagnostic apparatus and Diagnostic tests in otorhinolaryngology) This module covers the description, demonstration, and hands-on training of pure tone audiometry, Tympanometry, BERA, ASSR, Electrocochleography, OAE, and ENG. **• M 6U 1 قیاس السمع/Qiyās-al-samā' aur Miqyās-al- samā' (Audiometry & Audiometer)** 6.1.1 Describe the Audiometer 6.1.2 Pure tone Audiometry with and without masking 6.1.3 Speech Audiometry **• M 6U 2 مقیاس مقاومہ السمع اور قیاس المعاوقہ السمعیہ/Miqyās mūqāwīmah-al- samā' aur qiyās-al-mū'āwiqah-al-sam'īyyah (Impedance Audiometer & Impedance Audiometry)** 6.2.1 Description of Tympanometer 6.2.2 Tympanometry procedure **• M 6U 3 قیاس سمع استجابۃ الدماغ/Evoked response audiometry & its equipment (BERA & Electrocochleography)** 6.3.1 Description of Brainstem Evoked Response Audiometry (BERA) 6.3.2 BERA Procedure 6.3.3 Electrocochleography Procedure	2	10	20	30	60

	• M 6U 4 آڈیٹری سٹیڈی سٹیٹ ریسپانس،اوٹو کوسٹک ایمیشن، کیلوری میٹری/Auditory Steady state Response (ASSR) & Otoacoustic Emission (OAEs) & Calorimetry 6.4.1 Description and Demonstration of BERA آڈیٹری سٹیڈی سٹیٹ ریسپانس کا بیان ومظاہرہ 6.4.2 Description and Demonstration of Otoacoustic Emission (OAE) اوٹو کوسٹک ایمیشن کا بیان ومظاہر • M 6U 5 الیکٹرو نیسٹیگمو گرافی/Electronystagmography (ENG) 6.5.1 Description of Electronystagmography (ENG) الیکٹرو نیسٹیگمو گرافی کا بیان 6.5.2 Electronystagmography (ENG) procedure الیکٹرو نیسٹیگمو گرافی کا مظاہرہ					
		4	20	40	60	120
Semester No : 6						
2A Module Number	**2B Modules & units**	**2C Number of Credits**	**Notional Learning hours**			
			2D Lectures	**2E Practical Training**	**2F Experiential Learning including Modular Assessment**	**2G Total**
	M-7 طب شعاعی اور دیگر تشخیصی طریقہ کار Ṭibb-i-shū'āi aur dīgar-al tiqniyyah-al-tashkhīṣi Tarīqa kār (Radiology and Other Diagnostic techniques) This module explores the various radiological tests like X-ray, CT Scan, MRI, and other diagnostic techniques like hematological tests, molecular,	2	10	20	30	60

	immunological, and cytological diagnostic tests related to Amrāḍ-i-Uzn, Anf wa Ḥalq. • M 7U 1 مختلف مناظر میں جیوب الانف کا ایکس رے۔الخشاء کا ایکس رے۔غدہ انفی حلقی کا ایکسرے۔زایدہ ابریہ۔کتلہ الرقبہ کے لئے مناظر جانبی میں راس کا ایکس رے/**Mūkhtalif manāẓir me Jūyūb-al- Anf ka X-ray; Al-Khashā ka X-ray; Allahmiya ka X-ray, Zā'ida Ibriyya aur Kūtlā –al- raqaba ke liye manāẓīr jāabīm me rās ka X-ray. (X-Ray PNS in different views; X-ray Mastoid;X-rays of neck in lateral view for adenoids, styloid process and Neck masses)** 7.1.1 X-ray PNS water's view, Caldwell view, Lateral view 7.1.2 X-ray Mastoid 7.1.3 X-ray Soft tissue neck lateral view for adenoids, neck mass, and styloid process • M 7U 2 راس، رقبہ، امراض اذن، انف اور حلق کا سی ٹی سکین اور پیٹ سکین/**Rās, raqaba aur Amrāḍ-i-Uzn, Anf wa Ḥalq ka CT scan aur PET scan (CT scan of ENT, head & neck and PET scan)** 7.2.1 Contrast-enhanced and Non-Contrast CT scan of the nose and Paranasal Sinuses in axial and coronal cuts X-ray mastoid 7.2.2 Computerised tomography(CT) scan of the Mastoid, CT scan of the throat, CT scan of the Larynx, Non-contrast, and contrast-enhanced CT scan of the head 7.2.3 Positron emission tomography (PET) Scan • M 7U 3 انف اور جیوب الانف کا ایم آر آئی۔ حنجرہ اور حلق کا ایم آر آئی مختلف مناظر میں راس کا ایم آر آئی۔/**Anf aur Jūyūb-al- Anf ka MRI; Ḥanjara aur Ḥalq ka MRI; Mūkhtalif manāẓir me rās**					

	ka MRI (MRI of Nose and Paranasal sinuses; MRI of Throat and Larynx; MRI of Head in different views) 7.3.1 Magnetic resonance imaging (MRI) Nose and Paranasal sinuses. 7.3.2 MRI Throat and Larynx. 7.3.3 MRI Head. **• M 7U 4 امراض اذن، انف وحلق سے متعلق علم الخلیات، علم الدم، بیلوجیہ الجزیہ اور علم المناعت/Amrāḍ-i-Uzn, Anf wa Ḥalq se mutalliq ‘Ilm-al-khalyāt, ‘Ilm-al-dam, biologiyyah-al-Juziyyā, ‘Ilm-al-manā‘at (Cytology, hematology, molecular biology and immunology related to Otorhinolaryngology)** 7.4.1 Cytological tests in ENT diseases. 7.4.2 Hematological tests in ENT diseases. 7.4.3 Molecular biological and immunological tests related to ENT diseases.					
	M-8 تنظیر داخلی اور دیگر تشخیصی عملیات/Tanẓīr dākhlī aur dīgar tashkhīṣī amaliyāt (Endoscopy & other Diagnostic Procedures) This module explores endoscopies like Diagnostic nasal endoscopy, Direct laryngoscopy, Flexible laryngoscopy, Bronchoscopy, Esophagoscopy, Rhinomanometry, and Sialo-endoscopy. **• M 8U 1 بلاواسطہ تنظیر الحنجرہ/Bilā wāsiṭa tanẓīr-al-Ḥanjara (direct laryngoscopy)** 8.1.1 Direct laryngoscopy 8.1.2 Direct laryngoscopy **• M 8U 2 تنظیر داخلی الانف، لین تنظیر الحنجرہ/Tanẓīr dākhlī-al-Anf, Layyin tanẓīr-al-Ḥanjara (Nasal endoscopy, Flexible laryngoscopy)** 8.2.1 Nasal Endoscopy	2	10	20	30	60

	8.2.2 Flexible laryngeal endoscopy **• M 8U 3 تنظیر القصبات اور تنظیر المری/Tanẓīr-al-qaṣbāt aur Tanẓīr-al- marī (Bronchoscopy and Esophagoscopy)** 8.3.1 Bronchoscopy 8.3.2 Esophagoscopy **• M 8U 4 قیاس الہوائے التنفس الانف اور تنظیر اللعابیہ/Qiyās-al-hawaī-al tanaffūṣ-al-anf aur Tanẓīr-al- Lu'abiyya (Rhinomanometry & Sialoendoscopy)** 8.4.1 Rhinomanometry 8.4.2 Sialoendoscopy					
		4	20	40	60	120
		16	80	160	240	480

Paper No : 2 امراض اذن، انف وحلق کے طبی وجراحی معالجات Amrāḍ-i-Udhun, Anf Wa Ḥalq Ke Ṭibbi Wa Jirāḥi Mu'alajāt (Medical and Surgical Management of Ear, Nose and Throat Diseases)

Semester No : 3

2A Module Number	2B Modules & units	2C Number of Credits	Notional Learning hours			
			2D Lectures	2E Practical Training	2F Experiential Learning including Modular Assessment	2G Total

	M-9 امراض اذن Amrāḍ-i- Uzn (Diseases of Ear) This module consists of five units and will be completed in 2 credits (60 Notional hrs.). The ratio of learning, practical, and experiential hours are 1:2:3 respectively. The module describes Diseases of Ear mentioned in the Unani classical literature and the conventional system of medicine and PG scholars will learn to Plan, diagnose the disease, and formulate a line of treatment. The PG scholars will achieve proficiency in determining precise dosages and administration methods to optimize therapeutic outcomes while ensuring patient safety and adherence to Unani pharmacology. **• M 9U 1 تشوھات /Uzn ki Khilqī tashuwwhāt (Congenital deformities of Ear)** 9.1.1.Types ,causes, pathology, sign and symptoms , Investigation, differential diagnosis and Treatment of Congenital deformities of ear **• M 9U 2 التہاب الاذن خارجی اور اس کی جملہ اقسام /Iltihāb-i-Uzn khārji wa uske Jūmla Aqsām (Otitis externa and it's all types)** 9.2.1. Types ,causes, pathology, Sign and symptoms , Investigation,differential diagnosis and Treatment of otitis externa **• M 9U 3 طنین و دوی، دوار، وسخ الاذن، قذی الاذن /Tanīn-o- Dawī, Duwār, Wasakh -al-Uzn and Qadhā-al-Uzn (Tinnitus, vertigo, Ear wax, and foreign Body in the ear)** 9.3.1.Types, causes, pathology, sign and symptoms , Investigation,differential diagnosis and Treatment of Foreign body in the ear and wax,	2	10	20	30	60

	9.3.2.Types ,causes, pathology, sign and symptoms, Investigation,differential diagnosis and Treatment of tinnitus and vertigo **• M 9U 4 وقر،مساعدات السمع،اور معاق سمعی مریض میں الوسائل مساعدہ Waqr, mūsā'dāt-al-sama' aur m'āq samaī' marīz me al wasāil-al-mūsā'dā (Deafness , Hearing Aids and Assistive devices in Hearing impaired Patient)** 9.4.1.Types ,causes, pathology, sign and symptoms , Investigation,differential diagnosis and Treatment of Deafness. **• M 9U 5 Training of Hearing Patient for lip reading, auditory training and speech conservation and rehabilitation of hearing loss in the elderly** 9.5.1. Lip reading fundamentals. 9.5.2. Common speech patterns 9.5.3. Lip reading skills in conversations 9.5.4. Strategies to overcome challenges					
	M-10 امراض اذن وسطی وداخلی Amrāz Uzn wasṭi wa dākhli (Diseases of Middle and internal Ear) The module describes Diseases of the Middle and internal Ear mentioned in the Unani classical literature and the conventional system of medicine and PG scholars will learn to Plan, diagnose the disease, and formulate a line of treatment. The PG scholars will achieve proficiency in determining precise dosages and administration methods to optimize therapeutic outcomes while ensuring patient safety and adherence to Unani pharmacology.	2	10	20	30	60

	• M 10U 1 التہاب الاذن وسطی اور اس کی جملہ اقسام/Iltihāb-i- Uzn wasṭi wa uske Jūmla Aqsām (Otitis media and it's all types) 10.1.1 Types ,causes, pathology, sign & symptoms , Investigation, differential diagnosis and Treatment of otitis media • M 10U 2 استاکیوس قنات/Qanat Astākīūs (Eustachian tube disorder) 10.2.1. Causes, pathology, sign & symptoms , Investigation, differential diagnosis and Treatment of Eustachian disorder . • M 10U 3 التہاب الخشاء/Iltihāb-i- al- Khashā (Mastoiditis), دبیلہ الخشاء/Dubayla-i- al-Khashā (Mastoid abscess) 10.3.1. Types, causes, pathology, sign & symptoms, Investigation, differential diagnosis and Treatment of Mastoiditis 10.3.2. Types ,causes, pathology, sign & symptoms, Investigation, differential diagnosis and Treatment of Mastoid abcess. • M 10U 4 Taṣallub-al-Uzn (Otosclerosis) تصلب الاذن and Sal'at -al-Uzn (Tumours of Ear) سلعات اذن 10.4.1. Types ,causes, pathology, sign & symptoms, Investigation, differential diagnosis and Treatment of Otosclerosis. 10.4.2. Types ,causes, pathology,sign & symptoms, Investigation, differential diagnosis and Treatment of Tumors of ear. • M 10U 5 التہاب تیہ الاذن/Iltihāb-i- Tīh-al-Uzn (Labyrinthitis) and Marḍ Meniers (Menier's Disease) 10.5.1.Types ,causes, pathology, sign & symptoms, Investigation, differential diagnosis and Treatment of Otosclerosis.					

	10.5.2. Causes, pathology,sign & symptoms, Investigation, differential diagnosis and Treatment of Tumors of ear.					
		4	20	40	60	120
Semester No : 4						
2A Module Number	**2B Modules & units**	**2C Number of Credits**	**Notional Learning hours**			
			2D Lectures	**2E Practical Training**	**2F Experiential Learning including Modular Assessment**	**2G Total**
	M-11 امراض الانفAmrāḍ -i-Anf (Diseases of Nose-I) The module describes Diseases of Nose mentioned in the Unani classical literature and the conventional system of medicine and PG scholars will learn to Plan, diagnose the disease, and formulate a line of treatment. The PG scholars will achieve proficiency in determining precise dosages and administration methods to optimize therapeutic outcomes while ensuring patient safety and adherence to Unani pharmacology **• M 11U 1 انف کے خلقی تشوھاتAnf ki Khilqī tashuwwhāt (Congenital deformities of Nose)** 11.1.1. Types, causes, pathology, sign & symptoms, Investigation, differential diagnosis and Treatment of Congenital deformities of Nose	2	10	20	30	60

	• **M 11U 2 التہاب انف اور اس کی جملہ اقسام/Iltihabe anf wa uske Jūmla Aqsām (Rhinitis and it's all types)** 11.2.1. Types, causes, pathology, sign & symptoms, Investigation, differential diagnosis and Treatment of Rhinitis • **M 11U 3 رعاف یا نکسیر/Ru'āf / Naksīr (Epistaxis)** 11.3.1. Types, causes, pathology, sign & symptoms, Investigation, differential diagnosis and Treatment of Epistaxis • **M 11U 4 منحرف فاصل انف/Mūnḥarif fāsil-i- anf (Deviated nasal septum)** 11.4.1. Types, causes, pathology, sign & symptoms, Investigation, differential diagnosis and Treatment of Deviated Nasal Septum (DNS) • **M 11U 5 بثور الانف/Buthūr al-Anf (Eruptions of nose) and قروح انف/Qurūḥ-i-Anf (Nasal ulcers)** 11.5.1. Causes, pathology ,sign & symptoms, Investigation, differential diagnosis and Treatment of Nasal boils 11.5.2. Types ,causes, pathology, sign & symptoms, Investigation, differential diagnosis and Treatment of Nasal ulcer					
	M-12 امراض انف اور جیوب الانف/Amrāḍ -i-anf aur Jūyūb-al- Anf (Diseases of Nose-II and PNS) The module describes Diseases of Nose and PNS mentioned in the Unani classical literature and the conventional system of medicine and PG scholars will learn to Plan, diagnose the disease, and formulate a line of treatment. The PG scholars will achieve proficiency in determining precise	2	10	20	30	60

	dosages and administration methods to optimize therapeutic outcomes while ensuring patient safety and adherence to Unani pharmacology. **• M 12U 1 التہاب تجاویف اور اسکی اقسام/Iltihāb-i- tajāwīf-i-anf aur uski Aqsām (Sinusitis & its types)** 12.1.1. Types ,causes, pathology ,sign/symptoms, Investigation, differential diagnosis and Treatment of Sinusitis **• M 12U 2 بواسیر انف/Bawāsīr-i-anf (Nasal polyp)** 12.2.1.Types ,causes, pathology ,sign/symptoms, Investigation, differential diagnosis and Treatment of Nasal polyp **• M 12U 3 خشم /Khasham (Anosmia), فساد الشم Fasād al-Shamm (Parosmia)** 12.3.1. Causes, pathology ,sign/symptoms, Investigation, differential diagnosis and Treatment of Olfactory disorder (Anosmia and parosmia etc) **• M 12U 4 قذیٰ الانف/Qadhā- al- anf (Foreign body in the Nose)** 12.4.1. Types ,causes, pathology ,sign/symptoms, Investigation, differential diagnosis and Foreign body in the nose **• M 12U 5 سلعات انف/Saraṭān-i-anf (Nasal tumors)** 12.5.1.Types ,causes, pathology ,sign/symptoms, Investigation, differential diagnosis and Treatment of Tumours of nose					
		4	20	40	60	120
Semester No : 5						
2A	**2B**	**2C**	**Notional Learning hours**			

Module Number	Modules & units	Number of Credits	2D Lectures	2E Practical Training	2F Experiential Learning including Modular Assessment	2G Total
	M-13 امراض بلعوم اور حنجرہ Amrāḍ -i- Bal'ūm aur Ḥanjra (Diseases of Pharynx and Larynx) The module describes various Diseases of the Pharynx and Larynx mentioned in the Unani classical literature and the conventional system of medicine and PG scholars will learn to Plan, diagnose the disease, and formulate a line of treatment. The PG scholars will achieve proficiency in determining precise dosages and administration methods to optimize therapeutic outcomes while ensuring patient safety and adherence to Unani pharmacology. **• M 13U 1 مری، قصبۃ الریہ، بلعوم اور حنجرہ کے خلقی امراض Marī, Qaṣaba al-Ri'a, Bal'ūm aur Ḥanjra ke Khilqī Amrāḍ (Congenital disorders of Larynx, pharynx , Trachea and Oesophagus)** 13.1.1. Types ,causes, pathology ,sign/symptoms , investigation, D/D and treatment modalities of congenital deformirties of pharynx **• M 13U 2 Iltihāb-i- Bal'ūm aur 'Usr al-Bal' / 'Usr-i-Izdirār (Pharyngitis and Dysphagia)** 13.2.1. Types ,causes, pathology ,sign/symptoms , Investigation, D/D and Treatment modalities of Pharyngitis.	2	10	20	30	60

	13.2.2. Types ,causes, pathology ,sign/symptoms , Investigation, D/D and Treatment modalities of Dysphagia. **• M 13U 3 تضخم الغدانیہ /Taḍakhkhūm Alghadāniyy (Adenoid hypertrophy)** 13.3.1. Causes, pathology ,sign/symptoms , Investigation, D/D and Treatment modalities of Adenoid hypertrophy. 13.3.2. Symptomatology , Investigation, D/D, complications and Treatment modalities of Adenoid facies **• M 13U 4 تضخم الغدانیہ /Taḍakhkhūm Alghadāniyy (Adenoid hypertrophy), سلعات بلعو/Sal'āt -i- Bal'ūm (Tumours of pharynx)** 13.4.1.Types ,causes, pathology ,sign/symptoms, Investigation, D/D and Treatment modalities of Sal'āt -i- Bal'ūm **• M 13U 5 التہاب حنجرہ/Iltihāb-i- Ḥanjra (Laryngitis), Sal'āt -i- Ḥanjra / سلعات حنجرہ (Tumours of larynx)** 13.5.1.Types ,causes, pathology ,sign/symptoms , Investigation, D/D and Treatment modalities of Laryngitis 13.5.2. Types ,causes, pathology ,sign/symptoms , Investigation, D/D and Treatment modalities of Tumours of larynx					
	M-14 امراض حلق، جوف الفم اور غدہ لعابیہ/Amrāḍ -i- Halq, Jauf-al- Fam aur Ghudda Lu'ābiyyah (Diseases of Throat, Oral cavity and Salivary gland) The module describes various Diseases of Amrāḍ -i- ḥalq, Jauf-al- Fam aur Ghudda Lu'ābiyyah mentioned in the Unani classical literature and the conventional system of medicine and PG scholars will learn to Plan, diagnose the disease, and formulate a line of treatment. The PG scholars	2	10	20	30	60

	will achieve proficiency in determining precise dosages and administration methods to optimize therapeutic outcomes while ensuring patient safety and adherence to Unani pharmacology. **• M 14U 1 التہاب لوزتین/Iltihāb-i- Lawzatayn (Tonsillitis) and Quinsy** 14.1.1. Types, causes, pathology, sign & symptoms, investigation, (Differential Diagnosis) D/D and treatment modalities of tonsillitis and Quinsy **• M 14U 2 ضرر، سلعات جوف الفم اور تلیف فم تحت المخاطیہ/Ḍarar ,Sal'āt -i- Jauf-al- Fam aur talaiyyuf fam-i- taḥat-al-mukhātiyyah (Injuries ,tumours of oral cavity and oral Sub mucosal fibrosis)** 14.2.1. Types ,causes, pathology, sign & symptoms ,investigation, D/D and treatment modalities of tumours of oral cavity 14.2.2. Types ,causes, pathology, sign & symptoms , investigation, D/D and treatment modalities of oral sub mucosal fibrosis **• M 14U 3 صوت اور اسکی تدابیر امراض/Amrāḍ -i- Ṣawt aur uski tadābīr (Speech disorder and their management), بحت الصوت/Buḥḥa al-Ṣawt (Hoarseness of voice)** 14.3.1.Types ,causes, pathology ,sign & symptoms , investigation, D/D and treatment modalities of speech disorder and their management 14.3.2. Types ,causes, pathology, sign/symptoms , investigation, D/D and treatment modalities of hoarseness of voice **• M 14U 4 قلاع/Qulā' (Stomatitis), Oral mucosal lesion and Ulceration**					

	14.4.1. Types ,causes, pathology,sign & symptoms , investigation, D/D and treatment modalities of stomatitis 14.4.2. Types ,causes, pathology, sign & symptoms, investigation, D/D and treatment modalities of ulceration **• M 14U 5 امراض غدہ لعابیہ/Amrāḍ -i- Ghudda Lu'ābiyyah (Salivary gland disorder)** 14.5.1. Types, causes, pathology, sign & symptoms, investigation, D/D and treatment modalities of salivary gland disorders. 14.5.2. Xerostomia 14.5.3. Ptylism					
		4	20	40	60	120

Semester No : 6

2A Module Number	2B Modules & units	2C Number of Credits	Notional Learning hours			
			2D Lectures	2E Practical Training	2F Experiential Learning including Modular Assessment	2G Total
	M-15 اذن، انف وحلق اور راس ورقبہ کے متعدی امراض Uzn, Anf wa Ḥalq aur Rās wa Raqaba ke muta'addi Amrāḍ (Infectious disease of otorhinolaryngology and head & neck region)	2	10	20	30	60

	The module describes various Diseases of Amrāḍ Uzn, Anf wa Ḥalq ki Mu'diya aur Rās aur Raqaba (Infectious disease of otorhinolaryngology and head & neck region) mentioned in the Unani classical literature and the conventional system of medicine and PG scholars will learn to Plan, diagnose the disease, and formulate a line of treatment. The PG scholars will achieve proficiency in determining precise dosages and administration methods to optimize therapeutic outcomes while ensuring patient safety and adherence to Unani pharmacology. **• M 15U 1 مم اذنیہ/Tasammūm Uzniyyah (Ototoxicity)** 15.1.1. Types ,causes, pathology ,sign/symptoms , investigation, D/D and treatment modalities of of ototoxicity **• M 15U 2 جبھی فکی اور راس رقبہ کی ضربی Jabhi Fakkī aur Rās aur Raqaba ki Ḍarbī (Faciomaxillary and head , neck trauma)** 15.2.1. Types ,causes, pathology ,sign/symptoms , investigation, D/D ,complications and treatment modalities of faciomaxillary, head & neck trauma **• M 15U 3 اذن، انف وحلق، راس اور رقبہ کے امراض معدیہ کی تحفظ اور صحت Uzn, Anf wa Ḥalq, rās aur Raqaba ke amrāḍ Mu'diya ka Tahaffuz aur 'Ilāj (Prevention and treatment of infectious disease of otorhinolaryngology and head and neck region)** 15.3.1. Preventive measures and treatment of infectious disease of otorhinolaryngology and head and neck region **• M 15U 4 اذن، انف وحلق کے اضطراب الدورۃ الدمویہ اور جسم کے دوسرے اعضاء پر انکے اثرات Uzn, Anf wa Ḥalq ke iḍṭerābāt-al-dawrah-al-damviyyah aur jism ke dusre a'ḍā' per**					

	unke athrāt (Circulatory disturbance of Ear, Nose and Throat and their effects on other organ of the body) 15.4.1. Diagnostic and treatment modalities of circulatory disturbance of ear nose and throat and their effects on other organ of the body **• M 15U 5 اذن،انف وحلق کے اضطراب اعصاب اور جسم کے دوسرے اعضاء پر انکے اثرات/Uzn, Anf wa Ḥalq ke iḍṭerābāt a'ṣāb aur jism ke dusre a'ḍā' per unke athrāt (Nervous disturbance of Ear nose and throat and their effects on other organ of the body)** 15.5.1. Diagnostic and treatment modalities of Nervous disturbance of ear, nose and throat and their effects on other organ of the body					
	M-16 Ilāj bi'l-Dawā' and 'Ilāj bi'l-Tadbīr in Uzn, Anf wa Ḥalq, rās aur Raqaba) Pharmacotherapy and treatment in Ear, nose and throat and head and neck) علاج بالدواء اور علاج بالتدبیر اذن،انف، حلق، راس اور رقبہ The module describes various mode of treatment eg Ilāj bi'l-Dawā' and 'Ilāj bi'l-Tadbīr ilaj bil giza andilaj bil yad in Uzn, Anf wa Ḥalq, rās aur Raqaba) Pharmacotherapy and treatment in Ear, nose and throat and head and neck) mentioned in the Unani classical literature and the conventional system of medicine and PG scholars will learn to Plan, diagnose the disease, and formulate a line of treatment. The PG scholars will achieve proficiency in determining precise dosages and administration methods to optimize therapeutic outcomes while ensuring patient safety and adherence to Unani pharmacology	2	10	20	30	60

	• M 16U 1 اذن،انف، حلق میں علاج بالتدبیر کا اطلاق/Uzn, Anf wa Ḥalq me ‘Ilāj bi’l-Tadbīr ka itlāq (Application of Ilaj bit Tadbeer in Amraz –e – Uzn Anf wa Halaq) 16.1.1. Introduce various techniques of Ilaj bit Tadabeer procedures in Amraze Uzn, Anf wa Halaq • M 16U 2 یونانی ادویہ مفردات ومرکبات/Unani advia Mufradāt wa Murakkabāt (Single and compound Unani drugs) 16.2.1. Different dosage forms of Single and compound Unani drugs used in Amraze Uzn, Anf wa Halaq • M 16U 3 دافع جراثیم/Dāfi‘-i- Jarāsīm (Antibiotics), دافع فیروسی/Dāfi‘-i-Virus (Antiviral) , دافع تعفن/Dāfi‘-i-Ta‘affun (Antiseptic) 16.3.1. Indication, contra indication and side effects of Antibiotics. 16.3.2.. Indication, contra indication and side effects of Antiviral. 16.3.3. Indication, contra indication and side effects of Antiseptic • M 16U 4 دافع فطر/Dāfi‘-i- faṭar (Antifungal), مسکن/Musakkin (Analgesic) 16.4.1. Antifungal drugs- indication, contra indication and side effects 16.4.2. Analgesic - indication, contra indication and side effects. • M 16U 5 دافع حساسیت/Dāfi‘-i-Hassāsiyat (Antihistaminic), مخدر/Mukhaddir (Anaesthetic) 16.5.1. Antihistaminic drugs- indication, contra indication and side effects 16.5.2. Anaesthetic drugs - indication, contra indication and side effects					
		4	20	40	60	120
		16	80	160	240	480

Paper No : 3 امراض اذن، انف وحلق کی جراحی عملیات Amrāḍ-i-Udhun, Anf Wa Ḥalq Ki Jīraḥī ‘Amalīyyāt (Operative Surgery of Ear, Nose and Throat Diseases)						
Semester No : 3						
2A Module Number	2B Modules & units	2C Number of Credits	Notional Learning hours			
			2D Lectures	2E Practical Training	2F Experiential Learning including Modular Assessment	2G Total
	M-17 العملیات الاذن/Al-‘amalīyā-al- Uzn (OPERATIONS ON EAR) This module allows students to understand the surgical diseases of Uzn (ear), their surgical management like tympanoplasty, cortical mastoidectomy, radical mastoidectomy, myringotomy, myringoplasty and keloid excision. Moreover, this module allows to identify different structures during surgery, manage the per-operative steps and complications, closure of surgical incisions layer by layer and manage the case post-operatively. **• M 17U 1 رأب الطبلہ الخشاء الجراحی۔ قطع الخشاء الجزری۔ قطع الخشاء الخشری/R’āb-al- Ṭablā m‘a –al-Khashā-al- JĪRAḤĪ; Qaṭ‘–al- Khashā-al-jazrī; Qaṭ‘–al- Khashā-al-qūshrī (Tympanoplasty with Mastoid Surgery; Radical Mastoidectomy; Cortical Mastoidectomy)** 17.1.1 Indications of tympanoplasty, 17.1.2 Indications of mastoidectomy,	2	10	20	30	60

	17.1.3 Type of anesthesia during surgery 17.1.4 Pre-operative preparation 17.1.5 Steps of operative procedures 17.1.6 Post-operative care **• M 17U 2 قطع الركابي، بضع الطبلة مع ادخال جروميت، رأب الطبلة /Qaṭ‘–al- rīkābī, baḍ‘aṭablā’ m‘a idkhāal jarūmīt, R’āb-al- Ṭablā (Stapedectomy, Myringotomy with Grommet insertion, Myringoplasty)** 17.2.1 Indications of stapedectomy, 17.2.2 Type of anesthesia during surgery 17.2.3 Pre-operative preparation 17.2.4 Steps of operative procedures 17.2.5 Post-operative care 17.2.6 Indications of myringotomy, myringoplasty 17.2.7 Type of anesthesia during surgery 17.2.8 Pre-operative preparation 17.2.9 Steps of operative procedures 17.2.10 Post-operative care **• M 17U 3 استئصال السليلية الاذن، رتق القناة الخارجي /Iste’ṣāl-al-salīlā-al- uzn, Ratq-al-qanā-al-khārjī (Aural Polypectomy, External Canal Atresia)** 17.3.1. Indications of aural polypectomy 17.3.2 Contraindicationof aural polypectomy 17.3.3 Type of anesthesia during surgery 17.3.4 Pre-operative preparation					

	17.3.5 Steps of operative procedures 17.3.6 Steps of surgery in external canal atresia **• M 17U 4 اذن کے خلقی تشوھات/Uzn ki Khilqī tashuwwhāt (Congenital deformities of Ear)** 17.4.1 Congenital deformities of ear **• M 17U 5 قذیٰ الاذن، اصلاح صدف الاذن، اصلاح شحم الاذن، جدرہ اور استئصال شحم الاذن/Qadhā-al-Uzn, Iṣlāḥ Ṣadafa al-Udhun/ Iṣlāḥ Shaḥma al-Udhun, Jūdarā aur Iste'ṣāl Shaḥma al-Udhun (Foregin Body Ear, Pinna Repair/Ear Lobule Repair (Post- Traumatic), Keloid Excision of Pinna)** 17.5.1 Methods of removal of foreign body from ear 17.5.2 Pnna repair/ ear lobule repair (post traumatic) 17.5.3 Surgical management of keloid of pinna					
	M-18 چہرہ کی عمل جراحی کے ساتھ انف اور جیوب الانف کی عمل جراحی Chehrā ki 'AMALĪ JĪRAḤĪ ke sath, anf aur Jūyūb-al- Anf ki 'AMALĪ JĪRAḤĪ (OPERATIONS ON FACE INCLUDING NOSE AND PARANASAL SINUSES) This module allows students to understand the surgical diseases of Face including nose & paranasal sinuses, their surgical management like SMR, Nasal polypectomy, ethmoidectomy, maxillectomy, surgical correction of coanal atresia and rhinoseptoplasty. This module allows to identify different structures during surgery, manage the per-operative steps and complications, closure of surgical incisions layer by layer and manage the case post-operatively.	2	10	20	30	60

	Moreover, this module allows to identify different foreign bodies of nose and methods of their removal, manage common emergencies like epistaxis. **• M 18U 1 استئصال تحت المخاطی، رأب الحاجز الأنفی، استئصال السلیلیہ الانفی، رعاف اور کسر الانف Iste'ṣāl taḥat-al mūkhaṭī, r'āb-al- ḥajīz-al-anfī, Iste'ṣāl-al-salīlā-al-anfi, Ru'āf and Kasr al-Anf. (Submucosal resection (SMR) and Septoplasty, Nasal Polypectomy, Common Emergencies like Epistaxis and Fracture of nasal bone)** 18.1.1 Submucosal resection 18.1.2 Septoplasty 18.1.3 Nasal polypectomy 18.1.4 Common emergencies like epistaxis and fracture of nasal bone **• M 18U 2 استئصال الغربال/Iste'ṣāl-al- gharbāl / Ethmoidectomy (intra-nasal, external, external fronto)** 18.2.1 Indications, 18.2.2 Contraindication, 18.2.3 Pre-operative preparation, 18.2.4 Steps of surgery of ethmoidectomy **• M 18U 3 استئصال الفک العلوی، اذن کے خلقی تشوھات، جبہی فکی ضرر Iste'ṣāl-al-fak-al'ulwī Maxillectomy (partial and total); Anf ki Khilqī tashuwwhāt (Congenital deformities of nose); Jabhi Fakkī Ḍarar (Facio Maxillary Injury)** 18.3.1 Indications, 18.3.2 Contraindication, 18.3.3 Pre-operative preparation, 18.3.4 Steps of surgery of maxillectomy (partial and total)					

	18.3.5 Post-operative care 18.3.6 Congenital deformities of nose 18.3.7 Facio-maxillary injury **• M 18U 4 رتق قمعی الانف کا عمل جراحی، عمل جراحی تجاویف الانف وظیفہ بالمناظر داخلی/Ratq qam'ī-al-anf ka 'amal jīrāḥī, 'amal jīrāḥī tajāwīf –al-Anf waẓīfā bīl minẓār dākhlī (Surgery of Choanal Atresia, Functional Endoscopic Sinus Surgery)** 18.4.1 Surgery of choanal atresia 18.4.2 Indications, contraindication, pre-operative preparation, steps of surgery of functional endoscopic sinus surgery, post-operative care **• M 18U 5 قدیٰ الانف، الغسل الغاری، رأب الحاجز الانفی/Qadhā-al-anf, al-ghūsl –al-ghārī, r'āb-al- ḥajīz-al-anfī (Rhinoseptoplasty, Antral Washout, Foreign Body Nose)** 18.5.1 Indications, contraindication, pre-operative preparation, steps of surgery of rhinoseptoplasty 18.5.2 Antral washout 18.5.3 Methods of removal of foreign body nose					
		4	20	40	60	120

Semester No : 4

2A Module Number	2B Modules & units	2C Number of Credits	Notional Learning hours			
			2D Lectures	2E Practical Training	2F Experiential Learning	2G Total

					including Modular Assessment	
	M-19 البلعوم الانفی اور البلعوم الفمی/Al- bal'ūm –al-anfī aur al- bal'ūm –al-fammī (Operations on Nasopharynx & Oropharynx) This module allows students to understand the surgical diseases of nasopharynx and oropharynx, their surgical management like tonsillectomy, adenoidectomy, release of tongue tie, excision of retention cyst, and incision & drainage of quincy. Moreover, this module allows to identify different foreign bodies of throat and methods of their removal, identify and manage various congenital deformities of trachea and esophagus. This module allows to identify different structures during surgery, manage the per-operative steps and complications, closure of surgical incisions layer by layer and manage the case post-operatively. **• M 19U 1 استئصال لوزتین اور استئصال الغدانیاتی/Iste'ṣāl-al- Lawzatayn aur : Iste'ṣāl-al-Ghudaniyat (Tonsillectomy, Adenoidectomy)** 19.1.1 Indication, contraindications, pre-operative preparation, operative steps, post-operative care, complications and management of tonsillectomy 19.1.2 Indication, contraindications, pre-operative preparation, operative steps, post-operative care, complications and management of adenoidectomy **• M 19U 2 ۔قوینسی کا شق اور تنقیہ، ربطہ اللسان یطلق/Quincy ka Shaqq aur Tanqiya; Rabt'a-al-lisān Yūṭlaq (Incision and Drainage of Quincy/Other Abscess, Tongue Tie Release)**	2	10	20	30	60

	19.2.1 Incision & drainage of peri-tonsillar abscess/quincy 19.2.2 Tongue tie release **• M 19U 3 استئصال اکیاس الاحتباس، قدیٰ البلعومی/Iste'ṣāl-al-Akyās -al-ihtībās, Qadhā-al-bal'ūmi (Excision of Retention Cyst, Foreign Body Throat)** 19.3.1 Excision of retention cyst 19.3.2 Methods of removal of foreign body throat **• M 19U 4 Fibre optic bronchoscopy & esophagoscopy including foreign body removal** 19.4.1 Indications of fibre optic bronchoscopy and esophagoscopy 19.4.2 procedure fibre optic bronchoscopy and esophagoscopy 19.4.3 Uses of fibreoptic brochoscopy and esophagoscopy in foreign body removal **• M 19U 5 قصبہ الریہ کی خلقی تشوھات کی عمل جیراہی/Qaṣaba al-Ri'a ki Khilqī tashuwwhāt ki 'amal jīrāhī (Surgery of Congenital Deformity of Trachea/Oesophagus)** 19.5.1 Congenital deformity of trachea and esophagus					
	M-20 حنجرہ کا عمل جیراہی/Ḥanjra ka 'amal jīrāhī (Operations on Larynx..... This module allows students to understand the surgical diseases of larynx, their surgical management like laryngectomy, micro-laryngoscopic voice surgery, surgical correction of laryngo-tracheal fissure, stenosis and fistula. Moreover, this module allows to identify the clinical cases of laryngo-tracheal trauma and manage them. This module allows to identify different structures during surgery, manage the per-operative steps and	2	10	20	30	60

	complications, closure of surgical incisions layer by layer and manage the case post-operatively. **• M 20U 1 استئصال الحنجرہ الکامل Iste'ṣāl-al- Ḥanjra –al-kāmīl (Total Laryngectomy)** 20.1.1 Indications, contraindications of laryngectomy, type of anaesthesia to be administered, pre-operative preparation, steps of operative procedures, post-operative care, complications and its management of laryngectomy **• M 20U 2 عقیدات الحبل الصوتی، بواسیر ،اکیاس کے لیے جیراحت الصوت بالمناظر الحنجرۃ الدقیق /Aqīdāt-al-ḥabl-al- Ṣawtī, Bawāsīr aur Akyās ke liye jīrāhat-al- Ṣawt, bī-al minẓār-al-Ḥanjri-al-daqiq (Micro-Laryngoscopic Voice Surgery for Vocal cord nodules, Polyps and Cyst)** 20.2.1 Indications, contraindications, and method of microlaryngoscopic voice surgery **• M 20U 3 شقاق الحنجرہ، ضرر الحنجرہ الرغامیہ کی اصلاح Shiqāq- al- Ḥanjra, Ḍarar al- Ḥanjra-al rūghāmiyy ki Iṣlāḥ (Laryngeal Fissure, Repair of Laryngotracheal Trauma)** 20.3.1 Causes, clinical presentation, prevention, management and operative surgery for laryngeal fissure, repair of laryngo-tracheal trauma **• M 20U 4 شلل نخاعی کے لئے جیراحت صوتی /Shalal nūkhā'ī ke liye jīrāhat Ṣawtī (Phonosurgery for Cord palsy including type I Thryo plasty)** 20.4.1 Uses of phonosurgery in the management of cord palsy and method of procedure					

	• M 20U 5 تضیق اور ناسور الحنجرہ الرغامیہ کا صلاح جیراحی/Taḍayyuq aur nāṣūr al- Ḥanjra-al rūghāmiyy ka Iṣlāh jīrāhī (Laryngotracheal Stenosis and Fistula Surgical Correction) 20.5.1 Surgical Management of laryngo-tracheal stenosis 20.5.2 Surgical correction of laryngeal fistula					
		4	20	40	60	120
Semester No : 5						
2A Module Number	**2B Modules & units**	**2C Number of Credits**	**Notional Learning hours**			
			2D Lectures	**2E Practical Training**	**2F Experiential Learning including Modular Assessment**	**2G Total**
	M-21 غدد لعابیہ کا عمل جیراہی/Ghudda Lu'ābiyya ka amal jīrāhī (Operations on salivary glands) This module allows students to understand the surgical diseases of salivary glands, their surgical management like parotidectomy (superficial/deep) and excision of pleomorphic adenoma Moreover, this module allows to identify the clinical cases of sialolithiasis and manage them. This module allows to identify different structures during surgery, manage the per-operative steps	2	10	20	30	60

	and complications, closure of surgical incisions layer by layer and manage the case post-operatively. **• M 21U 1 استئصال الغدہ نکفیہ السطحیہ/Iste'ṣāl-al- Ghudda nakfīyya–al-saṭ ḥiyyā (Superficial Parotidectomy)** 21.1.1 Indications,contraindications,type of anaesthesia to be administered,pre -operative preparation,steps of operation of superficial parotidectomy and post operative management **• M 21U 2 استئصال الغدہ نکفیہ عمیق/Iste'ṣāl-al- Ghudda nakfīyya 'amīq (Deep Parotidectomy)** 21.2.1 Indications,contraindications,type of anaesthesia to be administered,pre -operative preparation,steps of operation of deep parotidectomy and post operative management of deep parotidectomy **• M 21U 3 التہاب غدی متعدد اشکال کا استئصال/Iltihāb-i-Ghuddī mūtā'adid ashkāl ka Iste'ṣāl (Excision of Pleomorphic Adenoma)** 21.3.1 Excision of pleomorphic adenoma its indications,steps of operative procedure,and post operative complications **• M 21U 4 غدد لعابیہ اور قناۃ سے حصاۃ کا استئصال/Ghudda Lu'ābiyya aur qanā se Ḥaṣā ka Iste'ṣāl (Excision of Stone from Salivary Gland and Duct)** 21.4.1 Sialolithiasis ,its clinical presentation,complications and management					
	M-22 رقبہ کا عمل جراحی/Raqaba ka amal jīrāhī (Operations on Neck) This module allows students to understand the surgical diseases of neck and upper respiratory tract, their surgical management like tracheostomy,	2	10	20	30	60

	excision of branchial cyst, branchial sinus and fistula, thyroglossal cyst and pharyngeal diverticulum. Moreover, this module allows to identify the clinical cases of metastatic lymph node of neck and surgically manage them by means of radical block dissection of neck. This module allows to identify different structures during surgery, manage the per-operative steps and complications, closure of surgical incisions layer by layer and manage the case post-operatively. **• M 22U 1 ثقب القصبہ الہوائیہ/Thuqb-al- Qaṣaba'-al-hawāiyyah (Tracheostomy)** 22.1.1 Indications,contraindications,surgical method and post procedural care of tracheostomy **• M 22U 2 عقدہ لمفاویہ اور انتقاق الارقبہ کا ایف این اے سی/Uqdah Limphāwiyyah aur Intifākh – al- raqaba ka FNAC (Fine needle aspration cytology from Neck Swellings and Lymph Nodes)** 22.2.1 FNAC from neck swellings like thyroid swelling,thyroglossal cyst and lymph nodes **• M 22U 3 اکیاس الخیشومی استئصال، الجیوب الانفیہ اور ناسور الخیشومی۔ الاکیاس الدرقیہ اللیسانیہ/Akyās-al-Khaīshūmī Iste'ṣāl, aljūyūb-al-anfiyyā'aur nāsūr-al- Khaīshūmī; Al-akyās-al-darqiyy-al-līsāniyya' (Excision of Branchial Cyst, Branchial Sinus & Fistula; Excision of Thyroglossal Cyst)** 22.3.1 Causes, clinical presentation, investigation and surgical management of branchial cyst 22.3.2 Causes, clinical presentation, investigation and surgical management of branchial sinus					

	22.3.3 Causes, clinical presentation, investigation and surgical management of thyroglossal cyst 22.3.4 Causes,clinical presentation,investigation and surgical management of branchial fistula **• M 22U 4 رتج لبلعوم کا استئصال، شریان سباتی ظاہر کا عمل ربط Raṭij bal'ūm ka Iste'ṣāl, Shiryān Subātī Ẓāhir ka 'Amal-i-Rabṭ (Excision of Pharyngeal Diverticulum, Ligation of External Carotid Artery)** 22.4.1 Pharyngeal diverticulum 22.4.2 Pharyngeal pouch. 22.4.3 Indication for ligation of external carotid artery **• M 22U 5 عقدہ نقیلی کے لئے رقبہ کے کتلہ الجزریہ کی تشریح 'Uqdah –al naqīlī ke liye raqaba ke kutla'-al-jīzrīyya' ki tashrīḥ (Radical Block Dissection of the Neck for Metastatic Nodes)** 22.5.1 Indications, pre operative preparation, type of anesthesia to be administered ,steps of procedure for radical block dissection of neck					
		4	20	40	60	120

Semester No : 6

2A Module Number	2B Modules & units	2C Number of Credits	Notional Learning hours			
			2D Lectures	2E Practical Training	2F Experiential Learning	2G Total

					including Modular Assessment	
	M-23 غدہ درقیہ کا عمل جراحی/Guddah darqiyya ka amal jīrāhī (Operations on the thyroid gland) This module allows students to understand the surgical diseases of thyroid gland, their surgical management like right and left hemi-thyroidectomy, subtotal thyroidectomy, near total thyroidectomy and total thyroidectomy. Moreover, this module allows to identify the clinical cases of thyroid cancer and surgically manage them by means of radical block dissection of neck. This module allows to identify different structures during surgery, manage the per-operative steps and complications, closure of surgical incisions layer by layer and manage the case post-operatively. **• M 23U 1 استئصال ایمن وایسر نصفی غدہ درقیہ/Iste'ṣāl ayman wa aysar nīṣfī guddah darqiyya (Right and Left Hemi thyroidectomy)** 23.1.1Indications, pre operative preparation, type of anaesthesia to be administered, steps of operation ,complications and post operative management of Right or left hemi-thyroidectomy **• M 23U 2 استئصال غدہ درقیہ الفرعی الکلی/Iste'ṣāl guddah darqiyya-alfarī-al-kūlī (Sub Total Thyroidectomy)** 23.2.1 Indications, pre operative preparation,type of anaesthesia to be administered, steps of operation ,complications and post operative management of sub total thyroidectomy.	2	10	20	30	60

	• M 23U 3 کلی استئصال غدہ درقیہ کے قریب /Kūlī Iste'ṣāl guddah darqiyya ke qarīb (Near Total Thyroidectomy) 23.3.1 Indications, pre operative preparation, type of anaesthesia to be administered, steps of operation ,complications and post operative management of near total thyroidectomy. • M 23U 4 کلی استئصال غدہ درقیہ میں استئصال جارالدرقیہ /Kūlī Iste'ṣāl guddah darqiyya me Iste'ṣāl guddah jār-al-darqiyya (Total Thyroidectomy including Excision of Parathyroid Gland) کلی استئصال غدہ درقیہ میں استئصال جارالدرقیہ 23.4.1 Indications, pre operative preparation, type of anaesthesia to be administered, steps of operation ,complications and post operative management of total thyroidectomy including excision of parathyroid gland. • M 23U 5 درقیہ سرطان کی جراحی/darqiyya Saraṭān ki jīrāhī (Surgery for Thyroid Cancer) 23.5.1 Type of surgery in carcinoma of thyroid, pre operative preparation,type of anesthesia to be administered,steps of operative procedure,post operative care.					
	M-24 امراض اذن، انف وحلق میں دیگر عام جراحی/Amraz-i-Uzn, Anf -wa- Ḥalq me dīgar 'Ām Jirāḥi (Other common surgeries in Ear, Nose & Throat) This module allows students to understand other common surgical diseases like dermoid cyst, sebaceous cyst, lipoma, mucocele of mouth and ranula, and their surgical excision. Moreover, this module allows to identify the clinical cases of facial paralysis, dacryocystitis and their management like facial nerve decompression endoscopic DCR.	2	10	20	30	60

	• M 24U 1 قطع الکیس الجلدانی اور قیلہ الخاطیہ/Qaṭ‘–al- kais –al-jildānī aur qīlā-al-mūkhātiyyā (Excision of Dermoid Cyst, Mucocele) 24.1.1. Method of excision of dermoid cyst 24.1.2. Method of excision of mucocele of mouth • M 24U 2 منطقہ راس سے اکیاس دہنیہ کا قطع Minṭqa rā ’s se akyās Duhniyyah ka Qaṭ‘ (Excision of Sebaceous Cyst from scalp region) 24.2.1. Method of excision of sebaceous cyst • M 24U 3 منطقہ راس سے سلعہ شحمیہ کا قطع/Minṭqa ra’s se Sal‘a Shaḥmiyya ka Qaṭ‘ (Excision of lipoma from scalp region) 24.3.1. Method of excision of lipoma • M 24U 4 ضفدع۔ تخفیف الضغط عصب وجہی Ḍifda‘, Takhfīf-al-Ḍaghaṭ-al-‘Asāb Wajhī (Ranula, Facial Nerve Decompression) 24.4.1. Method of excision of ranula 24.4.2. Method facial nerve decompression • M 24U 5 Endoscopic Dacryocystorhinostomy (DCR) 24.5.1. Method of endoscopic dacryocystorhinostomy					
		4	20	40	60	120
		16	80	160	240	480

Paper No : 4 امراض اذن، انف، حلق، راس و رقبہ میں جدید تحقیقات Amrāḍ-i-Udhun, Anf Wa Ḥalq, Rās Wa Raqaba Men Jadīd Taḥqīqāt (Recent Advances of Ear, Nose, Throat, Head and Neck Surgery)

Semester No : 3

2A Module Number	2B Modules & units	2C Number of Credits	Notional Learning hours			
			2D Lectures	2E Practical Training	2F Experiential Learning including Modular Assessment	2G Total
	M-25 Amraz-i-Uzn, Anf -wa-Ḥalq ki tashkhīṣ, al-tasab būb-fī- al-marḍ aur ʻIlāj me jadīd pesh qad mī. (Recent Developments in the Diagnosis, Pathogenesis and Treatments of the ENT Diseases). لتطورات الحديثة في تشخيص وتسبب وعلاج أمراض الأنف والأذن والحنجرة The Module Recent developments in the diagnosis, Pathogenesis, and treatments of ENT diseases Provides insights on the recent research happening in the field of Ear, Nose & throat Diseases. This module emphasizes the role of Tinnitus Therapy, Trans-Tympanic Medical Therapy, Immunotherapy, and gene therapy in the management of ENT Diseases. Additionally, this module also introduces topics on Computer Assisted Surgery of the Para-nasal Sinuses & Novel Approaches to the diagnosis and treatment of Eustachian Tube Disorders to update the knowledge of the Learners and improve their Surgical skills in the management of Para-Nasal & Eustachian Tube disorders. **• M 25U 1 Ilīj Tanīn-o- Dawī (Tinnitus Therapy) وودوی ان ت طن** 25.1.1. History of Tinnitus Medicine طب طنین الأذن	2	10	20	30	60

	25.1.2. Evaluation/assessment of Patient of Tinnitus تقییم/تقییم مریض طنین الأذن 25.1.3. Pharmacological Treatment العلاج الدوائی 25.1.4. Treatment of Chronic Tinnitus علاج طنین الأذن المزمن (Sound Therapy, Tinnitus Retraining Therapy, Hyperbaric Oxygen Therapy, Cognitive Behavior Therapy, Sound Therapy, Biofeedback & Neurofeedback, Magnetic & electric Brain Stimulation. **• M 25U 2 Ilīj ibbī 'ibr-al-ṭablā (Trans-tympanic Medical therapy) لطعلاج طبی عبرا ن لہ** 25.2.1. Introduction of Trans Tympanic Medical Therapy. مقدمۃ للعلاج الطبی عبر الطبلۃ. 25.2.2. Delivery Devices and Techniques of Drug Delivery. 25.2.3. Commonly treated disorders with Trans-Tympanic Medical Therapy. **• M 25U 3 Ilīj-al- manā'I, 'Ilīj Waḥdā-al- wīrāthā aur iske ṭarā'īq (Immunotherapy, Gene-therapy & its modalities) علاج المناعی، علاج الوحدہ الوراثہ اور اسکے طرائق** 25.3.1. Immuno-therapy: Introduction of Immuno-therapy, Indications & Applications of Immunotherapy in Allergic ENT diseases and Head & Neck Cancers. Modalities of Allergen Immunotherapy. 25.3.2. Gene-therapy: Introduction of Gene Therapy, Indications & applications of Gene Therapy in ENT diseases and Head & Neck Cancers, vectors in Gene delivery & their characteristics **• M 25U 4 Jūyūb-al- Anf ka al- JĪRAḤat bī mūsā'idat-al-computer (Computer Assisted Surgery of the Para-nasal Sinuses) مپ وترلک ساعدۃ ام ب جیوب الا نف کا الجراحت Contents: Components of Computer Assisted** 25.4.1. Components of Computer-Assisted Surgery System					

	25.4.2. Steps in Computer-aided Endoscopic Surgery. 25.4.3. Indications of Computer-Assisted Surgery. 25.4.4. Advantages & Disadvantages of Computer assisted Surgery (CAS). **• M 25U 5 Amrā ḍ - i -Qanat astākī -ūs Ka Tashkhī ṣ Wa Ilāj Ka Jadīd Ṭarīqā .(Novel Approaches of the diagnosis and treatment of Eustachian Tube Disorders) آاورالعج اک دجدی رطہقی.** 25.5.1. An Overview of Anatomy & Physiology of Eustachian Tube. 25.5.2. Clinical Evaluation of Eustachian Tube (History & Examination). 25.5.3. Endoscopic Examination of the Eustachian Tube. Pathology of Eustachian Tube Dysfunctions. 25.5.4. Medical & Surgical Treatment of Eustachian Tube Dysfunctions.					
	M-26 Genetic Testing, Molecular Biology & Radiological Advances in Ear, Nose & Throat الاختبارات الجینیۃ والبیولوجیا الجزیئیۃ والتقدم الإشعاعی فی الأذن والأنف والحنجرۃ The module on Genetic Testing, Molecular Biology, and Radiological Advances in ENT introduces learners to the latest diagnostic tools and laboratory investigations in the field of ENT. This module emphasizes the application of advanced radiological techniques such as Magnetic Resonance Imaging (MRI), Positron Emission Tomography (PET), Digital Subtraction Angiography (DSA), and imaging modalities of the temporal bone for the diagnosis of ENT diseases and head and neck cancers. Additionally, the module highlights the role of genetic testing, including DNA sequencing, Polymerase Chain Reactions (PCR), and Fluorescence In Situ Hybridization (FISH), in diagnosing genetic disorders related to ENT.	2	10	20	30	60

	• **M 26U 1 Magnetic Resonance Imaging (MRI)-Scan** 26.1.1. Basic Principles of Magnetic Resonance Imaging (MRI) المبادئ الأساسية للتصوير بالرنين المغناطيسي 26.1.2. Patient Orientation/Setup. 26.1.3. Clinical Applications, Advantages & Disadvantages • **M 26U 2 تصوير الأوعية بالطرح الرقمي (DSA)، التصوير المقطعي بالإصدار البوزيتروني (PET-CT Scan) Positron Emission Tomography (PET-CTScan), Digital Subtraction angiography (DSA)** 26.2.1. Orientation of the Patient during Positron Emission Technology(PET) Procedure. 26.2.2. Basic Principles of Positron Emission Technology (PET)-Scan.Technical & cancer Specific Considerations, Interpretation, PET in Staging, Radiation Treatment Planning, Treatment Response and Its Clinical Implications. 26.2.3. Basic Concepts and Principles of Digital Subtraction Angiography (DSA). 26.2.4. Indications & contra-Indications of Digital Subtraction Angiography (DSA). 26.2.5. Application, Preparation & Interpretation of Digital Subtraction Angiography (DSA). • **M 26U 3 تسلسل الحمض النووي، تفاعلات البلمرة المتسلسلة DNA Sequencing, Polymerase Chain Reactions**					

	26.3.1. DNA Sequencing: Definition, Basic Principles, Methodology, Interpretation, Applications. 26.3.2. Polymerase Chain Reaction: Basic Principles, advantages, disadvantages, applications & interpretations. **• M 26U 4 طرق تصویرالعظم الصدغی Imaging Modalities of Temporal bone** 26.4.1. Different imaging modalities of the Temporal Bone. Its Basic Concept. Imaging Techniques of Plain X-ray, CT Scan. 26.4.2. Angiography for lesions of the Temporal Bone. **• M 26U 5 الإزہارفی التہجین الموضعی Florescence in Situ Hybridization (FISH)** 26.5.1. Basic Principles of Fluorescence in Situ (FISH), Its Types, Techniques, Applications, Benefits & Limitations.					
		4	20	40	60	120

Semester No : 4

2A Module Number	2B Modules & units	2C Number of Credits	Notional Learning hours			
			2D Lectures	2E Practical Training	2F Experiential Learning including Modular Assessment	2G Total
	M-27 زراع قوقع الاذن، مساعد سمعیہ اور مادہ حیویہ Zarā Q wq 'a-al-Udhun, sā id s m iyyā ur Mā ā H iwwiyy (Cochlear Implants, Other Hearing aids & Biomaterials)	2	10	20	30	60

	This module provides learners comprehensive knowledge about the functioning & applications of Cochlear Implants, Auditory Brain Stem Implants Active Middle-ear Implants (AMEI) Bone Conduction Implants, Bone Anchored Hearing Aid (BAHA in the management of Hearing Loss. Furthermore, this module also guides learners about the use of different types of Biomaterials in the management of ENT diseases. **• M 27U 1 زراع قوقع الاذن Zarā Q wq ‘a-al-Udhun (Cochlear Implants)** 27.1.1. Cochlear Implant Technology & Its Principles of Action. 27.1.2. Components of Cochlear Implant Device. 27.1.3. Selection Criteria for Cochlear Implant Candidates. 27.1.4. Cochlear Implant Surgery, Device Programming. **• M 27U 2 زراع سمعی جذع الدماغ .Zarā Sam‘i jidh a-al-dīmāgh (Auditory Brain Stem Implants)** 27.2.1. Introduction of Auditory Brainstem Implants & its Principles of Action 27.2.2. Components & Indications of Brainstem Implants. 27.2.3. Selection Criteria of Candidates for Auditory Brainstem Implants. **• M 27U 3 س لی زراع الاذن الوسطی .Za rā -al-Udhun-al-wasṭ -al-nshṭā . (Active Middle-ear Implants(AMEI).** 27.3.1. Introduction of Active Middle Ear Implants. 27.3.2. Types & Characteristics of AMEI advantages. 27.3.3. Disadvantages, Indications & Limitations of different types of AMEI 27.3.4. Pre-operative Assessment of patients.					

	• M 27U 4 جہازم لعظمدعل ای عت ع م لس مسا .Jhāz m sā alas-sam a tamī alal iẓm]Bone Anchored Hearing Aid (BAHA)[27.4.1. Introduction of Bone Anchored Hearing Aid (BAHA). 27.4.2. Components of Bone Anchored Hearing Aid (BAHA) device & its types. 27.4.3. Patient Selection & Indications of BAHA. 27.4.4. Surgical Procedures of Bone-Anchored Hearing Aid (BAHA) & Complications. 27.4.5. Novel developments in Implantable Bone Conduction Hearing Aids. • M 27U 5 .امراض اذن، انف وحلق میں مادہ حیویہ کا استعمال Amrāḍ-i-Udhun, Anf w lq m mā ā Haiwwiyy kā Ist māl. (Biomaterials used in ENT) 27.5.1. Definition, Properties of Ideal Biomaterial, Biomaterials used in ENT(Otorhinolaryngology), Classification, Advantages, Disadvantages & Uses of Biomaterials in ENT.					
	M-28 .راس مہ کی عمل جرا Rās, Raqaba wa Jumjuma ki amal Jīrāḥī. (Head & Neck & Skull Base Surgery The Module Head, Neck & Skull Base Surgery educates learners about various Head & Neck & Skull Base disorders and their management. This Module Provides learners with up-to-date knowledge and methods to improve their surgical Skills in the management of Facio-maxillary Trauma, Neck & Cranial Fossae Injury, Optic Nerve Decompressions & Hypophysectomy Surgeries. This module also enlightens the learners with	2	10	20	30	60

	recent advances in Phonosurgery & measures for Postoperative Rehabilitation of Phonosurgery Patients. **• M 28U 1 ضربی ی ہ ج ت ی فک اور ضرر رقبہ .ar ī Ja h Fakkī aur ḍarar Raqaba. (Facio-maxillary trauma & Neck Injury)** 28.1.1. Introduction of Soft Tissue Head & Neck Injury. 28.1.2. Introduction of Bony Injuries. (Fractures of Facial & Nasal Bones. Evaluation of Facial bone Fractures). 28.1.3. Nasal bone Fractures: Classification & Patho-physiology. Pattern of Nasal Fractures, Clinical Presentation, Investigations & treatment. 28.1.4. Facial Fractures: Introduction of Fractures of Facial Bones, Clinical Presentation, Investigations & management. **• M 28U 2 ضرر ن خف ق حفرہ .Ḍarar hufrā Qaḥfīyyā .(Cranial Fossae Injury)** 28.2.1. Introduction to Cranial Fossa Injuries, Causes of Cranial Fossa Injuries, Clinical Presentation & Investigations. 28.2.2. Cerebrospinal fluid (CSF) Otorrhoea: Causes, Clinical Presentation, Investigations & Management. 28.2.3. Cerebrospinal fluid (CSF) Rhinorrhoea: causes, Clinical Presentation, Investigations & Management. **• M 28U 3 استئصال النخامیہ .Iste'ṣāl-al-nūkhāmī. (Hypophysectomy).** 28.3.1. Overview of Anatomy & Physiology of Pituitary Glands. 28.3.2. Surgical Anatomy of Pituitary Gland. 28.3.3. Hypophysectomy Techniques, Indications & Approaches.					

	28.3.4. Pre-operative management & Planning & Post-Operative management. 28.3.5. Complications of Hypophysectomy. **• M 28U 4 عصب بصری کا طاع لض تخفیف.Aṣab Baṣarī ka takhfīf-al-ḍaght (Optic Nerve Decompressions)** 28.4.1. Anatomical features of Optic Nerve. 28.4.2. Introduction to Optic Nerve Injury: Etiology, Pathophysiology & Injury Pattern. 28.4.3. Diagnosis of Optic Nerve Compression. 28.4.4. Management of Optic Nerve Compression: Conservative, Medical & Surgical. **• M 28U 5 جراح فونو میں جدید تحقیقات وا J rā n m J q qāt-o-′ ā ā-al-t′āh l-al-J rā(Recent Advances in Phono-surgery and Post-Operative Rehabilitation) التا ھیل الاحاحی.** 28.5.1. History of Phonosurgery. 28.5.2. Indications & Complications of Phono surgery. 28.5.3. Recent advances in Phonosurgery.					
		4	20	40	60	120
Semester No : 5						
2A Module Number	**2B Modules & units**	**2C Number of Credits**	**Notional Learning hours**			
			2D Lectures	**2E**	**2F**	**2G Total**

				Practical Training	**Experiential Learning including Modular Assessment**	
	M-29 طب النوم.Sleep Medicine. Tibu Alnawm The module Sleep Medicine provides an introduction to the Physiology of Sleep & sleep-related breathing Disorders. This module emphasizes the Medical & surgical management of Sleep-related breathing disorders. Additionally, this module also highlights the role of CPAP therapy in the management of Sleep-related breathing Disorders & diagnosis of Sleep disorders through Polysomnography **• M 29U 1 فسيولوجيا النوم واضطرابات التنفس المرتبطة بالنوم Physiology of Sleep & Sleep related Breathing Disorders fisyulujia alnawm wadtirabat altanafus almurtabitat bialnawm** 29.1.1. Physiology of Sleep. 29.1.2. Stages of Sleep. 29.1.3. Sleep Apnea Syndrome: Definition, Classification. 29.1.4. Obstructive Sleep Apnea: Etiology, Pathophysiology, Clinical Features, Investigations & management. **• M 29U 2 الإدارة الطبية والجراحية لاضطرابات التنفس المرتبطة بالنوم (الشخير، انقطاع التنفس الانسدادي أثناء النوم (OSA)) Medical & Surgical Management of Sleep Related breathing Disorders (Snoring, Obstructive Sleep Apnea (OSA) al'iidarat altibiyat waljirahiat**	2	10	20	30	60

	liaidtirabat altanafus almurtabitat bialnawm (alshakhiru, anqitae altanafus aliansidadii 'athna' alnawm (OSA) 29.2.1. Medical Management of Obstructive Sleep Apnea. 29.2.2. Surgical management of Obstructive Sleep Apnea: Overview of surgical interventions in the management of OSA. 29.2.3. Uvulopalatopharyngoplasty (UPPP): Indications, Pre-operative & Post-operative Management, Surgical Procedure. **• M 29U 3 Continuous Positive Airway Pressure (CPAP) therapy in Sleep Apnea. eilaj aldaght alhawayiyi al'iijabii almustamiri (CPAP) fi anqitae altanafus 'athna' alnawm** 29.3.1. Introduction to Continous Postive Airway Pressure (CPAP) Therapy. Mechanism of Action, Indications & Contra-Indications 29.3.2. Continous Postive Airway Pressure (CPAP) Equipment & its technique of use. **• M 29U 4 Polysomnography (PSG)** 29.4.1. Introduction to Polysomnography. 29.4.2. Principles of Polysomnography. Instrumentation. 29.4.3. Methodology of Sleep Staging and Sleep Stage Scoring. 29.4.4. Patient Orientation/Setup.					
	M-30 Basic Knowledge of Oncology in Amraz-e Uzn Anaf Halq almaerifat al'asasiat lieilm al'awram fi 'amraz 'azn eanaaf halaq	2	10	20	30	60

	The Module Basic Knowledge of Oncology in Amraz-e-Uzn, Anaf, Halq provides a comprehensive overview of Head & Neck Cancers. This module gives Insights into the Tumour Biology of Head & Neck Cancers and the role of Chemotherapy & Radiotherapy in the management of Head & Neck Cancers. This module also provides Learners with ample Knowledge about the use of Chemotherapeutic Drugs/Agents & Radiotherapy in the treatment of Head & Neck Cancers & Potential side effects of these therapies including their management. Additionally, this module also highlights the role & use of new radiographic techniques. **• M 30U 1 Tumor Biology of Head & Neck Cancers** 30.1.1. Principles of Tumor Biology. 30.1.2. Introduction about Cell Cycle. 30.1.3. Tumour Growth Cell Signal, Metastatic Spread, mechanism of Cell Death. Tumour biomarkers. **• M 30U 2 Chemotherapy & Chemotherapeutic Agents** 30.2.1. Definition of Chemotherapy. 30.2.2. Chemotherapeutic Agents/Drugs & Their Classification 30.2.3. Methods of Administration, Dose & dosage, Uses, advantages & Toxicity of Chemotherapy in Head & neck Cancers: 30.2.4. Chemotherapy Strategies/Modalities. 30.2.5. Novel therapies i.e.; Targeted therapy, monoclonal antibodies. **• M 30U 3 Radiation therapy (Radiotherapy) in Head & neck Cancers** 30.3.1. Introduction of Radiation Therapy (Radiotherapy)					

	30.3.2. Effects of radiation, Sources of Radiation. 30.3.3. Types of Radiation Application of Radiotherapy & Complications of Radiotherapy. Radio-receptors and Radio-sensitizers. **• M 30U 4 New Radiographic Techniques** 30.4.1.Teletherapy. 30.4.2. Brachytherapy. 30.4.3. Molecular Radiotherapy. 30.4.4. Photodynamic Therapy & Use of Gamma Knife.					
		4	20	40	60	120

Semester No : 6

2A Module Number	2B Modules & units	2C Number of Credits	Notional Learning hours			
			2D Lectures	2E Practical Training	2F Experiential Learning including Modular Assessment	2G Total
	M-31 الجراحات التجميلية والتجميلية المتعلقة بالأنف والحنجرة Plastic & Cosmetic Surgeries related to ENT The Module Plastic & Cosmetic Surgeries related to ENT highlights the role of Plastic & cosmetic Surgery in enhancing facial aesthetics/appearance & improving physiological functions. This module provides learners with the	2	10	20	30	60

	knowledge & methods of the Use of Grafts and local Flaps in facial reconstructive surgery. The module also highlights the role of Lasers & Platelet-rich plasma in ENT cosmetics in improving aesthetic/Patient outcomes & reducing recovery time. **• M 31U 1 Grafts, Local Flaps & Reconstructive Micro Surgery.** 31.1.1. History and basic Principles of Plastic and reconstructive surgery. 31.1.2. Basic Concepts of Skin Grafting and Flaps. 31.1.3. Types of Grafts &Flaps and their application. 31.1.4. Enlist the steps of Skin Grafting &useofFlaps in reconstructive microsurgery. 31.1.5. Various types of Skin Grafts & Flaps including Z-Plasty **• M 31U 2 Basic Knowledge of Plastic & Cosmetic Surgery related to Ear, Nose & throat** 31.2.1. History of Plastic & Cosmetic Surgery in ENT. 31.2.2. Various types of Plastic & cosmetic Surgeries related to ENT & their Indications, pre & postoperative assessment. 31.2.3. Describe the steps of Otoplasty and Pinnaplasty, its complications & management. **• M 31U 3 Lasers & Platelet Rich Plasma in Cosmetics in ENT.** 31.3.1. Indications, Mechanism & application of Lasers & Platelet Rich Plasma in Cosmetic Surgeries in ENT.					

	31.3.2. Indications, Techniques, pre & postoperative assessment, complications & management of Lasers & Platelet Rich Plasma in Cosmetics surgeries in ENT.					
	M-32 Lasers, Fibre-optics, Cryosurgery, Powered Instrumentation & Other novel methods used in ENT. The Module Lasers, Fibre-optics, Cryosurgery, Powered Instrumentation & Other novel methods provide learners with knowledge of the latest advancements in the diagnosis & management of ENT diseases. This module highlights the role of these advancements in treating ENT diseases in terms of being less invasive, more effective, reduced surgical time, and better patient outcomes & recovery. **• M 32U 1 Laser Surgery & Basics of Lasers.** 32.1.1. Introduction & Principles of Laser Action. Nature of Laser Light. Laser Light Delivery Devices. Types of Lasers Used in Otolaryngology. Indications & Applications of Laser Surgery in ENT. Laser Safety. 32.1.2. Photodynamic Therapy **• M 32U 2 Fibre-optics** 32.2.1. History, Concepts, Uses, Principles of Operation, mechanisms, Advantages, and disadvantages, Applications in ENT, procedure, and steps of fibre-optics. **• M 32U 3 Cryosurgery** 32.3.1. Introduction to Cryosurgery	2	10	20	30	60

	32.3.2. Types of Therapy: Open method & Closed system 32.3.3. Indications, Advantages & Disadvantages **• M 32U 4 Powered Instrumentation** 32.4.1.Coblation - Historical perspective of, its Principles of action. Components, Applications, Indications, advantages & disadvantages.procedure 32.4.2. Harmonic Scalpel- its applications Technique& Principles of action. Advantages & Disadvantages. 32.4.3. Temperature Controlled Radiofrequency Ablation (TCRFA)- Historical perspective, working unit, principles of radiofrequency, applications, types of electrosurgical instruments and radiofrequency (RF) units, advantages, complications & management of Temperature Controlled Radiofrequency Ablation (TCRFA). **• M 32U 5 Hyperbaric Oxygen Therapy In ENT** 32.5.1.Introduction to Hyperbaric Oxygen Therapy. Indications & applications of Hyperbaric oxygen Therapy.					
		4	20	40	60	120
		16	80	160	240	480
		64	320	640	960	1920

Table 3 : Modules - Unit - Module Learning Objectives and Session Learning Objective- Notional Learning Hours- Domain-Level- TL Methods

Paper No : 1(امراض اذن،انف وحلق کے سریری وتشخیصی اسالیبAmrāḍ-i-Udhun, Anf Wa Ḥalq Ke Sarīrī Wa Tashkhīṣī Asālīb (Clinical Methods and Diagnostic Techniques of Ear, Nose and Throat Diseases))
Semester No : 3
Module 1 : امراض اذن،انف وحلق،جوف الفم وغدد لعابیہ کا طبی طریقہ(Amrāḍ-i-Uzn, Anf wa Ḥalq, Jauf-al- Fam, Ghudda Lu'ābiyya ka Tibbi tariqah) Clinical methods of ear, nose and throat, Oral cavity and Salivary glands)
Module Learning Objectives (At the end of the module, the students should be able to) 1. Describe the Clinical methodology of Amrāḍ-i-Uzn, Anf wa Ḥalq, Oral cavity and Salivary glands 2. Perform the act of History taking & Symptomatology related to Amrāḍ-i-Uzn, Anf wa Ḥalq including Oral cavity and Salivary glands in adults & children
Unit 1 بالغ اور اطفال میں امراض اذن،انف وحلق،جوف الفم،غدد لعابیہ کی روداد مریض اور علامات ونشانیاں Bāligh aur aṭfāl me Amrāḍ-i-Uzn, Anf wa Ḥalq, Jauf-al- Fam, Ghudda Lu'ābiyya ki rūdād-i-Marīḍ aur 'Alāmāt wa Nishāniya (History taking & Symptomatology of Amrāḍ-i-Uzn, Anf wa Ḥalq, Oral cavity and Salivary glands in adult & children) 1.1.1 History taking of Amrāḍ-i-Uzn, Anf wa Ḥalq 1.1.2 Symptomatology of Amrāḍ-i-Uzn, Anf wa Ḥalq 1.1.3 History taking of Oral cavity and Salivary glands in adults & children 1.1.4 History taking & Symptomatology of the Oral cavity and Salivary glands in adults & children **References:** 10,11,53,68,81,82,85,90

3A Course	3B	3C	3D	3E	3F	3G Teaching Learning Methods

Outcome	Learning Objective (At the end of the (lecture/practical training /experiential learning) session, the students should be able to)	Notional learning Hours	Lecture/ Practical Training/ Experiential Learning	Domain/ Sub Domain	Level (Does/Shows how/Knows how/Know)	
CO2	Describe the Symptomatology and history taking of a patient presenting with complaints related to Amrāḍ-i-Uzn, Anf wa Ḥalq.	1	Lecture	CAP	Knows-how	L,L_VC,L&PPT ,L&GD
CO2	Describe the Symptomatology and history taking of a patient presenting with complaints related to Oral cavity and Salivary glands	1	Lecture	CAP	Knows-how	L,L&GD,L&PPT ,L_VC
CO2	Demonstrate the correct method of history taking of a patient presenting with complaints related to Amrāḍ-i-Uzn, Anf wa Ḥalq.	2	Practical1.1	CC	Shows-how	CD,CBL,D-BED,D
CO2	Demonstrate the correct method of history taking of a patient presenting with complaints related to Oral cavity and Salivary glands	2	Practical1.2	CC	Shows-how	PBL,D-BED,IBL
CO2	Evaluate the art of History taking & Symptomatology in a patient presenting with complaints related to Amrāḍ-i-Uzn, Anf wa Ḥalq	3	Experiential-Learning1.1	PSY-ADT	Does	Mnt,IBL,CD,D-BED
CO2	Evaluate and perform the act of History taking & Symptomatology in a patient presenting with complaints related to Oral cavity and Salivary glands	2	Experiential-Learning1.2	AFT-CHR	Does	CBL,Mnt,IBL,SIM,CD

Unit 2 معائنہ/Minẓār-al-uzn ke sath wa beghair, uzn ka Mu‘āyana’ (Examination of ear with and without Otoscope)

1.2.1 صدفۃالاذن،منطقہ ماقبل الاذن ومابعدالاذن،قنات استاکیوس کا معائنہ Ṣadafa al-Udhun, minṭiqā mā qabl-al-uzn wa mā ba‘d-al-uzn, Qanat Astākīūs ka mu‘āyana’ (Examination of Pinna, pre & post auricular area, Eustachian tube)

1.2.2 قناۃ سمعی ظاہرہ کا منظارالاذن معائنہ Qanāt sam‘i ẓāhīrā ka minẓār-al-uzn mu‘āyana’(Otoscopic examination of External auditory canal)

1.2.3 غشاءطبلی کا منظارالاذن معائنہ Ghishā’ ṭablī ka minẓār-al-uzn mu‘āyana’(Otoscopic examination of Tympanic membrane)

1.2.4 اذن کا وظیفی معائنہ Uzn ka waẓīfī mu‘āyana’ (Functional examination of ear)

References: 10,11,53,68,81,82,85

3A	3B	3C	3D	3E	3F	3G
CO2	Describe the Physical Examination of the Pinna, pre & post auricular area, Eustachian tube and Otoscopic examination of the External auditory canal, Tympanic membrane	1	Lecture	CAP	Knows-how	L&GD,L,L_VC,L&PPT
CO2	Describe the Functional examination (Auditory & vestibular) of the ear	1	Lecture	CAP	Knows-how	L,L&GD,L&PPT ,L_VC
CO2	Demonstrate the correct technique of the Physical Examination of the Pinna, pre & post auricular area, Eustachian tube, and Otoscopic examination of the External auditory canal, Tympanic membrane	2	Practical1.3	CC	Shows-how	D-BED,CBL,CD,D
CO2	Demonstrate the correct technique of Functional examination (Auditory & vestibular) of the ear	2	Practical1.4	PSY-SET	Shows-how	CBL,D,CD,D-BED
CO2	Perform the Physical Examination of the Pinna, pre & post auricular area, Eustachian tube and Otoscopic examination of the External auditory canal, Tympanic membrane	4	Experiential-Learning1.3	PSY-ADT	Does	CD,PL,CBL,D-BED

CO2	Perform the Functional examination (Auditory & vestibular) of ear	2	Experiential-Learning1.4	PSY-ADT	Does	CD,D-BED,CBL

Unit 3 انف اور جیوب الانفی کا معائنہ/Anf aur Jūyūb-al- Anfi ka mu'āyana' (Examination of the Nose & PNS)

1.3.1 خارجی انف کا معائنہ Khārjī anf ka mu'āyana' (Examination of the external nose)

1.3.2 تنظیر الانف الخلفی، تنظیر الانف الامامی، البلعوم الانفی، تجویف الانف، اور دہلیز کا معائنہ

Tazīr,al-anf al-khalfi, Tazīr,al-anf al-amami, Al-bul'ūm–al-anfī, tijwīf-al-anf aur dehlīz ka mu'āyana'

(Examination of vestibule, Nasal cavity, Nasopharynx, Anterior rhinoscopy, Posterior rhinoscopy

1.3.3 جیو ب الا نفی کا معائنہ Jūyūb-al- Anfi ka mu'āyana' (Examination of Para nasal sinuses)

1.3.4 انف کا وظیفی معائنہ Anf ka waẓīfī mu'āyana' (Functional examination of nose)

References: 10,11,53,68,81,82,85

3A	3B	3C	3D	3E	3F	3G
CO2	Describe the examination of the external nose. vestibule, Nasal cavity, Nasopharynx, Anterior rhinoscopy, Posterior rhinoscopy	1	Lecture	CAP	Knows-how	L&PPT ,L_VC,L,L&GD
CO2,CO7	Describe the examination of Para nasal sinuses and Functional examination of nose	1	Lecture	CAP	Knows-how	L,L&PPT ,L_VC,L&GD
CO2	Demonstrate the correct method of examination of the external nose,vestibule,Nasal cavity, Nasopharynx, Anterior rhinoscopy and Posterior rhinoscopy including the use of nasal speculum	2	Practical1.5	CC	Shows-how	CD,CBL,D,D-BED
CO2	Demonstrate the correct method of examination of Para nasal sinuses and Functional examination of the nose	2	Practical1.6	PSY-SET	Shows-how	CBL,D-BED,CD

CO2,CO7	Perform the examination of the external nose,vestibule,Nasal cavity, Nasopharynx, Anterior rhinoscopy and Posterior rhinoscopy including the use of nasal speculum .	3	Experiential-Learning1.5	PSY-ADT	Does	D,D-BED,CBL,CD
CO2,CO7	Perform the examination of Para nasal sinuses and Functional examination of nose	2	Experiential-Learning1.6	CC	Does	CD,D-BED,CBL

Unit 4 معائنہ/Jauf-al- Fam, Ghudda Lu'ābiyya ka mu'āyana' (Examination of Oral Cavity and Salivary glands)

1.4.1 شفہ،مخاطیہ الفم،لثہ،حنک صلب،لسان،ارضیہ الفم اورالمثلث الطواحن الرجعیہ کا معائنہ Shafa, mūkhātiyyah-al-fam, litha, asnān, ḥanak ṣulb, lisān, arḍiyy-al-fam aur al-raja'iyy-al-Ṭawāḥin thālith (Examination of Lips, Buccal mucosa, Gums, Teeth, Hard palate, Tongue, Floor of mouth and retro molar trigone)

1.4.2 غدہ اصل الاذن، غدہ تحت الفک، غدہ تحت اللسان کا معائنہ Ghudda aṣl- al-Udhun, Ghudda taḥt- al- Fakk, Ghudda taḥt- al- lisān ka mu'āyana'(Examination of Parotid, Submandibular and Sublingual salivary glands)

References: 10,11,53,68,81,82,85,90

3A	3B	3C	3D	3E	3F	3G
CO2,CO7	Discuss the examination of the Lips, Buccal mucosa, Gums, Teeth, Hard palate, Tongue, Floor of mouth and Retro molar trigone	1	Lecture	CAP	Knows-how	L&PPT ,L_VC,L&GD,CBL,L
CO2	Describe the examination of Parotid, Submandibular and Sublingual salivary glands	1	Lecture	CAP	Knows-how	L_VC,L&PPT ,L&GD,L,CD
CO2,CO7	Demonstrate the correct method of examination of Lips, Buccal mucosa, Gums, Teeth, Hard palate, Tongue, Floor of mouth and Retromolar trigone	2	Practical1.7	CS	Shows-how	CD,D,CBL,D-BED

CO2,CO7	Demonstrate the correct method of examination of Parotid, Submandibular and Sublingual salivary glands	2	Practical1.8	CC	Shows-how	D,CBL,CD
CO2,CO7	Perform the examination of Lips, Buccal mucosa, Gums, Teeth, Hard palate, Tongue, Floor of mouth and Retromolar trigone	3	Experiential-Learning1.7	PSY-ADT	Does	CBL,CD,D-BED,SIM,D
CO2	Perform the examination of Parotid, Sub-mandibular and Sublingual salivary glands	2	Experiential-Learning1.8	PSY-ADT	Does	CBL,CD,PBL,D-BED

Unit 5 معائنہ/Ḥalq aur Ḥanjara ka mu'āyana' (Examination of Throat and Larynx)

1.5.1 حنجرہ کا خارجی معائنہ Ḥanjara ka khārjī mu'āyana' (External examination of larynx)

1.5.2 بالواسطہ تنظیر الحنجرہ Bi'l Wāsiṭa tanẓīr-al-Ḥanjara (Indirect laryngoscopy)

1.5.3 صوت کا تعین Ṣaut ka ta'iyyūn (Assessment of voice)

References: 10,11,53,68,81,82,85

3A	3B	3C	3D	3E	3F	3G
CO2	Describe the examination of Tonsils, pillars,Soft palate, Uvula, Base of tongue and Posterior pharyngeal wall.	1	Lecture	CAP	Knows-how	CBL,L&GD,L_VC,L&PPT ,L
CO2	Describe the External examination of larynx, Indirect laryngoscopy, fibreoptic endoscopy and assessment of voice.	1	Lecture	CAP	Knows-how	L,L&GD,CBL,L&PPT ,CD
CO2	Demonstrate the correct method of examination of Tonsils, pillars,Soft palate, Uvula, Base of tongue and Posterior pharyngl wall.	2	Practical1.9	CAP	Shows-how	CBL,CD,D-BED

CO2	Demonstrate the correct method of External examination of larynx, Indirect laryngoscopy and assessment of voice.	2	Practical1.10	CAP	Shows-how	CD,CBL,D-BED,D
CO2	Perform the examination of Tonsils, pillars, Soft palate, Uvula, Base of tongue and Posterior pharyngeal wall.	3	Experiential-Learning1.9	PSY-ADT	Does	CBL,PL,D-BED,CD
CO2	Perform the External examination of the larynx, Indirect laryngoscopy and assessment of voice	2	Experiential-Learning1.10	PSY-ADT	Does	CBL,D,D-BED,CD

Practical Training Activity

Practical Training 1.1 Demonstration of the art of History taking of Amrāḍ-i-Uzn, Anf wa Ḥalq case. .

Total Learning Hours (2 hours)

Activity-1: Demonstration (45 Minutes) The teacher will demonstrate the correct method of history taking from a patient presenting with complaints related to Amrāḍ-i-Uzn, Anf wa Ḥalq (diseases of the ear, nose, and throat) in the IPD section of the hospital. Students will be divided into small groups and will observe the demonstration, followed by supervised practice. The teacher will guide the students through each step of the history-taking process and provide immediate feedback on their technique and communication skills.

Activity-2:Case-Based Learning (1 Hour) The teacher will select a specific patient case in the IPD or OPD for demonstration and discussion. The teacher will illustrate how to take a focused history that leads to a provisional diagnosis. Students will then be assigned individual patients to take a complete history, conduct a clinical examination, record their findings, and formulate a provisional diagnosis. Each student will document the patient interaction in their practical book.

Activity-3:Summary & Assessment (15 Minutes) The session will conclude with a summary by the teacher, emphasizing the key elements of effective ENT history taking and the clinical relevance of accurate documentation and diagnosis. Students will be assessed using a combination of methods. These assessments will evaluate students on their communication, history-taking technique, clinical reasoning, and ability to correlate findings.

Practical Training 1.2 History taking of a patient presenting with complaints related to Oral cavity and Salivary glands

Total Learning Hours (2 hours) Demonstration (45 Minutes) The teacher will demonstrate the correct method of History taking of a patient presenting with complaints related to Oral cavity and Salivary glands in the IPD section of the hospital. Students will be divided into small groups and will observe the demonstration, followed by supervised practice. The teacher will guide the students through each step of the history-taking process and provide immediate feedback on their technique and communication skills. Case-Based Learning (1 Hour) The teacher will select a specific patient case in the IPD or OPD for demonstration and discussion. The teacher will illustrate how to take a focused history that leads to a provisional diagnosis. Students will then be assigned individual patients to take a complete history, conduct a clinical examination, record their findings, and formulate a provisional diagnosis. Each student will document the patient interaction in their practical book. Summary & Assessment (15 Minutes) The session will conclude with a summary by the teacher, emphasizing the key elements of effective History taking of a patient presenting with complaints related to the Oral cavity and Salivary glands and the clinical relevance of accurate documentation and diagnosis.
Practical Training 1.3 Physical Examination of Pinna, pre & post auricular area, Eustachian tube and Otoscopic examination of External auditory canal, Tympanic membrane
Total Learning Hours (2 hours) Activity-1(1 hour)Demonstration bedside and Simulation: The teacher will demonstrate the correct technique of the Physical Examination of the Pinna, pre & post auricular area, Eustachian tube and Otoscopic examination of the External auditory canal, Tympanic membrane in the IPD section of the Hospital or on the model / simulator. The teacher will divide students into small groups, and the students will practice the examination of patients or the simulated patient under the supervision of the teacher. The teacher will guide and evaluate the method of examination of students. Activity-2(1 hour)CBL (Case Based Learning):The teacher will select the patient and demonstrate the Otoscopic examination of the External auditory canal and Tympanic membrane in the patients of Otitis externa and otitis media in the IPD or OPD section of the Hospital.

The teacher will discuss the method of interpretation of the findings to make a provisional diagnosis. The teacher will assign a relevant patient to the students individually. Students will take a complete history and do the examination and record their findings, and finally make their provisional diagnosis. Students will record the patients and cases in their record book.
Practical Training 1.4 Functional examination (Auditory & vestibular) of ear
Total Learning Hours (2 hours) Activity-1(1 hour) Demonstration bedside or Simulation: The teacher will demonstrate the correct technique of Functional examination (Auditory & vestibular) of the ear in the IPD section of the Hospital or on the model/simulator. The teacher will divide students into small groups, and the students will practice the examination of patients or on the model/simulator under the supervision of the teacher. The teacher will guide and evaluate the students. Activity-2(1 hour)CBL (Case Based Learning): The teacher will demonstrate the Auditory function tests in a patient of hearing loss. Then the teacher will discuss the method of interpretation of the findings to make a provisional diagnosis. The teacher will assign a relevant patient to the students individually. Students will take a complete history and do the examination and record their findings, and finally make their provisional diagnosis.
Practical Training 1.5 Examination of the external nose, vestibule, Nasal cavity, Nasopharynx, Anterior rhinoscopy and Posterior rhinoscopy including the use of nasal speculum
Total Learning Hours (2 hours) Activity-1(1 hour)Demonstration Bedside: The teacher will demonstrate the correct method of examination of the external nose, vestibule, Nasal cavity, Nasopharynx, Anterior rhinoscopy and Posterior rhinoscopy, including the use of a nasal speculum in the IPD/OPD section of the Hospital. The students will observe the correct method of examination and learn the steps of examination. They will repeat the steps of examination directly on patients or on any model/simulator under the teacher's guidance. Activity-2(1 hour)CBL (Case Based Learning): The teacher will demonstrate the Anterior rhinoscopy and Posterior rhinoscopy in different patients of Diseases of the nose in the IPD or OPD section of the Hospital to make the provisional diagnosis. The teacher will assign the relevant patients to the students. Students will take a complete history and examine the patient and make a provisional diagnosis. The teacher will guide and evaluate the method of examination adopted by the

student. or Kinesthetic Learning: The teacher will demonstrate the correct method of examination of the external nose, vestibule, Nasal cavity, Nasopharynx, Anterior rhinoscopy, and Posterior rhinoscopy, including the use of a nasal speculum. Students will actively take part in this hands-on practical examination, observe the steps of the examination, and try to understand the interpretation of findings to reach the provisional diagnosis.
Practical Training 1.6 Examination of Para nasal sinuses and Functional examination of nose
Total Learning Hours (2 hours) Activity-1(1 hour) Demonstration Bedside: The teacher will demonstrate the correct method of examination of paranasal sinuses and functional examination of the nose in the IPD/OPD section of the Hospital. The students will observe the correct method of examination and learn the steps of examination. Students will repeat the steps of examination directly on patients or on any model/simulator under the teacher's guidance. Activity-2(1 hour) CBL (Case-Based Learning): The teacher will demonstrate the Patency test of the nose and the test of sense of smell in patients with nose blockage and Anosmia. The teacher will discuss methods of interpretation to interpret the findings to make the provisional diagnosis or The teacher will demonstrate the correct method of examination of Para nasal sinuses, including Inspection, Palpation and trans-illumination test. Students will actively take part in this hands-on practical examination observe carefully the steps of examination and try to understand the interpretation of findings to reach the provisional diagnosis.
Practical Training 1.7 Examination of Lips, Buccal mucosa, Gums, Teeth, Hard palate, Tongue, Floor of mouth and Retromolar trigone
Total Learning Hours (2 hours) Activity-1 (30 Minutes) Demonstration Bedside: The teacher will demonstrate the correct method of examination of Lips, Buccal mucosa, Gums, Teeth, Hard palate, Tongue, Floor of mouth, and Retromolar trigone in the IPD/OPD section of the Hospital. The students will observe the correct method of examination and learn the steps of examination. Students will repeat the steps of examination directly on patients or on any model/simulator under the teacher's guidance. Activity-2 (30 Minutes)CBL (Case-Based Learning): The teacher will demonstrate the examination of the Oral cavity in different patients with Diseases of the oral cavity, including Oral cancers in the IPD or OPD section of the Hospital to make the provisional diagnosis.

The teacher will assign the relevant patients to the students Students will take a complete history and examine the patient and make a provisional diagnosis. Activity-3 (1 hour) Kinesthetic Learning: The teacher will demonstrate the examination of Lips, Buccal mucosa, Gums, Teeth, Hard palate, Tongue, Floor of mouth, and Retromolar trigone. Students will actively take part in this hands-on practical examination, observe carefully the steps of the examination, and try to understand the interpretation of findings to reach the provisional diagnosis. Log book Entry: The Student will record the number of Oral cavity examinations in the log book with the date as practical.
Practical Training 1.8 Examination of Parotid, Submandibular and Sublingual salivary glands
Total Learning Hours (2 hours) Activity-1 (1 hour)Demonstration Bedside: The teacher will demonstrate the examination of the Parotid, Submandibular, and Sublingual salivary glands in the IPD/OPD section of the Hospital. The teacher will divide students into small groups, and the students will practice the examination of patients under the supervision of the teacher. The teacher will guide and evaluate the students. Activity-2 (1 hour) CBL(Case-Based Learning): The Teacher will demonstrate the examination of the Parotid, Submandibular, and Sublingual salivary glands in patients of Sialadenitis, Sialolithiasis, parotitis, etc. The teacher will discuss the method of interpretation of the findings to make a provisional diagnosis. The teacher will assign a relevant patient to the students individually. Students will take a complete history and do the examination and record their findings, and finally make their provisional diagnosis. or The teacher will demonstrate the examination of the Parotid, Submandibular, and Sublingual salivary glands. Students will actively take part take part in this hands-on practical examination, observe carefully the steps of the examination, and try to understand the interpretation of findings to reach the provisional diagnosis.
Practical Training 1.9 Examination of Tonsils, pillars,Soft palate, Uvula, Base of tongue and Posterior pharyngeal wall
Total Learning Hours (2 hours)

Activity-1 (1 hour)Demonstration Bedside: The teacher will demonstrate the correct method of examination of Tonsils, pillars, Soft palate, Uvula, Base of tongue, and Posterior pharyngeal wall in the IPD/OPD section of the Hospital. The students will observe the entire procedure and the steps of the examination. The students will perform the same steps directly on the patients or any simulator/ model. and will make the provisional diagnosis. Students will keep a record of their observations and findings Activity-2 (1 hour)CBL (Case-Based Learning): The Teacher will demonstrate the examination of Tonsils, pillars, Soft palate, Uvula, Base of tongue, and Posterior pharyngeal wall in different patients with Diseases of the throat and pharynx in the IPD or OPD section of the Hospital to make the provisional diagnosis. The students will observe the entire procedure and the steps of the examination. The students will perform the same steps on the patients or on any simulator/model. and students will make their provisional diagnosis. Students will keep a record of their observations and findings and provisional diagnosis. The teacher will guide and evaluate the method adopted by the students. Or The Teacher will demonstrate the examination of the Tonsils, pillars, Soft palate, Uvula, Base of tongue, and Posterior pharyngeal wall. Students will actively take part in this hands-on practical examination, observe carefully the steps of the examination and try to understand the interpretation of findings to reach the provisional diagnosis.
Practical Training 1.10 External examination of larynx, Indirect laryngoscopy and assessment of voice.
Total Learning Hours (2 hours) Activity-1 (1 hour)Demonstration Bedside: The teacher will demonstrate the External examination of the larynx, Indirect laryngoscopy, and assessment of voice in the IPD/OPD section of the Hospital. The teacher will divide students into small groups. The students will repeat the steps of examination directly on the patient or on the model/simulator under the guidance of the teacher. Activity-2 (1 hour) CBL (Case-Based Learning): The teacher will demonstrate the External examination of the larynx and Indirect laryngoscopy of patients with Diseases of the larynx like Laryngitis, laryngeal nodules, laryngeal carcinoma, etc. The students will discuss the interpretation of findings and reports with their peers.

The teacher will demonstrate the External examination of the larynx, Indirect laryngoscopy, and voice assessment on a real patient. Students will actively take part in this hands-on practical examination, observe the steps of the examination, and try to understand the interpretation of findings to reach the provisional diagnosis.
Experiential Learning Activity
Experiential-Learning Learning 1.1: Evaluate and perform History taking & Symptomatology in a patient presenting with complaints related to Amrāḍ-i-Uzn, Anf wa Ḥalq
Total Learning Hours (3 hours) Activity-1 (2 hours)Inquiry-based learning / History taking / Demonstration bedside: Students will take the history of patients presenting with complaints related to Amrāḍ-i-Uzn, Anf wa Ḥalq admitted in the hospital or attended the OPD of the Hospital. The students will make their provisional diagnosis based on history taking and examination. Students will keep a record of the case and the findings in a record book/logbook. Students will submit the record to the teacher. The teacher will evaluate and guide them. Activity-2 (1 hour)Mentoring/Peer learning: The teacher will select the students who have learned the art of history taking. Students who have learned well about the history taking of patients related to the ENT, will demonstrate to their peers to improve their teaching skills. After the demonstration, students will discuss the findings related to provisional diagnosis. Students will record the number of history-taking cases in the log book with the date as Experiential.
Experiential-Learning Learning 1.2: Evaluate and perform the act of History taking & Symptomatology in a patient presenting with complaints related to Oral cavity and Salivary glands
Total Learning Hours (2 hours) Activity-1(1 hour)Enquiry-based learning / patient history taking:The teacher will assign a relevant patient to take a detailed history of the patient. Students will take the history of patients presenting with complaints related to the Oral cavity and Salivary glands admitted in the hospital or attending the OPD of the Hospital. Students will take a complete history, perform the examination and record their findings, and finally make their provisional diagnosis. Students will record the patients and cases in their record book/ logbook.

Activity-2(30 Minutes)CD(Case Diagnosis): Students will be assigned the specific diagnosed cases of the Oral cavity and Salivary glands like Parotitis, Sialadenitis, or any other disease related to the Oral cavity and Salivary Glands by the supervisor and the student will have to make the Provisional diagnosis of the case based on history taking. Students will make provisional diagnoses. Activity-3(30 Minutes)Mentoring/Peer learning: Students who have learned well about the history taking of patients related to the Oral cavity and Salivary glands. They should be instructed to demonstrate to their peers. The student will record the number of history-taking cases in the log book with the date as Experiential.
Experiential-Learning Learning 1.3: Examination of Pinna, pre & post auricular area, Eustachian tube and Otoscopic examination of the External auditory canal, Tympanic membrane
Total Learning Hours (4 hours) Activity-1(2 hours)Bedside / OPD Examination or Simulation: The teacher will assign a case or a model/simulator for examination of the ear. The student will perform step by step examination of ear, the Physical Examination of the Pinna, pre & post auricular area, Eustachian tube and Otoscopic examination of the External auditory canal and tympanic membrane. Students will make the provisional diagnosis based on history taking and examination. They will keep the record of findings and provisional diagnosis in their logbook. Activity-2(2 hours)CD (Case Diagnosis) and Peer learning: Students will be assigned the specific diagnosed cases of Otitis externa and Otitis media by the supervisor. The student will have to make the Provisional diagnosis of the case based on history taking., Physical and Otoscopic examination of the ear. They will discuss their findings with the peer fellows. Students who have learned well about the Physical Examination of Pinna, pre & post auricular area, Eustachian tube and Otoscopic examination of the External auditory canal, Tympanic membrane. They should be instructed to demonstrate to their peers. The student will record the number of history taking cases in the log book with the date as Experiential.
Experiential-Learning Learning 1.4: Perform the Functional examination (Auditory & vestibular) of the ear
Total Learning Hours (2 hours)

Activity-1(1 hour)Bedside/OPD Examination: The teacher will assign a relevant case to every student. The student will perform the Functional examination (Auditory & vestibular) of the ear in the IPD /OPD section of the Hospital and make the provisional diagnosis based on history taking and functional ear examination. Students will keep a record in the logbook. The teacher will evaluate and guide the students. Activity-2(1 hour)CD (Case Diagnosis): The teacher will assign a relevant case of disease of ear blocking to the students separately. Students will perform the functional examination of the ear. Students will make the Provisional diagnosis of the case based on history taking and examination. or Peer learning & Simulation: Students who have learned well about the Functional examination (Auditory & vestibular) of the ear. They should be instructed to demonstrate to their peers to improve their teaching and learning skills. or Students will perform the Auditory function tests on a simulated hearing loss patient and the Vestibular function test in a simulated patient of Giddiness or Disbalance in a simulated lab.
Experiential-Learning Learning 1.5: Examination of the external nose, vestibule, Nasal cavity, Nasopharynx, Anterior rhinoscopy and Posterior rhinoscopy including the use of nasal speculum
Total Learning Hours (3 hours) Activity-1(1 hour) Demonstration Bedside/OPD: The student will perform the examination of the external nose, vestibule, Nasal cavity, Nasopharynx, Anterior rhinoscopy, and Posterior rhinoscopy, including the use of nasal speculum in the IPD /OPD section of the Hospital, and make the provisional diagnosis based on history taking and examination. or PG Students may be instructed by the supervisor/ teacher to perform and demonstrate the bedside clinical examination of the external nose, vestibule, Nasal cavity, Nasopharynx, Anterior rhinoscopy and Posterior rhinoscopy including the use of nasal speculum to the 3rd Prof UG students of the concerned subject to develop and improve the teaching skills of the PG Scholar. Activity-2 (1 hour) CD (Case Diagnosis): Students will be assigned the cases of diseases of the nose by the supervisor/teacher, and the student will have to examine the external nose, vestibule, Nasal cavity, Nasopharynx, Anterior rhinoscopy, and Posterior rhinoscopy, and make the Provisional diagnosis of the case based on history taking and examination. Activity-3(1 hour)Peer learning: Students who have learned well about the examination of the external nose, vestibule, Nasal cavity, Nasopharynx, Anterior rhinoscopy, and Posterior rhinoscopy, including the use of a nasal speculum, should be instructed to demonstrate to their peers. or Simulation: Students will perform the Anterior rhinoscopy and Posterior rhinoscopy in simulated patients of diseases of the nose and record the case in the logbook.

Experiential-Learning Learning 1.6: Perform the examination of Para nasal sinuses and Functional examination of nose
Total Learning Hours (2 hours) Activity-1(1 hour)Hands-on learning Bedside/OPD: The teacher will assign a relevant case to every student for examination. The student will examine paranasal sinuses and functional examination of the nose in the IPD /OPD section of the Hospital and make a provisional diagnosis based on history taking and examination. Students will keep a record of their observations in the logbook. or PG Students may be instructed by the supervisor/teacher to perform and demonstrate the bedside clinical examination of paranasal sinuses and the Functional examination of the nose to the 3rd Prof UG students of the concerned subject to develop and improve the teaching skills of the PG Scholar. Activity-2 (1 hour) CD (Case Diagnosis): The teacher will assign a patient for the examination of paranasal sinuses. Students will examine the paranasal sinuses and the Functional examination of the nose. Students will make a Provisional diagnosis of the case based on history taking and examination. or Peer learning: Students who have learned well about the examination of paranasal sinuses and the Functional examination of the nose should be instructed to demonstrate the same to their peers or Simulation: Students will examine paranasal sinuses and Functional examination of the nose in simulated patients of diseases of the nose and PNS and record the case in the logbook.
Experiential-Learning Learning 1.7: Examination of Lips, Buccal mucosa, Gums, Teeth, Hard palate, Tongue, Floor of mouth and Retromolar trigone
Total Learning Hours (3 hours) Activity-1(1 hour)Hands-on training Bedside/ OPD: The teacher will assign a relevant case to every student. The student will perform the examination of Lips, Buccal mucosa, Gums, Teeth, Hard palate, Tongue, Floor of mouth, and Retromolar trigone in the IPD /OPD section of the Hospital and make the provisional diagnosis based on history taking and examination. Students will keep a record in a logbook. The teacher will evaluate and guide the students. or PG Students may be instructed by the supervisor/teacher to perform and demonstrate the bedside clinical examination of Lips, Buccal mucosa, Gums, Teeth, Hard palate, Tongue, Floor of mouth and Retromolar trigone to the 3rd Prof UG students of the concerned subject. Activity-2 (1 hour)CD (Case Diagnosis): The teacher will assign a relevant case of disease of the Oral cavity, including cancer to the students separately. Students will perform the examination of Lips, Buccal mucosa, Gums, Teeth, Hard palate, Tongue, Floor of mouth and Retromolar trigone. Students will make the Provisional diagnosis of the case on the basis of history taking and examination.

Activity-3 (1 hour)Peer learning: Students who have learned well about the examination of the Lips, Buccal mucosa, Gums, Teeth, Hard palate, Tongue, Floor of mouth, and Retromolar trigone. They should be instructed to demonstrate to their peers to improve their teaching and learning skills. or Simulation: Students will examine the oral cavity in simulated patients with diseases of the oral cavity. The Student will record the number of examinations of the oral cavity in the logbook with the date as Experiential.
Experiential-Learning Learning 1.8: Examination of Parotid, Submandibular and Sublingual salivary glands
Total Learning Hours (2 hours) Activity-1 (1 hour) Demonstration Bedside / OPD: The teacher will assign a case to the students separately for the examination of Parotid, Submandibular, and sublingual salivary glands. Students will Examine Parotid, Submandibular, and Sublingual salivary glands in the IPD /OPD section of the Hospital and make the provisional diagnosis based on history taking and examination or PG Students may be instructed by the supervisor/teacher to perform and demonstrate the bedside clinical examination of Parotid, Submandibular, and Sublingual salivary glands to the 3rd Prof UG students of the concerned subject. Activity-2 (1 hour)CD (Case Diagnosis): The teacher will assign cases of diseases of the salivary glands to the students, such as Sialadenitis, Sialolithiasis, Parotitis, etc. The student will examine the Parotid, Submandibular, and sublingual salivary glands and make the Provisional diagnosis of the case based on history taking and examination. or Peer learning: Students who have learned well about the examination of the Parotid, Submandibular, and Sublingual salivary glands should be instructed to demonstrate the same to their peers. or Simulation: Students will examine Parotid, Submandibular, and Sublingual salivary glands in simulated patients and record the case in the logbook.
Experiential-Learning Learning 1.9: Perform the Examination of Tonsils, pillars, Soft palate, Uvula, Base of tongue and Posterior pharyngeal wall.
Total Learning Hours (3 hours) Activity-1 (1 hour) Hands-on training Bedside / OPD: The student will examine the Tonsils, pillars, Soft palate, Uvula, Base of the tongue, and Posterior pharyngeal wall in the IPD /OPD section of the Hospital. Students will make a provisional diagnosis based on history taking and examination. or PG Students may be instructed by the supervisor/teacher to perform and demonstrate the bedside clinical examination of Tonsils, pillars, Soft palate, Uvula, Base of tongue, and Posterior pharyngeal wall to the final professional UG students of the concerned subject.

Activity-2 (1 hour) CD (Case Diagnosis): Students will be assigned the cases of Diseases of the larynx like Laryngitis, laryngeal nodules, laryngeal carcinoma, etc., by the supervisor/teacher. The student will examine the Tonsils, pillars, Soft palate, Uvula, Base of the tongue, and Posterior pharyngeal wall, and make the Provisional diagnosis of the case based on history taking and examination. Activity-3 (1 hour) Peer learning: Students who have learned well about the examination of Tonsils, pillars, Soft palate, Uvula, Base of tongue, and Posterior pharyngeal wall should be instructed to demonstrate to their peers and record the case in the logbook.
Experiential-Learning Learning 1.10: Perform the Examination of larynx, Indirect laryngoscopy and assessment of voice
Total Learning Hours (2 hours) Activity-1 (1 hour) Demonstration Bedside / OPD: The teacher will assign a case to every student separately. The student will perform an Examination of the larynx externally, an Indirect laryngoscopy, and the assessment of voice in the IPD /OPD section of the Hospital The students will make their provisional diagnosis based on history taking and examination. The teacher will evaluate and guide them. or PG Students may be instructed by the supervisor/teacher to perform and demonstrate the bedside clinical examination of the larynx, Indirect laryngoscopy, and assessment of voice to the final professional UG students of the concerned subject. The PG students will demonstrate and present a case of disease of the larynx to the UG students. Activity-2 (1 hour) CD (Case Diagnosis): The teacher will assign a case of laryngeal disease like Laryngitis, laryngeal nodule, laryngeal carcinoma, etc. The student will perform the external examination of the larynx, Indirect laryngoscopy, and assessment of voice, and make the Provisional diagnosis of the case based on history taking and examination. Students will keep a record of their findings in a logbook or Peer learning: Students who have learned well about External examination of the larynx, Indirect laryngoscopy, and voice assessment should be instructed to demonstrate the same to their peer fellows or Simulation: Students will Examine the larynx, Indirect laryngoscopy, and assess voice on a simulated patient or any simulator.
Modular Assessment

Assessment	**Hour**

Instructions: Conduct a structured modular assessment. The assessment will be 50 marks for this module. Keep a record of the structured pattern used for the assessment. Calculate the Modular grade point as per Table 6 C. OSCE (Objective Structured Clinical Examination) (50 Marks) Or Case-based evaluation (50 Marks) • History Taking and Patient Interaction (10 Marks) • Physical Examination Skills (20 Marks) • Diagnosis and Clinical Reasoning (10 Marks) • Communication Skills (5 Marks) • Time Management and Efficiency (5 Marks) Or Any practical in converted form can be taken for assessment. (25 Marks) and Any experiential, such as portfolios/ reflection/ presentations can be taken as an assessment. (25 Marks)	4
Module 2 : سامعہ کا سریری اختبار اور دہلیزیہ کے عمل کا تعین Sāmi‘a ka sarīrī ikhtibār aur Dehlīziyya ‘amal ka ta‘iyyūn (Clinical tests of hearing & Assessment of Vestibular function)	
Module Learning Objectives (At the end of the module, the students should be able to) 1. Describe the clinical tests of hearing, special tests of hearing and correct technique & interpretation of tuning fork tests, assessment of hearing in infants and children, clinical tests, and laboratory tests of vestibular function 2. Perform the clinical tests of hearing, special tests of hearing and correct technique & interpretation of tuning fork tests, assessment of hearing in infants and children, clinical tests, and laboratory tests of vestibular function	

Unit 1 سامعہ کا سریری اختبار، سامعہ کا خاص اختبار، صحیح تقنیہ اور اختبار الشوکہ الرنانہ کی تشریح Sāmi'a ka sarīrī ikhtibār, Sāmi'a ka khāṣ ikhtibār, ṣaḥīyy tiqniyyah aur ikhtibār –al-shawkah-al-ranānā ki tashrīh (Clinical tests of hearing, special tests of hearing, correct technique & interpretation of tuning fork tests)

2.1.1 Tuning fork tests (Rinne test, weber test, Schwabach's test, Absolute bone conduction (ABC) test, Bing test, Gelle's test)

2.1.2 Recruitment test

2.1.3 Short increment sensitivity index (SISI Test)

2.1.4 Threshold tone decay test

References: 10,11,35,53,68,71,81,82,85

3A	3B	3C	3D	3E	3F	3G
CO2,CO7	Describe the Clinical tests for hearing	1	Lecture	CAP	Knows-how	L,CBL,L_VC,L&GD,L&PPT
CO2	Discuss the special tests of hearing	2	Lecture	CAP	Knows-how	CD,CBL,L&GD,L_VC,L
CO2	Demonstrate the correct method of tuning fork tests and its interpretation	4	Practical2.1	CE	Shows-how	D-BED,CD,CBL
CO2	Demonstrate the special tests of hearing	2	Practical2.2	CC	Shows-how	D,CBL,D-BED,CD
CO2	Perform the tuning fork tests on a patient with deafness	4	Experiential-Learning2.1	PSY-ADT	Does	D,PL,DIS,Mnt,CBL
CO2,CO7	Perform special tests of hearing in a patient of deafness	4	Experiential-Learning2.2	PSY-ADT	Does	D-BED,D,CD,CBL

Unit 2 اطفال میں سامعہ کا تعین/Aṭfāl me sāmi'a ka ta'iyyūn (Assessment of hearing in infants and children)

2.2.1 Screening procedures,

2.2.2 Behavior observation audiometry

2.2.3 Distraction techniques of assessment of hearing

2.2.4 Conditioning techniques

2.2.5 Objective tests of hearing in infants and children

References: 10,11,53,68,69,72,81

3A	3B	3C	3D	3E	3F	3G
CO2,CO3	Describe the Screening procedures, Behaviour observation audiometry and Distraction techniques of assessment of hearing in infants and children	2	Lecture	CAP	Knows-how	L_VC,CD,L&PPT ,CBL,L
CO2,CO3	Discuss the Conditioning techniques and Objective tests of hearing in infants and children	1	Lecture	CAP	Knows-how	L_VC,L&GD,CBL,L,CD
CO2,CO3,CO7	Demonstrate the Screening procedures, Behaviour observation audiometry and Distraction techniques of assessment of hearing in infants and children	3	Practical2.3	CC	Shows-how	D-BED,CD,CBL,D
CO2,CO3	Demonstrate the Conditioning techniques and Objective tests of hearing in infants and children	3	Practical2.4	CAP	Shows-how	CBL,PBL,D-BED,CD,D
CO2,CO3	Perform the Screening procedures, Behaviour observation audiometry and Distraction techniques of assessment of hearing in infants and children	4	Experiential-Learning2.3	PSY-ADT	Does	CD,CBL

CO2,CO3	Perform the Conditioning techniques and Objective tests of hearing in infants and children	4	Experiential-Learning2.4	PSY-ADT	Does	D,CD,D-BED,CBL

Unit 3 دہلیزیہ عمل کا سریری اختبار/Dehlīziyya ‘amal ka sarīrī ikhtibār (Clinical tests of vestibular function)

2.3.1 Spontaneous nystagmus

2.3.2 fistula test

2.3.3 Rhomberg test

2.3.4 Gait to assess the vestibular function

2.3.5 Past pointing and falling

2.3.6 Positional tests to assess the vestibular function

2.3.7 Test of cerebral Dysfunction

References: 10,11,53,68,81,82,85

3A	3B	3C	3D	3E	3F	3G
CO2,CO7	Describe the Vestibular function test like Spontaneous nystagmus, fistula test, Rhomberg test, and Gait to assess the vestibular function	1	Lecture	CAP	Know	L&GD,CBL,L_VC,L,CD
CO2	Discuss the Vestibular function test like Past pointing and falling, Positional tests to assess the vestibular function and test of cerebral Dysfunction	1	Lecture	CAP	Knows-how	L,L&GD,L&PPT ,CBL,CD
CO2	Demonstrate the Vestibular function test like Spontaneous nystagmus, fistula test, Rhomberg test, and Gait to assess the vestibular function	2	Practical2.5	CAP	Shows-how	CD,CBL,D,D-BED

CO2	Demonstrate the Vestibular function tests like Past pointing and falling, Positional tests to assess the vestibular function and test of cerebral Dysfunction	2	Practical2.6	CC	Shows-how	CD,CBL
CO2	Perform the Vestibular function test like Spontaneous nystagmus, fistula test, Rhomberg test, and Gait to assess the vestibular function	3	Experiential-Learning2.5	PSY-ADT	Does	CD,D,D-BED,CBL
CO2	Perform the Vestibular function tests like Past pointing and falling, Positional tests and test of cerebral Dysfunction.	2	Experiential-Learning2.6	PSY-ADT	Does	CBL,D-BED,CD,D

Unit 4 دہلیز یہ عمل کا معمل اختبار/Dehlīziyya ‘amal ka mū‘ammal ikhtibār (Laboratory tests of vestibular function)

2.4.1 Caloric test to assess the vestibular function

2.4.2 Electronystagmography

2.4.3 Optokinetic test

2.4.4 Rotation test

2.4.5 Galvanic test

2.4.6 Posturography to assess the vestibular function

References: 10,11,53,68,81,82,85

3A	3B	3C	3D	3E	3F	3G
CO2	Discuss the Caloric test to assess the vestibular function	1	Lecture	CAP	Knows-how	CBL,CD,L&PPT ,L&GD,L_VC
CO2	Describe the Electronystagmography, Optokinetic test,Rotation test,Galvanic test,Posturography to assess the vestibular function	1	Lecture	CAP	Knows-how	L&PPT ,L,L&GD

CO2,CO3	Demonstrate the Caloric test to assess the vestibular function	2	Practical2.7	CC	Shows-how	D,CBL,D-BED,CD
CO2	Demonstrate the Optokinetic test,Rotation test,Galvanic test to assess the vestibular function	2	Practical2.8	CC	Shows-how	D,CD,D-BED,CBL
CO2	Perform the Caloric test to assess the vestibular function	3	Experiential-Learning2.7	PSY-ADT	Does	CD,D,CBL,TUT,D-BED
CO2	Perform the Optokinetic test,Rotation test,Galvanic test to assess the vestibular function	2	Experiential-Learning2.8	PSY-ADT	Does	D,CBL,D-BED,PAL

Practical Training Activity

Practical Training 2.1 Tuning fork tests and its interpretation

Total Learning Hours: 04 Hours

Activity-1 (1 Hour) Demonstration by the Teacher: The Teacher will demonstrate the correct method of tuning fork tests and their interpretation in the IPD/OPD section of the Hospital. The students will observe the correct method of tuning fork tests and learn the steps of tuning fork tests. Students will repeat the steps of tuning fork tests directly on patients or on any model/simulator under the teacher's guidance. Students will keep a record of the observations in his/her practical book.

Activity-2 (1.5 Hours)Hands-on Training

Students will be divided into small groups and provided with 3 to 4 cases related to ear blocking and deafness. Each group will identify the test result, analyze and interpret findings and discuss approaches and the importance of tuning fork tests in the diagnosis of ear diseases.

Activity-3 (1 Hour) Group Presentations and Discussion

Each group will present their clinical case, including a discussion on the tuning fork tests like Rinne test, weber test, Schwabach's test, ABC test, Bing test, Gelle’s test and its interpretation. They will explain how to interpret the tuning fork test.

Activity-4 (30 Minutes)Summary & Assessment: The teacher will summarize key concepts of tuning fork tests and its interpretation. Students will be assessed through a Mini management plan. Feedback will be provided to ensure understanding and reinforce the application of knowledge in clinical diagnosis -CEX and OSCE/OSPE tasks, focusing on their ability to interpret the tuning fork test.
Practical Training 2.2 Demonstration of special tests of hearing
Total Learning Hours: 02 Hours Activity-1 (1 hour)Demonstration by the Teacher: Teacher will demonstrate the special tests of hearing like Recruitment test, Short increment sensitivity index (SISI Test), Threshold tone decay test and its interpretation in the audiometry room or skill lab. The students will repeat the procedure after teacher's demonstration on the patient/Model/Simulator. Activity-2 (1 hour) The Teacher will demonstrate the special tests of hearing like Recruitment test, Short increment sensitivity index (SISI Test), Threshold tone decay test and its interpretation on real patient. Students will actively take part in this hands-on practical examination, observe carefully the steps of examination and try to understand the interpretation of findings to reach the provisional diagnosis.
Practical Training 2.3 Screening procedures, Behaviour observation audiometry and Distraction techniques of assessment of hearing in infants and children
Total Learning Hours: 03 Hours Activity-1 (2 Hours) Demonstration Bedside: Teacher will demonstrate the method of hearing assessment in infants and children by Screening procedures, Behaviour observation audiometry and Distraction techniques of assessment of hearing in infants and children and its interpretation in the audiometry setup or skill lab in the Hospital or plan a visit to an audiology center out side the hospital.The students will observe the correct method of examination and learn the steps of hearing assessment in infants and children. Students will repeat the procedure directly on patients or on any model/simulator under the teacher's guidance. Activity-2 (1 hour)Discussion: The teacher will devide students in small groups. Teacher will start discussion about the methods of hearing assessment in infants and children by Screening procedures, Behaviour observation audiometry and Distraction techniques and its interpretation. Students will discuss the procedures and interpretations of tests in their groups.
Practical Training 2.4 Conditioning techniques and Objective tests of hearing in infants and children

Total Learning Hours: 03 Hours Activity-1 (1 hour) Demonstration: Teacher will demonstrate the Conditioning techniques like Visual reinforcement audiometry (VRA), play audiometry and Objective tests of hearing in infants and children with its interpretation in the audiometry setup or skill lab in the Hospital or plan a visit to an audiology center outside the hospital. Activity-2 (2 hours) Teacher will select a case of deaf infant or child and demonstrate the Conditioning techniques like Visual reinforcement audiometry (VRA), Play audiometry and Objective tests of hearing in infants and children with its interpretation in the audiometry setup or skill lab in the Hospital or plan a visit to an audiology center out side the hospital. Students will actively take part in this hands-on practical examination, observe carefully the steps of tests and try to understand the interpretation of findings to reach the provisional diagnosis.
Practical Training 2.5 Vestibular function test like Spontaneous nystagmus, fistula test, Rhomberg test and Gait
Total Learning Hours: 02 Hours Activity-1 (1 Hour) Demonstration Bedside: The teacher will demonstrate the Vestibular function tests like Spontaneous nystagmus, fistula test, Rhomberg test, and Gait and their interpretation in the IPD/OPD section of the Hospital. The students will observe the correct examination method and learn the steps. Students will repeat the steps of examination directly on patients or on any model/ simulator under the teacher's guidance. Activity-2 (1 Hour) CBL (Case Based Learning): The teacher will select a case of vestibular dysfunction and demonstrate the Vestibular function test like Spontaneous nystagmus, fistula test, Rhomberg test, and Gait to assess the vestibular dysfunction in the IPD/OPD section of the Hospital. Students will observe and try to understand the steps of examination to reach the diagnosis.
Practical Training 2.6 Vestibular function tests like Past pointing and falling, Positional tests to assess the vestibular function and test of cerebral Dysfunction
Total Learning Hours: 02 Hours Activity-1 (1 hour) Demonstration Bedside: The teacher will demonstrate the Vestibular function tests like Past pointing and falling, Positional tests to assess the vestibular function and test of cerebral Dysfunction in the IPD/OPD section of the Hospital

Activity-2 (1 hour)CBL (Case Based Learning): The teacher will select a case of vestibular dysfunction and demonstrate the Vestibular function test like Past pointing and falling, Positional tests to assess the vestibular function, and test of cerebral Dysfunction in the IPD/OPD section of the Hospital. Students will observe and try to understand the steps of examination to reach the diagnosis or Discussion: The teacher will discuss the Vestibular function tests like Past pointing and falling, Positional tests to assess the vestibular function, and tests of cerebral Dysfunction with the students.
Practical Training 2.7 Caloric test to assess the vestibular function
Total Learning Hours: 02 Hours Activity-1(1 hour)Demonstration Bedside: The teacher will demonstrate the Caloric test to assess the vestibular function and its interpretation in the IPD/OPD section of the Hospital. Activity-2 (1 hour) CBL (Case Based Learning): The teacher will select a case of vestibular dysfunction and demonstrate the Caloric test to assess the vestibular function in the IPD/OPD section of the Hospital. Students will observe and try to understand the steps of examination to reach the diagnosis.
Practical Training 2.8 Optokinetic test,Rotation test,Galvanic test to assess the vestibular function
Total Learning Hours: 02 Hours Activity-1(1 hour)Demonstration Bedside: The teacher will demonstrate the Optokinetic test, Rotation test, and Galvanic test to assess the vestibular function and its interpretation in the IPD/OPD section of the Hospital. Activity-2 (1 hour)CBL (Case Based Learning): The teacher will select a case of vestibular dysfunction and demonstrate the Optokinetic test, Rotation test, and Galvanic test to assess the vestibular function in the IPD/OPD section of the Hospital. Students will observe and try to understand the steps of examination to reach the diagnosis or Discussion: The teacher will discuss the Optokinetic test, Rotation test, and Galvanic test to assess the vestibular function and its interpretation with the students.
Experiential Learning Activity
Experiential-Learning Learning 2.1: Tuning fork tests in a patient of deafness

Total Learning Hours: 04 Hours

Activity-1 (2 hours) Demonstration, Hands-on practice, Demonstration Bedside / OPD : The teacher will assign a case of hearing disease like Otitis media, Sensorineural Hearing loss (SNHL), etc. The student will Perform all the tuning fork tests in patients of hearing loss in the IPD /OPD section of the Hospital and make the provisional diagnosis based on history taking and tuning fork tests.

Activity-2 (1 hour) Mentoring: The teacher will identify the students who learned the test procedure. The students who have learned, instruct them to demonstrate all the tuning fork tests to the final professional UG students of the concerned subject.

Activity-3 (1 hour) Peer learning & Small group discussion: The teacher will identify the students who have learned the tests procedure. The students who learned, instruct them to make small group to discussion about the Rinne test, weber test, Schwabach's test, ABC test, Bing test, Gelle's test to their peers in terms of test precautions, procedure and interpretation and record the case in the logbook.

Experiential-Learning Learning 2.2: Special tests of hearing in a patient of deafness

Total Learning Hours: 04 Hours

Activity-1 (2 hour)Demonstration Bedside / OPD, Hands-on practice:

The teacher will assign a case to the students separately for the special hearing tests. Student will Perform the special tests of hearing like Recruitment test, Short increment sensitivity index (SISI Test), Threshold tone decay test in the audiometry room or skill lab and try to make the provisional diagnosis on the basis of history taking, examination and special tests of hearing.

Activity-2 (1 hour) CD (Case Diagnosis): Students will be assigned the case of different type of hearing loss by the supervisor / teacher. The student will have to Perform the special tests of hearing like Recruitment test, Short increment sensitivity index (SISI Test), Threshold tone decay test. The students will make the Provisional diagnosis of the case on the basis of history taking, examination and tests of hearing.

Activity-3 (1 hour)Lab Report Interpretation: Special tests of hearing like Recruitment test, Short increment sensitivity index (SISI Test), Threshold tone decay tests report will be provided by the supervisor / teacher, Students will have to interpret the test report and make the diagnosis on the basis of reports and record the case in the logbook.

Experiential-Learning Learning 2.3: Screening procedures, Behaviour observation audiometry and Distraction techniques of assessment of hearing in infants and children
Total Learning Hours: 04 Hours Activity-1 (2 hours) Student will perform the hearing assessment in infants and children by Screening procedures, Behaviour observation, audiometry and Distraction techniques of assessment of hearing in infants and children in the audiometry setup or skill lab in the Hospital or an audiology center outside the hospital. or CD (Case Diagnosis): Students will be assigned the deaf infants and children by the supervisor/teacher and the student will have to Perform hearing assessment in infants and children by Screening procedures, Behaviour observation audiometry and Distraction techniques of assessment of hearing in infants and children and diagnose the case based on history taking, examination and available lab reports Activity-2 (1 hour)Peer learning : Students who have learned well about Screening procedures, Behaviour observation audiometry and Distraction techniques of assessment of hearing in infants and children, they should be instructed to demonstrate to their peers. Activity 3 (1 hour) Group Discussion: The teacher will divide students into 2 groups.The teacher will assigned the case of deaf infant or child with all relevant reports to both the groups, Each group will perform the examination of the patient, Screening procedures, Behaviour observation audiometry and Distraction techniques of assessment of hearing, assess and diagnose the child based on history taking, examination and available audiometry & other lab reports.Both groups will discuss the case and present their findings to each other. The teacher facilitates discussion among groups and summarizes key aspects. Log book Entry: Student will record the number of cases of hearing assessment in infants and children in the log book with date as Experiential.
Experiential-Learning Learning 2.4: Conditioning techniques and Objective tests of hearing in infants and children
Total Learning Hours: 04 Hours Activity-1 (2 hours) The teacher will assign a relevant case to every student. Students will Perform Conditioning techniques like Visual reinforcement audiometry (VRA), Play audiometry, and Objective tests of hearing in infants and children in the audiometry setup or skill lab in the Hospital or an audiology center outside the hospital. Activity-2 (2 hours) Group Discussion: The teacher will divide the students into 2 groups. The teacher will assign the case of a deaf infant or child with all relevant reports to both groups. Each group will examine the patient using conditioning techniques like Visual reinforcement audiometry (VRA), Play audiometry,

and Objective hearing tests. The teacher will assess and diagnose the child based on history taking, examination, available audiometry, and other lab reports. Both groups will discuss the case and present their findings to each other. The teacher facilitates discussion among groups and summarises key aspects. Students will record the number of cases of hearing assessment in infants and children by Conditioning techniques and Objective tests of hearing in infants and children in the log book with the date as Experiential.
Experiential-Learning Learning 2.5: Vestibular function test like Spontaneous nystagmus, fistula test, Rhomberg test, and Gait to assess the vestibular function
Total Learning Hours: 03 Hours Activity-1 (1 hour) Students will Perform Vestibular function tests like Spontaneous nystagmus, fistula test, Rhomberg test, and Gait to assess the vestibular function in the IPD/OPD section of the Hospital. Activity-2 (1 hour) CD (Case Diagnosis): Students will be assigned a case of vestibular dysfunction with all related reports by the supervisor/teacher and the student will have to perform the Vestibular function tests like Spontaneous nystagmus, fistula test, Rhomberg test, and Gait to assess the vestibular function and diagnose the case by history taking, examination and available lab reports. Activity-3 (1 hour) Group Discussion: The teacher will divide students into 2 groups. The teacher will assign a case of vestibular dysfunction with all related reports to both groups, Each group will examine the patient and Vestibular function test like Spontaneous nystagmus, fistula test, Rhomberg test, and Gait to assess the vestibular function and diagnose the patient. Both groups will discuss the case and present their findings to each other. The teacher facilitates discussion among groups and summarises key aspects.
Experiential-Learning Learning 2.6: Vestibular function tests like Past pointing and falling, Positional tests to assess the vestibular function and test of cerebral Dysfunction
Total Learning Hours: 02 Hours Activity-1(1 hour) The student will Perform the Vestibular function tests like Past pointing and falling, Positional tests to assess the vestibular function and test of cerebral Dysfunction in the IPD/OPD section of the Hospital.

Activity-2 (1 hour) CD (Case Diagnosis): Students will be assigned a case of vestibular dysfunction with all related reports by the supervisor/teacher and the student will have to perform the Vestibular function tests like Past pointing and falling, Positional tests to assess the vestibular function, and test of cerebral Dysfunction and diagnose the case by history taking, examination and available lab reports.
Experiential-Learning Learning 2.7: Caloric test to assess the vestibular function
Total Learning Hours: 03 Hours Activity-1(1 Hour) The student will perform the Caloric test to assess the vestibular function in the available setup of the Hospital Activity-2 (1 Hour)CD (Case Diagnosis): Students will be assigned a case of vestibular dysfunction with all related reports by the supervisor/teacher and the student will have to perform the Caloric test to assess the vestibular function and diagnose the case by history taking, examination, and available lab reports. Activity-3 (1 Hour) Group Discussion: The teacher will divide students into 2 groups. The teacher will assign a case of vestibular dysfunction with all related reports to both groups, Each group will perform the examination of the patient and a Caloric test to assess the vestibular function and diagnose the patient. Both groups will discuss the case and present their findings to each other. The teacher facilitates discussion among groups and summarises key aspects and record the case in the logbook.
Experiential-Learning Learning 2.8: Optokinetic test,Rotation test,Galvanic test to assess the vestibular function
Total Learning Hours: 02 Hours Activity-1(1 Hour) Students will Perform the Vestibular function test Optokinetic test, Rotation test, Galvanic test to assess the vestibular function in the available setup of the Hospital Activity-2 (1 Hour) CD (Case Diagnosis): Students will be assigned a case of vestibular dysfunction with all related reports by the supervisor/teacher and the student will have to perform the Vestibular function tests like the Optokinetic test, Rotation test, and Galvanic test to assess the vestibular function and diagnose the case by history taking, examination and available lab reports. The student will record the number of patients with vestibular dysfunction examined in the log book with the date as Experiential.
Modular Assessment

Assessment	Hour
Instructions: Conduct a structured modular assessment. The assessment will be 50 marks for this module. Keep a record of the structured pattern used for the assessment. Calculate the Modular grade point as per Table 6 C. OSCE (Objective Structured Clinical Examination) (50 Marks) Or Case-based evaluation (50 Marks) • History Taking and Patient Interaction (10 Marks) • Physical Examination Skills (20 Marks) • Diagnosis and Clinical Reasoning (10 Marks) • Communication Skills (5 Marks) • Time Management and Efficiency (5 Marks) Or Any practical in converted form can be taken for assessment. (25 Marks) and Any experiential, such as portfolios/ reflection/ presentations can be taken as an assessment. (25 Marks)	4
Semester No : 4	
Module 3 : راس اور رقبہ کا معائنہ Rās aur Raqba ka mu'āyana' (Examination of Head & Neck)	
Module Learning Objectives (At the end of the module, the students should be able to) 1. Describe the examination of lymph nodes of the Head & Neck, examination of neck mass, neck muscles, thyroid swelling, cranial nerves, and examination of a case of facial nerve palsy, head injury and vertigo.	

2. Perform the examination of lymph nodes of the Head & Neck, examination of neck mass, neck muscles, thyroid swelling, cranial nerves, and examination of a case of facial nerve palsy, head injury and vertigo.

Unit 1 راس اور رقبہ کی غدہ لمفاویہ کا معائنہ/Rās aur Raqaba ki Gudda Limphāwiyyah ka mu'āyana (Examination of Lymph nodes of Head & Neck)

3.1.1 Minṭiqā ki Rās aur Raqaba ki 'Uqdah ki darja bandī (Classification of Lymph nodes of Head & Neck region)

3.1.2 Rās aur Raqaba ki 'Uqdah ka mu'āyana' (Examination of Lymph nodes of Head & Neck)

References: 10,11,53,68,81,82,85

3A	3B	3C	3D	3E	3F	3G
CO2	Describe the Classification of Lymph nodes of Head & Neck region	1	Lecture	CAP	Knows-how	CD,L,L_VC,L&GD,CBL
CO2	Discuss the examination of Lymph nodes of Head & Neck	1	Lecture	CAP	Know	L,L&GD,CBL,L&PPT ,CD
CO2	Demonstrate the correct method of examination of Lymph nodes of Head & Neck	2	Practical3.1	CC	Shows-how	CD,CBL
CO2	Demonstrate the examination of Neck lymph nodes according to level	2	Practical3.2	AFT-RES	Shows-how	TUT,PL,CD,CBL
CO2	Perform the examination of Lymph nodes of Head & Neck	3	Experiential-Learning3.1	PSY-ADT	Shows-how	CD,CBL,PAL,D-BED,D
CO2	Perform the examination of Neck lymph nodes according to level	2	Experiential-Learning3.2	PSY-ADT	Shows-how	D,CD,D-BED,CBL,PBL

Unit 2 Kūtlā –al- raqaba, 'aḍlāt raqaba aur Al-Intifākh Darqiyya ka mu'āyana'(Examination of Neck mass, Neck Muscles and thyroid swelling)

3.2.1 Examination of Neck mass and Neck Muscles

3.2.2 Examination of the thyroid gland

3.2.3 Examination of thyroid Swelling

References: 10,11,53,68,81,82,85

3A	3B	3C	3D	3E	3F	3G
CO2	Describe the Examination of Neck mass and Neck Muscles	1	Lecture	CAP	Know	L,CBL,CD,L&PPT ,L&GD
CO2	Discuss Examination of thyroid swelling	1	Lecture	CK	Knows-how	CBL,L&PPT ,L&GD,CD,L
CO2	Demonstrate the Examination of Neck mass and Neck Muscles	2	Practical3.3	CAP	Shows-how	TUT,CD,CBL,PL
CO2	Demonstrate the examination of thyroid Swelling	2	Practical3.4	CC	Shows-how	CD,CBL
CO2,CO7	Perform the Examination of Neck mass and Neck Muscles	3	Experiential-Learning3.3	PSY-ADT	Does	CD,D,CBL,D-BED
CO2,CO7	Perform the examination of thyroid nodule/Swelling	3	Experiential-Learning3.4	PSY-ADT	Shows-how	D-BED,CD,DIS,CBL,D

Unit 3 اعصاب دماغیہ کا معائنہ/A'ṣāb-al-Dimāghiyya ka mu'āyana' (Examination of Cranial nerves)

3.3.1Examination of Olfactory, Optic, Oculomotor, Trochlear, Trigeminal and abducens nerve

3.3.2 Examination of facial, Vestibulocochlear, Glossopharyngeal, Vagus, Accessory and Hypoglossal nerve

References: 10,11,53,68,81,82,85

3A	3B	3C	3D	3E	3F	3G
CO2	Describe the examination of olfactory, optic, oculomotor, trochlear,trigeminal and abducens nerve	1	Lecture	CC	Know	CD,L&PPT ,L,CBL,L&GD
CO2	Discuss the examination of facial, vestibulocochlear, glossopharyngeal,vagus,accessory and hypoglossal nerve	1	Lecture	CAP	Knows-how	L&PPT ,CBL,CD,L&GD,L
CO2	Describe the examination of olfactory, facial and trigeminal nerve	2	Practical3.5	CC	Shows-how	D-BED,CD,D,CBL,PT
CO2,CO7	Demonstrate the examination of vestibulocochlear, glossopharyngeal,vagus,accessory and hypoglossal nerve	2	Practical3.6	CC	Shows-how	CD,D-BED,PAL,CBL
CO2	Perform the examination of olfactory, facial and trigeminal nerve	2	Experiential-Learning3.5	PSY-ADT	Does	CD,D-M,CBL,DIS,SIM
CO2,CO7	Perform the examination of vestibulocochlear, glossopharyngeal, vagus,accessory and hypoglossal nerve	3	Experiential-Learning3.6	PSY-ADT	Does	CD,CBL,SIM

Unit 4 عصب وجہی کا معائنہ/Shalal ‘Asāb Wajhī ka mu‘āyana’ aur ikhtibār al-tashkhīṣ-al- kaharbāī (Examination of a Facial nerve Palsy and Electrodiagnostic tests)

3.4.1 Examination of a case of Facial nerve Palsy

3.4.2 Electrodiagnostic tests for facial nerve

References: 10,11,53,68,81,82,85

3A	3B	3C	3D	3E	3F	3G

CO2	Describe the examination of a case of facial nerve palsy	1	Lecture	CAP	Knows-how	L,L&GD,L_VC,CBL,CD
CO2,CO7	Discuss electrodiagnostic tests for facial nerve	1	Lecture	CC	Know	L,L&PPT ,CBL,L_VC,CD
CO2	Demonstrate the examination of a case of facial nerve palsy	2	Practical3.7	CC	Shows-how	CBL,D-BED,CD,D
CO2,CO7	Demonstrate Electrodiagnostic tests for facial nerve	2	Practical3.8	CC	Shows-how	D-BED,CD,CBL,PBL,D
CO2	Perform the Examination of a case of Facial nerve Palsy	3	Experiential-Learning3.7	PSY-GUD	Does	CBL,CD,D-BED,D
CO2	Perform Electrodiagnostic tests for facial nerve	2	Experiential-Learning3.8	PSY-ADT	Shows-how	D,CD,CBL

Unit 5 راس کاضربہ اوردوار کے کیس کامعائنہ/Rās ka ḍarba aur duwār ke Case ka mu'āyana' (Examination of a case of Head injury and Vertigo)

3.5.1 Examination of a case of Head injury

3.5.2 Examination of a case of vertigo

References: 10,11,53,68,81,82,85

3A	3B	3C	3D	3E	3F	3G
CO2	Describe the Examination of a case of Head injury	1	Lecture	CAP	Knows-how	CBL,L_VC,CD,L&GD,L

CO2	Discuss the Examination of a case of vertigo	1	Lecture	CAP	Knows-how	L,L&PPT ,L&GD,L_VC,CBL
CO2	Demonstrate the Examination of a case of Head injury	2	Practical3.9	CAP	Shows-how	D-BED,CD,CBL,D
CO2	Demonstrate the Examination of a case of vertigo	2	Practical3.10	CC	Shows-how	D-BED,CBL,D,CD
CO2,CO7	Perform the Examination of a case of vertigo	2	Experiential-Learning3.9	PSY-GUD	Shows-how	D-BED,D,CD,CBL
CO2,CO7	Perform the Examination of a case of Head injury	3	Experiential-Learning3.10	CC	Shows-how	D-BED,CBL,CD,D,PL

Practical Training Activity

Practical Training 3.1 Examination of Lymph nodes of Head & Neck

Total Learning Hours: 02 Hours

Activity-1(1 Hour) Demonstration Bedside: Teacher will demonstrate the correct method of Examination of Lymph nodes of Head & Neck in the IPD/OPD section of the Hospital.

Activity-2 (1 Hour) CBL (Case Based Learning): The Teacher will select a case of cervical lymphadenopathy and demonstrate the Examination of Lymph nodes of the Head & Neck in the IPD or OPD section of the Hospital to make the provisional diagnosis.

Practical Training 3.2 Examination of Neck lymph nodes according to level

Total Learning Hours: 02 Hours

Activity-1(1 Hour) Demonstration Bedside: The teacher will demonstrate the Examination of Neck lymph nodes according to level in the IPD/OPD section of the Hospital. Activity-2 (1 Hour) CBL (Case-Based Learning): The teacher will select a case of cervical lymphadenopathy and demonstrate the Examination of Neck lymph nodes according to level in the IPD or OPD section of the Hospital to make the provisional diagnosis.
Practical Training 3.3 Examination of Neck mass and Neck Muscles
Total Learning Hours: 02 Hours Activity-1(1 Hour)Demonstration Bedside: The teacher will demonstrate the correct method of Examination of Neck mass and Neck Muscles in the IPD/OPD section of the Hospital Activity-2 (1 hour) CBL (Case Based Learning): The teacher will select a case of Neck mass and demonstrate the Examination of Neck mass and Neck Muscles in the IPD or OPD section of the Hospital to make the provisional diagnosis.
Practical Training 3.4 Examination of thyroid Swelling
Total Learning Hours: 02 Hours Activity-1(1 Hour) Demonstration Bedside: The teacher will demonstrate the Examination of thyroid Swelling in the IPD/OPD section of the Hospital. The students will observe the correct method of examination and learn the steps of examination. Students will repeat the steps of examination directly on patients or on any model/simulator under the teacher's guidance. Students will keep a record of the observations in record books. Activity-2 (1 hour)CBL (Case Based Learning): The teacher will select a case of Thyroid swelling and demonstrate the Examination of thyroid Swelling in the IPD or OPD section of the Hospital to make the provisional diagnosis.
Practical Training 3.5 Examination of Olfactory, Facial and trigeminal nerve
Total Learning Hours: 02 Hours Activity-1(1 Hour) Demonstration Bedside: The teacher will demonstrate the correct method of examination of olfactory, facial, and trigeminal nerves in the IPD/OPD section of the hospital.

Activity 2 (1 hour) CBL (Case Based Learning): The teacher will select a case of Nerve palsy of the Olfactory, Facial, and trigeminal nerve and demonstrate the Examination of the Olfactory, Facial, and trigeminal nerve in the IPD or OPD section of the Hospital to make the provisional diagnosis.
Practical Training 3.6 Examination of Vestibulocochlear, Glossopharyngeal,Vagus,Accessory and Hypoglossal nerve
Total Learning Hours: 02 Hours Activity-1(1 Hour) Demonstration Bedside: The teacher will demonstrate the Examination of the Vestibulocochlear, Glossopharyngeal, Vagus, Accessory and Hypoglossal nerve in the IPD/OPD section of the Hospital. Activity-2 (1 Hour) CBL (Case Based Learning): The teacher will select a case of nerve palsy and demonstrate the Examination of Vestibulocochlear, Glossopharyngeal, Vagus, Accessory and Hypoglossal nerve in the IPD or OPD section of the Hospital to make the provisional diagnosis.
Practical Training 3.7 Examination of a case of Facial nerve Palsy
Total Learning Hours: 02 Hours Activity-1(1 Hour) Demonstration Bedside: The teacher will demonstrate the correct method of Examination of a case of Facial nerve Palsy in the IPD/OPD section of the Hospital Activity-2 (1 Hour) CBL (Case Based Learning): The teacher will select a case of facial Nerve palsy and demonstrate the Examination of a case of Facial nerve Palsy in the IPD or OPD section of the Hospital to make the provisional diagnosis.
Practical Training 3.8 Electrodiagnostic tests for facial nerve
Total Learning Hours: 02 Hours Activity-1 (1 Hour) Demonstration Bedside: The teacher will demonstrate the Electrodiagnostic tests for the facial nerve in the available setup of the Hospital. Activity-2 (1 Hour) CBL (Case-Based Learning): The Teacher will select a case of facial nerve paralysis and demonstrate the Electrodiagnostic tests and their interpretation in the IPD or OPD section of the Hospital to make the provisional diagnosis.
Practical Training 3.9 Examination of a case of Head injury

Total Learning Hours: 02 Hours Activity-1(1 Hour) Demonstration Bedside: The teacher will demonstrate the correct method of Examination of a case of Head injury in the IPD/OPD section of the Hospital Activity-2 (1 Hour) CBL (Case Based Learning): The teacher will select a case of head injury and demonstrate the Examination of a case of Head injury in the IPD or OPD section of the Hospital to make the provisional diagnosis.
Practical Training 3.10 Examination of a case of vertigo
Total Learning Hours: 02 Hours Activity-1(1 Hour) Demonstration Bedside: The teacher will demonstrate the Examination of a case of vertigo in the IPD/OPD section of the Hospital Activity-2 (1 Hour) CBL (Case Based Learning): The Teacher will select a case of vertigo and demonstrate the Examination of vertigo in the IPD or OPD section of the Hospital to make the provisional diagnosis.
Experiential Learning Activity
Experiential-Learning Learning 3.1: Examination of Lymph nodes of Head & Neck
Total Learning Hours: 03 Hours Activity-1(1 Hour) Students will perform the Examination of Lymph nodes of Head & Neck in the IPD /OPD section of the Hospital and make the provisional diagnosis on the basis of history taking and examination. Activity-2 (1 hour) Mentoring: PG Students may be instructed by the supervisor/teacher to perform and demonstrate the bedside clinical Examination of Lymph nodes of Head & Neck to the 3rd Prof UG students of the concerned subject. Activity-3 (1 hour) Group Discussion: The teacher will divide students into 2 groups and will be assigned a case of cervical lymphadenopathy with all related reports to both groups. Each group will perform the general examination of the patient and Examination of the Lymph nodes of the Head & Neck and diagnose the patient. Both groups will discuss the case and present their findings to each other. The teacher facilitates discussion among groups and summarizes key aspects. Students will record the case in the logbook.

Experiential-Learning Learning 3.2: Examination of Neck lymph nodes according to level
Total Learning Hours: 02 Hours Activity-1(1 Hour) Demonstration Bedside / OPD: The student will perform the Examination of Neck lymph nodes according to level in the IPD /OPD section of the Hospital and make the provisional diagnosis based on history taking and examination or PG Students may be instructed by the supervisor/teacher to perform and demonstrate the bedside clinical Examination of Neck lymph nodes according to the level to the 3rd Prof UG students of the concerned subject. Activity-2(1 Hour) CD (Case Diagnosis): Students will be assigned a case of cervical lymphadenopathy by the supervisor/teacher, and the student will have to perform the Examination of Neck lymph nodes according to level and diagnose the case by history taking, examination and available lab reports or Group Discussion: The teacher will divide students into 2 groups. The teacher will assign a case of cervical lymphadenopathy with all related reports to both the groups, Each group will perform the general examination of the patient and Examination of Neck lymph nodes according to level and diagnose the patient. Both groups will discuss the case and present their findings to each other. The teacher facilitates discussion among groups and summarizes key aspects.
Experiential-Learning Learning 3.3: Examination of Neck mass and Neck Muscles
Total Learning Hours: 03 Hours Activity-1(1 Hour) Demonstration Bedside/OPD: The student will perform the Examination of Neck mass and Neck Muscles in the IPD /OPD section of the Hospital and make the provisional diagnosis based on history taking and examination. Activity-2 (1 Hour) CD (Case Diagnosis): Students will be assigned a case of Thyroid swelling by the supervisor/teacher, and the student will have to perform the Examination of the Neck mass and Neck Muscles, make the Provisional diagnosis of the case based on history taking and examination. Activity-3 (1 Hour) Peer learning: Students who have learned well about the Examination of Neck mass and Neck Muscles should be instructed to demonstrate to their peers and record the case in the logbook.
Experiential-Learning Learning 3.4: Examination of thyroid Swelling
Total Learning Hours: 03 Hours

Activity-1(1 Hour) Students will perform the Examination of thyroid Swelling in the IPD /OPD section of the Hospital and make the provisional diagnosis based on history taking and examination and record the case in the logbook. Activity-2 (1 Hour) Mentoring: PG Students may be instructed by the supervisor/teacher to perform and demonstrate the bedside clinical Examination of thyroid Swelling to the 3rd Prof UG students of the concerned subject to develop and improve the teaching skills of the PG Scholar. Activity-3 (1 Hour)CD (Case Diagnosis): Students will be assigned a case of Thyroid swelling by the supervisor/teacher and the student will have to perform the Examination of thyroid Swelling and diagnose the case by history taking, examination, and available lab reports. or Group Discussion: The teacher will divide students into 2 groups. The teacher will assign a case of thyroid Swelling with all related reports to both groups, Each group will perform the general examination of the patient and Examination of thyroid Swelling and diagnose the patient. Both groups will discuss the case and present their findings to each other. The teacher facilitates discussion among groups and summarizes key aspects.
Experiential-Learning Learning 3.5: Examination of Olfactory, Facial and trigeminal nerve
Total Learning Hours: 02 Hours Activity-1(1 Hour) Students will perform the Examination of the Olfactory, Facial, and trigeminal nerve in the IPD /OPD section of the Hospital and make the provisional diagnosis based on history taking and examination or Group Discussion: The teacher will divide students into 2 groups. The teacher will assign a case of nerve palsy with all related reports to both groups, Each group will perform the general examination of the patient and Examination of the Olfactory, Facial, and trigeminal nerve and diagnose the patient. Both groups will discuss the case and present their findings to each other. The teacher facilitates discussion among groups and summarizes key aspects. Activity-2 (1 hour)Mentoring: PG Students may be instructed by the supervisor/teacher to perform and demonstrate the bedside clinical Examination of the Olfactory, Facial and trigeminal nerve to the 3rd Prof UG students of the concerned subject in order to develop and improve the teaching skills of the PG Scholar or CD (Case Diagnosis): Students will be assigned a case of nerve palsy by the supervisor/teacher and the student will have to perform the Examination of Olfactory, Facial, and trigeminal nerves, and make the Provisional diagnosis of the case based on history taking and examination or

Peer learning: Students who have learned well about the Examination of Olfactory, Facial, and trigeminal nerves should be instructed to demonstrate to their peers.
Experiential-Learning Learning 3.6: Examination of Vestibulocochlear, Glossopharyngeal, Vagus, Accessory and Hypoglossal nerve
Total Learning Hours: 03 Hours Activity-1(1 Hour) The student will perform the Examination of the Vestibulocochlear, Glossopharyngeal, Vagus, Accessory, and Hypoglossal nerve in the IPD /OPD section of the Hospital and make the provisional diagnosis based on history taking and examination and record the case in the logbook. Activity-2 (1 Hour) Mentoring: PG Students may be instructed by the supervisor/teacher to perform and demonstrate the bedside clinical Examination of Vestibulocochlear, Glossopharyngeal, Vagus, Accessory, and Hypoglossal nerve to the 3rd Prof UG students of the concerned subject. Activity-3 (1 Hour) Group Discussion: The teacher will divide students into 2 groups. The teacher will assign a case of nerve palsy with all related reports to both groups, Each group will perform the general examination of the patient, Examination of the Vestibulocochlear, Glossopharyngeal, Vagus, Accessory, and Hypoglossal nerve and diagnose the patient. Both groups will discuss the case and present their findings to each other. The teacher facilitates discussion among groups and summarises key aspects.
Experiential-Learning Learning 3.7: Examination of a case of Facial nerve Palsy
Total Learning Hours: 03 Hours Activity-1(1 Hour) Demonstration Bedside / OPD: Student will perform the Examination of a case of Facial nerve Palsy in the IPD /OPD section of the Hospital and make the provisional diagnosis on the basis of history taking and examination. Activity-2 (1 Hour) CD (Case Diagnosis): Students will be assigned a case of facial nerve palsy by the supervisor/teacher and the student will have to perform the Examination of the Facial nerve, make the Provisional diagnosis of the case on the basis of history taking and facial nerve examination or Peer learning: Students who have learned well about the Examination of a case of Facial nerve Palsy, they should be instructed to demonstrate to their peers.

Activity-3 (1 Hour) Group Discussion: The teacher will divide students into 2 groups. The teacher will assign a case of facial nerve paralysis to both the groups, Each group will perform the general examination of the patient, along with Examination of the Facial nerve and diagnose the patient. Both groups will discuss the case and present their findings to each other. The teacher facilitates discussion among groups and summarizes key aspects.
Experiential-Learning Learning 3.8: Electrodiagnostic tests for facial nerve
Total Learning Hours: 02 Hours Activity-1(1 Hour) Students will perform the Electrodiagnostic tests for facial nerve in the available setup of the Hospital and make the provisional diagnosis on the basis of history taking and examination. Activity-2 (1 Hour) Group Discussion: The teacher will divide students into 2 groups. The teacher will assign a case of facial nerve palsy with all related reports to both the groups. Each group will perform the general examination of the patient and diagnose the patient on the basis of examination and available reports along with Electrodiagnostic tests report. Both groups will discuss the case and present their findings to each other. The teacher facilitates discussion among groups and summarise key aspects.
Experiential-Learning Learning 3.9: Examination of a case of vertigo
Total Learning Hours: 02 Hours Activity-1 (1 Hour) The student will perform the Examination of a case of vertigo in the IPD /OPD section of the Hospital and make the provisional diagnosis based on history taking and examination. Activity-2 (1 hour)CD (Case Diagnosis): Students will be assigned a case of vertigo with all related reports by the supervisor/teacher and the student will have to perform the Examination of a case of vertigo and diagnose the case by history taking, examination, and available lab reports or Simulation : Students will be assigned a simulated case of vertigo with all related reports by the supervisor/teacher and the student will have to perform the Examination of a case of vertigo and diagnose the case by history taking, examination and available lab reports or Group Discussion: The teacher will divide students into 2 groups.

The teacher will assign a case of vertigo with all related reports to both groups, Each group will perform the Examination of a given case of vertigo and diagnose the patient. Both groups will discuss the case and present their findings to each other.

The teacher facilitates discussion among groups and summarises key aspects.

Experiential-Learning Learning 3.10: Examination of a case of Head injury

Total Learning Hours: 03 Hours

Activity-1 (1 Hour) Demonstration Bedside / OPD: Student will perform the Examination of a case of Head injury in the IPD /OPD section of the Hospital and make the provisional diagnosis on the basis of history taking and examination.

Activity-2 (1 Hour)Mentoring: PG Students may be instructed by the supervisor/teacher to perform and demonstrate the bedside clinical examination to the 3rd Prof UG students of the concerned subject or

CD (Case Diagnosis): Students will be assigned a case of head injury by the supervisor/teacher and the student will have to perform the Examination of a patient with Head injury, make the Provisional diagnosis of the case on the basis of history taking and examination.

Activity-3 (1 Hour)Peer learning: Students who have learned well about the Examination of a case of Head injury. They should be instructed to demonstrate to their peers and record the case in the logbook.

Modular Assessment

Assessment	**Hour**
Instructions: Conduct a structured modular assessment. The assessment will be 50 marks for this module. Keep a record of the structured pattern used for assessment. Calculate the Modular grade point as per Table 6 C. DOPS (Direct observation of procedural skills) (50 Marks) Or OSCE (Objective Structured Clinical Examination) (50 Marks) • History Taking and Patient Interaction (10 Marks) • Physical Examination Skills (20 Marks)	4

- Diagnosis and Clinical Reasoning (10 Marks)
- Communication Skills (5 Marks)
- Time Management and Efficiency (5 Marks)

Or

Any practical in converted form can be taken for assessment. (25 Marks)

and

Any experiential, such as portfolios/ reflection/ presentations can be taken as an assessment. (25 Marks)

Module 4 : اطفال وبالغین میں وجع الاذن، سیلان الاذن، صریر اور غطیط کے کیس کی تشخیصی نقطہ نظر Aṭfāl wa Baligheen me Waja'al-Uzn, Sayalān al-Uzn, Ṣarīr aur ghaṭīṭ ke case ki tashkhīṣi nūqta naẓar (Diagnostic approach of a case of Otalgia, Otorrhoea, Stridor and snoring in children and adults)

Module Learning Objectives

(At the end of the module, the students should be able to)

1. Describe otalgia, otorrhoea, stridor and the diagnosis of snoring in children and adults.
2. Examine a case of Otalgia, Otorrhoea, Stridor and snoring in children and adults

Unit 1 وجع الاذن کے کیس کی تشخیصی نقطہ نظر Waja'al-Uzn, ke case ki tashkhīṣi nūqta naẓar (Diagnostic approach of a case of Otalgia)

4.1.1 Description of otalgia

4.1.2 Investigations required to diagnose a case of otalgia

4.1.3 Examination of a case of otalgia

References: 9,10,11,23,53,68,81

3A	3B	3C	3D	3E	3F	3G
CO2,CO3,CO4	Describe the otalgia and clinical examination of a case of otalgia	2	Lecture	CAP	Knows-how	L&PPT ,L,L&GD

CO2,CO3,CO4	Describe the investigations required for a case of otalgia	1	Lecture	CAP	Knows-how	L&PPT ,L_VC
CO2,CO3,CO4	Demonstrate the clinical examination of a case of otalgia	3	Practical4.1	CC	Shows-how	D,DIS,CBL,SIM
CO2,CO3,CO4	Demonstrate the investigations required to diagnose a case of otalgia	3	Practical4.2	PSY-GUD	Shows-how	CBL,D,CD,DIS
CO2,CO3,CO4	Perform examination of a case of otalgia	3	Experiential-Learning4.1	PSY-MEC	Does	CD,CBL
CO2,CO3,CO4	Identify the investigations required to diagnose a case of otalgia	3	Experiential-Learning4.2	PSY-ADT	Does	X-Ray,CD,CBL

Unit 2 سیلان اذن کے کیس کی تشخیص/Sayalān al-Uzn ke case ki tashkhīṣ (Diagnosis of a case of Otorrhoea)

4.2.1 Description of Otorrhoea

4.2.2 Investigations required to diagnose a case of Otorrhoea

4.2.3 Examination of a case of Otorrhoea

References: 9,10,11,23,53,68,81

3A	3B	3C	3D	3E	3F	3G
CO2,CO3,CO4	Describe otorrhoea and clinical examination of a case of Otorrhoea	2	Lecture	CAP	Knows-how	L,L&PPT
CO2,CO3,CO4	Describe the investigations required to diagnose a case of Otorrhoea	1	Lecture	CAP	Knows-how	L&PPT ,L

CO2,CO3,CO4	Demonstrate the clinical examination of a case of Otorrhoea	3	Practical4.3	PSY-GUD	Shows-how	CBL,D,CD
CO2,CO3,CO4	Demonstrate the investigations required for a case of Otorrhoea	3	Practical4.4	CC	Shows-how	CBL,DIS,D,CD
CO2,CO3,CO4	Perform the examination and diagnose a case of Otorrhoea	3	Experiential-Learning4.3	PSY-MEC	Does	PER,CBL,CD
CO2,CO3,CO4	Identify the investigations required to diagnose a case of Otorrhoea	3	Experiential-Learning4.4	PSY-GUD	Does	CBL,CD

Unit 3 صریر کے کیس کی تشخیص/Ṣarīr ke case ki tashkhīṣ (Diagnoses of a case of Stridor)

4.3.1 Description of Stridor

4.3.2 Investigations required to diagnose a case of Stridor

4.3.3 Examination of a case of Stridor

References: 9,10,11,23,53,68,81

3A	3B	3C	3D	3E	3F	3G
CO2,CO3,CO4	Describe the clinical examination of a case of Stridor	1	Lecture	CAP	Knows-how	L,L_VC
CO2,CO3,CO4	Describe the investigations required to diagnose a case of Stridor	1	Lecture	CAP	Knows-how	L&PPT ,L
CO2,CO3,CO4	Demonstrate the clinical examination of a case of Stridor	2	Practical4.5	CC	Shows-how	D-M,CBL,D,DIS,SIM

CO2,CO3,CO4	Demonstrate the investigations required to diagnose a case of Stridor	2	Practical4.6	CAN	Shows-how	CD,DIS,D,PBL,CBL
CO2,CO3,CO4	Perform the examination and diagnose a case of Stridor	3	Experiential-Learning4.5	PSY-MEC	Does	CD,CBL,PER,SIM
CO2,CO3,CO4	Identify the investigations required to diagnose a case of stridor.	3	Experiential-Learning4.6	PSY-ADT	Does	CBL,CD

Unit 4 اطفال اور بالغین میں غطیط کے کیس کی تشخیصی نقطہ نظر/Aṭfāl wa Baligheen me ghaṭīṭ ke case ki tashkhīṣi nūqta naẓar (Diagnostic approach of a case of Snoring in children and adults)

4.4.1 Description of the Snoring in children

4.4.2 Description of the Snoring in adults

4.4.3 Examination of a case of snoring

4.4.4 Investigations required for diagnosis of snoring in children and adult

References: 9,10,11,23,53,68,81

3A	3B	3C	3D	3E	3F	3G
CO2,CO3,CO4	Describe the Snoring in children and adults.	1	Lecture	CC	Knows-how	L&PPT ,L_VC,L
CO2,CO3,CO4	Describe the investigations required to diagnose a case of Snoring in children and adults	1	Lecture	CE	Knows-how	L&GD,CBL
CO2,CO7	Demonstrate the Diagnostic approach of Snoring in children and adults	4	Practical4.7	CAN	Shows-how	D,CD,CBL

CO2,CO3,CO4	Perform the examination and diagnose a case of snoring in Children	4	Experiential-Learning4.7	PSY-ADT	Does	CBL,CD
CO2,CO3,CO4	Perform the examination and diagnose a case of snoring in an adult	4	Experiential-Learning4.8	PSY-ADT	Does	CD,PAL,CBL

Practical Training Activity

Practical Training 4.1 Examination of a case of otalgia

Total Activity time (3 hours)

Activity 1 (1 hour)

Demonstration, Simulation

Demonstration by the teacher at OPD/IPD of the hospital. The teacher shall show a case of Otalgia and demonstrate the clinical examination of the patient or the simulated patient.

Activity 2 (2 hours)

Case-based Learning, Discussion

Divide students into small groups. Instruct each group to examine the case of Otalgia at the hospital's OPD/IPD and students will record the detailed history of the illness and findings. Encourage students to discuss their approaches and findings within their groups. Facilitate the discussion on the diagnosis of a case of Otalgia. The teacher shall summarize the key concepts covered in the session. Logbook Entry will be mandatory for every student, along with the practical/experiential learning activities

Practical Training 4.2 Investigations to diagnose a case of otalgia

Total Activity hours (3 hours)

Activity 1

Demonstration (1 hour)

Demonstration by the teacher at the OPD/IPD of the hospital. The teacher shall show all the investigation reports required to diagnose a case of Otalgia. Activity 2 Case-based learning, Discussion (2 hours) Divide students into small groups. Students will thoroughly investigate a patient with otalgia at the hospital's OPD/IPD and make a list of required investigations for the diagnosis of otalgia. Encourage students to discuss the Investigations required to diagnose a case of Otalgia within their groups. Facilitate the discussion on the importance of investigations to diagnose a case of Otalgia. The teacher shall summarize the key concepts covered in the session.Logbook Entry will be mandatory for every student, along with the practical/experiential learning activities.
Practical Training 4.3 Examination of a case of Otorrhoea
Total Activity time (3 hours) Activity 1 (1 hour) Demonstration Demonstration by the teacher at OPD/IPD of the hospital. The teacher shall show a case of Otorrhea and demonstrate the clinical examination of the patient or the simulated patient. Activity 2 (2 hours) Case-based Learning, Case Diagnosis Divide students into small groups, students will do a thorough examine the patient of Otorrhoea at OPD/IPD of the hospital. Instruct each group to examine the case of Otorrhoea and record the detailed history of the illness and findings. Encourage students to discuss their approaches and findings within their groups. Facilitate the discussion on the diagnosis of a case of Otorrhoea. The teacher shall summarize the key concepts covered in the session. Logbook Entry will be mandatory for every student, along with the practical/experiential learning activities.
Practical Training 4.4 Investigations required for a case of Otorrhoea
Total Activity time (3 hours)

Activity 1 (1 hour)

Demonstration

Demonstration by the teacher at OPD/IPD of the hospital. The teacher shall show all the investigation reports required to diagnose a case of Otorrhoea.

Activity 2 (2 hours)

Case-based Learning, Case Diagnosis, Discussion

Divide students into small groups. Students will investigate thoroughly a patient with otorrhoea at the hospital's OPD/IPD and make a list of required investigations for the diagnosis of otorrhoea. Encourage students to discuss Investigations required for the diagnosis of a case of Otorrhoea within their groups. Facilitate the discussion on the importance of investigations in the diagnosis of Otorrhoea. The teacher shall summarize the key concepts covered in the session. Logbook Entry will be mandatory for every student, along with the practical/experiential learning activities.

Practical Training 4.5 Examination of a case of Stridor

Total Activity time (2 hours)

Activity 1 (1 hour)

Demonstration, Demonstration on model, Simulation

The teacher will demonstrate the case of stridor on a patient or on the model at the hospital's OPD/IPD/OT/Procedure room. The teacher shall demonstrate the clinical examination of a case of stridor on the patient/model or the simulated patient.

Activity 2 (1 hour)

Case-based Learning, Discussion

Divide students into small groups, students will do a thorough examine the patient of Stridor in the OPD/IPD/OT/Procedure room of the hospital. Instruct each group to examine the case of Stridor and record the detailed history of the illness and findings. Encourage students to discuss their approaches and findings within their groups. Facilitate the discussion on the diagnosis of a case of Stridor. The teacher shall summarize the key concepts covered in the session. Logbook Entry will be mandatory for every student, along with the practical/experiential learning activities.

Practical Training 4.6 Investigations for a case of Stridor

Total Activity time (2 hours)

Activity 1 (1 hour)

Demonstration

Demonstration by the teacher at the OPD/IPD/OT/Procedure room of the hospital. The teacher shall show all the investigation reports required to diagnose a case of Stridor.

Activity 2 (1 hour)

Case-based Learning, Case Diagnosis, Discussion

Divide students into small groups, and students will investigate thoroughly a patient of Stridor at the OPD/IPD/OT/Procedure room of the hospital. Students will also make a list of required investigations to diagnose a case of stridor. Encourage students to discuss Investigations required for the diagnosis of a case of Stridor within their groups. Facilitate the discussion on the importance of investigations in the diagnosis of Stridor. Logbook Entry will be mandatory for every student, along with the practical/experiential learning activities.

Practical Training 4.7 Diagnosis of Snoring in children and adults

Total Activity time (4 hours)

Activity 1 (1 hour)

Demonstration

Demonstration by the teacher at OPD/IPD of the hospital. The teacher shall show a case of snoring and demonstrate the clinical examination of the patient or the simulated patient.

Activity 2 (1 hour)

Case-based Learning

Divide students into small groups, students will thoroughly examine the case of Snoring at OPD/IPD of the hospital. Instruct each group to examine the case of Snoring and record the detailed history of the illness and findings.

Activity 3 (2 hours)

Case Diagnosis Encourage students to discuss their approaches and findings within their groups. Facilitate the discussion on the diagnosis of a case of Snoring in children and adults. The teacher shall summarize the key concepts covered in the session. Logbook Entry will be mandatory for every student, along with the practical/experiential learning activities.
Experiential Learning Activity
Experiential-Learning Learning 4.1: Diagnosis of otalgia
Total Activity time (3 hours) Activity 1 (1 hour) Case-based Learning Students will take a detailed history of a case of otalgia. Students will do a general inspection of the ear, nose, throat, neck, and teeth to find any clue about the cause of otalgia. Activity 2 (2 hours) Case Diagnosis and Kinesthetic Learning Students will inspect the external ear with a head mirror/headlight. The student will also do an otoscopic examination of the ear. Students will palpate the ear pinna, TM joint, and salivary glands. Each student will record at least 5 cases of otalgia and mention them in his/her log book as experiential learning. Logbook Entry will be mandatory for every student, along with the practical/experiential learning activities.
Experiential-Learning Learning 4.2: Diagnostic investigations of otalgia
Total Activity time (3 hours) Activity 1 (1 hour) Case-based Learning

Students will take a detailed history of a case of otalgia. Students will do a general inspection of the ear, nose, throat, neck, and teeth to find any clue about the cause of otalgia. Students will inspect the external ear with a head mirror/headlight. Activity 2 (2 hours) Case Diagnosis, Kinaesthetic Learning The student will also do an otoscopic examination of the ear. Students will palpate the ear pinna, TM joint, and salivary glands. Students will collect at least 5 investigations required to diagnose a case of otalgia. Each student will record at least 5 cases of otalgia with the investigations. Logbook Entry will be mandatory for every student, along with the practical/experiential learning activities.
Experiential-Learning Learning 4.3: Examination and diagnosis of a case of Otorrhoea
Total Learning hours (3 hours) Activity 1 Case-based Learning (1 hour) Divide students into multiple groups. Allot or mentor each group to select a patient from OPD/IPD for examination of a case of otorrhoea. Guide them about the examination of a case of otorrhoea, give an overview of the instruments used, and methods of examination of a case of otorrhoea. Activity 2 Case Diagnosis, Kinaesthetic Learning, Presentation (2 hours) Students will take a detailed history of a case of otorrhoea. Students will do a general inspection of the ear, nose, throat, and neck to find associated signs and symptoms of a case of otorrhoea. Students will do the aural toilet with suction or with cotton buds then inspect the external ear with head-mirror / head-light. The student will also do an otoscopic examination of the ear. Based on finding student will make his/her diagnosis. Each student will record at least 5 cases of otorrhoea and present them as a case series with a PowerPoint presentation in class.
Experiential-Learning Learning 4.4: Diagnostic investigations of Otorrhoea
Total Activity time (3 hours)

Activity 1 (1 hour) Case-based Learning Divide students into multiple groups. Allot or mentor each group to collect the investigational reports required to diagnose a case of Otorrhoea. Give an overview of the investigations required to diagnose a case of Otorrhoea and the interpretation of the investigations. Activity 2 (2 hours) Case Diagnosis Students will collect at least 5 investigations required to diagnose a case of Otorrhoea. Each student will record at least 5 cases of Otorrhoea with the investigations. Logbook Entry will be mandatory for every student, along with the practical/experiential learning activities.
Experiential-Learning Learning 4.5: Examination and diagnosis of a case of Stridor
Total Activity time (hours 3) Activity 1 (1 hour) Case-based Learning, Case Diagnosis Students will take a detailed history of a case of stridor. Try to find out the type of stridor in terms of expiratory, inspiratory, and biphasic. Students will do a general inspection of the nose, throat, and neck to find any associated signs and symptoms of a case of stridor. Activity 2 (2 hours) Kinaesthetic Learning, Simulation, Presentation Students may do flexible/rigid laryngoscopy of patients for diagnosis of stridor. Each student will keep a record of a case of stridor and present it as a case presentation in class. In case of unavailability of the patient, students can use any model or simulator for case presentation. Logbook Entry will be mandatory for every student, along with the practical/experiential learning activities.
Experiential-Learning Learning 4.6: Diagnostic investigations of stridor
Total Activity time (3 hours)

Activity 1 (2 hours) Case-based Learning Divide students into multiple groups. Allot or mentor each group to collect the investigational reports required to diagnose a case of stridor. Give an overview of the investigations required to diagnose a case of stridor and the interpretation of the investigations. Activity 2 (1 hour) Case Diagnosis Students will collect at least 3 investigations required to diagnose a case of stridor. Each student will record at least 3 cases of stridor with the investigations. Logbook Entry will be mandatory for every student, along with the practical/experiential learning activities.
Experiential-Learning Learning 4.7: Examination of snoring in children
Total Activity time (4 hours) Activity 1 (2 hours) Case-based Learning, Kinaesthetic Learning Students will take a detailed history of a case of snoring including demographic data of the patient. Students will do a general inspection of the nose, throat, and neck to find any associated signs and symptoms of a case of snoring in children. Activity 2 (2 hours) Case Diagnosis Students may do a nasal endoscopy of a child for diagnosis of snoring in a suspected case of adenoid hypertrophy. Each student will keep a record of at least 5 cases of snoring in children and present it as a case series with a PowerPoint presentation in class. Logbook Entry will be mandatory for every student, along with the practical/experiential learning activities.
Experiential-Learning Learning 4.8: Examination of snoring in adult
Total Activity time (4 hours)

Activity 1 (2 hours)

Case-based Learning, Kinaesthetic Learning

Students will take a detailed history of a case of snoring, including demographic data, weight, height, and BMI of the patient. They will then do a general inspection of the oral cavity for malam patti grading, size of the tongue, and any palatal webbing, examine the nose for nasal blockage, and examine the throat for the size of tonsils and uvula to find any associated signs and symptoms of snoring in adults.

Activity 2 (2 hours)

Case Diagnosis, Peer Assisted Learning

Students may do a sleep study of the patient at the hospital for sleep assessment. Each student will record at least 5 cases of snoring in adults and present them as a case series with a PowerPoint presentation in class. Logbook Entry will be mandatory for every student, along with the practical/experiential learning activities.

Modular Assessment

Assessment	Hour
Instructions: Conduct a structured modular assessment. The assessment will be 50 marks for this module. Keep a record of the structured pattern used for the assessment. Calculate the Modular grade point as per Table 6 C. OSCE (Objective Structured Clinical Examination) (50 Marks) • History Taking and Patient Interaction (10 Marks) • Physical Examination Skills (20 Marks) • Diagnosis and Clinical Reasoning (10 Marks) • Communication Skills (5 Marks) • Time Management and Efficiency (5 Marks) Or Any practical in converted form can be taken for assessment. (25 Marks)	4

and Any experiential, such as portfolios/ reflection/ presentations can be taken as an assessment. (25 Marks)	

Semester No : 5

Module 5 : امراض اذن، انف و حلق میں استعمال ہونے والے یونانی تشخیصی ذرائع Amrāḍ-i-Uzn, Anf -wa- Ḥalq me iste'māl hone wale Unani tashkhīṣi Zarāye (Unani Diagnostic tools used in ear, nose and throat)

Module Learning Objectives

(At the end of the module, the students should be able to)

1. Describe the diagnosis of bilious, consanguineous, phlegmatic, melancholic diseases related to ear, nose and throat on the basis of pulse, urine and faeces examination.
2. Demonstrate simple & substantial morbid temperament related to ear, nose, and throat
3. Perform the diagnosis of bilious, consanguineous, phlegmatic, melancholic diseases related to ear, nose and throat based on pulse, urine and faeces examination.

Unit 1 امراض اذن، انف و حلق سے متعلق امراض صفراویہ کی تشخیص بذریعہ نبض، بول اور براز Amrāḍ-i-Uzn, Anf wa Ḥalq se mūtā'lliq Amrāḍ Ṣafrāwiyya ki tashkhīṣ bazariya Nabḍ, bawl aur Barāz (Diagnosis of bilious diseases related to ear, nose and throat by the interpretation of pulse, urine, and faeces)

5.1.1 Amrāḍ Ṣafrāwiyya of Uzn, Anf wa Ḥalq

5.1.2 interpretation of Nabz, Boul wa Barāz in the diagnosis of Amrāḍ Ṣafrāwiyya of Uzn, Anf wa Ḥalq

References: 1,2,3,68,79,80

3A	3B	3C	3D	3E	3F	3G
CO2,CO7	Describe Amrāḍ Ṣafrāwiyya of Uzn, Anf wa Ḥalq	1	Lecture	CAP	Knows-how	CBL,L&GD,CD,L,L&PPT

CO2,CO7	Discuss the interpretation of Nabḍ, Bawl wa Barāz in the diagnosis of Amrāḍ Ṣafrāwiyya of Uzn, Anf wa Ḥalq	1	Lecture	CK	Knows-how	CBL,L,CD,L&PPT ,L&GD
CO2	Demonstrate the examination and identification of Nabḍ in Amrāḍ Ṣafrāwiyya of Uzn, Anf wa Halq	2	Practical5.1	CC	Shows-how	D-BED,D,PL,JC,CBL
CO2	Demonstrate the correct method of diagnosis of Amrāḍ Ṣafrāwiyya of Uzn, Anf wa Ḥalq on the basis of Bawl wa Barāz	2	Practical5.2	CAP	Shows-how	PL,CD,DIS,CBL
CO2	Perform the diagnosis of Amrāḍ Ṣafrāwiyya of Uzn, Anf wa Ḥalq on the basis of Nabḍ, Bawl wa Barāz	3	Experiential-Learning5.1	PSY-ADT	Does	CBL,CD,TUT,D-BED
CO2	Perform the diagnosis of Amrāḍ Ṣafrāwiyya of Uzn, Anf wa Ḥalq on the basis of ‘Alāmāt and Kayfiyāt	3	Experiential-Learning5.2	PSY-ADT	Does	D-BED,CD,D,CBL,SIM

Unit 2 امراض اذن، انف وحلق سے متعلق امراض دمویہ کی تشخیص بذریعہ نبض، بول اور براز Amrāḍ-i-Uzn, Anf wa Ḥalq se mūtā‘lliq Amrāḍ Damawiyya ki tashkhīṣ, bazariya Nabḍ, bawl aur Barāz

(Diagnosis of sanguineous diseases related to ear, nose and throat by the interpretation of pulse, urine and faeces)

5.2.1 Amrāḍ Damawiyya of Uzn, Anf wa Ḥalq

5.2.2 interpretation of Nabz and bawl in the diagnosis of Amrāḍ Damawiyya of Uzn, Anf wa Ḥalq

References: 1,2,3,68,79,80

3A	3B	3C	3D	3E	3F	3G
CO2,CO7	Describe Amrāḍ Damawiyya of Uzn, Anf wa Ḥalq	1	Lecture	CC	Know	CBL,L_VC,L&GD,L,CD
CO2,CO7	Discuss the interpretation of Nabḍ and Bawl in the diagnosis of Amrāḍ Damawiyya of Uzn, Anf wa Ḥalq	1	Lecture	CC	Knows-how	D-BED,TUT,D,CD

CO2,CO7	Demonstrate the correct method of diagnosis of Amrāḍ Damawiyya of Uzn, Anf wa Ḥalq on the basis of Nabḍ and Bawl	2	Practical5.3	CC	Shows-how	D,D-BED,CD,TUT,CBL
CO2	Demonstrate the diagnosis of Amrāḍ Damawiyya of Uzn, Anf wa Ḥalq on the basis of Ghalaba'-i-Dam	2	Practical5.4	CC	Shows-how	D-BED,TUT,CD,CBL
CO2	Perform the diagnosis of Amrāḍ Damawiyya of Uzn, Anf wa Ḥalq on the basis of Nabḍ and Bawl	2	Experiential-Learning5.3	PSY-GUD	Does	CD,CBL,DIS,D-BED,D
CO2	Perform the diagnosis of Amrāḍ Damawiyya of Uzn, Anf wa Ḥalq on the basis of 'Alāmāt and Kayfiyāt	3	Experiential-Learning5.4	PSY-ADT	Does	D-BED,DIS,CBL,CD,PL

Unit 3 امراض اذن، انف وحلق سے متعلق امراض بلغمیہ کی تشخیص بذریعہ نبض بول اور براز/Amrāḍ-i-Uzn, Anf wa Ḥalq se mūtā'lliq Amrāḍ Balghamiyya ki tashkhīṣ, bazariya Nabḍ, bawl aur Barāz

(Diagnosis of phlegmatic diseases related to ear, nose and throat by the interpretation of pulse, urine and faeces)

5.3.1 Amrāḍ Balghamiyya of Uzn, Anf wa Ḥalq

5.3.2 interpretation of Nabz, bawl wa Barāz in the diagnosis of Amrāḍ Balghamiyya of Uzn, Anf wa Ḥalq

References: 1,2,3,6,7,8,9,68,79,80

3A	3B	3C	3D	3E	3F	3G
CO2,CO7	Describe Amrāḍ Balghamiyya of Uzn, Anf wa Ḥalq	1	Lecture	CC	Knows-how	BS,L,CD,L&GD,L&PPT
CO2,CO7	Discuss the examination and interpretation of Nabḍ, Bawl wa Barāz in the diagnosis of Amrāḍ Balghamiyya of Uzn, Anf wa Ḥalq	1	Lecture	CC	Knows-how	CD,L&PPT ,CBL,L,L&GD
CO2,CO7	Demonstrate the Examination and identification of Nabḍ in Amrāḍ Balghamiyya of Uzn, Anf wa Halq	2	Practical5.5	CC	Shows-how	CD,D,CBL,D-BED

CO2,CO7	Demonstrate the correct method of Diagnosis of Amrāḍ Balghamiyya of Uzn, Anf wa Ḥalq on the basis of Bawl wa Barāz	2	Practical5.6	CAP	Shows-how	D,D-BED,CD,CBL,TUT
CO2,CO7	Perform the diagnosis of Amrāḍ Balghamiyya of Uzn, Anf wa Ḥalq on the basis of Nabḍ, Bawl wa Barāz	2	Experiential-Learning5.5	PSY-ADT	Does	D-BED,CBL,PL,CD,D
CO2,CO7	Perform the diagnosis of Amrāḍ Balghamiyya of Uzn, Anf wa Ḥalq on the basis of ‘Alāmāt and Kayfiyāt	3	Experiential-Learning5.6	CC	Shows-how	DIS,CBL,CD,D,D-BED

Unit 4 امراض اذن، انف وحلق سے متعلق، سوداوی امراض کی تشخیص بذریعہ نبض، بول اور براز/Amrāḍ-i-Uzn, Anf wa Ḥalq se mūtā‘lliq Ṣawdawī Amrāḍ ki tashkhīṣ bazariya Nabḍ, bawl aur Barāz

(Diagnosis of melancholic diseases related to ear, nose, and throat by the interpretation of pulse, urine, and faeces)

5.4.1 Amrāḍ Sawdāwiyya of Uzn, Anf wa Halq

5.4.2 Interpretation of Nabz, bawl wa Barāz in the diagnosis of Amrāḍ Sawdāwiyya of Uzn, Anf wa Ḥalq

References: 1,2,3,68,79,80

3A	3B	3C	3D	3E	3F	3G
CO2,CO7	Describe Amrāḍ Sawdāwiyya of Uzn, Anf wa Ḥalq	1	Lecture	CC	Knows-how	L&PPT ,CBL,D-BED,L,D
CO2,CO7	Discuss the interpretation of Nabḍ, Bawl wa Barāz in the diagnosis of Amrāḍ Sawdāwiyya of Uzn, Anf wa Ḥalq	1	Lecture	CC	Knows-how	L&PPT ,BS,L&GD,CBL,CD
CO2,CO7	Demonstrate the correct method of Examination and identification of Nabḍ in Amrāḍ Sawdāwiyya of Uzn, Anf wa Halq	2	Practical5.7	CC	Shows-how	PL,TUT,CBL,CD
CO2	Demonstrate the correct method of Diagnosis of Amrāḍ Sawdāwiyya of Uzn, Anf wa Ḥalq on the basis of Bawl wa Barāz	2	Practical5.8	CC	Shows-how	D,D-BED,CBL,CD

CO2,CO7	Perform the diagnosis of Amrāḍ Sawdāwiyya of Uzn, Anf wa Ḥalq on the basis of Nabḍ, Bawl wa Barāz	3	Experiential-Learning5.7	PSY-GUD	Does	D,CBL,DIS,PL,CD
CO2,CO7	Perform the diagnosis of Amrāḍ Sawdāwiyya of Uzn, Anf wa Ḥalq on the basis of ‘Alāmāt and Kayfiyāt	2	Experiential-Learning5.8	PSY-ADT	Does	D-BED,CD,D,DIS,CBL

Unit 5 امراض اذن، انف وحلق سے متعلق سوء مزاج سادہ ومادّی/Amrāḍ-i-Uzn, Anf wa Ḥalq se mūtā‘lliq Sū’-i-Mizāj Sāda wa Māddī (Simple & substantial morbid temperament related to ear, nose and throat)

5.5.1 Concept of Sue Mizaj sada of Amrāḍ-i-Uzn, Anf wa Ḥalq

5.5.2 Concept of sue mizaj maddi of Amrāḍ-i-Uzn, Anf wa Ḥalq

5.5.3 Diagnosis of Sue Mizaj sada of Amrāḍ-i-Uzn, Anf wa Ḥalq

5.5.4 Diagnosis of Sue Mizaj Maddi of Amrāḍ-i-Uzn, Anf wa Ḥalq

References: 1,2,3,68,79,80

3A	3B	3C	3D	3E	3F	3G
CO2,CO7	Describe the concept of Sū’-i-Mizāj Sāda of Uzn, Anf wa Ḥalq and its diagnosis based on ‘Alāmāt wa Kayfiyāt	1	Lecture	CC	Know	L&PPT ,L,CBL,BS,CD
CO2,CO7	Discuss the concept of Sū’-i-Mizāj Māddī of Uzn, Anf wa Ḥalq and its diagnosis on the basis of ‘Alāmāt wa Kayfiyāt	1	Lecture	CC	Knows-how	L&GD,L&PPT ,PL,CBL,L
CO2,CO7	Demonstrate the concept of Sū’-i-Mizāj Sāda of Uzn, Anf wa Ḥalq and its diagnosis on the basis of ‘Alāmāt wa Kayfiyāt	2	Practical5.9	CC	Shows-how	CBL,DIS,PL,CD
CO2,CO7	Perform the diagnosis of Sū’-i-Mizāj Sāda of Uzn, Anf wa Ḥalq on the basis of ‘Alāmāt wa Kayfiyāt	2	Experiential-Learning5.9	PSY-ADT	Does	CBL,CD,D,D-BED

CO2	Perform the diagnosis of Sū'-i-Mizāj Māddī of Amrāḍ-i-Uzn, Anf wa Ḥalq on the basis of 'Alāmāt, Kayfiyāt and other Unani Uṣūl-i-Tashkhīṣ.	3	Experiential-Learning5.10	PSY-GUD	Does	CBL,D,D-BED,CD
CO2	Demonstrate the concept of Sū'-i-Mizāj Māddī of Uzn, Anf wa Ḥalq and its diagnosis on the basis of 'Alāmāt, Kayfiyāt and other Unani Uṣūl-i-Tashkhīṣ.	2	Practical5.10	CC	Shows-how	D-BED,D,CD,CBL

Practical Training Activity

Practical Training 5.1 Examination and identification of Nabḍ in Amrāḍ Ṣafrāwiyya of Uzn, Anf wa Halq

Total Learning Hours: 02 Hours

Activity 1 (1 hour)Demonstration Bedside: The teacher will demonstrate the correct method of Examination and identification of Nabḍ in Amrāḍ Ṣafrāwiyya of Uzn, Anf wa Halq in the IPD/OPD section of the Hospital.

Activity-2 (1 Hour) CBL (Case Based Learning): The teacher will select different cases of Amrāḍ Ṣafrāwiyya and demonstrate the Examination and identification of Nabḍ in Amrāḍ Ṣafrāwiyya of Uzn, Anf wa Halq in the IPD or OPD section of the Hospital to make the provisional diagnosis based on Unani Uṣūl-i-Tashkhīṣ.

Practical Training 5.2 Diagnosis of Amrāḍ Ṣafrāwiyya of Uzn, Anf wa Ḥalq on the basis of Bawl wa Barāz

Total Learning Hours: 02 Hours

Activity 1 (1 hour) Demonstration Bedside: The teacher will demonstrate the correct method of Diagnosis of Amrāḍ Ṣafrāwiyya of Uzn, Anf wa Ḥalq based on Bawl wa Barāz in the IPD/OPD section of the Hospital

Activity-2 (1 Hour) CBL (Case-Based Learning): The teacher will select different cases of Amrāḍ Ṣafrāwiyya and demonstrate the Diagnosis of Amrāḍ Ṣafrāwiyya of Uzn, Anf and Ḥalq based on Bawl wa Barāz

Practical Training 5.3 Diagnosis of Amrāḍ Damawiyya of Uzn, Anf wa Ḥalq on the basis of Nabḍ and Bawl

Total Learning Hours: 02 Hours Activity 1 (1 Hour) Demonstration Bedside: Teacher will demonstrate the correct method of Diagnosis of Amrāḍ Damawiyya of Uzn, Anf wa Ḥalq on the basis of Nabḍ and Bawl in the IPD/OPD section of the Hospital. Activity-2 (1 Hour) CBL (Case Based Learning): The Teacher will select different cases of Amrāḍ Damawiyya and demonstrate the correct method of diagnosis of Amrāḍ Damawiyya of Uzn,Anf wa Ḥalq based on Nabḍ and Bawl in the IPD or OPD section of the Hospital to make the provisional diagnosis based on Unani Uṣūl-i-Tashkhīṣ.
Practical Training 5.4 Diagnosis of Amrāḍ Damawiyya of Uzn, Anf wa Ḥalq on the basis of Ghalaba'-i-Dam
Total Learning Hours: 02 Hours Activity 1 (1 Hour) Demonstration Bedside: Teacher will demonstrate the correct method of Diagnosis of Amrāḍ Damawiyya of Uzn, Anf wa Ḥalq based on Ghalaba'-i-Dam in the IPD/OPD section of the Hospital Activity-2 (1 Hour) CBL (Case Based Learning): The Teacher will select different cases of Amrāḍ Damawiyya and demonstrate the correct method of Diagnosis of Amrāḍ Damawiyya of Uzn, Anf wa Ḥalq based on Ghalaba'-i-Dam.
Practical Training 5.5 Examination and identification of Nabḍ in Amrāḍ Balghamiyya of Uzn, Anf wa Halq
Total Learning Hours: 02 Hours Activity 1 (1 Hour) Demonstration Bedside: Teacher will demonstrate the correct method of Examination and identification of Nabḍ in Amrāḍ Balghamiyya of Uzn, Anf wa Halq in the IPD/OPD section of the Hospital. Activity-2 (1 Hour) CBL (Case Based Learning): The teacher will select different cases of Amrāḍ Balghamiyya and demonstrate the Examination and identification of Nabḍ in Amrāḍ Balghamiyya of Uzn, Anf wa Halq in the IPD or OPD section of the Hospital to make the provisional diagnosis based on Unani Uṣūl-i-Tashkhīṣ.
Practical Training 5.6 Diagnosis of Amrāḍ Balghamiyya of Uzn, Anf wa Ḥalq on the basis of Bawl wa Barāz
Total Learning Hours: 02 Hours

Activity 1 (1 Hour) Demonstration Bedside: The teacher will demonstrate the correct method of Diagnosis of Amrāḍ Balghamiyya of Uzn, Anf wa Ḥalq based on Bawl wa Barāz in the IPD/OPD section of the Hospital Activity-2 (1 Hour) CBL(Case Based Learning): The Teacher will select different cases of Amrāḍ Balghamiyya and demonstrate the correct method of Diagnosis of Amrāḍ Balghamiyya of Uzn, Anf wa Ḥalq based on Bawl wa Barāz in the IPD or OPD section of the Hospital.
Practical Training 5.7 Examination and identification of Nabḍ in Amrāḍ Sawdāwiyya of Uzn, Anf wa Halq
Total Learning Hours: 02 Hours Activity-1 (1 Hour) Demonstration Bedside: The teacher will demonstrate the correct method of Examination and identification of Nabḍ in Amrāḍ Sawdāwiyya of Uzn, Anf, wa Halq in the IPD/OPD section of the Hospital Activity-2 (1 Hour) CBL (Case Based Learning): The teacher will select different cases of Amrāḍ Sawdāwiyya and demonstrate the Examination and identification of Nabḍ in Amrāḍ Sawdāwiyya of Uzn, Anf wa Halq to make the provisional diagnosis on the basis of Unani Uṣūl-i-Tashkhīṣ.
Practical Training 5.8 Diagnosis of Amrāḍ Sawdāwiyya of Uzn, Anf wa Ḥalq on the basis of Bawl wa Barāz
Total Learning Hours: 02 Hours Activity-1 (1 Hour) Demonstration Bedside: The teacher will demonstrate the correct method of Diagnosis of Amrāḍ Sawdāwiyya of Uzn, Anf wa Ḥalq on the basis of Bawl wa Barāz in the IPD/OPD section of the Hospital Activity-2 (1 hour) CBL (Case-Based Learning): The teacher will select different cases of Amrāḍ Sawdāwiyya and demonstrate the Diagnosis of Amrāḍ Sawdāwiyya of Uzn, Anf wa Ḥalq on the basis of Bawl wa Barāz.
Practical Training 5.9 Concept of Sū'-i-Mizāj Sāda of Uzn, Anf wa Ḥalq and its diagnosis on the basis of 'Alāmāt wa Kayfiyāt
Total Learning Hours: 02 Hours Activity-1 (1 Hour) Demonstration Bedside: The teacher will demonstrate the Concept of Sū'-i-Mizāj Sāda of Uzn, Anf wa Ḥalq, and its diagnosis based on 'Alāmāt wa Kayfiyāt in the IPD/OPD section of the Hospital.

Activity-2 (1 Hour)CBL (Case Based Learning): The teacher will select different cases of Sū'-i-Mizāj Sāda of Uzn, Anf wa Ḥalq, and demonstrate the Concept of Sū'-i-Mizāj Sāda of Uzn, Anf wa Ḥalq and its diagnosis based on 'Alāmāt wa Kayfiyāt.
Practical Training 5.10 Concept of Sū'-i-Mizāj Māddī of Uzn, Anf wa Ḥalq and its diagnosis on the basis of 'Alāmāt, Kayfiyāt and other Unani Uṣūl-i-Tashkhīṣ.
Total Activity time (hours 2) Activity 1 (1 hour) **Demonstration Bedside:** • The teacher will Demonstrate the Concept of Sū'-i-Mizāj Māddī of Uzn, Anf wa Ḥalq and its diagnosis based on 'Alāmāt, Kayfiyāt and other Unani Uṣūl-i-Tashkhīṣ in the IPD/OPD section of the Hospital Activity 2 (1 hour) **CBL (Case Based Learning):** • Teacher will select different cases of Sū'-i-Mizāj Māddī of Uzn, Anf wa Ḥalq, and demonstrate the Concept of Sū'-i-Mizāj Māddī of Uzn, Anf wa Ḥalq and its diagnosis based on 'Alāmāt, Kayfiyāt, and other Unani Uṣūl-i-Tashkhīṣ **Logbook Entry:** The student will record the number of cases of Sū'-i-Mizāj Māddī diagnosed in the log book with the date as practical
Experiential Learning Activity
Experiential-Learning Learning 5.1: Diagnosis of Amrāḍ Ṣafrāwiyya of Uzn, Anf wa Ḥalq on the basis of Nabḍ, Bawl wa Barāz
Total Learning Hours: 03 Hours Activity 1 (1 Hour) Demonstration Bedside/OPD: Student will perform the Diagnosis of Amrāḍ Ṣafrāwiyya of Uzn, Anf wa Ḥalq based on Nabḍ, Bawl wa Barāz in the IPD /OPD section of the Hospital. Activity-2 (1 Hour) CD (Case Diagnosis): Students will be assigned different cases of Amrāḍ Ṣafrāwiyya by the supervisor/teacher and the student will have to perform the Diagnosis of Amrāḍ Ṣafrāwiyya / Amrāḍ Ḥārra of Uzn, Anf wa Ḥalq based on Nabḍ, Bawl wa Barāz

Activity-3 (1 Hour) Group Discussion: The teacher will divide students into 2 groups. The teacher will assign different cases of Amrāḍ Ṣafrāwiyya to both the groups, Each group will perform the diagnosis of Amrāḍ Ṣafrāwiyya of Uzn, Anf wa Ḥalq based on Nabḍ, Bawl wa Barāz. Both groups will discuss the case and present their findings to each other. The teacher facilitates discussion among groups and summarizes key aspects.
Experiential-Learning Learning 5.2: Diagnosis of Amrāḍ Ṣafrāwiyya of Uzn, Anf wa Ḥalq on the basis of ‘Alāmāt and Kayfiyāt
Total Learning Hours: 03 Hours Activity 1 (1 Hour) Students will perform the Diagnosis of Amrāḍ Ṣafrāwiyya of Uzn, Anf wa Ḥalq on the basis of ‘Alāmāt and Kayfiyāt. Activity-2 (1 Hour) CD (Case Diagnosis): Students will be assigned different cases of Amrāḍ Ṣafrāwiyya by the supervisor/teacher and the student will have to perform the Diagnosis of Amrāḍ Ṣafrāwiyya of Uzn,Anf wa Ḥalq based on ‘Alāmāt and Kayfiyāt Activity-3 (1 Hour) Group Discussion: The teacher will divide students into 2 groups. The teacher will assign a case of Amrāḍ Ṣafrāwiyya to both groups.Each group will perform the Diagnosis of Amrāḍ Ṣafrāwiyya of Uzn, Anf wa Ḥalq based on ‘Alāmāt andKayfiyāt.Both groups will discuss the case and present their findings to each other. The teacher facilitates discussion among groups and summarises key aspects.
Experiential-Learning Learning 5.3: Diagnosis of Amrāḍ Damawiyya of Uzn, Anf wa Ḥalq on the basis of Nabḍ and Bawl
Total Learning Hours: 02 Hours Activity 1 (1 Hour) Kinaesthetic Learning OR Demonstration Bedside / OPD: Students will perform the Diagnosis of Amrāḍ Damawiyya of Uzn, Anf wa Ḥalq on the basis of Nabḍ and Bawl in the IPD /OPD section of the Hospital. Activity-2 (1 hour) CD (Case Diagnosis): Students will be assigned different cases of Amrāḍ Damawiyya by the supervisor/teacher and the students will have to perform the Diagnosis of Amrāḍ Damawiyya of Uzn, Anf wa Ḥalq based on Nabḍ and Bawl or Peer learning : Students who have learned well about the Unani diagnostic tests should be instructed to demonstrate the Diagnosis of Amrāḍ Damawiyya of Uzn, Anf wa Ḥalq based on Nabḍ and Bawl to their peers.
Experiential-Learning Learning 5.4: Diagnosis of Amrāḍ Damawiyya of Uzn, Anf wa Ḥalq on the basis of ‘Alāmāt and Kayfiyāt

Total Learning Hours: 03 Hours Activity 1 (1 Hour) The student will perform the Diagnosis of Amrāḍ Damawiyya of Uzn, Anf wa Ḥalq on the basis of ‘Alāmāt and Kayfiyāt in the IPD /OPD section of the Hospital and record the case in the logbook. Activity-2 (1 Hour) CD (Case Diagnosis): Students will be assigned different cases of Amrāḍ Damawiyya by the supervisor/teacher and the students will have to perform the Diagnosis of Amrāḍ Damawiyya of Uzn, Anf wa Ḥalq on the basis of ‘Alāmāt and Kayfiyāt Activity-3 (1 Hour) Peer learning: Students who have learned well about the Unani diagnostic tests should be instructed to demonstrate the Diagnosis of Amrāḍ Damawiyya of Uzn, Anf wa Ḥalq on the basis of ‘Alāmāt and Kayfiyāt to their peers.
Experiential-Learning Learning 5.5: Diagnosis of Amrāḍ Balghamiyya of Uzn, Anf wa Ḥalq on the basis of Nabḍ, Bawl wa Barāz
Total Learning Hours: 02 Hours Activity-1 (1 Hour) Students will perform the Diagnosis of Amrāḍ Balghamiyya of Uzn, Anf wa Ḥalq based on Nabḍ, Bawl wa Barāz in the IPD /OPD section of the Hospital and record the case in the logbook. Activity-2 (1 Hour)Group Discussion: The teacher will divide students into 2 groups and will assign different cases of Amrāḍ Balghamiyya to both groups. Each group will make the Diagnosis of the given case of Amrāḍ Balghamiyya of Uzn, Anf wa Ḥalq based on Nabḍ, Bawl wa Barāz. Both groups will discuss the case and present their findings to each other. The teacher facilitates discussion among groups and summarizes key aspects.
Experiential-Learning Learning 5.6: Diagnosis of Amrāḍ Balghamiyya of Uzn, Anf wa Ḥalq on the basis of ‘Alāmāt and Kayfiyāt
Total Learning Hours: 03 Hours Activity-1 (1 Hour) Students will perform the Diagnosis of Amrāḍ Balghamiyya of Uzn, Anf wa Ḥalq on the basis of ‘Alāmāt and Kayfiyāt in the IPD /OPD section of the Hospital. Activity-2 (1 Hour) CD (Case Diagnosis): Students will be assigned different cases of Amrāḍ Balghamiyya by the supervisor/teacher and the students will have to perform the Diagnosis of Amrāḍ Balghamiyya of Uzn, Anf wa Ḥalq based on ‘Alāmāt and Kayfiyāt

Activity-3 (1 hour)Peer learning: Students who have learned well about the Unani diagnostic tests should be instructed to demonstrate the correct method of Diagnosis of Amrāḍ Balghamiyya of Uzn, Anf wa Ḥalq based on ‘Alāmāt and Kayfiyāt to their peers.
Experiential-Learning Learning 5.7: Diagnosis of Amrāḍ Sawdāwiyya of Uzn, Anf wa Ḥalq on the basis of ‘Alāmāt and Kayfiyāt
Total Learning Hours: 02 Hours Activity-1 (1 Hour) Students will perform the Diagnosis of Amrāḍ Sawdāwiyya of Uzn, Anf wa Ḥalq on the basis of ‘Alāmāt and Kayfiyāt in the IPD /OPD section of the Hospital. Activity-2 (1 hour) CD (Case Diagnosis): Students will be assigned different cases of Amrāḍ Sawdāwiyya by the supervisor/teacher and the students will have to perform the Diagnosis of Amrāḍ Sawdāwiyya of Uzn, Anf wa Ḥalq based on ‘Alāmāt and Kayfiyāt and record the case in the logbook.
Experiential-Learning Learning 5.8: Diagnosis of Amrāḍ Sawdāwiyya of Uzn, Anf wa Ḥalq on the basis of Nabḍ, Bawl wa Barāz
Total Learning Hours: 03 Hours Activity-1 (1 Hour) Kinaesthetic learning: Students will perform the Diagnosis of Amrāḍ Sawdāwiyya of Uzn, Anf wa Ḥalq on the basis of Nabḍ, Bawl wa Barāz in the IPD /OPD section of the Hospital. Activity-2 (1 Hour) CD (Case Diagnosis): Students will be assigned different cases of Amrāḍ Sawdāwiyya by the supervisor/ teacher and the students will have to perform the Diagnosis of Amrāḍ Sawdāwiyya of Uzn, Anf wa Ḥalq based on Nabḍ, Bawl wa Barāz Activity-3 (1 Hour) Peer learning: Students who have learned well about the Unani diagnostic tests. They should be instructed to demonstrate the correct method of Diagnosis of Amrāḍ Sawdāwiyya of Uzn, Anf wa Ḥalq based on Nabḍ, Bawl wa Barāz to their peers.
Experiential-Learning Learning 5.9: Diagnosis of Sū’-i-Mizāj Sāda of Uzn, Anf wa Ḥalq on the basis of ‘Alāmāt wa Kayfiyāt
Total Learning Hours: 02 Hours Activity-1 (1 Hour) Kinaesthetic Learning & Hands-on Learning: The student will perform the Diagnosis of Sū’-i-Mizāj Sāda of Uzn, Anf wa Ḥalq on the basis of ‘Alāmāt wa Kayfiyāt in the IPD /OPD section of the Hospital.

Activity-2 (1 Hour)CD (Case Diagnosis): Students will be assigned different cases of Sū'-i-Mizāj Sāda of Uzn, Anf wa Ḥalq by the supervisor/teacher and the students will have to perform the Diagnosis of Sū'-i-Mizāj Sāda of Uzn, Anf wa Ḥalq based on 'Alāmāt wa Kayfiyāt or Group Discussion: The teacher will divide students into 2 groups. The teacher will assign different cases of Sū'-i-Mizāj Sāda of Uzn, Anf wa Ḥalq to both groups. Each group will perform the Diagnosis of Sū'-i-Mizāj Sāda of Uzn, Anf wa Ḥalq based on 'Alāmāt wa Kayfiyāt. Both groups will discuss the case and present their findings to each other. The teacher facilitates discussion among groups and summarises key aspects.
Experiential-Learning Learning 5.10: Diagnosis of Sū'-i-Mizāj Māddī of Amrāḍ-i-Uzn, Anf wa Ḥalq on the basis of 'Alāmāt, Kayfiyāt and other Unani Uṣūl-i-Tashkhīṣ
Total Learning Hours: 03 Hours Activity-1 (1 Hour) Kinaesthetic Learning/ Hands-on Learning: Students will perform the Diagnosis of Sū'-i-Mizāj Māddī of Amrāḍ-i-Uzn, Anf wa Ḥalq based on 'Alāmāt, Kayfiyāt, and other Unani Uṣūl-i-Tashkhīṣ in the IPD /OPD section of the Hospital. Activity-2 (1 Hour)CD (Case Diagnosis): Students will be assigned different cases of Sū'-i-Mizāj Māddī of Uzn, Anf wa Ḥalq by the supervisor/teacher and the students will have to perform the Diagnosis of Sū'-i-Mizāj Māddī of Amrāḍ-i-Uzn, Anf wa Ḥalq based on 'Alāmāt, Kayfiyāt and other Unani Uṣūl-i-Tashkhīṣ. Activity-3 (1 Hour)Group Discussion:The teacher will divide the students into 2 groups and will assign different cases of Sū'-i-Mizāj Māddī of Uzn, Anf wa Ḥalq to both groups. Each group will perform the Diagnosis of Sū'-i-Mizāj Māddī of Amrāḍ-i-Uzn, Anf wa Ḥalq based on 'Alāmāt, Kayfiyāt and other Unani Uṣūl-i-Tashkhīṣ. Both groups will discuss the case and present their findings to each other. The teacher facilitates discussion among groups and summarises key aspects.
Modular Assessment

Assessment	**Hour**
Instructions: Conduct a structured modular assessment. The assessment will be 50 marks for this module. Keep a record of the structured pattern used for assessment. Calculate the Modular grade point as per Table 6 C.	4

OSCE (Objective Structured Clinical Examination) (50 Marks) Or Case-based evaluation (50 Marks) • History Taking and Patient Interaction (10 Marks) • Physical Examination Skills (20 Marks) • Diagnosis and Clinical Reasoning (10 Marks) • Communication Skills (5 Marks) • Time Management and Efficiency (5 Marks) Or Any practical in converted form can be taken for assessment. (25 Marks) Or Any experiential, such as portfolios/ reflections/ presentations, can be taken as an assessment. (25 Marks)	
Module 6 : امراض اذن، انف و حلق میں خصوصی تشخیصی آلات اور اختبار تشخیصی/Amrāḍ-i-Uzn, Anf wa Ḥalq me khūṣūṣi tashkhīṣi Ālāt aur ikhtibār tashkhīṣi (Special diagnostic apparatus and Diagnostic tests in otorhinolaryngology)	
Module Learning Objectives (At the end of the module, the students should be able to) 1. Describe the different types of diagnostic apparatus and tests in otolaryngology 2. Conduct the various special diagnostic procedures and tests 3. Identify the types of special diagnostic apparatus, tests, and their interpretation	
Unit 1 قیاس السمع/Qiyās-al-samā‘ aur Miqyās-al- samā‘ (Audiometry & Audiometer) 6.1.1 Describe the Audiometer 6.1.2 Pure tone Audiometry with and without masking	

6.1.3 Speech Audiometry

References: 9,10,11,23,53,68,81

3A	3B	3C	3D	3E	3F	3G
CO2,CO3	Describe the types of audiometers	1	Lecture	CK	Knows-how	BL,L,L&PPT
CO2,CO3	Describe the procedure of pure tone audiometry and speech audiometry	1	Lecture	CAP	Knows-how	L,L&PPT ,BL
CO2,CO3	Demonstrate the pure tone audiometry with and without masking	2	Practical6.1	CAP	Shows-how	CBL,CD,D,DIS
CO2,CO3	Demonstrate the speech audiometry	2	Practical6.2	CAP	Shows-how	D,DIS,CD
CO2,CO3	Identify the types of audiometers, and explain the parts of the audiometer.	2	Experiential-Learning6.1	PSY-ADT	Does	PER
CO2,CO3	Perform an audiometry session	2	Experiential-Learning6.2	PSY-ADT	Does	PER,CBL
CO2,CO3	Perform a speech audiometry session	2	Experiential-Learning6.3	PSY-ADT	Does	CBL,CD

Unit 2 مقیاس مقاومہ السمع اور قیاس المعاوقہ السمعیہ/Miqyās mūqāwīmah-al- samā‘ aur qiyās-al-mū‘āwiqah-al-sam‘īyyah (Impedance Audiometer & Impedance Audiometry)

6.2.1 Description of Tympanometer

6.2.2 Tympanometry procedure

References: 9,10,11,23,53,68,81

3A	3B	3C	3D	3E	3F	3G
CO2,CO3	Describe the Impedance audiometer	1	Lecture	CAP	Knows-how	L&PPT ,L_VC
CO2,CO3	Describe the Tympanometry test	1	Lecture	CAP	Knows-how	L,L&GD
CO2,CO3	Demonstrate the Impedance audiometer	2	Practical6.3	PSY-GUD	Shows-how	CD,D,PER
CO2,CO3	Demonstrate the correct method of the Tympanometry test	2	Practical6.4	PSY-GUD	Shows-how	PBL,DIS,D,CD
CO2,CO3	Identify the impedance audiometer with its parts	2	Experiential-Learning6.4	PSY-ADT	Does	BS,PER
CO2,CO3	Perform the tympanometry session and interpretation of the report	2	Experiential-Learning6.5	PSY-ADT	Does	D,LRI,IBL

Unit 3 قیاس سمع استجابۃ الدماغ/Evoked response audiometry & its equipment (BERA & Electrocochleography)

6.3.1 Description of Brainstem Evoked Response Audiometry (BERA)

6.3.2 BERA Procedure

6.3.3 Electrocochleography Procedure

References: 9,10,11,23,53,68,81

3A	3B	3C	3D	3E	3F	3G
CO2,CO3	Describe the Electrocochleography	1	Lecture	CAP	Knows-how	L&PPT ,BL,L
CO2,CO3	Describe the Brain evoked response audiometry	1	Lecture	CAP	Knows-how	L_VC,L,L&PPT
CO2,CO3	Demonstrate the correct method of Electrocochleography	2	Practical6.5	CC	Shows-how	D,PBL,SIM,DIS
CO2,CO3	Demonstrate the Brain evoked response audiometry	2	Practical6.6	CC	Shows-how	DIS,CD,CBL,D
CO2,CO3	Identify the Electrocochleography machine with its parts.	2	Experiential-Learning6.6	PSY-ADT	Shows-how	CD,PER,CBL
CO2,CO3	Perform the correct method of Electrocochleography	2	Experiential-Learning6.7	PSY-ADT	Does	CD,D,SIM,CBL
CO2,CO3	Perform a session of Brain evoked response audiometry (BERA).	2	Experiential-Learning6.8	PSY-ADT	Does	PER,CD,CBL,DIS

Unit 4 آڈیٹری سٹیڈی سٹیٹ ریسپانس،اوٹو کوسٹک ایمیشن، کیلوری میٹری /Auditory Steady state Response (ASSR) & Otoacoustic Emission (OAEs) & Calorimetry

6.4.1 Description and Demonstration of BERA آڈیٹری سٹیڈی سٹیٹ ریسپانس کا بیان ومظاہرہ

6.4.2 Description and Demonstration of Otoacoustic Emission (OAE) اوٹو کوسٹک ایمیشن کا بیان ومظاہر

References: 9,10,11,23,53,68,81

3A	3B	3C	3D	3E	3F	3G
CO2,CO3	Describe the Auditory Steady-state Response (ASSR)	1	Lecture	CAP	Knows-how	CBL,L&PPT ,L_VC,L
CO2,CO3	Describe the Otoacoustic Emission (OAEs) and Calorimetry	1	Lecture	CAP	Knows-how	L&PPT ,L,L_VC
CO2,CO3	Demonstrate the correct method of Auditory Steady-state Response (ASSR)	2	Practical6.7	CC	Shows-how	SIM,D,FV
CO2,CO3	Demonstrate the Otoacoustic Emission (OAEs) and Calorimetry test.	2	Practical6.8	AFT-RES	Shows-how	CD,SIM,CBL,D
CO2,CO3	Perform an Auditory Steady State Response (ASSR) test procedure	2	Experiential-Learning6.9	PSY-GUD	Does	CBL,DIS,CD
CO2,CO3	Perform an Otoacoustic Emission (OAE) test procedure	2	Experiential-Learning6.10	PSY-ADT	Does	PER,DIS,CD,CBL
CO2,CO3	Perform the Calorimetry test	2	Experiential-Learning6.11	PSY-ADT	Does	DIS,PER,CBL,CD

Unit 5 الیکٹرونیسٹیگمو گرافی/Electronystagmography (ENG)

6.5.1 Description of Electronystagmography (ENG) الیکٹرونیسٹیگمو گرافی کا بیان

6.5.2 Electronystagmography (ENG) procedure الیکٹرونیسٹیگمو گرافی کا مظاہرہ

References: 10,11,23,53,68,85

3A	3B	3C	3D	3E	3F	3G
CO2,CO3	Describe the Electronystagmography	1	Lecture	CAP	Knows-how	L&PPT ,L
CO2,CO3	Describe the Videonystagmography	1	Lecture	CAP	Knows-how	FC,CD
CO2,CO3	Demonstrate the Electronystagmography (ENG)	2	Practical6.9	CC	Shows-how	DIS,D,FV
CO2,CO3	Demonstrate the Videonystagmography (VNG) test and Speech analyser	2	Practical6.10	CC	Shows-how	SIM,D,DIS
CO2,CO3	Perform an Electronystagmography (ENG) test	2	Experiential-Learning6.12	PSY-ADT	Does	CBL,CD
CO2,CO3	Perform a Videonystagmography (VNG) test	2	Experiential-Learning6.13	PSY-GUD	Does	CBL
Practical Training Activity						
Practical Training 6.1 Pure tone audiometry with and without masking						
Total Activity time (2 hours) Activity 1 (1 hour) Demonstration						

Demonstration by the teacher in the audiometry room of the hospital or any other off-the-campus audiology center. The teacher shall show the audiometer with its parts and demonstrate the Pure tone audiometry with and without masking procedure on the patient or the simulator. Activity 2 (1 hour) Case-based Learning, Case Diagnosis, Discussion Divide students into small groups. students will study before the practical instructions/precautions related to pure tone audiometry. An Audiometer should be provided to the students and a patient or simulated patient for hands-on practice. Encourage students to discuss their approaches and findings within their groups. Each student will record at least 5 cases of pure tone audiometry with and without masking. Facilitate the discussion on the diagnosis of hearing loss and identification of the type of hearing loss. The teacher shall summarize the key concepts covered in the session. Logbook Entry will be mandatory for every student, along with the practical/experiential learning activities.
Practical Training 6.2 Speech audiometry demonstration
Total Activity time (2 hours) Activity 1 (1 hour) Demonstration Demonstration by the teacher at the audiometry room of the hospital or any other off-the-campus audiology center. The teacher shall demonstrate the speech audiometry procedure on the patient or the simulator. Activity 2 (1 hour) Case Diagnosis, Discussion Divide students into small groups, Students will study before the practical instructions/precautions related to speech audiometry. The students should be provided an Audiometer and a patient or simulated patient for hands-on practice. Encourage students to discuss their approaches and findings within their groups. Each student will record at least 3 cases of speech audiometry. Logbook Entry will be mandatory for every student, along with the practical/experiential learning activities
Practical Training 6.3 Demonstration of the Impedance Audiometer

Total Activity time (2 hours)

Activity 1 (1 hour)

Demonstration

Demonstration by the teacher in the audiology room of the hospital or any other off-the-campus audiology center. The teacher shall give a demonstration of the Tympanometer.

Activity 2 (1 hour)

Presentation

The students should be provided a Tympanometer. Divide students into small groups, students will observe the Tympanometer and its parts. Encourage students to discuss the Tympanometer within their groups. Each student will present the Tympanometer demonstration in the class. The teacher shall summarize the key concepts covered in the session. Logbook Entry will be mandatory for every student, along with the practical/experiential learning activities

Practical Training 6.4 Tympanometry test

Total Activity time (2 hours)

Activity 1 (1 hour)

Demonstration

Demonstration by the teacher in the audiology room of the hospital or any other off-the-campus audiology center. The teacher shall demonstrate the Tympanometry procedure on the patient or the simulator.

Activity 2 (1 hour)

Kinaesthetic Learning, Hands-on training, Case Diagnosis, Discussion

Divide students into small groups, students will study before the practical instructions/precautions related to Tympanometry. The students should be provided a Tympanometer and a patient or simulated patient for hands-on practice. Encourage students to discuss their approaches and findings within their groups. Each student will record at least 5 cases of Tympanometry. Facilitate the discussion on the diagnosis and interpretation of the report. The teacher shall summarize the key concepts covered in the session. Logbook Entry will be mandatory for every student, along with the practical/experiential learning activities

Practical Training 6.5 Demonstration of Electrocochleography
Total Activity time (2 hours) Activity 1 (1 hour) Demonstration Demonstration by the teacher at the audiology room of the hospital or any other off-the-campus audiology center. The teacher shall show the Electrocochleography machine with its parts and demonstrate the Electrocochleography procedure on the patient or the simulator. Activity 2 (1 hour) Problem-based Learning, simulation, Discussion Divide students into small groups. Students will study before the practical instructions/precautions related to Electrocochleography.An Electrocochleography machine should be provided to the students and a patient or simulated patient for hands-on practice. Encourage students to discuss their approaches and findings within their groups. Each student will record the observations in the practical record book. Facilitate the discussion on the procedure of Electrocochleography. The teacher shall summarize the key concepts covered in the session. Logbook Entry will be mandatory for every student, along with the practical/experiential learning activities.
Practical Training 6.6 Demonstration of BERA
Total Activity time (2 hours) Activity 1 (1 hour) Demonstration Demonstration by the teacher at the audiology room of the hospital or any other off-the-campus audiology center. The teacher shall show the Brain evoked response audiometry (BERA) machine with its parts and demonstrate the BERA procedure on the patient or the simulator. Activity 2 (1 hour) Case-based Learning

Divide students into small groups, students will study before the practical instructions/precautions related to Brain-evoked response audiometry (BERA). The students should be provided a Brain evoked response audiometry (BERA) machine and a patient or simulated patient for hands-on practice. or Case Diagnosis, Discussion Encourage students to discuss their approaches and findings within their groups. Each student will record the observations in the practical record book. Facilitate the discussion on the procedure of BERA. The teacher shall summarize the key concepts covered in the session. Logbook Entry will be mandatory for every student, along with the practical/experiential learning activities
Practical Training 6.7 Demonstration of ASSR
Total Activity time (2 hours) Activity 1 (1 hour) Demonstration, Field Visit Demonstration by the teacher at the audiology room of the hospital or any other off-the-campus audiology center. The teacher shall show the Auditory Steady-state Response (ASSR) test and Speech analyzer machine with its parts and shall give a demonstration of the ASSR procedure on the patient or the simulated patient. Activity 2 (1 hour) Discussion, Kinaesthetic Learning, Simulation The teacher will divide students into small groups. Students will study before the practical instructions/precautions related to the Auditory Steady-State Response (ASSR) test. The students should be provided a Videonystagmography (VNG) machine and a patient or simulated patient for hands-on practice. Encourage students to discuss their approaches and findings within their groups. Each student will record the observations in the practical record book. Facilitate the discussion on the procedure of the Auditory Steady-State Response (ASSR) test. The teacher shall summarize the key concepts covered in the session. Logbook Entry will be mandatory for every student, along with the practical/experiential learning activities
Practical Training 6.8 Demonstration of OAE and Calorimetry test

Total Activity time (2 hours) Activity 1 (1 hour) Demonstration, Field Visit Demonstration by the teacher at the audiology room of the hospital or any other off-the-campus audiology center. The teacher shall show the OAE and Calorimetry test and Speech analyzer machine with its parts and shall give a demonstration of the OAE and Calorimetry test procedure on the patient or the simulated patient. Activity 2 (1 hour) Kinaesthetic Learning, Discussion, Simulation The teacher will divide students into small groups. Students will study before the practical instructions/precautions related to the OAE test. The students should be provided an OAE machine and a patient or simulated patient for hands-on practice. Encourage students to discuss their approaches and findings within their groups. Each student will record the observations in the practical record book. Facilitate the discussion on the procedure of the OAE and Calorimetry test. The teacher shall summarize the key concepts covered in the session. Logbook Entry will be mandatory for every student, along with the practical/experiential learning activities.
Practical Training 6.9 Demonstration of ENG
Total Activity time (2 hours) Activity 1 (1 hour) Demonstration, Field Visit Demonstration by the teacher at the audiology room of the hospital or any other off-the-campus audiology center. The teacher shall show the Electronystagmography (ENG) test and Speech analyzer machine with its parts and shall give a demonstration of the ENG procedure on the patient or on the simulator. Activity 2 (1 hour) Discussion, Kinaesthetic Learning

Teacher Divide students into small groups, students will study before the practical instructions/precautions related to the Electronystagmography (ENG) test. The students should be provided an Electronystagmography (ENG) machine and a patient or simulated patient for hands-on practice. Encourage students to discuss their approaches and findings within their groups. Each student will record the observations in the practical record book. Facilitate the discussion on the procedure of the Electronystagmography (ENG) test and Speech analyzer. The teacher shall summarize the key concepts covered in the session. Logbook Entry will be mandatory for every student, along with the practical/experiential learning activities.
Practical Training 6.10 Demonstration of VNG
Total Activity time (2 hours) Activity 1 (1 hour) Demonstration Demonstration by the teacher at the audiology room of the hospital or any other off-the-campus audiology center. The teacher shall show the Videonystagmography (VNG) test and Speech analyzer machine with its parts and shall give a demonstration of the VNG procedure on the patient or the simulator. Activity 2 (1 hour) Discussion, Simulation, Kinaesthetic Learning The teacher shall Divide students into small groups. Students will study before the practical instructions/precautions related to the Videonystagmography (VNG) test. The students should be provided a Videonystagmography (VNG) machine and a patient or simulated patient for hands-on practice. Encourage students to discuss their approaches and findings within their groups. Each student will record the observations in the practical record book. Facilitate the discussion on the procedure of the Videonystagmography (VNG) test and Speech analyzer. The teacher shall summarize the key concepts covered in the session Logbook Entry will be mandatory for every student, along with the practical/experiential learning activities.
Experiential Learning Activity
Experiential-Learning Learning 6.1: Identification of audiometer

Total Activity time (2 hours) Activity 1 (1 hour) Kinaesthetic Learning, Presentation Students will observe the audiometer in detail and its parts and functioning. Students will keep records of at least 5 cases of audiometry. Activity 2 (1 hour) Presentation Explain the audiometer and audiometry test as a PowerPoint presentation/Model presentation/simulation in the class. Logbook Entry will be mandatory for every student, along with the practical/experiential learning activities.
Experiential-Learning Learning 6.2: Audiometry Test
Total Activity time (2 hours) Activity 1 (1 hour) Case-based Learning, Kinaesthetic Learning The teacher will mentor/allot the patient for the PTA test. The student will explain the procedure and instructions to the patient. Perform the Pure tone audiometry and record 5 cases of PTA. Activity 2 (1 hour) Presentation Discuss the test findings and report within the group. Each student will do a case presentation of recorded cases in the class. Logbook Entry will be mandatory for every student, along with the practical/experiential learning activities.
Experiential-Learning Learning 6.3: Speech audiometry Test
Total Activity time (2 hours) Activity 1 (1 hour)

Case-based Learning Students will explain the procedure and instructions to the patient. Perform the speech audiometry test and record 3 cases. Activity 2 (1 hour) Case Diagnosis Students will discuss the test findings and report within the group. Based on the findings, students will make a diagnosis. Each student will present a case study of recorded cases in class. Logbook Entry will be mandatory for every student, along with the practical/experiential learning activities.
Experiential-Learning Learning 6.4: Impedance audiometer identification
Total Activity time (2 hours) Activity 1 (1 hour) Brain Storming, Kinaesthetic Learning Students will be provided with a Tympanometry machine. Students will observe the Tympanometer and its parts and functioning. Activity 2 (1 hour) Presentation Students will explain in detail about the Tympanometer, and the process of the Tympanometry test as a PowerPoint presentation/Model presentation/simulation in the class. Logbook Entry will be mandatory for every student, along with the practical/experiential learning activities.
Experiential-Learning Learning 6.5: Tympanometry test
Total Activity time (2 hours) Activity 1 (1 hour) Case-based Learning The teacher will mentor/allot a patient for the tympanometry test. The student will explain the procedure and instructions to the patient. Perform the Tympanometry test and record 3 cases.

Activity 2 (1 hour) Case Diagnosis, Discussion Students will discuss the test findings and report to make a diagnosis and will discuss the findings within the class. Each student will discuss the recorded cases in the class. Logbook Entry will be mandatory for every student, along with the practical/experiential learning activities
Experiential-Learning Learning 6.6: Identification of Electrocochleography machine
Total Activity time (2 hours) Activity 1 (1 hour) Case-based Learning Divide students into multiple groups. Provide an Electrocochleography machine. Guide the students about the parts of the Electrocochleography machine and its uses. Activity 2 (1 hour) Case Diagnosis, Presentation Students will observe in detail the Electrocochleography machine and its parts and functioning. Explain in detail about the Electrocochleography machine process of Electrocochleography as power point presentation/Model presentation/simulation. Logbook Entry will be mandatory for every student, along with the practical/experiential learning activities.
Experiential-Learning Learning 6.7: Electrocochleography test
Total Activity time (2 hours) Activity 1 (1 hour) Case-based Learning, Simulation The teacher will mentor/allot the patient for the Ecog test. Students will explain the procedure and instructions to the patient. In case of unavailability of the patient student can experience the procedure on the simulated patient. Perform the Electrocochleography test and record the findings.

Activity 2 (1 hour) Case Diagnosis, Presentation Students will discuss the test findings and report within the class. Based on the findings, Students will make a diagnosis. Each student will present a case study of recorded cases in class. Logbook Entry will be mandatory for every student, along with the practical/experiential learning activities.
Experiential-Learning Learning 6.8: Brain-evoked response audiometry test
Total Activity time (2 hours) Activity 1 (1 hour) Case-based Learning The teacher will mentor/allot a patient for the BERA test. Students will explain the procedure and instructions to the guardian of the patient. Perform the Brain evoked response audiometry (BERA) test and record 3 cases. Activity 1 (1 hour) Case Diagnosis, Presentation, Discussion Students will discuss the test findings and report within the class. Based on the findings, students will make a diagnosis. Each student will present the recorded cases in class. Logbook Entry will be mandatory for every student, along with the practical/experiential learning activities.
Experiential-Learning Learning 6.9: Auditory steady-state Response test
Total Activity time (2 hours) Activity 1 (1 hour) Case-based Learning The teacher will mentor/allot the patient for the ASSR test. Students will explain the procedure and instructions to the guardian of the patient. Perform the Auditory Steady State Response (ASSR) test and record 3 cases. Activity 2 (1 hour)

Case Diagnosis, Discussion Students will discuss the test findings and report within the class. Students will make a diagnosis based on the findings. Each student will keep a record of at least one case of the ASSR test. Logbook Entry will be mandatory for every student, along with the practical/experiential learning activities.
Experiential-Learning Learning 6.10: Perform an Otoacoustic Emission test
Total Activity time (2 hours) Activity 1 (1 hour) Case-based Learning The teacher will mentor/allot a patient for the OAE test. Students will explain the procedure and instructions to the guardian of the patient. Perform the Otoacoustic Emission and record 3 cases. Activity 2 (1 hour) Case Diagnosis, Discussion, Presentation Students will discuss the test findings and report within the class. Students will make a diagnosis based on the findings. Each student will do a case presentation of recorded cases in the class. Logbook Entry will be mandatory for every student, along with the practical/experiential learning activities.
Experiential-Learning Learning 6.11: Calorimetry test
Total Activity time (2 hours) Activity 1 (1 hour) Case-based Learning The teacher will mentor/allot the patient for a calorimetric test. The student will explain the procedure and instructions to the patient. Perform the Calorimetry test and record 3 cases. Activity 2 (1 hour) Case Diagnosis, Discussion, Presentation

Students will discuss the test findings and report within the group. Students will make a provisional diagnosis on the basis of findings. Each student will do a case presentation of recorded cases in the class. Logbook Entry will be mandatory for every student, along with the practical/experiential learning activities.
Experiential-Learning Learning 6.12: Perform an Electronystagmography test
Total Activity time (2 hours) Activity 1 (1 hour) Kinaesthetic Learning The student will explain the procedure and instructions to the patient. Perform the Electronystagmography test and record 3 cases. Activity 2 (1 hour) Case-based Learning, Case Diagnosis The student will be given a case of vertigo. Students will explain the procedure and instructions to the patient. Perform the Electronystagmography test and make the diagnosis. or Presentation Students will do a Presentation on the Electronystagmography test in the class. Logbook Entry will be mandatory for every student, along with the practical/experiential learning activities.
Experiential-Learning Learning 6.13: Perform a Videonystagmography test
Total Activity time (2 hours) Activity 1 (1 hour) Kinaesthetic Learning The student will explain the procedure and instructions to the patient. Perform the Videonystagmography test and record 3 cases. Activity 2 (1 hour)

Case-based Learning

The student will be given a case of vertigo. Students will explain the procedure and instructions to the patient. Perform the Videonystagmography test and make the diagnosis. Logbook Entry will be mandatory for every student, along with the practical/experiential learning activities.

Modular Assessment

Assessment	Hour
Instructions: Conduct a structured modular assessment. The assessment will be 50 marks for this module. Keep a record of the structured pattern used for the assessment. Calculate the Modular grade point as per Table 6 C. OSCE (Objective Structured Clinical Examination) (50 Marks) Or Case-based evaluation (50 Marks) • History Taking and Patient Interaction (10 Marks) • Physical Examination Skills (20 Marks) • Diagnosis and Clinical Reasoning (10 Marks) • Communication Skills (5 Marks) • Time Management and Efficiency (5 Marks) Or Any practical in converted form can be taken for assessment. (25 Marks) and Any experiential, such as portfolios/ reflection/ presentations can be taken as an assessment. (25 Marks)	4

Semester No : 6

Module 7 : Ṭibb-i-shū'āi aur dīgar-al tiqniyyah-al-tashkhīṣi Tarīqa kār (Radiology and Other Diagnostic techniques) طب شعاعی اور دیگر تشخیصی طریقہ کار

Module Learning Objectives

(At the end of the module, the students should be able to)

1. Describe Radiological techniques and other advanced diagnostic techniques
2. Conduct The appropriate method of Radiology and Other advanced diagnostic techniques
3. Identify and interpret the types of radiological tests and other advanced diagnostic techniques.

Unit 1 مختلف مناظر میں جیوب الانف کا ایکس رے۔الخشاء کا ایکس رے۔غدہ انفی حلقی کا ایکسرے۔زایدہ ابریہ۔کتلہ الرقبہ کے لئے مناظر جانبی میں راس کا ایکس رے Mūkhtalif manāẓir me Jūyūb-al- Anf ka X-ray; Al-Khashā ka X-ray; Allahmiya ka X-ray, Zā'ida Ibriyya aur Kūtlā –al- raqaba ke liye manāẓīr jāabīm me rās ka X-ray. (X-Ray PNS in different views; X-ray Mastoid;X-rays of neck in lateral view for adenoids, styloid process and Neck masses)

7.1.1 X-ray PNS water's view, Caldwell view, Lateral view

7.1.2 X-ray Mastoid

7.1.3 X-ray Soft tissue neck lateral view for adenoids, neck mass, and styloid process

References: 9,10,11,23,53,67,68,81

3A	3B	3C	3D	3E	3F	3G
CO1,CO3	Describe the X-rays Nose Water's view, Caldwell's view, Lateral view	1	Lecture	CAP	Knows-how	L,L&PPT
CO1,CO3	Describe the X-ray Mastoid, X-ray Soft tissue neck lateral view for adenoids, neck mass, and styloid process	2	Lecture	CAP	Knows-how	L,L&PPT
CO1,CO3	Demonstrate the correct method and appropriate X-rays Nose Water's view, Caldwell's view, Lateral view	2	Practical7.1	CC	Shows-how	CBL,D,DIS,X-Ray
CO1,CO3	Demonstrate the correct method of X-ray Mastoid, Soft tissue neck lateral view for adenoids, neck mass, and styloid process	3	Practical7.2	CC	Shows-how	DIS,X-Ray,D,CBL

CO1,CO3	Perform and interpret the different views of X-ray Nose	2	Experiential-Learning7.1	CC	Does	CBL,DIS,CD,SIM,X-Ray
CO1,CO3	Perform and interpret the different views of X-ray neck mass and for adenoids	2	Experiential-Learning7.2	PSY-ADT	Does	X-Ray,SIM,DIS,CBL
CO1,CO3	Perform and interpret the X-ray Styloid process and Mastoid.	2	Experiential-Learning7.3	PSY-MEC	Does	SIM,X-Ray,DIS,CBL

Unit 2 راس، رقبہ، امراض اذن، انف اور حلق کا سی ٹی سکین اور پیٹ سکین/Rās, raqaba aur Amrāḍ-i-Uzn, Anf wa Ḥalq ka CT scan aur PET scan (CT scan of ENT, head & neck and PET scan)

7.2.1 Contrast-enhanced and Non-Contrast CT scan of the nose and Paranasal Sinuses in axial and coronal cuts X-ray mastoid

7.2.2 Computerised tomography(CT) scan of the Mastoid, CT scan of the throat, CT scan of the Larynx, Non-contrast, and contrast-enhanced CT scan of the head

7.2.3 Positron emission tomography (PET) Scan

References: 9,10,11,23,53,67,68,81

3A	3B	3C	3D	3E	3F	3G
CO1,CO3	Describe the Contrast-enhanced and Non-Contrast CT scan of the nose and Paranasal Sinuses in axial and coronal cuts.	1	Lecture	CAP	Knows-how	L&PPT ,L
CO1,CO3	Interpret CT scan Mastoid, CT scan throat, CT scan Larynx, Non-contrast and contrast-enhanced CT scan head. PET Scan	1	Lecture	CAP	Knows-how	L,L&PPT
CO1,CO3	Demonstrate the correct method and appropriate view for the CT scan Nose, Para nasal sinuses, and Mastoid bone	2	Practical7.3	CC	Shows-how	DIS,CBL,D
CO1,CO3	Demonstrate the CT Scan throat, larynx, head, and PET scan.	2	Practical7.4	CC	Shows-how	D,CBL

CO1,CO3	Perform and interpret the Contrast-enhanced and Non-Contrast CT scan of the nose and Paranasal Sinuses in axial and coronal cuts	2	Experiential-Learning7.4	PSY-ADT	Does	CBL,DIS,SIM,X-Ray
CO1,CO3	Perform and interpret the CT scan of the Mastoid, CT scan throat, CT scan Larynx, Non-contrast and contrast-enhanced CT scan head	2	Experiential-Learning7.5	PSY-ADT	Does	SIM,DIS,CBL,X-Ray
CO1,CO3	Interpret the PET Scan	2	Experiential-Learning7.6	PSY-ADT	Does	CD,DIS,CBL

Unit 3 انف اور جیوب الانف کا ایم آر آئی۔ حنجرہ اور حلق کا ایم آر آئی مختلف مناظر میں راس کا ایم آر آئی۔ Anf aur Jūyūb-al- Anf ka MRI; Ḥanjara aur Ḥalq ka MRI; Mūkhtalif manāẓir me rās ka MRI (MRI of Nose and Paranasal sinuses; MRI of Throat and Larynx; MRI of Head in different views)

7.3.1 Magnetic resonance imaging (MRI) Nose and Paranasal sinuses.

7.3.2 MRI Throat and Larynx.

7.3.3 MRI Head.

References: 9,10,11,23,53,67,68,81

3A	3B	3C	3D	3E	3F	3G
CO1,CO3	Describe the MRI Nose and Paranasal sinuses, MRI Throat, and Larynx	1	Lecture	CAP	Knows-how	L&PPT ,L
CO1,CO3	Describe the MRI Head Different view	1	Lecture	CAP	Knows-how	L&PPT ,L
CO1,CO3	Demonstrate the MRI Nose and Paranasal sinuses, MRI Throat, and Larynx	2	Practical7.5	CC	Shows-how	D,CBL

CO1,CO3	Demonstrate the MRI Head Axial, Coronal, and Sagittal planes.	2	Practical7.6	CC	Shows-how	CBL,D
CO3	Interpret the MRI Nose and Paranasal sinuses	2	Experiential-Learning7.7	PSY-ADT	Does	D,CBL
CO3	Interpret the MRI Throat and Larynx.	2	Experiential-Learning7.8	PSY-ADT	Does	SIM,DIS,CBL,PER
CO1,CO3	Interpret the MRI Head Axial, Coronal, and Sagittal planes.	2	Experiential-Learning7.9	PSY-GUD	Does	CBL,DIS,SIM

Unit 4 امراض اذن، انف و حلق سے متعلق علم الخلیات، علم الدم، بیلوجیہ الجزیہ اور علم المناعت Amrāḍ-i-Uzn, Anf wa Ḥalq se mutalliq ‘Ilm-al-khalyāt, ‘Ilm-al-dam, biologiyyah-al-Juziyyā, ‘Ilm-al-manā‘at (Cytology, hematology, molecular biology and immunology related to Otorhinolaryngology)

7.4.1 Cytological tests in ENT diseases.

7.4.2 Hematological tests in ENT diseases.

7.4.3 Molecular biological and immunological tests related to ENT diseases.

References: 9,10,11,23,53,68,73,74,81

3A	3B	3C	3D	3E	3F	3G
CO1,CO3	Describe the Cytology related to Amrāḍ-i-Udhun, Anf-o-Ḥalq	1	Lecture	CAP	Knows-how	L&PPT ,L
CO1,CO3	Describe the hematology and molecular biology related to Amrāḍ-i-Udhun, Anf-o-Ḥalq	1	Lecture	CK	Knows-how	L&PPT ,L

CO1,CO3	Describe the immunological studies related to Amrāḍ-i-Udhun, Anf-o-Ḥalq	1	Lecture	CK	Knows-how	L&PPT ,L
CO1,CO3	Demonstrate the correct method of Fine Needle Aspiration Cytology (FNAC) and Complete blood counts (CBC).	2	Practical7.7	AFT-RES	Shows-how	D,CBL,SIM
CO1,CO3	Demonstrate the process of Nucleic acid amplification tests (NAAT) test	1	Practical7.8	CC	Shows-how	RP,DIS,SIM,CBL
CO1,CO3	Demonstrate the complete process of Polymerase chain reaction (PCR) test	1	Practical7.9	AFT-RES	Shows-how	RP,SIM,CBL
CO1,CO3	Demonstrate the process of Enzyme-Linked Immunosorbent Assay (ELISA), and C-reactive protein (CRP)	2	Practical7.10	CC	Shows-how	D,CBL
CO1,CO3	Demonstrate the Immunoglobulins (Ig) G, M, IgA, and antinuclear antibody (ANA)	1	Practical7.11	CC	Shows-how	CBL,DIS,D
CO1,CO3	Identify and interpret the Fine needle aspiration cytology (FNAC) and complete blood count (CBC).	2	Experiential-Learning7.10	PSY-ADT	Does	CBL,DIS,SIM
CO1,CO3	Perform Nucleic acid amplification tests (NAAT) and Polymerase chain reaction (PCR)	2	Experiential-Learning7.11	PSY-ADT	Does	PBL,PER,SIM,CBL,LRI
CO1,CO3	Perform Enzyme-Linked Immunosorbent Assay (ELISA) & C-reactive protein (CRP)	2	Experiential-Learning7.12	PSY-ADT	Does	SIM,X-Ray,CBL

CO1,CO3	Perform Immunoglobulins (Ig) G, M, IgA, and antinuclear antibody (ANA)	2	Experiential-Learning7.13	PSY-ADT	Does	CBL,PER,SIM,DIS

Practical Training Activity

Practical Training 7.1 X-rays Nose Water's view, Caldwell's view, Lateral view

Total Activity time (2 hours)

Activity 1 (1 hour)

Demonstration

Demonstration by the teacher at the Radiography room of the hospital. The teacher shall show the X-rays Nose Water's view, Caldwell view, and Lateral view and demonstrate the X-rays Nose Water's view, Caldwell view, and Lateral view procedure on the patient or on the simulator or the model.

Activity 2 (1 hour)

Case-based Learning

Divide students into small groups, students will take all necessary precautions before the procedure and during the procedure in the Radiography room at the hospital. The students should be provided an X-ray machine and radiography room and a patient or simulated patient for hands-on practice.

or

X-ray identification, Discussion

Instruct each group to observe the X-ray nose in different views and record the findings in the practical record book. Encourage students to discuss their approaches and findings within their groups. Invite each group to present their findings and interpretations. Facilitate the discussion on the diagnosis of Nasal diseases through X-ray findings. The teacher shall summarize the key concepts covered in the session. Logbook Entry will be mandatory for every student, along with the practical/experiential learning activities.

Practical Training 7.2 X-ray Mastoid, Soft tissue neck lateral view for adenoids, neck mass, and styloid process

Total Activity time (3 hours)

Activity 1 (1 hour)

Demonstration

Demonstration by the teacher at the Radiography room of the hospital. The Teacher shall show the X-ray mastoid, X-ray soft tissue neck lateral view for adenoids, neck mass, and styloid process and shall give a demonstration of the X-ray mastoid, X-ray soft tissue neck lateral view for adenoids, neck mass, and styloid process procedure on the patient or the simulator.

Activity 2 (2 hours)

Case-based Learning, Discussion

Divide students into small groups. Students will take all necessary precautions before the procedure and during the procedure in the Radiography room at the hospital. The students should be provided an X-ray machine and radiography room and a patient or simulated patient for hands-on practice. Instruct each group to observe the X-ray neck, mastoid, and styloid process and record the findings in the practical record book. Encourage students to discuss their approaches and findings within their groups. Invite each group to present their findings and interpretations. Facilitate the discussion on the diagnosis. The teacher shall summarize the key concepts covered in the session. Logbook Entry will be mandatory for every student, along with the practical/experiential learning activities.

Practical Training 7.3 CT scan Nose, Para nasal sinuses, and Mastoid bone

Total Activity time (2 hours)

Activity 1 (1 hour)

Case-based Learning, Discussion

The teacher will divide students into small groups.

Students will take all necessary precautions before the procedure and during the procedure in the CT Scan room. The students should visit the CT Scan center or radiography room for hands-on practice. The teacher will instruct each group to observe the CT scan Nose, Para nasal sinuses, and Mastoid bone and record the findings in the practical record book. The teacher will encourage students to discuss their approaches and findings within their groups. Invite each group to present their findings and interpretations.

The teacher will facilitate the discussion on the diagnosis.

Activity 2 (1 hour) Demonstration The teacher will demonstrate the procedure of CT Scan Nose, Paranasal sinuses, and Mastoid Bone in the Radiography room of the hospital or any other off-campus CT Scan center. The teacher shall show the CT scan Nose, Para nasal sinuses, and Mastoid bone and demonstrate the CT scan Nose, Para nasal sinuses, and Mastoid bone procedure on the patient or the simulator. The students will observe and record the activity in a record book/Logbook. Logbook Entry will be mandatory for every student, along with the practical/experiential learning activities.
Practical Training 7.4 CT Scan throat, larynx, head, and PET scan
Total Activity time (2 hours) Activity 1 (1 hour) Case-based Learning, Discussion The teacher will divide students into small groups. Students will take all necessary precautions before the procedure and during the procedure in the CT Scan room. The students should visit the CT Scan center or radiography room for hands-on practice. The teacher will instruct each group to observe the CT Scan throat, larynx, head, and PET scan, and record the findings in the practical record book. The teacher will encourage students to discuss their approaches and findings within their groups. Invite each group to present their findings and interpretations. The teacher will facilitate the discussion on the diagnosis. Activity 2 (1 hour) Demonstration The teacher will demonstrate the procedure of a CT Scan throat, larynx, and head, and a PET scan in the Radiography room of the hospital or any other off-campus CT Scan center. The teacher shall show the CT Scan throat, larynx, head, and PET scan and demonstrate the CT Scan throat, larynx, head, and PET scan procedure on the patient or the simulator. The students will observe and record the activity in a record book/Logbook. Logbook Entry will be mandatory for every student, along with the practical/experiential learning activities.
Practical Training 7.5 MRI Nose and Paranasal sinuses, MRI Throat, and Larynx

Total Activity time (2 hours)

Activity 1 (1 hour)

Case-based Learning, Discussion

The teacher will divide students into small groups. Students will take all necessary precautions during the procedure in the MRI Scan room. The students should visit the MRI Scan center or radiography room for hands-on practice. The teacher will instruct each group to observe the MRI Nose and Paranasal sinuses, MRI Throat, and Larynx, and record the findings in the practical record book. The teacher will encourage students to discuss their approaches and findings within their groups. Invite each group to present their findings and interpretations. The teacher will facilitate the discussion on the diagnosis.

Activity 2 (1 hour)

Demonstration

The teacher will demonstrate the procedure of an MRI Nose, Paranasal sinuses, MRI Throat, and Larynx in the Radiography room of the hospital or any other off-campus MRI Scan center. The teacher shall show the MRI Nose, Paranasal sinuses, MRI Throat, and Larynx and demonstrate the MRI Nose, Paranasal sinuses, MRI Throat, and Larynx procedure on the patient or the simulator. The students will observe and record the activity in a record book/Logbook. Logbook Entry will be mandatory for every student, along with the practical/experiential learning activities.

Practical Training 7.6 MRI Head Axial, Coronal, and Sagittal planes

Total Activity time (2 hours)

Activity 1 (1 hour)

Case-based Learning, Discussion

The teacher will divide students into small groups. Students will take all necessary precautions during the procedure in the MRI Scan room. The students should visit the MRI Scan center or radiography room for hands-on practice. The teacher will instruct each group to observe the MRI Head, and record the findings in the practical record book. The teacher will encourage students to discuss their approaches and findings within their groups. Invite each group to present their findings and interpretations. The teacher will facilitate the discussion on the diagnosis.

Activity 2 (1 hour)

Demonstration

The teacher will demonstrate the procedure of an MRI Head in the Radiography room of the hospital or any other off-campus MRI Scan center. The teacher will demonstrate the MRI Head and procedure on the patient or the simulator. The students will observe and record the activity in a record book/Logbook. Logbook Entry will be mandatory for every student, along with the practical/experiential learning activities.

Practical Training 7.7 FNAC and CBC

Total Activity time (2 hours)

Activity 1 (1 hour)

Demonstration

Demonstration by the teacher at the Pathological laboratory of the hospital. The teacher will show the instruments required for the FNAC test and CBC test. The teacher will give a demonstration of sample collection and cytological study of the FNAC test on the patient or the simulator. The teacher will give a demonstration of sample collection and cell counting for the CBC test.

Activity 2 (1 hour)

Case-based Learning

Divide students into small groups, students will take all necessary precautions before procedure and during the procedure in the Pathological laboratory. Each group will take a sample for the CBC test and the other group will take a sample for the FNAC test and vice-versa. Instruct each group to observe the cytological study, and cell counting, and record the findings in the practical record book. Encourage students to discuss their approaches and findings within their groups. Invite each group to present their findings and interpretations. Facilitate the discussion on the diagnosis. The teacher shall summarize the key concepts covered in the session. Logbook Entry will be mandatory for every student, along with the practical/experiential learning activities.

Practical Training 7.8 Nucleic acid amplification tests

Total Activity time (1 hour)

Activity 1 (1 hour)

Demonstrate Demonstration by the teacher at the Pathological laboratory of the hospital. The teacher shall show the instruments required for the Nucleic acid amplification tests (NAAT) test. The teacher shall give a demonstration of sample collection and cytological study of the FNAC test on the patient or the simulator. The teacher shall give a demonstration of sample collection and cell counting for the CBC test. or Case-based Learning Divide students into small groups, students will take all necessary precautions before the procedure and during the procedure in the Pathological laboratory. Each group will take a sample for the CBC test and the other group will take a sample for the FNAC test and vice-versa. or Discussion Instruct each group to observe the cytological study, and cell counting, and record the findings in the practical record book. Encourage students to discuss their approaches and findings within their groups. Invite each group to present their findings and interpretations. Facilitate the discussion on the diagnosis. The teacher shall summarize the key concepts covered in the session Logbook Entry will be mandatory for every student, along with the practical/experiential learning activities.
Practical Training 7.9 Polymerase chain reaction
Total Activity time (1 hour) Demonstration Demonstration by the teacher at the Pathological laboratory of the hospital or any other off-campus. The teacher shall show the instruments required for the Polymerase chain reaction (PCR) test. The teacher shall give a demonstration of the Polymerase chain reaction (PCR) procedure. or Case-based Learning

Divide students into small groups, students will take all necessary precautions before procedure and during the procedure in the Pathological laboratory. Each group will observe the full procedure of the Polymerase chain reaction test and record the findings in the practical record book. Encourage students to discuss their approaches and findings within their groups. Invite each group to present their findings and interpretations. Facilitate the discussion on the diagnosis. The teacher shall summarize the key concepts covered in the session.
Practical Training 7.10 ELIZA and CRP
Total Activity time (2 hours) Activity 1 (1 hour) Demonstration Demonstration by the teacher at the Pathological laboratory of the hospital or any other off-the-campus pathology laboratory. The teacher shall show the instruments required for the Enzyme-Linked Immunosorbent Assay (ELISA) and C-reactive protein (CRP). The teacher shall demonstrate the Enzyme-Linked Immunosorbent Assay and C-reactive protein procedure. Activity 2 (1 hour) Case-based Learning, Discussion Divide students into small groups, students will take all necessary precautions before the procedure and during the procedure in the Pathological laboratory. Each group will observe the full procedure of Enzyme-Linked Immunosorbent Assay (ELISA) and C-reactive protein (CRP)and record the findings in the practical record book. Encourage students to discuss their approaches and findings within their groups. Invite each group to present their findings and interpretations. Facilitate the discussion on the diagnosis. The teacher shall summarize the key concepts covered in the session. Logbook Entry will be mandatory for every student, along with the practical/experiential learning activities.
Practical Training 7.11 Immunoglobulins and antinuclear antibody
Total Activity time (1 hour) Activity 1 (1 hour)

Demonstration

Demonstration by the teacher at the Pathological laboratory of the hospital or any other of the campus. The teacher shall show the instruments required for the Immunoglobulins (Ig) G, M, IgA, and antinuclear antibody (ANA) test. The teacher shall give a demonstration of Immunoglobulins (Ig) G, M, IgA, and antinuclear antibody (ANA).

or

Case-based Learning, Discussion

Divide students into small groups, students will take all necessary precautions before procedure and during the procedure in the Pathological laboratory. Each group will observe the full procedure of Immunoglobulins (Ig) G, M, IgA, and antinuclear antibody (ANA) and record the findings in the practical record book. Encourage students to discuss their approaches and findings within their groups. Invite each group to present their findings and interpretations. Facilitate the discussion on the diagnosis. The teacher shall summarize the key concepts covered in the session. Logbook Entry will be mandatory for every student, along with the practical/experiential learning activities.

Experiential Learning Activity

Experiential-Learning Learning 7.1: X-ray Nose

Total Activity time (2 hours)

Activity 1 (1 hour)

Case-based Learning, Simulation

The student will explain the procedure and instructions to the patient. Perform the X-ray Nose in required views on the patient or use any role-play or simulation.

Activity 1 (1 hour)

Discussion, X-ray identification

Discuss the findings in X-ray film, and interpret the findings within the group. Each student will do the case presentation of at least 5 recorded cases in the class. Logbook Entry will be mandatory for every student, along with the practical/experiential learning activities

Experiential-Learning Learning 7.2: X-ray neck mass and for adenoids
Total Activity time (2 hours) Activity 1 (1 hour) Case-based Learning, X-ray identification, Simulation The teacher will divide students into small groups. The teacher will arrange the duties of students in the Radiology Unit of the Hospital. Each group will take a patient for the X-ray procedure. Students will follow the instructions and precautions of the Radiology room. The student will explain the procedure and instructions to the patient for X-ray Neck mass or adenoids. Perform X-ray of Neck mass/adenoids in required views on the patient or use any role-play or simulation. Every student will keep a record of cases taken. Activity 2 (1 hour) Discussion The students will discuss the findings in X-ray film, and interpret the findings within the group. Each student will do the case presentation of at least 5 recorded cases in the class. Students will keep a record of cases in record book/Logbook. Logbook Entry will be mandatory for every student, along with the practical/experiential learning activities.
Experiential-Learning Learning 7.3: X-ray Styloid process and Mastoid
Total Activity time (2 hours) Activity 1 (1 hour) Case-based Learning, X-ray identification, Simulation The teacher will divide students into small groups. The teacher will arrange the duties of students in the Radiology Unit of the Hospital. Each group will take a patient for the X-ray procedure. Students will follow the instructions and precautions of the Radiology room. The student will explain the procedure and instructions to the patient for the X-ray Styloid process and Mastoid. Perform X-ray Styloid process and Mastoid in required views on the patient or use any role-play or simulation. Every student will keep a record of cases taken.

Activity 2 (1 hour) Discussion The students will discuss the findings in X-ray film, and interpret the findings within the group. Each student will do the case presentation of at least 5 recorded cases in the class. Students will keep a record of cases in a record book/Logbook. Logbook Entry will be mandatory for every student, along with the practical/experiential learning activities.
Experiential-Learning Learning 7.4: CECT /X-ray and NCCT PNS
Total Activity time (2 hours) Activity 1 (1 hour) Case-based Learning, CT/X-ray identification, Simulation The teacher will divide students into small groups. The teacher will arrange the duties of students in the Radiology Unit of the Hospital. Each group will take a patient for the CECT and NCCT PNS procedure. Students will follow the instructions and precautions of the Radiology room. The students will explain the procedure and instructions to the patient for CECT and NCCT PNS. Perform CECT and NCCT PNS on the patient or use any role-play or simulation. Every student will keep a record of cases taken. Activity 2 (1 hour) Discussion The students will discuss the findings in CECT and NCCT PNS films, and interpret the findings within the group. Each student will do the case presentation of at least 5 recorded cases in the class. Students will keep a record of cases in a record book/Logbook. Logbook Entry will be mandatory for every student, along with the practical/experiential learning activities.
Experiential-Learning Learning 7.5: CT Scan/X-ray of throat, larynx, mastoid, and head
Total Activity time (2 hours) Activity 1 (1 hour)

Case-based Learning, CT/X-ray identification, Simulation

The teacher will divide students into small groups. The teacher will arrange the duties of students in the Radiology Unit of the Hospital. Each group will take a patient for the CT Scan of throat, larynx, mastoid, and head procedure. Students will follow the instructions and precautions of the Radiology room. The students will explain the procedure and instructions to the patient for a CT Scan of the throat, larynx, mastoid, and head. Perform a CT Scan of throat, larynx, mastoid, and head on the patient or use any role-play or simulation. Every student will keep a record of cases taken.

Activity 2 (1 hour)

Discussion

The students will discuss the findings in CT scans of throat, larynx, mastoid, and head films, and interpret the findings within the group. Each student will do the case presentation of at least 5 recorded cases in the class. Students will keep a record of cases in a record book/Logbook. Logbook Entry will be mandatory for every student, along with the practical/experiential learning activities.

Experiential-Learning Learning 7.6: PET Scan

Total Activity time (2 hours)

Activity 1 (1 hour)

Case Diagnosis, Case-based Learning

The teacher will divide students into multiple small groups. The teacher will allot or mentor each group to select a patient for a PET Scan. The teacher will guide them about the method of PET Scan, and give an overview of the precautions for the PET Scan. The student will explain the procedure and instructions to the patient. Perform the PET Scan on the patient or use any role-play or simulation. Students will record the cases in a record book/Logbook.

Activity 2 (1 hour)

Discussion

The teacher will divide students into multiple small groups. The students will discuss the findings of PET Scan, and interpret the findings within the group. Each student will do a case presentation of recorded cases in the class. Logbook Entry will be mandatory for every student, along with the practical/experiential learning activities.

Experiential-Learning Learning 7.7: MRI/X-ray Throat and Larynx.
Total Activity time (2 hours) Activity 1 (1 hour) Case-based Learning, Simulation The student will explain the procedure and instructions to the patient. Perform the MRI Throat and Larynx on the patient or use any role-play or simulation. Activity 2 (1 hour) Discussion, Presentation Discuss the findings in the MRI Throat and Larynx, and interpret the findings within the group. Each student will do a case presentation of recorded cases in the class. Logbook Entry will be mandatory for every student, along with the practical/experiential learning activities.
Experiential-Learning Learning 7.8: MRI/X-ray Nose and Paranasal sinuses
Total Activity time (2 hours) Activity 1 (1 hour) Case-based Learning, MRI/X-ray identification, Simulation The teacher will divide students into small groups. The teacher will arrange the duties of students in the Radiology Unit of the Hospital. Each group will take a patient for the MRI Nose and Paranasal sinuses procedure. Students will follow the instructions and precautions of the Radiology room. The students will explain the procedure and instructions to the patient for an MRI Nose and Paranasal sinuses. Perform an MRI Nose and Paranasal sinuses, and head on the patient or use any role-play or simulation. Every student will keep a record of cases taken. Activity 2 (1 hour) Discussion The students will discuss the findings in MRI Nose and Paranasal sinuses films, and interpret the findings within the group. Each student will do the case presentation of at least 5 recorded cases in the class. Students will keep a record of cases in a record book/Logbook. Logbook Entry will be mandatory for every student, along with the practical/experiential learning activities.

Experiential-Learning Learning 7.9: MRI/X-ray Head
Total Activity time (2 hours) Activity 1 (1 hour) Case-based Learning, MRI/X-ray identification, Simulation The teacher will divide students into small groups. The teacher will arrange the duties of students in the Radiology Unit of the Hospital. Each group will take a patient for the MRI Head procedure. Students will follow the instructions and precautions of the Radiology room. The students will explain the procedure and instructions to the patient for an MRI Head. Perform an MRI Head on the patient or use any role-play or simulation. Every student will keep a record of cases taken. Activity 2 (1 hour) Discussion The students will discuss the findings in MRI Head films, and interpret the findings within the group. Each student will do the case presentation of at least 5 recorded cases in the class. Students will keep a record of cases in a record book/Logbook. Logbook Entry will be mandatory for every student, along with the practical/experiential learning activities.
Experiential-Learning Learning 7.10: FNAC and CBC
Total Activity time (2 hours) Activity 1 (1 hour) Case-based Learning, Lab report identification, Simulation The teacher will divide students into small groups. The teacher will arrange the duties of students in the Pathological Laboratory of the Hospital. Each group will take a patient for the sample collection and the procedure of FNAC and CBC. Students will follow the instructions and precautions of the Laboratory. The students will explain the procedure and instructions to the patient for sample collection. Perform the sample collection on the patient or use any role-play or simulation. Every student will keep a record of cases taken. Activity 2 (1 hour) Discussion

The students will discuss the findings in Laboratory reports, and interpret the findings within the group. Each student will do the case presentation of at least 5 recorded cases in the class. Students will keep a record of cases in a record book/Logbook. Logbook Entry will be mandatory for every student, along with the practical/experiential learning activities.

or

Discussion

Discuss the importance of FNAC and CBC tests in the diagnosis of ear, nose, and throat diseases within the group. Each student will do a case presentation of recorded cases in the class. Logbook Entry will be mandatory for every student, along with the practical/experiential learning activities.

Experiential-Learning Learning 7.11: NAAT and PCR tests

Total Activity time (2 hours)

Activity 1 (1 hour)

Case-based Learning, Lab report identification, Simulation

The teacher will divide students into small groups. The teacher will arrange the duties of students in the Pathological Laboratory of the Hospital. Each group will take a patient for the sample collection and the procedure of NAAT and PCR tests. Students will follow the instructions and precautions of the Laboratory. The students will explain the procedure and instructions to the patient for sample collection. Perform the sample collection on the patient or use any role-play or simulation. Every student will keep a record of cases taken.

Activity 2 (1 hour)

Discussion

The students will discuss the findings in Laboratory reports, and interpret the findings within the group. Each student will do the case presentation of at least 5 recorded cases in the class. Students will keep a record of cases in a record book/Logbook. Logbook Entry will be mandatory for every student, along with the practical/experiential learning activities.

or

Discussion, Presentation

Discuss the importance of NAAT and PCR tests in the diagnosis of ear, nose, and throat diseases within the group. Each student will do a case presentation of recorded cases in the class. Logbook Entry will be mandatory for every student, along with the practical/experiential learning activities.
Experiential-Learning Learning 7.12: ELISA and CRP
Total Activity time (2 hours) Activity 1 (1 hour) Case-based Learning, Lab report identification, Simulation The teacher will divide students into small groups. The teacher will arrange the duties of students in the Pathological Laboratory of the Hospital. Each group will take a patient for the sample collection and the procedure of ELISA and CRP. Students will follow the instructions and precautions of the Laboratory. The students will explain the procedure and instructions to the patient for sample collection. Perform the sample collection on the patient or use any role-play or simulation. Every student will keep a record of cases taken. Activity 2 (1 hour) Discussion The students will discuss the findings in Laboratory reports, and interpret the findings within the group. Each student will do the case presentation of at least 5 recorded cases in the class. Students will keep a record of cases in a record book/Logbook. Logbook Entry will be mandatory for every student, along with the practical/experiential learning activities. or Discussion Discuss the importance of ELISA and CRP tests in the diagnosis of ear, nose, and throat diseases within the group. Each student will do a case presentation of recorded cases in the class. Logbook Entry will be mandatory for every student, along with the practical/experiential learning activities.
Experiential-Learning Learning 7.13: Immunoglobulins and antinuclear antibody
Total Activity time (2 hours)

Activity 1 (1 hour)

Case-based Learning

The student will explain the procedure and instructions to the patient. Perform the sample collection of Immunoglobulins and ANA test on the patient and perform the laboratory procedure.

Activity 2 (1 hour)

Simulation

In case of the unavailability of the patient. Students will perform Immunological tests by simulation or role-play methods. Each student will record his/her observations and cases.

or

Discussion

The students will discuss the importance of Immunoglobulins and ANA tests in the diagnosis of ear, nose, and throat diseases within the group. The teacher will facilitate the discussion.

or

Presentation

Each student will do a case presentation of recorded cases in the class. Logbook Entry will be mandatory for every student, along with the practical/experiential learning activities.

Modular Assessment

Assessment	**Hour**
Instructions: Conduct a structured modular assessment. The assessment will be 50 marks for this module. Keep a record of the structured pattern used for the assessment. Calculate the Modular grade point as per Table 6 C. OSCE (Objective Structured Clinical Examination) (50 Marks) Or	4

Case-based evaluation (50 Marks) • History Taking and Patient Interaction (10 Marks) • Physical Examination Skills (20 Marks) • Diagnosis and Clinical Reasoning (10 Marks) • Communication Skills (5 Marks) • Time Management and Efficiency (5 Marks) Or Any practical in converted form can be taken for assessment. (25 Marks) and Any experiential, such as portfolios/ reflection/ presentations can be taken as an assessment. (25 Marks)	

Module 8 : تنظیر داخلی اور دیگر تشخیصی عملیات Tanẓīr dākhlī aur dīgar tashkhīṣī amaliyāt (Endoscopy & other Diagnostic Procedures)

Module Learning Objectives

(At the end of the module, the students should be able to)

1. Describe the types of Endoscopy & Other Diagnostic Procedures.
2. Conduct the appropriate endoscopic procedure and other diagnostic procedures.
3. Identify and interpret the Endoscopies & Other Diagnostic Procedures.

Unit 1 بلاواسطہ تنظیر الحنجرہ/Bilā wāsiṭa tanẓīr-al-Ḥanjara (direct laryngoscopy)

8.1.1 Direct laryngoscopy

8.1.2 Direct laryngoscopy

References: 9,10,23,53,70,81

3A	3B	3C	3D	3E	3F	3G

CO2,CO3	Describe the types of laryngoscopes and direct laryngoscopy with rigid laryngoscope and Microscope	2	Lecture	CAP	Knows-how	L&PPT ,L
CO2,CO3	Demonstrate the types of laryngoscopes and direct laryngoscopy with rigid laryngoscope and Microscope	4	Practical8.1	AFT-RES	Shows-how	CBL,D,DIS,SIM
CO2,CO3	Analyse the different types of laryngoscopes and rigid laryngoscopes	4	Experiential-Learning8.1	PSY-ADT	Does	D,SIM,PER
CO2,CO3	Perform the correct procedure of direct laryngoscopy and understand the type of anesthesia required with post-operative observation	4	Experiential-Learning8.2	PSY-ADT	Does	CBL,PER,RP

Unit 2 تنظیر داخلی الانف،لین تنظیر الحنجرہ/Tanẓīr dākhlī-al-Anf, Layyin tanẓīr-al-Ḥanjara (Nasal endoscopy, Flexible laryngoscopy)

8.2.1 Nasal Endoscopy

8.2.2 Flexible laryngeal endoscopy

References: 9,10,23,53,70,81

3A	3B	3C	3D	3E	3F	3G
CO2,CO3	Describe diagnostic nasal endoscopy (DNE) with 0 degree, 45 degree, 70 degree, and 90 degree endoscopes	2	Lecture	CAP	Knows-how	L,L&PPT
CO2,CO3	Describe the Flexible laryngoscopy	1	Lecture	CK	Knows-how	L&PPT ,L
CO2,CO3	Demonstrate diagnostic nasal endoscopy (DNE) with 0 degree, 45 degree, 70 degree, 90 degree endoscopes	3	Practical8.2	AFT-RES	Shows-how	CBL,SIM,D,CD,DIS

CO2,CO3	Demonstrate Flexible laryngoscopy	3	Practical8.3	CC	Shows-how	D,CBL,DIS
CO2,CO3	Perform the Nasal endoscopy	4	Experiential-Learning8.3	PSY-ADT	Does	CBL,PER,CD
CO2,CO3	Perform the Flexible laryngoscopy with the interpretation	4	Experiential-Learning8.4	PSY-ADT	Does	CBL,PER

Unit 3 تنظیر القصبات اور تنظیر المری/Tanẓīr-al-qaṣbāt aur Tanẓīr-al- marī (Bronchoscopy and Esophagoscopy)

8.3.1 Bronchoscopy

8.3.2 Esophagoscopy

References: 9,10,23,53,70,75,76,81

3A	3B	3C	3D	3E	3F	3G
CO2,CO3	Describe the Flexible & Rigid Bronchoscopy	2	Lecture	CAP	Knows-how	CBL,CD
CO2,CO3	Describe the Flexible & Rigid esophagoscopy	1	Lecture	CK	Knows-how	L&PPT ,L
CO2,CO3	Demonstrate the correct procedure of Flexible & Rigid Bronchoscopy	3	Practical8.4	AFT-RES	Shows-how	CBL,SIM,DIS,D
CO2,CO3	Demonstrate the correct method of Flexible & Rigid esophagoscopy	3	Practical8.5	AFT-RES	Shows-how	D,CBL,SIM,DIS

CO2,CO3	Perform the correct method of Bronchoscopy	3	Experiential-Learning8.5	PSY-ADT	Does	CBL,SIM,PER
CO2,CO3	Perform the correct method of Flexible & Rigid Esophagoscopy	3	Experiential-Learning8.6	PSY-ADT	Does	PER,CD,CBL

Unit 4 قیاس الہوئے التنفس الانف اور تنظیر اللعابیہ/Qiyās-al-hawaī-al tanaffūṣ-al-anf aur Tanẓīr-al- Lu'abiyya (Rhinomanometry & Sialoendoscopy)

8.4.1 Rhinomanometry

8.4.2 Sialoendoscopy

References: 9,10,23,53,70,77,78,81

3A	3B	3C	3D	3E	3F	3G
CO2,CO3	Describe Rhinomanometry	1	Lecture	CK	Know	CD,CBL
CO2,CO3	Describe the Sialoendoscopy	1	Lecture	PSY-GUD	Knows-how	L&PPT ,L
CO2,CO3	Demonstrate the correct procedure of Rhinomanometry	2	Practical8.6	CC	Shows-how	CBL,DIS,D
CO2,CO3	Demonstrate the correct procedure of Sialoendoscopy	2	Practical8.7	PSY-GUD	Shows-how	D,DIS,CBL
CO2,CO3	Perform the appropriate method of Rhinomanometry	2	Experiential-Learning8.7	PSY-ADT	Does	RP,PER,CBL

CO2,CO3	Perform the Sialoendoscopy	2	Experiential-Learning8.8	PSY-ADT	Does	CD,CBL,PER

Practical Training Activity

Practical Training 8.1 Demonstration of Laryngoscopes and laryngoscopy

Total Activity time (4 hours)

Activity 1 (2 hours)

Demonstration

Demonstration by the teacher in the OT/Procedure room of the hospital. The teacher shall show the various laryngoscopes and shall give a demonstration of the direct laryngoscopy procedure on the patient on the simulator or on the model.

Activity 2 (2 hours)

Case Base Learning, Discussion

Divide students into small groups, students will take all aseptic precautions before the procedure and during the procedure in the OT/Procedure room at the hospital. The students should be provided Direct laryngoscope and a patient or simulated patient or a model for hands-on practice. Instruct each group to examine the Larynx and record the findings. Encourage students to discuss their approaches and findings within their groups. Invite each group to present their findings and interpretations. Facilitate the discussion on the diagnosis of laryngeal diseases with the help of Direct laryngoscopy.

The teacher shall summarize the key concepts covered in the session. Logbook Entry will be mandatory for every student, along with the practical/experiential learning activities.

Practical Training 8.2 Diagnostic nasal endoscopy (DNE)

Total Activity time (3 hours)

Activity 1 (1 hour)

Demonstration

Demonstration by the teacher at the minor OT/Procedure room of the hospital. The teacher shall show the 0-degree, 45-degree, 70-degree, and 90-degree nasal endoscopes and shall give a demonstration of the diagnostic nasal endoscopy procedure.

Activity 2 (1 hour)

Case-based Learning

Divide students into small groups, Students will take all aseptic precautions before the procedure and during the procedure in the minor OT/Procedure room at the hospital.

Activity 3 (1 hour)

Simulation

The students should be provided nasal endoscopes and a patient or simulated patient for hands-on practice. Instruct each group to examine the nose and record the findings.

Encourage students to discuss their approaches and findings within their groups. Invite each group to present their findings and interpretations.

or

Discussion, Case Diagnosis

Facilitate the discussion on the 3 separate passes of the nasal endoscope: the first pass, the second pass, and third pass. Making a provisional diagnosis.

The teacher shall summarize the key concepts covered in the session

Logbook Entry will be mandatory for every student, along with the practical/experiential learning activities.

Practical Training 8.3 Flexible laryngoscopy

Total Activity time (3 hours)

Activity 1 (1 hour)

Demonstration

Demonstration by the teacher at the OT/Procedure room of the hospital. The teacher shall show the Flexible laryngoscope and shall give a demonstration of the Flexible laryngoscopy procedure on the patient on the simulator or on the model.

Activity 2 (1 hour)

Case-based Learning

Divide students into small groups. Students will take all aseptic precautions before the procedure and during the procedure in the OT/Procedure room at the hospital.

The students should be provided a Flexible laryngoscope and a patient or simulated patient or a model for hands-on practice. Instruct each group to examine the Larynx and record the findings.

Activity 3 (1 hour)

Discussion

Encourage students to discuss their approaches and findings within their groups. Facilitate the discussion on the diagnosis of laryngeal diseases with the help of Flexible laryngoscopy.

The teacher shall summarize the key concepts covered in the session. Logbook Entry will be mandatory for every student, along with the practical/experiential learning activities.

Practical Training 8.4 Bronchoscopy Demonstration

Total Activity time (3 hours)

Activity 1 (1 hour)

Demonstration

Demonstration by the teacher in the OT/Procedure room of the hospital. The teacher shall show the Flexible & Rigid Bronchoscopes and shall give a demonstration of the Flexible & Rigid Bronchoscopy on the patient on the simulator or on the model.

Activity 2 (1 hour)

Case-based Learning, Simulation

Divide students into small groups. Students will take all aseptic precautions before the procedure and during the procedure in the OT/Procedure room at the hospital. The students should be provided with ,Flexible & Rigid Bronchoscopes and a patient or simulated patient or a model for hands-on practice.

Activity 3 (1 hour)

Discussion

Instruct each group to examine the Lower airway and record the findings. Encourage students to discuss their approaches and findings within their groups. Facilitate the discussion on the Rigid and Flexible laryngoscopy.

The teacher shall summarize the key concepts covered in the session. Logbook Entry will be mandatory for every student, along with the practical/experiential learning activities.

Practical Training 8.5 Flexible & Rigid esophagoscopy

Total Activity time (3 hours)

Activity 1 (1 hour)

Demonstration

Demonstration by the teacher at the OT/Procedure room of the hospital. The teacher shall show the Flexible & Rigid esophagoscopes and shall give a demonstration of the Flexible & Rigid esophagoscopy procedure on the patient on the simulator or the model.

Activity 2 (1 hour)

Case-based Learning, Simulation

Divide students into small groups. students will take all aseptic precautions before the procedure and during the procedure in the OT/Procedure room at the hospital. The students should be provided with Flexible & Rigid esophagoscopes and a patient or simulated patient or a model for hands-on practice. Instruct each group to examine the esophagus and record the findings.

Activity 3 (1 hour)

Discussion

Encourage students to discuss their approaches and findings within their groups. Facilitate the discussion on the Flexible & Rigid esophagoscopy. The teacher shall summarize the key concepts covered in the session. Logbook Entry will be mandatory for every student, along with the practical/experiential learning activities.

Practical Training 8.6 Rhino-manometry
Total Activity time (2 hour) Activity 1 (1 hour) Demonstration Demonstration by the teacher at the OT/Procedure room of the hospital. The teacher shall show the Rhinomanometry machine and shall give a demonstration of the anterior and posterior rhinomanometry procedure on the patient on the simulator or the model. Activity 2 (1 hour) Case-based Learning Divide students into small groups, Students will take all aseptic precautions before the procedure and during the procedure in the OT/Procedure room at the hospital. The students should be provided Rhinomanometry machine and a patient or simulated patient, or a model for hands-on practice. or Discussion Instruct each group to examine the Nasal resistance and record the findings. Encourage students to discuss the findings in terms of Nasal airflow and Trans-nasal within their groups. Facilitate the discussion on the Rhinomanometry. The teacher shall summarize the key concepts covered in the session. Logbook Entry will be mandatory for every student, along with the practical/experiential learning activities.
Practical Training 8.7 Sialoendoscopy
Total Activity time (2 hours) Activity 1 (1 hour) Demonstration Demonstration by the teacher at the OT/Procedure room of the hospital. The teacher shall show the Sialoendoscope and shall give a demonstration of the Sialoendoscopy procedure on the patient on the simulator or the model. Activity 2 (1 hour)

Case-based Learning, Discussion

Divide students into small groups. Students will take all aseptic precautions before the procedure and during the procedure in the OT/Procedure room at the hospital. The students should be provided a Sialoendoscope and a patient or simulated patient, or a model for hands-on practice. Instruct each group to examine the Parotid gland with Stensen's duct and the submandibular gland with Wharton's duct and record the findings. Encourage students to discuss the findings within their groups. Facilitate the discussion on the Sialoendoscopy. The teacher shall summarize the key concepts covered in the session. Logbook Entry will be mandatory for every student, along with the practical/experiential learning activities.

Experiential Learning Activity

Experiential-Learning Learning 8.1: Identification of laryngoscopes

Total Activity time (4 hours)

Activity 1 (1 hour)

Demonstration

Students will Identify and demonstrate the Laryngoscopes- Students should select an appropriate laryngoscope with respect to the patient's age, weight, and malampatti grading.

Activity 2 (1 hour)

Presentation

Students will present a PowerPoint presentation about the different type of laryngoscopes and their importance in the class presentation.

Activity 3 (2 hour)

Simulation

The appropriate selection of the laryngoscope could be done by hands-on practice on the model or simulator. Logbook Entry will be mandatory for every student, along with the practical/experiential learning activities.

Experiential-Learning Learning 8.2: Perform Direct laryngoscopy

Total Activity time (4 hours) Activity 1 (2 hours) Case-based Learning The student will explain the entire procedure to the patient then student will take the written consent before the procedure. Preoperative precautions: Students will do a thorough examination of the patient. If the patient is fit for the procedure, take him/her to the OT. Activity 2 (2 hours) Roleplay and Presentation Perform the Direct laryngoscopy preferably in general anesthesia under a qualified anaesthesiologist, or use any role-play or simulation and record his/her observations. Each group will present a PowerPoint presentation of different cases of laryngeal pathology and will make a provisional diagnosis. Logbook Entry will be mandatory for every student, along with the practical/experiential learning activities.
Experiential-Learning Learning 8.3: Nasal Endoscopy
Total Activity time (4 hours) Activity 1 (2 hours) Case-based Learning The student will explain the entire procedure to the patient, then the student will obtain consent before the procedure. Preoperative precautions: The student will do a thorough examination of the patient. If the patient is fit for the procedure, take him/her to the minor OT/Procedure room. Activity 2 (2 hours) Case Diagnosis, Presentations Perform the DNE on the patient or use any role-play or simulation and record his/her observations. Each group will present a PowerPoint presentation of different cases of DNE and will make a provisional diagnosis. Logbook Entry will be mandatory for every student, along with the practical/experiential learning activities.
Experiential-Learning Learning 8.4: Flexible laryngoscopy

Total Activity time (4 hours)

Activity 1 (1 hour)

Case-based Learning

The student will explain the entire procedure to the patient, then the student will obtain consent before the procedure. The student will do a thorough examination of the patient. If the patient is fit for the procedure, then take him/her to the minor OT/Procedure room.

Activity 2 (2 hours)

Kinaesthetic Learning

Perform the Flexible laryngoscopy on the patient or use any role-play or simulation, and record at least 3 cases of Flexible laryngoscopy.

Activity 3 (1 hour)

Presentations

Each group will present a PowerPoint presentation of different cases of Flexible laryngoscopy and will make a provisional diagnosis. Logbook Entry will be mandatory for every student, along with the practical/experiential learning activities.

Experiential-Learning Learning 8.5: **Bronchoscopy**

Total Activity time (3 hours)

Activity 1 (1 hour)

Case-based Learning

The student will explain the entire procedure to the patient, then the student will obtain written consent before the procedure. The student will do a thorough examination of the patient. If the patient is fit for the procedure, take him/her to the OT.

Activity 2 (1 hour)

Kinaesthetic Learning, Simulation

Perform the Rigid Bronchoscopy preferably in general anesthesia under a qualified anaesthesiologist, or use any role-play or simulation and record his/her observations. Perform Flexible Bronchoscopy preferably under topical anesthesia, or use any role-play or simulation, and record his/her observations.

Activity 3 (1 hour) Presentation Each student will present a PowerPoint presentation of different cases of laryngeal pathology and will make a provisional diagnosis. Logbook Entry will be mandatory for every student, along with the practical/experiential learning activities.
Experiential-Learning Learning 8.6: Esophagoscopy
Total Activity time (3 hours) Activity 1 (1 hour) Case-based Learning The student will explain the entire procedure to the patient, then the student will obtain written consent before the procedure. Students will do a thorough examination of the patient. If the patient is fit for the procedure, take him/her to the OT. Activity 2 (1 hours) Case Diagnosis Perform the Rigid Esophagoscopy preferably in general anesthesia under a qualified anaesthesiologist, or use any role-play or simulation and record his/her observations. Perform Esophagoscopy preferably in General/Sedation/Topical anesthesia under the anaesthesiologist, or use any role-play or simulation and record his/her observations. Activity 3 (1 hour) Class presentation Each group will present a PowerPoint presentation of different cases of Flexible and Rigid Esophagoscopy and will make a provisional diagnosis. Logbook Entry will be mandatory for every student, along with the practical/experiential learning activities.
Experiential-Learning Learning 8.7: Rhinomanometry
Total Activity time (2 hours)

Activity 1 (1 hour)

Case-based Learning

The student will explain the entire procedure to the patient then the student will take the consent before the procedure. The student will do a thorough examination of the patient. If the patient is fit for the procedure take him/her to the minor OT/Procedure room.

Activity 2 (1 hour)

Role-play, Class presentation

Perform the Rhinomanometry on the patient or use any role-play or simulation and record his/her observations. Each student will present the PowerPoint presentation of recorded cases of Rhinomanometry and will make a provisional diagnosis. Logbook Entry will be mandatory for every student, along with the practical/experiential learning activities.

Experiential-Learning Learning 8.8: Sialoendoscopy

Total Activity time (2 hours)

Activity 1 (1 hour)

Case-based Learning

The teacher will mentor/allot a patient for the sialoendoscopy. The student will explain the entire procedure to the patient, then the student will obtain consent before the procedure. The student will do a thorough examination of the patient. If the patient is fit for the procedure, take him/her to the minor OT/Procedure room for Sialoendoscopy. Students will perform the sialoendoscopy and record their observations.

Activity 2 (1 hour)

Class presentation, Case Diagnosis

Each student will present the PowerPoint presentation of recorded cases of Sialoendoscopy and will make a provisional diagnosis. Logbook Entry will be mandatory for every student, along with the practical/experiential learning activities.

Modular Assessment

Assessment	Hour
Instructions: Conduct a structured modular assessment. The assessment will be 50 marks for this module. Keep a record of the structured pattern used for the assessment. Calculate the Modular grade point as per Table 6 C. OSCE (Objective Structured Clinical Examination) (50 Marks) Or Case-based evaluation (50 Marks) • History Taking and Patient Interaction (10 Marks) • Physical Examination Skills (20 Marks) • Diagnosis and Clinical Reasoning (10 Marks) • Communication Skills (5 Marks) • Time Management and Efficiency (5 Marks) Or Any practical in converted form can be taken for assessment. (25 Marks) and Any experiential, such as portfolios/ reflection/ presentations can be taken as an assessment. (25 Marks)	4

Paper No : 2(امراض اذن،انف وحلق کے طبی وجراحی معالجاتAmrāḍ-i-Udhun, Anf Wa Ḥalq Ke Ṭibbi Wa Jirāḥi Mu'alajāt (Medical and Surgical Management of Ear, Nose and Throat Diseases))

Semester No : 3

Module 9 : امراض اذنAmrāḍ-i- Uzn (Diseases of Ear)

Module Learning Objectives

(At the end of the module, the students should be able to)

1. Apply foundational Scientific knowledge to diagnose and manage complex medical condition in Amraze udhn.

2. Perform surgical procedure, using clinical skills and investigation techniques to ensure patient saftety and successful outcomes.

3. Evaluate the advancement in diagnostics and treatment, integrating new knowledge into treatment for continuous improvement in patient care.

Unit 1 تشوھات/Uzn ki Khilqī tashuwwhāt (Congenital deformities of Ear)

9.1.1.Types ,causes, pathology, sign and symptoms , Investigation, differential diagnosis and Treatment of Congenital deformities of ear

References: 1,10,23,53,58,63

3A Course Outcome	3B Learning Objective (At the end of the (lecture/practical training /experiential learning) session, the students should be able to)	3C Notional learning Hours	3D Lecture/ Practical Training/ Experiential Learning	3E Domain/ Sub Domain	3F Level (Does/Shows how/Knows how/Know)	3G Teaching Learning Methods

CO1,CO2,CO4 ,CO7	Describe Classification, Causes ,Symptoms , sign pathogensis , Complication of congenital deformities of ear	2	Lecture	CC	Know	L,L&PPT
CO1,CO2,CO4 ,CO7	Demonstrate of differential diagnosis and diagnosis of congenital deformities of ear	4	Practical9.1	CAN	Shows-how	DL,D-BED
CO1,CO2,CO4 ,CO7	Explore and Present the appropriate diet, surgical , IBT procedures and medical management of congenital deformities of ear	5	Experiential-Learning9.1	PSY-GUD	Does	CD,CBL

Unit 2 التہاب الاذن خارجی اور اس کی جملہ اقسام/Iltihāb-i-Uzn khārji wa uske Jūmla Aqsām (Otitis externa and it's all types)

9.2.1. Types ,causes, pathology, Sign and symptoms , Investigation,differential diagnosis and Treatment of otitis externa

References: 1,10,11,53

3A	3B	3C	3D	3E	3F	3G
CO1,CO2,CO4 ,CO7	Discribe Classification, Causes, symptoms , sign , Pathogensis, Complication of Otitis externa	2	Lecture	CC	Know	L,L&PPT
CO1,CO2,CO4 ,CO7	Demonstrate of differential diagnosis and diagnosis of Otitis externa	4	Practical9.2	CAN	Shows-how	CBL,DL
CO1,CO2,CO4 ,CO7	Describe and Present the surgical , IBT procedures and medical management of of Otitis externa	5	Experiential-Learning9.2	PSY-GUD	Does	CBL,D,X-Ray

Unit 3 طنین و دوی، دوار، وسخ الاذن، قذی الاذن/Tanīn-o- Dawī, Duwār, Wasakh -al-Uzn and Qadhā-al-Uzn (Tinnitus, vertigo, Ear wax, and foreign Body in the ear)

9.3.1.Types, causes, pathology, sign and symptoms , Investigation,differential diagnosis and Treatment of Foreign body in the ear and wax,

9.3.2.Types ,causes, pathology, sign and symptoms, Investigation,differential diagnosis and Treatment of tinnitus and vertigo

References: 1,9,10,11,53,62

3A	3B	3C	3D	3E	3F	3G
CO1,CO2,CO4 ,CO7	Discribe Ear wax , Foreign Body in the ear , Tinnitus and Vertigo and Classification , Causes ,Sypmtoms , Sign ,Complication of wax and Foreign Body in the ear and Tinnitus and Vertigo.	2	Lecture	CC	Know	L,L&PPT
CO1,CO2,CO4 ,CO7	Demonstrate of differential diagnosis and diagnosis of Ear wax , Foreign Body in the ear , Tinnitus and Vertigo.	4	Practical9.3	CAN	Shows-how	JC,DL
CO1,CO2,CO4 ,CO7	Identify treatment of Ear wax and Foreign Body in the ear, Tinnitus and Vertigo	6	Experiential-Learning9.3	PSY-GUD	Does	D,CD

Unit 4 وقر،مساعدات السمع،اور معاق سمعی مریض میں الوسائل مساعدہ Waqr, mūsā'dāt-al-sama' aur m'āq samaī' marīz me al wasāil-al-mūsā'dā (Deafness , Hearing Aids and Assistive devices in Hearing impaired Patient)

9.4.1.Types ,causes, pathology, sign and symptoms , Investigation,differential diagnosis and Treatment of Deafness.

References: 10,23,40,53,73

3A	3B	3C	3D	3E	3F	3G
CO1,CO2,CO4 ,CO7	Describe Deafness , Hearing Aids and Assistive devices in Hearing handicapped Patient	2	Lecture	CC	Know	DIS,L
CO1,CO2,CO4 ,CO7	Demonstrate of differential diagnosis and diagnosis of Deafness	4	Practical9.4	CAN	Shows-how	CBL,JC

CO1,CO2,CO4 ,CO7	Identify treatment of Deafness and Hearing Aids and Assistive devices in Hearing handicapped Patient	4	Experiential-Learning9.4	PSY-GUD	Does	D,CBL

Unit 5 Training of Hearing Patient for lip reading, auditory training and speech conservation and rehabilitation of hearing loss in the elderly

9.5.1. Lip reading fundamentals.

9.5.2. Common speech patterns

9.5.3. Lip reading skills in conversations

9.5.4. Strategies to overcome challenges

References: 10,23,31,53,83

3A	3B	3C	3D	3E	3F	3G
CO1,CO2,CO4 ,CO7	Discribe lip reading, auditory training and speech conservation	2	Lecture	CC	Know	CBL,L&GD
CO1,CO2,CO4 ,CO7	Demonstrate the correct method of lip reading, auditory training and speech conservation	4	Practical9.5	CAN	Shows-how	SIM,D
CO1,CO2,CO4 ,CO7	Conduct the lip reading session, auditory training (Detection ,discrimination, Identification and comprehension of sound) and speech conservation traning.	6	Experiential-Learning9.5	PSY-GUD	Does	L&GD,CBL

Practical Training Activity

Practical Training 9.1 **Udhn ke Khalqi awarezat (Congenital deformities of Ear)** اذن کے خلقی یوارضات

Total activity time (4 hours)

Activity 1 (2 hours)

Bed side demonstration

Teacher will Demonstrate minimum 5 cases Congenital deformities of ear in OPD/IPD on how to differentiate and diagnose. Teacher will plan and demonstrate relevant investigations of the above case and interpret the Findings. Activity 2 (2 hours) Demonstration Lab Teacher will explain different type of Diagnostic methods and techniques, such as X-RAY, CT, MRI, PET scan, ultrasonography, interpret images and discuss the results. Group discussion participation, ppt presentation pre and post seminar quiz
Practical Training 9.2 Iltehab-e-Uzn kharji aur uski Jumla aqsam (Otitis externa and it's all types) التہاب الاذن خارجی
Total Activity time (4 hours) Activity 1 (2 hours) Case base learning Teacher will Demonstrate minimum 5 cases of Otitis externa in OPD/IPD on how to differentiate and diagnose. Teacher will plan and demonstrate relevant investigations of the above case and interpret the Findings. Activity 2 (2 hours) Demonstration Lab Teacher will explain different type of Diagnostic methods and techniques, such as X-RAY, CT, and discuss the results. Otoscopy training with simulations or patients
Practical Training 9.3 Waskhul Uzn (Ear wax) وسخ الاذن Qaziul Uzn (Foreign Body in the ear) قذی الاذن Taneen wa Dawi (Tinnitus) طنین ودوی Duwar (Vertigo) دوار

Total activity time (4 hours)

Activity 1 (2 hour)

Journal club

Teacher will analyse and discuss Ear wax and Foreign Body in the ear , Tinnitus and Vertigo cases in small groups.

Teacher will plan and demonstrate relevant investigations of the above case and interpret the Findings.

Acvtivity 2 (2 hours)

Demonstration Lab

Teacher will explain different type of Diagnostic methods and techniques, such as, X-ray interpret images and discuss the results.

Teacher will perform Otoscopy and Audiomerty.

Practical Training 9.4 **Deafness , Hearing Aids and Assistive devices in Hearing handicapped Patient**

Total Activity time (4 hours)

Activity 1(3 hours)

Demonstration

Teacher will Demonstrate minimum 5 cases Deafness in OPD/IPD on how to differentiate and diagnose.

Teacher will plan and demonstrate relevant investigations of the above case and interpret the Findings.

Teacher will explain different type of Diagnostic methods and techniques, such as X-RAY, CT, MRI, PET scan, ultrasonography, interpret images Bacteriological culture of discharge and discuss the results.

Activity 2 (1 hours)

Journal club

Group discussion participation, ppt presentation pre and post seminar quiz. Teacher will provide the different type of hearing aids like Pocket model, BTE, ICT, CIC. Students will select an appropriate model of hearing aid according to the need of patients with respect to age, hearing loss level and social concerns.

Practical Training 9.5 **Training of Hearing handicapped Patient for lip reading, auditory training and speech conservation and rehabilitation of hearing loss in the elderly**
Total activity time (4 hours) Activity 1 (2 hours) Demonstration Teacher will Demonstrate minimum 5 cases **Deafness** in OPD/IPD on how to differentiate and diagnose. Teacher will plan and demonstrate relevant investigations of the above case and interpret the Findings. Teacher will explain different type of Diagnostic methods and techniques, such as X-RAY, CT, MRI, PET scan, ultrasonography, interpret images Bacteriological culture of discharge and discuss the results. Activity 2 (1 hours) Group discussion participation, ppt presentation pre and post seminar quiz. Teacher will provide the different type of hearing aids like Pocket model, BTE, ICT, CIC. Students will select an appropriate model of hearing aid according to the need of patients with respect to age, hearing loss level and social concerns. Activity 3 (1 hours) **CBL, Field visit** - Teacher can allot the hearing handicapped patient to students so that they can understand the functioning of audio induction with hearing aids (Telecoil) T button. Student should visit the audio induction enabled class rooms and work places to understand the actual functioning of Hearing loop system working for hearing handicapped patients.
Experiential Learning Activity
Experiential-Learning Learning 9.1: **Udhn ke Khalqi awarezat (Congenital deformities of Ear)** اذن کے خلقی یوارضات
Total activites time (hours 5) Activity 1 (3 hours) Case Diagnosis

Student will record (in record book) at least five cases of different Congenital deformities of ear. Student will do relevant IBT (Hijama), and surgical procedures under the supervision of teacher in procedure room /OT and explain mechanistic basics of IBT regimen effective in Congenital deformities of ear. Activity 3 (2 hours) Case base learning Student will make a comprehensive diet plan in the management of Congenital deformities of ear. Student will prescribe mufradat and murakkabat and make an appropriate and effective NUSKHA for at least five cases of Congenital deformities of ear in OPD/IPD
Experiential-Learning Learning 9.2: Iltehab-e-Uzn kharji aur uski Jumla aqsam (Otitis externa and it's all types)
Total activites time (hours 5) Activity 1 (3 hours) Case base learning Divide students will be divided into small groups, assign them a case study of Otitis externa ask them to identify their types and sign & symptoms interpret relevant investigations and describe radiological and otoscopic findings. Student will record (in record book) at least five cases of Otitis externa with relevant IBT and surgical procedure under the supervision of teacher in procedure room /OT and explain mechanistic basics of IBT regimen effective in Otitis externa Activity 2 (2 hours) Demonstration Student will make a comprehensive diet plan in the management of Otitis externa. Student will make posters prescribing mufradat and murakkabat for an appropriate and effective NUSKHA in cases of Otitis externa.
Experiential-Learning Learning 9.3: Waskhul Uzn (Ear wax) وسخ الاذن Qaziul Uzn (Foreign Body in the ear) قذی الاذن Taneen wa Dawi (Tinnitus) طنین ودوی Duwar (Vertigo) دوار

Total activites time (hours 6)

Activity 1 (3 hours)

Case Diagnosis

Student will record (in record book) at least five cases of Ear wax and Foreign Body in the ear, Tinnitus and Vertigo.

Student will do relevant IBT and surgical procedure under the supervision of teacher in procedure room /OT and explain mechanistic basics of IBT regimen effective in Ear wax and Foreign Body in the ear, Tinnitus and Vertigo.

Activity 2 (3 hours)

Demontration

Student will make a comprehensive diet plan in the management of Ear wax and Foreign Body in the ear, Tinnitus and Vertigo.

Student will prescribe mufradat and murakkabat and make an appropriate and effective NUSKHA at least five cases of Ear wax and Foreign Body in the ear, Tinnitus and Vertigo. in OPD/IPD

Student will do Meta-analysis of published articles on Tinnitus.

Experiential-Learning Learning 9.4: **Deafness , Hearing Aids and Assistive devices in Hearing handicapped Patient**

Total activites time (hours 4)

Activity 1 (2 hours)

Case base learning

Divide students will be divided into small groups, assign them a case study of Deafness ask them to identify their sign & symptoms interpret relevant investigations and describe radiological and otoscopic findings.

Activity 2 (2hours)

Demonstration

Student will record in record book at least five cases of Deafness with relevant IBT and surgical procedure under the supervision of teacher in procedure room /OT and explain mechanistic basics of IBT regimen effective in Deafness.

Student will make a comprehensive diet plan in the management of Deafness.

Student will make posters prescribing mufradat and murakkabat for an appropriate and effective NUSKHA in cases of Deafness.

Experiential-Learning Learning 9.5: **Training of Hearing handicapped Patient for lip reading, auditory training and speech conservation and rehabilitation of hearing loss in the elderly**

Total Activites time (hours 6)

Activity 1 (3 hours)

Case Base learning

Student will record (in record book) at least five cases of Hearing handicapped Patient for lip reading, auditory training and speech conservation..

Student will do Collaborative care work shop with Hearing handicapped Patient for lip reading, auditory training and speech conservation.

Activity 2 (1,5 hours)

Simulation, Role play -

Situation is created artificially in order to do practical study that is possible in real life. One volunteer student can play a role of patient and the other student can behave like a consultant as advising the correct method of lip reading in all four components.

Activity 3 (1,5 hours)

Simulation, Role play

Students should emphasize the development of listening skills to improve the recognition and interpretation of speech sounds despite limited hearing ability of hearing handicapped patient. Artificial Situation is created in order to do practical of auditory training through developing the listening skills, recognition of voice and interpretation of speech sounds. One volunteer student can play a role of patient and the other student can behave like a consultant as advising the correct method of auditory training.

Modular Assessment

Assessment	**Hour**

Instructions - Conduct a structured Modular assessment. The assessment will be for 50 marks. Keep a structured marking pattern. Use different assessment methods in each module for the semester. Keep record of the structured pattern used for assessment. Calculate the Modular grade point as per table 6 C. 1. Case-based evaluation (25 Marks) Each student will be given a case or simulated patient for bed side clinical examination or clinical video cases or lab reports to evaluate and diagnose and will prescribe nuskha for the case with justification. 2. Viva-Voce (25 Marks) Or Any practical in converted form can be taken for assessment. (25 Marks) and Any experiential, such as portfolios/ reflection/ presentations can be taken as an assessment. (25 Marks)	4

Module 10 : امراض اذن وسطی و داخلی Amrāz Uzn wasṭi wa dākhli (Diseases of Middle and internal Ear)

Module Learning Objectives

(At the end of the module, the students should be able to)

1. Apply foundational Scientific knowledge to diagnose and manag complex medical condition in Amraze udhn.
2. Demonstrate proficiency in performing surgical procedure, using clinical skills and investigation techniques to ensure patient saftety and successful outcomes.
3. Stay updated on advancement in diagnostics and treatment, integrating new knowledge into treatment for continuous improvement in patient care.

Unit 1 التہاب الاذن وسطی اور اس کی جملہ اقسام Iltihāb-i- Uzn wasṭi wa uske Jūmla Aqsām (Otitis media and it's all types)

10.1.1 Types ,causes, pathology, sign & symptoms , Investigation, differential diagnosis and Treatment of otitis media

References: 3,9,10,23,58,63

3A	3B	3C	3D	3E	3F	3G
CO1,CO2,CO4 ,CO7	Discribe,classification , causes Symptom , sign , complication and and pathogenesis of Otitis media	2	Lecture	CC	Know	L,L&PPT
CO1,CO2,CO4 ,CO7	Demonstrate of differential diagnosis and diagnosis of Otitis media	4	Practical10.1	CAN	Shows-how	PT,D-BED
CO1,CO2,CO4 ,CO7	Explore and Present the appropriate diet, surgical , IBT procedures and medical management of Otitis media	6	Experiential-Learning10.1	PSY-GUD	Does	SIM,CBL

Unit 2 استاکیوس قنات/Qanat Astākīūs (Eustachian tube disorder)

10.2.1. Causes, pathology, sign & symptoms , Investigation, differential diagnosis and Treatment of Eustachian disorder .

References: 9,10,11,23,53,92

3A	3B	3C	3D	3E	3F	3G
CO1,CO2,CO4 ,CO7	Discribe,classification , causes Symptom , sign , complication and and pathogenesis of Eustachian catarrh	2	Lecture	CC	Know	L&PPT ,L
CO1,CO2,CO4 ,CO7	Demonstrate of differential diagnosis and diagnosis of Eustachian catarrh	4	Practical10.2	CAN	Shows-how	CBL,DL
CO1,CO2,CO4 ,CO7	Explore and Present the appropriate diet, surgical , IBT procedures and medical management of Eustachian catarrh	4	Experiential-Learning10.2	PSY-ADT	Does	D,SIM,CBL

Unit 3 التہاب الخشاء/Iltihāb-i- al- Khashā (Mastoiditis), دبیلہ الخشاء/Dubayla-i- al- Khashā (Mastoid abscess)

10.3.1. Types, causes, pathology, sign & symptoms, Investigation, differential diagnosis and Treatment of Mastoiditis

10.3.2. Types ,causes, pathology, sign & symptoms, Investigation, differential diagnosis and Treatment of Mastoid abcess.

References: 1,2,3,9,10,53,58

3A	3B	3C	3D	3E	3F	3G
CO1,CO2,CO4 ,CO7	Discribe classification , causes Symptom , sign , complication and and pathogenesis of Mastoiditis and Mastoid abcess	2	Lecture	CC	Know	BS,L&PPT
CO1,CO2,CO4 ,CO7	Demonstrate of differential diagnosis and diagnosis of Mastoiditis and Mastoid abcess	4	Practical10.3	CAN	Shows-how	CD,D
CO1,CO2,CO4 ,CO7	Explore and Present the appropriate diet, surgical , IBT procedures and medical management of Mastoiditis and Mastoid abcess	6	Experiential-Learning10.3	PSY-GUD	Does	CBL,D

Unit 4 Taṣallub-al-Uzn (Otosclerosis) تصلب الاذن and Sal'at -al-Uzn (Tumours of Ear) سلعات اذن

10.4.1. Types ,causes, pathology, sign & symptoms, Investigation, differential diagnosis and Treatment of Otosclerosis.

10.4.2. Types ,causes, pathology,sign & symptoms, Investigation, differential diagnosis and Treatment of Tumors of ear.

References: 1,4,9,12,23,53,63

3A	3B	3C	3D	3E	3F	3G
CO1,CO2,CO4 ,CO7	Discribe classification , causes Symptom , sign , complication and and pathogenesis of Otosclerosis and tumours of ear	2	Lecture	CC	Know	L&PPT ,BS
CO1,CO2,CO4 ,CO7	Demonstrate of differential diagnosis and diagnosis of Otosclerosis and tumours of ear	4	Practical10.4	CAN	Shows-how	D-BED,LRI

CO1,CO2,CO4 ,CO7	Explore and Present the appropriate diet, surgical , IBT procedures and medical management of Otosclerosis and tumours of ear	6	Experiential-Learning10.4	PSY-GUD	Does	D,CBL

Unit 5 الاذن التہاب تیہ/Iltihāb-i- Tīh-al-Uzn (Labyrinthitis) and Marḍ Meniers (Menier's Disease)

10.5.1.Types ,causes, pathology, sign & symptoms, Investigation, differential diagnosis and Treatment of Otosclerosis.

10.5.2. Causes, pathology,sign & symptoms, Investigation, differential diagnosis and Treatment of Tumors of ear.

References: 9,10,11,23

3A	3B	3C	3D	3E	3F	3G
CO1,CO2,CO4 ,CO6,CO7	Discribe causes Symptom , sign , complication and and pathogenesis of Labrynthitis and Menier's Disease	2	Lecture	CC	Know	L,L&PPT
CO1,CO2,CO4 ,CO6,CO7	Demonstrate of differential diagnosis and diagnosis of Labyrinthitis and Menieres disease	4	Practical10.5	CAN	Shows-how	D-BED,SIM
CO1,CO2,CO4 ,CO6,CO7	Explore and Present the appropriate diet, surgical , IBT procedures and medical management of Labyrinthitis and Meniers disease	4	Experiential-Learning10.5	PSY-GUD	Does	SY,D,L&GD

Practical Training Activity

Practical Training 10.1 Iltehab Uzn wasti (Otitis media)

Total activity time (4 hours)

Activity 1 (2 hour)

Demonstration Bed side

Teacher will Demonstrate minimum 5 cases **Otitis media** in OPD/IPD on how to differentiate and diagnose.

Teacher will plan and demonstrate relevant investigations of the above case and interpret the Findings. Activity 2 (2 hour) Practical Teacher will explain different type of Diagnostic methods and techniques, such as X-RAY, CT, MRI, PET scan, ultrasonography, interpret images Bacteriological culture of discharge and discuss the results.
Practical Training 10.2 **Qanaate samiya ke Khalqi awarezat (Eustachian tube disorder)** قنات سمعیہ کے **خلقی عوارضات - (Eustachian catarrh)** سمعیہ
Total Activity time (4 hour) Activity 1 (2 hour) Case Based Learning Teacher will Demonstrate minimum 5 cases of Eustachian catarrh in OPD/IPD on how to differentiate and diagnose. Teacher will plan and demonstrate relevant investigations of the above case and interpret the Findings. Activity 2 (2 hour) Demonstration Lab Teacher will explain different type of Diagnostic methods and techniques, such as X-RAY, CT, and discuss the results. Eustachian catherisation training with simulations or patients.
Practical Training 10.3 Iltihabe Sudgi Hulmi (Mastoiditis) التہاب صدگی حلمی Khuraj-e-Sudgi Hulmi (Mastoid abscess) خراج صدگی حلمی
Total activity time (4 hours) Activity 1 (2 hour) Demonstration Teacher will Demonstrate minimum 5 cases Mastoiditis and Mastoid abscess in OPD/IPD on how to differentiate and diagnose.

Teacher will plan and demonstrate relevant investigations of the above case and interpret the Findings.

Activity 2 (2 hour)

Case Diagnosis

Teacher will explain different type of Diagnostic methods and techniques, such as X-RAY, CT, MRI, PET scan, ultrasonography, interpret images , Neurological examination and discuss the results.

Practical Training 10.4 **Tasallub-ul-uzn (Otosclerosis) تصلب الاذن and Salaat-ul-Uzn (Tumours of Ear) سلعات اذن**

Total Activity time (4 hours)

Activity 1 (2 hour)

Demonstration Bed side

Teacher will Demonstrate minimum 5 cases of Otosclerosis and Tumours of Ear in OPD/IPD on how to differentiate and diagnose.

Teacher will plan and demonstrate relevant investigations such as CBC, ESR Blood sugar.and interpret the Findings

Activity 2 (2 hour)

Lab Report interpretation

Teacher will explain different type of Diagnostic methods and techniques, such as X-RAY, CT, MRI, PET scan, Audiometery , ultrasonography, interpret images and discuss the results.

Group discussion participation, ppt presentation pre and post seminar quiz

Practical Training 10.5 **Iltehab tahhaya (Labrynthitis) التہاب تیہ and Menier(Menier's Disease) عارضہ مینی ار**

Total activity time (4 hours)

Activity 1 (2 hour)

Demonstration Bed side

Teacher will Demonstrate minimum 5 cases Labrynthitis and Menier's Disease in OPD/IPD on how to differentiate and diagnose.

Teacher will plan and demonstrate relevant investigations of the above case and interpret the Findings. Activity 2 (2 hour) Simulation Teacher will explain different type of Diagnostic methods and techniques, such as X-RAY, CT, MRI, PET scan, ultrasonography, interpret images , Neurological examination and discuss the results. Group discussion participation, ppt presentation pre and post seminar quiz
Experiential Learning Activity
Experiential-Learning Learning 10.1: Iltehab Uzn wasti (Otitis media)aur uski Jumla aqsam التہاب الاذن وسطی
Total activites time (hours 6) Activity 1 (3 hour) Case base learning Student will record (in record book) at least five cases of different Otitis media Student will do relevant IBT (Hijama), and surgical procedures under the supervision of teacher in procedure room /OT and explain mechanistic basics of IBT regimen effective in Congenital deformities of ear. Activity 2 (3 hour) Simulation Student will make a comprehensive diet plan in the management of Congenital deformities of ear. Student will prescribe mufradat and murakkabat and make an appropriate and effective NUSKHA for at least five cases of Congenital deformities of ear in OPD/IPD
Experiential-Learning Learning 10.2: Aarza-e- Eustachian tube disorder- (Eustachian catarrh)
Total activites time (hours 4)

Activity 1 (2 hour)

Case study analysis

Divide students will be divided into small groups, assign them a case study of Eustachian catarrh ask them to identify their types and sign & symptoms interpret relevant investigations and describe radiological and otoscopic findings.

Student will record (in record book) at least five cases of Eustachian catarrh with relevant IBT and surgical procedure under the supervision of teacher in procedure room /OT and explain mechanistic basics of IBT regimen effective in Eustachian catarrh

Activity 2 (2 hour)

Demonstration

Student will make a comprehensive diet plan in the management of Eustachian catarrh.

Student will make posters prescribing mufradat and murakkabat for an appropriate and effective NUSKHA in cases of Otitis externa.

Experiential-Learning Learning 10.3: Iltihabe Sudgi Hulmi (Mastoiditis) التہاب صدگی حلمی Khuraj-e-Sudgi Hulmi (Mastoid abscess) خراج صدگی حلمی

Total activites time (hours 6)

Activity 1 (3 hour)

Case base learning

Student will record (in record book) at least five cases of Mastoiditis and Mastoid abscess

Student will do relevant IBT and surgical procedure under the supervision of teacher in procedure room /OT and explain mechanistic basics of IBT regimen effective in Mastoiditis and Mastoid abscess

Activity 2 (3 hour)

Demonstration

Student will make a comprehensive diet plan in the management of Mastoiditis and Mastoid abscess

Student will prescribe mufradat and murakkabat and make an appropriate and effective NUSKHA at least five cases of Mastoiditis and Mastoid abscess in OPD/IPD

Experiential-Learning Learning 10.4: **Tasallub-ul-uzn (Otosclerosis)** تصلب الاذن **and Salaat-ul-Uzn (Tumours of Ear)** سلعات اذن
Total activites time (hours 6) Activity 1 (3 hour) Case base learning Case study analysis-Divide students will be divided into small groups, assign them a case study of **Otosclerosis** and **Tumours of Ear** ask them to identify their sign & symptoms interpret relevant investigations and describe radiological and otoscopic findings. Student will record in record book at least five cases of **Otosclerosis** and **Tumours of Ear** with relevant IBT and surgical procedure under the supervision of teacher in procedure room /OT and explain mechanistic basics of IBT regimen effective in Otalgia and otorrhoea. Activity 2 (2 hour) Demonstration Student will make a comprehensive diet plan in the management of **Otosclerosis** and **Tumours of Ear** Student will make posters prescribing mufradat and murakkabat for an appropriate and effective NUSKHA in cases of **Otosclerosis** and **Tumours of Ear**.
Experiential-Learning Learning 10.5: **Iltehab tahhaya (Labrynthitis)** التہاب تیہ **and Menier(Menier's Disease)** عارضہ مینی ار
Total activites time (hours 4) Activity 1 (2 hours) Demonstration Student will record (in record book) at least five cases of **Labrynthitis** and **Menier's Disease**. Student will do relevant IBT and surgical procedure under the supervision of teacher in procedure room /OT and explain mechanistic basics of IBT regimen effective in **Labrynthitis** and **Menier's Disease**. Activity 2 (2 hours) Lecture and group discussion

Each group presents their findings to the class Summary of their case Student will make a comprehensive diet plan in the management of **Labrynthitis** and **Menier's Disease**. Student will prescribe mufradat and murakkabat and make an appropriate and effective NUSKHA at least five cases of **Labrynthitis** and **Menier's Disease**. and monitor and analyse patient outcome.	
Modular Assessment	
Assessment	**Hour**
Instructions - Conduct a structured Modular assessment. The assessment will be for 50 marks. Keep a structured marking pattern. Use different assessment methods in each module for the semester. Keep record of the structured pattern used for assessment. Calculate the Modular grade point as per table 6 C. 1. Case-based evaluation (25 Marks) Each student will be given a case or simulated patient for bed side clinical examination or clinical video cases or lab reports to evaluate and diagnose and will priscribe the nuskha for specific diseases with justification. 2. Mini CEX- Mini Clinical Examination in the OPD (25 Marks) Or Any practical in converted form can be taken for assessment. (25 Marks) and Any experiential, such as portfolios/ reflection/ presentations can be taken as an assessment. (25 Marks)	4
Semester No : 4	
Module 11 : امراض انفAmrāḍ -i-Anf (Diseases of Nose-I)	

Module Learning Objectives

(At the end of the module, the students should be able to)

1. Apply foundational Scientific knowledge to diagnose and manag complex medical condition in Amraze udhn.

2. Demonstrate surgical procedure, using clinical skills and investigation techniques to ensure patient saftety and successful outcomes.

3. Evaluate the advancements in diagnostics and treatment, integrating new knowledge into treatment for continuous improvement in patient care.

Unit 1 انف کے خلقی تشوھات/Anf ki Khilqī tashuwwhāt (Congenital deformities of Nose)

11.1.1. Types, causes, pathology, sign & symptoms, Investigation, differential diagnosis and Treatment of Congenital deformities of Nose

References: 1,6,9,10,11,23

3A	3B	3C	3D	3E	3F	3G
CO1,CO2,CO3 ,CO4,CO7	Discribe classification , causes Symptom , sign , complication and and pathogenesis of congenital deformities of Nose	2	Lecture	CC	Know	L&PPT ,L
CO1,CO2,CO3 ,CO4,CO7	Demonstrate the differential diagnosis and diagnosis of congenital deformities of Nose	4	Practical11.1	CAN	Shows-how	D-BED,LRI
CO1,CO2,CO3 ,CO4,CO7	Explore and Present the appropriate diet, surgical , IBT procedures and medical management of congenital deformities of nose	6	Experiential-Learning11.1	PSY-GUD	Does	CD,D-BED

Unit 2 التہاب انف اور اس کی جملہ اقسام/Iltihabe anf wa uske Jūmla Aqsām (Rhinitis and it's all types)

11.2.1. Types, causes, pathology, sign & symptoms, Investigation, differential diagnosis and Treatment of Rhinitis

References: 2,9,10,11,23,53,63

3A	3B	3C	3D	3E	3F	3G

CO1,CO2,CO3 ,CO4,CO7	Discribe classification , causes Symptom , sign , complication and and pathogenesis of rhinitis	2	Lecture	CC	Know	L&PPT ,BS
CO1,CO2,CO3 ,CO4,CO7	Demonstrate the differential diagnosis and diagnosis of rhinitis	4	Practical11.2	CAN	Shows-how	D,LRI
CO1,CO2,CO3 ,CO4,CO7	Explore and Present the appropriate diet, surgical , IBT procedures and medical management of rhinitis	6	Experiential-Learning11.2	PSY-GUD	Does	JC,DIS

Unit 3 رعاف یا نکسیر/Ru'āf / Naksīr (Epistaxis)

11.3.1. Types, causes, pathology, sign & symptoms, Investigation, differential diagnosis and Treatment of Epistaxis

References: 3,5,10,53,58,68,98

3A	3B	3C	3D	3E	3F	3G
CO1,CO2,CO3 ,CO4,CO7	Discribe classification , causes Symptom , sign , complication of epistaxis	2	Lecture	CAN	Know	BS,L_VC
CO1,CO2,CO3 ,CO4,CO7	Demonstrate diagnosis of epistaxis	4	Practical11.3	CAN	Shows-how	LRI,DIS
CO1,CO2,CO3 ,CO4,CO7	Explore and Present the appropriate diet, surgical , IBT procedures and medical management of epistaxis	4	Experiential-Learning11.3	PSY-GUD	Does	CD,PER

Unit 4 منحرف فاصل انف/Mūnḥarif fāsil-i- anf (Deviated nasal septum)

11.4.1. Types, causes, pathology, sign & symptoms, Investigation, differential diagnosis and Treatment of Deviated Nasal Septum (DNS)

References: 9,10,11,12,58,63

3A	3B	3C	3D	3E	3F	3G
CO1,CO2,CO3 ,CO4,CO7	Discribe classification , causes Symptom , sign , complication and pathogenesis of Deviated nasal septum	2	Lecture	CC	Know	BS,L
CO1,CO2,CO3 ,CO4,CO7	Demonstrate the differential diagnosis and diagnosis of Deviated nasal septum	4	Practical11.4	PSY-GUD	Shows-how	D-BED,DL
CO1,CO2,CO3 ,CO4,CO7	Explore and Present the appropriate diet, surgical , IBT procedures and medical management of Deviated nasal septum	4	Experiential-Learning11.4	PSY-GUD	Does	D,CD

Unit 5 بثورالانف/Buthūr al-Anf (Eruptions of nose) and قروح انف/Qurūḥ-i-Anf (Nasal ulcers)

11.5.1. Causes, pathology ,sign & symptoms, Investigation, differential diagnosis and Treatment of Nasal boils

11.5.2. Types ,causes, pathology, sign & symptoms, Investigation, differential diagnosis and Treatment of Nasal ulcer

References: 1,2,3,4,58,63

3A	3B	3C	3D	3E	3F	3G
CO1,CO2,CO3 ,CO4,CO7	Discribe classification , causes Symptom , sign , complication of Nasal Boils and nasal ulcers	2	Lecture	CC	Know	L,L&PPT
CO1,CO2,CO3 ,CO4,CO7	Demonstrate the differential diagnosis and diagnosis of Nasal Boils and nasal ulcers	4	Practical11.5	CAN	Shows-how	DIS,D-BED
CO1,CO2,CO3 ,CO4,CO7	Explore and Present the appropriate diet, surgical , IBT procedures and medical management of Nasal Boils and nasal ulcers	6	Experiential-Learning11.5	PSY-GUD	Does	CD,D

Practical Training Activity

Practical Training 11.1 **Anf ke Khalqi awarezat (Congenital deformities of Nose)** انف کے خلقی عوارضات
Total Activity time (4 hour) Activity 1 (2 hour) Bed side demonstration Teacher will Demonstrate minimum 5 cases Congenital deformities of nose in OPD/IPD on how to differentiate and diagnose. Teacher will plan and demonstrate relevant investigations of the above case and interpret the Findings. Activity 2 (2 hour) Lab Report Interpretation Teacher will explain different type of Diagnostic methods and techniques, such as X-RAY, CT, MRI, PET scan, ultrasonography, interpret images and discuss the results.
Practical Training 11.2 **Iltihabe anf aur uski jumla aqsam (Rhinitis and its all types)** التہاب انف اور اس کی جملہ اقسآم
Total Activites time (4 Hours) Activity 1 (2 hour) Demonstration Teacher will Demonstrate minimum 5 cases of Rhinitis in OPD/IPD on how to differentiate and diagnose. Teacher will plan and demonstrate relevant investigations of the above case and interpret the Findings. Activity 2 (2 hour) Lab Report interpretation Teacher will explain different type of Diagnostic methods and techniques, such as X-RAY, CT, and discuss the results. Anterior rhinoscopy training with simulations or patients
Practical Training 11.3 **Ru'af /Nakseer (Epistaxis)** رعاف/نکسیر

Total Activity time (4 hour) Activity 1 (2 hour) Discussion Teacher will analyse and discuss Epistaxis cases in small groups. Teacher will plan and demonstrate relevant investigations of the above case and interpret the Findings. Activity 2 (2 hour) Lab report Teacher will explain different type of Diagnostic methods and techniques, such as, X-ray interpret images and discuss the results. Teacher will perform Nasal packing.
Practical Training 11.4 **Munharif fasile anf (Deviated nasal septum)**منحرف فاصل انف
Total Activity time (4 hours) Activity 1 (2 hour) Demonstrion Bed side Teacher will Demonstrate minimum 5 cases Deviated nasal septum in OPD/IPD on how to differentiate and diagnose. Teacher will plan and demonstrate relevant investigations of the above case and interpret the Findings. Activity 2 (2 hour) Demonstration Lab Teacher will explain different type of Diagnostic methods and techniques, such as X-RAY, CT, MRI and discuss the results.
Practical Training 11.5 **Busoor e-anf (Nasal Boils)** شورانف**Qurooh-e-anf (Nasal ulcers)** قروح انف
Total Activity time (4 hour) Activity 1 (2 hour)

Demonstration Bed side

Teacher will Demonstrate minimum 5 cases Nasal Boils and Nasal ulcers in OPD/IPD on how to differentiate and diagnose.

Teacher will plan and demonstrate relevant investigations of the above case and interpret the Findings.

Activity 2 (2 hour)

Discussion

Teacher will explain different type of Diagnostic methods and techniques.

Group discussion participation, ppt presentation pre and post seminar quiz

Experiential Learning Activity

Experiential-Learning Learning 11.1: **Anf ke Khalqi awarezat (Congenital deformities of Nose)** انف کے خلقی عوارضات

Total activites time (hours 6)

Activity 1 (4 hour)

Case diagnosis

Student will record (in record book) at least five cases of different Congenital deformities of nose.

Student will do relevant IBT (Hijama), and surgical procedures under the supervision of teacher in procedure room /OT and explain mechanistic basics of IBT regimen effective in Congenital deformities of nose.

Activity 2 (2 hour)

Demonstration bed side

Student will make a comprehensive diet plan in the management of Congenital deformities of nose.

Student will prescribe mufradat and murakkabat and make an appropriate and effective NUSKHA for at least five cases of Congenital deformities of nose in OPD/IPD

Experiential-Learning Learning 11.2: **Iltihabe anf aur uski jumla aqsam (Rhinitis and its all types)** التہاب انف اور اس کی جملہ اقسام

Total activites time (hours 6)

Activity 1 (4 hour)

Discussion

Divide students will be divided into small groups, assign them a case study of **Rhinitis** ask them to identify their types and sign & symptoms interpret relevant investigations and describe radiological and otoscopic findings.

Student will record (in record book) at least five cases of **Rhinitis** with relevant IBT and surgical procedure under the supervision of teacher in procedure room /OT and explain mechanistic basics of IBT regimen effective in **Rhinitis**

Activity 2 (2 hour)

Journal Club

student will Critically appraise current literature on Single and compound Unani drugs .

Will compare evidence-based regimens .

Discuss applicability to real-world clinical practice.

Student will make a comprehensive diet plan in the management of **Rhinitis**.

Student will make posters prescribing mufradat and murakkabat for an appropriate and effective NUSKHA in cases of **Rhinitis**.

Experiential-Learning Learning 11.3: **Ru'af /Nakseer (Epistaxis)** رعاف نکسیر

Total activites time (hours 4)

Activity 1 (2 hour)

Case diagnosis

Student will record (in record book) at least five cases of Epistaxis

Student will do relevant IBT , Nasal packing and surgical procedure under the supervision of teacher in procedure room /OT and explain mechanistic basics of IBT regimen effective in Epistaxis.

Activity 2 (2 hour)

Presentation Student will make a comprehensive diet plan in the management of Epistaxis Student will prescribe mufradat and murakkabat and make an appropriate and effective NUSKHA at least five cases of Epistaxis in OPD/IPD
Experiential-Learning Learning 11.4: **Munharif fasile anf (Deviated nasal septum)منحرف فاصل انف**
Total activites time (hours 4) Activity 1 (2 hour) Case diagnosis Divide students will be divided into small groups, assign them a case study of Deviated nasal septum ask them to identify their sign & symptoms interpret relevant investigations and describe radiological and Anterior rhinoscpic findings. Student will record in record book at least five cases of Deviated nasal septum with relevant IBT and surgical procedure under the supervision of teacher in procedure room /OT and explain mechanistic basics of IBT regimen effective in Deviated nasal septum. Activity 2 (2 hour) Demonstration Student will make a comprehensive diet plan in the management of Deviated nasal septum tudent will make posters prescribing mufradat and murakkabat for an appropriate and effective NUSKHA in cases of Deviated nasal septum
Experiential-Learning Learning 11.5: **Busoor e-anf (Nasal Boils) بثور انف Qurooh-e-anf (Nasal ulcers) قروح انف**
Total activites time (hours 6) Activity 1 (3 hour) Case diagnosis Student will record (in record book) at least five cases of Nasal Boils and Nasal ulcers. Student will do relevant IBT and surgical procedure under the supervision of teacher in procedure room /OT .

Activity 2 (3 hour) Demonstration Student will make a comprehensive diet plan in the management of Nasal Boils and Nasal ulcers Student will prescribe mufradat and murakkabat and make an appropriate and effective NUSKHA at least five cases of Nasal Boils and Nasal ulcers and monitor and analyse patient outcome.	
Modular Assessment	
Assessment	**Hour**
Instructions - Conduct a structured Modular assessment. The assessment will be for 50 marks. Keep a structured marking pattern. Use different assessment methods in each module for the semester. Keep record of the structured pattern used for assessment. Calculate the Modular grade point as per table 6 C. 1. Case-based evaluation (25 Marks) Each student will be given a case or simulated patient for bed side clinical examination or clinical video cases or investigation reports to evaluate and diagnose to advise relevant investigations IBT procedures Surgical management & appropriate nuskha for the specific case with justification. 2. Mini CEX- Mini Clinical Examination in OPD or IPD (25 Marks) Or Any practical in converted form can be taken for assessment. (25 Marks) and Any experiential, such as portfolios/ reflection/ presentations can be taken as an assessment. (25 Marks)	4
Module 12 : امراض انف اور جیوب الانف Amrāḍ -i-anf aur Jūyūb-al- Anf (Diseases of Nose-II and PNS)	

Module Learning Objectives

(At the end of the module, the students should be able to)

1. Apply foundational Scientific knowledge to diagnose and manag complex medical condition in Amraze udhn.

2. Demonstrate surgical procedure, using clinical skills and investigation techniques to ensure patient saftety and successful outcomes.

3. Evaluate the advancements in diagnostics and treatment, integrating new knowledge into treatment for continuous improvement in patient care.

Unit 1 التہاب تجاویف اور اسکی اقسام/Iltihāb-i- tajāwīf-i-anf aur uski Aqsām (Sinusitis & its types)

12.1.1. Types ,causes, pathology ,sign/symptoms, Investigation, differential diagnosis and Treatment of Sinusitis

References: 1,2,9,10,11,53,63

3A	3B	3C	3D	3E	3F	3G
CO1,CO2,CO3 ,CO4,CO7	Discribe classification , causes Symptom , sign , complication and pathogenesis of Sinusitis	2	Lecture	CC	Know	L&PPT ,BS
CO1,CO2,CO3 ,CO4,CO7	Demonstrate of differential diagnosis and diagnosis of Sinusitis	4	Practical12.1	CAN	Shows-how	D,PAL
CO1,CO2,CO3 ,CO4,CO7	Explore and Present the appropriate diet, surgical , IBT procedures and medical management of Sinusitis	6	Experiential-Learning12.1	PSY-GUD	Does	CD,D

Unit 2 بواسیر انف/Bawāsīr-i-anf (Nasal polyp)

12.2.1.Types ,causes, pathology ,sign/symptoms, Investigation, differential diagnosis and Treatment of Nasal polyp

References: 1,8,9,10,11,23

3A	3B	3C	3D	3E	3F	3G

CO1,CO2,CO3 ,CO4,CO7	Discribe classification , causes Symptom , sign , complication and pathogenesis of Nasal polyp	2	Lecture	CC	Know	L&PPT ,L
CO1,CO2,CO3 ,CO4,CO7	Demonstrate of differential diagnosis and diagnosis of Nasal polyp	4	Practical12.2	CAN	Shows-how	CD,CBL
CO1,CO2,CO3 ,CO4,CO7	Explore and Present the appropriate diet, surgical , IBT procedures and medical management of Nasal polyp	6	Experiential-Learning12.2	PSY-GUD	Does	CD,CBL

Unit 3 خشم/Khasham (Anosmia), فسادالشم Fasād al-Shamm (Parosmia)

12.3.1. Causes, pathology ,sign/symptoms, Investigation, differential diagnosis and Treatment of Olfactory disorder (Anosmia and parosmia etc)

References: 1,2,9,10,11,58,62

3A	3B	3C	3D	3E	3F	3G
CO1,CO2,CO3 ,CO4,CO7	Discribe classification , causes Symptom , sign , complication of parosmia and anosmia	2	Lecture	CC	Know	L&PPT ,L
CO1,CO2,CO3 ,CO4,CO7	Demonstrate of differential diagnosis and diagnosis of parosmia and anosmia	4	Practical12.3	CAN	Shows-how	D-BED,CD
CO1,CO2,CO3 ,CO4,CO7	Explore and Present the appropriate diet, surgical , IBT procedures and medical management of parosmia and anosmia	4	Experiential-Learning12.3	PSY-GUD	Does	D,CD

Unit 4 قذیٰ الانف/Qadhā- al- anf (Foreign body in the Nose)

12.4.1. Types ,causes, pathology ,sign/symptoms, Investigation, differential diagnosis and Foreign body in the nose

References: 1,5,10,23,63

3A	3B	3C	3D	3E	3F	3G
CO1,CO2,CO3 ,CO4,CO7	Discribe,classification , causes Symptom , sign , complication and pathogenesis of Foreign body in the Nose	2	Lecture	CC	Know	BS,L
CO1,CO2,CO3 ,CO4,CO7	Demonstrate of differential diagnosis and diagnosis of Foreign body in the Nose	4	Practical12.4	CAP	Shows-how	CD,CBL
CO1,CO2,CO3 ,CO4,CO7	Explore and Present the appropriate diet, surgical , IBT procedures and medical management of Foreign body in the Nose	4	Experiential-Learning12.4	PSY-GUD	Does	CBL,CD
Unit 5 سلعات انف/Saraṭān-i-anf (Nasal tumors) 12.5.1.Types ,causes, pathology ,sign/symptoms, Investigation, differential diagnosis and Treatment of Tumours of nose **References:** 1,9,10,11,23,53						
3A	**3B**	**3C**	**3D**	**3E**	**3F**	**3G**
CO1,CO2,CO3 ,CO4,CO7	Discribe classification , causes Symptom , sign , complication and and pathogenesis of **tumors of nose**	2	Lecture	CC	Know	L&PPT ,L
CO1,CO2,CO3 ,CO4,CO7	Demonstrate of differential diagnosis and diagnosis of **tumors of nose**	4	Practical12.5	CAN	Shows-how	CD,CBL,LRI
CO1,CO2,CO3 ,CO4,CO7	Explore and Present the appropriate diet, surgical , IBT procedures and medical management of **tumors of nose**	6	Experiential-Learning12.5	PSY-GUD	Does	CBL,D-BED
Practical Training Activity						
Practical Training 12.1 **Iltihab Tajaweef e Anaf aur uski aqsaam (Sinusitis & its types) التہاب تجاویف انف اس کی جملہ اقسام**						

Total Activity time (4 hour) Activity 1 (2 hour) Demonstration Teacher will Demonstrate minimum 5 cases Sinusitis in OPD/IPD on how to differentiate and diagnose. Teacher will plan and demonstrate relevant investigations of the above case and interpret the Findings. Activity 2 (2 hour) Peer Asisted Learning Teacher will explain different type of Diagnostic methods and techniques, such as X-RAY, CT, MRI, PET scan, ultrasonography, interpret images Bacteriological culture of discharge and discuss the results. Group discussion participation, ppt presentation pre and post seminar quiz
Practical Training 12.2 **Bawaseere anf (Nasal polyp) بواسیرانف**
Total Activity time (4 hour) Activity 2 (2 hour) Case Based Learning Teacher will Demonstrate minimum 5 cases of Nasal polyp in OPD/IPD on how to differentiate and diagnose. Teacher will plan and demonstrate relevant investigations of the above case and interpret the Findings. Activity 2 (2 hour) Case Diagnosis Teacher will explain different type of Diagnostic methods and techniques, such as X-RAY, CT, and discuss the results. Anterior rhinoscopy training with simulations or patients.
Practical Training 12.3 **Fasade Sham فسادشم -Adame sham عدم شم**

Total Activity time (4 hours) Activity 1 (2 hour) Demonstration Bed Side Teacher will Demonstrate minimum 5 cases Parosmia and Anosmia in OPD/IPD on how to differentiate and diagnose. Teacher will plan and demonstrate relevant investigations of the above case and interpret the Findings. Activity 2 (2 hour) Case Diagnosis Teacher will explain different type of Diagnostic methods and techniques, such as X-RAY, CT, MRI, PET scan, ultrasonography, interpret images , Neurological examination and discuss the results.
Practical Training 12.4 **Qazaf-ul- anf (Foreign body in the Nose)نف قذی الا**
Total Activity time (4 hour) Activity 1 (2 hour) Case Based Learning Teacher will Demonstrate minimum 5 cases of Foreign body in the Nose in OPD/IPD on how to differentiate and diagnose. Teacher will plan and demonstrate relevant investigations such as CBC, ESR Blood sugar.and interpret the Findings Activity 2 (2 hour). Case Diagnosis Teacher will explain different type of Diagnostic methods and techniques, such as X-RAY, Anterior rhinoscopy interpret images and discuss the results.
Practical Training 12.5 **Salaat-ul- anf (Tumor of nose) سلعات انف**
Total Activity time (4 hour) Activity 1 (2 hour)

Case Based Learning

Teacher will Demonstrate minimum 5 cases Tumor of nose in OPD/IPD on how to differentiate and diagnose.

Teacher will plan and demonstrate relevant investigations of the above case and interpret the Findings.

Activity 2 (2 hour)

Case Diagnosis

Teacher will explain different type of Diagnostic methods and techniques, such as X-RAY, CT, MRI, PET scan, ultrasonography, interpret images , Neurological examination and discuss the results.

Experiential Learning Activity

Experiential-Learning Learning 12.1: **Iltihab Tajaweef e Anaf aur uski aqsaam (Sinusitis & its types)** **التہاب تجاویف انف اس کی جملہ اقسام**

Total activites time (hours 6)

Activity 1 (4 hour)

Case diagnosis

Student will record (in record book) at least five cases of different Sinusitis

Student will do relevant IBT (Hijama), and surgical procedures under the supervision of teacher in procedure room /OT and explain mechanistic basics of IBT regimen effective in Sinusitis.

Activity 2 (2 hour)

Demonstration

Student will make a comprehensive diet plan in the management of Sinusitis

Student will prescribe mufradat and murakkabat and make an appropriate and effective NUSKHA for at least five cases of Congenital deformities of ear in OPD/IPD

Experiential-Learning Learning 12.2: **Bawaseere anf (Nasal polyp)** **بواسیر انف**

Total activites time (hours 6) Activity 1 (4 hour) Case diagnosis Case study analysis-Divide students will be divided into small groups, assign them a case study of Nasal polyp ask them to identify their types and sign & symptoms interpret relevant investigations and describe radiological and otoscopic findings. Student will record (in record book) at least five cases of Nasal polyp with relevant IBT and surgical procedure under the supervision of teacher in procedure room /OT and explain mechanistic basics of IBT regimen effective in Nasal polyp Activity 2 (2 hour) Case base learning Student will make a comprehensive diet plan in the management of Nasal polyp Student will make posters prescribing mufradat and murakkabat for an appropriate and effective NUSKHA in cases of Nasal polyp
Experiential-Learning Learning 12.3: **Fasade Sham** فسادشم **-Adame sham** عدمشم
Total activites time (hours 4) Activity 1 (2 hour) Case diagnosis Student will record (in record book) at least five cases of Parosmia and Anosmia Student will do relevant IBT and surgical procedure under the supervision of teacher in procedure room /OT and explain mechanistic basics of IBT regimen effective in Parosmia and Anosmia Activity 2 (2 hour) Demonstration Student will make a comprehensive diet plan in the management of Parosmia and Anosmia Student will prescribe mufradat and murakkabat and make an appropriate and effective NUSKHA at least five cases of Parosmia and Anosmia in OPD/IPD

Student will do deta-analysis of published articles on Parosmia and Anosmia.
Experiential-Learning Learning 12.4: **Qazaf-ul- anf (Foreign body in the Nose)نف قذی الا**
Total activites time (hours 4) Activity 1 (2 hour) Case diagnosis Divide students will be divided into small groups, assign them a case study of Otosclerosis and Foreign body in the Nose ask them to identify their sign & symptoms interpret relevant investigations and describe radiological and otoscopic findings. Activity 2 (2 hour) Case Base learning Student will record in record book at least five cases of Foreign body in the Nose with relevant IBT and surgical procedure under the supervision of teacher in procedure room /OT and explain mechanistic basics of IBT regimen effective Foreign body in the Nose
Experiential-Learning Learning 12.5: **Salaat-ul- anf (Tumor of nose) سلعات انف**
Total activites time (hours 6) Activity 1 (4 hour) Case base learning students will be divided into small groups, assign them a case study of Tumours of nose ask them to identify their cardinal sing & symptoms interpret relevant investigations and describe radiological and endoscopic findings Student will record (in record book) at least five cases of Tumor of nose Student will do relevant IBT and surgical procedure under the supervision of teacher in procedure room /OT and explain mechanistic basics of IBT regimen effective in Tumor of nose. Activity2 (2 hour)

Demonstration bed side Student will make a comprehensive diet plan in the management of Tumor of nose Student will prescribe mufradat and murakkabat and make an appropriate and effective NUSKHA at least five cases of Tumor of nose and monitor and analyse patient outcome.Student will do Collaborative care work shop with speech language, audiologist and healthcare professionals	
Modular Assessment	
Assessment	**Hour**
Instructions - Conduct a structured Modular assessment. The assessment will be for 50 marks. Keep a structured marking pattern. Use different assessment methods in each module for the semester. Keep record of the structured pattern used for assessment. Calculate the Modular grade point as per table 6 C. 1. Case-based evaluation (25 Marks) Each student will be given a case or simulated patient for bed side clinical examination or clinical video cases or investigation reports to evaluate and diagnose to advise relevant investigations IBT procedures Surgical management & appropriate nuskha for the specific case with justification. 2. QZ –Class quiz can can be taken as assessment. (25 Marks) Or Any practical in converted form can be taken for assessment. (25 Marks) and Any experiential, such as portfolios/ reflection/ presentations can be taken as an assessment. (25 Marks)	4
Semester No : 5	
Module 13 : امراض بلعوم اور حنجرہ Amrāḍ -i- Bal'ūm aur Ḥanjra (Diseases of Pharynx and Larynx)	

Module Learning Objectives

(At the end of the module, the students should be able to)

1. Describe the diseases of Pharynx and Larynx

2. Conduct medical, surgical and IBT procedures

3. Identify the diseases of Pharynx and Larynx

Unit 1 حلقی امراض حنجرہ کے اور بلعوم قصبۃالریہ، مری/Marī, Qaṣaba al-Ri'a, Bal'ūm aur Ḥanjra ke Khilqī Amrāḍ (Congenital disorders of Larynx, pharynx , Trachea and Oesophagus)

13.1.1. Types ,causes, pathology ,sign/symptoms , investigation, D/D and treatment modalities of congenital deformirties of pharynx

References: 1,9,10,11,18,23

3A	3B	3C	3D	3E	3F	3G
CO1,CO2,CO4 ,CO7	Describe Congenital disorders of Larynx, pharynx, Trachea and Oesophagus, Causes, pathogenesis, Symptoms, Signs Differential diagnosis and Complications.	2	Lecture	CC	Knows-how	L&PPT ,L
CO1,CO2,CO4 ,CO7	Demonstrate the diagnostic criteria and Investigations of Congenital disorders of Larynx, pharynx, Trachea and Oesophagus.	4	Practical13.1	CAN	Shows-how	CBL,LRI
CO1,CO2,CO4 ,CO7	Explore and Present the appropriate diet, medical, surgical and IBT procedures in the management of Congenital disorders of Larynx, pharynx, Trachea and Oesophagus.	6	Experiential-Learning13.1	PSY-GUD	Does	JC,DIS,L&GD,CBL

Unit 2 Iltihāb-i- Bal'ūm aur 'Usr al-Bal' / 'Usr-i-Izdirār (Pharyngitis and Dysphagia)

13.2.1. Types ,causes, pathology ,sign/symptoms , Investigation, D/D and Treatment modalities of Pharyngitis.

13.2.2. Types ,causes, pathology ,sign/symptoms , Investigation, D/D and Treatment modalities of Dysphagia.

References: 9,10,11,14

3A	3B	3C	3D	3E	3F	3G
CO1,CO2,CO4 ,CO7	Describe Dysphagia and Pharyngitis their causes, pathogenesis, Sign & Symptoms and complications.	2	Lecture	CC	Knows-how	L&PPT ,L
CO1,CO2,CO4 ,CO7	Demonstrate the diagnostic criteria and Investigations of Dysphagia and Pharyngitis	4	Practical13.2	CAN	Shows-how	D-BED,X-Ray,L_VC
CO1,CO2,CO4 ,CO7	Identify the appropriate medical, surgical and IBT procedures in the management of Dysphagia and Pharyngitis	6	Experiential-Learning13.2	PSY-GUD	Does	L&GD,PrBL

Unit 3 تضخم الغدانیه /Taḍakhkhūm Alghadāniyy (Adenoid hypertrophy)

13.3.1. Causes, pathology ,sign/symptoms , Investigation, D/D and Treatment modalities of Adenoid hypertrophy.

13.3.2. Symptomatology , Investigation, D/D, complications and Treatment modalities of Adenoid facies

References: 1,9,10,11,23

3A	3B	3C	3D	3E	3F	3G
CO1,CO2,CO4 ,CO7	Describe causes, pathogenesis, Sign, Symptoms and complications of Adenoid hypertrophy.	2	Lecture	CC	Knows-how	L,L_VC

CO1,CO2,CO4,CO7	Demonstrate the diagnostic criteria and Investigations of Adenoid hypertrophy	4	Practical13.3	CAN	Shows-how	D-BED,CBL
CO1,CO2,CO4,CO7	Identify the appropriate medical, surgical and IBT procedures in the management of Adenoid hypertrophy.	4	Experiential-Learning13.3	PSY-ADT	Does	PrBL,SY

Unit 4 تضخم الغدانیہ /Taḍakhkhūm Alghadāniyy (Adenoid hypertrophy), سلعات بلعو/Sal'āt -i- Bal'ūm (Tumours of pharynx)

13.4.1.Types ,causes, pathology ,sign/symptoms, Investigation, D/D and Treatment modalities of Sal'āt -i- Bal'ūm

References: 1,9,10,11

3A	3B	3C	3D	3E	3F	3G
CO1,CO2,CO4,CO7	Describe causes, pathogenesis, Sign, Symptoms and complications of Tumours of pharynx.	2	Lecture	CC	Knows-how	L,L&PPT
CO1,CO2,CO4,CO7	Demonstrate the diagnostic criteria and Investigations of Tumours of pharynx.	4	Practical13.4	CAN	Shows-how	D-BED,CBL
CO1,CO2,CO4,CO7	Identify the appropriate medical, surgical and IBT procedures in the management of Tumours of pharynx.	4	Experiential-Learning13.4	PSY-GUD	Does	SY,PrBL

Unit 5 التہاب حنجرہ/Iltihāb-i- Ḥanjra (Laryngitis), Sal'āt -i- Ḥanjra / سلعات حنجرہ(Tumours of larynx)

13.5.1.Types ,causes, pathology ,sign/symptoms , Investigation, D/D and Treatment modalities of Laryngitis

13.5.2. Types ,causes, pathology ,sign/symptoms , Investigation, D/D and Treatment modalities of Tumours of larynx

References: 1,2,9,10,11,53

3A	3B	3C	3D	3E	3F	3G
CO4,CO7	Perform the appropriate medical, surgical and IBT procedures in the management of Laryngitis and Tumours of larynx.	6	Experiential-Learning13.5	PSY-ADT	Does	L&PPT ,CBL,L,D-BED
CO1,CO2,CO4 ,CO7	Describe causes, pathogenesis, Sign, Symptoms and complications of Laryngitis and Tumours of larynx.	2	Lecture	CC	Knows-how	L,L_VC
CO1,CO2,CO4 ,CO7	Demonstrate the diagnostic criteria and Investigations of Laryngitis and Tumours of larynx.	4	Practical13.5	CAN	Shows-how	CD,D-BED

Practical Training Activity

Practical Training 13.1

Congenital disorders of Larynx, pharynx , Trachea and Oesophagus (Hanjarah,Baloom,Mari wa Qasbat-u-ria ke khalqi awarizat)

Total Activity time (hours 4)

Activity 1 (2 hour)

CBL (Case based learning)

Case based learning --Teacher will Demonstrate minimum 5 cases of Congenital disorders of Larynx, pharynx, Trachea and Oesophagus in OPD/IPD on how to differentiate and diagnose. **Activity 1 (2 hour)** **Lab Report Analysis** **Teacher will analyze and Interpret laboratory investigation reports accurately and apply findings to clinical decision-making.** **Teacher will explain the lab report and answer:** **What are the abnormal values?** **What do they indicate?** **What is the likely diagnosis or differential?** **What is the next clinical step** **Common interpretation errors** **Best practices in reading lab results** **When to repeat or escalate tests** **Logbook Entry: The student will record the number of cases (at least 5 cases) in the log book with the date as practical.**
Practical Training 13.2 Dysphagia and Pharyngitis
Total Activity time (hours 4) Activity 1 (2 hour) Bed side Demonstration OPD/IPD Teacher will Demonstrate minimum 5 cases of Pharyngitis and Dysphagia in OPD/IPD on how to differentiate and diagnose. Activity 2 (1 hour)

Lab report interpretation

Teacher will plan and demonstrate relevant lab investigations of the above case and interpret the Findings

Activity 3 (1 hour)

-X-ray Identification

Teacher will explain different type of Diagnostic methods and techniques, such as X-RAY, CT, MRI, Barium Swallow, Fluoroscopy, Cineradiography, Video Esophagography, Esophageal manometry, interpret images and discuss the results.

Practical Training 13.3 **Adenoid hypertrophy (Ta'zzum-e-Ghudade anfi Halaqi)**

Total Activity time (4 hours)

Activity 1:-(2 hours)

Case based learning

Teacher will demonstrate make decisions about diagnosis and investigation and treatment

Review patient history and symptoms

Write a diagnostic impression using formal criteria

Decide which investigations are appropriate tools (e.g., X-ray, endoscopy, tympanometry)

Teacher will perform posterior rhinoscopy and rigid or flexible nasopharyngoscope under topical anesthesia to Show details of the nasopharynx

Interpret results (images, physical exam findings)

Student will record Case write-up including:- Diagnosis,Supporting criteria,Investigations chosen,Treatment considerations

Activity 2:-(2 hours)

Lab report interpretation – Imaging of Adenoid Hypertrophy Teacher will interpret radiological investigations used in diagnosing adenoid hypertrophy. Lateral neck X-rays (normal and enlarged adenoids) Nasal endoscopy images or videos Protractor or software for measuring adenoid-nasopharyngeal ratio Compare normal vs. abnormal lateral X-rays. Estimate % nasopharyngeal obstruction. Grade severity (e.g., Cohen's classification or other). Analyze whether adenoid hypertrophy is contributing to symptoms like sleep apnea or otitis media Teacher will Interpret results of other investigation also Students will record report their findings and indicate whether radiological criteria are met for Grade 2 or 3 hypertrophy.
Practical Training 13.4 Tumours of pharynx (Salaat Baloom)
Total Activity time (hours 4) Activity 1 (2 hour) Bed side Demonstration, OPD/IPD. Teacher will Demonstrate minimum 5 cases of Tumours of pharynx in OPD/IPD . Teacher will Demonstrate how to differentiate and diagnose.the casae of Tumours of pharynx. Activity 2 (2 hour) Case based learning, and Lab report interpretation Teacher will plan and demonstrate relevant investigations such as CBC, ESR Blood sugar Viral markers etc. ' Teacher will demonstrate specific Cancer markers for early detection of carcinoma.and interpret the Findings .Practical book Entry: The student will record at least five cases in the notebook with the practical learning activities.

Practical Training 13.5 Laryngitis and Tumours of larynx (Iltihab-e- Hanjrah and Salaat-e-Hanjra
Total Activity time (hours 4) Activity 1 (2 hour) Case based learning, -Teacher will Demonstrate minimum 5 cases of Tumours of larynx. Teacher will discuss complex laryngeal carcinoma cases in OPD/IPD on how to differentiate and diagnose. MRI, PET scan, Barium Swallow, ultrasonography, interpret images and discuss the results. Activity 2 (2 hour) Bed side Demonstration, OPD/IPD Teacher will explain different type of Diagnostic methods and techniques, such as X-RAY, CT Teacher will perform indirect and direct laryngoscopy and endoscopy. Practical book Entry: The student will record the number of cases (at least 5 cases) in the note book with the date as practical.
Experiential Learning Activity
Experiential-Learning Learning 13.1: management of Congenital disorders of Larynx, pharynx, Trachea and Oesophagus.
Total Activity time (hours 6) Activity 1 (2 hour) Case presentation Students prepare a structured presentation with the following sections: Section Details Chief Complaint, Detailed symptom timeline, associated features, relevant history Physical Exam Findings, Lab Investigations,imaging, or specialty tests

Student will make a comprehensive diet plan in the management ofLarynx, pharynx Trachea and esophagus.

Each student/group will presents their case separately.

Student will perform relevant IBT and surgical procedures under the supervision of teacher in procedure room /OT and explain mechanistic basics of IBT regimen effective in Congenital disorders of Larynx, pharynx , Trachea and Oesophagus.

Student will prepare a comprehensive diet plan.

Activity 2 (2 hour)

Journal Club

student will Critically appraise current literature on treatment options for congenital airway/GI anomalies.

Compare evidence-based regimens (medical/surgical/IBT).

Discuss applicability to real-world clinical practice, including neonatal and pediatric care.

Present findings and facilitate peer learning through discussion.

Activity 3 (2 hour)

LECTURE & group discussion

Each group presents their findings to the class

Summary of their case

Chosen regimen and rationale

Involvement of interprofessional care

Key learning points

Other groups ask questions or challenge management decisions

Common principles across conditions

When different regimens are indicated

Importance of early recognition and team-based care

Advances in surgical and supportive care Each group discusses and fills out a Regimen Evaluation Chart for their case. Logbook Entry: The student will record at least five cases in the log book with the date date as Experiential. Logbook Entry will be mandatory for every student, along with the practical/experiential learning activities.
Experiential-Learning Learning 13.2: Pharyngitis and Dysphagia (Iltihab-e-Balaum wa Usrul Bala)
Total activites time (hours 6) Activity 1:-(2 hours) Case study analysis students- will be divided into small groups, will be assign them a case study of pharyngitis and dysphagia ask them to identify their cardinal sing & symptoms interpret relevant investigations and describe radiological and endoscopic findings. Activity 2:-(2 hours) Individual research project Student will record (in record book) at least five cases of Pharyngitis and Dysphagia with relevant IBT and surgical procedure under the supervision of teacher in procedure room /OT and explain mechanistic basics of IBT regimen effective in Pharyngitis and Dysphagia Activity 3:-(2 hours) Case presentation Students prepare a structured presentation with the following sections: details. Chief Complaint, Detailed symptom timeline, associated features, relevant history

Physical Exam Findings, Lab Investigations,imaging, or specialty tests

Student will make a comprehensive diet plan in the management of Pharyngitis and Dysphagia.

Each student/group will presents their case separately.

Logbook Entry: The student will record at least five cases in the log book with the date date as Experiential. Logbook Entry will be mandatory for every student, along with the experiential learning activities.

Experiential-Learning Learning 13.3: Adenoid hypertrophy (Ta'zzum-e-Ghudade anfi Halaqi)

Total Activity time (hours 4)

Activity 1 (2 hours)

Case presentation, OPD/OT room

Student will record (in record book) at least five cases of Adenoid hypertrophy

Take a focused ENT history.

Perform a physical exam (e.g., check for mouth breathing, tonsillar hypertrophy, otoscopic exam).

Discuss possible investigations (lateral neck X-ray, nasal endoscopy).

Activity 2 (2 hours).

Individual research project

Identify what history and physical examination findings are most critical.

Propose which investigations would confirm the diagnosis and why.

Reflect on differential diagnoses (e.g., allergic rhinitis, tonsillar hypertrophy, deviated septum).

Analyze Treatment Options

Compare medical vs surgical management.

Discuss indications for adenoidectomy.

Include any possible complications or outcomes (e.g., sleep apnea, speech improvement, hearing changes).

Student will make a comprehensive diet plan and will do relevant IBT and surgical procedure under the supervision of teacher in procedure room /OT and explain mechanistic basics of IBT regimen effective in Adenoid hypertrophy Logbook Entry: The student will record at least five cases in the log book with date as Experiential. Logbook Entry will be mandatory for every student, along with the practical learning activities.
Experiential-Learning Learning 13.4: Medical, surgical and IBT procedures in the management of Tumours of pharynx.
Total activites time (hours 4) Activity 1 (2 hour) Individual Research Project Student will do at least 5 cases of relevant IBT and surgical procedure under the supervision of teacher in procedure room /OT and explain mechanistic basics of IBT regimen effective in Tumours of pharynx. Activity 2 (2 hour) Case Base Learning Student will make a comprehensive diet plan in the management of Tumours of pharynx Student will prescribe mufradat and murakkabat and make an appropriate and effective NUSKHA at least five cases of Tumours of pharynx and monitor and analyse patient outcome. Student will do Collaborative care work shop with speech language pathologist audiologist and healthcare professionals
Experiential-Learning Learning 13.5: **Laryngitis and Tumours of larynx (Iltihab-e- Hanjrah and Salaat-e-Hanjra**
Total Activity time (hours 6) Activity 1 (2 hour) Group discussion

students will be divided into small groups, Will be assign them at least 5 cases of of Laryngitis and Tumours of larynx tudents will identify their cardinal sing & symptoms interpret relevant investigations and describe radiological and endoscopic findings. Activity 2 (2 hour) Case study analysis- students to apply theoretical knowledge to a realistic clinical scenario, enhancing decision-making, critical thinking, and team-based problem-solving. students will Analyze and interpret clinical case data. Formulate a diagnosis or problem list Recommend appropriate investigations, interventions, and care plans. Integrate interprofessional roles in patient care. Lab reports, imaging, and history sheets Activity 3 (2 hour) Case presentation, Student will present at least five cases of Laryngitis and Tumours of larynx with relevant IBT and surgical procedure under the supervision of teacher in procedure room /OT and explain mechanistic basics of IBT regimen effective in Laryngitis and Tumours of larynx Logbook Entry: The student will record at least five cases in the log book with the date date as Experiential. Logbook Entry will be mandatory for every student, along with the practical/experiential learning activities
Modular Assessment

Assessment	**Hour**
Instructions - Conduct a structured Modular assessment. The assessment will be for 50 marks. Keep a structured marking pattern. Use different assessment methods in each module for the semester. Keep record of the structured pattern used for assessment. Calculate the Modular grade point as per table 6 C.	4

1. Case-based evaluation (25 Marks) Each student will be given a case or simulated patient for bed side clinical examination or clinical video cases or investigation reports to evaluate and diagnose to advise relevant investigations IBT procedures Surgical management & appropriate nuskha for the specific case with justification. 2. Viva -Voce: (25 Marks) Or Any practical in converted form can be taken for assessment. (25 Marks) and Any experiential, such as portfolios/ reflection/ presentations can be taken as an assessment. (25 Marks)	

Module 14 : امراض حلق،جوف الفم اور غدہ لعابیہ Amrāḍ -i- Halq, Jauf-al- Fam aur Ghudda Lu'ābiyyah (Diseases of Throat, Oral cavity and Salivary gland)

Module Learning Objectives

(At the end of the module, the students should be able to)

1. Describe the diseases of throat, oral cavity and salivary glands
2. Conduct medical ,surgical and IBT procedures for the management strategies in unani and conventional medicine for the throat, oral cavity and salivary glands diseases.
3. Identify and understand the diagnosis of throat, oral cavity and salivary glands

Unit 1 التہاب لوزتین/Iltihāb-i- Lawzatayn (Tonsillitis) and Quinsy

14.1.1. Types, causes, pathology, sign & symptoms, investigation, (Differential Diagnosis) D/D and treatment modalities of tonsillitis and Quinsy

References: 9,10,11,12,23

3A	3B	3C	3D	3E	3F	3G

CO1,CO2,CO4 ,CO7	Describe and classify different types of tonsillitis and quinsy	2	Lecture	CC	Knows-how	L&PPT ,L
CO1,CO2,CO4 ,CO7	Demonstrate the diagnostic criteria, differential diagnosis and Investigations of tonsillitis and quinsy.	4	Practical14.1	CAN	Shows-how	CBL,LRI
CO1,CO2,CO4 ,CO7	Explore the appropriate medical, surgical and IBT procedures in the management of tonsillitis and quinsy.	6	Experiential-Learning14.1	PSY-ADT	Does	CBL,CD,PrBL

Unit 2 ضرر، سلعات جوف الفم اور تلیف فم تحت المخاطیہ/Ḍarar ,Sal'āt -i- Jauf-al- Fam aur talaiyyuf fam-i- taḥat-al-mukhātiyyah (Injuries ,tumours of oral cavity and oral Sub mucosal fibrosis)

14.2.1. Types ,causes, pathology, sign & symptoms ,investigation, D/D and treatment modalities of tumours of oral cavity

14.2.2. Types ,causes, pathology, sign & symptoms , investigation, D/D and treatment modalities of oral sub mucosal fibrosis

References: 9,10,11,12,23

3A	3B	3C	3D	3E	3F	3G
CO1,CO2,CO4 ,CO7	Describe and classify different types of Injuries, tumors of oral cavity and oral Sub mucosal fibrosis.	2	Lecture	CC	Knows-how	BS,L
CO1,CO2,CO4 ,CO7	Demonstrate the diagnostic criteria, differential diagnosis and Investigations of Injuries, tumors of oral cavity and oral Sub mucosal fibrosis	4	Practical14.2	CAN	Shows-how	L_VC,D
CO1,CO2,CO4 ,CO7	Explore the appropriate medical, surgical and IBT procedures in the management of Injuries ,tumors of oral cavity and oral Sub mucosal fibrosis	6	Experiential-Learning14.2	PSY-ADT	Does	DIS,PrBL

Unit 3 صوت اور اسکی تدابیر امراض/Amrāḍ -i- Ṣawt aur uski tadābīr (Speech disorder and their management), بحث الصوت/Buḥḥa al-Ṣawt (Hoarseness of voice)

14.3.1.Types ,causes, pathology ,sign & symptoms , investigation, D/D and treatment modalities of speech disorder and their management

14.3.2. Types ,causes, pathology, sign/symptoms , investigation, D/D and treatment modalities of hoarseness of voice

References: 9,10,11,12,23

3A	3B	3C	3D	3E	3F	3G
CO1,CO2,CO3 ,CO4,CO7	Describe Voice and speech disorder its Causes, pathogenesis Symptoms, Signs and Complications.	2	Lecture	CC	Knows-how	L,L&PPT
CO1,CO2,CO3 ,CO4,CO7	Discus the diagnostic criteria, differential diagnosis and Investigations of Voice and speech disorder.	4	Practical14.3	CAN	Shows-how	PER,CBL
CO1,CO2,CO3 ,CO4,CO7	Explore the appropriate medical, surgical and IBT procedures in the management of Voice and speech disorder.	6	Experiential-Learning14.3	PSY-ADT	Does	DIS,PL

Unit 4 قلاع/Qulā‘ (Stomatitis), Oral mucosal lesion and Ulceration

14.4.1. Types ,causes, pathology,sign & symptoms , investigation, D/D and treatment modalities of stomatitis

14.4.2. Types ,causes, pathology, sign & symptoms, investigation, D/D and treatment modalities of ulceration

References: 1,9,10,11,14,23

3A	3B	3C	3D	3E	3F	3G

CO1,CO2,CO3,CO4,CO7	Describe and classify different types of oral mucosal lesions, their Causes, pathogenesis, Symptoms, Signs and Complications.	2	Lecture	CC	Knows-how	BS,L_VC
CO1,CO2,CO3,CO4,CO7	Demonstrate the diagnostic criteria, differential diagnosis and Investigations of benign and malignant oral mucosal lesions.	4	Practical14.4	CAN	Shows-how	CBL,LRI
CO1,CO2,CO3,CO4,CO7	Identify the appropriate medical, surgical and IBT procedures in the management of oral mucosal lesions.	4	Experiential-Learning14.4	PSY-GUD	Does	CBL,PL

Unit 5 امراض غدہ لعابیہ/Amrāḍ -i- Ghudda Lu'ābiyyah (Salivary gland disorder)

14.5.1. Types, causes, pathology, sign & symptoms, investigation, D/D and treatment modalities of salivary gland disorders.

14.5.2. Xerostomia

14.5.3. Ptylism

References: 9,10,11,14,22,23

3A	3B	3C	3D	3E	3F	3G
CO1,CO2,CO4,CO7	Explore the appropriate medical, surgical and IBT procedures in the management of Salivary gland disorders.	4	Experiential-Learning14.5	PSY-ADT	Does	DIS,PER
CO1,CO2,CO3,CO4,CO7	Describe Salivary gland disorders their types, Causes, pathogenesis, Signs, symptoms and Complications.	2	Lecture	CC	Knows-how	L,L&PPT
CO1,CO2,CO3,CO4,CO7	Demonstrate the diagnostic criteria, differential diagnosis and Investigations of Salivary gland disorders.	4	Practical14.5	CAN	Shows-how	D,CBL,D-BED

Practical Training Activity

Practical Training 14.1 Iltihab-e-Lauzatain (Tonsillitis) and Khuraj-e-Atrafe Laozatain (Quinsy)
Total Activity time (hours 4) Activity 1 (2 hour) Bed side Demonstration OPD/IPD Teacher will Demonstrate minimum 5 cases from OPD/IPD on how to differentiate and diagnose. Activity 2 (1 hour) Lab report interpretation Teacher will plan and demonstrate relevant lab investigations of the above case and interpret the Findings. Activity 3 (1 hour) X-ray Identification Teacher will explain different type of Diagnostic methods and techniques, such as X-RAY, CT, MRI, Barium Swallow, Fluoroscopy, Cineradiography, Video Esophagography, Esophageal manometry, interpret images and discuss the results.
Practical Training 14.2 Injuries ,tumours of oral cavity and oral Sub mucosal fibrosis
Total Activity time (hours 4) Activity 1 (2 hour) Bed side OPD/IPD, Teacher will Demonstrate minimum 5 cases of Injuries, tumours of oral cavity and oral Sub mucosal fibrosis in OPD/IPD on how to differentiate and diagnose, Demonstrate proper technique and clinical reasoning for evaluating a patient Teacher introduces the case briefly to students Gains patient consent for teaching. Teacher performs and explains:

History-taking ,Physical examination, Inspection ,Palpation & Highlights findings

teacher explains:, Differential diagnoses ,investigations and treatment regimens

Activity 2 (1 hour)

Lab report interpretation

Teacher will plan and demonstrate relevant investigations of the above case and interpret the Findings.

Activity 3 (1 hour)

Radiological test identification

Teacher will explain different type of Diagnostic methods and techniques, such as X-RAY, CT, MRI, OPG ,PETCT, Biopsy, FNAC, Pan endoscopy interpret images and discuss the results.

Practical Training 14.3 Voice and speech disorder and their management strategies

Total Activity time (hours 4)

Activity 1 (2 hour

Bed side Demonstration, OPD/IPD

Teacher will analyse and discuss Voice and speech disorder cases in small groups.Demonstrate proper technique and clinical reasoning for evaluating a patient

Teacher introduces the case briefly to students

Gains patient consent for teaching.

Teacher performs and explains:

History-taking ,Physical examination, Inspection ,Palpation & Highlights findings ,Teacher will perform anterior and posterior rhinoscopy, direct and indirect laryngoscopy and endoscopy

Teacher explains:, Differential diagnoses ,investigations and treatment regimens

Activity 2 (1 hour)

Lab report interpretation

Teacher will plan and demonstrate relevant investigations of the above case and interpret the Findings.

Activity 3 (1 hour)

X-Ray identification

Teacher will explain different type of Diagnostic methods and techniques, such as, X-ray soft tissue nasopharynx lateral view .CT, MRI, interpret images and discuss the results..

Practical Training 14.4 Oral Mucosal Lesions (Stomatitis, ulceration etc)

Total Activity time (hours 4)

Activity 1 (2 hour)

CBL (Case based learning)

Teacher will Demonstrate minimum 5 cases of oral mucosal lesions OPD/IPD on how to differentiate and diagnose.

Activity 1 (2 hour)

Lab Report Analysis

Teacher will analyze and Interpret laboratory investigation reports accurately and apply findings to clinical decision-making.

Teacher will explain the lab report and answer:

What are the abnormal values?

What do they indicate?

What is the likely diagnosis or differential?

What is the next clinical step

Common interpretation errors

Best practices in reading lab results

When to repeat or escalate tests

Teacher will plan and demonstrate relevant investigations such as CBC, ESR Blood sugar Viral markers etc. and specific Cancer markers for early detection of

carcinoma and interpret the Findings

Practical book Entry: The student will record at least five cases in the practical book with the date as practical.

Practical Training 14.5 Salivary gland disorders

Total Activity time (hours 4)

Activity 1 (2 hour)

CBL (Case based learning)

Teacher will Demonstrate minimum 5 cases of Salivary gland disorders in OPD/IPD on how to differentiate and diagnose.

Activity 1 (2 hour)

Lab Report Analysis

Teacher will analyze and Interpret laboratory investigation reports accurately and apply findings to clinical decision-making.

Teacher will explain the lab report and answer:

What are the abnormal values?

What do they indicate?

What is the likely diagnosis or differential?

What is the next clinical step

Common interpretation errors

Best practices in reading lab results

When to repeat or escalate tests

Teacher will explain different type of Diagnostic methods and techniques, such as X-RAY, CT, MRI, PET scan, sialography, biopsy/FNAC, Histopathology, testing for autoantibodies interpret images and discuss the results.

Experiential Learning Activity

Experiential-Learning Learning 14.1: Iltihab-e-Lauzatain (Tonsillitis) and Khuraj-e-Atrafe Laozatain (Quinsy)
Total activities time (hours 6) Activity 1 (2 hour) Case presentation Students prepare a structured presentation with the following sections in details Chief Complaint, Detailed symptom timeline, associated features, relevant history ,Physical Exam Findings, Lab Investigations, imaging, or specialty tests Student will make a comprehensive diet plan in the management tonsillitis and quinsy. Activity 2 (2 hour) Individual research project Student will prepare research project for the cases of tonsillitis and quinsy. Activity 3 (2 hour) Case base learning Student will perform relevant IBT and surgical procedures and comprehensive diet plan under the supervision of teacher in procedure room /OT and explain mechanistic basics of IBT regimen effective in tonsillitis and quinsy.
Experiential-Learning Learning 14.2: Injuries ,tumours of oral cavity and oral Sub mucosal fibrosis
Total activities time (hours 6) Activity 1(2hours) Group discussion students will be divided into small groups, assign them a case study of Injuries, tumours of oral cavity and oral Sub mucosal fibrosis. Ask them to identify their cardinal sing & symptoms interpret relevant investigations and describe radiological and endoscopic findings Activity 2 (2hours)

Individual research project, Student will record research project at least five cases of Injuries, tumours of oral cavity and oral Sub mucosal fibrosis with relevant IBT and surgical procedure under the supervision of teacher in procedure room /OT and explain mechanistic basics of IBT regimen effective in Injuries, tumours of oral cavity and oral Sub mucosal fibrosis. Activity 3 (2hours) Case presentation, Student will make a comprehensive diet plan in the management of Injuries, tumours of oral cavity and oral Sub mucosal fibrosis.. Logbook Entry: The student will record at least five cases in the log book with the date as Experiential.
Experiential-Learning Learning 14.3: Voice and speech disorder and their management strategies
Total activities time (hours 6) Activity 1 (2 hour) Group discussion students will be divided into small groups, Will be assign them at least 5 cases of of Voice and speech disorder students will identify their cardinal sing & symptoms interpret relevant investigations and describe radiological and endoscopic findings. Activity 2 (2 hour) Case study analysis- students to apply theoretical knowledge to a realistic clinical scenario, enhancing decision-making, critical thinking, and team-based problem-solving. students will Analyze and interpret clinical case data. Formulate a diagnosis or problem list Recommend appropriate investigations, interventions, and care plans. Integrate interprofessional roles in patient care. Lab reports, imaging, and history sheets

Activity 3 (1 hour)

Student will make a comprehensive diet plan will do relevant IBT and surgical procedure under the supervision of teacher in procedure room /OT and explain mechanistic basics of IBT regimen effective in Voice and speech disorder.

Activity 4 (1 hour)

Individual Research-

Student will prescribe mufradat and murakkabat and make an appropriate and effective NUSKHA at least five cases of Voice and speech disorder in OPD/IPD and will observe results.

Log Book -Student will record (in record book) at least five cases of Voice and speech disorder.

Experiential-Learning Learning 14.4: Oral Mucosal Lesions (Stomatitis, ulceration etc)

Total activities time (hours 4)

Activity 1 (2 hour)

Case presentation OPD/OT room

Student will perform at least five relevant IBT and surgical procedure under the supervision of teacher in procedure room /OT and explain mechanistic basics of IBT regimen effective in oral mucosal lesions..

Activity 2 (2 hour)

Peer Learning

Each student researches their focus and prepares to teach it to their partner.

Each student teach their topic using simple explanations

student will Use props, diagrams, or real-life examples

Each student answers:

“What did I learn from my peer that I didn’t know before?”

And gives brief verbal feedback: Was the teaching clear? What was the best part? Log Book-peer learning Student will make a comprehensive diet and treatment plan in the management of oral mucosal lesions.
Experiential-Learning Learning 14.5: Salivary gland disorders
Total activities time (hours 4) Activity 1 (2 hour) Group discussion Students will be divided into small groups, assign them a case study of Salivary gland disorders ask them to identify their cardinal sing & symptoms interpret relevant investigations and describe radiological and endoscopic findings. Activity 2 (2 hour) Case presentation Student will record in record book) at least five cases of Salivary gland disorders with relevant IBT and surgical procedure under the supervision of teacher in procedure room /OT and explain mechanistic basics of IBT regimen effective in Salivary gland disorders. Logbook Entry: The student will record at least five cases in the log book with the date date as Experiential.
Modular Assessment

Assessment	**Hour**
Instructions - Conduct a structured Modular assessment. The assessment will be for 50 marks. Keep a structured marking pattern. Use different assessment methods in each module for the semester. Keep record of the structured pattern used for assessment. Calculate the Modular grade point as per table 6 C.	4

1. Case-based evaluation (25 Marks) Each student will be given a case or simulated patient for bed side clinical examination or clinical video cases or investigation reports to evaluate and diagnose to advise relevant investigations IBT procedures Surgical management & appropriate nuskha for the specific case with justification. 2. Viva -Voce: (25 Marks) Or Any practical in converted form can be taken for assessment. (25 Marks) and Any experiential, such as portfolios/ reflection/ presentations can be taken as an assessment. (25 Marks)	

Semester No : 6

Module 15 : اذن، انف وحلق اور راس ورقبہ کے متعدی امراض Uzn, Anf wa Ḥalq aur Rās wa Raqaba ke muta'addi Amrāḍ (Infectious disease of otorhinolaryngology and head & neck region)

Module Learning Objectives

(At the end of the module, the students should be able to)

1. Describe the diseases of infectious disease of otorhinolaryngology and head & neck region
2. Conduct medical ,surgical and IBT procedures for the management strategies in Unani and conventional medicine for the infectious disease of otorhinolaryngology and head & neck region
3. Identify and understand the diagnosis of infectious disease of otorhinolaryngology and head & neck region

Unit 1 تسمم اذنیہ/Tasammūm Uzniyyah (Ototoxicity)

15.1.1. Types ,causes, pathology ,sign/symptoms , investigation, D/D and treatment modalities of of ototoxicity

References: 9,10,11,23

3A	3B	3C	3D	3E	3F	3G
CO1,CO2,CO3 ,CO4,CO7	Discuss and classify different types, Causes, pathological process, ,Symptoms, Signs and Complications of Ototoxicity	2	Lecture	CC	Knows-how	L,DIS,L&PPT
CO1,CO2,CO3 ,CO4,CO7	Demonstrate the diagnostic criteria, differential diagnosis and Investigations of Ototoxicity	4	Practical15.1	CAN	Shows-how	CBL,LRI,X-Ray
CO1,CO2,CO3 ,CO4,CO7	Explore the appropriate medical, surgical and IBT procedures in the management of Ototoxicity	4	Experiential-Learning15.1	PSY-ADT	Does	PrBL,CD

Unit 2 جبھی فکی اور راس رقبہ کی ضربی Jabhi Fakkī aur Rās aur Raqaba ki Ḍarbī (Faciomaxillary and head , neck trauma)

15.2.1. Types ,causes, pathology ,sign/symptoms , investigation, D/D ,complications and treatment modalities of faciomaxillary, head & neck trauma

References: 9,10,11,23

3A	3B	3C	3D	3E	3F	3G
CO1,CO2,CO3 ,CO4,CO7	Describe and classify different Causes, types, pathogenesis, Symptoms, Signs and Complications of Faciomaxillary and head and neck trauma	2	Lecture	CC	Knows-how	BS,L&PPT
CO1,CO2,CO3 ,CO4,CO7	Demonstrate the diagnostic criteria, differential diagnosis and Investigations of Faciomaxillary and head and neck trauma	4	Practical15.2	CAN	Shows-how	D-BED,D
CO1,CO2,CO3 ,CO4,CO7	Explore the appropriate medical, surgical and IBT procedures in the management of Faciomaxillary and head and neck trauma	4	Experiential-Learning15.2	PSY-ADT	Does	PrBL,DIS,CBL

Unit 3 اذن،انف وحلق،راس اور رقبہ کے امراض معدیہ کی تحفظ اور صحت Uzn, Anf wa Ḥalq, rās aur Raqaba ke amrāḍ Mu'diya ka Tahaffuz aur 'Ilāj (Prevention and treatment of infectious disease of otorhinolaryngology and head and neck region)

15.3.1. Preventive measures and treatment of infectious disease of otorhinolaryngology and head and neck region

References: 9,10,11,12,23,85

3A	3B	3C	3D	3E	3F	3G
CO1,CO2,CO3 ,CO4,CO7	Describe infectious disease of otorhinolaryngology and head and neck region Causes, pathogenesis Symptoms, Signs and Complications	2	Lecture	CC	Knows-how	L&PPT ,L
CO1,CO2,CO3 ,CO4,CO7	Discus the diagnostic criteria, differential diagnosis Investigations and vaccination to prevent infectious disease of otorhinolaryngology and head and neck region	4	Practical15.3	CAN	Shows-how	PER,PL,CBL
CO1,CO2,CO3 ,CO4,CO7	Explore the appropriate medical, surgical and IBT procedures in the Prevention and treatment of infectious disease of otorhinolaryngology and head and neck region.	6	Experiential-Learning15.3	PSY-ADT	Does	PL,CBL

Unit 4 اذن،انف وحلق کے اضطراب الدورۃ الدمویہ اور جسم کے دوسرے اعضاء پر انکے اثرات Uzn, Anf wa Ḥalq ke iḍṭerābāt-al-dawrah-al-damviyyah aur jism ke dusre a'ḍā' per unke athrāt (Circulatory disturbance of Ear, Nose and Throat and their effects on other organ of the body)

15.4.1. Diagnostic and treatment modalities of circulatory disturbance of ear nose and throat and their effects on other organ of the body

References: 10,12,23

3A	3B	3C	3D	3E	3F	3G
CO1,CO2,CO3 ,CO4,CO7	describe Circulatory disturbance of Ear nose and throat and their effects on other organ of the body	2	Lecture	CC	Knows-how	L&PPT ,BS

CO1,CO2,CO3 ,CO4,CO7	Demonstrate the diagnostic criteria, differential diagnosis and Investigations of Circulatory disturbance of Ear nose and throat, and how they are effecting other organs of the body.	4	Practical15.4	CAN	Shows-how	SY,CBL
CO1,CO2,CO3 ,CO4,CO7	Identify the appropriate medical, surgical and IBT procedures in the management of Circulatory disturbance of Ear nose and throat and their effects on other organ of the body.	6	Experiential-Learning15.4	PSY-GUD	Does	D,CD

Unit 5 اذن،انف وحلق کے اضطراب اعصاب اور جسم کے دوسرے اعضاء پر انکے اثرات/Uzn, Anf wa Ḥalq ke iḍṭerābāt a'ṣāb aur jism ke dusre a'ḍā' per unke athrāt (Nervous disturbance of Ear nose and throat and their effects on other organ of the body)

15.5.1. Diagnostic and treatment modalities of Nervous disturbance of ear, nose and throat and their effects on other organ of the body

References: 10,12,23

3A	3B	3C	3D	3E	3F	3G
CO1,CO2,CO3 ,CO4,CO7	Describe Nervous disturbance of Ear nose and throat and their effects on other organ of the body, Causes, pathogenesis, Signs, symptoms and Complications.	2	Lecture	CC	Knows-how	BS,L&PPT
CO1,CO2,CO3 ,CO4,CO7	Demonstrate the diagnostic criteria, differential diagnosis and Investigations of Nervous disturbance of Ear nose and throat and their effects on other organ of the body.	4	Practical15.5	CAN	Shows-how	D,LRI,X-Ray
CO1,CO2,CO3 ,CO4,CO7	Explore the appropriate medical, surgical and IBT procedures in the management of Nervous disturbance of Ear nose and throat and their effects on other organ of the body.	6	Experiential-Learning15.5	PSY-ADT	Does	PER,DIS,PrBL

Practical Training Activity
Practical Training 15.1 Sammiyat udhn (Ototoxicity)
Total Activity time (hours 4) Activity 1 (2 hour) CBL (Case based learning) Teacher will Demonstrate minimum 5 cases of ototoxicity in OPD/IPD on how to differentiate and diagnose.,investigate and treat. Activity 2 (2 hour) group discussion The teacher facilitates the session, assigns roles, presents the patient case, observes the discussion, and guides reflection afterward. Teacher explains the goal: to simulate a real-life patient discussion and make collaborative decisions. The teacher Emphasize respect, active listening, and sharing of ideas. Likely diagnosis and causes, Immediate steps to take,Treatment plan (medication, lifestyle),any challenges or ethical consideration
Practical Training 15.2 Jabhi fakki awr sar awr gurdan ke zarbat (Faciomaxillary and head and neck trauma)
Total Activity time (hours 4) Activity 1 (2 hour) Teacher will Demonstrate minimum 5 cases of of Faciomaxillary and head and neck trauma in OPD/IPD on how to differentiate and diagnose. Activity 2 (1 hour) Teacher will plan and demonstrate relevant investigations of the above case and interpret the Findings. Activity 3 (1 hour)

Teacher will explain different type of Diagnostic methods and techniques, such as X-RAY, CT, MRI, OPG ,PETCT, Biopsy, FNAC, Pan endoscopy interpret images and discuss the results.
Practical Training 15.3 Udhn, Anf ,Hanjra, Sar awr gurdan ke hisso k Muttadi amraz ke hifaze ma taqqadum ar illaj (Prevention and treatment of infectious disease of otorhinolaryngology and head and neck region)
Total Activity time (hours 4) Activity 1 (2 hour) group discussion Teacher will analyse and discuss infectious disease of otorhinolaryngology and head and neck region in small groups. The teacher facilitates the session, assigns roles, presents the patient case, observes the discussion, and guides reflection afterward. Teacher explains the goal: to simulate a real-life patient discussion and make collaborative decisions. The teacher Emphasize respect, active listening, and sharing of ideas. Likely diagnosis and causes, Immediate steps to take,Treatment plan (medication, lifestyle),any challenges or ethical consideration Activity 1 (2 hour) Teacher will plan and demonstrate relevant investigations of the above case and interpret the Findings. Teacher will explain different type of Diagnostic methods and techniques, such as, X-ray soft tissue nasopharynx lateral view .CT, MRI, interpret images and discuss the results.
Practical Training 15.4 Udhn, Anf ,Halaq ke daurane khoon ki kharabi ke jism ke aza pr asraat (Circulatory disturbance of Ear nose and throat and their effects on other organ of the body)
Total Activity time (hours 4) Activity 1 (2 hour)

CBL (Case based learning)

Teacher will Demonstrate minimum 5 cases of of Circulatory disturbance of Ear nose and throat and their effects on other organ of the body..

Activity 2 (2 hour)

Teacher will explain different type of Diagnostic methods and techniques, such as X-RAY, CT, MRI, PET scan, interpret images and discuss the results.

Lab Report Analysis

Teacher will analyze and Interpret laboratory investigation reports accurately and apply findings to clinical decision-making.

Teacher will explain the lab report and answer:

What are the abnormal values?

What do they indicate?

What is the likely diagnosis or differential?

What is the next clinical step

Common interpretation errors

Best practices in reading lab results

When to repeat or escalate tests

Practical book Entry will be mandatory for every student, along with the practical learning

Practical Training 15.5 Udhn, Anf ,Halaq ke Asaabi ki kharabi ke jism ke aza pr asraat (Nervous disturbance of Ear nose and throat and their effects on other organ of the body)

Total Activity time (hours 4)

Activity 1 (2 hour)

Bed side Demonstration, OPD/IPD

Teacher will Demonstrate minimum 5 cases of Nervous disturbance of Ear nose and throat and their effects on other organ of the body in OPD/IPD on how to differentiate and diagnose.

Activity 2 (1 hour)

Lab report interpretation

Teacher will plan and demonstrate relevant investigations such as CBC, ESR Blood sugar Viral markers etc. and specific nerve conduction test, EEG, EMG, and interpret the Findings.

Activity 3(1 hour)

Xray-identification

Teacher will explain different type of Diagnostic methods and techniques, such as X-RAY, CT, MRI, PET scan, biopsy/FNAC, Histopathology, will interpret images and discuss the results.

Experiential Learning Activity

Experiential-Learning Learning 15.1: Sammiyat udhn (Ototoxicity)

Total activities time (hours 4)

Activity 1 (2 hour)

Individual research project

Student will record (in record book) at least five cases of Ototoxicity

Activity 2 (1 hour)

Case presentation

Student will perform relevant IBT and surgical procedures and comprehensive diet plan under the supervision of teacher in procedure room /OT and explain mechanistic basics of IBT regimen effective in Ototoxicity.

Activity 3 (1 hour)

making posters,

Student will prescribe mufradat and murakkabat and make an appropriate and effective NUSKHA for at least five cases of Ototoxicity in OPD/IPD

Logbook Entry: The student will record at least five cases in the log book with the date date as Experiential.

Experiential-Learning Learning 15.2: Jabhi fakki awr sar awr gurdan ke zarbat (Faciomaxillary and head and neck trauma)
Total activities time (hours 4 Activity 1 (2 hour) Group discussion students will be divided into small groups, assign them a case study of of Faciomaxillary and head and neck trauma and ask them to identify their cardinal sing & symptoms interpret relevant investigations and describe radiological and endoscopic findings. Activity 2 (1 hour) Individual research project Student will record (in record book) at least five cases of of Faciomaxillary and head and neck trauma with relevant IBT and surgical procedure under the supervision of teacher in procedure room /OT and explain mechanistic basics of IBT regimen effective in of Faciomaxillary and head and neck trauma. Activity 3 (1 hour) Case presentation Student will make a comprehensive diet plan in the management of of Faciomaxillary and head and neck trauma. Logbook Entry: The student will record at least five cases in the log book with the date date as Experiential.
Experiential-Learning Learning 15.3: Udhn, Anf ,Hanjra, Sar awr gurdan ke hisso k Muttadi amraz ke hifaze ma taqqadum ar illaj
Total Activity time (hours 6) Activity 1 (2 hour) Case presentation, OPD/IPD Student will record (in record book) at least five cases of Prevention and treatment of infectious disease of otorhinolaryngology and head and neck region. Activity 2 (2 hour) Individual research Project

Student will make a comprehensive diet plan and will do relevant IBT and surgical procedure under the supervision of teacher in procedure room /OT and explain mechanistic basics of IBT regimen effective to Prevent and treat the infectious disease of otorhinolaryngology and head and neck region. Activity 2 (2 hour) peer learning and seminar Student will do Meta-analysis of published articles on Prevention and treatment of infectious disease of otorhinolaryngology and head and neck region. Logbook Entry: The student will record at least five cases in the log book with the date date as Experiential.
Experiential-Learning Learning 15.4: Udhn, Anf ,Halaq ke daurane khoon ki kharabi ke jism ke aza pr asraat (Circulatory disturbance of Ear nose and throat and their effects on other organ of the body)
Total activities time (hours 6) Activity 1 (2 hour) Case presentation OPD/IPD OT room Demonstrate proper technique and clinical reasoning for evaluating a patient Teacher introduces the case briefly to students Gains patient consent for teaching. Teacher performs and explains: History-taking ,Physical examination, Inspection ,Palpation & Highlights findings teacher explains:, Differential diagnoses ,investigations and treatment regimens Activity 2 (2 hour) seminar Student will make a comprehensive diet plan and will do relevant IBT and surgical procedure under the supervision of teacher in procedure room /O T and explain mechanistic basics of IBT regimen effective in Circulatory disturbance of Ear nose and throat and will observe their effects on other organ of the body. Activity 3 (2 hour)

Individual Research Project Student will prescribe mufradat and murakkabat and make an appropriate and effective NUSKHA at least five cases of Circulatory disturbance of Ear nose and throat and will monitor and analyse their effects on other organ of the body. Logbook Entry: The student will record at least five cases in the log book with the date date as Experiential.
Experiential-Learning Learning 15.5: Udhn, Anf ,Halaq ke Asaabi ki kharabi ke jism ke aza pr asraat (Nervous disturbance of Ear nose and throat and their effects on other organ of the body)
Total activities time (hours 6) Activity 1 (2 hour) Group discussion students will be divided into small groups, assign them a case study of Nervous disturbance of Ear nose and throat and observe their effects on other organ of the body. students will identify their cardinal sing & symptoms interpret relevant investigations and describe radiological and endoscopic findings. Activity 2 (2 hours) Case presentation Student will record in record book) at least five cases of Nervous disturbance of Ear nose and throat and will observe their effects on other organ of the body. Activity 3 (2 hours) Individual research project Student will do research with relevant diet plan, prescribing nuskha with mufradat and murakkabat ,IBT and surgical procedure under the supervision of teacher in procedure room /OT and explain mechanistic basics of IBT regimen effective in Nervous disturbance of Ear nose and throat and will observe their effects on other organ of the body. Logbook Entry: The student will record at least five cases in the log book with the date date as Experiential.
Modular Assessment

Assessment	Hour
Instructions - Conduct a structured Modular assessment. The assessment will be for 50 marks. Keep a structured marking pattern. Use different assessment methods in each module for the semester. Keep record of the structured pattern used for assessment. Calculate the Modular grade point as per table 6 C. 1. Case-based evaluation (25 Marks) Each student will be given a case or simulated patient for bed side clinical examination or clinical video cases or investigation reports to evaluate and diagnose to advise relevant investigations IBT procedures Surgical management & appropriate nuskha for the specific case with justification. 2. PA-Peer Assessment—students work performance feedback from their peer can be taken as assessment. (25 Marks) Or Any practical in converted form can be taken for assessment. (25 Marks) and Any experiential, such as portfolios/ reflection/ presentations can be taken as an assessment. (25 Marks)	4
Module 16 : Ilāj bi'l-Dawā' and 'Ilāj bi'l-Tadbīr in Uzn, Anf wa Ḥalq, rās aur Raqaba) Pharmacotherapy and treatment in Ear, nose and throat and head and neck) علاج بالدواءاور علاج بالتدبیراذن،انف، حلق،راس اور رقبہ	
Module Learning Objectives (At the end of the module, the students should be able to) 1. Describe laj bil Dawa and Ilaj bit Tadbeer in Otolaryngology, Head and neck 2. Conduct medical ,surgical and IBT procedures for the management strategies in unani and conventional medicine for the infectious disease of otorhinolaryngology and head & neck region 3. Identify and understand laj bil Dawa and Ilaj bit Tadabeer in Otolaryngology, Head and neck	

Unit 1 اذن،انف،حلق میں علاج بالتدبیر کا اطلاق/Uzn, Anf wa Ḥalq me ‘Ilāj bi’l-Tadbīr ka itlāq (Application of Ilaj bit Tadbeer in Amraz –e – Uzn Anf wa Halaq)

16.1.1. Introduce various techniques of Ilaj bit Tadabeer procedures in Amraze Uzn, Anf wa Halaq

References: 1,4,5,6,13,15

3A	3B	3C	3D	3E	3F	3G
CO1,CO2,CO3,CO4,CO7	Describe and classify different types of relevant IBT and surgical procedure in Otolaryngology, Head and neck	2	Lecture	CC	Knows-how	BS,L&PPT
CO1,CO2,CO3,CO4,CO7	Demonstrate different types of relevant IBT and surgical procedure in Otolaryngology, Head and neck	4	Practical16.1	CAN	Shows-how	CD,CBL
CO2,CO3,CO4,CO7	Perform the appropriate surgical and IBT procedures in Otolaryngology, Head and neck	4	Experiential-Learning16.1	PSY-GUD	Does	PrBL,CBL

Unit 2 یونانی ادویہ مفردات و مرکبات/Unani advia Mufradāt wa Murakkabāt (Single and compound Unani drugs)

16.2.1. Different dosage forms of Single and compound Unani drugs used in Amraze Uzn, Anf wa Halaq

References: 17,18,19,20,21

3A	3B	3C	3D	3E	3F	3G
CO1,CO2,CO3,CO4,CO7	Describe and classify various types of Single and Compound Unani drugs which are used in ENT and head and neck diseases.	2	Lecture	CC	Knows-how	L,BS,L&PPT

CO1,CO2,CO3 ,CO4,CO7	Demonstrate and prescribe effective and relevant NUSKHA with single and compound drugs in the management of ENT and head and neck diseases.	4	Practical16.2	CAN	Shows-how	L&GD,DIS
CO1,CO2,CO3 ,CO4,CO7	Identify and prescribe single and compound unani formulations in ENT and head and neck diseases and record the output.	6	Experiential-Learning16.2	PSY-GUD	Does	D,PrBL

Unit 3 دافع جراثیم/Dāfi‘-i- Jarāsīm (Antibiotics), دافع فیروسی/Dāfi‘-i-Virus (Antiviral) , دافع تعفن/Dāfi‘-i-Ta‘affun (Antiseptic)

16.3.1. Indication, contra indication and side effects of Antibiotics.

16.3.2.. Indication, contra indication and side effects of Antiviral.

16.3.3. Indication, contra indication and side effects of Antiseptic

References: 9,10,11,23

3A	3B	3C	3D	3E	3F	3G
CO1,CO2,CO3 ,CO4,CO7	Describe Antibiotics, Antiviral and Antiseptic drugs which are used in the management of ENT and head and neck diseases.	2	Lecture	CC	Knows-how	BS,L&PPT ,L
CO1,CO2,CO3 ,CO4,CO7	Demonstrate Antibiotics, Antiviral and Antiseptic drugs which are used in the management of ENT and head and neck diseases.	4	Practical16.3	CAN	Shows-how	D,D-BED,CBL
CO1,CO2,CO3 ,CO4,CO7	Identify and prescribe Antibiotics, Antiviral and Antiseptic drugs which are used in the management of ENT and head and neck diseases	6	Experiential-Learning16.3	PSY-GUD	Does	DIS,PL

Unit 4 دافع فطر/Dāfi'-i- faṭar (Antifungal), مسکن/Musakkin (Analgesic)

16.4.1. Antifungal drugs- indication, contra indication and side effects

16.4.2. Analgesic - indication, contra indication and side effects.

References: 9,10,11,12,23

3A	3B	3C	3D	3E	3F	3G
CO1,CO2,CO3 ,CO4,CO7	Describe Antifungal and Analgesic drugs which are used in the management of ENT and head and neck diseases.	2	Lecture	CC	Knows-how	L,L&PPT
CO1,CO2,CO3 ,CO4,CO7	Demonstrate Antifungal and Analgesic drugs which are used in the management of ENT and head and neck diseases.	4	Practical16.4	CAN	Shows-how	D,CBL
CO1,CO2,CO3 ,CO4,CO7	Identify and prescribe Antifungal and Analgesic drugs which are used in the management of ENT and head and neck diseases.	4	Experiential-Learning16.4	PSY-GUD	Does	CBL,DA

Unit 5 دافع حساسیت/Dāfi'-i-Hassāsiyat (Antihistaminic), مخدر/Mukhaddir (Anaesthetic)

16.5.1. Antihistaminic drugs- indication, contra indication and side effects

16.5.2. Anaesthetic drugs - indication, contra indication and side effects

References: 9,10,11,23

3A	3B	3C	3D	3E	3F	3G
CO1,CO2,CO3 ,CO4,CO7	Describe Antihistaminic and Anaesthetic drugs which are used in the management of ENT and head and neck diseases.	2	Lecture	CC	Knows-how	L&PPT ,BS
CO1,CO2,CO3 ,CO4,CO7	Demonstrate Antihistaminic and Anaesthetic drugs which are used in the management of ENT and head and neck diseases.	4	Practical16.5	CAN	Shows-how	PER,D
CO1,CO2,CO3 ,CO4,CO7	Identify and prescribe Antihistaminic and Anaesthetic drugs which are used in the management of ENT and head and neck diseases.	6	Experiential-Learning16.5	PSY-GUD	Does	DIS,D

Practical Training Activity

Practical Training 16.1 Amraze Udhn, Anf ,Halaq me Ilaj bid tadbeer ka Itllaq

(Application Of Ilaj bit Tadbeer in Amraz –e – Uzn Anf wa Halaq)

Total Activity time (hours 4)

Activity 1 (2 hour)

Bed side Demonstration OPD/IPD

Teacher will Demonstrate minimum 5 cases of different types of relevant IBT and surgical procedure in Otolaryngology, Head and neck.in OPD/IPD. in OPD/IPD on how to differentiate and diagnose.

Activity 2 (2 hour)

Case based learning --

Teacher will Demonstrate minimum 5 cases of different types of relevant IBT and surgical procedure in Otolaryngology, Head and neck.in OPD/IPD.

Practical Training 16.2 Unani advia Mufrad)āt wa Murakkabāt (Single and compound Unani drugs}
Total Activity time (hours 4) Activity 1 (2 hour) Discussion Demonstrate proper technique and clinical reasoning for prescribing a drug. Teacher will Demonstrate at least 5 cases ,how to prescribe an effective and relevant NUSKHA with single drugs in the management of ENT and head and neck diseases in OPD/IPD. Teacher will Demonstrate at least 5 cases ,how to prescribe an effective and relevant NUSKHA with compound drugs in the management of ENT and head and neck diseases in OPD/IPD. Activity 2 (2 hour) Bed side Demonstration OPD/IPD Teacher will Demonstrate minimum 5 cases of prescribe an effective and relevant NUSKHA with single unani drugs in the management of ENT and head and neck diseases in OPD/IPD.
Practical Training 16.3 Dāfi‘-i- Jarāsīm (Antibiotics)جراثیم دافع, Dāfi‘-i-Virus (Antiviral) وروئیس دافع Dāfi‘-iTa‘affun (Antiseptic) تعفن دافع
Total Activity time (hours 4) Activity 1 (2 hour) CBL (Case based learning) Teacher will Demonstrate how to prescribe Antibiotics which are used in the management of ENT and head and neck diseases. Activity 2 (2 hour)

Teacher will Demonstrate how to prescribe Antiviral drugs which are used in the management of ENT and head and neck diseases. Teacher will Demonstrate how to prescribe Antiseptic drugs which are used in the management of ENT and head and neck diseases.
Practical Training 16.4 Dāfi‘-i- faṭar (Antifungal) دافع فطرMusakkin(Analgesic)مسکن
Total Activity time (hours 4) Activity 1 (2 hour) Demonstration Teacher will Demonstrate how to prescribe Antifungal drugs which are used in the management of ENT and head and neck diseases. Teacher will Demonstrate how to prescribe Analgesic drugs which are used in the management of ENT and head and neck diseases. Activity 2 (2 hour) Case based learning Teacher will Demonstrate minimum 5 cases of prescribing Analgesic and Antifungal drugs which are used in the management of ENT and head and neck diseases.
Practical Training 16.5 **Dāfi‘-i-Hassāsiyat (Antihistaminic) دافع حساسیتMukhaddir (Anaesthetic)**
Total Activity time (hours 4) Activity 1 (2 hour) Demonstraete Teacher will Demonstrate Antihistaminic drugs which are used in the management of ENT and head and neck diseases. Teacher will Demonstrate Anaesthetic drugs which are used in the management of ENT and head and neck diseases.

Activity 2 (2 hour) Presentation Teacher will present at least five Antihistaminic and Anaesthetic drugs which are used in the management of ENT and head and neck diseases Logbook Entry will be mandatory for every student, along with the practical learning activities.with dates of practical.
Experiential Learning Activity
Experiential-Learning Learning 16.1: Amraze Udhn, Anf ,Halaq me Ilaj bid tadbeer ka Itllaq (Application Of Ilaj bit Tadbeer in Amraz –e – Uzn Anf wa Halaq)
Total activities time (hours 4) Activity 1 (2 hours) Individual research project Student will record (in record book) at least five cases of different types of relevant IBT and surgical procedure in Otolaryngology, Head and neck.in OPD/IPD. Activity 2 (2 hours) Case presentation Student will perform relevant IBT and surgical procedures and comprehensive diet plan under the supervision of teacher in procedure room /OT and explain mechanistic basics of IBT regimen effective in Otolaryngology, Head and neck
Experiential-Learning Learning 16.2: Unani advia Mufradāt wa Murakkabāt (Single and compound Unani drugs)
Total activities time (hours 6) Activity 1 (2hour) Group discussion Students will be divided into small groups, will be assigned at least 5 cases to prescribe single and compound unani formulations in ENT and head and neck

diseases to prepare an effective Nukhsa .

Activity 2 (2hour)

Students will be asign project regrarding differnce doses form of asingle unani drugs effective in ENT and head and neck diseases

Activity 3 (2hour)

Journal Club

student will Critically appraise current literature on Single and compound Unani drugs .

Will compare evidence-based regimens .

Discuss applicability to real-world clinical practice.

Log Book Entry

Experiential-Learning Learning 16.3: Dāfi‘-i- Jarāsīm (Antibiotics)جراثیم دافع,

Dāfi‘-i-Virus (Antiviral) وریس دافع

Dāfi‘-iTa‘affun (Antiseptic) تعفن دافع

Total activities time (hours 6)

Activity 1:-(2 hours)

Group discussion

Students will be divided into small groups, will be assigned at least 5 cases to prescribe

Antibiotics, Antiviral and Antiseptic drugs which are used in the management of Otolaryngology, Head and neck diseases

Activity 2-(2 hours)

Peer learning

Student will discuss about antibiotics sensitivity antibiotic resistance, dosage and side effect etc.

Activity 3:-(2 hours)

Student will make posters showing use ,doses,dosage forms,side effects of Antiseptic ,antiviral, antibiotics sensitivity antibiotic resistance, etc.

Experiential-Learning Learning 16.4: Antifungal and Analgesic drugs used in the management of ENT and head and neck diseases.
Total activities time (hours 4) Activity 1 (2 hour) Case presentation Students prepare a structured presentationin:details Each student/group will presents their case separately. Student will perform selection of relevant Antifungal and Analgesic drugs used in the management of ENT and head and neck diseases under the supervision of teacher. Student will be assigned at least 5 cases for prescribing Antifungal drugs which are used in the management of ENT and head and neck diseases. Student will be assigned at least 5 cases for prescribing Analgesic drugs which are used in the management of ENT and head and neck diseases. Activity 1 (2 hour) Drug Analysis Student will analyze for prescribing Analgesic and Antifungal drugs which are used in the management of ENT and head and neck diseases. Logbook Entry will be mandatory for every student, along with the experantial learning activities.
Experiential-Learning Learning 16.5: Dāfi‘-i-Hassāsiyat (Antihistaminic) حساسیت دافعMukhaddir (Anaesthetic)
Total Activity time (hours 6) Activity 1 (2 hour) Group discussion Students will be divided into small groups, will be assigned at least 5 cases to prescribe Antihistaminic and Anaesthetic drugs which are used in the management of Otolaryngology, Head and neck diseases Student will demonstrate use of antihistaminic drugs at least in five cases of Otolaryngology, Head and neck diseases Student will demonstrate use of Anaesthetic drugs at least in five cases of Otolaryngology, Head and neck diseases Activity 2 (2 hour)

Peer Learning Each student researches their focus and prepares to teach it to their partner. Each student teach their topic using simple explanations student will Use props, diagrams, or real-life examples Activity 3 (2 hour} Student will do Meta-analysis of published articles on Dāfi‘-i-Hassāsiyat (Antihistaminic) Mukhaddir (Anaesthetic) Logbook Entry: The student will record at least five cases in the log book with the date date as Experiential.	
Modular Assessment	
Assessment	**Hour**
Instructions - Conduct a structured Modular assessment. The assessment will be for 50 marks. Keep a structured marking pattern. Use different assessment methods in each module for the semester. Keep record of the structured pattern used for assessment. Calculate the Modular grade point as per table 6 C. 1. Case-based evaluation (25 Marks) Each student will be given a case or simulated patient for bed side clinical examination or clinical video cases or investigation reports to evaluate and diagnose to advise relevant investigations IBT procedures Surgical management & appropriate nuskha for the specific case with justification. 2. CL-PR: Class-Presentation on any topic from the Module (25 Marks) Or Any practical in converted form can be taken for assessment. (25 Marks) and Any experiential, such as portfolios/ reflection/ presentations can be taken as an assessment. (25 Marks)	4

Paper No : 3(امراض اذن،انف وحلق کی جراحی عملیات)Amrāḍ-i-Udhun, Anf Wa Ḥalq Ki Jīraḥī ‘Amalīyyāt (Operative Surgery of Ear, Nose and Throat Diseases))

Semester No : 3

Module 17 : العملیات الاذن/Al-‘amalīyā-al- Uzn (OPERATIONS ON EAR)

Module Learning Objectives

(At the end of the module, the students should be able to)

1. Describe in detail about different surgical procedures of UZN(EAR), their complications and post-operative management.

2. Conduct the different operative procedures required for various diseases of UZN (EAR).

3. Diagnose various diseases of Uzn (ear) pre operatively and identify structures cut and arteries, veins, nerves and other structures during the surgery of particular type.

Unit 1 رآب الطبلہ الخشاء الجراحی۔ قطع الخشاء الجزری۔ قطع الخشاء الخشری/R’āb-al- Ṭablā m‘a –al-Khashā-al- JĪRAḤĪ; Qaṭ‘–al- Khashā-al-jazrī; Qaṭ‘–al- Khashā-al-qūshrī (Tympanoplasty with Mastoid Surgery; Radical Mastoidectomy; Cortical Mastoidectomy)

17.1.1 Indications of tympanoplasty,

17.1.2 Indications of mastoidectomy,

17.1.3 Type of anesthesia during surgery

17.1.4 Pre-operative preparation

17.1.5 Steps of operative procedures

17.1.6 Post-operative care

References: 24,31,34,50,86,87,88

3A Course Outcome	3B Learning Objective (At the end of the (lecture/practical training /experiential learning) session, the students should be able to)	3C Notiona	3D Lecture/ Practical	3E Domain/	3F Level (Does/S	3G Teaching Learning Methods

		l learning Hours	Training/ Experiential Learning	Sub Domain	hows how/Knows how/Know)	
CO1,CO2,CO4,CO7	Describe Tympanoplasty, its Indications, Type of Anaesthesia to be administered, pre-operative preparation, Steps of Operative procedures, post-operative care, Complications and its management. Explain Radical Mastoidectomy, Cortical Mastoidectomy, its Indications, Type of Anaesthesia to be administered, pre-operative preparation, Steps of operative procedures, post-operative care, Complications and its management.	2	Lecture	CK	Knows-how	TUT,FC,L&PPT
CO1,CO2,CO4,CO7	Demonstrate the procedure of Tympanoplasty. Demonstrate the procedure of Radical Mastoidectomy, Cortical Mastoidectomy.	4	Practical17.1	AFT-REC	Shows-how	D,IBL
CO1,CO2,CO4,CO7	Diagnose the case of Tympanic Perforation and perform the specific operative procedure of Tympanoplasty. Diagnose the case of Mastoiditis, Cholesteatoma, Mastoid Abscess, prepare the case for operation and perform the surgical procedures of Radical Mastoidectomy and Cortical Mastoidectomy.	6	Experiential-Learning17.1	PSY-ADT	Does	CBL,CD,RLE
Unit 2 قطع الركابي، بضع الطبلة مع ادخال جروميت، رأب الطبلة/Qaṭ'–al- rīkābī, baḍ'aṭablā' m'a idkhāal jarūmīt, R'āb-al- Ṭablā (Stapedectomy, Myringotomy with Grommet insertion, Myringoplasty) 17.2.1 Indications of stapedectomy,						

17.2.2 Type of anesthesia during surgery

17.2.3 Pre-operative preparation

17.2.4 Steps of operative procedures

17.2.5 Post-operative care

17.2.6 Indications of myringotomy, myringoplasty

17.2.7 Type of anesthesia during surgery

17.2.8 Pre-operative preparation

17.2.9 Steps of operative procedures

17.2.10 Post-operative care

References: 23,25,34,89

3A	3B	3C	3D	3E	3F	3G
CO1,CO2,CO4,CO7	Describe Stapedectomy, its Indications, Type of Anaesthesia to be administered, pre-operative preparation, Steps of Operative procedures, post-operative care, complications and its management. Describe Myringotomy & Myringoplasty with Grommet Insertion, its Indications, steps of operative procedures, post-operative care, complications and its management.	2	Lecture	CK	Knows-how	L&PPT ,TUT
CO1,CO2,CO4,CO7	Demonstrate the method of Surgical excision of stapes (Stapedectomy). Demonstrate the method of opening of tympanic membrane (Myringotomy) and repair of ruptured membrane (Myringoplasty) with Grommet Insertion.	4	Practical17.2	AFT-REC	Shows-how	DIS,CBL,D
CO1,CO2,CO4,CO7	Diagnose the case of Otosclerosis, Prepare the patient for surgery and perform the operative procedure of Stapedectomy. Diagnose the cases like acute suppurative	6	Experiential-Learning17.2	PSY-ADT	Does	RLE,CD,CBL

	otitis media and Tympanic Perforation, prepare the cases for surgery and perform the required surgical procedure of Myringotomy & Myringoplasty with Grommet Insertion.					

Unit 3 استئصال السلیلیہ الاذن، رتق القناۃ الخارجی/Iste'ṣāl-al-salīlā-al- uzn, Ratq-al-qanā-al-khārjī (Aural Polypectomy, External Canal Atresia)

17.3.1. Indications of aural polypectomy

17.3.2 Contraindicationof aural polypectomy

17.3.3 Type of anesthesia during surgery

17.3.4 Pre-operative preparation

17.3.5 Steps of operative procedures

17.3.6 Steps of surgery in external canal atresia

References: 19,24,34,89,94,95

3A	3B	3C	3D	3E	3F	3G
CO1,CO2,CO4,CO7	Describe Aural polypectomy, its Indications, contraindications, Type of Anaesthesia to be administered, pre-operative preparation, steps of operative procedures, post-operative care, complications and its management. Describe external canal atresia, its indications, contraindications, type of Anaesthesia to be administered, pre-operative preparation, Steps of Operative procedures, post-operative care, complications and its management.	2	Lecture	CK	Knows-how	L&PPT ,TUT,BS
CO1,CO2,CO4,CO7	Demonstrate the procedure of surgical excision of polyps from external auditory canal (aural polypectomy) and method of surgical correction of external canal atresia.	4	Practical17.3	AFT-REC	Shows-how	DIS,CD,CBL

CO1,CO2,CO4,CO7	Diagnose the case of aural polyp and perform the required operative procedure of aural polypectomy. Diagnose the case of external canal atresia, and perform the procedure to correct external canal atresia.	5	Experiential-Learning17.3	PSY-ADT	Does	CD,CBL,RLE

Unit 4 اذن کے خلقی تشوھات/Uzn ki Khilqī tashuwwhāt (Congenital deformities of Ear)

17.4.1 Congenital deformities of ear

References: 11,24,34,94,95

3A	3B	3C	3D	3E	3F	3G
CO1,CO2,CO4,CO7	Describe and List various congenital deformities of ear and differentiate between them.	2	Lecture	CK	Knows-how	TUT,FC,L&PPT
CO1,CO2,CO4,CO7	Demonstrate the cases of different congenital deformities of ear either in IPD or OPD.	4	Practical17.4	AFT-REC	Shows-how	CBL,SIM,DIS,D
CO1,CO2,CO4,CO7	Identify and diagnose the various congenital deformities of ear and prescribe appropriate advice to the patient.	4	Experiential-Learning17.4	PSY-ADT	Does	RLE,CBL,CD

Unit 5 قدئ الاذن،اصلاح صدف الاذن،اصلاح شحم الاذن،جدرہ اور استئصال شحم الاذن/Qadhā-al-Uzn, Iṣlāḥ Ṣadafa al-Udhun/ Iṣlāḥ Shaḥma al-Udhun, Jūdarā aur Iste'ṣāl Shaḥma al-Udhun (Foregin Body Ear, Pinna Repair/Ear Lobule Repair (Post- Traumatic), Keloid Excision of Pinna)

17.5.1 Methods of removal of foreign body from ear

17.5.2 Pnna repair/ ear lobule repair (post traumatic)

17.5.3 Surgical management of keloid of pinna

References: 2,11,19,24,94,95

3A	3B	3C	3D	3E	3F	3G

CO1,CO2,CO4,CO7	Describe and explain the different types of foreign body of ear, the affects it may incur, and methods of its removal. Explain the method of pinna repair/ear lobule repair (post traumatic) and keloid excision from pinna.	2	Lecture	CK	Knows-how	TUT,L&PPT
CO1,CO2,CO4,CO7	Demonstrate the steps of foreign body removal from ear. Demonstrate the steps of pinna repair/ear lobule repair (post traumatic) and keloid excision from pinna.	4	Practical17.5	AFT-REC	Shows-how	D,DIS,CBL
CO1,CO2,CO4,CO7	Diagnose the case of foreign body of ear, and adapt appropriate methods for its removal. Identify a case of ruptured pinna or ear lobule, and perform operative procedure for its repair. Identify and diagnose the case of Keloid of ear and proceed with pre operative preparation, operative steps, and post operative care.	5	Experiential-Learning17.5	PSY-ADT	Does	RLE,CBL,CD

Practical Training Activity

Practical Training 17.1

/R'āb-al- Ṭablā m'a–al-Khashā-al-JĪRAḤĪ; Qaṭ'–al-Khashā-al-jazrī;Qaṭ'–al- Khashā-al-qūshrī(Tympanoplasty with Mastoid Surgery;Radical Mastoidectomy; CorticalMastoidectomy)

Total Activity time: 4 hours

The activity can be divided into two parts; activity 1 and 2.

Activity-1: Pre-operative preparation (90 Minutes): Demonstration, Inquiry-based Learning

These activities shall be conducted on the bedside in the ward. The teacher will explain and demonstrate the preparation of the case for Tympanoplasty, Radical Mastoidectomy, and Cortical Mastoidectomy. This preparation includes Pre-Anaesthetic Check-Up, Part Preparation, Pre-Medicines to be used, Counselling of the patient for surgery, and getting all consent forms signed by patients and his / her attendants. After the teacher's demonstration, the teacher will assign a case to

the small group of students. Students will do all the preparation as demonstrated by the teacher.

Activity-2: Per-operative phase (02 Hours and 30 Minutes): Demonstration, Inquiry-based Learning

Per-operative phase shall be conducted in operation theatre by teacher/ surgeon. The teacher will further demonstrate the Operative steps of Tympanoplasty or Radical Mastoidectomy or Cortical Mastoidectomy. The operative steps include structures cut during surgery, identification of different parts / organs (structures encountered), attaining the surgical; procedure required (Tympanoplasty or Radical Mastoidectomy or Cortical Mastoidectomy), achieving Haemostasis and Closure of the wound in layers. Teacher shall demonstrate the methods of post operative care after surgery. Students will keep a record of surgical methods or operative steps of at least five cases for each surgery required. Logbook entry will be mandatory for all the students.

Practical Training 17.2 Qaṭ‘–al- rīkābī, baḍ‘aṭablā’m‘a idkhāal jarūmīt,R’āb-al- Ṭablā

(Stapedectomy,Myringotomy withGrommet insertion,Myringoplasty)

Total Activity time: 4 hours

The activity can be divided into two parts; activity 1 and 2.

Activity-1: Pre-operative preparation (01 hour 30 Minutes): Case-based learning, Demonstration, Discussion

These activities shall be conducted on the bedside in the ward.

The teacher will explain and demonstrate the preparation of the case for stapedectomy. This preparation includes Pre-Anaesthetic Check-Up, Part Preparation, Pre-Medicines to be used, Counselling of the patient for surgery, and getting all consent forms signed by patients and his / her attendants.Same steps shall be followed for Myringotomy with Grommet Insertion and Myringoplasty.After the teacher's demonstration, the teacher will assign a case to the small group of students. Students will do all the preparation as demonstrated by the teacher.

Activity-2: Per-operative phase (02 Hours and 30 Minutes): Case-based learning, Demonstration, Discussion

Per-operative phase shall be conducted in operation theatre by teacher/ surgeon.

The teacher will further demonstrate the Operative steps of Stapedectomy, Myringotomy with Grommet insertion, Myringoplasty as the case may be.The operative steps include structures cut during surgery, identification of different parts / organs (structures encountered), attaining the surgical; procedure required

(Stapedectomy, Myringotomy with Grommet insertion, Myringoplasty), achieving Haemostasis and Closure of the wound in layers.Teacher shall demonstrate the methods of post operative care after surgery. Students will keep a record of surgical methods or operative steps of at least five cases for each surgery required in the log book.
Practical Training 17.3 Iste'ṣāl-al-salīlā-al-uzn, Ratq-al-qanā-al-khārjī (Aural Polypectomy,External CanalAtresia)
Total Activity time: 4 hours The activity can be divided into two parts; activity 1 and 2. Activity-1: Pre-operative preparation (01 hour 30 Minutes): Case Diagnosis, Case Based-learning, DiscussionThese activities shall be conducted on the bedside in the ward.The teacher will explain and demonstrate the preparation of the case for Aural Polyp and External Canal Atresia. This preparation includes Pre-Anaesthetic Check-Up, Part Preparation, Pre-Medicines to be used, Counselling of the patient for surgery, and getting all consent forms signed by patients and his / her attendants.After the teacher's demonstration, the teacher will assign a case to the small group of students. Students will do all the preparation as demonstrated by the teacher. Activity-2: Per-operative phase (02 Hours and 30 Minutes): Case Diagnosis, Case Based-learning, DiscussionPer-operative phase shall be conducted in operation theatre by teacher/ surgeon.The teacher will further demonstrate the Operative steps of Aural Polyp and External Canal Atresia as the case may be.The operative steps include structures cut during surgery, identification of different parts / organs (structures encountered), attaining the surgical; procedure required (Aural Polyp and External Canal Atresia), achieving Haemostasis and Closure of the wound in layers.Teacher shall demonstrate the methods of post operative care after surgery.Students will keep a record of surgical methods or operative steps of at least five cases for each surgery required in logbook.
Practical Training 17.4 Uzn ki Khilqī tashuwwhāt (Congenital deformities of Ear)
Total Activity time: 4 hours The activity can be divided into two parts; activity 1 and 2.

Activity-1: Pre-operative preparation (01 hour 30 Minutes): Demonstration, Case Based-learning, Discussion.These activities shall be conducted on the bedside in the ward.Teacher will Demonstrate at least 5 cases of Congenital Deformities of Ear either in OPD (out patient department) of hospital or power point presentation.The teacher will explain and demonstrate the preparation of the case for Anotia. This preparation includes Pre-Anaesthetic Check-Up, Part Preparation, Pre-Medicines to be used, Counselling of the patient for surgery, and getting all consent forms signed by patients and his / her attendants.After the teacher's demonstration, the teacher will assign a case to the small group of students. Students will do all the preparation as demonstrated by the teacher.Students will also fill out the pre-anaesthetic check-up and take consent forms under the supervision of the teacher.Students will keep a record of the cases. Activity-2: Per-operative phase (02 Hours and 30 Minutes): Demonstration, Case Based-learning, Discussion.Per-operative phase shall be conducted in operation theatre by teacher/ surgeon.The teacher will further demonstrate the Operative steps to correct the case of Anotia.The operative steps include structures cut during surgery, identification of different parts / organs (structures encountered), attaining the surgical; procedure required (surgical correction of anotia), achieving Haemostasis and Closure of the wound in layers.Teacher shall demonstrate the methods of post operative care after surgery.Students will keep a record of surgical methods or operative steps of at least five cases for each surgery required.Logbook entry: students shall keep the record of number of surgeries assisted / observed with date as practical.
Practical Training 17.5 Qadhā-al-Uzn, Iṣlāḥ Ṣadafa al-Udhun/ Iṣlāḥ Shaḥma al- Udhun Jūdarā aur Iste'ṣāl Shaḥma al-Udhun (Foregin Body Ear, Pinna Repair/Ear Lobule Repair (Post-Traumatic), Keloid Excision ofPinna)
Total Activity time: 4 hours The activity can be divided into two parts; activity 1 and 2. Activity-1: Pre-operative preparation (01 hour 30 Minutes): Demonstration, Case Based-learning, Discussion These activities shall be conducted on the bedside in the ward. The teacher will explain and demonstrate the preparation of the case for Post Traumatic Pinna Repair and Excision of Keloid from Pinna. This preparation includes Pre-Anaesthetic Check-Up, Part Preparation, Pre-Medicines to be used, Counselling of the patient for surgery, and getting all consent forms signed by patients

and his / her attendants.After the teacher's demonstration, the teacher will assign a case to the small group of students. Students will do all the preparation as demonstrated by the teacher.

Activity-2: Per-operative phase (02 Hours and 30 Minutes): Demonstration, Case Based-learning, Discussion

Per-operative phase shall be conducted in operation theatre by teacher/ surgeon.

The teacher will further demonstrate the Operative steps of Post Traumatic Pinna Repair and Excision of Keloid from Pinna.The operative steps include structures cut during surgery, identification of different parts / organs (structures encountered), attaining the surgical; procedure required (Post Traumatic Pinna Repair and Excision of Keloid from Pinna), achieving Haemostasis and Closure of the wound in layers.Teacher shall demonstrate the methods of post operative care after surgery.Students will keep a record of surgical methods or operative steps of at least five cases for each surgery required.

Logbook entry: students shall keep the record of number of surgeries assisted / observed with date as practical.

Experiential Learning Activity

Experiential-Learning Learning 17.1: R'āb-al- Ṭablā m'a–al-Khashā-al-JĪRAḤĪ; Qaṭ'–al-Khashā-al-jazrī;Qaṭ'–al- Khashā-al-qūshrī (Tympanoplasty with MastoidSurgery;Radical Mastoidectomy;CorticalMastoidectomy)

Total Activity time: 6 hours

The activity can be divided into two parts; activity 1 and 2.

Activity-1: Identification, diagnosis, and preparation of the case (02 hours)

Case diagnosis, case-based learning, kinaesthetic learning, real life experience

These activities shall be conducted on the bedside in the ward.

The Identification & Diagnosis of the case (02 hours): Student should identify and diagnose the cases like Tympanic Perforation, Acute and Chronic Mastoiditis and select from them the case for surgery. Students should carry out all the steps for pre-operative preparation, including pre-anaesthetic check-up, (under the supervision of anaesthetists), part preparation, pre-medication to be used, counselling of the patient for surgery, getting all informed consents signed by patient and his/her attendants.Pre-operative preparation shall be conducted under supervision of teacher/surgeon/ anaesthetist in the ward at bed-side.

Activity-2: Operative procedure and post-operative care/ management (04 hours)

Case diagnosis, case-based learning, kinaesthetic learning, real life experience The operative procedure will be conducted in operation theatre and post-operative care/ management in post-operative ward. The students should assist the surgery or perform/ conduct all or few of the operative steps of the surgery required on at least three cases for each under the supervision of teacher/ surgeon.Students shall manage or carry out patient care in post-operative ward under supervision of teacher. Logbook entry: students shall keep the record of number of surgeries assisted / performed with date.
Experiential-Learning Learning 17.2: Qaṭ‘–al-rīkābī, baḍ‘aṭablā’ m‘a idkhāal jarūmīt, R’āb-al- Ṭablā (Stapedectomy,Myringotomy with Grommet insertion, Myringoplasty)
Total Activity time: 6 hours The activity can be divided into two parts; activity 1 and 2. Activity-1: Identification, diagnosis, and preparation of the case (02 hours) Case diagnosis, case-based learning, real life experience These activities shall be conducted on the bedside in the ward. The Identification & Diagnosis of the case (02 hours): Student should identify and diagnose the cases like Otosclerosis, Acute Suppurative Otitis Media and abscess and select from them the case for surgery.Students should carry out all the steps for pre-operative preparation, including pre-anaesthetic check-up, (under the supervision of anaesthetists), part preparation, pre-medication to be used, counselling of the patient for surgery, getting all informed consents signed by patient and his/her attendants.Pre-operative preparation shall be conducted under supervision of teacher/surgeon/ anaesthetist in the ward at bed-side. Activity-2: Operative procedure and post-operative care/ management (04 hours) Case diagnosis, case-based learning, real life experience The operative procedure will be conducted in operation theatre and post-operative care/ management in post-operative ward.The students should assist the surgery or perform/ conduct all or few of the operative steps of the surgery required (stapedectomy, myringotomy followed by grommet insertion, myringoplasty) on at least three cases for each under the supervision of teacher/ surgeon.Students shall manage or carry out patient care in post-operative ward under supervision of teacher.Logbook entry: students shall keep the record of number of surgeries assisted / performed with date.

Experiential-Learning Learning 17.3: Iste'ṣāl-al-salīlā-al-uzn, Ratq-al-qanā-al-khārjī (Aural Polypectomy,External CanalAtresia)
Total Activity hours: 5 hours The activity can be divided into two parts; activity 1 and 2. Activity-1: Identification, diagnosis, and preparation of the case (01 hours)Case diagnosis, case-based learning, real life experienceThese activities shall be conducted on the bedside in the ward. The Identification & Diagnosis of the case (02 hours): Student should identify and diagnose the cases having Polyp in External Canal and narrowing of the External canal and select from them the case for surgery.Students should carry out all the steps for pre-operative preparation, including pre-anaesthetic check-up, (under the supervision of anaesthetists), part preparation, pre-medication to be used, counselling of the patient for surgery, getting all informed consents signed by patient and his/her attendants.Pre-operative preparation shall be conducted under supervision of teacher/surgeon/ anaesthetist in the ward at bed-side. **Activity-2:** Operative procedure and post-operative care/ management (04 hours)Case diagnosis, case-based learning, real life experience.The operative procedure will be conducted in operation theatre and post-operative care/ management in post-operative ward.The students should assist the surgery or perform/ conduct all or few of the operative steps of the surgery required (Excision of Polyps, surgical correction of external canal atresia)) on at least three cases for each under the supervision of teacher/ surgeon.Students shall manage or carry out patient care in post-operative ward under supervision of teacher.Logbook entry: students shall keep the record of number of surgeries assisted / performed with date.
Experiential-Learning Learning 17.4: Uzn ki Khilqī tashuwwhāt (Congenital deformities of Ear)
Total Activity time:4 hours. The activity can be divided into two parts; activity 1 and 2. Activity-1: Identification, diagnosis, and preparation of the case (01 hours) Case diagnosis, case-based learning, real life experience

These activities shall be conducted on the bedside in the ward. The Identification & Diagnosis of the case (01 hours): Student should identify and diagnose the cases like Imperforate Canal (ANOTIA) and select from them the case for surgery. Students should carry out all the steps for pre-operative preparation, including pre-anaesthetic check-up, (under the supervision of anaesthetists), part preparation, pre-medication to be used, counselling of the patient for surgery, getting all informed consents signed by patient and his/her attendants.Pre-operative preparation shall be conducted under supervision of teacher/surgeon/ anaesthetist in the ward at bed-side. In case of non-availability of real cases, power point presentations may be shown to the students. Activity-2: Operative procedure and post-operative care/ management (03 hours) Case diagnosis, case-based learning, real life experience.The operative procedure will be conducted in operation theatre and post-operative care/ management in post-operative ward.The students should assist the surgery or perform/ conduct all or few of the operative steps of the surgery required (surgical opening of imperforate auditory canal) on at least three cases for each under the supervision of teacher/ surgeon.Students shall manage or carry out patient care in post-operative ward under supervision of teacher. In case of non-availability of real cases, power point presentations may be shown to the students.Logbook entry: students shall keep the record of number of surgeries assisted / performed with date.
Experiential-Learning Learning 17.5: Qadhā-al-Uzn, Iṣlāḥ Ṣadafa al-Udhun/Iṣlāḥ Shaḥma al-Udhun, Jūdarā aur Iste'ṣāl Shaḥma al-Udhun (Foregin Body Ear, Pinna Repair/Ear Lobule Repair (Post-Traumatic), Keloid Excision of Pinna)
Total Activity time: 5 hours The activity can be divided into two parts; activity 1 and 2. Activity-1: Identification, diagnosis, and preparation of the case (02 hours) Case diagnosis, case-based learning, real life experience These activities shall be conducted on the bedside in the ward or in OPD (Outpatient Department)

The Identification & Diagnosis of the case (01 hours): Student should identify and diagnose the cases like different types of foreign bodies that may lodge in the ear and select from them the case for surgery.

Student should identify and diagnose the cases like Post-Traumatic Rupture of Pinna/Lobule and select from them the case for surgery.

Student should identify and diagnose the cases like keloid on ear and select from them the case for surgery.Students should carry out all the steps for pre-operative preparation, including pre-anaesthetic check-up, (under the supervision of anaesthetists), part preparation, pre-medication to be used, counselling of the patient for surgery, getting all informed consents signed by patient and his/her attendants.

Pre-operative preparation shall be conducted under supervision of teacher/surgeon/ anaesthetist in the ward at bed-side.

In case of non-availability of real cases, power point presentations may be shown to the students.

Activity-2: Operative procedure and post-operative care/ management (03 hours)

Case diagnosis, case-based learning, real life experience

The operative procedure will be conducted in operation theatre and post-operative care/ management in post-operative ward.The students should assist the surgery or perform/ conduct all or few of the operative steps of the surgery required (Removal of foreign body from ear, repair of traumatic rupture of pinna, excision of keloid) on at least three cases for each under the supervision of teacher/ surgeon.Students shall manage or carry out patient care in post-operative ward under supervision of teacher.In case of non-availability of real cases, power point presentations may be shown to the students.

Logbook entry: students shall keep the record of number of surgeries assisted / performed with date.

Modular Assessment

Assessment	**Hour**
Instructions: Conduct a structured modular assessment. The assessment will be of 50 marks for this module. Keep a record of structured pattern used for assessment. Calculate modular grade points as per table- 6 C. OSCE (objective structured clinical examination)- 50 marks. OR Case Based Evaluation- 50 Marks.	4

- History taking and patient interaction – 10 marks
- Physical examination skills – 20 marks
- Diagnosis and clinical reasoning – 10 marks
- Communication skills – 5 marks
- Time management and efficiency – 5 marks

OR

Any practical in converted form can be taken for assessment. (25 Marks)

and

Any experiential, such as portfolios/ reflection/ presentations can be taken as an assessment. (25 Marks)

Module 18 : چہرہ کی عمل جراحی کے ساتھ انف اور جیوب الانف کی عمل جراحی Chehrā ki 'AMALĪ JĪRAḤĪ ke sath, anf aur Jūyūb-al- Anf ki 'AMALĪ JĪRAḤĪ (OPERATIONS ON FACE INCLUDING NOSE AND PARANASAL SINUSES)

Module Learning Objectives

(At the end of the module, the students should be able to)

1. Describe in detail about different surgical and para-surgical procedures in various diseases of nose, para-nasal sinuses and face including their indications, pre- operative preparation and post-operative care.
2. Conduct the surgical and para-surgical procedures required in various diseases/conditions of nose & para-nasal sinus.
3. Diagnose various surgical diseases of nose, PNS and face pre-operatively and identify various structures during surgery of particular type.

Unit 1 استئصال تحت المخاطی، رأب الحاجز الانفی، استئصال السلیلیہ الانفی، رعاف اور کسر الانف Iste'ṣāl taḥat-al mūkhaṭī, r'āb-al- ḥajīz-al-anfī, Iste'ṣāl-al-salīlā-al-anfi, Ru'āf and Kasr al-Anf. (Submucosal resection (SMR) and Septoplasty, Nasal Polypectomy, Common Emergencies like Epistaxis and Fracture of nasal bone)

18.1.1 Submucosal resection

18.1.2 Septoplasty

18.1.3 Nasal polypectomy

18.1.4 Common emergencies like epistaxis and fracture of nasal bone **References:** 2,19,86,89,94,95						
3A	**3B**	**3C**	**3D**	**3E**	**3F**	**3G**
CO1,CO2,CO4,CO7	Define Sub-mucosal Resection (SMR), its indication, contraindications, pre-operative preparation, and type of Anaesthesia to be administered, operative steps and post-operative care. Describe Septoplasty its indication, contraindications, pre-operative preparation, type of Anaesthesia to be administered, operative steps and post-operative care. Describe Septoplasty its indication, contraindications, pre-operative preparation, type of Anaesthesia to be administered, operative steps and post-operative care. Describe in detail about the procedure of excision of polys from the nose (Nasal Polypectomy). Explain in detail about the common emergencies like Epistaxis and Fracture of nasal bone.	2	Lecture	CK	Knows-how	TUT,L&PPT
CO1,CO2,CO4,CO7	Demonstrate the surgical procedure of Sub Mucosal Resection, Septoplasty and Nasal Polypectomy. Demonstrate the management of Epistaxis and fracture of nasal bone.	5	Practical18.1	AFT-REC	Shows-how	CBL,DIS,D
CO1,CO2,CO4,CO7	Diagnose and identify the case of DNS or septal hypertrophy and conduct/perform the surgery required. Diagnose the case of Nasal polyp and conduct/perform the specific procedure for its removal. Diagnose and identify common emergencies like Epistaxis and fracture of nasal bone and conduct its management.	6	Experiential-Learning18.1	PSY-ADT	Does	CD,CBL,RLE
Unit 2 استئصال الغربال/Iste'ṣāl-al- gharbāl / Ethmoidectomy (intra-nasal, external, external fronto) 18.2.1 Indications,						

18.2.2 Contraindication,

18.2.3 Pre-operative preparation,

18.2.4 Steps of surgery of ethmoidectomy

References: 23,89

3A	3B	3C	3D	3E	3F	3G
CO1,CO2,CO4,CO7	Describe in detail about various types of ethmoidectomy, indications, contraindications, pre-operative preparation, type of Anaesthesia to be administered, operative steps and post-operative care.	2	Lecture	CK	Knows-how	TUT,L&PPT ,FC
CO1,CO2,CO4,CO7	Demonstrate the operative steps of surgical excision of ethmoid bone (ethmoidectomy).	4	Practical18.2	AFT-REC	Shows-how	D,DIS,CBL
CO1,CO2,CO4,CO7	Diagnose and identify the patients requiring surgical excision of ethmoid bone and conduct/perform the required procedure.	5	Experiential-Learning18.2	PSY-ADT	Does	RLE,CD,CBL

Unit 3 استئصال الفک العلوی،اذن کے خلقی تشوہات، جبہی فکی ضرر Iste'ṣāl-al-fak-al'ulwī Maxillectomy (partial and total); Anf ki Khilqī tashuwwhāt (Congenital deformities of nose); Jabhi Fakkī Ḍarar (Facio Maxillary Injury)

18.3.1 Indications,

18.3.2 Contraindication,

18.3.3 Pre-operative preparation,

18.3.4 Steps of surgery of maxillectomy (partial and total)

18.3.5 Post-operative care

18.3.6 Congenital deformities of nose

18.3.7 Facio-maxillary injury

References: 23,65,89,95

3A	3B	3C	3D	3E	3F	3G
CO1,CO2,CO4,CO7	Describe in detail about various types of maxillectomy, its indication, contraindications, pre-operative preparation, type of anaesthesia to be administered, operative steps and post-operative complications & care. Describe and enlist various congenital deformities of nose and differentiate between them. Explain different cases of Faciomaxillary injuries and their management.	2	Lecture	CC	Knows-how	TUT,L&PPT
CO1,CO2,CO4,CO7	Demonstrate the method of surgical excision of maxillary bone (Maxillectomy). Demonstrate /Exhibit the cases of different congenital deformities of nose either in IPD or OPD. Demonstrate the management of Faciomaxillary injury.	4	Practical18.3	AFT-REC	Shows-how	CBL,D,DIS
CO1,CO2,CO4,CO7	Diagnose and identify the patient requiring surgical excision of maxilla (Maxillectomy) and perform/conduct the required surgery. Identify and Diagnose the various congenital deformities of NOSE and prescribe appropriate advice to the patient. Identify and diagnose the case of Faciomaxillary injury and conduct its management.	6	Experiential-Learning18.3	PSY-ADT	Does	CBL,CD,RLE

Unit 4 رتق قمعی الانف کا عمل جراحی، عمل جراحی تجاویف الانف وظیفہ بالمناظر داخلی /Ratq qam'ī-al-anf ka 'amal jīrāḥī, 'amal jīrāḥī tajāwīf –al-Anf waẓīfā bīl minẓār dākhlī (Surgery of Choanal Atresia, Functional Endoscopic Sinus Surgery)

18.4.1 Surgery of choanal atresia

18.4.2 Indications, contraindication, pre-operative preparation, steps of surgery of functional endoscopic sinus surgery, post-operative care

References: 23,26,39,89,94

3A	3B	3C	3D	3E	3F	3G

CO1,CO2,CO4,CO7	Explain in detail about the Choanal Atresia and surgical procedure to correct it. Describe in detail about functional endoscopic sinus surgery, its indications, contraindications, pre-operative preparation, type of Anaesthesia to be administered, operative steps and post-operative care.	2	Lecture	CC	Knows-how	TUT,L&PPT
CO1,CO2,CO4,CO7	Demonstrate the cases of choanal atresia and surgical procedure to correct it. Demonstrate the procedure of functional endoscopic sinus surgery.	4	Practical18.4	AFT-REC	Shows-how	D,DIS,CBL
CO1,CO2,CO4,CO7	Identify and diagnose the case ofchoanal atresiaand conduct appropriate surgical procedure. Identify and diagnose the case requiring FESS (Functional Endoscopic Snius Surgery) and perform/conduct it.	5	Experiential-Learning18.4	PSY-ADT	Does	CD,RLE,CBL

Unit 5 قذیٰ الانف، الغسل الغاری، رأب الحاجز الانفی/Qadhā-al-anf, al-ghūsl –al-ghārī, r'āb-al- ḥajīz-al-anfī (Rhinoseptoplasty, Antral Washout, Foreign Body Nose)

18.5.1 Indications, contraindication, pre-operative preparation, steps of surgery of rhinoseptoplasty

18.5.2 Antral washout

18.5.3 Methods of removal of foreign body nose

References: 11,23,89

3A	3B	3C	3D	3E	3F	3G
CO1,CO2,CO4,CO7	Describe in detail about Rhinoseptoplasty, its indications, contraindications, pre-operative preparation, type of Anaesthesia to be administered, operative steps and post-operative complications. Explain in detail about Antral wash out. Describe and explain the different types of foreign body of NOSE, the affects it may cause, and methods of its removal.	2	Lecture	CK	Knows-how	TUT,L&PPT

CO1,CO2,CO4,CO7	Demonstrate the procedure of Rhinoseptoplasty. Demonstrate the method of Antral wash out. Demonstrate the steps of Foreign body removal from nose.	3	Practical18.5	AFT-REC	Shows-how	CBL,D,DIS
CO1,CO2,CO4,CO7	Identify and diagnose the case requiring Rhinoseptoplasty and perform/conduct the same. Identify and diagnose the case requiring Antral wash out and perform the procedure. Diagnose the case of Foreign body of nose, and adapt appropriate methods for its removal.	4	Experiential-Learning18.5	PSY-ADT	Does	CBL,RLE,CD

Practical Training Activity

Practical Training 18.1 Iste'ṣāl taḥat-al mūkhaṭī, r'āb-al- ḥajīz-al-anfī, Iste'ṣāl- al-salīlā-al-anf, Ru'āf and Kasr al-Anf. (Submucosal resection and Septoplasty, Nasal Polypectomy,Common Emergencies like Epistaxis and Fracture of nasal bone)

Total Activity time: 5 hours

The activity can be divided into two parts; activity 1 and 2.

Activity-1: Pre-operative preparation (02 hour 30 Minutes): Case-based learning, Demonstration, Discussion

These activities shall be conducted on the bedside in the ward. The teacher will explain and demonstrate the preparation of the case for sub-mucosal resection and septoplasty, surgical excision of nasal polyp. This preparation includes Pre-Anaesthetic Check-Up, Part Preparation, Pre-Medicines to be used, Counselling of the patient for surgery, and getting all consent forms signed by patients and his / her attendants. After the teacher's demonstration, the teacher will assign a case to the small group of students. Students will do all the preparation as demonstrated by the teacher.

Activity-2: Per-operative phase (02 Hours and 30 Minutes): Case-based learning, Demonstration, Discussion

Per-operative phase shall be conducted in operation theatre by teacher/ surgeon. The teacher will further demonstrate the Operative steps of sub-mucosal resection and septoplasty, surgical excision of nasal polyp as the case may be. The operative steps include structures cut during surgery, identification of different parts / organs (structures encountered), attaining the surgical; procedure required (sub-mucosal resection and septoplasty, surgical excision of nasal polyp),

achieving Haemostasis and Closure of the wound in layers. Teacher shall demonstrate the methods of post operative care after surgery. Logbook entry: Students will keep a record of surgical methods or operative steps of at least five cases for each surgery required in logbook.
Practical Training 18.2 Iste'ṣāl-al- gharbāl Ethmoidectomy(inter nasal, external, external fronto)
Total Activity time: 4 hours The activity can be divided into two parts; activity 1 and 2. Activity-1: Pre-operative preparation (01 hour 30 Minutes): Case-based learning, Demonstration, Discussion These activities shall be conducted on the bedside in the ward. The teacher will explain and demonstrate the preparation of the case for ethmoidectomy. This preparation includes Pre-Anaesthetic Check-Up, Part Preparation, Pre-Medicines to be used, Counselling of the patient for surgery, and getting all consent forms signed by patients and his / her attendants. After the teacher's demonstration, the teacher will assign a case to the small group of students. Students will do all the preparation as demonstrated by the teacher. Activity-2: Per-operative phase (02 Hours and 30 Minutes): Case-based learning, Demonstration, Discussion Per-operative phase shall be conducted in operation theatre by teacher/ surgeon. The teacher will further demonstrate the Operative steps of Ethmoidectomy (inter nasal, external, external fronto) as the case may be. The operative steps include structures cut during surgery, identification of different parts / organs (structures encountered), attaining the surgical procedure required (Ethmoidectomy), achieving Haemostasis and Closure of the wound in layers. Teacher shall demonstrate the methods of post operative care after surgery. Logbook entry: Students will keep a record of surgical methods or operative steps of at least five cases for the surgery required in logbook.
Practical Training 18.3 Iste'ṣāl-al-fak-al'ulwī [Maxillectomy (partial and total)], Anf ki Khilqī tashuwwhāt (Congenital deformities of nose), Jabhi Fakkī Ḍarar (Facio Maxillary Injury)
Total Activity time: 4 hours The activity can be divided into two parts; activity 1 and 2.

Activity-1: Pre-operative preparation (01 hour 30 Minutes): Case-based learning, Demonstration, Discussion

These activities shall be conducted on the bedside in the ward. The teacher will explain and demonstrate the preparation of the case for Maxillectomy (partial and total) as the case may be. This preparation includes Pre-Anaesthetic Check-Up, Part Preparation, Pre-Medicines to be used, Counselling of the patient for surgery, and getting all consent forms signed by patients and his / her attendants. After the teacher's demonstration, the teacher will assign a case to the small group of students. Students will do all the preparation as demonstrated by the teacher. In case of nonavailability of real cases, teacher may show/ demonstrate students the cases of congenital deformity of nose and Facio-maxillary injuries by means of power pint presentations.

Activity-2: Per-operative phase (02 Hours and 30 Minutes): Case-based learning, Demonstration, Discussion

Per-operative phase shall be conducted in operation theatre by teacher/ surgeon. The teacher will further demonstrate the Operative steps of Maxillectomy (partial and total) as the case may be as the case may be.The operative steps include structures cut during surgery, identification of different parts / organs (structures encountered), attaining the surgical procedure required (Maxillectomy (partial and total) as the case may be), achieving Haemostasis and Closure of the wound in layers. Teacher shall demonstrate the methods of post operative care after surgery. Logbook entry: Students will keep a record of surgical methods or operative steps of at least five cases for the surgery required in logbook.

Practical Training 18.4 Ratq qam'ī-al-anf ka 'amal jīrāḥī, 'amal jīrāḥī tajāwīf –al-Anf waẓīfā bīal minẓār dākhlī (Surgery of Choanal Atresia,FunctionalEndoscopic Sinus Surgery)

Total Activity time: 4 hours

The activity can be divided into two parts; activity 1 and 2.

Activity-1: Pre-operative preparation (01 hour 30 Minutes): Case-based learning, Demonstration, Discussion

These activities shall be conducted on the bedside in the ward. The teacher will explain and demonstrate the preparation of the case for choanal atresia. This preparation includes Pre-Anaesthetic Check-Up, Part Preparation, Pre-Medicines to be used, Counselling of the patient for surgery, and getting all consent forms signed by patients and his / her attendants. After the teacher's demonstration, the teacher will assign a case to the small group of students. Students will do all the preparation as demonstrated by the teacher. In case of nonavailability of real cases, teacher may show/ demonstrate students the cases of choanal atresia by means of power point presentations.

Activity-2: Per-operative phase (02 Hours and 30 Minutes): Case-based learning, Demonstration, Discussion Per-operative phase shall be conducted in operation theatre by teacher/ surgeon. The teacher will further demonstrate the Operative steps to correct choanal atresia. The operative steps include structures cut during surgery, identification of different parts / organs (structures encountered), attaining the surgical procedure required (Operative steps to correct choanal atresia), achieving Haemostasis and Closure of the wound in layers. The teacher will demonstrate the method of FESS (functional endoscopic sinus surgery) in operation theatre and explain the indications of it. Teacher shall demonstrate the methods of post operative care after surgery. Logbook entry: Students will keep a record of surgical methods or operative steps of at least five cases for the surgery required in logbook.
Practical Training 18.5 Qadhā-al-anf, al-ghūsl –al-ghārī, r'āb-al- ḥajīz-al-anfī (Rhinoseptoplasty,Antral Washout,Foreign Body Nose)
Total Activity time: 3 hours The activity can be divided into two parts; activity 1 and 2. Activity-1: Pre-operative preparation (01 hour): Case-based learning, Demonstration, Discussion These activities shall be conducted on the bedside in the ward.The teacher will explain and demonstrate the preparation of the case for rhinoseptoplasty. This preparation includes Pre-Anaesthetic Check-Up, Part Preparation, Pre-Medicines to be used, Counselling of the patient for surgery, and getting all consent forms signed by patients and his / her attendants.After the teacher's demonstration, the teacher will assign a case to the small group of students. Students will do all the preparation as demonstrated by the teacher. Activity-2: Per-operative phase (02 Hours): Case-based learning, Demonstration, Discussion Per-operative phase shall be conducted in operation theatre by teacher/ surgeon. The teacher will further demonstrate the Operative steps of rhinoseptoplasty. The operative steps include structures cut during surgery, identification of different parts / organs (structures encountered), attaining the surgical procedure required rhinoseptoplasty), achieving Haemostasis and Closure of the wound in layers. In case of nonavailability of real cases, teacher may show/ demonstrate students the cases of rhinoseptoplasty by means of power point presentations. The teacher will demonstrate the method of antral washout in patients of Chronic Maxillary Sinusitis.The teacher will demonstrate different methods of foreign body removal from nose and explain various types of foreign bodies that may lodge in

the nose. Teacher shall demonstrate the methods of post operative care after surgery. Logbook entry: Students will keep a record of surgical methods or operative steps of at least five cases for the surgery required in logbook.
Experiential Learning Activity
Experiential-Learning Learning 18.1: Iste'ṣāl taḥat-al mūkhaṭī, r'āb-al- ḥajīz-al-anfī, Iste'ṣāl- al-salīlā-al-anf, Ru'āf and Kasr al-Anf. (Submucosal resection (SMR) and Septoplasty, Nasal Polypectomy,Common Emergencies like Epistaxis and Fracture of nasal bone)
Total Activity time: 6 hours The activity can be divided into two parts; activity 1 and 2. Activity-1: Identification, diagnosis, and preparation of the case (02 hours) Case diagnosis, case-based learning, Kinaesthetic learning. These activities shall be conducted on the bedside in the ward or in OPD (Outpatient Department) Student should identify and diagnose the cases like Deviated Nasal Septum, Nasal Polyps and septal hypertrophy and select from them the case for surgery. Students should carry out all the steps for pre-operative preparation, including pre-anaesthetic check-up, (under the supervision of anaesthetists), part preparation, pre-medication to be used, counselling of the patient for surgery, getting all informed consents signed by patient and his/her attendants. Pre-operative preparation shall be conducted under supervision of teacher/surgeon/ anaesthetist in the ward at bed-side. In case of non-availability of real cases, power point presentations may be shown to the students. Activity-2: Operative procedure and post-operative care/ management (04 hours) Case diagnosis, case-based learning, Kinaesthetic learning.The operative procedure will be conducted in operation theatre and post-operative care/ management in post-operative ward. The students should assist the surgery or perform/ conduct all or few of the operative steps of the surgery required (Sub Mucosal Resection, nasal polypectomy and Septoplasty) on at least three cases for each under the supervision of teacher/ surgeon. The student should conduct the para-surgical procedure like Nasal Packing in case of Nasal Bleeding/Epistaxis and manage Nasal Bone Fractures. Students shall manage or carry out patient care in post-operative ward under supervision of teacher. In case of non-availability of real cases, power point presentations may be shown to the students. Logbook entry: students shall keep the record of number of surgeries assisted / performed with date.

Experiential-Learning Learning 18.2: Iste'ṣāl-al- gharbāl Ethmoidectomy(inter nasal, external, external fronto)
Total Activity time: 5 hours The activity can be divided into two parts; activity 1 and 2. Activity-1: Identification, diagnosis, and preparation of the case (02 hours) Case diagnosis, case-based learning, Kinaesthetic learning. These activities shall be conducted on the bedside in the ward or in OPD (Outpatient Department) Student should identify and diagnose the cases like rhino sinusitis and sino-nasal tumours, and others requiring ethmoidectomy and select from them the case for surgery. Students should carry out all the steps for pre-operative preparation, including pre-anaesthetic check-up, (under the supervision of anaesthetists), part preparation, pre-medication to be used, counselling of the patient for surgery, getting all informed consents signed by patient and his/her attendants. Pre-operative preparation shall be conducted under supervision of teacher/surgeon/ anaesthetist in the ward at bed-side. In case of non-availability of real cases, power point presentations may be shown to the students. Activity-2: Operative procedure and post-operative care/ management (03 hours) Case diagnosis, case-based learning, Kinaesthetic learning. The operative procedure will be conducted in operation theatre and post-operative care/ management in post-operative ward. The students should assist the surgery or perform/ conduct all or few of the operative steps of the surgery required (ethmoidectomy) on at least three cases under the supervision of teacher/ surgeon. Students shall manage or carry out patient care in post-operative ward under supervision of teacher. In case of non-availability of real cases, power point presentations may be shown to the students. Logbook entry: students shall keep the record of number of surgeries assisted / performed with date.
Experiential-Learning Learning 18.3: Iste'ṣāl-al-fak-al'ulwī [Maxillectomy (partial and total)]; Anf ki Khilqī tashuwwhāt (Congenital deformities of nose); Jabhi Fakkī Ḍarar (Facio Maxillary Injury)
Total Activity time: 6 hours The activity can be divided into two parts; activity 1 and 2.

Activity-1: Identification, diagnosis, and preparation of the case (02 hours)

Case diagnosis, case-based learning, Kinaesthetic learning.

These activities shall be conducted on the bedside in the ward or in OPD (Outpatient Department)

Student should identify and diagnose the cases like Tumours of Nose and Chronic Sinusitis requiring Maxillectomy and select from them the case for surgery.Students should carry out all the steps for pre-operative preparation, including pre-anaesthetic check-up, (under the supervision of anaesthetists), part preparation, pre-medication to be used, counselling of the patient for surgery, getting all informed consents signed by patient and his/her attendants.Pre-operative preparation shall be conducted under supervision of teacher/surgeon/ anaesthetist in the ward at bed-side. In case of non-availability of real cases, power point presentations may be shown to the students.

Activity-2: Operative procedure and post-operative care/ management (04 hours)

Case diagnosis, case-based learning, Kinaesthetic learning.The operative procedure will be conducted in operation theatre and post-operative care/ management in post-operative ward.The students should assist the surgery or perform/ conduct all or few of the operative steps of the surgery required (maxillectomy) on at least three cases under the supervision of teacher/ surgeon.Student should Diagnose various Congenital Deformities of Nose and Manage it with Surgical Correction under guidance or advise to the patient appropriate prescription.Student should Identify the cases of Facial/Maxillary Injury and Perform/Conduct its Management under supervision of surgeon.Students shall manage or carry out patient care in post-operative ward under supervision of teacher.In case of non-availability of real cases, power point presentations may be shown to the students.

Logbook entry: students shall keep the record of number of surgeries assisted / performed with date.

Experiential-Learning Learning 18.4: Ratq qam'ī-al-anf ka 'amal jīrāḥī, 'amal jīrāḥī tajāwīf –al-Anf waẓīfā bīal minẓār dākhlī (Surgery of Choanal Atresia,FunctionalEndoscopic Sinus Surgery)

Total Activity time: 5 hours

The activity can be divided into two parts; activity 1 and 2.

Activity-1: Identification, diagnosis, and preparation of the case (01 hours): Case diagnosis, case-based learning, Real Life experience.

These activities shall be conducted on the bedside in the ward or in OPD (Outpatient Department) Student should identify and diagnose the cases with Narrow opening of Nostrils (choanal atresia) and select from them the cases for surgery. Student should identify and diagnose the cases like Chronic Rhino Sinusitis and Mucocele of Sinus and select from them the cases for surgery (functional endoscopic sinus surgery). Students should carry out all the steps for pre-operative preparation, including pre-anaesthetic check-up, (under the supervision of anaesthetists), part preparation, pre-medication to be used, counselling of the patient for surgery, getting all informed consents signed by patient and his/her attendants. Pre-operative preparation shall be conducted under supervision of teacher/surgeon/ anaesthetist in the ward at bed-side. In case of non-availability of real cases, power point presentations may be shown to the students.

Activity-2: Operative procedure and post-operative care/ management (04 hours): Case diagnosis, case-based learning, Real Life experience. The operative procedure will be conducted in operation theatre and post-operative care/ management in post-operative ward. The students should assist the surgery or perform/ conduct all or few of the operative steps of the surgery required (surgical correction of choanal atresia, functional endoscopic sinus surgery) on at least three cases for each under the supervision of teacher/ surgeon. Students shall manage or carry out patient care in post-operative ward under supervision of teacher. In case of non-availability of real cases, power point presentations may be shown to the students. Logbook entry: students shall keep the record of number of surgeries assisted / performed with date.

Experiential-Learning Learning 18.5: Qadhā-al-anf, al-ghūsl –al-ghārī, r'āb-al- ḥajīz-al-anfī (Rhinoseptoplasty, Antral Washout, Foreign Body Nose)

Total Activity time: 4 hours

The activity can be divided into two parts; activity 1 and 2.

Activity-1: Identification, diagnosis, and preparation of the case (01 hours): Case diagnosis, case-based learning, Real Life experience.

These activities shall be conducted on the bedside in the ward or in OPD (Outpatient Department)

Student should Identify and Diagnose the cases requiring Nasal Reconstruction (either therapeutic or cosmetic), and chronic sinusitis (or cases requiring antral washout) and select from them the cases for surgery.

Students should carry out all the steps for pre-operative preparation, including pre-anaesthetic check-up, (under the supervision of anaesthetists), part preparation, pre-medication to be used, counselling of the patient for surgery, getting all informed consents signed by patient and his/her attendants.Pre-operative

preparation shall be conducted under supervision of teacher/surgeon/ anaesthetist in the ward at bed-side. In case of non-availability of real cases, power point presentations may be shown to the students.

Activity-2: Operative procedure and post-operative care/ management (03 hours): Case diagnosis, case-based learning, Real Life experience.

The operative procedure will be conducted in operation theatre and post-operative care/ management in post-operative ward. The students should assist the surgery or perform/ conduct all or few of the operative steps of the surgery required (Rhino septoplasty, antral washout)) on at least three cases for each under the supervision of teacher/ surgeon. Students shall manage or carry out patient care in post-operative ward under supervision of teacher.Student should Identify and Diagnose the case of Foreign Body in the Nose and Perform the various methods for its Removal.In case of non-availability of real cases, power point presentations may be shown to the students. Logbook entry: students shall keep the record of number of surgeries assisted / performed with date.

Modular Assessment

Assessment	**Hour**
Instructions: Conduct a structured modular assessment. The assessment will be of 50 marks for this module. Keep a record of structured pattern used for assessment. Calculate modular grade points as per table- 6 C. OSCE (objective structured clinical examination)- 50 marks. OR Case Based Evaluation- 50 Marks. • History taking and patient interaction – 10 marks • Physical examination skills – 20 marks • Diagnosis and clinical reasoning – 10 marks • Communication skills – 5 marks • Time management and efficiency – 5 marks OR Any practical in converted form can be taken for assessment. (25 Marks)	4

and Any experiential, such as portfolios/ reflection/ presentations can be taken as an assessment. (25 Marks)	

Semester No : 4

Module 19 : البلعوم الانفی اور البلعوم الفمی Al- bal'ūm –al-anfī aur al- bal'ūm –al-fammī (Operations on Nasopharynx & Oropharynx)

Module Learning Objectives

(At the end of the module, the students should be able to)

1. Describe in detail about the different operative procedures for various oropharyngeal and nasopharyngeal diseases.

2. Conduct the surgical and parasurgical procedures required for various diseases of oropharynx and nasopharynx

3. Diagnose various diseases of oro/nasopharynx and identify various structures during the surgery of particular type.

Unit 1 استئصال لوزتین اور استئصال الغدانیاتی Iste'ṣāl-al- Lawzatayn aur : Iste'ṣāl-al-Ghudaniyat (Tonsillectomy, Adenoidectomy)

19.1.1 Indication, contraindications, pre-operative preparation, operative steps, post-operative care, complications and management of tonsillectomy

19.1.2 Indication, contraindications, pre-operative preparation, operative steps, post-operative care, complications and management of adenoidectomy

References: 24,86,89,94,95

3A	3B	3C	3D	3E	3F	3G
CO1,CO2,CO4,CO7	Describe Tonsillectomy and adenoidectomy, their indications, contraindications, pre-operative preparation, operative steps, post-operative care, complications and management.	2	Lecture	CK	Knows-how	TUT,L&PPT
CO1,CO2,CO4,CO7	Demonstrate the surgical procedure for excision of tonsils (Tonsillectomy) and denoids (Adenoidectomy).	4	Practical19.1	AFT-REC	Shows-how	D,CBL,DIS

CO1,CO2,CO4,CO7	Identify and diagnose the case of chronic tonsillitis, and prepare the case for surgery, and perform the operative procedure. Identify and diagnose the case of Adenoid hypertrophy requiring Adenoidectomy and perform the specific operative procedure.	6	Experiential-Learning19.1	PSY-ADT	Does	CBL,RLE,CD
Unit 2 قوینسی کا شق اور تنقیہ، ربطہ اللسان یطلق۔/Quincy ka Shaqq aur Tanqiya; Rabt'a-al-lisān Yūṭlaq (Incision and Drainage of Quincy/Other Abscess, Tongue Tie Release) 19.2.1 Incision & drainage of peri-tonsillar abscess/quincy 19.2.2 Tongue tie release **References:** 11,94,95						
3A	**3B**	**3C**	**3D**	**3E**	**3F**	**3G**
CO1,CO2,CO4,CO7	Describe in detail about Tonsillar abscess/other abscess. Describe TONGUE TIE release in detail.	2	Lecture	CK	Knows-how	TUT,L&PPT ,FC
CO1,CO2,CO4,CO7	Demonstrate the procedure of Incision and Drainage for Peri-tonsillar Abscess/Other Abscess. Demonstrate the method of tongue tie release.	4	Practical19.2	AFT-REC	Shows-how	CBL,D,DIS
CO1,CO2,CO4,CO7	Identify and Diagnose the case of Peri-tonsillar abscess and prepare the case for Incision and Drainage, and perform it. Identify and Diagnose the case having restricted movement of tongue due to tongue tie and conduct the procedure of tongue tie release.	6	Experiential-Learning19.2	PSY-ADT	Does	CBL,CD,RLE
Unit 3 استئصال اکیاس الاحتباس، قذیٰ البلعومی/Iste'ṣāl-al-Akyās -al-ihtībās, Qadhā-al- bal'ūmi (Excision of Retention Cyst, Foreign Body Throat) 19.3.1 Excision of retention cyst 19.3.2 Methods of removal of foreign body throat **References:** 11,86,94,95						

3A	3B	3C	3D	3E	3F	3G
CO1,CO2,CO4,CO7	Describe Retention cyst in detail, enlist different types of foreign bodies that may cause impaction in the throat, clinical presentations, complications, and methods of their removal.	2	Lecture	CC	Knows-how	L&PPT ,TUT
CO1,CO2,CO4,CO7	Demonstrate the excision of Retention cyst. Demonstrate the different methods of removal of foreign body throat.	4	Practical19.3	AFT-REC	Shows-how	D,CBL,DIS
CO1,CO2,CO4,CO7	Identify and Diagnose the case of Retention cyst, prepare for surgery and conduct its excision. Identify and Diagnose the case of Foreign Body throat, and conduct/perform the steps for its removal.	5	Experiential-Learning19.3	PSY-ADT	Does	CBL,RLE,CD

Unit 4 Fibre optic bronchoscopy & esophagoscopy including foreign body removal

19.4.1 Indications of fibre optic bronchoscopy and esophagoscopy

19.4.2 procedure fibre optic bronchoscopy and esophagoscopy

19.4.3 Uses of fibreoptic brochoscopy and esophagoscopy in foreign body removal

References: 24,89

3A	3B	3C	3D	3E	3F	3G
CO1,CO2,CO4,CO7	Describe in detail about Bronchoscopy and Oesophagoscopy, their indications and contra-indications.	2	Lecture	CK	Knows-how	TUT,L&PPT
CO1,CO2,CO4,CO7	Demonstrate the procedure of Bronchoscopy and Oesophagoscopy.	4	Practical19.4	AFT-REC	Shows-how	CBL,D,DIS

CO1,CO2,CO4,CO7	Identify and select the cases requiring Bronchoscopy and Oesophagoscopy, and perform/conduct the procedure.	5	Experiential-Learning19.4	PSY-ADT	Does	CBL,CD,RLE

Unit 5 قصبہ الریہ کی خلقی تشوھات کی عمل جراہی Qaṣaba al-Ri'a ki Khilqī tashuwwhāt ki 'amal jīrāhī (Surgery of Congenital Deformity of Trachea/Oesophagus)

19.5.1 Congenital deformity of trachea and esophagus

References: 24,89

3A	3B	3C	3D	3E	3F	3G
CO1,CO2,CO4,CO7	Describe and enlist various congenital deformities of trachea/esophagus and differentiate between them.	2	Lecture	CK	Knows-how	TUT,L&PPT
CO1,CO2,CO4,CO7	Demonstrate /Exhibit the cases of different congenital deformities of trachea/esophagus.	4	Practical19.5	AFT-REC	Shows-how	SIM,DIS,D,CBL
CO1,CO2,CO4,CO7	Identify and Diagnose the various congenital deformities of trachea/esophagus and conduct its management or prescribe appropriate advice to the patient.	4	Experiential-Learning19.5	PSY-ADT	Does	CBL,CD,RLE

Practical Training Activity

Practical Training 19.1 Iste'ṣāl-al- Lawzatayn aur Iste'ṣāl-al-Iltihāb-i- Tajāwīf Ḥulqūmī Anfi

(Tonsillectomy, Adenoidectomy)

Total Activity time: 4 hours

The activity can be divided into two parts; activity 1 and 2.

Activity-1: Pre-operative preparation (01 hour 30 Minutes): Case-based learning, Demonstration, Discussion

These activities shall be conducted on the bedside in the ward. The teacher will explain and demonstrate the preparation of the case for Tonsillectomy. This preparation includes Pre-Anaesthetic Check-Up, Part Preparation, Pre-Medicines to be used, Counselling of the patient for surgery, and getting all consent forms

signed by patients and his / her attendants. Same steps shall be followed for Adenoidectomy. After the teacher's demonstration, the teacher will assign a case to the small group of students. Students will do all the preparation as demonstrated by the teacher.

Activity-2: Per-operative phase (02 Hours and 30 Minutes): Case-based learning, Demonstration, Discussion

Per-operative phase shall be conducted in operation theatre by teacher/ surgeon. The teacher will further demonstrate the Operative steps of the surgery required (Tonsillectomy, Adenoidectomy). The operative steps include structures cut during surgery, identification of different parts / organs (structures encountered), attaining the surgical procedure required (Tonsillectomy, Adenoidectomy), achieving Haemostasis and Closure of the wound in layers. Teacher shall demonstrate the methods of post operative care after surgery. Students will keep a record of surgical methods or operative steps of at least five cases for each surgery required. Logbook entry: students shall keep the record of number of surgeries assisted / observed with date as practical.

Practical Training 19.2 Quincy ka Shaqq aur Tanqiya; Rabt'a- al-lisān Yūṭlaq

(Incision and Drainage of Quincy/Other Abscess, Tongue Tie Release)

Total Activity time: 4 hours

The activity can be divided into two parts; activity 1 and 2.

Activity-1: Pre-operative preparation (01 hour 30 Minutes): Case-based learning, Demonstration, Discussion

These activities shall be conducted on the bedside in the ward. The teacher will explain and demonstrate the preparation of the case for Incision and Drainage of Quincy/Other Abscess. This preparation includes Pre-Anaesthetic Check-Up, Part Preparation, Pre-Medicines to be used, Counselling of the patient for surgery, and getting all consent forms signed by patients and his / her attendants. After the teacher's demonstration, the teacher will assign a case to the small group of students. Students will do all the preparation as demonstrated by the teacher.

Activity-2: Per-operative phase (02 Hours and 30 Minutes): Case-based learning, Demonstration, Discussion

Per-operative phase shall be conducted in operation theatre by teacher/ surgeon. The teacher will further demonstrate the Operative steps of the surgery required (Incision and Drainage of Quincy/Other Abscess). Teacher shall demonstrate the method of tongue tie release and explain its indications. Teacher shall demonstrate the method of post operative care after surgery. Students will keep a record of surgical methods or operative steps of at least five cases for each surgery required. Logbook entry: students shall keep the record of number of surgeries assisted / observed with date as practical.

Practical Training 19.3 Iste'ṣāl-al-Akyās -al-ihtībās, Qadhā-al-balʻūm (Excision of Retention Cyst, Foreign Body Throat)
Total Activity time: 4 hours The activity can be divided into two parts; activity 1 and 2. Activity-1: Pre-operative preparation (01 hour 30 Minutes): Case-based learning, Demonstration, Discussion These activities shall be conducted on the bedside in the ward. The teacher will explain and demonstrate the preparation of the case for excision of retention cyst. This preparation includes Pre-Anaesthetic Check-Up, Part Preparation, Pre-Medicines to be used, Counselling of the patient for surgery, and getting all consent forms signed by patients and his / her attendants. After the teacher's demonstration, the teacher will assign a case to the small group of students. Students will do all the preparation as demonstrated by the teacher. Activity-2: Per-operative phase (02 Hours and 30 Minutes): Case-based learning, Demonstration, Discussion Per-operative phase shall be conducted in operation theatre by teacher/ surgeon. The teacher will further demonstrate the Operative steps of the surgery required (excision of retention cyst). The teacher will explain different types of foreign bodies that may lodge in the throat and methods of their removal. Teacher shall demonstrate the method of post operative care after surgery. Students will keep a record of surgical methods or operative steps of at least five cases for each surgery required. Logbook entry: students shall keep the record of number of surgeries assisted / observed with date as practical.
Practical Training 19.4 Fibre optic bronchoscopy & oesophagoscopy including foreign body removal
Total Activity time: 4 hours The activity can be divided into two parts; activity 1 and 2. Activity-1: Pre-operative preparation (01 hour 30 Minutes): Case-based learning, Demonstration, Discussion These activities shall be conducted on the bedside in the ward. The teacher will explain and demonstrate the preparation of the cases requiring bronchoscopy and esophagoscopy. This preparation includes Pre-Anaesthetic Check-Up, Part Preparation, Pre-Medicines to be used, Counselling of the patient for the procedure, and getting all consent forms signed by patients and his / her attendants. After the teacher's demonstration, the teacher will assign a case to the small group of students. Students will do all the preparation as demonstrated by the teacher.

Activity-2: Per-operative phase (02 Hours and 30 Minutes): Case-based learning, Demonstration, Discussion

Per-operative phase shall be conducted in operation theatre by teacher/ surgeon. The teacher will further demonstrate the method/steps of bronchoscopy and esophagoscopy including foreign body removal. The teacher will explain different types of foreign bodies that may lodge in the throat and/or oesophagus, and other methods of their removal. Teacher shall demonstrate the method of post operative care after surgery. Students will keep a record of surgical methods or operative steps of at least five cases for each surgery required. Logbook entry: students shall keep the record of number of surgeries assisted / observed with date as practical.

Practical Training 19.5 Qaṣaba al-Ri'a ki Khilqī tashuwwhāt ki 'amal jīrāhī

(Surgery of Congenital Deformity of Trachea / Oesophagus)

Total Activity time: 4 hours

The activity can be divided into two parts; activity 1 and 2.

Activity-1: Pre-operative preparation (01 hour 30 Minutes): Case-based learning, Demonstration, Discussion

These activities shall be conducted on the bedside in the ward. The teacher will explain and demonstrate the preparation of the cases of Congenital Deformity of Trachea / Oesophagus. This preparation includes Pre-Anaesthetic Check-Up, Part Preparation, Pre-Medicines to be used, Counselling of the patient for the procedure, and getting all consent forms signed by patients and his / her attendants. After the teacher's demonstration, the teacher will assign a case to the small group of students. Students will do all the preparation as demonstrated by the teacher. In case of non-availability of cases, demonstration to the students may be given either by internet sources or power point presentation.

Activity-2: Per-operative phase (02 Hours and 30 Minutes): Case-based learning, Demonstration, Discussion

Per-operative phase shall be conducted in operation theatre by teacher/ surgeon. The teacher will further demonstrate the method/steps of surgical correction of congenital deformity of Trachea / Oesophagus. Teacher shall demonstrate the method of post operative care after surgery. In case of non-availability of cases, demonstration to the students may be given either by internet sources or power point presentation. Students will keep a record of surgical methods or operative steps of at least five cases for each surgery required. Logbook entry: students shall keep the record of number of surgeries assisted / observed with date as practical

Experiential Learning Activity
Experiential-Learning Learning 19.1: Iste'ṣāl-al- Lawzatayn aur Iste'ṣāl-al-Iltihāb-i- Tajāwīf Ḥulqūmī Anfi (Tonsillectomy, Adenoidectomy)
Total Activity hours: 6 hours The activity can be divided into two parts; activity 1 and 2. Activity-1: Identification, diagnosis, and preparation of the case (02 hours): Case diagnosis, case-based learning, Kinaesthetic learning, Real Life experience. These activities shall be conducted on the bedside in the ward or in OPD (Outpatient Department). Student should Identify and Diagnose the cases of chronic tonsillitis or the cases requiring tonsillectomy and select from them the cases for surgery. Student should Identify and Diagnose the cases with adenoid hypertrophy or the cases requiring adenoidectomy and select from them the cases for surgery. Students should carry out all the steps for pre-operative preparation, including pre-anaesthetic check-up, (under the supervision of anaesthetists), part preparation, pre-medication to be used, counselling of the patient for surgery, getting all informed consents signed by patient and his/her attendants. Pre-operative preparation shall be conducted under supervision of teacher/surgeon/ anaesthetist in the ward at bed-side. In case of non-availability of real cases, power point presentations may be shown to the students. Activity-2: Operative procedure and post-operative care/ management (04 hours): Case diagnosis, case-based learning, Kinaesthetic learning, Real Life experience. The operative procedure will be conducted in operation theatre and post-operative care/ management in post-operative ward. The students should assist the surgery or perform/ conduct all or few of the operative steps of the surgery required (tonsillectomy, adenoidectomy) on at least three cases for each under the supervision of teacher/ surgeon. Students shall manage or carry out patient care in post-operative ward under supervision of teacher. In case of non-availability of real cases, power point presentations may be shown to the students. Logbook entry: students shall keep the record of number of surgeries assisted / performed with date.
Experiential-Learning Learning 19.2: Quincy ka Shaqq aur Tanqiya; Rabt'a- al-lisān Yūṭlaq (Incision and Drainage of Quincy/Other Abscess, Tongue Tie Release)

Total Activity time: 6 hours

The activity can be divided into two parts; activity 1 and 2.

Activity-1: Identification, diagnosis, and preparation of the case (02 hours): Case diagnosis, case-based learning, Real Life experience.

These activities shall be conducted on the bedside in the ward or in OPD (Outpatient Department). Student should Identify and Diagnose the cases of tonsillar/peri tonsillar abscess and select from them the cases for surgery. Student should Identify and Diagnose the cases with ankyloglossia, difficulty in talking due to tongue tie and select from them the cases for surgery. Students should carry out all the steps for pre-operative preparation, including pre-anaesthetic check-up, (under the supervision of anaesthetists), part preparation, pre-medication to be used, counselling of the patient for surgery, getting all informed consents signed by patient and his/her attendants. Pre-operative preparation shall be conducted under supervision of teacher/surgeon/ anaesthetist in the ward at bed-side. In case of non-availability of real cases, power point presentations may be shown to the students.

Activity-2: Operative procedure and post-operative care/ management (04 hours): Case diagnosis, case-based learning, Real Life experience.

The operative procedure will be conducted in operation theatre and post-operative care/ management in post-operative ward. The students should assist the surgery or perform/ conduct all or few of the operative steps of the surgery required (incision and drainage of tonsillar/peri tonsillar abscess, and tongue tie release) on at least three cases for each under the supervision of teacher/ surgeon. Students shall manage or carry out patient care in post-operative ward under supervision of teacher. In case of non-availability of real cases, power point presentations may be shown to the students. Logbook entry: students shall keep the record of number of surgeries assisted / performed with date.

Experiential-Learning Learning 19.3: Iste'ṣāl-al-Akyās -al-ihtībās, Qadhā-al-bal'ūm

(Excision of Retention Cyst, Foreign Body Throat)

Total Activity time: 5 hours

The activity can be divided into two parts; activity 1 and 2.

Activity-1: Identification, diagnosis, and preparation of the case (1.5 hours): Case diagnosis, case-based learning, Kinaesthetic learning, Real Life experience.

These activities shall be conducted on the bedside in the ward or in OPD (Outpatient Department). Student should Identify and Diagnose the cases of retention cyst and select from them the cases for surgery. Students should carry out all the steps for pre-operative preparation, including pre-anaesthetic check-up, (under

the supervision of anaesthetists), part preparation, pre-medication to be used, counselling of the patient for surgery, getting all informed consents signed by patient and his/her attendants. Pre-operative preparation shall be conducted under supervision of teacher/surgeon/ anaesthetist in the ward at bed-side. In case of non-availability of real cases, power point presentations may be shown to the students.

Activity-2: Operative procedure and post-operative care/ management (3.5 hours): Case diagnosis, case-based learning, Kinaesthetic learning, Real Life experience.

The operative procedure will be conducted in operation theatre and post-operative care/ management in post-operative ward. The students should assist the surgery or perform/ conduct all or few of the operative steps of the surgery required (excision of the retention cyst) on at least three cases under the supervision of teacher/ surgeon. Students shall manage or carry out patient care in post-operative ward under supervision of teacher. The student should diagnose different foreign bodies impacted in the throat and conduct their removal on minimum 3 cases. In case of non-availability of real cases, power point presentations may be shown to the students. Logbook entry: students shall keep the record of number of surgeries assisted / performed with date.

Experiential-Learning Learning 19.4: Fibre optic bronchoscopy & oesophagoscopy including foreign body removal

Total Activity time: 5 hours

The activity can be divided into two parts; activity 1 and 2.

Activity-1: Identification, diagnosis, and preparation of the case (1.5 hours): Case diagnosis, case-based learning, Kinaesthetic learning, Real Life experience.

These activities shall be conducted on the bedside in the ward or in OPD (Outpatient Department). Student should Identify and Diagnose the cases requiring bronchoscopy and esophagoscopy. Students should carry out all the steps for pre-operative preparation, including pre-anaesthetic check-up, (under the supervision of anaesthetists), part preparation, pre-medication to be used, counselling of the patient for surgery, getting all informed consents signed by patient and his/her attendants. Pre-operative preparation shall be conducted under supervision of teacher/surgeon/ anaesthetist in the ward at bed-side. In case of non-availability of real cases, power point presentations may be shown to the students.

Activity-2: Operative procedure and post-operative care/ management (3.5 hours): Case diagnosis, case-based learning, Kinaesthetic learning, Real Life experience.

The operative procedure will be conducted in operation theatre and post-operative care/ management in post-operative ward. The students should assist the

procedure or perform/ conduct all or few of the steps of the procedure required (bronchoscopy and esophagoscopy) on at least three cases under the supervision of teacher/ surgeon. Students shall manage or carry out patient care in post-operative ward under supervision of teacher. The student should diagnose different foreign bodies impacted in the throat and conduct their removal on minimum 3 cases. In case of non-availability of real cases, power point presentations may be shown to the students or simulation teaching may be conducted. Logbook entry: students shall keep the record of number of surgeries assisted / performed with date.
Experiential-Learning Learning 19.5: Qaṣaba al-Ri'a ki Khilqī tashuwwhāt ki 'amal jīrāhī (Surgery of CongenitalDeformity ofTrachea/Oesophagus)
Total Activity time: 4 hours The activity can be divided into two parts; activity 1 and 2. Activity-1: Identification, diagnosis, and preparation of the case (1 hours): Case diagnosis, case-based learning, Kinaesthetic learning, Real Life experience. These activities shall be conducted on the bedside in the ward or in OPD (Outpatient Department). Student should Identify and Diagnose the cases of various Congenital Anomalies that may occur in Trachea and Oesophagus. Students should carry out all the steps for pre-operative preparation, including pre-anaesthetic check-up, (under the supervision of anaesthetists), part preparation, pre-medication to be used, counselling of the patient for surgery, getting all informed consents signed by patient and his/her attendants. Pre-operative preparation shall be conducted under supervision of teacher/surgeon/ anaesthetist in the ward at bed-side. In case of non-availability of real cases, power point presentations / video may be shown to the students. Activity-2: Operative procedure and post-operative care/ management (3 hours): Case diagnosis, case-based learning, Kinaesthetic learning, Real Life experience. The operative procedure will be conducted in operation theatre and post-operative care/ management in post-operative ward. The students should assist the procedure or perform/ conduct all or few of the steps of the surgery required (surgical correction of Congenital Anomalies in Trachea and Oesophagus) on at least three cases under the supervision of teacher/ surgeon. Students shall manage or carry out patient care in post-operative ward under supervision of teacher. In case of non-availability of real cases, power point presentations/ video may be shown to the students or simulation teaching may be conducted. Logbook entry: students shall keep the record of number of surgeries assisted / performed with date.

Modular Assessment	
Assessment	**Hour**
Instructions: Conduct a structured modular assessment. The assessment will be of 50 marks for this module. Keep a record of structured pattern used for assessment. Calculate modular grade points as per table- 6 C. OSCE (objective structured clinical examination)- 50 marks. OR Case Based Evaluation- 50 Marks. • History taking and patient interaction – 10 marks • Physical examination skills – 20 marks • Diagnosis and clinical reasoning – 10 marks • Communication skills – 5 marks • Time management and efficiency – 5 marks OR Any practical in converted form can be taken for assessment. (25 Marks) and Any experiential, such as portfolios/ reflection/ presentations can be taken as an assessment. (25 Marks)	4
Module 20 : حنجرہ کا عمل جیراہی/Ḥanjra ka ‘amal jīrāhī (Operations on Larynx.....	
Module Learning Objectives (At the end of the module, the students should be able to) 1. Describe in detail about various operative procedures for different diseases and conditions of the larynx. 2. Conduct and perform the surgical procedures required for various conditions of larynx	

3. Diagnose various surgical diseases of larynx and identify different structures during the surgery of particular type.

Unit 1 استئصال الحنجرہ الکامل Iste'ṣāl-al- Ḥanjra –al-kāmīl (Total Laryngectomy)

20.1.1 Indications, contraindications of laryngectomy, type of anaesthesia to be administered, pre-operative preparation, steps of operative procedures, post-operative care, complications and its management of laryngectomy

References: 24,89

3A	3B	3C	3D	3E	3F	3G
CO1,CO2,CO4,CO7	Describe indications, contraindications of laryngectomy, type of anaesthesia to be administered, pre-operative preparation, steps of operative procedures, post-operative care, complications and its management	2	Lecture	CK	Knows-how	TUT,PER,L&PPT
CO1,CO2,CO4,CO7	Demonstrate the operative steps of laryngectomy.	4	Practical20.1	AFT-REC	Shows-how	CBL,D,DIS
CO1,CO2,CO4,CO7	Identify the cases requiring laryngectomy, select the case for Operation, counsel the Patient, prepare for surgery and perform the procedure.	6	Experiential-Learning20.1	PSY-ADT	Does	CBL,CD,RLE

Unit 2 عقیدات الحبل الصوتی، بواسیر، اکیاس کے لیے جراحت الصوت بالمناظر الحنجرۃ الدقیق Aqīdāt-al- ḥabl-al- Ṣawtī, Bawāsīr aur Akyās ke liye jīrāhat-al- Ṣawt, bī-al minẓār-al- Ḥanjri-al-daqiq (Micro-Laryngoscopic Voice Surgery for Vocal cord nodules, Polyps and Cyst)

20.2.1 Indications, contraindications, and method of microlaryngoscopic voice surgery

References: 24,89

3A	3B	3C	3D	3E	3F	3G
CO1,CO2,CO4,CO7	Describe Indications, contraindications, and method of microlaryngoscopic voice surgery.	2	Lecture	CK	Knows-how	TUT,L&PPT

CO1,CO2,CO4,CO7	Demonstrate the procedure of micro laryngoscopic voice surgery, for nodule, polyp and cysts.	4	Practical20.2	AFT-REC	Shows-how	CBL,D,DIS
CO1,CO2,CO4,CO7	Identify and Diagnose the cases requiring micro laryngoscopic voice surgery, select the case for procedure, counsel the patient, pre-operative preparation and proceed to perform it.	6	Experiential-Learning20.2	PSY-ADT	Does	CBL,RLE,CD
Unit 3 شقاق الحنجرہ، ضرر الحنجرہ الرغامیہ کی اصلاح Shiqāq- al- Ḥanjra, Ḍarar al- Ḥanjra-al rūghāmiyy ki Iṣlāḥ (Laryngeal Fissure, Repair of Laryngotracheal Trauma) 20.3.1 Causes, clinical presentation, prevention, management and operative surgery for laryngeal fissure, repair of laryngo-tracheal trauma **References:** 24,89,95						
3A	**3B**	**3C**	**3D**	**3E**	**3F**	**3G**
CO1,CO2,CO4,CO7	Describe in detail about laryngeal fissure and laryngotracheal trauma, their clinical presentation and management.	2	Lecture	CK	Knows-how	L&PPT ,TUT
CO1,CO2,CO4,CO7	Demonstrate the various methods of management for repair of laryngo-tracheal trauma, and laryngeal fissure.	4	Practical20.3	AFT-REC	Shows-how	SIM,CBL,D,DIS
CO1,CO2,CO4,CO7	Identify and diagnose the case of laryngeal fissure and laryngotracheal trauma and proceed for its management.	5	Experiential-Learning20.3	PSY-ADT	Does	RLE,CD,CBL
Unit 4 شلل نخاعی کے لئے جیراحت صوتی Shalal nūkhā'ī ke liye jīrāhat Ṣawtī (Phonosurgery for Cord palsy including type I Thryo plasty) 20.4.1 Uses of phonosurgery in the management of cord palsy and method of procedure **References:** 6,24,89						
3A	**3B**	**3C**	**3D**	**3E**	**3F**	**3G**

CO1,CO2,CO 4,CO7	Describe in detail, about Phono surgery and its use in the management of cord palsy. Describe TYPE I Thyroplasty.	2	Lecture	CK	Knows-how	L&PPT ,TUT
CO1,CO2,CO 4,CO7	Demonstrate the different methods of management of cord palsy, including either Phonosurgery or Thyroplasty.	4	Practical20.4	AFT-REC	Shows-how	CBL,D,DIS
CO1,CO2,CO 4,CO7	Identify and diagnose the case of cord palsy; select the cases for Phonosurgery and proceed for its management.	5	Experiential-Learning20.4	PSY-ADT	Does	CBL,CD,RLE

Unit 5 تضیق اور ناسور الحنجرہ الرغامیہ کا صلاح جیراحی/Taḍayyuq aur nāṣūr al- Ḥanjra-al rūghāmiyy ka Iṣlāh jīrāhī (Laryngotracheal Stenosis and Fistula Surgical Correction)

20.5.1 Surgical Management of laryngo-tracheal stenosis

20.5.2 Surgical correction of laryngeal fistula

References: 24,89

3A	3B	3C	3D	3E	3F	3G
CO1,CO2,CO 4,CO7	Describe in detail about Laryngotracheal stenosis and Laryngotracheal fistula.	2	Lecture	CK	Knows-how	TUT,L&PPT
CO1,CO2,CO 4,CO7	Demonstrate the steps of surgery, for correction of Laryngotracheal stenosis and Laryngotracheal fistula.	4	Practical20.5	AFT-REC	Shows-how	DIS,CBL,D
CO1,CO2,CO 4,CO7	Identify and diagnose the case of Laryngotracheal stenosis,and Laryngotracheal fistula and conduct its management.	4	Experiential-Learning20.5	PSY-ADT	Does	CBL,CD,RLE

Practical Training Activity

Practical Training 20.1 Iste'ṣāl-al- Ḥanjra –al-kāmīl (Total Laryngectomy)

Total Activity time: 4 hours

The activity can be divided into two parts; activity 1 and 2.

Activity-1: Pre-operative preparation (01 hour 30 Minutes): Case Diagnosis, Case Based-learning, Discussion

These activities shall be conducted on the bedside in the ward. The teacher will explain and demonstrate the pre-operative preparation of the case requiring total laryngectomy. This preparation includes Pre-Anaesthetic Check-Up, Part Preparation, Pre-Medicines to be used, Counselling of the patient for surgery, and getting all consent forms signed by patients and his / her attendants. After the teacher's demonstration, the teacher will assign a case to the small group of students. Students will do all the preparation as demonstrated by the teacher.

Activity-2: Per-operative phase (02 Hours and 30 Minutes): Case Diagnosis, Case Based-learning, Discussion

Per-operative phase shall be conducted in operation theatre by teacher/ surgeon. The teacher will further demonstrate the Operative steps of total laryngectomy. The operative steps include structures cut during surgery, identification of different parts / organs (structures encountered), attaining the surgical procedure required (total laryngectomy), achieving Haemostasis and Closure of the wound in layers. Teacher shall demonstrate the methods of post operative care after surgery. Logbook entry: students shall keep the record of number of surgeries assisted / observed with date as practical.

Practical Training 20.2 Aqīdāt-al- ḥabl-al- Ṣawtī, Bawāsīr aur Akyās ke liye jīrāhat-al- Ṣawt, bī-al minẓār-al- Ḥanjri-al-daqiq (Micro-Laryngoscopic Voice Surgery for Vocal cord nodules,Polyps and Cyst)

Total Activity time: 4 hours

The activity can be divided into two parts; activity 1 and 2.

Activity-1: Pre-operative preparation (01 hour 30 Minutes): Case-based learning, Demonstration, Discussion.

These activities shall be conducted on the bedside in the ward. The teacher will explain and demonstrate the pre-operative preparation of the cases of Vocal Nodule and Polyps. This preparation includes Pre-Anaesthetic Check-Up, Part Preparation, Pre-Medicines to be used, Counselling of the patient for the procedure, and getting all consent forms signed by patients and his / her attendants. After the teacher's demonstration, the teacher will assign a case to the small group of students. Students will do all the preparation as demonstrated by the teacher. In case of non-availability of cases, demonstration to the students may be given either by internet sources or power point presentation.

Activity-2: Per-operative phase (02 Hours and 30 Minutes): Case-based learning, Demonstration, Discussion

Per-operative phase shall be conducted in operation theatre by teacher/ surgeon. The teacher will further demonstrate the method/steps of surgical correction of Vocal Nodule and Polyps by means of Micro Laryngoscopy. Teacher shall demonstrate the method of post operative care after surgery. In case of non-availability of cases, demonstration to the students may be given either by internet sources or power point presentation. Students will keep a record of surgical methods or operative steps of at least five cases for the surgery required. Logbook entry: students shall keep the record of number of surgeries assisted / observed with date as practical.

Practical Training 20.3 Shiqāq- al- Ḥanjra, Ḍarar al- Ḥanjra-al rūghāmiyy ki Iṣlāḥ (Laryngeal Fissure, Repair of Laryngotracheal Trauma)

Total Activity time: 4 hours

The activity can be divided into two parts; activity 1 and 2.

Activity-1: Pre-operative preparation (01 hour 30 Minutes): Case-based learning, Demonstration, Discussion

These activities shall be conducted on the bedside in the ward. The teacher will explain and demonstrate the pre-operative preparation of the cases having cut or Linear splits in Larynx and other Laryngo-Tracheal traumas, following accident, injuries or impaction of Foreign Body or Other causes. This preparation includes Pre-Anaesthetic Check-Up, Part Preparation, Pre-Medicines to be used, Counselling of the patient for the procedure, and getting all consent forms signed by patients and his / her attendants. After the teacher's demonstration, the teacher will assign a case to the small group of students. Students will do all the preparation as demonstrated by the teacher. In case of non-availability of cases, demonstration to the students may be given either by internet sources or power point presentation.

Activity-2: Per-operative phase (02 Hours and 30 Minutes): Case-based learning, Demonstration, Discussion

Per-operative phase shall be conducted in operation theatre by teacher/ surgeon. The teacher will further demonstrate the method/steps of surgical correction Laryngeal Fissure, or Laryngotracheal Trauma. Teacher shall demonstrate the method of post operative care after surgery. In case of non-availability of cases, demonstration to the students may be given either by internet sources or power point presentation. Students will keep a record of surgical methods or operative steps of at least five cases for the surgery required. Logbook entry: students shall keep the record of number of surgeries assisted / observed with date as practical.

Practical Training 20.4 Shalal nūkhāʻī ke liye jīrāhat Ṣawtī (Phonosurgery for Cord palsy including type I Thryo plasty)

Total Activity time: 4 hours

The activity can be divided into two parts; activity 1 and 2.

Activity-1: Pre-operative preparation (01 hour 30 Minutes): Case-based learning, Demonstration, Discussion.

These activities shall be conducted on the bedside in the ward. The teacher will explain and demonstrate the pre-operative preparation of the cases having Cordpalsy. This preparation includes Pre-Anaesthetic Check-Up, Part Preparation, Pre-Medicines to be used, Counselling of the patient for the procedure, and getting all consent forms signed by patients and his / her attendants. After the teacher's demonstration, the teacher will assign a case to the small group of students. Students will do all the preparation as demonstrated by the teacher. In case of non-availability of cases, demonstration to the students may be given either by internet sources or power point presentation.

Activity-2: Per-operative phase (02 Hours and 30 Minutes): Case-based learning, Demonstration, Discussion

Per-operative phase shall be conducted in operation theatre by teacher/ surgeon. The teacher will further demonstrate the method/steps of Phonosurgery. Teacher shall demonstrate the method of post operative care after surgery. In case of non-availability of cases, demonstration to the students may be given either by internet sources or power point presentation. Students will keep a record of surgical methods or operative steps of at least five cases for the surgery required.

Logbook entry: students shall keep the record of number of surgeries assisted / observed with date as practical.

Practical Training 20.5 Taḍayyuq aur nāṣūr al- Ḥanjra-al rūghāmiyy ka Iṣlāh jīrāhī

(Laryngotracheal Stenosis and Fistula, Surgical Correction)

Total Activity time: 4 hours

The activity can be divided into two parts; activity 1 and 2.

Activity-1: Pre-operative preparation (01 hour 30 Minutes): Case-based learning, Demonstration, Discussion

These activities shall be conducted on the bedside in the ward. The teacher will explain and demonstrate the pre-operative preparation of the cases having narrowing of Laryngo Tracheal passage (Laryngo Tracheal stenosis). This preparation includes Pre-Anaesthetic Check-Up, Part Preparation, Pre-Medicines to be used, Counselling of the patient for the procedure, and getting all consent forms signed by patients and his / her attendants. The teacher will explain and demonstrate the pre-operative preparation of the cases having narrowing of Laryngo Tracheal fistula. This preparation includes Pre-Anaesthetic Check-Up, Part

Preparation, Pre-Medicines to be used, Counselling of the patient for the procedure, and getting all consent forms signed by patients and his / her attendants. After the teacher's demonstration, the teacher will assign a case to the small group of students. Students will do all the preparation as demonstrated by the teacher. In case of non-availability of cases, demonstration to the students may be given either by internet sources or power point presentation.

Activity-2: Per-operative phase (02 Hours and 30 Minutes): Case-based learning, Demonstration, Discussion

Per-operative phase shall be conducted in operation theatre by teacher/ surgeon. The teacher will further demonstrate the method/steps of surgical correction of laryngo-tracheal stenosis. The teacher will further demonstrate the method/steps of surgical correction of laryngo-tracheal fistula. Teacher shall demonstrate the method of post operative care after surgery. In case of non-availability of cases, demonstration to the students may be given either by internet sources or power point presentation. Students will keep a record of surgical methods or operative steps of at least five cases for the surgery required. Logbook entry: students shall keep the record of number of surgeries assisted / observed with date as practical.

Experiential Learning Activity

Experiential-Learning Learning 20.1: Iste'ṣāl-al- Ḥanjra –al-kāmīl (Total Laryngectomy)

Total Activity time: 6 hours

The activity can be divided into two parts; activity 1 and 2.

Activity-1: Identification, diagnosis, and preparation of the case (2 hours): Case diagnosis, case-based learning, Kinaesthetic learning, Real Life experience.

These activities shall be conducted on the bedside in the ward or in OPD (Outpatient Department). Student should Identify and Diagnose the cases requiring Laryngectomy and select from them the case for surgery. Students should carry out all the steps for pre-operative preparation, including pre-anaesthetic check-up, (under the supervision of anaesthetists), part preparation, pre-medication to be used, counselling of the patient for surgery, getting all informed consents signed by patient and his/her attendants. Pre-operative preparation shall be conducted under supervision of teacher/surgeon/ anaesthetist in the ward at bed-side. In case of non-availability of real cases, power point presentations / video may be shown to the students.

Activity-2: Operative procedure and post-operative care/ management (4 hours): Case diagnosis, case-based learning, Kinaesthetic learning, Real Life experience.

The operative procedure will be conducted in operation theatre and post-operative care/ management in post-operative ward. The students should assist the

procedure or perform/ conduct all or few of the steps of the surgery required (total laryngectomy) on at least three cases under the supervision of teacher/ surgeon. Students shall manage or carry out patient care in post-operative ward under supervision of teacher. In case of non-availability of real cases, power point presentations/ video may be shown to the students or simulation teaching may be conducted. Logbook entry: students shall keep the record of number of surgeries assisted / performed with date.
Experiential-Learning Learning 20.2: Aqīdāt-al- ḥabl-al- Ṣawtī, Bawāsīr aur Akyās ke liye jīrāhat-al- Ṣawt, bī-al minẓār-al- Ḥanjri-al-daqiq (Micro-Laryngoscopic Voice Surgery for Vocal cord nodules,Polyps and Cyst)
Total Activity time: 6 hours The activity can be divided into two parts; activity 1 and 2. Activity-1: Identification, diagnosis, and preparation of the case (2 hours): Case diagnosis, case-based learning, Kinaesthetic learning, Real Life experience. These activities shall be conducted on the bedside in the ward or in OPD (Outpatient Department). Student should Identify and Diagnose the cases having Nodules, Polyps over the Vocal Cords and select the cases for Surgery. Students should carry out all the steps for pre-operative preparation, including pre-anaesthetic check-up, (under the supervision of anaesthetists), part preparation, pre-medication to be used, counselling of the patient for surgery, getting all informed consents signed by patient and his/her attendants. Pre-operative preparation shall be conducted under supervision of teacher/surgeon/ anaesthetist in the ward at bed-side. In case of non-availability of real cases, power point presentations / video may be shown to the students. Activity-2: Operative procedure and post-operative care/ management (4 hours): Case diagnosis, case-based learning, Kinaesthetic learning, Real Life experience. The operative procedure will be conducted in operation theatre and post-operative care/ management in post-operative ward. The students should assist the procedure or perform/ conduct all or few of the steps of the procedure required (Micro-Laryngoscopic Voice Surgery for Vocal cord nodules, Polyps and Cyst) on at least three cases under the supervision of teacher/ surgeon. Students shall manage or carry out patient care in post-operative ward under supervision of teacher. In case of non-availability of real cases, power point presentations/ video may be shown to the students or simulation teaching may be conducted. Logbook entry: students shall keep the record of number of surgeries assisted / performed with date.
Experiential-Learning Learning 20.3: Shiqāq- al- Ḥanjra, Ḍarar al- Ḥanjra-al rūghāmiyy ki Iṣlāḥ (Laryngeal Fissure, Repair of Laryngotracheal Trauma)

Total Activity time: 5 hours

The activity can be divided into two parts; activity 1 and 2.

Activity-1: Identification, diagnosis, and preparation of the case (1.5 hours): Case diagnosis, case-based learning, Kinaesthetic learning, Real Life experience. These activities shall be conducted on the bedside in the ward or in OPD (Outpatient Department). Student should Identify and Diagnose the cases with a cut or linear split in the Larynx and other Laryngo-Tracheal traumatic cases. Students should carry out all the steps for pre-operative preparation, including pre-anaesthetic check-up, (under the supervision of anaesthetists), part preparation, pre-medication to be used, counselling of the patient for surgery, getting all informed consents signed by patient and his/her attendants. Pre-operative preparation shall be conducted under supervision of teacher/surgeon/ anaesthetist in the ward at bed-side. In case of non-availability of real cases, power point presentations / video may be shown to the students.

Activity-2: Operative procedure and post-operative care/ management (3.5 hours): Case diagnosis, case-based learning, Kinaesthetic learning, Real Life experience.

The operative procedure will be conducted in operation theatre and post-operative care/ management in post-operative ward. The students should assist the procedure or perform/ conduct all or few of the steps of the procedure required (surgical correction of Laryngeal Fissure, and Repair of Laryngotracheal Trauma) on at least three cases under the supervision of teacher/ surgeon. Students shall manage or carry out patient care in post-operative ward under supervision of teacher. In case of non-availability of real cases, power point presentations/ video may be shown to the students or simulation teaching may be conducted.

Logbook entry: students shall keep the record of number of surgeries assisted / performed with date.

Experiential-Learning Learning 20.4: Shalal nūkhāʻī ke liye jīrāhat Ṣawtī (Phonosurgery for Cord palsy including type I Thryo plasty)

Total Activity time: 5 hours

The activity can be divided into two parts; activity 1 and 2.

Activity-1: Identification, diagnosis, and preparation of the case (1.5 hours): Case diagnosis, case-based learning, Kinaesthetic learning, Real Life experience. These activities shall be conducted on the bedside in the ward or in OPD (Outpatient Department). Student should Identify and Diagnose the cases having Vocal Cord Palsy. Students should carry out all the steps for pre-operative preparation, including pre-anaesthetic check-up, (under the supervision of anaesthetists), part preparation, pre-medication to be used, counselling of the patient for surgery, getting all informed consents signed by patient and his/her attendants. Pre-operative

preparation shall be conducted under supervision of teacher/surgeon/ anaesthetist in the ward at bed-side. In case of non-availability of real cases, power point presentations / video may be shown to the students.

Activity-2: Operative procedure and post-operative care/ management (3.5 hours)

Case diagnosis, case-based learning, Kinaesthetic learning, Real Life experience.

The operative procedure will be conducted in operation theatre and post-operative care/ management in post-operative ward. The students should assist the procedure or perform/ conduct all or few of the steps of the procedure required (Phonosurgery for Cord palsy including type I Thryo plasty) on at least three cases under the supervision of teacher/ surgeon. Students shall manage or carry out patient care in post-operative ward under supervision of teacher. In case of non-availability of real cases, power point presentations/ video may be shown to the students or simulation teaching may be conducted. Logbook entry: students shall keep the record of number of surgeries assisted / performed with date.

Experiential-Learning Learning 20.5: Taḍayyuq aur nāṣūr al- Ḥanjra-al rūghāmiyy ka Iṣlāh jīrāhī (Laryngotracheal Stenosis and Fistula of Surgical Correction)

Total Activity time: 4 hours

The activity can be divided into two parts; activity 1 and 2.

Activity-1: Identification, diagnosis, and preparation of the case (1 hours)

Case diagnosis, case-based learning, Kinaesthetic learning, Real Life experience.

These activities shall be conducted on the bedside in the ward or in OPD (Outpatient Department)

Student should Identify and Diagnose the cases having Laryngo-tracheal Stenosis and Fistula and select from them the cases for surgery.

Students should carry out all the steps for pre-operative preparation, including pre-anaesthetic check-up, (under the supervision of anaesthetists), part preparation, pre-medication to be used, counselling of the patient for surgery, getting all informed consents signed by patient and his/her attendants.

Pre-operative preparation shall be conducted under supervision of teacher/surgeon/ anaesthetist in the ward at bed-side.

In case of non-availability of real cases, power point presentations / video may be shown to the students.

Activity-2: Operative procedure and post-operative care/ management (3 hours)

Case diagnosis, case-based learning, Kinaesthetic learning, Real Life experience.

The operative procedure will be conducted in operation theatre and post-operative care/ management in post-operative ward.

The students should assist the procedure or perform/ conduct all or few of the steps of the procedure required (surgical correction of Laryngo-tracheal Stenosis and Fistula) on at least three cases under the supervision of teacher/ surgeon.

Students shall manage or carry out patient care in post-operative ward under supervision of teacher.

In case of non-availability of real cases, power point presentations/ video may be shown to the students or simulation teaching may be conducted.

Logbook entry: students shall keep the record of number of surgeries assisted / performed with date.

Modular Assessment

Assessment	**Hour**
Instructions: Conduct a structured modular assessment. The assessment will be of 50 marks for this module. Keep a record of structured pattern used for assessment. Calculate modular grade points as per table- 6 C. OSCE (objective structured clinical examination)- 50 marks. OR Case Based Evaluation- 50 Marks. • History taking and patient interaction – 10 marks • Physical examination skills – 20 marks • Diagnosis and clinical reasoning – 10 marks • Communication skills – 5 marks • Time management and efficiency – 5 marks OR Any practical in converted form can be taken for assessment. (25 Marks) and Any experiential, such as portfolios/ reflection/ presentations can be taken as an assessment. (25 Marks)	4

Semester No : 5

Module 21 : غدد لعابیہ کا عمل جیراہی/Ghudda Lu'ābiyya ka amal jīrāhī (Operations on salivary glands)

Module Learning Objectives

(At the end of the module, the students should be able to)

1. Describe in detail about different surgical procedures for various diseases and conditions of salivary glands.

2. Conduct and perform the required surgical procedure.

3. Diagnose various diseases and conditions of salivary glands pre-operatively and identify various structures during the surgery of particular type.

Unit 1 استئصال الغدہ نکفیہ السطحیہ/Iste'ṣāl-al- Ghudda nakfīyya–al-saṭ ḥiyyā (Superficial Parotidectomy)

21.1.1 Indications,contraindications,type of anaesthesia to be administered,pre -operative preparation,steps of operation of superficial parotidectomy and post operative management

References: 23,32,89,94

3A	3B	3C	3D	3E	3F	3G
CO1,CO2,CO4,CO7	Describe in detail about indications, contraindications of Superficial parotidectomy, type of Anaesthesia to be administered, pre-operative preparation, steps of operation, post-operative management and complications	2	Lecture	CK	Knows-how	TUT,L&PPT
CO1,CO2,CO4,CO7	Demonstrate the procedure of Parotidectomy (Superficial) in operation theatre	4	Practical21.1	AFT-REC	Shows-how	DIS,D,CBL
CO1,CO2,CO4,CO7	Diagnose and identify the case of parotid gland tumours, select the case for surgery, counsel the patient, prepare for operation, perform the operative steps and manage post operative phase.	6	Experiential-Learning21.1	AFT-RES	Does	CD,RLE,CBL

Unit 2 استئصال الغدہ نکفیہ عمیق/Iste'ṣāl-al- Ghudda nakfīyya 'amīq (Deep Parotidectomy)

21.2.1 Indications,contraindications,type of anaesthesia to be administered,pre -operative preparation,steps of operation of deep parotidectomy and post operative management of deep parotidectomy

References: 23,89,94

3A	3B	3C	3D	3E	3F	3G
CO1,CO2,CO4,CO7	Describe in detail about indications, contraindications, type of Anaesthesia to be administered, pre operative preparation, steps of operation, post operative management of deep Parotidectomy.	4	Lecture	CK	Knows-how	L&PPT ,TUT
CO1,CO2,CO4,CO7	Demonstrate the procedure of Parotidectomy (Deep) in operation theatre	8	Practical21.2	AFT-REC	Shows-how	D,DIS,CBL
CO1,CO2,CO4,CO7	Diagnose and identify the case of parotid gland tumor and other condition requiring deep parotidectomy, select the case for operation, counsel the patient, prepare for surgery, perform the operative steps and manage post-operative phase.	8	Experiential-Learning21.2	AFT-RES	Does	RLE,CD,CBL

Unit 3 التہاب غدی متعدد اشکال کا استئصال/Iltihāb-i-Ghuddī mūtā'adid ashkāl ka Iste'ṣāl (Excision of Pleomorphic Adenoma)

21.3.1 Excision of pleomorphic adenoma its indications,steps of operative procedure,and post operative complications

References: 23,89,94

3A	3B	3C	3D	3E	3F	3G
CO1,CO2,CO4,CO7	Describe in detail about excision of pleomorphic Adenoma, its indication and steps of operative procedure, and complications	2	Lecture	CK	Knows-how	L&PPT ,TUT,FC

CO1,CO2,CO4,CO7	Demonstrate the operative procedure for excision/removal of pleomorphic adenoma.	4	Practical21.3	AFT-REC	Shows-how	D,CBL,DIS
CO1,CO2,CO4,CO7	Identify and diagnose the case of pleomorphic adenoma, select the case for surgery, counsel the patient, prepare for operation, perform the operative steps for its removal and manage post-operative phase	6	Experiential-Learning21.3	AFT-RES	Does	CBL,CD,RLE
Unit 4 غدد لعابیہ اور قناۃ سے حصاۃ کا استئصال/Ghudda Lu'ābiyya aur qanā se Ḥaṣā ka Iste'ṣāl (Excision of Stone from Salivary Gland and Duct) 21.4.1 Sialolithiasis ,its clinical presentation,complications and management **References:** 23,89						
3A	**3B**	**3C**	**3D**	**3E**	**3F**	**3G**
CO1,CO2,CO4,CO7	Describe in detail about Sailolithiasis, its clinical presentation, complication and management.	2	Lecture	CK	Knows-how	L&PPT ,TUT
CO1,CO2,CO4,CO7	Demonstrate the different ways of stone removal from salivary gland and ducts.	4	Practical21.4	AFT-REC	Shows-how	DIS,CBL,D
CO1,CO2,CO4,CO7	Identify and diagnose the case of Sialolithiasis, and differentiate it from Sialoadenitis, and proceed for its management/Removal.	6	Experiential-Learning21.4	AFT-RES	Does	CD,CBL,RLE
Practical Training Activity						
Practical Training 21.1 Iste'ṣāl-al- Ghudda **nakfīyya–al-saṭ ḥiyyā (Superficial Parotidectomy)**						
Total Activity time:-(4 hours)						

The activity is divided into two parts, Activity 1 and 2.

Activity 1:-Pre -Op preparation (90 mins)-case based learning, Demonstration,Discussion ,

These activities shall be conducted on the bed side in the ward.The teacher will Explain and Demonstrate the preparation of case for superficial parotidectomy.This preparation includes Pre-Anaesthetic Check-Up, Part preparation,pre medication to be used, Counselling of the patient for surgery and getting all consent forms signed by patient and his/her attendants.After the teacher's demonstration, the teacher will assign a case to the small group of students,Students will do all the preparation ,as demonstrated by the teacher

Activity 2:-Per -Op phase(2 hours and 30 mins)-Case basedlearning,Demonstration,Discusion

Per –Op phase shall be conducted in operation theatre by teacher/surgeon. The teacher will further demonstrate the Operative steps of Superficial Parotidectomy.The operative steps include structures cut during surgery, identification of different parts /organs(structuresencountered);attaining the surgical procedure required, achieving haemostasis, and closure of wound in layers.

Teacher shall demonstrate the methods of post operavtive care after surgery.

Students will keep a record of surgical methods or operative steps of at least five cases ,for each surgery required in the log book.

Practical Training 21.2 Iste'ṣāl-al- Ghudda nakfīyya 'amīq (Deep Parotidectomy)

Total Activity time:-(8 hours)

The activity is divided into two parts, Activity 1 and 2.

Activity 1:-Pre -Op preparation (2 hours)-case based learning,Demonstration,Discussion.These activities shall be conducted on the bed side in the ward.The teacher will be able to Explain and Demonstrate the preparation of case for Deep Parotidectomy .This preparation includes Pre-Anaesthetic Check-Up, Part preparation, pre medication to be used, Counselling of the patient for surgery and getting all consent forms signed by patient and his/her attendants.After the teacher's demonstration, the teacher will assign a case to the small group of students, Students will do all the preparation ,as demonstrated by the teacher

Activity 2:-Per -Op phase(6 hours)-case based learning,Demonstration,Discussion.

Per –Op phase shall be conducted in operation theatre by teacher/surgeon. The teacher will further Demonstrate the Operative steps of Deep Parotidectomy.The operative steps include structures cut during surgery, identification of different parts /organs(structures encountered);attaining the surgical procedure required,

achieving haemostasis, and closure of wound in layers.Teacher shall demonstrate the methods of post operative care after surgery.Students will keep a record of surgical methods or operative steps of at least five cases , for each surgery required in the log book.
Practical Training 21.3 Iltihāb-i-Ghuddī mūtā'adid ashkāl ka Iste'ṣāl (Excision of Pleomorphic Adenoma)
Total Activity time:-(4 hours) The activity is divided into two parts, Activity 1 and 2. Activity 1:-Pre -Op preparation (90 mins)-Case based learning,discussion ,Demonstration.These activities shall be conducted on the bed side in the ward.The teacher will be able to Explain and Demonstrate the preparation of case for Excision of pleomorphic adenoma.This preparation includes Pre-Anaesthetic Check-Up, Part preparation, pre medication to be used, Counselling of the patient for surgery and getting all consent forms signed by patient and his/her attendants.After the teacher's demonstration, the teacher will assign a case to the small group of students,Students will do all the preparation ,as demonstrated by the teacher Activity 2:-Per -Op phase(2 hours and 30 mins)-Case based learning,discussion ,Demonstration Per –Op phase shall be conducted in operation theatre by teacher/surgeon. The teacher will further demonstrate the Operative steps of Excision of pleomorphic Adenoma.The operative steps include structures cut during surgery, identification of different parts /organs (structures encountered);attaining the surgical procedure required, achieving haemostasis, and closure of wound in layers.Teacher shall demonstrate the methods of post-operative care after surgery.Students will keep a record of surgical methods or operative steps of at least five cases, for each surgery required in the log book.
Practical Training 21.4 Ghudda Lu'ābiyya aur qanā se Ḥaṣā ka Iste'ṣāl (Excision of Stone from Salivary Gland and Duct).
Total Activity hours:-(4 hours) The activity is divided into two parts, Activity 1 and 2. Activity 1:-Pre -Op Preparation (1 hour and 30 mins)-Case based learning, Discussion, Demonstration. These activities shall be conducted on the bed side in the ward. The teacher will be able to Explain and Demonstrate the preparation of case for excision of stone from salivary gland. This preparation includes Pre-Anaesthetic

Check-Up, Part preparation, pre medication to be used, Counselling of the patient for surgery and getting all consent forms signed by patient and his/her attendants.After the teacher's demonstration, the teacher will assign a case to the small group of students,Students will do all the preparation ,as demonstrated by the teacher

Activity 2:-Per -Op Phase (2 hours and 30 mins)- Case based learning, Discussion, Demonstration.

Per –Op phase shall be conducted in operation theatre by teacher/surgeon. The teacher will further demonstrate the Operative steps of excision of stones from salivary gland

The operative steps may include minimally invasive procedure of sialendoscopy ,and potentially removing the stone from the duct ,or stone fragmentation and removing it,and if significant damage to the duct then surgical removal of the duct with an aim to preserve as much of the gland as possible.

Teacher shall demonstrate the methods of post operative care after surgery.

Students will keep a record of surgical methods or operative steps of at least five cases ,for each surgery required in the log book.

Experiential Learning Activity

Experiential-Learning Learning 21.1: Iste'ṣāl-al- Ghudda nakfīyya–al-saṭ ḥiyyā (Superficial Parotidectomy)

Total Activity time:-(6 hours)

The activity is divided into two parts, Activity 1 and 2.

Activity 1:-Identification, diagnosis and preparation of the case (2 hours)-

(Case diagnosis; Case base learning, kinaesthetic learning; real life experience)

The Activities shall be conducted on the bed side in the ward.The Identification and Diagnoses of the case :(2 hours)Student should Identify and Diagnose the cases with Chronic Parotitis and Parotid Tumour above the Facial Nerve and select from them the case for surgery.Students should carry out all the steps for pre op preparation ,including Pre-Anaesthetic Check-Up(under the supervision of Anaesthetists) Part preparation, pre medication to be used, Counselling of the patient for surgery and getting all consent forms signed by patient and his/her attendants.Pre Op preparation; shall be conducted under supervision of teacher/surgeon/Anaesthetist in the ward at bed side.

Activity 2:-Operative procedure and post op care/management(4 hours) (Case diagnosis; Case based learning, kinaesthetic learning; real life experience).The operative procedure will be conducted in the Operation Theatre and post op care management in post Op ward.The students should assist the surgery or perform/conduct all or few of the operative steps of the surgery, required on at least 3 cases for each under the supervision of teacher/surgeon.Student shall manage or carry out patient care in post op ward under the supervision of teacher.Log book entry:-students shall keep the record of number of surgeries assisted/performed with date.
Experiential-Learning Learning 21.2: Iste'ṣāl-al- Ghudda nakfīyya 'amīq (Deep Parotidectomy)
Total Activity time:-(8 hours) The activity is divided into two parts, Activity 1 and 2. Activity 1:-Identification, diagnosis and preparation of the case (3 hours)- (Case diagnosis; Case base learning, kinaesthetic learning; real life experience) The Activities shall be conducted on the bed side in the ward.The Identification and Diagnoses of the case :(2 hrs).Student should Identify and Diagnose the cases with Deep lobe Parotid tumour located deeper to the facial nerves and select from them the case for Deep parotidectomy.Students should carry out all the steps for pre op preparation ,includingPre-Anaesthetic Check-Up(under the supervision of Anaesthetists) Part preparation, pre medication to be used, Counselling of the patient for surgery and getting all consent forms signed by patient and his/her attendants.Pre Op preparation; shall be conducted under supervision of teacher/surgeon/Anaesthetist in the ward at bed side. Activity 2:-Operative procedure and post op care/management(5 hours) (Case diagnosis; Case based learning, kinaesthetic learning; real life experience).The operative procedure will be conducted in the Operation Theatre and post op care management in post Op ward.The students should assist the surgery or perform/conduct all or few of the operative steps of the surgery, required on at least 3 cases for each under the supervision of teacher/surgeon.Student shall manage or carry out patient care in post op ward under the supervision of teacher.Log book entry:-students shall keep the record of number of surgeries assisted/performed with date.
Experiential-Learning Learning 21.3: Iltihāb-i-Ghuddī mūtā'adid ashkāl ka Iste'ṣāl (Excision of Pleomorphic Adenoma)

Total Activity time:-(6 hours)

The activity is divided into two parts, Activity 1 and 2.

Activity 1:-Identification, diagnosis and preparation of the case (2 hours)-(Case diagnosis; Case base learning, kinaesthetic learning; real life experience)The Activities shall be conducted on the bed side in the ward.The Identification and Diagnoses of the case :(2 hrs).Student should Identify and Diagnose the cases with Pleomorphic Adenoma and select from them the case for its excision.Students should carry out all the steps for pre op preparation ,includingPre-Anaesthetic Check-Up(under the supervision of Anaesthetists) Part preparation, pre medication to be used, Counselling of the patient for surgery and getting all consent forms signed by patient and his/her attendants.Pre Op preparation; shall be conducted under supervision of teacher/surgeon/Anaesthetist in the ward at bed side.

Activity 2:-Operative procedure and post op care/management(4 hours) (Case diagnosis; Case based learning, kinaesthetic learning; real life experience).The operative procedure will be conducted in the Operation Theatre and post op care management in post Op ward.The students should assist the surgery or perform/conduct all or few of the operative steps of the surgery, required on at least 3 cases for each under the supervision of teacher/surgeon.Student shall manage or carry out patient care in post op ward under the supervision of teacher.Log book entry:-students shall keep the record of number of surgeries assisted/performed with date.

Experiential-Learning Learning 21.4: Ghudda Lu'ābiyya aur qanā se Ḥaṣā ka Iste'ṣāl (Excision of Stone from Salivary Gland and Duct).

Total Activity time:-(6 hours)

The activity is divided into two parts, Activity 1 and 2.

Activity 1:-Identification, diagnosis and preparation of the case (2 hours)-(Case diagnosis; Case base learning, kinaesthetic learning; real life experience)

The Activities shall be conducted on the bed side in the ward.The Identification and Diagnoses of the case :(2 hrs)

Student should Identify and Diagnose the cases with sialolithiasis and select from them the case for its excision.Students should carry out all the steps for pre op preparation ,including Pre-Anaesthetic Check-Up(under the supervision of Anaesthetists) Part preparation, pre medication to be used, Counselling of the patient for surgery and getting all consent forms signed by patient and his/her attendants.Pre Op preparation; shall be conducted under supervision of teacher/surgeon/Anaesthetist in the ward at bed side.

Activity 2:-Operative procedure and post op care/management(4 hours) (Case diagnosis; Case based learning, kinaesthetic learning; real life experience).

The operative procedure will be conducted in the Operation Theatre and post op care management in post Op ward.The students should assist the surgery or perform/conduct all or few of the operative steps of the surgery, required on at least 3 cases for each under the supervision of teacher/surgeon. Student shall manage or carry out patient care in post op ward under the supervision of teacher. Log book entry:-students shall keep the record of number of surgeries assisted/performed with date.	
Modular Assessment	
Assessment	**Hour**
Instructions: Conduct a structured modular assessment. The assessment will be of 50 marks for this module. Keep a record of structured pattern used for assessment. Calculate modular grade points as per table- 6 C. OSCE (objective structured clinical examination)- 50 marks. OR Case Based Evaluation- 50 Marks. • History taking and patient interaction – 10 marks • Physical examination skills – 20 marks • Diagnosis and clinical reasoning – 10 marks • Communication skills – 5 marks • Time management and efficiency – 5 marks OR Any practical in converted form can be taken for assessment. (25 Marks) and Any experiential, such as portfolios/ reflection/ presentations can be taken as an assessment. (25 Marks)	4
Module 22 : رقبہ کا عمل جراحی Raqaba ka amal jīrāhī (Operations on Neck)	

Module Learning Objectives

(At the end of the module, the students should be able to)

1. Describe in detail about different surgical procedure in various conditions & diseases of the neck.

2. Conduct/perform the appropriate surgical and para-surgical procedures required.

3. Diagnose different conditions and diseases of neck in pre-operative phase and identify various structures during the surgery of particular type.

Unit 1 ثقب القصبہ الہوائیہ/Thuqb-al- Qaṣaba'-al-hawāiyyah (Tracheostomy)

22.1.1 Indications,contraindications,surgical method and post procedural care of tracheostomy

References: 86,94,95

3A	3B	3C	3D	3E	3F	3G
CO1,CO2,CO4,CO7	Describe in detail about Tracheostomy, its indications, contra-indications, method of procedure and post-procedural care	2	Lecture	CC	Knows-how	TUT,L&PPT
CO1,CO2,CO4,CO7	Demonstrate the procedure of tracheostomy.	4	Practical22.1	AFT-REC	Shows-how	D,DIS,CBL,SIM
CO1,CO2,CO4,CO7	Identify the case requiring tracheostomy (Thuqb-al- Qaṣaba'-al-hawāiyyah) and perform the procedure	6	Experiential-Learning22.1	AFT-RES	Does	CBL,RLE,CD

Unit 2 عقدہ لمفاویہ اور انتفاق الارقبہ کا ایف این اے سی/Uqdah Limphāwiyyah aur Intifākh –al- raqaba ka FNAC (Fine needle aspration cytology from Neck Swellings and Lymph Nodes)

22.2.1 FNAC from neck swellings like thyroid swelling,thyroglossal cyst and lymph nodes

References: 11,24

3A	3B	3C	3D	3E	3F	3G

CO1,CO2,CO4,CO7	Define FNAC, and its types in detail in case of neck swellings like thyroid swelling, thyroglossal cyst and lymph nodes.	2	Lecture	CC	Knows-how	FC,L&PPT ,TUT
CO1,CO2,CO4,CO7	Demonstrate the procedure of FNAC in case of neck swelling and lymph nodes.	4	Practical22.2	AFT-REC	Shows-how	DIS,D,CBL
CO1,CO2,CO4,CO7	Identify the case of neck swelling and lymph node requiring FNAC and perform the procedure.	4	Experiential-Learning22.2	AFT-RES	Does	CBL,RLE,CD

Unit 3 اکیاس الخیشومی استئصال،الجیوب الانفیہ اور ناسور الخیشومی۔الاکیاس الدرقیہ اللیسانیہ/Akyās-al-Khaīshūmī Iste'ṣāl, aljūyūb-al-anfiyyā'aur nāsūr-al- Khaīshūmī; Al-akyās-al-darqiyy-al-līsāniyya' (Excision of Branchial Cyst, Branchial Sinus & Fistula; Excision of Thyroglossal Cyst)

22.3.1 Causes, clinical presentation, investigation and surgical management of branchial cyst

22.3.2 Causes, clinical presentation, investigation and surgical management of branchial sinus

22.3.3 Causes, clinical presentation, investigation and surgical management of thyroglossal cyst

22.3.4 Causes,clinical presentation,investigation and surgical management of branchial fistula

References: 23,89,94,95

3A	3B	3C	3D	3E	3F	3G
CO1,CO2,CO4,CO7	Describe in detail about Branchial cyst, Branchial sinus and fistula, and Thyroglossal cyst and their surgeries.	2	Lecture	CK	Knows-how	FC,L&PPT ,TUT
CO1,CO2,CO4,CO7	Demonstrate the cases of branchial cyst, branchial sinus and fistula and thyroglossal cyst. differentiate between them and demonstrate the steps of surgical excision for each.	4	Practical22.3	AFT-REC	Shows-how	CBL,DIS,SIM,D

CO1,CO2,CO4,CO7	Identify and diagnose the cases of branchial cyst, branchial sinus, fistula, thyroglossal cyst and differentiate between them, proceed for their management/surgical excision and manage the case post operatively.	6	Experiential-Learning22.3	AFT-RES	Does	CBL,RLE,CD

Unit 4 رتج البلعوم کا استئصال، شریان سباتی ظاہر کا عمل ربط Raṭij bal'ūm ka Iste'ṣāl, Shiryān Subātī Ẓāhir ka 'Amal-i-Rabṭ (Excision of Pharyngeal Diverticulum, Ligation of External Carotid Artery)

22.4.1 Pharyngeal diverticulum

22.4.2 Pharyngeal pouch.

22.4.3 Indication for ligation of external carotid artery

References: 23,89,94

3A	3B	3C	3D	3E	3F	3G
CO1,CO2,CO4,CO7	Describe in detail about Pharyngeal pouch or Pharyngeal diverticulum and the surgery required and explain indication for ligation of External Carotid Artery.	2	Lecture	CC	Knows-how	L&PPT,L,L&GD,TUT
CO1,CO2,CO4,CO7	Demonstrate the procedure of excision of Pharyngeal diverticulum,and the procedure of ligation of External carotid Artery.	4	Practical22.4	AFT-REC	Shows-how	DIS,SIM,CBL,D
CO1,CO2,CO4,CO7	Identify and diagnose the case of Pharyngeal diverticulum perform its management/surgery. Identify the case requiring Ligation of External carotid Artery and perform the procedure.	6	Experiential-Learning22.4	AFT-RES	Does	CD,RLE,CBL

Unit 5 عقدہ نقیلی کے لئے رقبہ کے کتلہ الجزریہ کی تشریح 'Uqdah –al naqīlī ke liye raqaba ke kutla'-al-jīzrīyya' ki tashrīḥ (Radical Block Dissection of the Neck for Metastatic Nodes)

22.5.1 Indications, pre operative preparation, type of anesthesia to be administered ,steps of procedure for radical block dissection of neck

References: 23,24,89

3A	3B	3C	3D	3E	3F	3G
CO1,CO2,CO4,CO7	Describe in detail about Radical block dissection of neck. Describe in detail about the neck lymph nodes.	2	Lecture	CC	Knows-how	L,L&GD,L&PPT,TUT
CO1,CO2,CO4,CO7	Demonstrate the procedure of Radical block dissection of neck.	4	Practical22.5	AFT-REC	Shows-how	D,CBL,DIS
CO1,CO2,CO4,CO7	Identify the cases of metastatic lymph nodes, requiring Radical block dissection, select the case for operation, prepare the case and perform the surgery.	4	Experiential-Learning22.5	AFT-RES	Does	CD,CBL,RLE

Practical Training Activity

Practical Training 22.1 Thuqb-al- Qaṣaba'-al-hawāiyyah (Tracheostomy)

Total Activity time:-(4 hours)

The activity is divided into two parts, Activity 1 and 2.

Activity 1:-Pre -Op preparation (2 hours)-Case based learning,Demonstration,Discussion

These activities shall be conducted on the bed side in the emergency room or in the critical care unit .The teacher will be able to explain and demonstrate the preparation of case for Tracheostomy .This preparation includes Pre-Anaesthetic Check-Up, Part preparation, pre medication to be used, Counselling of the patient for procedure and getting all consent forms signed by patient and his/her attendants.After the teacher's demonstration, the teacher will assign a case to the small group of students, Students will do all the preparation ,as demonstrated by the teacher

Activity 2:-Per -Op phase(2 hours)-

Per –Op phase shall be conducted in operation theatre by teacher/surgeon.

The teacher will further explain the indications of Tracheostomy and demonstrate the Operative steps of Tracheostomy.The operative steps include structures cut during surgery, identification of different parts /organs (structures encountered); attaining the surgical procedure required, achieving haemostasis, and closure of wound in layers.Students will keep a record of surgical methods or operative steps of at least five cases ,for each surgery required in the log book

Practical Training 22.2 Uqdah Limphāwiyyah **aur** Intifākh –al- raqaba (Fine needle aspration cytology from Neck Swellings and Lymph Nodes)
Total Activity time:-(4 hours) The activity is divided into two parts, Activity 1 and 2. Activity 1:-Pre -Op preparation (90 mins)Casebasedlearning,Demonstration,Discussion. These activities shall be conducted in the Diagnostic lab or in the outpatient department.The teacher will explain and demonstrate the preparation of case for FNAC from neck swellings and lymph nodes.After the teacher's demonstration, the teacher will assign a case to the small group of students, students will do all the preparation ,as demonstrated by the teacher Activity 2:-Procedure phase(2 hour 30 min)- Procedure phase shall be conducted in outpatient setting or a diagnostic lab by teacher/surgeon. The teacher will Explain and Demonstrate the methods of fine needle aspiration from Neck Swellings and Lymph Nodes and also Demonstrate the method of preparation of Slides.Students will keep a record of at least five cases ,for each procedure done in the log book
Practical Training 22.3 Akyās-al-Khaīshūmī Iste'ṣāl, aljūyūb-al-anfiyyā'aur nāsūr-al- Khaīshūmī; Al-akyās-al-darqiyy-al-līsāniyya' (Excision of Branchial Cyst, Branchial Sinus & Fistula; Excision of Thyroglossal Cyst)
Total Activity time:-(4 hours) The activity is divided into two parts, Activity 1 and 2. Activity 1:-Pre -Op preparation (1 hour)-Case based learning,Demonstration,Discussion. These activities shall be conducted on the bed side in the ward.The teacher will Explain and Demonstrate the preparation of case for various aspects like branchial cyst, branchial sinus and fistula, and thyroglossal cyst .This preparation includes Pre-Anaesthetic Check-Up, Part preparation, pre medication to be used, Counselling of the patient for procedure and getting all consent forms signed by patient and his/her attendants.After the teacher's demonstration, the teacher will assign a specific case to the small group of students,students will do all the preparation ,as demonstrated by the teacher

Activity 2:-Per -Op phase(3 hours)-Case based learning,Demonstration,Discussion. Per –Op phase shall be conducted in operation theatre by teacher/surgeon. The teacher will explain and demonstrate the cases having Branchial Cyst, Branchial Sinus, Fistula, and Thyroglosal Cyst with their differential Diagnosis and Demonstrate the Surgical procedure for their Excision.The operative steps include structures cut during surgery, identification of different parts /organs (structures encountered); attaining the surgical procedure required, achieving haemostasis, and closure of wound in layers.Teacher shall demonstrate the methods of post-operative care after procedure.Students will keep a record of surgical methods or operative steps of at least five different cases ,for each procedure in the log book
Practical Training 22.4 Raṭij bal‘ūm ka Iste’ṣāl, Shiryān Subātī Ẓāhir ka ‘Amal-i-Rabṭ (Excision of Pharyngeal Diverticulum, Ligation of External Carotid Artery)
Total Activity time:-(4 hours) The activity is divided into two parts, Activity 1 and 2. Activity 1:-Pre -Op preparation (90 mins)-Case based learning,Demonstration,Discussion.These activities shall be conducted on the bed side in the ward.The teacher will explain and demonstrate the cases of pharyngeal pouch and preparation of case for excision of pharyngeal diverticulum, and the teacher will also explain the indications for ligation of external carotid artery and explain the preparation of the required case. This preparation includes Pre-Anaesthetic Check-Up, Part preparation, pre medication to be used; Counselling of the patient for surgery and getting all consent forms signed by patient and his/her attendants.After the teacher’s demonstration, the teacher will assign a case to the small group of students, Students will do all the preparation ,as demonstrated by the teacher Activity 2:-Per -Op phase(2 hours and 30 mins)-Case based learning,Demonstration,Discussion. Per –Op phase shall be conducted in operation theatre by teacher/surgeon. The teacher will explain and demonstrate the cases of Pharyngeal Pouch/Diverticulum and Demonstrate the Surgical procedure for their Removal.The teacher will Explain the indication of External Carotid Artery, Ligation and Demonstrate its procedure.The operative steps include structures cut during surgery, identification of different parts /organs (structures encountered); attaining the surgical procedure required, achieving haemostasis, and closure of wound in layers.Teacher shall demonstrate the methods of post-operative care after surgery.Students will keep a record of surgical methods or operative steps of at least five cases ,for each surgery required in the log book
Practical Training 22.5 Radical Block Dissection of the Neck for Metastatic Nodes

Total Activity time:-(4 hours)

The activity is divided into two parts, Activity 1 and 2.

Activity 1:-Pre -Op preparation (90 mins)-Case based learning,Demonstration,Discussion.These activities shall be conducted on the bed side in the ward.The teacher will be able to Explain and Demonstrate the preparation of case for Radical Block Dissection of the Lymph Nodes of Neck. This preparation includes Pre-Anaesthetic Check-Up, Part preparation, pre medication to be used; Counselling of the patient for surgery and getting all consent forms signed by patient and his/her attendants.After the teacher's demonstration, the teacher will assign a case to the small group of students, students will do all the preparation ,as demonstrated by the teacher

Activity 2:-Per -Op phase(2 hours and 30 mins)-

Per –Op phase shall be conducted in operation theatre by teacher/surgeon. The teacher will further demonstrate the Operative steps of Radical Block Dissection of the Lymph Nodes of Neck.The operative steps include structures cut during surgery, identification of different parts /organs (structures encountered); attaining the surgical procedure required, achieving haemostasis, and closure of wound in layers.Teacher shall demonstrate the methods of post-operative care after surgery.Students will keep a record of surgical methods or operative steps of at least five cases ,for each surgery required in the log book

Experiential Learning Activity

Experiential-Learning Learning 22.1: Thuqb-al- Qaṣaba'-al-hawāiyyah (Tracheostomy)

Total Activity time:-(6 hours)

The activity is divided into two parts, Activity 1 and 2.

Activity 1:-Identification, diagnosis and preparation of the case (2 hours)-(Case diagnosis; Case base learning, kinaesthetic learning; real life experience)The Activities shall be conducted on the bed side in the ward.The Identification and Diagnoses of the case :(2 hours)

Student should Identify and Diagnose the cases requiring Tracheostomy like obstructed upper airways, neuromuscular diseases, acquired airway stenosis select from them the case for surgery.Students should carry out all the steps for pre op preparation ,including Pre-Anaesthetic Check-Up(under the supervision of

Anaesthetists) Part preparation, pre medication to be used, Counselling of the patient for surgery and getting all consent forms signed by patient and his/her attendants.Pre Op preparation; shall be conducted under supervision of teacher/surgeon/Anaesthetist in the ward at bed side. Activity 2:-Operative procedure and post op care/management(4 hours) (Case diagnosis; Case based learning, kinaesthetic learning; real life experience). The operative procedure will be conducted in the Operation Theatre or at the bed side in the emergency room or critical care unit.The students should assist the procedure or perform/conduct all or few of the operative steps of the procedure required on at least 3 cases for each under the supervision of teacher/surgeon.Log book entry:-students shall keep the record of number of procedures assisted/performed with date.
Experiential-Learning Learning 22.2: Uqdah Limphāwiyyah **aur** Intifākh –al- raqaba (Fine needle aspration cytology from Neck Swellings and Lymph Nodes)
Total Activity time:-(4 hour) The activity is divided into two parts, Activity 1 and 2. Activity 1:-Identification, diagnosis and preparation of the case (2 hours)-(Case diagnosis; Case base learning, kinaesthetic learning; real life experience)The Activities shall be conducted in the out patient department.The Identification and Diagnoses of the case :(2 hours) Student should Identify and Diagnose the cases with neck swellings like Thyroid swellings and Lymp node swellings and select from them the case for FNAC procedure.Students should carry out all the steps for pre op preparation ,including Pre-Anaesthetic Check-Up, Part preparation, Activity 2:-Operative procedure and post op care/management (2 hours) (Case diagnosis; Case based learning, kinaesthetic learning; real life experience).The operative procedure will be conducted in the outpatient department or diagnostic lab,The students should assist the procedure or perform/conduct it on at least 3 cases for each under the supervision of teacher/surgeon.Log book entry:-students shall keep the record of number of procedures assisted/performed with date.
Experiential-Learning Learning 22.3: Akyās-al-Khaīshūmī Iste'ṣāl, aljūyūb-al-anfiyyā'aur nāsūr-al- Khaīshūmī; Al-akyās-al-darqiyy-al-līsāniyya' (Excision of Branchial Cyst, Branchial Sinus & Fistula; Excision of Thyroglossal Cyst)
Total Activity time:-(6 hours)

The activity is divided into two parts, Activity 1 and 2. Activity 1:-Identification, diagnosis and preparation of the case (2 hours)-(Case diagnosis; Case base learning, kinaesthetic learning; real life experience)The Activities shall be conducted on the bed side in the ward.The Identification and Diagnoses of the case :(2 hours)Student should Identify and Diagnose and differentiate between Branchial Cyst, Branchial Sinus, Fistula, and Thyroglosal Cyst and select from them the case for surgery.Students should carry out all the steps for pre op preparation ,including Pre-Anaesthetic Check-Up(under the supervision of Anaesthetists) Part preparation, pre medication to be used, Counselling of the patient for surgery and getting all consent forms signed by patient and his/her attendants.Pre Op preparation; shall be conducted under supervision of teacher/surgeon/Anaesthetist in the ward at bed side. Activity 2:-Operative procedure and post op care/management(4 hours) (Case diagnosis; Case based learning, kinaesthetic learning; real life experience).The operative procedure will be conducted in the Operation Theatre and post op care management in post Op ward.The students should assist the surgery or perform/conduct all or few of the operative steps of the surgery, required on at least 3 cases for each under the supervision of teacher/surgeon.Log book entry:- students shall keep the record of number of surgeries assisted/performed with date.
Experiential-Learning Learning 22.4: Raṭij bal‘ūm ka Iste’ṣāl, Shiryān Subātī Ẓāhir ka ‘Amal-i-Rabṭ (Excision of Pharyngeal Diverticulum, Ligation of External Carotid Artery)
Total Activity time:-(6 hours) The activity is divided into two parts, Activity 1 and 2. Activity 1:-Identification, diagnosis and preparation of the case (2 hours)-(Case diagnosis; Case base learning, kinaesthetic learning; real life experience)The Activities shall be conducted on the bed side in the ward.The Identification and Diagnoses of the case :(2 hours)Student should Identify and Diagnose the cases with pharyngeal pouch and the cases requiring external carotid artery ligation and select from them the case for surgery.Students should carry out all the steps for pre op preparation ,including Pre-Anaesthetic Check-Up(under the supervision of Anaesthetists) Part preparation, pre medication to be used, Counselling of the patient for surgery and getting all consent forms signed by patient and his/her attendants.Pre Op preparation; shall be conducted under supervision of teacher/surgeon/Anaesthetist in the ward at bed side. Activity 2:-Operative procedure and post op care/management(4 hours) (Case diagnosis; Case based learning, kinaesthetic learning; real life experience).

The operative procedure will be conducted in the Operation Theatre and post op care management in post Op ward.The students should assist the surgery or perform/conduct all or few of the operative steps of the surgery, required on at least 3 cases for each under the supervision of teacher/surgeon.Student shall manage or carry out patient care in post op ward under the supervision of teacher.Log book entry:-students shall keep the record of number of surgeries assisted/performed with date.
Experiential-Learning Learning 22.5: Radical Block Dissection of the Neck for Metastatic Nodes
Total Activity time:-(4 hours) The activity is divided into two parts, Activity 1 and 2. Activity 1:-Identification, diagnosis and preparation of the case (2 hours)-(Case diagnosis; Case base learning, kinaesthetic learning; real life experience)The Activities shall be conducted on the bed side in the ward.The Identification and Diagnoses of the case :(2 hours)Student should Identify and Diagnose the cases with High Volume of metastases in the Neck and the Spread to the Lymph Nodes and will be able to Perform the procedure of Radical Neck Dissection of the Lymph Nodes..Students should carry out all the steps for pre op preparation ,including Pre-Anaesthetic Check-Up(under the supervision of Anaesthetists) Part preparation, pre medication to be used, Counselling of the patient for surgery and getting all consent forms signed by patient and his/her attendants.Pre Op preparation; shall be conducted under supervision of teacher/surgeon/Anaesthetist in the ward at bed side. Activity 2:-Operative procedure and post op care/management(2 hours) (Case diagnosis; Case based learning, kinaesthetic learning; real life experience).The operative procedure will be conducted in the Operation Theatre and post op care management in post Op ward.The students should assist the surgery or perform/conduct all or few of the operative steps of the surgery, required on at least 3 cases for each under the supervision of teacher/surgeon.Student shall manage or carry out patient care in post op ward under the supervision of teacher.Log book entry:-students shall keep the record of number of surgeries assisted/performed with date.
Modular Assessment

Assessment	**Hour**

Instructions: Conduct a structured modular assessment. The assessment will be of 50 marks for this module. Keep a record of structured pattern used for assessment. Calculate modular grade points as per table- 6 C. OSCE (objective structured clinical examination)- 50 marks. OR Case Based Evaluation- 50 Marks. • History taking and patient interaction – 10 marks • Physical examination skills – 20 marks • Diagnosis and clinical reasoning – 10 marks • Communication skills – 5 marks • Time management and efficiency – 5 marks OR Any practical in converted form can be taken for assessment. (25 Marks) and Any experiential, such as portfolios/ reflection/ presentations can be taken as an assessment. (25 Marks)	4
Semester No : 6	
Module 23 : غدہ درقیہ کا عمل جراحی/Guddah darqiyya ka amal jīrāhī (Operations on the thyroid gland)	
Module Learning Objectives (At the end of the module, the students should be able to) 1. Describe in detail about various surgical procedures required in different conditions and diseases of thyroid and parathyroid gland. 2. Conduct the surgical procedures required for various conditions of thyroid gland. 3. Diagnose the different surgical diseases of thyroid gland and identify various structures during the surgery of particular type.	

Unit 1 استئصال ایمن وایسر نصفی غدہ درقیہ/Iste'ṣāl ayman wa aysar nīṣfī guddah darqiyya (Right and Left Hemi thyroidectomy)

23.1.1Indications, pre operative preparation, type of anaesthesia to be administered, steps of operation ,complications and post operative management of Right or left hemi-thyroidectomy

References: 23,24,89,94

3A	3B	3C	3D	3E	3F	3G
CO1,CO2,CO4,CO7	Describe the Indications, Pre-Operative preparation, Anaesthesia to be Administered, Steps of Operation & complications and their management of right and left hemithyroidectomy.	2	Lecture	CK	Knows-how	TUT,L&PPT
CO1,CO2,CO4,CO7	Demonstrate the procedure of right / left hemithyroidectomy.	4	Practical23.1	AFT-REC	Shows-how	D,CBL,DIS
CO1,CO2,CO4,CO7	Identify and diagnose the cases like thyroid nodule, colloid goitre and other thyroid conditions requiring right / left hemi-thyroidectomy and perform the procedure or assist with senior surgeon.	5	Experiential-Learning23.1	AFT-RES	Does	CBL,CD,RLE

Unit 2 استئصال غدہ درقیہ الفرعی الکلی/Iste'ṣāl guddah darqiyya-alfarī-al-kūlī (Sub Total Thyroidectomy)

23.2.1 Indications, pre operative preparation,type of anaesthesia to be administered, steps of operation ,complications and post operative management of sub total thyroidectomy.

References: 23,24,89,94

3A	3B	3C	3D	3E	3F	3G

CO1,CO2,CO4,CO7	Describe the indications, pre-operative preparation, Anaesthesia to be Administered, Steps of Operation & complications and their management of sub-total thyroidectomy	2	Lecture	CK	Knows-how	L&PPT ,TUT
CO1,CO2,CO4,CO7	Demonstrate the procedure of sub-total thyroidectomy	4	Practical23.2	AFT-REC	Shows-how	D,CBL
CO1,CO2,CO4,CO7	Identify and diagnose the cases requiring sub-total thyroidectomy and perform the procedure or assist with senior surgeon.	5	Experiential-Learning23.2	AFT-RES	Does	CBL,CD,RLE

Unit 3 کلی استئصال غدہ درقیہ کے قریب /Kūlī Iste'ṣāl guddah darqiyya ke qarīb (Near Total Thyroidectomy)

23.3.1 Indications, pre operative preparation, type of anaesthesia to be administered, steps of operation ,complications and post operative management of near total thyroidectomy.

References: 23,24,89,94

3A	3B	3C	3D	3E	3F	3G
CO1,CO2,CO4,CO7	Describe the Indications, Pre-Operative preparation, Anaesthesia to be Administered, Steps of Operation, post-operative complications and their management of near total thyroidectomy	2	Lecture	CK	Knows-how	L&PPT ,TUT
CO1,CO2,CO4,CO7	Demonstrate the procedure of near total thyroidectomy.	4	Practical23.3	AFT-REC	Shows-how	CBL,DIS,D
CO1,CO2,CO4,CO7	Identify and diagnose the cases requiring near total thyroidectomy and perform the procedure or assist with senior surgeon.	5	Experiential-Learning23.3	AFT-RES	Does	RLE,CBL,CD

Unit 4 کلی استئصال غدہ درقیہ میں استئصال جار الدرقیہ /Kūlī Iste'ṣāl guddah darqiyya me Iste'ṣāl guddah jār-al-darqiyya (Total Thyroidectomy including Excision of Parathyroid Gland) کلی استئصال غدہ درقیہ میں استئصال جار الدرقیہ

23.4.1 Indications, pre operative preparation, type of anaesthesia to be administered, steps of operation ,complications and post operative management of total thyroidectomy including excision of parathyroid gland.

References: 23,24,89,94

3A	3B	3C	3D	3E	3F	3G
CO1,CO2,CO4,CO7	Describe the Indications, Pre-Operative preparation, Anaesthesia to be Administered, Steps of Operation & complications and their management of total thyroidectomy including excision of parathyroid gland.	2	Lecture	CK	Knows-how	TUT,L&PPT
CO1,CO2,CO4,CO7	Demonstrate the procedure of total thyroidectomy including excision of parathyroid gland.	4	Practical23.4	AFT-REC	Shows-how	CBL,DIS,D
CO1,CO2,CO4,CO7	Identify and diagnose the cases like Grave's disease, Overactive thyroid, Goitre, thyroid cancer and other thyroid conditions requiring total thyroidectomy including excision of parathyroid gland and perform the procedure or assist the same with senior surgeon.	5	Experiential-Learning23.4	AFT-RES	Does	RLE,CD,CBL

Unit 5 درقیہ سرطان کی جراحی/darqiyya Saraṭān ki jīrāhī (Surgery for Thyroid Cancer)

23.5.1 Type of surgery in carcinoma of thyroid, pre operative preparation,type of anesthesia to be administered,steps of operative procedure,post operative care.

References: 23,24,89,94

3A	3B	3C	3D	3E	3F	3G

CO1,CO2,CO4,CO7	Describe in detail about the different types of carcinomas of thyroid gland and their management/surgery.	2	Lecture	CK	Knows-how	L&PPT ,TUT
CO1,CO2,CO4,CO7	Differentiate between different types of carcinomas of thyroid gland and demonstrate the procedure of their management/surgery.	4	Practical23.5	AFT-REC	Shows-how	PL,PER,L&PPT
CO1,CO2,CO4,CO7	Identify and diagnose different types of Carcinomas of Thyroid gland, proceed for their management, and /or prescribe appropriate advice to the patient including referral to oncology centre.	6	Experiential-Learning23.5	AFT-RES	Does	CD,RLE,PER,CBL

Practical Training Activity

Practical Training 23.1 Iste'ṣāl ayman wa aysar nīṣfī guddah darqiyya (Right and Left Hemi thyroidectomy)

Total Activity time:-(4 hours)

The activity is divided into two parts, Activity 1 and 2.

Activity1:-Pre-Op preparation(90mins)-Casebased learning, Demonstration,Discussion

These activities shall be conducted on the bed side in the ward.The teacher will be able to Explain and Demonstrate the preparation of case for right and left hemithyroidectomyThis preparation includes Pre-Anaesthetic Check-Up, Part preparation, pre medication to be used, Counselling of the patient for surgery and getting all consent forms signed by patient and his/her attendants.After the teacher's demonstration, the teacher will assign a case to the small group of students, Students will do all the preparation ,as demonstrated by the teacher

Activity2:-Per-Op phase(2 hours and 30 mins)- Casebased learning,Demonstration,Discussion.

Per –Op phase shall be conducted in operation theatre by teacher/surgeon. The teacher will further demonstrate the Operative steps of right and left hemithyroidectomy.The operative steps include structures cut during surgery, identification of different parts /organs (structures encountered); attaining the surgical procedure required, achieving haemostasis, and closure of wound in layers.

Teacher shall demonstrate the methods of post-operative care after surgery.Students will keep a record of surgical methods or operative steps of at least five cases ,for each surgery required in the log book
Practical Training 23.2 Iste'ṣāl guddah darqiyya-alfarī-al-kūlī (Sub Total Thyroidectomy)
Total Activity time:-(4 hours) The activity is divided into two parts, Activity 1 and 2. Activity 1:-Pre -Op preparation (90 mins)-Casebased learning, Demonstration,Discussion. These activities shall be conducted on the bed side in the ward.The teacher will be able to Explain and demonstrate the preparation of case for SUB TOTAL THYROIDECTOMY. This preparation includes Pre-Anaesthetic Check-Up, Part preparation, pre medication to be used; Counselling of the patient for surgery and getting all consent forms signed by patient and his/her attendants.After the teacher's demonstration, the teacher will assign a case to the small group of students, students will do all the preparation ,as demonstrated by the teacher Activity 2:-Per -Op phase(2 hours and 30 mins)- Casebased learning, Demonstration,Discussion. Per –Op phase shall be conducted in operation theatre by teacher/surgeon. The teacher will further demonstrate the Operative steps of SUB TOTAL THYROIDECTOMY.The operative steps include structures cut during surgery, identification of different parts /organs (structures encountered); attaining the surgical procedure required, achieving haemostasis, and closure of wound in layers. Teacher shall demonstrate the methods of post-operative care and management of post op complications after surgery.Students will keep a record of surgical methods or operative steps of at least five cases ,for each surgery required in the log book
Practical Training 23.3 Kūlī Iste'ṣāl guddah darqiyya ke qarīb (Near Total Thyroidectomy)
Total Activity hours:-(4 hours) The activity is divided into two parts, Activity 1 and 2. Activity 1:-Pre -Op preparation (90 mins)-Casebased learning, Demonstration,Discussion.

These activities shall be conducted on the bed side in the ward.

The teacher will explain and demonstrate the preparation of case for NEAR TOTAL THYROIDECTOMY. This preparation includes Pre-Anaesthetic Check-Up, Part preparation, pre medication to be used; Counselling of the patient for surgery and getting all consent forms signed by patient and his/her attendants.

After the teacher's demonstration, the teacher will assign a case to the small group of students, Students will do all the preparation ,as demonstrated by the teacher

Activity 2:-Per -Op phase(2 hours and 30 mins)-Casebased learning, Demonstration,Discussion.

Per –Op phase shall be conducted in operation theatre by teacher/surgeon.

The teacher will further demonstrate the Operative steps of near Total Thyroidectomy.

The operative steps include structures cut during surgery, identification of different parts /organs (structures encountered);attaining the surgical procedure required, achieving haemostasis, and closure of wound in layers.

Teacher shall demonstrate the methods of post-operative care after surgery.

Students will keep a record of surgical methods or operative steps of at least five cases ,for each surgery required in the log book.

Practical Training 23.4 Kūlī Iste'ṣāl guddah darqiyya me Iste'ṣāl guddah jār-al-darqiyya (Total Thyroidectomy including Excision of Parathyroid Gland)

Total Activity time:-(4 hours)

The activity is divided into two parts, Activity 1 and 2.

Activity 1:-Pre -Op preparation (90 mins)- Casebased learning, Demonstration,Discussion.

These activities shall be conducted on the bed side in the ward.

The teacher will be able to Explain and Demonstrate the preparation of case for Total thyroidectomy including excision of parathyroid gland .This preparation includes Pre-Anaesthetic Check-Up, Part preparation,pre medication to be used, Counselling of the patient for surgery and getting all consent forms signed by patient and his/her attendants.After the teacher's demonstration, the teacher will assign a case to the small group of students, Students will do all the preparation ,as demonstrated by the teacher

Activity 2:-Per -Op phase(2 hours and 30 mins)- Casebased learning, Demonstration,Discussion

Per –Op phase shall be conducted in operation theatre by teacher/surgeon.

The teacher will further demonstrate the Operative steps of Total Thyroidectomy including excision of parathyroid gland.The operative steps include structures cut during surgery, identification of different parts /organs (structures encountered); attaining the surgical procedure required, achieving haemostasis, and closure of wound in layers.

Teacher shall demonstrate the methods of post-operative care after surgery.

Students will keep a record of surgical methods or operative steps of at least five cases ,for each surgery required in the log book

Practical Training 23.5 darqiyya Saraṭān ki jīrāhī (Surgery for Thyroid Cancer)

Total Activity time-(4 hours)

The activity is divided into two parts, Activity 1 and 2.

Activity 1:-Lecture with power point presentation. (2 hours)

The teacher will be able to Explain about different types of malignant disorders of the thyroid gland, and how to differentiate between them by means of a power point presentation

Activity 2:-peer learning ,presentations. (2 hours)

The teacher will assign and make groups and ask them to observe cases of thyroid gland malignancies in the out patient department and make a case study presentation on a specific case of of Thyroid cancer, elaborating the various treatment methods opted in case of a treatment of Thyroid carcinoma.

Experiential Learning Activity

Experiential-Learning Learning 23.1: Iste'ṣāl ayman wa aysar nīṣfī guddah darqiyya (Right and Left Hemi thyroidectomy)

Total Activity time:-(5 hours)

The activity is divided into two parts, Activity 1 and 2.

Activity 1:-Identification, diagnosis and preparation of the case (2 hours)-(Case diagnosis; Case base learning, kinaesthetic learning; real life experience)

The Activities shall be conducted on the bed side in the ward.

The Identification and Diagnoses of the case :(2 hours)

Student should Identify and Diagnose the cases with thyroid cyst, Toxic multinodular goitre presentation requiring hemi thyroidectomy and will select the case requiring it and select from them the case for surgery.Students should carry out all the steps for pre op preparation ,including Pre-Anaesthetic Check-Up(under the supervision of Anaesthetists) Part preparation, pre medication to be used, Counselling of the patient for surgery and getting all consent forms signed by patient and his/her attendants.Pre Op preparation; shall be conducted under supervision of teacher/surgeon/Anaesthetist in the ward at bed side.

Activity 2:-Operative procedure and post op care/management(3 hours) (Case diagnosis; (Case based learning, kinaesthetic learning; real life experience).The operative procedure will be conducted in the Operation Theatre and post op care management in post Op ward.The students should assist the surgery or perform/conduct all or few of the operative steps of the surgery, required on at least 3 cases for each under the supervision of teacher/surgeon.Student shall manage or carry out patient care in post op ward under the supervision of teacher.

Log book entry:-students shall keep the record of number of surgeries assisted/performed with date.

Experiential-Learning Learning 23.2: Iste'ṣāl guddah darqiyya-alfarī-al-kūlī (Sub Total Thyroidectomy)

Total Activity time:-(5 hours)

The activity is divided into two parts, Activity 1 and 2.

Activity 1:-Identification, diagnosis and preparation of the case (2 hours)-(Case diagnosis; Case base learning, kinaesthetic learning; real life experience)

The Activities shall be conducted on the bed side in the ward.The Identification and Diagnoses of the case :(2 hours)

Student should Identify and Diagnose the cases with Thyrotoxicosis, multi nodular goitre requiring subTotal Thyroidectomy and select from them the case for surgery.Students should carry out all the steps for pre op preparation ,including Pre-Anaesthetic Check-Up(under the supervision of Anaesthetists) Part preparation, pre medication to be used, Counselling of the patient for surgery and getting all consent forms signed by patient and his/her attendants.Pre Op preparation; shall be conducted under supervision of teacher/surgeon/Anaesthetist in the ward at bed side.

Activity 2:-Operative procedure and post op care/management(3 hours) (Case diagnosis; Case based learning, kinaesthetic learning; real life experience).The operative procedure will be conducted in the Operation Theatre and post op care management in post Op ward.The students should assist the surgery or perform/conduct all or few of the operative steps of the surgery, required on at least 3 cases for each under the supervision of teacher/surgeon.

Student shall manage or carry out patient care in post op ward under the supervision of teacher. Log book entry:-students shall keep the record of number of surgeries assisted/performed with date.
Experiential-Learning Learning 23.3: Kūlī Iste'ṣāl guddah darqiyya ke qarīb (Near Total Thyroidectomy)
Total Activity time:-(5 hours) The activity is divided into two parts, Activity 1 and 2. Activity 1:-Identification, diagnosis and preparation of the case (2 hours)-(Case diagnosis; Case base learning, kinaesthetic learning; real life experience) The Activities shall be conducted on the bed side in the ward.The Identification and Diagnoses of the case :(2 hours) Student should Identify and Diagnose the cases with thyroid cancer, toxic multinodular goitre, toxic adenomas and will select the case for near Total Thyroidectomy,. Students should carry out all the steps for pre op preparation ,including Pre-Anaesthetic Check-Up(under the supervision of Anaesthetists) Part preparation, pre medication to be used, Counselling of the patient for surgery and getting all consent forms signed by patient and his/her attendants.Pre Op preparation; shall be conducted under supervision of teacher/surgeon/Anaesthetist in the ward at bed side. Activity 2:-Operative procedure and post op care/management(3 hours) (Case diagnosis; Case based learning, kinaesthetic learning; real life experience).The operative procedure will be conducted in the Operation Theatre and post op care management in post Op ward.The students should assist the surgery or perform/conduct all or few of the operative steps of the surgery, required on at least 3 cases for each under the supervision of teacher/surgeon.Student shall manage or carry out patient care in post op ward under the supervision of teacher. Log book entry:-students shall keep the record of number of surgeries assisted/performed with date.
Experiential-Learning Learning 23.4: Kūlī Iste'ṣāl guddah darqiyya me Iste'ṣāl guddah jār-al-darqiyya (Total Thyroidectomy including Excision of Parathyroid Gland)
Total Activity time:-(5 hours) The activity is divided into two parts, Activity 1 and 2.

Activity 1:-Identification, diagnosis and preparation of the case (2 hours)-(Case diagnosis; Case base learning, kinaesthetic learning; real life experience)

The Activities shall be conducted on the bed side in the ward.

The Identification and Diagnoses of the case :(2 hours)

Student should Identify and Diagnose the cases with lymph node metastases and cases with hyperparathyroidism, and will be able to select a case for surgical excision of thyroid with the excision of parathyroid gland, and select from them the case for surgery.

Students should carry out all the steps for pre op preparation ,including Pre-Anaesthetic Check-Up(under the supervision of Anaesthetists) Part preparation, pre medication to be used, Counselling of the patient for surgery and getting all consent forms signed by patient and his/her attendants.Pre Op preparation; shall be conducted under supervision of teacher/surgeon/Anaesthetist in the ward at bed side.

Activity 2:-Operative procedure and post op care/management(3 hours) (Case diagnosis; Case based learning, kinaesthetic learning; real life experience).The operative procedure will be conducted in the Operation Theatre and post op care management in post Op ward.The students should assist the surgery or perform/conduct all or few of the operative steps of the surgery, required on at least 3 cases for each under the supervision of teacher/surgeon.Student shall manage or carry out patient care in post op ward under the supervision of teacher.Log book entry:-students shall keep the record of number of surgeries conducted.

Experiential-Learning Learning 23.5: darqiyya Saraṭān ki jīrāhī (Surgery for Thyroid Cancer)

Total Activity time:-(6 hours).

Activity 1:-(2 hours)case diagnosis,presentation.

The student will identify different types of malignant disorders of the thyroid gland, and will be able to differentiate between them and make record of it.The student observes different cases of thyroid gland malignancies in the outpatient department and make a case study presentation on a specific case of Thyroid cancer, elaborating the various treatment methods opted for treatment of Thyroid carcinoma

Activity 2 :(4 hours) case diagnosis,case based learning.

The student will diagnose and identify different types of thyroid cancers either in OPD or IPD, select the case and prepare for surgery in terms of pre-operative investigations, counselling of patient and part preparation.Student should assist the operation with senior surgeon or perform/conduct few of operative procedure in operation theatre under guidance of surgeon/teacher.Student should make treatment plan including palliative care and also refer to oncology centre if required.	
Modular Assessment	
Assessment	**Hour**
Instructions: Conduct a structured modular assessment. The assessment will be of 50 marks for this module. Keep a record of structured pattern used for assessment. Calculate modular grade points as per table- 6 C. OSCE (objective structured clinical examination)- 50 marks. OR Case Based Evaluation- 50 Marks. • History taking and patient interaction – 10 marks • Physical examination skills – 20 marks • Diagnosis and clinical reasoning – 10 marks • Communication skills – 5 marks • Time management and efficiency – 5 marks OR Any practical in converted form can be taken for assessment. (25 Marks) and Any experiential, such as portfolios/ reflection/ presentations can be taken as an assessment. (25 Marks)	4
Module 24 : امراض اذن، انف وحلق میں دیگر عام جراحی/Amraz-i-Uzn, Anf -wa- Ḥalq me dīgar ʻĀm Jirāḥi (Other common surgeries in Ear, Nose & Throat)	

Module Learning Objectives

(At the end of the module, the students should be able to)

1. Describe in detail about miscellaneous disease presentation of scalp region like Dermoid cyst, sebaceous cyst, lipoma and other diseases like mucocele of mouth and Ranula and operative procedure for their excision.

2. Conduct the required surgical excision of various types of cysts of scalp and other conditions like mucocele of mouth and Ranula

3. Identify and diagnose various benign tumours of scalp and oral cavity and differentiate between them. Identify various structures during the surgery of particular type related to tumours of scalp.

Unit 1 قطع الکیس الجلدانی اور قیلہ الخاطیہ/Qaṭ'–al- kais –al-jildānī aur qīlā-al- mūkhātiyyā (Excision of Dermoid Cyst, Mucocele)

24.1.1. Method of excision of dermoid cyst

24.1.2. Method of excision of mucocele of mouth

References: 23,89,93,94,95

3A	3B	3C	3D	3E	3F	3G
CO1,CO2,CO4,CO7	Describe in detail the method of excision of dermoid cyst & mucocele of mouth.	2	Lecture	CK	Knows-how	L&PPT ,TUT
CO1,CO2,CO4,CO7	Demonstrate the operative procedure for Dermoid Cyst. Demonstrate the operative procedure of excision of mucocele of mouth.	4	Practical24.1	AFT-REC	Shows-how	DIS,CBL,D
CO1,CO2,CO4,CO7	Identify and diagnose the cases of dermoid cyst and perform operative procedure for its removal. Identify and diagnose the cases of mucocele of mouth and perform operative procedure for its removal.	6	Experiential-Learning24.1	AFT-RES	Does	RLE,CBL,CD

Unit 2 منطقہ راس سے اکیاس دہنیہ کا قطع Minṭqa rā 's se akyās Duhniyyah ka Qaṭ' (Excision of Sebaceous Cyst from scalp region)

24.2.1. Method of excision of sebaceous cyst

References: 23,89,93,94,95

3A	3B	3C	3D	3E	3F	3G
CO1,CO2,CO4,CO7	Describe in detail about sebaceous cyst and method of its surgical excision	2	Lecture	CK	Knows-how	L&PPT ,TUT
CO1,CO2,CO4,CO7	Demonstrate the cases of sebaceous cyst and the method of its removal from scalp region and other head & neck area.	4	Practical24.2	AFT-REC	Shows-how	DIS,CBL,D
CO1,CO2,CO4,CO7	Identify and diagnose the cases of sebaceous cyst and perform operative procedure for its excision.	5	Experiential-Learning24.2	AFT-RES	Does	CD,RLE,CBL

Unit 3 منطقہ راس سے سلعہ شحمیہ کا قطع/Minṭqa ra's se Sal'a Shaḥmiyya ka Qaṭ' (Excision of lipoma from scalp region)

24.3.1. Method of excision of lipoma

References: 23,89,93,94,95

3A	3B	3C	3D	3E	3F	3G
CO1,CO2,CO4,CO7	Describe in detail about lipoma and method of its surgical excision.	2	Lecture	CK	Knows-how	L&PPT ,TUT
CO1,CO2,CO4,CO7	Demonstrate the cases of lipoma and the method of its removal from scalp region.	4	Practical24.3	AFT-REC	Shows-how	CBL,D
CO1,CO2,CO4,CO7	Identify and diagnose the cases of lipoma of the scalp region and perform operative procedure for its removal.	6	Experiential-Learning24.3	AFT-RES	Does	RLE,CBL,CD

Unit 4 ضفدع، تخفیف الضغط عصب وجہی Ḍifda', Takhfīf-al-Ḍaghaṭ-al-'Asāb Wajhī (Ranula, Facial Nerve Decompression)

24.4.1. Method of excision of ranula

24.4.2. Method facial nerve decompression

References: 23,89,94,95

3A	3B	3C	3D	3E	3F	3G
CO1,CO2,CO4,CO7	Describe in detail about ranula and method of its surgical excision, and Method of facial nerve decompression.	2	Lecture	CK	Knows-how	L&PPT ,TUT
CO1,CO2,CO4,CO7	Demonstrate the procedure for the surgical removal of ranula and method of facial nerve decompression.	4	Practical24.4	AFT-REC	Shows-how	DIS,D,CBL
CO1,CO2,CO4,CO7	Identify and diagnose the cases of ranula and proceed with surgical excision of it. Identify the cases requiring facial nerve decompression and perform it.	5	Experiential-Learning24.4	AFT-RES	Does	CBL,CD,RLE

Unit 5 Endoscopic Dacryocystorhinostomy (DCR)

24.5.1. Method of endoscopic dacryocystorhinostomy

References: 23,89

3A	3B	3C	3D	3E	3F	3G
CO1,CO2,CO4,CO7	Describe in detail about Endoscopic DCR.	2	Lecture	CK	Knows-how	L&PPT ,TUT
CO1,CO2,CO4,CO7	Demonstrate the procedure of Endoscopic DCR.	4	Practical24.5	AFT-REC	Shows-how	D,DIS,CBL

CO1,CO2,CO4,CO7	Identify and diagnose the cases requiring endoscopic DCR and perform the procedure.	4	Experiential-Learning24.5	AFT-RES	Does	CD,RLE,CBL

Practical Training Activity

Practical Training 24.1 Qaṭ‘–al- kais –al-jildānī aur qīlā-al- mūkhātiyyā (Excision of Dermoid Cyst, Mucocele).

Total Activity time:-(4 hours)

The activity is divided into two parts, Activity 1 and 2.

Activity 1:-Pre -Op preparation (90 mins)-case based learning, Demonstration, Discussion

These activities shall be conducted on the out patient department.The teacher will Explain and Demonstrate the preparation of case for excision of dermoid cyst and mucocele .This preparation includes Pre-Anaesthetic Check-Up, Part preparation, pre medication to be used, Counselling of the patient for procedure and getting all consent forms signed by patient and his/her attendants.After the teacher’s demonstration, the teacher will assign a case to the small group of students, Students will do all the preparation ,as demonstrated by the teacher

Activity 2:-Per -Op phase(2 hours and 30 mins)- case based learning, Demonstration, Discussion

Per –Op phase shall be conducted in operation theatre by teacher/surgeon. The teacher will further Demonstrate the Operative steps of excision of dermoid cyst from the scalp region and explain types of incision,structures planned to dissect and the method for wound closure. The teacher will also demonstrate the method of surgical excision of mucocele,and explain the method of its drainage.Teacher shall demonstrate the methods of post operavtive care after procedure.

Students will keep a record of surgical methods or operative steps of at least five cases for each surgery required in the log book

Practical Training 24.2 Minṭqa rā ’s se akyās Duhniyyah ka Qaṭ‘ (Excision of Sebaceous Cyst from scalp region)

Total Activity time:-(4 hours)

The activity is divided into two parts, Activity 1 and 2.

Activity 1:-Pre -Op preparation (90 mins)- case based learning, Demonstration, Discussion.These activities shall be conducted in the out patient department.The teacher will be able to Explain and Demonstrate the preparation of a case for surgical excision of sebaceous cyst from the scalp region .This preparation includes

Pre-Anaesthetic Check-Up, Part preparation, pre medication to be used, Counselling of the patient for surgery and getting all consent forms signed by patient and his/her attendants.After the teacher's demonstration, the teacher will assign a case to the small group of students, Students will do all the preparation ,as demonstrated by the teacher

Activity 2:-Per -Op phase(2 hours and 30 mins)- case based learning, Demonstration,Discussion.Per –Op phase shall be conducted in operation theatre by teacher/surgeon. The teacher will further Demonstrate the Operative steps of surgical excision of sebaceous cyst from the scalp region.The operative steps include structures cut during surgery, identification of different parts (structures encountered);attaining the surgical procedure required, achieving haemostasis, and closure of wound in layers.Teacher shall demonstrate the methods of post-operative care after the procedure.Students will keep a record of surgical methods or operative steps of at least five cases ,for each surgery required in the log book

Practical Training 24.3 Minṭqa ra's se Sal'a Shaḥmiyya ka Qaṭ' (Excision of lipoma from scalp region)

Total Activity time:-(4 hours)

The activity is divided into two parts, Activity 1 and 2.

Activity 1:-Pre -Op preparation (90 mins)- case based learning, Demonstration,Discussion.

These activities shall be conducted in the outpatient department.

The teacher will Explain and Demonstrate the preparation of case for excision of lipoma from scalp region.This preparation includes Pre-Anaesthetic Check-Up, Part preparation, pre medication to be used, Counselling of the patient for procedure and getting all consent forms signed by patient and his/her attendants.After the teacher's demonstration, the teacher will assign a case to the small group of students, Students will do all the preparation ,as demonstrated by the teacher

Activity 2:-Per -Op phase(2 hours and 30 mins)- case based learning, Demonstration, Discussion.

Per –Op phase shall be conducted in operation theatre by teacher/surgeon.

The teacher will further Demonstrate the method of surgical excision of lipoma from the scalp region.The operative steps include structures cut during surgery,identification of different parts(structures encountered);attaining the surgical procedure required, achieving haemostasis, and closure of wound in layers.Teacher shall demonstrate the methods of post operative wound care after the procedure.Students will keep a record of surgical methods or operative steps of at least five cases ,for each surgery required in the log book

Practical Training 24.4 Ḍifda‘, Takhfīf-al-Ḍaghaṭ-al-‘Asāb Wajhī (Ranula, Facial Nerve Decompression)
Total Activity time:-(4 hours) The activity is divided into two parts, Activity 1 and 2. Activity 1:-Pre -Op preparation (90 mins)- case based learning, Demonstration, Discussion. These activities shall be conducted on the bed side in the ward. The teacher will be able to Explain and Demonstrate the preparation of case for surgical removal of Ranula and the method of Facial nerve decompression. This preparation includes Pre-Anaesthetic Check-Up, Part preparation, pre medication to be used, Counselling of the patient for the procedure and getting all consent forms signed by patient and his/her attendants.After the teacher’s demonstration, the teacher will assign a case to the small group of students, students will do all the preparation ,as demonstrated by the teacher Activity 2:-Per -Op phase(2 hours and 30 mins)- case based learning, Demonstration,Discussion.Per –Op phase shall be conducted in operation theatre by teacher/surgeon. The teacher will further demonstrate the Operative steps of surgical removal of Ranula and the removal of damaged salivary gland, the type of incision taken and type of sutures taken to drain it .The teacher will also demonstrate the method of facial nerve decompression, its indication and frequency of procedure.The operative steps include structures cut during surgery, identification of different parts (structures encountered);attaining the surgical procedure required, achieving haemostasis, and closure of wound in layers.Teacher shall demonstrate the methods of post-operative care after surgery.Students will keep a record of surgical methods or operative steps of at least five cases, for each surgery required in the log book.
Practical Training 24.5 Endoscopic Dacryocystorhinostomy (DCR)
Total Activity time:-(4 hours) The activity is divided into two parts, Activity 1 and 2. Activity 1:-Pre -Op preparation (90 mins)- case based learning, Demonstration,Discussion. These activities shall be conducted on the bed side in the ward. The teacher will Explain and demonstrate the preparation of case for Endoscopic DCR. This preparation includes Pre-Anaesthetic Check-Up, Part preparation, pre medication to be used; Counselling of the patient for surgery and getting all consent forms signed by patient and his/her attendants.After the teacher’s

demonstration, the teacher will assign a case to the small group of students, Students will do all the preparation ,as demonstrated by the teacher

Activity 2:-Per -Op phase(2 hours and 30 mins)- case based learning, Demonstration,Discussion.

Per –Op phase shall be conducted in operation theatre by teacher/surgeon. The teacher will further Demonstrate the Operative steps of Endoscopic DCR.The operative steps include structures cut during surgery, identification of different parts /organs(structures encountered);attaining the surgical procedure required, achieving haemostasis, and closure of wound in layers.Teacher shall demonstrate the methods of post-operative care after surgery.Students will keep a record of surgical methods or operative steps of at least five cases ,for each surgery required in the log book

Experiential Learning Activity

Experiential-Learning Learning 24.1: Qaṭ'–al- kais –al-jildānī aur qīlā-al- mūkhātiyyā (Excision of Dermoid Cyst, Mucocele)

Total Activity time:-(6 hours)

The activity is divided into two parts, Activity 1 and 2.

Activity 1:-Identification, diagnosis and preparation of the case (2 hours)-(Case diagnosis; Case base learning, kinaesthetic learning; real life experience)

The Activities shall be conducted in the out patient department.

The Identification and Diagnoses of the case :(2 hours)

Student should Identify and Diagnose the case of Dermoid cyst of scalp and select from them the case for surgery.Students should carry out all the steps for pre op preparation ,including Pre-Anaesthetic Check-Up(under the supervision of Anaesthetists) Part preparation, pre medication to be used, Counselling of the patient for surgery and getting all consent forms signed by patient and his/her attendants.Pre Op preparation; shall be conducted under supervision of teacher/surgeon/Anaesthetist in the ward at bed side.

Activity 2:-Operative procedure and post op care/management(4 hours) (Case diagnosis; Case based learning, kinaesthetic learning; real life experience).The operative procedure will be conducted in the Operation Theatre.The students should perform the surgrical excision of dermoid cyst from scalp on at least 3 cases under the supervision of teacher/surgeon.

Log book entry:-students shall keep the record of number of procedures assisted/performed with date.

Experiential-Learning Learning 24.2: Minṭqa rā ’s se akyās Duhniyyah ka Qaṭ‘ (Excision of Sebaceous Cyst from scalp region)
Total Activity time:-(5 hours) The activity is divided into two parts, Activity 1 and 2. Activity 1:-Identification, diagnosis and preparation of the case (2 hours)-(Case diagnosis; Case base learning, kinaesthetic learning; real life experience) The Activities shall be conducted in the out patient department or bed side. The Identification and Diagnoses of the case :(2 hours) Student should Identify and Diagnose the cases of sebaceous cyst of scalp region and select from them the case for surgical excision. Students should carry out all the steps for pre op preparation ,including Pre-Anaesthetic Check-Up(under the supervision of Anaesthetists) Part preparation, pre medication to be used, Counselling of the patient for surgery and getting all consent forms signed by patient and his/her attendants.Pre Op preparation; shall be conducted under supervision of teacher/surgeon/Anaesthetist in the ward at bed side. Activity 2:-Operative procedure and post op care/management(3 hours) (Case diagnosis; Case based learning, kinaesthetic learning; real life experience). The operative procedure will be conducted in the Operation Theatre.The students should perform the surgical excision of cyst from the scalp region on at least 3 cases for each under the supervision of teacher/surgeon. Student shall manage or carry out patient care. Log book entry:-students shall keep the record of number of surgeries assisted/performed with date.
Experiential-Learning Learning 24.3: Minṭqa ra’s se Sal‘a Shaḥmiyya ka Qaṭ‘ (Excision of lipoma from scalp region)
Total Activity time:-(6 hours) The activity is divided into two parts, Activity 1 and 2. Activity 1:-Identification, diagnosis and preparation of the case (2 hours)-(Case diagnosis; Case base learning, kinaesthetic learning; real life experience) The Activities shall be conducted in the out patient department.

The Identification and Diagnoses of the case :(2 hours)

Student should Identify and Diagnose the cases of lipoma of scalp region,and select the case for surgical excision.Students should carry out all the steps for pre op preparation ,including Pre-Anaesthetic Check-Up, Part preparation, pre medication to be used, Counselling of the patient for surgery and getting all consent forms signed by patient and his/her attendants.Pre Op preparation; shall be conducted under supervision of teacher/surgeon/Anaesthetist in the ward at bed side.

Activity 2:-Operative procedure and post op care/management(4 hours) (Case diagnosis; Case based learning, kinaesthetic learning; real life experience).The operative procedure will be conducted in the Operation Theatre .

The students should perform the surgical excision of lipoma of the scalp region on at least 3 cases for each under the supervision of teacher/surgeon.

Log book entry:-students shall keep the record of number of procedures assisted/performed with date.

Experiential-Learning Learning 24.4: Ḍifda‘, Takhfīf-al-Ḍaghaṭ-al-‘Asāb Wajhī (Ranula, Facial Nerve Decompression)

Total Activity time:-(5 hours)

The activity is divided into two parts, Activity 1 and 2.

Activity 1:-Identification, diagnosis and preparation of the case (1 hour)-(Case diagnosis; Case base learning, kinaesthetic learning; real life experience)

The Activities shall be conducted on the bed side in the ward.

The Identification and Diagnoses of the case :(1 hours)

Student should Identify and Diagnose the cases of Ranula and cases of facial paralysis and select from them the case for surgery.

Students should carry out all the steps for pre op preparation ,including Pre-Anaesthetic Check-Up(under the supervision of Anaesthetists) Part preparation, pre medication to be used, Counselling of the patient for surgery and getting all consent forms signed by patient and his/her attendants.Pre Op preparation; shall be conducted under supervision of teacher/surgeon/Anaesthetist in the ward at bed side.

Activity 2:-Operative procedure and post op care/management(4 hours)

(Case diagnosis; Case based learning, kinaesthetic learning; real life experience).

The operative procedure will be conducted in the Operation Theatre and post op care management in post Op ward.

The students should assist or perform the surgical excision of Ranula. The student should also be able to perform the procedure of Facial nerve decompression, on at least 3 cases for each under the supervision of teacher/surgeon.Student shall manage or carry out patient care in post op ward under the supervision of teacher. Log book entry:-students shall keep the record of number of surgeries assisted/performed with date.
Experiential-Learning Learning 24.5: Endoscopic Dacryocystorhinostomy (DCR)
Total Activity time:-(4 hours) The activity is divided into two parts, Activity 1 and 2. Activity 1:-Identification, diagnosis and preparation of the case (1 hour)- (Case diagnosis; Case base learning, kinaesthetic learning; real life experience) The Activities shall be conducted on the bed side in the ward. The Identification and Diagnoses of the case :(2 hours) Student should Identify and Diagnose the cases of narrowed or stenosed or blocked nasolacrimal duct requiring Endoscopic DCR and select from them the case for surgery.Students should carry out all the steps for pre op preparation ,including Pre-Anaesthetic Check-Up(under the supervision of Anaesthetists) Part preparation, pre medication to be used, Counselling of the patient for surgery and getting all consent forms signed by patient and his/her attendants.Pre Op preparation; shall be conducted under supervision of teacher/surgeon/Anaesthetist in the ward at bed side. Activity 2:-Operative procedure and post op care/management(3 hours) (Case diagnosis; Case based learning, kinaesthetic learning; real life experience). The operative procedure will be conducted in the Operation Theatre and post op care management in post Op ward.The students should assist the surgery or perform/conduct all or few of the operative steps of the surgery,(Endoscopic DCR) required on at least 3 cases for each under the supervision of teacher/surgeon.Student shall manage or carry out patient care in post op ward under the supervision of teacher. Log book entry:-students shall keep the record of number of surgeries assisted/performed with date.
Modular Assessment

Assessment	Hour
Instructions: Conduct a structured modular assessment. The assessment will be of 50 marks for this module. Keep a record of structured pattern used for assessment. Calculate modular grade points as per table- 6 C. OSCE (objective structured clinical examination)- 50 marks. OR Case Based Evaluation- 50 Marks. • History taking and patient interaction – 10 marks • Physical examination skills – 20 marks • Diagnosis and clinical reasoning – 10 marks • Communication skills – 5 marks • Time management and efficiency – 5 marks OR Any practical in converted form can be taken for assessment. (25 Marks) and Any experiential, such as portfolios/ reflection/ presentations can be taken as an assessment. (25 Marks)	4

Paper No : 4(امراض اذن،انف، حلق،راس ورقبہ میں جدید تحقیقات.Amrāḍ-i-Udhun, Anf Wa Ḥalq, Rās Wa Raqaba Men Jadīd Taḥqīqāt (Recent Advances of Ear, Nose, Throat, Head and Neck Surgery))

Semester No : 3

Module 25 : Amraz-i-Uzn, Anf -wa-Ḥalq ki tashkhīṣ, al-tasab būb-fī- al-marḍ aur 'Ilāj me jadīd pesh qad mī. (Recent Developments in the Diagnosis, Pathogenesis and Treatments of the ENT Diseases). لتطورات الحديثة في تشخيص وتسبب وعلاج أمراض الأنف والأذن والحنجرة

Module Learning Objectives

(At the end of the module, the students should be able to)

1. Describe Tinnitus Therapy, Indications of Trans Membrane Medical Therapy, and recent developments in the treatment of Tinnitus.

2. Demonstrate the Assessment method of Tinnitus & Endoscopic Examination of the Eustachian Tube.

3. Perform Endoscopic Examination of Eustachian Tube & Conduct Computer Assisted Surgery of Para-nasal Sinuses.

Unit 1 Ilīj Tanīn-o- Dawī (Tinnitus Therapy) وووی ان ت طن

25.1.1. History of Tinnitus Medicine طب طنین الأذن

25.1.2. Evaluation/assessment of Patient of Tinnitus تقییم/تقییم مریض طنین الأذن

25.1.3. Pharmacological Treatment العلاج الدوائی

25.1.4. Treatment of Chronic Tinnitus علاج طنین الأذن المزمن (Sound Therapy, Tinnitus Retraining Therapy, Hyperbaric Oxygen Therapy, Cognitive Behavior Therapy, Sound Therapy, Biofeedback & Neurofeedback, Magnetic & electric Brain Stimulation.

References: 1,6,9,10,23,41,85,94,95

3A Course Outcome	3B Learning Objective (At the end of the (lecture/practical training /experiential learning) session, the students should be able to)	3C Notional learni	3D Lecture/ Practical Training/	3E Domain/ Sub	3F Level (Does/ Shows	3G Teaching Learning Methods

		ng Hours	Experiential Learning	Domain	how/Knows how/Know)	
CO1,CO2,CO3	Describe Tinnitus Therapy, the Historical background of Tinnitus Medicine, and its Indications & Applications.	2	Lecture	CAP	Knows-how	PER,L,JC
CO1,CO2,CO3	Demonstrate History Taking & Methods of Evaluation of Tinnitus. Discuss Various Methods of Tinnitus therapy.	4	Practical25.1	PSY-GUD	Shows-how	CBL,BL
CO1,CO2,CO3	Conduct Various Methods/Modalities of Tinnitus Therapy. Describe Current Research in Tinnitus management.	4	Experiential-Learning25.1	PSY-ADT	Does	D-BED,W,CBL
Unit 2 Ilīj ibbī 'ibr-al-ṭablā (Trans-tympanic Medical therapy) لہ عبرانی طبی علاج 25.2.1. Introduction of Trans Tympanic Medical Therapy. مقدمۃ للعلاج الطبی عبر الطبلۃ. 25.2.2. Delivery Devices and Techniques of Drug Delivery. 25.2.3. Commonly treated disorders with Trans-Tympanic Medical Therapy. **References:** 12,23,44,91						
3A	**3B**	**3C**	**3D**	**3E**	**3F**	**3G**
CO1,CO2,CO3 ,CO4,CO6	Describe Trans-tympanic Medical Therapy, its Indications, Contra-indications & Complications	2	Lecture	CC	Knows-how	L,L&PPT
CO1,CO2,CO3 ,CO4,CO6	Demonstrate methods/steps of Procedure of Trans-tympanic Medical Therapy.	4	Practical25.2	PSY-GUD	Shows-how	PT,CBL,D-BED,SIM

CO1,CO2,CO3 ,CO4,CO6	Conduct the Procedure of Trans-tympanic membrane Medical Therapy	6	Experiential-Learning25.2	PSY-ADT	Shows-how	JC,SIM,W

Unit 3 Ilīj-al- manā'I, 'Ilīj Waḥdā-al- wīrāthā aur iske ṭarā'īq (Immunotherapy, Gene-therapy & its modalities) علاج المناعی، علاج الوحدہ الوراثہ اور اسکے طرائق

25.3.1. Immuno-therapy: Introduction of Immuno-therapy, Indications & Applications of Immunotherapy in Allergic ENT diseases and Head & Neck Cancers. Modalities of Allergen Immunotherapy.

25.3.2. Gene-therapy: Introduction of Gene Therapy, Indications & applications of Gene Therapy in ENT diseases and Head & Neck Cancers, vectors in Gene delivery & their characteristics

References: 10,23,42,97

3A	3B	3C	3D	3E	3F	3G
CO1,CO2,CO3	Describe Immunotherapy & Gene Therapy. Discuss the role of Immunotherapy & Gene therapy in the management of ENT disorders & Head & Neck Cancers.	2	Lecture	CC	Knows-how	L&PPT ,TUT
CO1,CO2,CO3	Demonstrate methods of delivery of allergens in Immunotherapy & Various methods of gene therapy.	4	Practical25.3	PSY-GUD	Shows-how	CBL,PT
CO1,CO2,CO3	Perform methods of delivery of allergens in Immunotherapy. Station 1 - Counseling & preparation of the patient for the procedure Station 2 - Shift the patient to the therapy room and give the therapy.	4	Experiential-Learning25.3	PSY-ADT	Does	FV,D

Unit 4 Jūyūb-al- Anf ka al- JĪRAḤat bī mūsā'idat-al-computer (Computer Assisted Surgery of the Para-nasal Sinuses) مپ وترلک ساعدۃ ام ب جیوب الانف کا الجراحت **Contents:**

Components of Computer Assisted

25.4.1. Components of Computer-Assisted Surgery System

25.4.2. Steps in Computer-aided Endoscopic Surgery.

25.4.3. Indications of Computer-Assisted Surgery.

25.4.4. Advantages & Disadvantages of Computer assisted Surgery (CAS).

References: 12,23,42,91

3A	3B	3C	3D	3E	3F	3G
CO1,CO2,CO3	Describe Computer-Assisted Surgery of Para-Nasal Sinuses. Describe Computer Assisted Surgery, Indications, Advantages & its disadvantages.	2	Lecture	CC	Knows-how	BL,L&PPT
CO1,CO2,CO3	Demonstrate Components of Computer Assisted Surgery System & its application in the treatment/diagnosis of Paranasal Sinuses. Station 1 - Take the history of the patient & make the diagnosis Station 2 - Shift the patient to the O.T. & prepare for the surgery. Station 3- Asisst the surgery of Paranasal Sinuses.	4	Practical25.4	PSY-GUD	Shows-how	CBL,SIM
CO1,CO2,CO3	Perform Procedure of Computer Assisted Para-nasal Sinus Surgery.	6	Experiential-Learning25.4	PSY-ADT	Shows-how	D-BED,SIM,CBL,DL,D

Unit 5 Amrā ḍ - i -Qanat astākī -ūs Ka Tashkhī ṣ Wa Ilāj Ka Jadīd Ṭarīqā .(Novel Approaches of the diagnosis and treatment of Eustachian Tube Disorders) .آاور العج اک دجدی رطہقی

25.5.1. An Overview of Anatomy & Physiology of Eustachian Tube.

25.5.2. Clinical Evaluation of Eustachian Tube (History & Examination).

25.5.3. Endoscopic Examination of the Eustachian Tube. Pathology of Eustachian Tube Dysfunctions.

25.5.4. Medical & Surgical Treatment of Eustachian Tube Dysfunctions.

References: 10,11,23,44,45,85,91

3A	3B	3C	3D	3E	3F	3G
CO1,CO2,CO3	Discuss Novel Approaches to the diagnosis and treatment of Eustachian Tube Disorders and describe the Etiology & pathophysiology of Eustachian Tube disorders.	2	Lecture	CC	Knows-how	L&PPT ,DIS,FC
CO1,CO2,CO3	Demonstrate Endoscopic Examination of Eustachian Tube & Medical & Surgical Management of Eustachian Tube disorders. Counsel & Prepare the patient for Endoscopic Examination of the Eustachian Tube. Prescribe/suggest the most appropriate Management.	4	Practical25.5	PSY-GUD	Shows-how	SIM,CBL
CO1,CO2,CO3	Conduct Endoscopic Examination of Eustachian Tube. Perform Surgical procedures in the management of Eustachian Tube disorders.	6	Experiential-Learning25.5	PSY-ADT	Shows-how	BS,W,D-M

Practical Training Activity

Practical Training 25.1 Tinnitus & Tinnitus Therapy.

Total Learning Hours (04 Hours)

Activity 1 - Bedside Demonstration/Case Based Learning (02 hours)

The teacher will demonstrate the proper method of Evaluation of Tinnitus patients by correct History Taking, Proper Clinical Examination & diagnostic tools used & their interpretation in the diagnosis of the cause of Tinnitus.

Activity 2 - Powerpoint Presentation (2 Hours)

The teacher will demonstrate the different approaches of Tinnitus therapy to students, like Pharmacological treatment, Hyperbaric Oxygen therapy, Sound therapy, Tinnitus retraining therapy, Cognitive Behavior therapy & rationale of the use of the particular approaches in the management of Tinnitus.

Practical Training 25.2 Trans-tympanic Medical Therapy.
Total Learning Hours - (04 Hours) **Activity 1 - Powerpoint Presentation/Video Clips (01 Hour)** Teacher will demonstrate the method of Procedure of Trans Tympanic Membrane Drug delivery through PPT/Video Clips. **Activity 2 - Hands-on Practice with equipment (01 Hour)** Teacher will demonstrate the equipment/Surgical instruments used in Trans Tympanic Membrane Medical Therapy. **Activity 3 - Hands-on Training (02 Hours)** The teacher will demonstrate the method of Procedure of Trans Tympanic Membrane Drug delivery & Dosage of Drugs in OPD/IPD Setting on real patients.
Practical Training 25.3 Diagnosis of Allergic & genetic disorders related to ENT. Immunotherapy and Gene Therapy.
Total Learning Hours - (04 Hours) **Activity 1 - PPT/video Clips (01 Hour)** Teacher will provide a Comprehensive Overview of the Genetic & Allergic disorders related to ENT through PPT/video Clips. **Activity 2 - Case diagnosis/Bedside Demonstration (01 Hours)** Teacher will demonstrate the cases of Genetic and Allergic Disorders to students & the methods of diagnosis of allergic and Genetic diseases through History Taking, Clinical Examination & Interpretation of Lab. Investigations. **Activity 3 - Hands-on Practice (02 Hours)** Teacher will demonstrate the method of Allergic testing like Skin Prick Tests, Patch Tests & Interpretation of Lab. Investigations (Blood tests) in diagnosing of allergic disorders. The teacher will demonstrate the methods of Immunotherapy like Subcutaneous (SCIT) and Sub-Lingual (SLIT) and simulated practice.
Practical Training 25.4 Computer Assisted Surgery System.

Total Learning Hours - (04 Hours)

Activity 1 - Hands on Practice with Equipment (02 Hours)

Teacher will demonstrate Components of computer Assisted Surgery System, use of various components, method of operation and maintenance of equipment.

Activity 2 - Hands on Training (02 Hours)

Teacher will demonstrate the steps in Computer aided Surgery to Students in OT Setting/ Simulation / Video Clips.

Practical Training 25.5 Endoscopic Examination of Eustachian Tube & Mamagement of Eustcahian Tube dysfunction.

Total Learning Hours - (04 Hours)

Activity 1 - Bedside Demonstration/Case Based Learning (2 Hours)

Teacher will demonstrate the method of diagnosis of Eustachian tube disorders by thorough history taking, patient presenting Clinical Features, Otoscopic examination, Tuning Fork tests and Endoscopic examination of Eustachian tube in OPD/Bedside demonstration.

Activity 2 - Hands on Training (2 Hours):

Teacher will demonstrate the method of use of Endoscope in the Examination of Eustachian tube in OPD/Simulated Patients or through Video Clips.

Teacher will demonstrate the Medical management of Eustachian Tube disorders.

Teacher will demonstrate steps of surgical management of Eustachian Tube disorders to students on cases/Simulation or through Video Clips.

Experiential Learning Activity

Experiential-Learning Learning 25.1: Methods/Modalities of Tinnitus Therapy.

Total Learning Hours (04 Hours)

Activity 1 - Bedside demonstration by Students (Case Presentation) (02 Hours)

Students will present a case of Tinnitus by showing correct method of History Taking, Proper Clinical Examination, choosing Relevant Diagnostic Tools & laboratory Tests to know the cause of tinnitus and accordingly advise Tinnitus Therapy treatment Plan.

Activity 2 - Meta-analysis of Research Data (01 Hour)

Students will be engaged in Literature review to present a meta-analysis of Treatment modalities used in Tinnitus management.

Activity 3 - Hands-on Practice (01 Hour)

Students will prescribe Tinnitus therapy method in the management of Tinnitus in OPD under Supervision.

In addition to above Students will maintain a case record of at least 05 Tinnitus Patients in Practical book/Log book.

Experiential-Learning Learning 25.2: Trans-tympanic membrane Medical Therapy.

Total Learning Hours - (06 Hours)

Activity 1 - Clasroom Power point presentation (02 Hours)

Students will demonstrate the Indications, Contra Indications & complications of Transtympanic Medical Therapy through Classroom –PPT. Students will identify the Instrument/Equipment used in Trans Tympanic Medical Therapy, their method of Use and operating Technique.

Activity 2 - Literature Review & discussion (01 Hour)

Students will be engaged in Literature review to get insights about drugs & diseases treated by Trans tympanic Membrane Therapy and present the same in Classroom discussions.

Activity 3 - Hands on Training (02 Hours)

Students will perform the Trans tympanic Membrane Medical Therapy procedure on real Patients under Observation of Supervisor in OPD/IPD.

Activity 4 - Periodical Journal Clubs /Seminars/Workshops (01 Hour)

Journal Clubs /Seminars/Workshops shall be organized to update knowledge regarding new research in the management of Ear diseases through Trans Tympanic Membrane Medical Therapy.

Experiential-Learning Learning 25.3: Immunotherapy.

Total Learning Hours - (04 Hours)

Activity 1 - Classroom Powerpoint presentation (01 Hour)

Students will demonstrate the Genetic and Allergic disorders related to ENT through Classroom Presentation/Charts/Group discussion.

Activity 2 - Hands on Practice (01 Hours)

Students will perform the allergic testing like Skin Prick Tests, Patch Tests on Patients & Subcutaneous (SCIT) and Sub-Lingual (SLIT) allergen delivery immunotherapy methods on patients.

Activity 3 - Literature Review & Periodical Journal Clubs (01 Hour)

Journal Clubs may be organized to update recent advances in management of ENT disorder.Students will review the literature regarding genetic and allergic disorders of Ear, nose & throat and present the same in class discussion/Seminars.

Activity 4 - Field Visit (01 Hour)

In addition to above Students shall have real life experiences through Clinical Exposure to Genetic & Allergic Testing laboratories by conducting regular field visits.

Experiential-Learning Learning 25.4: Computer Assisted Para-nasal Sinus Surgery.

Total Learning Hours - (06 Hours)

Activity 1 - Practical demonstration/Hands on activity (02 hours)

Students will demonstrate the Components of CAS including their functions, maintenance, and Operating technique in a demonstration room/Lab.

Activity 2 - Hands on Training/Observation of Surgical Procedure (03 Hours)

Students will demonstrate the steps of Surgical Procedure in CAS through simulation/be engaged in Performing/Assisting CAS under Supervision on real patients.

Activity 3 - Periodical Journal Clubs and Literature Review (01 Hour)

In addition to above students shall be engaged in organizing Periodical Journal Clubs and Literature Review surveys to discuss the same/opresent in classroom presentations.

Experiential-Learning Learning 25.5: Eustachian tube Examination & surgical managemnt of Eustachain Tube disorders.

Total Learning Hours - (06 Hours)

Activity 1 - Bedside demonstration by Students - (2 Hours)

Students will demonstrate the method of diagnosing the Eustachian tube disorders by Proper History Taking, Clinical Examination in OPD/Bedside demonstration.

Students will demonstrate the medical management of Eustachian Tube disorders in bedside demonstration.

Activity 2 - Hands on Practice - (3 Hours):

Student will conduct the Endoscopic Examination of the Eustachian tube on real Patients/Simulated Patients/Simulation under Supervision of a teacher.Students will demonstrate the steps of Procedure of Surgical management of Eustachian Tube disorders on simulation/on real patients under supervision.

Activity 3 - Journal Clubs/Seminars/Workshops - (01 Hour)

Journal Clubs/Seminars/Workshops will be organized to update students about the recent trends in management of Eustachian tube disorders.

Classroom Teaching - In addition to above Students shall be engaged in Class teaching of UG students regarding the subject/topic to gain teaching skills.

Modular Assessment

Assessment	Hour
Instructions: This module contains 2 credits so the assessment will be for 50 marks. Keep a structured marking pattern. Use different assessment methods in each module for the semester. Keep a record of the structured pattern used for assessment. Calculate the Modular grade point as per Table 6 C. 1. Case-based evaluation (50 Marks): Each student will be given a case or simulated patient for bedside clinical examination or clinical video cases or lab reports to evaluate and diagnose the case with justification. OR Any practical in converted form can be taken for assessment. (25 Marks) and Any experiential, such as portfolios/ reflection/ presentations can be taken as an assessment. (25 Marks)	4

Module 26 : Genetic Testing, Molecular Biology & Radiological Advances in Ear, Nose & Throat الاختبارات الجينية والبيولوجيا الجزيئية والتقدم الإشعاعي في الأذن والأنف والحنجرة

Module Learning Objectives

(At the end of the module, the students should be able to)

1. Describe the Principles, Techniques, and interpretations of DNA Sequencing, Polymerase Chain Reactions (PCR), and Fluorescence in situ hybridization (FISH). New & advanced Imaging modalities for assessment of the diseases of Temporal bone.

2. Conduct the latest diagnostic and laboratory investigations in the field of ENT.

3. Identify and interpret the findings and results of diagnostic and laboratory investigations.

Unit 1 Magnetic Resonance Imaging (MRI)-Scan

26.1.1. Basic Principles of Magnetic Resonance Imaging (MRI) المبادئ الأساسية للتصوير بالرنين المغناطيسي

26.1.2. Patient Orientation/Setup.

26.1.3. Clinical Applications, Advantages & Disadvantages

References: 9,10,11,23,41,45,57,66,67

3A	3B	3C	3D	3E	3F	3G
CO2,CO3	Describe the orientation, basic principles, advantages & drawbacks of the imaging modality.	2	Lecture	CC	Knows-how	L_VC,BL
CO2,CO3	Apply the findings & clinical implications of MRI.	4	Practical26.1	AFT-REC	Shows-how	D,SIM,X-Ray
CO2,CO3	Demonstrate the steps of the procedure of Magnetic Resonance Imaging (MRI)	6	Experiential-Learning26.1	PSY-GUD	Shows-how	DIS,CBL

Unit 2 التصوير المقطعي بالإصدار البوزيتروني (PET-CT Scan)، تصوير الأوعية بالطرح الرقمي (DSA) Positron Emission Tomography (PET-CTScan), Digital Subtraction angiography (DSA)

26.2.1. Orientation of the Patient during Positron Emission Technology(PET) Procedure.

26.2.2. Basic Principles of Positron Emission Technology (PET)-Scan.Technical & cancer Specific Considerations, Interpretation, PET in Staging, Radiation Treatment Planning, Treatment Response and Its Clinical Implications.

26.2.3. Basic Concepts and Principles of Digital Subtraction Angiography (DSA).

26.2.4. Indications & contra-Indications of Digital Subtraction Angiography (DSA).

26.2.5. Application, Preparation & Interpretation of Digital Subtraction Angiography (DSA).

References: 9,10,11,23,41,85

3A	3B	3C	3D	3E	3F	3G
CO2,CO3	Describe the orientation, basic principles, application, technical & cancer specific considerations, interpretation, PET in staging, radiation treatment planning, treatment response and clinical implications of PET Scan	1	Lecture	CC	Knows-how	L&PPT ,FC
CO2,CO3	Interpret and amend the application of Positron Emission Tomography (PET) Scan.	2	Practical26.2	AFT-RES	Shows-how	X-Ray,BL
CO2,CO3	Interpret the procedure and steps of Positron Emission Tomography (PET Scan).	3	Experiential-Learning26.2	PSY-GUD	Shows-how	RLE,CBL,D-M
CO2,CO3	Discuss the basic concepts, indications, contraindications, application, preparation, interpretation, clinical implications DSA.	1	Lecture	CC	Knows-how	FC,BS
CO2,CO3	Conduct the process of Digital Subtraction Angiography (DSA)	2	Practical26.3	CAN	Shows-how	CBL,W,BS
CO2,CO3	Demonstrate the procedure of Digital Subtraction Angiography (DSA).	3	Experiential-Learning26.3	PSY-GUD	Shows-how	BL,SIM,W

Unit 3 تسلسل الحمض النووي، تفاعلات البلمرة المتسلسلة **DNA Sequencing, Polymerase Chain Reactions**

26.3.1. DNA Sequencing: Definition, Basic Principles, Methodology, Interpretation, Applications.

26.3.2. Polymerase Chain Reaction: Basic Principles, advantages, disadvantages, applications & interpretations.

References: 10,11,23,42,85,91,96

3A	3B	3C	3D	3E	3F	3G
CO2,CO3	Describe the basic principles, types, methodology and implications of DNA Sequencing.	1	Lecture	CC	Knows-how	L&PPT ,L,PAL
CO2,CO3	Elicit and apply the findings of DNA sequencing	2	Practical26.4	CAN	Shows-how	CBL,D-BED,PBL
CO2,CO3	Perform the procedure of DNA Sequencing.	3	Experiential-Learning26.4	PSY-GUD	Does	BL,PL
CO2,CO3	Interpret the findings of the Polymerase Chain Reactions (PCR).	2	Practical26.5	CAN	Shows-how	FC,LRI
CO2,CO3	Describe the history, Principles, advantages and disadvantages & of applications of Polymerase Chain reactions (PCR).	1	Lecture	CC	Knows-how	L&PPT ,FC
CO2,CO3	Apply and conduct the procedure of Polymerase Chain Reaction (PCR).	2	Experiential-Learning26.5	PSY-GUD	Does	SIM,BL

Unit 4 طرق تصوير العظم الصدغي **Imaging Modalities of Temporal bone**

26.4.1. Different imaging modalities of the Temporal Bone. Its Basic Concept. Imaging Techniques of Plain X-ray, CT Scan.

26.4.2. Angiography for lesions of the Temporal Bone.

References: 23,24,44,45,57,67

3A	3B	3C	3D	3E	3F	3G
CO2,CO3	Describe Imaging modalities of Temporal bone.	3	Lecture	CC	Knows-how	L&PPT ,BS
CO2,CO3	Conduct Plain X-rays, CT scans and angiography.	6	Practical26.6	CAN	Shows-how	CBL,PT,PBL,X-Ray,DL
CO2,CO3	Demonstrate the steps of Plain X-rays, CT scans, and angiography	6	Experiential-Learning26.6	PSY-GUD	Does	X-Ray

Unit 5 الإزهار في التهجين الموضعي Florescence in Situ Hybridization (FISH)

26.5.1. Basic Principles of Fluorescence in Situ (FISH), Its Types, Techniques, Applications, Benefits & Limitations.

References: 96

3A	3B	3C	3D	3E	3F	3G
CO2,CO3	Describe the orientation, basic principles, types, techniques, application, methodology, and it's benefits, advantages & limitations.	1	Lecture	CC	Knows-how	L,DIS
CO2,CO3	Perform and analyze Fluoresence in Situ Hybridization (FISH)	2	Practical26.7	PSY-GUD	Shows-how	CBL,DL

CO2,CO3	Demonstrate Flouresence in Situ Hybridization (FISH).	3	Experiential-Learning26.7	PSY-ADT	Does	BL,LRI

Practical Training Activity

Practical Training 26.1 Clinical implications of Magnetic Resonance Imaging (MRI)

Total Learning Hours 04 Hours

Activity 1 - Demonstration in Lab/Hospital Setting (02 Hours)

The teacher will Demonstrate correct patient positioning techniques for different MRI scans while applying safety protocols, including the screening of metallic objects and understanding contraindications for MRI to ensure patient and operator safety in Simulated patients.

Activity 2 - Hands on Training (02 Hour)

The teacher will give hands-on experience with operating MRI machines, including setting scan parameters (e.g., the field of view, slice thickness, and scan sequences) and calibrating equipment to optimize image quality and reduce artifacts in Simulated patients.

The teacher will Conduct MRI scans and analyze the resulting images, focusing on identifying anatomical structures and pathological findings Simlated patients. This may include recognizing common artifacts and adjusting techniques to improve image clarity and diagnostic accuracy.

Practical Training 26.2 Application of Positron Emission Tomography (PET) Scan

Total Learning Hours (02 Hours)

Activity 1 - Demonstration in Lab/Hospital Setting (01 Hour)

Teacher will Demonstrate the procedures for preparing and safely administering radioactive tracers to patients, as well as understanding the biodistribution and half-life of various tracers.

Teacher will explain how to set up, calibrate, and operate PET-Scan equipment, including positioning patients and optimizing scan parameters to acquire high-quality images.

Activity 2 - Reading & Interpretaion (01 Hour)

Teacher will explain the analysis of PET images to identify regions of abnormal metabolic activity, which can be indicative of tumors, neurological conditions, or cardiac issues, and work with co-registration techniques to align PET images with other modalities like CT or MRI for comprehensive assessment.

Practical Training 26.3 Digital Subtraction Angiography (DSA) in ENT.

Total Learning Hours (02 Hours)

Activity 1 - Demonstration in Lab.Hospital Setting (02 Hours)

The teacher will Demonstrate patient positioning, sterile technique, and the preparation of vascular access sites for catheter insertion, often performed in interventional radiology or surgical settings.

The teacher will explain how to inject contrast agents and operate the DSA equipment to capture dynamic, high-resolution images of blood vessels, monitoring the flow and timing of images to visualize vascular structures effectively.

The teacher will explain the application of digital subtraction techniques to remove background structures from images, enhance visualization of blood vessels, and assess images for abnormalities like stenosis, aneurysms, or blockages.

Practical Training 26.4 Applications of DNA sequencing

Total Learning Hours (02 hours)

Activity 1 - Demonstration (01 hour) powerpoint presentation

The teacher will demonstrate the extraction of high-quality DNA from various biological samples (e.g., blood, saliva, tissue), followed by purification steps to remove contaminants and prepare the sample for sequencing

Teacher will explain the use of bioinformatics tools to analyze sequencing data, including aligning sequences, detecting variants, and interpreting the functional implications of genetic information

Activity 2 - Hands on activities (01 hour)

Teacher will explain the preparation of DNA libraries, which involves fragmenting DNA, attaching adapters, and ensuring proper quantity and quality for sequencing, essential for platforms like Illumina or Next-Generation Sequencing (NGS).

Practical Training 26.5 Interpretation of the findings of the Polymerase Chain Reactions (PCR).

Total Learning Hours (02 Hours)

Activity 1 - Demonstration in Lab (02 Hours)

The teacher will demonstrate the method of Prepartion of master Mix by Ensuring that all work surfaces are clean and free from contaminants. Used sterile gloves, pipette tips, and equipment.

Prepare all necessary reagents, including the DNA template, primers, nucleotides (dNTPs), Taq polymerase, buffer solution, and sterile water & also demonstrate to Prepare the master mix

The teacher will Explain how to set the thermal cycler with appropriate parameters based on the DNA template and primers:

Discard used materials like gloves, pipette tips, and gels according to laboratory biohazard protocols.

Practical Training 26.6 X-rays, CT scans, and Angiography in ENT.

Total Learning Hours (06 Hours)

Activity 1 - Practical Demonstration in Lab/Hospital Setting (04 Hours)

Teacher will conduct high-resolution CT scans of the temporal bone to visualize fine bony structures, followed by 3D reconstruction techniques to help in surgical planning and assessment of fractures, congenital anomalies, or otosclerosis.

Teacher will plan and Perform MRI scans to assess soft tissue structures within and around the temporal bone, such as the cochlea, vestibular apparatus, and cranial nerves, which are useful for detecting inflammatory diseases, tumors, or inner ear pathologies.

The teacher will explain Using post-processing software to create 3D reconstructions and multiplanar reformatting of CT or MRI images, which helps in visualizing the complex anatomy of the temporal bone and assists in surgical planning or evaluation of abnormalities

Activity 2 - Powerpoint presentation/Demonstration (02 Hours)

Teacher will demonstrate the method of Interpreation/reading of CT scan, MRI scan of normal ear and diagnosed cases ENT diseases of old Patients through Powerpoint Presentation.

Practical Training 26.7 Analyze the procedure of Fluoresence in Situ Hybridization (FISH).

Total Learning Hours (02 Hours)

Activity 1 - Hands on Training (02 Hours)

The teacher will Demonstrate how to prepare biological samples (such as tissue sections or cell cultures) for FISH analysis, including fixing and permeabilizing cells and applying appropriate mounting techniques to ensure optimal hybridization conditions.

The teacher will plan and demonstrate Designing specific fluorescently labeled DNA or RNA probes that target particular sequences of interest and performing hybridization protocols, including the application of probes to the prepared samples, followed by incubation under conditions that facilitate binding.

The teacher will explain Using fluorescence microscopy to visualize hybridization signals, capturing images of the samples, and applying image analysis software to quantify and interpret the fluorescence signals, identifying specific genetic abnormalities or expression patterns within the sample.

Experiential Learning Activity

Experiential-Learning Learning 26.1: Magnetic Resonance Imaging Techniques.

Total Learning Hours (06 Hours)

Activity 1 - Demonstration in Lab/Hospital Setting (03 Hours)

Students will be engaged in simulation-based training to practice setting up MRI protocols for various body parts, selecting the appropriate imaging sequences, and adjusting scanning parameters. This activity helps to understand how to optimize image quality based on clinical needs and patient conditions.

Activity 2 - .Hands-on activities/Simulation-based learning (03 Hours)

Students will participate in supervised training on reading and interpreting MRI scans of the head and neck, focusing on normal and abnormal anatomy related to ENT.

Students will also conduct Hands-On MRI Safety and Patient Positioning Training: Practicing MRI safety protocols, including screening for contraindications (e.g., metallic implants) and preparing patients for MRI procedures.

These experiential activities build practical skills in MRI operation, safety, and interpretation, which are essential for the effective use of MRI in clinical practice.

Experiential-Learning Learning 26.2: Positron Emission Tomography (PET Scan) in ENT.

Total Learning Hours (03 Hours)

Activity 1 - Observance/Assistance/Real Life Experience (02 Hours)

Students will participate in supervised training sessions on handling and administering radiotracers used in PET scans, including understanding safety protocols for radioactive substances, also engage in real-time PET image acquisition to observe how radiotracer uptake helps visualize metabolic activity for ENT-related conditions, like head and neck cancers.

Activity 2 - Case Diagnosis/Lab Report Interpretation (01 Hour)

Students will Review and discuss real or simulated case studies involving PET Scan focusing on identifying pathologies relevant to ENT, such as tumors, inflammatory lesions, or vascular anomalies.

This experiential learning activity helps to develop skills in diagnostic interpretation and clinical decision-making based on imaging findings.

Experiential-Learning Learning 26.3: Digital Subtraction Angiography (DSA) in ENT

Total Learning Hours (03 Hours)

Activity 1 - Hands-on activities/Simulation-based learning (02 Hours)

The students will perform DSA procedures in a simulated environment, where practitioners learn catheter placement, contrast injection techniques, and digital subtraction processes to produce high-contrast images of blood vessels. This helps practitioners understand vascular anatomy and practice diagnosing conditions such as vascular malformations or tumors impacting ENT structures.

Activity 2 - Interpreation of lab report (01 Hour)

Students will be able to Review and discuss real or simulated case studies involving DSA imaging, focusing on identifying pathologies relevant to ENT, such as tumors, inflammatory lesions, or vascular anomalies.
Experiential-Learning Learning 26.4: Procedure of DNA Sequencing
Total Learning Hours (03 Hours) **Activity 1 - Hands-on activities: (03 Hours)** Student will be engaged in hands-on sessions that involve using gel electrophoresis to visualize PCR products, followed by sequencing techniques to analyze DNA. This includes preparing and loading gels, analyzing band patterns, and understanding sequence data to interpret results accurately. Student will Observed or conduct real-time PCR (qPCR) experiments, where students learn how to measure gene expression levels and interpret amplification curves. This experiential activity helps practitioners understand applications for diagnosing genetic conditions, infectious diseases, or gene expression analysis in clinical research.
Experiential-Learning Learning 26.5: Application of Polymerase Chain Reactions (PCR) in diagnosis of ENT diseases.
Total Learning Hours (02 Hours **Activity 1 - Workshops/Hands on Training (01 Hour)** Student will participate in lab-based workshops where they perform DNA extraction from sample tissues or cells, followed by setting up PCR reactions Student will be engaged in hands-on sessions that involve using gel electrophoresis to visualize PCR products, followed by sequencing techniques to analyze DNA. This includes preparing and loading gels, analyzing band patterns, and understanding sequence data to interpret results accurately. **Activity 2 - Observation/Assistance (01 Hour)** Student will Observe or conduct real-time PCR (qPCR) experiments to learn how to measure gene expression levels and interpret amplification curves. This experiential activity helps practitioners understand applications for diagnosing genetic conditions, infectious diseases, or gene expression analysis in clinical research.

These activities provide essential skills in molecular diagnostics and DNA analysis, preparing practitioners for laboratory and research applications in genetics and pathology.

Experiential-Learning Learning 26.6: Computed tomography (CT) and Magnetic Resonance Imaging (MRI) in Temporal bone assesement.

Total Learning Hours (06 Hours)

Activity 1 - Hands on Training/Practice of CT Scan/MRI Scan Interpretaion/Real Life Experience (03 Hours)

Students shall be posted in Radiodiagnosis department where they will learn to read & interpret computed tomography (CT) Sacn and magnetic resonance imaging (MRI) specifically for temporal bone assessment.

Students shall learn to operate imaging equipment, set appropriate scanning protocols, and understand the advantages and limitations of each modality in visualizing the intricate anatomy of the temporal bone.

Activity 2 - Literature Review/Case Review/Clincal Diagnosis (02 Hours)

Student will be engaged in multidisciplinary case review sessions where they analyze actual CT and MRI images of the temporal bone. This activity involves identifying anatomical structures, recognizing pathologies (such as cholesteatoma or otosclerosis), and discussing clinical implications, enhancing diagnostic skills and critical thinking.

Activity 1 - Simulation Lab (01 Hour)

Student will utilize simulation platforms that integrate imaging data for virtual temporal bone surgery planning. Practitioners learn to interpret imaging studies to guide surgical approaches, plan interventions, and understand the spatial relationships of critical structures, such as the facial nerve and cochlea, enhancing their surgical decision-making capabilities.

These experiential activities provide valuable hands-on experience and insights into the imaging modalities used for the temporal bone, preparing practitioners for clinical applications in ENT.

Experiential-Learning Learning 26.7: Flouresence in Situ Hybridization (FISH)

Total Learning Hours (03 Hours)

Activity 1 - Hands on Training: (02 Hours)

Students will participate in laboratory training sessions to learn how to prepare samples for FISH analysis. This includes fixing cells or tissue sections, performing hybridization with fluorescent probes, and washing and mounting slides. Practitioners gain hands-on experience with the entire FISH process, ensuring they understand each step's critical elements

Activity 2 - Workshps & Seminars (01 Hour)

Students will be engaged in workshops focused on using fluorescence microscopy to visualize and capture FISH results. Participants learn to set up the microscope, adjust filters for optimal fluorescence detection, and acquire high-quality images. This experience is essential for accurately interpreting FISH data and understanding probe localization.

Participating in sessions that teach practitioners how to analyze and interpret FISH results, including identifying specific chromosomal abnormalities or gene rearrangements. This activity involves using software for quantifying fluorescence signals and comparing results to known standards, enhancing understanding of FISH's clinical applications in diagnostics and research.

Modular Assessment

Assessment	Hour
Instructions—This module contains 2 credits, so the assessment will be for 50 marks. Keep a structured marking pattern. Use different assessment methods in each module for the semester. Keep a record of the structured pattern used for assessment. Calculate the Modular grade point as per Table 6 C. 1. Theory based long answer Question (25 Marks) Students will be evaluated to test their knowlege regarding latest methods of investigations done in the diagnosis & managemnt of ENT diseases. 2. Interpretation of given laboratory investigations and diagnostic tools in the daignosis & mangement of ENT Diseases (25 marks) Or Any practical in converted form can be taken for assessment. (25 Marks)	4

and Any experiential, such as portfolios/ reflection/ presentations can be taken as an assessment. (25 Marks)	

Semester No : 4

Module 27 : زراع قوقع الاذن، مساعد سمعیہ اور مادہ حیویہ .Zarā Q wq ‘a-al-Udhun, sā id s m iyyā ur Mā ā H iwwiyy (Cochlear Implants, Other Hearing aids & Biomaterials)

Module Learning Objectives

(At the end of the module, the students should be able to)

1. Describe the role of Cochlear Implants, Auditory Brainstem Implants, Bone Anchored Hearing Implants/Aids in managing Hearing loss.

2. Demonstrate Candidature Selection Criteria for Cochlear Implants, Auditory Brainstem Implants & Active Middle Ear Implants.

3. Conduct an assessment of the Cochlear Implant Candidates & Perform Bone Anchored Hearing Aid Surgery.

Unit 1 زراع قوقع الاذنZarā Q wq ‘a-al-Udhun (Cochlear Implants)

27.1.1. Cochlear Implant Technology & Its Principles of Action.

27.1.2. Components of Cochlear Implant Device.

27.1.3. Selection Criteria for Cochlear Implant Candidates.

27.1.4. Cochlear Implant Surgery, Device Programming.

References: 10,11,23,42,44,85,92,93

3A	3B	3C	3D	3E	3F	3G
CO2,CO3,CO4 ,CO5	Describe the Cochlear Implant & Its Principles of Action. Indications & Contra-Indications of Cochlear Implant Surgery.	2	Lecture	CAP	Knows-how	L&PPT ,BL
CO2,CO3,CO4 ,CO5	Demonstrate the Components of a Cochlear Implant and its method of Operation,Progamming & Maintenance.	2	Practical27.1	CAP	Shows-how	L_VC,D-M,BL

CO2,CO3,CO4,CO5	Demonstrate Patient Selection/Candidature Criteria for Cochlear Implant.	2	Practical27.2	AFT-REC	Shows-how	CBL,D-BED
CO1,CO6,CO7	Demonstrate Steps of Procedure of Cochlear Implant Surgery.	2	Practical27.3	PSY-GUD	Shows-how	SIM,EDU,CBL
CO1,CO6	Identification of the components of the Cochlear Implant Device & demonstration of its technique of Use & maintenance.	2	Experiential-Learning27.1	PSY-SET	Does	D-M
CO2,CO3,CO4,CO5	Conduct Assessment/Evaluation for Cochlear Implant Candidacy.	3	Experiential-Learning27.2	PSY-ADT	Does	PER,CBL
CO1,CO6,CO7	Demonstrate the steps of Cochlear Implant Surgery.	4	Experiential-Learning27.3	PSY-GUD	Shows-how	L_VC,JC,W,SIM,EDU

Unit 2 زراع سمعی جذع الدماغ.Zarā Sam'i jidh a-al-dīmāgh (Auditory Brain Stem Implants)

27.2.1. Introduction of Auditory Brainstem Implants & its Principles of Action

27.2.2. Components & Indications of Brainstem Implants.

27.2.3. Selection Criteria of Candidates for Auditory Brainstem Implants.

References: 10,12,41,42,44,71,91

3A	3B	3C	3D	3E	3F	3G
CO1,CO6,CO7	Describe Auditory Brainstem Implants, its Principles of Action,Components & Indications.	2	Lecture	CC	Knows-how	L_VC,L&PPT
CO1,CO6,CO7	Describe Steps of Procedure of Auditory Brainstem Implant Surgery.	4	Practical27.4	PSY-GUD	Shows-how	SIM,PER,EDU

CO1,CO2,CO6 ,CO7	Demonstrate Components of Auditory Brainstem Implant. Method of Asessment/Evaluation of Auditory Brainstem Implant Candidates.	3	Experiential-Learning27.4	PSY-GUD	Does	D-BED,CBL
CO1,CO6,CO7	Demonstrate the steps of the Procedure of Brainstem Implant Surgery.	3	Experiential-Learning27.5	PSY-GUD	Does	LS,W,SIM,JC,PER

Unit 3 س لی زراع الاذن الوسطی .Za rā -al-Udhun-al-wasṭ -al-nshṭā . **(Active Middle-ear Implants(AMEI).**

27.3.1. Introduction of Active Middle Ear Implants.

27.3.2. Types & Characteristics of AMEI advantages.

27.3.3. Disadvantages, Indications & Limitations of different types of AMEI

27.3.4. Pre-operative Assessment of patients.

References: 12,23,44,45,85

3A	3B	3C	3D	3E	3F	3G
CO1,CO2,CO7	Describe Active Middle-ear Implants (AMEI) and principles of action. Indications & Candidature Criteria.	2	Lecture	CC	Knows-how	L&PPT ,L_VC
CO1,CO2,CO7	Demonstrate Surgical Procedure of Various Types of Active Middle-ear Implants (AMEI). Demonstrate Components of Middle Ear Implants(AMEI), types & its method of Use.	4	Practical27.5	PSY-GUD	Shows-how	CBL,SIM,D-M
CO1,CO2	Conduct Surgical Procedures of Active Middle Ear Implant.	6	Experiential-Learning27.6	PSY-ORG	Shows-how	EDU,D-M,L_VC,SIM

Unit 4 جہازم لعظمدعل ای عت ع م لس مسا .Jhāz m sā alas-sam a tamī alal iẓm]Bone Anchored Hearing Aid (BAHA)[

27.4.1. Introduction of Bone Anchored Hearing Aid (BAHA).

27.4.2. Components of Bone Anchored Hearing Aid (BAHA) device & its types.

27.4.3. Patient Selection & Indications of BAHA.

27.4.4. Surgical Procedures of Bone-Anchored Hearing Aid (BAHA) & Complications.

27.4.5. Novel developments in Implantable Bone Conduction Hearing Aids.

References: 9,10,12,23,42,44,85,91

3A	3B	3C	3D	3E	3F	3G
CO1,CO2	Describe Bone Anchored Hearing Aid, its Components, Indications, Contra-indications & Complications. Discuss Recent Advances in Bone Conduction Hearing Aids.	2	Lecture	CC	Knows-how	L_VC,L&PPT ,LS
CO1,CO2	Demonstrate Surgical Procedure of Bone Anchored Hearing Aid (BAHA).	4	Practical27.6	PSY-GUD	Shows-how	D-M,SIM,D-BED
CO2,CO3	Demonstrate the method of assessment of Bone Anchored Hearing Aid (BAHA) Candidates. Components of Bone Anchored Hearing Aid (BAHA) devices. Perform the Surgical Procedure of Bone Anchored Hearing Aid (BAHA).	5	Experiential-Learning27.7	PSY-ADT	Shows-how	SIM,D-M,JC,PER

Unit 5 .امراض اذن،انف وحلق میں مادہ حیویہ کا استعمال Amrāḍ-i-Udhun, Anf w lq m mā ā Haiwwiyy kā Ist māl. (Biomaterials used in ENT)

27.5.1. Definition, Properties of Ideal Biomaterial, Biomaterials used in ENT(Otorhinolaryngology), Classification, Advantages, Disadvantages & Uses of Biomaterials in ENT.

References: 12,85,91

3A	3B	3C	3D	3E	3F	3G

CO1,CO2	Describe Biomaterials & various types of Biomaterials used in ENT.	2	Lecture	CC	Knows-how	L&PPT
CO2,CO3	Demonstration of Biomaterials used in ENT.	2	Practical27.7	CAP	Shows-how	DL,DIS

Practical Training Activity

Practical Training 27.1 Cochlear Implant device.

Total Learning hours: 2 hours

1. Powerpoint Presentation/Video Clips: (02 hour)

The teacher will demonstrate to students the various components of the Cochlear Implant device, it's maintenance, types, and Programming through a PowerPoint presentation/ video Clips.

Practical Training 27.2 Selection criteria/Candidature for Cochlear Implant.

Total Learning Hours : 02 Hours.

1. Case Based Learning/Bedside Demonstration: (02 Hours)

The teacher will Demonstrate Candidate selection criteria for Cochlear Implant Surgery through Proper History Taking, Clinical Assessment & Interpretation of various diagnostic tools like audiological, Radiological and Laboratory.

Practical Training 27.3 Cochlear Implant Surgery.

Total Learning Hours : 02 Hours

1. Simulation/Video Clips : (02 Hours)

The Teacher will demonstrate the steps of the Procedure of Cochlear Implant Surgery using simulation/Models or Video Clips.

Practical Training 27.4 Auditory Brainstem Implant Surgery.
Total Learning Hours: 04 Hours 1. **Hands on Training with Equipement/ Demonstration through Video Clips: (02 Hours)** The Teacher will demonstrate the various components of Auditory Brainstem Implant its compents, technique of use and its functioning through Powerpoint Presentation/Video Clips. 2.**Powerpoint Presentation with Video Clips**: **(02 Hours)** The teacher will demonstrate the criteria for the selection of candidates for Auditory Brainstem Implants its pre-operative, steps of Surgery & post-operative management through Videoclips/Powerpoint presentation.
Practical Training 27.5 Active Middle-ear Implants (AMEI).
Total Learning Hours: 04 Hours **1. Bedside Demonstration/Case-based Learning: (01 Hour)** The teacher will demonstrate the proper method of History Taking, Evaluation & selection criteria of patients for Active middle ear Implants **2. Hands-on Practice with Equipment: (01 Hour)** The teacher will demonstrate the components of Middle ear Implants, their functioning & method of Use through PPT/Video Clips or by physical demonstration. **3. Hands-on Training: (02 Hours)** The teacher will demonstrate the steps of procedure of active Middle ear Implants on Simulation/3D Models or on real Patients.
Practical Training 27.6 Components of Bone Anchored Hearing Aid (BAHA). Surgical Procedure of Bone Anchored Hearing Aid (BAHA).
Total Learning Hours: 04 Hours **1. Hands-on Practice with Equipment: (01 Hour)** The teacher will demonstrate various components of the BAHA device, its function & method of Use in a demonstration room/ Clinical Setting

2. Case-based learning: **(02 Hours)**

The teacher will demonstrate methods of evaluation for the selection of Candidates for BAHA through a detailed assessment of the patient's hearing loss, medical history, physical examination & Interpretation of hearing tests & imaging studies.

3. Hands-on Training: (01 Hour)

The teacher will demonstrate the steps of the Procedure of Bone Anchored Hearing aids to students on simulation/video Clips or real patients.

Practical Training 27.7 Biomaterials used in ENT.

Total Learning Hours : 02 Hours

1. Powerpoint Presentation/Video Clips: (01 Hour)

The teacher will demonstrate different types of materials used in the preparation of Biomaterials in ENT through PPT Presentation/Video Clips.

2. Practical/Physical Demonstration: (01 Hour)

The teacher will demonstrate/show various types of biomaterials Like Teflon, Titanium, Collagen, Tissue glues, silicone, etc used in the management of ENT diseases in a Museum/Demonstration lab.

Experiential Learning Activity

Experiential-Learning Learning 27.1: Components of the Cochlear Implant Device, technique of Use, maintenance and Programming.

Total Learning Hours : 02 Hours

1. Powerpoint Presentation with video-clips : (01 Hour)

Students will demonstrate the Components of the Cochlear Implant device, Its technique of use & programming through PowerPoint presentation/video Clips

2. Practical Demonstartion on Model: (01 Hour)

Students will demonstrate the Components of the Cochlear Implant device, Its technique of use & programming on a Model in demosnstartion room/Museum.

Experiential-Learning Learning 27.2: Assessment/Evaluation of Candidates for Cochlear Implant Surgery.

Total Learning Hours : 03 Hours

1. Case-based Learning: (03 Hours)

Students will demonstrate the method of Selection of Cochlear Implant Candidates based on selection criteria as recommended for different age groups through

a. Correct History Taking & Clinical Examination: **(02 Hours)**

b. Interpretation of Various diagnostic Tools Like laboratory tests , Audiological Examination & Radiological tests: **(01 Hour)**

Experiential-Learning Learning 27.3: Procedure of Cochlear Implant Surgery & Post Operative Rehabilitation.

Total Learning Hours: 04 Hours

1. Observation/Assistance/Live surgical Workshops: (2 Hours 30 minutes)

Observing Cochlear Implant Surgical Procedure through Video Clips/Real-life Experience/ live surgical workshops.

2. Classroom Presentation: (01 Hour)

Students will demonstrate the Steps of the Procedure of Cochlear Implant (CI) Surgery through PPT/Video Clips.

Students will also demonstrate the proper methods of Post operative Rehabilitation like guiding patients through auditory training, speech therapy, and Post-operative care like monitoring for infection, and wound management.

3. Periodical Journal Club/Workshops/Seminars: (30 Minutes)

Periodical Journal Clubs/Workshops shall be held to update knowledge about recent advances & critically analyze the published data in the management of Hearing Loss/recent research in vogue regarding cochlear Implant technology.

Experiential-Learning Learning 27.4: Components of Auditory Brainstem Implants.

Candidacy Evaluation of Auditory Brainstem Implants

Total Learning Hours: 03 Hours

1. Classroom PowerPoint Presentation: (01 Hour)

Students will demonstrate the Indications, Components, and Principles of action of Auditory Brainstem Implant devices through classroom teaching/PPT Presentation.

2. Bedside demonstration/Case-based learning/ Presentation: (02 Hours)

The student will demonstrate the method of selection of Candidates/candidacy profile for Auditory Brainstem Implants through Proper History Taking, Clinical Examination & Interpretation of Diagnostic Tools.

Experiential-Learning Learning 27.5: Brainstem Implant Surgery.

Total Learning Hours: 03 Hours

1. Powerpoint Presentation/Video Clips: (02 Hours)

Students will demonstrate the steps of the Procedure of Auditory Brainstem Implant surgery, Indications & contraindications, method of selection of candidates through PPT presentation/video clips.

2. Periodical Journal Clubs/Seminars: (01 Hour)

Periodical Journal Clubs/Seminars shall be organized to update knowledge about recent research in Technology & Skills of Auditory Brainstem Implant surgery.

Experiential-Learning Learning 27.6: Surgical Procedures of Semi-Implantable Vibrant Soundbridge.& Fully Envoy Esteem active Middle Ear Implant.

Total Learning Hours= 06 Hours

1. Powerpoint Presentation/Video Clips: (01 Hour)

Students will demonstrate the steps of the procedure of Semi-Implantable Vibrant Soundbridge & fully Esteem active Middle ear Implant through Powerpoint Presentation/Video Clips

2. Observation/Assistance: (02 Hours)

Students will observe/Assist in the surgical Procedure of Implantation of fully Esteem active Middle Ear & Semi-Implantable Vibrant Soundbridge implants

3. Hands on Practice/Training: (02 Hours)

Students will perform the surgical procedure of Esteem active Middle Ear & Semi-Implantable Vibrant Soundbridge implants on Simulation/Models/or on real patients uder supervision of a teacher.

4. Journal Clubs/seminars: (01 Hour)

Journal Clubs/seminars will be held to update knowledge about recent research in technology/development of New Middle Implant Devices & threadbare discussions on recent research publications on the Management of Hearing Loss.

Experiential-Learning Learning 27.7: Bone Anchored Hearing Aids (BAHA).

Total Learning Hours: (05 Hours)

1. Demonstration/Practical: (1 Hour)

Students will demonstrate the components of BAHA, its functioning, Maintenance & method of use in a demonstration room.

2. Bedside Demonstration: (1.5 Hours)

Students will demonstrate the method of Selection of Candidates for BAHA through Proper History Taking, Clinical Examination & Interpretaion of diagnostic tools

3. Hands-on Practice: (02 Hours)

Students will demonstrate the steps of the Procedure of BAHA Surgery and conduct surgery in Simulation or on real patients under the supervision of a teacher.

4. Journal club meetings/seminars: (30 Minutes)

Journal Club Meeting/Seminars Shall be held periodically to discuss recent advances in Bone Anchored Hearing Aid (BAHA) technology.

Modular Assessment

Assessment	Hour
Instructions— This module contains 02 credits so the assessment will be for 50 marks. Keep a structured marking pattern. Use different assessment methods in each module for the semester. Keep a record of the structured pattern used for assessment. Calculate the Modular grade point as per Table 6 C. 1. Case-based evaluation (50 Marks)	4

a. Assesement & Clinical Examination of a case of Hearing Loss (25 Marks) b. Method of selection of candidates for relevant hearing aid (cochlear Implant, Active middle ear Implants (AMEI), Bone anchored hearing aid (BAHA) in the given case of hearing loss with justification. (25 Marks) Or Any practical in converted form can be taken for assessment. (25 Marks) and Any experiential, such as portfolios/ reflection/ presentations can be taken as an assessment. (25 Marks)	

Module 28 : راس،مہ کی عمل جرا.Rās, Raqaba wa Jumjuma ki amal Jīrāḥī. (Head & Neck & Skull Base Surgery

Module Learning Objectives

(At the end of the module, the students should be able to)

1. Describe Clinical Features, Diagnosis & principles of management of Head & Neck Trauma.
2. Diagnose the case of Optic Nerve Compression & Cerebrospinal fluid (CSF) leakage (CSF Rhinorrhoea & CSF Otorrhoea)
3. Perform Endoscopic surgery in treating Cerebrospinal fluid (CSF) leakage (CSF Rhinorrhoea & CSF Otorrhoea) & Surgical reduction of Optic Nerve decompression.

Unit 1 ضربی ہی جت ی فک اور ضرر رقبہ.ar ī Ja h Fakkī aur ḍarar Raqaba. (Facio-maxillary trauma & Neck Injury)

28.1.1. Introduction of Soft Tissue Head & Neck Injury.

28.1.2. Introduction of Bony Injuries. (Fractures of Facial & Nasal Bones. Evaluation of Facial bone Fractures).

28.1.3. Nasal bone Fractures: Classification & Patho-physiology. Pattern of Nasal Fractures, Clinical Presentation, Investigations & treatment.

28.1.4. Facial Fractures: Introduction of Fractures of Facial Bones, Clinical Presentation, Investigations & management.

References: 9,10,11,12,43,45,85,91

3A	3B	3C	3D	3E	3F	3G

CO1,CO2,CO3,CO4	Describe the Clinical Features, Investigations & Principles of Management of Facio-maxillary Trauma & Neck Injury.	2	Lecture	CC	Knows-how	L&PPT
CO2,CO3,CO4	Demonstrate the Procedure for Surgical reduction of various types of fractures of facial bones in Facial trauma.	4	Practical28.1	PSY-GUD	Shows-how	D-M,CBL,SIM
CO2,CO3,CO4	Conduct the Procedure for surgical reduction of fractures of Facial bones.	6	Experiential-Learning28.1	PSY-ADT	Shows-how	SIM,CBL,CD

Unit 2 ضررن خفۃ قحفرہ .Ḍarar hufrā Qaḥfīyyā .(Cranial Fossae Injury)

28.2.1. Introduction to Cranial Fossa Injuries, Causes of Cranial Fossa Injuries, Clinical Presentation & Investigations.

28.2.2. Cerebrospinal fluid (CSF) Otorrhoea: Causes, Clinical Presentation, Investigations & Management.

28.2.3. Cerebrospinal fluid (CSF) Rhinorrhoea: causes, Clinical Presentation, Investigations & Management.

References: 10,11,12,23,43,85,91

3A	3B	3C	3D	3E	3F	3G
CO2,CO3,CO4	Discuss the Clinical features, Investigations & Principles of management of Cranial Fossae Injury.	2	Lecture	CC	Knows-how	L&PPT
CO2,CO3,CO4	Demonstrate Endoscopic management of CSF Rhinorrhoea & CSF Otorhoea.	4	Practical28.2	PSY-GUD	Shows-how	SIM,CBL,BL
CO2,CO3,CO4	Demonstarte the methods of Evaluation and Diagnosis of Patients with Cranial Fossae Injury. Conduct Endoscopic surgery in the management of CSF Rhinorrhoea. Conduct Endoscopic surgery in the management of CSF Otorrhoea.	8	Experiential-Learning28.2	PSY-ADT	Shows-how	CBL,JC

Unit 3 استئصال النخامية. Iste'ṣāl-al-nūkhāmī. (Hypophysectomy).

28.3.1. Overview of Anatomy & Physiology of Pituitary Glands.

28.3.2. Surgical Anatomy of Pituitary Gland.

28.3.3. Hypophysectomy Techniques, Indications & Approaches.

28.3.4. Pre-operative management & Planning & Post-Operative management.

28.3.5. Complications of Hypophysectomy.

References: 9,10,11,12,23,43,45,85

3A	3B	3C	3D	3E	3F	3G
CO1,CO2	Describe Hypophysectomy its Indications and Contra-Indications.	1	Lecture	CC	Knows-how	L&PPT
CO1,CO2,CO3,CO4	Describe Trans-Sphenoidal & Trans-Cranial Surgical Approaches of Hypophysectomy,Indications & Complications.	2	Lecture	CC	Knows-how	L_VC
CO1,CO2,CO3,CO4	Demonstrate the Trans-Sphenoidal Hypophysectomy Surgical approach.	3	Practical28.3	PSY-GUD	Shows-how	SIM,CBL,D-M
CO2	Demonstrate Trans-Cranial Surgical Approach of Hypophysectomy.	3	Practical28.4	PSY-GUD	Shows-how	D-M,SIM
CO1	Perform Trans-sphenoidal Surgical Approach of Hypophysectomy.	3	Experiential-Learning28.3	PSY-ADT	Shows-how	D-M,JC,SIM
CO1,CO2,CO4	Perform Trans-Cranial Surgical Approach of Hypophysectomy.	3	Experiential-Learning28.4	PSY-ADT	Shows-how	SIM,W,CBL,D-M

Unit 4 عصب بصری کا طاع لض تخفیف .Aṣab Baṣarī ka takhfīf-al-ḍaght (Optic Nerve Decompressions)

28.4.1. Anatomical features of Optic Nerve.

28.4.2. Introduction to Optic Nerve Injury: Etiology, Pathophysiology & Injury Pattern.

28.4.3. Diagnosis of Optic Nerve Compression.

28.4.4. Management of Optic Nerve Compression: Conservative, Medical & Surgical.

References: 10,12,23,42,44,85

3A	3B	3C	3D	3E	3F	3G
CO2,CO3,CO4	Describe Clinical features, Investigations & Principles of management of Optic nerve compression.	2	Lecture	CC	Knows-how	L&PPT
CO2,CO3,CO4	Demonstrate methods of Diagnosis of Optic Nerve Compression & Surgical Procedure of Optic Nerve decompression.	4	Practical28.5	CAP	Shows-how	SIM,CBL,D-M
CO2,CO3,CO4 ,CO6	Diagnosis of Optic Nerve Decompression & Conduct Surgery of Optic Nerve Decompression.	6	Experiential-Learning28.5	PSY-ADT	Shows-how	CD,SIM,D-M

Unit 5 جراح فونو میں جدید تحقیقات و ا J rā n m J q qāt-o-′ ā ā-al-t′āh l-al-J rā(Recent Advances in Phono-surgery and Post-Operative Rehabilitation) انا صیل اا احا ی.

28.5.1. History of Phonosurgery.

28.5.2. Indications & Complications of Phono surgery.

28.5.3. Recent advances in Phonosurgery.

References: 10,12,23,43,61,89,91

3A	3B	3C	3D	3E	3F	3G

CO2,CO3,CO6	Discuss Recent advances in Phonosurgery & Post-operative Rehabilitation.	1	Lecture	CC	Knows-how	LS,L&PPT
CO2,CO3,CO6	Demonstrate Recent Advances in Phonosurgery. and Methods of Post-operative Phonosurgery Rehabilitation.	2	Practical28.6	PSY-GUD	Shows-how	CBL,DIS,PER

Practical Training Activity

Practical Training 28.1 Diagnosis & mangement of Facial Bone Fractures.

Total Learning Hours : 04 Hours

1. Bedside Demonstration/Case Based Learning: (02 Hours)

The teacher will demonstrate the method of diagnosing facial bone fractures based on Physical Examination, presenting Clinical Features coupled with radiological (X-ray, CT scan) findings & Laboratory tests.

2. Hands on Practice: (02 Hours)

The Teacher will demonstrate the steps of the procedure of surgical reduction of fractured bones on models/simulation/ or on real patients.

Practical Training 28.2 Endoscopic management of Cerebrospinal fluid (CSF) Rhinorrhoea & Cerebrospinal fluid (CSF) Otorrhoea.

Total Learning Hours : 04 Hours

1. Powerpoint presentation/vedio Clips: (1 Hour)

The Teacher will demonstrate the methods of Endoscopic surgery in the management of CSF Otorrhoea/CSF Rhinorrhoea through PowerPoint presentation/Video Clips.

2. **Practical Demonstration of Procedures on Simulation/3D Models/ Real Patients: (03 Hours)**

a. **Endoscopic Surgical management of CSF Rhinorrhoea**: (1.5 Hours)

The teacher will demonstrate the endoscopic surgical management of CSF Rhinorrhoea through Simulation/3D patients or on Real patients.

b. **Endoscopic Surgical management of CSF Otorhoea**: (1.5 Hours)

The teacher will demonstrate the endoscopic surgical management of CSF Otorrhoea through Simulation/3D patients or on Real patients.
Practical Training 28.3 Surgical Approach of Trans-Sphenoidal Hypophysectomy.
Total Leraning Hours: 03 Hours **1. Classroom Demonstration : (1 Hour)** The teacher will demonstrate the Trans-Sphenoidal Surgical Approaches of Hypophysectomy through PPT Presentation/Video Clips. **2. Hands-on Training: (02 Hours)** The teacher will Conduct the Trans-Sphenoidal approach of the Hypophysectomy procedure on Simulation/3D Models or in real patients.
Practical Training 28.4 Surgical Aproach of Trans-Cranial Hypophysectomy
Total Leraning Hours: (03 Hours) **1. Classroom Presentation/Demonstration: (01 Hour)** The teacher will demonstrate the Trans-Cranial surgical Approach of Hypophysectomy through PPT presentation/Video Clips. **2. Hands-on Training: (02 Hours)** The teacher will show the Trans Cranial surgical approach of the Hypophysectomy procedure on a Simulation/3D Model or in real patients.
Practical Training 28.5 Diagnosis of Optic Nerve Compression. Optic Nerve Decompression Surgery.
Total Learning Hours: 04 Hours **1. Bedside Demonstration: (02 Hours)** The teacher will demonstrate/Explain the method of diagnosis of Optic Nerve compression cases through the History of the patient, general physical Examination, Presenting Clinical features & Interpretation & reading of X-ray, CT Scan, MRI, and Laboratory findings. **2. Powerpoint Presentation/Video Clips: (01 Hour)** The teacher will demonstrate the steps of the surgical procedure of Optic Nerve decompression through PPT/Video Clips.

3. Hands-on Training: (01 Hour)

The teacher will show the surgical procedure of Optic Nerve decompression in simulation/3D Models or in real Patients.

Practical Training 28.6 Recent advances in Phonosurgery & Post-Phonosurgery Rehabilitation Methods.

Total Learning Hours= 02 Hours

1. Powerpoint Presentation/Video Clips/Bedside Demonstartion : (02 Hours)

The teacher will provide a detailed overview of recent advances in Phonosurgery techniques to students & various methods of post-surgical rehabilitation programs & need for speech therapists; counselors etc in the management of post-phono-surgery patients through PPT/Video Clips or in Bedside Demonstartion..

Experiential Learning Activity

Experiential-Learning Learning 28.1: Facial Bone Fractures.

Total Learning Hours : 06 Hours

1. Classroom Presentation: (01 Hour)

Students will demonstrate different types of facial bone fractures in maxillo-facial trauma/injuries through PPT presentations/videos.

2. Bed-side Demonstration/Case Diagnosis: (02 Hours)

Student will diagnose the type of fracture of facial bones based on the given Clinical Scenario (Physical Examination details, Clinical features & by reading & interpreting radiological findings (X-ray/CT scan) of patients who have suffered Facio-maxillary trauma and prepare the management plan.3. on.

3. Observation/Assistance: (1 Hour)

Students will Observe/Assist in the surgical reduction of facial bone fractures of Maxillo-facial trauma patients in an Emeragency or Operation Theratre.

4. Hands on Practice: (2 Hours)

Students will demonstrate the steps of the procedure of reduction of facial bone fractures on models/simulation or will perform the surgical reduction of facial bone fractures on real patients under the supervision of a teacher.

Experiential-Learning Learning 28.2: Cranial Fossae Injury.

Endoscopic Surgery in the management of Cerebrospinal Fluid (CSF) Rhinorrhoea & Cerebrospinal Fluid (CSF) Otorrhoea.

Total Learning Hours : 08 Hours

1. Bedside demonstration: (02 Hours)

The student will present the Correct method of History Taking & demonstrate the methods of diagnosis of Cranial fossae Injury based on Physical Examination, Clinical Features and Radiological Findings (X-ray/CT Scan/MRI).

2. Observation/Assistance: (04 Hours)

Students will Observe/Assist in Performing Endoscopic Surgery in the management of CSF Rhinorrhoea.

Students will Observe/Assist in Performing Endoscopic Surgery in the management of CSF Otorrhoea.

3. Periodical Journal Clubs/Seminars: (01 Hour)

Periodical Journal Clubs/Seminars shall be held regularly to stay connected with the latest research & Techniques in the management of CSF Rhinorrhoea & CSF Otorrhoea and critically analyze the latest publications in the management of CSF leakage and present the same in classroom discussions.

4. Live Surgical Workshops:**(01 Hour)**

Students shall attend live surgical workshops to observe new surgical techniques.

Experiential-Learning Learning 28.3: Trans-Sphenoidal Approach of Hypophysectomy.

Total Learning Hours: (03 Hours)

1. Classroom Presentation: (01 Hour)

The student will demonstrate the Surgical approach of Trans –sphenoidal surgical procedures its indications, Contra-indications & Complications of Hypophysectomy through PPT Presentation/Video Clips.

2. Observation/Assistance: **(01 Hour)**

The student will observe / Assist in Performing Trans-Sphenoidal Hypophysectomy surgical Procedures in an Operation theatre setting.

3. **Hands on Practice: (01 Hour)**

Students will conduct the Trans-Sphenoidal Hypophysectomy Surgical procedures on Simulation/3D Models.

In addition to above Journal Clubs/Seminars hall be held at regular intervals to update knowledge & discuss the latest research Publications on surgical approaches to Hypophysectomy.

Experiential-Learning Learning 28.4: Trans-Cranial Surgical Approach of Hypophysectomy.

Total Learning Hours = 03 Hours

1. Classroom Presentation: (45 Minutes)

Students will demonstrate the Surgical approach of Trans –Cranial Hypophysectomy procedure, its Indications, Complications through classroom PPT/Video Clips.

2. Observation/ Assistance: (**01 Hour)**

The student will observe or Assist in Performing Trans-Cranial Hypophysectomy surgical Procedures in an OT setting.

3. Hands on Practice: **(01 Hour)**

Students will conduct the Trans-Cranial Hypophysectomy Surgical procedure on Simulation/3D models.

Journal Clubs/Seminars : (**15 Minutes)**

Journal Clubs/Seminars/Workshops shall be held at regular intervals to update knowledge about recent trends in surgical approaches to Hypophysectomy & Critically analyze the latest publications on the subject and present the same in the classroom discussions.

Experiential-Learning Learning 28.5: Optic Nerve Decompression.

Total Learning Hours: 06 Hours

1. Classroom Presentation: (01 Hour)

The student will demonstrate the clinical features, diagnostic Tools of optic Nerve compression & management Protocols of Optic Nerve Decompression through PPT/Video Clips.

2. Bedside demonstration: (02 Hours)

Students will demonstrate the method of diagnosing Optic Nerve Compression by correct History Taking, correct Physical Examination, and Clinical Features & based on interpretation/reading of diagnostic tools.

3. Observation/Assistance: (01 Hour)

Students will observe/Assist in the surgical procedure of Optic Nerve decompression.

4. Hands on Practice/Training: (02 Hours)

Students will show steps of the Surgical procedure of Optic Nerve Decompression in Simulation/3D Models or in real Patients.

In addition to above Students shall be encouraged to attend Live Surgical Workshops where they observe live surgeries to learn new surgical skills.

Modular Assessment

Assessment	Hour
Instructions—Conduct a structured Modular assessment. The assessment will be for 50 marks. Keep a structured marking pattern. Use different assessment methods in each module for the semester. Keep a record of the structured pattern used for assessment. Calculate the Modular grade point as per Table 6 C. 1. Case-based evaluation (50 Marks) Each student will be given a case of Head & Neck Trauma for assesing his/her skill of its Proper clinical examination, method of diagnosis by advising relevant diagnostic tools/investigations and its management protocol. OR Any practical in converted form can be taken for assessment. (25 Marks) and Any experiential, such as portfolios/ reflection/ presentations can be taken as an assessment. (25 Marks)	4

Semester No : 5

Module 29 : طب النوم.Sleep Medicine. Tibu Alnawm

Module Learning Objectives

(At the end of the module, the students should be able to)

1. Describe the Ethio-pathophysiology of Sleep-related breathing disorders.

2. Demonstrate Methods of Evaluation of Sleep-related breathing disorders & their treatment plan.

3. Interpret Polysomnography.

Unit 1 فسیولوجیاالنوم واضطرابات التنفس المرتبطہ بالنوم Physiology of Sleep & Sleep related Breathing Disorders fisyulujia alnawm wadtirabat altanafus almurtabitat bialnawm

29.1.1. Physiology of Sleep.

29.1.2. Stages of Sleep.

29.1.3. Sleep Apnea Syndrome: Definition, Classification.

29.1.4. Obstructive Sleep Apnea: Etiology, Pathophysiology, Clinical Features, Investigations & management.

References: 10,11,12,23,85,91

3A	3B	3C	3D	3E	3F	3G
CO1,CO2,CO3	Describe Physiology of Sleep, Stages of Sleep & Sleep Related Breathing Disorders.	2	Lecture	CC	Knows-how	L&PPT
CO1,CO2,CO3	Demonstrate Signs & Symptoms, Pathophysiology & Clinical Evaluation & treatment of Sleep-related breathing disorders.	4	Practical29.1	PSY-GUD	Shows-how	CBL,D-BED,L&PPT
CO1,CO2,CO3	Diagnosis of Sleep-related breathing disorders and advise its treatment plan.	6	Experiential-Learning29.1	PSY-ADT	Does	CBL,D-BED,CD

Unit 2 الإدارۃ الطبیۃ والجراحیۃ لاضطرابات التنفس المرتبطہ بالنوم (الشخیر، انقطاع التنفس الانسدادی أثناء النوم (OSA) Medical & Surgical Management of Sleep Related breathing Disorders (Snoring, Obstructive Sleep Apnea (OSA) al'iidarat altibiyat waljirahiat liaidtirabat altanafus almurtabitat bialnawm (alshakhiru, anqitae altanafus aliansidadii 'athna' alnawm (OSA)

29.2.1. Medical Management of Obstructive Sleep Apnea.

29.2.2. Surgical management of Obstructive Sleep Apnea: Overview of surgical interventions in the management of OSA.

29.2.3. Uvulopalatopharyngoplasty (UPPP): Indications, Pre-operative & Post-operative Management, Surgical Procedure.

References: 10,11,12,23,77,85,91

3A	3B	3C	3D	3E	3F	3G
CO1,CO2,CO3	Discuss Obstructive Sleep Apnea (OSA), its Pathophysiology, Clinical Features, Investigations & management.	2	Lecture	CC	Knows-how	L&PPT ,CBL
CO1,CO2,CO3	Demonstrate Medical Management of Sleep Related Breathing Disorders	3	Practical29.2	PSY-GUD	Shows-how	D-BED,CBL
CO1,CO2	Manage Sleep-related breathing disorders (OSA, Snoring).	4	Experiential-Learning29.2	PSY-ADT	Does	RLE,CBL
CO1,CO2,CO3	Discuss Surgical Management of Sleep-Related Breathing Disorders (Snoring, Obstructive Sleep Apnea) Indications, Complications & post-operative Care.	2	Lecture	CK	Knows-how	L_VC
CO1,CO2,CO3	Demonstrate Surgical Procedure of Uvulopalatopharyngoplasty(UPPP).	5	Practical29.3	PSY-GUD	Shows-how	SIM,TBL,CBL
CO1,CO2,CO6	Describe Recent Advances in the Management of Obstructive Sleep Apnoea(OSA) Perform the surgical procedure of Uvulopalatopharyngoplasty (UPPP)	7	Experiential-Learning29.3	PSY-ADT	Shows-how	JC,CBL,SIM,D-M

Unit 3 علاج الضغط الهوائي الإيجابي المستمر (CPAP) في انقطاع التنفس أثناء النوم Continuous Positive Airway Pressure (CPAP) therapy in Sleep Apnea. eilaj aldaght alhawayiyi al'iijabii almustamiri (CPAP) fi anqitae altanafus 'athna' alnawm

29.3.1. Introduction to Continous Postive Airway Pressure (CPAP) Therapy. Mechanism of Action, Indications & Contra-Indications

29.3.2. Continous Postive Airway Pressure (CPAP) Equipment & its technique of use.

References: 10,12,23,45,85,91

3A	3B	3C	3D	3E	3F	3G
CO1,CO2,CO5	Describe Continuous Positive Airway Pressure (CPAP) therapy. Mechanism of Action & its Indications & Contra-Indications.	1	Lecture	CAP	Knows-how	L_VC
CO2	Demonstrate CPAP Equipment, technique of its use & Preparation.	2	Practical29.4	PSY-GUD	Shows-how	CBL,D-M,L&PPT
CO1,CO2	Perform Continuous Positive Airway Pressure (CPAP) therapy Technique.	3	Experiential-Learning29.4	PSY-ADT	Does	D-BED,D-M,RP,CBL

Unit 4 Polysomnography (PSG)

29.4.1. Introduction to Polysomnography.

29.4.2. Principles of Polysomnography. Instrumentation.

29.4.3. Methodology of Sleep Staging and Sleep Stage Scoring.

29.4.4. Patient Orientation/Setup.

References: 10,12,85,91

3A	3B	3C	3D	3E	3F	3G

CO1,CO2,CO3	Describe Polysomnography, its Principles & Indications.	3	Lecture	CC	Knows-how	L_VC
CO2,CO3	Demonstrate Patient setup for Polysomnography. Demonstrate Methodology of Staging & scoring of Polysomnograph.	6	Practical29.5	PSY-GUD	Shows-how	CBL,DL,SIM
CO1,CO2,CO3	Demonstrate Patient set-up for Polysomnography. Reading & Interpretation of Polysomnograph (Staging & scoring of Polysomnograph)	6	Experiential-Learning29.5	PSY-ADT	Does	SIM,RP,CBL

Practical Training Activity

Practical Training 29.1 Clinical Evaluation & Treatment of Sleep-related Breathing Disorders

Total Learning Hours: 04 Hours

1. **Powepoint Presentaion: (01 Hour)**

The teacher will demonstrate the method of Clinical Evaluation & treatment Plan to students in Classroom Presentation/Demonstration room.

2. **Case Based Learning/Bedside demonstration: (03 Hours)**

The teacher will demonstrate/Explain the methods of Evaluation/diagnosis of sleep-related breathing disorders through proper history taking, Clinical features, and Interpretation of relevant diagnostic tools to students in bedside demonstration/Clinical Class in OPD/IPD.

Practical Training 29.2 Medical Management of Sleep Related Breathing Disorders.

Total Learning Hours: 03 Hours

1. **Bedside Demonstartion: (02 Hours)**

The teacher will demonstrate/Explain the medical management of Sleep-related breathing disorders (Obstructive Sleep Apnea/Snoring) to students in OPD/IPD settings.

2. Hands on Practice: (01 Hour)

The teacher will provide practical training on how to prescribe; monitor effects & management of side effects of medications used in the management of Sleep-related breathing disorders in OPD/IPD.The teacher will also provide practical sessions on the role of Change in lifestyle in the management of Sleep-related disorders.

Practical Training 29.3 Uvulopalatopharyngoplasty(UPPP) & Post-Operative Care & Rehabilitation.

Total Learning Hours : 05 Hours

1**. Powerpoint Presentation /Video Clips: (02 Hours)**

The teacher will demonstrate the steps of the Procedure of Surgical management of Sleep-related breathing disorders (Obstructive Sleep apnoea/Snoring) to students through PPT/Video Clips.

2. Simulation/Real Patients : (03 Hours)

The teacher will Conduct the surgical Procedure of Uvulopalatopharyngoplasty (UPPP) /Snoring) on real Patients/ /Simulation/3D Models.

Practical Training 29.4 Continous Positive Airway Pressure (CPAP) Equipment, Technique of its Use & Preparation.

Total Learning Hours: 02 Hours

1. **Powerpont Presentation with video-clips: (01 Hour)**

The teacher will demonstrate the different components of CPAP Equipment, its technique of use, through Powerpoint presentation in a calssroom.

2. Hands on Practice with equipemnt/Bedside Demonstration: (01 Hour)

The teacher will show the different components of CPAP Equipment, its technique of use, Machine settings and mask fittings to students on simulating patients in demonstration room or in real patients in a hospital setting.

Practical Training 29.5 Patient Set Up & Methodology of Staging & Scoring of Polysomnograph.

Total Learning Hours: 06 Hours

1. Demonstration through PPT/Video Clips.: (02 Hours)

The teacher will explain/demonstrate the basic Principles of Polysomnography, polysomnography procedure & parameters assessed in polysomnography through PPT presentation/Video Clips.

2. Hands-on Training with Equipment : (02 Hours)

The teacher will demonstrate the method of setup of Polysomnograph equipment and its calibration.

3. Hands-on training: (**02 Hours)**

The teacher will explain the scoring of polysomnography and the method of interpretation of polysomnography report i.e.; Electroencephalography, Electrooculography & electromyography parameters in the diagnosis of sleep-related disorders.

Experiential Learning Activity

Experiential-Learning Learning 29.1: Diagnosis and management of Sleep Related Breathing Disorder.

Total Learning Hours: 06 Hours

1. Classroom Presentation: (02 Hour)

Students will present the clinical features; methods of diagnosis & management plan of Sleep-related breathing disorders through a PPT Presentation.

Students will maintain a record of at least 05 cases of sleep-related breathing disorders and will present the same in classroom discussions.

2. Case Diagnosis: (04 hour)

Students will demonstrate the correct method of History Taking

General Physical Examination

Systemic Examination

Advise relevant diagnostic tools/investigations necessary for the diagnosis of sleep-related breathing disorders(OSA/Snoring).

Advise the relevant treatment plan (Medical Management or Surgical Intervention) on the basis of Signs/Symptoms & interpretation of Investigations.

Experiential-Learning Learning 29.2: Management of Sleep-related breathing disorders (Obstructive Sleep Apnoea (OSA), Snoring)

Total Learning Hours: 04 Hours

1. Bedside Demonstration/Case-based Learning: (02 Hours)

Students will advise medical treatment in the diagnosed case of sleep-related breathing disorders (OSA/Snoring) in OPD/IPD under the supervision of a teacher.

2. Counselling seesions for Patients: (01 Hour)

Students will counsel patients on sleep hygiene methods like weight reduction, healthy sleeping habits, quitting smoking etc,

3. Journal Clubs/seminars: (01 Hour)

Journal Clubs shall be organized to analyze the recent research articles published in Sleep-related breathing disorders and present the same in the classroom discussions.

Experiential-Learning Learning 29.3: Obstructive Sleep Apnoea & its surgical Management. (Uvulopalatopharyngoplasty (UPPP)

Total Learning Hours: 07 Hours

1. Classroom Presentation-video Clips.: (02 Hours)

Students will provide a comprehensive overview of surgical interventions in the management of Sleep-related breathing disorders in Classroom-PPT.

2. Observation/Assistance: (02 Hours)

Students will observe/assist in the surgical procedure of Uvulopalatopharyngoplasty (UPPP) in OT settings.

3. Hands-on Practice: (02 Hours)

Students will conduct the Uvulopalatopharyngoplasty (UPPP) surgical procedure on real patients/Simulations under supervision.

4. Periodical Journal Clubs/workshops: (01 Hour)

Periodical Journal Clubs/workshops shall be held at regular intervals to discuss the Latest Published research papers to update knowledge & Skills in the Surgical management/Techniques of sleep-related breathing disorders.

Experiential-Learning Learning 29.4: Continuous Positive Airway Pressure (CPAP) therapy.

Total Learning Hours: 03 Hours

1. Practical Demonstration/Hands on Practice with Equipment: (01 Hour)

Students will identify the components of Continuous Positive Airway Pressure (CPAP) Equipment.

2. Simulation/Role Plays: (1 Hour 30 minutes)

Students will demonstrate the Technique of using of CPAP machine through Role plays/Simulations/real patients.

3. Journal Clubs/Seminars: (30 Minutes)

Periodical Journal clubs/seminars shall be held to crictically review the latest research publications on CPAP therapy and discuss its role in the management of sleep-related breathing disorders.

Experiential-Learning Learning 29.5: Polysomnography.

Total learning Hours: 06 Hours

1. Classroom Presentation/Demonstration: (02 Hours)

Students will demonstrate the principles of Polysomnography, components of polysomnography, and parameters assessed in Polysomnography through PPT Presentation/Video Clips.

2. Hands-on Practice: (**01 Hour)**

Students shall perform a Polysomnography Procedure on simulated patients or real patients.

3. Polysomnogram (PSG) report Reading & Interpretation: (02 Hour)

Students shall read & interpret the polysomnograph report for its staging & scoring.

4. Journal Clubs/Seminars: (01 Hour)

Periodical Journal Clubs shall be organized to have up-to-date knowledge about new techniques/new research going on in the field of Sleep Study methods.

Modular Assessment

Assessment	**Hour**

Instructions—Conduct a structured Modular assessment. The assessment will be for 50 marks. Keep a structured marking pattern. Use different assessment methods in each module for the semester. Keep a record of the structured pattern used for assessment. Calculate the Modular grade point as per Table 6 C. 1. Theory based question (25 Marks) Students will be evaluated on the basis of theory based question regarding the Patho-physiology of sleep related disorders, their clinical features & methods of Diagnosis. 2. Interpretaion of a given polysomnography report (25 Marks) Students will be evalauated by giving them a polysomnography report and interpet its findings. Or Any practical in converted form can be taken for assessment. (25 Marks) and Any experiential, such as portfolios/ reflection/ presentations can be taken as an assessment. (25 Marks)	4
Module 30 : المعرفة الأساسية لعلم الأورام في أمراض الأذن عناف حلق Basic Knowledge of Oncology in Amraz-e Uzn Anaf Halq almaerifat al'asasiat lieilm al'awram fi 'amraz 'azn eanaaf halaq	
Module Learning Objectives (At the end of the module, the students should be able to) 1. Describe Etiopathogenesis, Clinical Features Classification of Head & Neck cancers,Chemotherapy, Principles of action of Various Chemotherapeutic agents, and their side effects. 2. Demonstrate various methods of radiotherapyof Head & neck Cancers by the correct method of History Taking, Physical Examination & Choosing relevant investigations. 3. Identify Common Side effects of Chemotherapy & radiotherapy and their management plan.	
Unit 1 Tumor Biology of Head & Neck Cancers 30.1.1. Principles of Tumor Biology. 30.1.2. Introduction about Cell Cycle.	

30.1.3. Tumour Growth Cell Signal, Metastatic Spread, mechanism of Cell Death. Tumour biomarkers.

References: 10,11,12,23,28,85,91

3A	3B	3C	3D	3E	3F	3G
CO1,CO2,CO3 ,CO5	Discuss Etiopathogenesis, Clinical Features & Investigations & diagnosis of Head & neck Cancers.	2	Lecture	CC	Knows-how	L&PPT ,L
CO1,CO2,CO3 ,CO5	Describe the Stages and TNM Classification of Head & Neck Cancers.	1	Lecture	CC	Knows-how	L&PPT ,L&GD
CO1,CO2,CO3 ,CO5,CO6	Demonstrate History Taking, Physical Examination & methods of diagnosis of Head & Neck Cancers. Demonstrate Screening methods & management protocols for various types of Head & neck Cancers.	6	Practical30.1	AFT-RES	Shows-how	CBL,D-BED,TBL
CO1,CO2,CO3 ,CO6	Demonstrate Proper History taking, Physical Examination, Clinical diagnosis, Screening methods & management plan for Head & neck Cancers.	6	Experiential-Learning30.1	PSY-ADT	Does	CD,FV,CBL
CO1,CO2,CO3 ,CO5	Demonstrate Brachytherapy, Teletherapy, Molecular Radiotherapy, Photodynamic Therapy, Stereotactic Radiosurgery(Gamma Knife)	4	Practical30.2	CAP	Shows-how	PER,D-M,SIM
CO1,CO2,CO3 ,CO5	Perform Brachytherapy, Teletherapy Molecular Radiotherapy, Photodynamic Therapy & Gamma Knife Techniques.	6	Experiential-Learning30.2	PSY-SET	Shows-how	SIM,RLE,L&PPT ,D-M,DL

Unit 2 Chemotherapy & Chemotherapeutic Agents

30.2.1. Definition of Chemotherapy.

30.2.2. Chemotherapeutic Agents/Drugs & Their Classification

30.2.3. Methods of Administration, Dose & dosage, Uses, advantages & Toxicity of Chemotherapy in Head & neck Cancers:

30.2.4. Chemotherapy Strategies/Modalities.

30.2.5. Novel therapies i.e.; Targeted therapy, monoclonal antibodies.

References: 10,12,28,85,91

3A	3B	3C	3D	3E	3F	3G
CO1,CO2,CO3,CO5	Discuss the Principles of the Cell Cycle and its Application in the Management of Malignancy.	1	Lecture	CC	Knows-how	L&PPT
CO1,CO2,CO3,CO5	Describe Chemotherapy & its various Types. Discuss Chemotherapeutic Agents/Classes Used in the Treatment of Head & Neck Cancers, Their Mechanism of Action & Side Effects.	2	Lecture	CC	Knows-how	L&PPT
CO1,CO2,CO3,CO5	Demonstrate various types of Chemotherapy Routes of administration of various Chemotherapeutic agents & management of Side Effects. Chemotherapy Protocols in Head & neck Cancers	6	Practical30.3	CAP	Shows-how	FC,CBL,L_VC
CO1,CO2,CO3,CO5	Perform Chemotherapy Sessions. Identification & Management of Common Side Effects of Chemotherapy. Identify measures/strategies to improve treatment outcomes of Patients on Chemotherapy	8	Experiential-Learning30.3	PSY-ADT	Does	TBL,CBL,RLE

Unit 3 Radiation therapy (Radiotherapy) in Head & neck Cancers

30.3.1. Introduction of Radiation Therapy (Radiotherapy)

30.3.2. Effects of radiation, Sources of Radiation.

30.3.3. Types of Radiation Application of Radiotherapy & Complications of Radiotherapy. Radio-receptors and Radio-sensitizers.

References: 10,12,28,85,89

3A	3B	3C	3D	3E	3F	3G
CO1,CO2,CO3 ,CO5	Describe the Principles of Radiation Therapy, Sources of radiation, and Types of radiation therapy. Indications & its Side Effects.	2	Lecture	CC	Knows-how	L&PPT

Unit 4 New Radiographic Techniques

30.4.1.Teletherapy.

30.4.2. Brachytherapy.

30.4.3. Molecular Radiotherapy.

30.4.4. Photodynamic Therapy & Use of Gamma Knife.

References: 10,11,12,28,85,91

3A	3B	3C	3D	3E	3F	3G
CO1,CO2,CO3 ,CO5	Demonstrate Dose, Techniques, Patient Setup & Delivery methods of Radiotherapy.	4	Practical30.4	CC	Shows-how	CBL,L_VC,TBL,SIM
CO1,CO2,CO3 ,CO5	Perform Delivery Methods of Radiation Therapy. Identify & monitor Side effects of Radiation therapy & their management.	6	Experiential-Learning30.4	PSY-GUD	Does	SIM,TBL,RLE,JC
CO1,CO2,CO3 ,CO5	Discuss New advances in Radiation therapy techniques, Advantages & Disadvantages.	2	Lecture	CC	Knows-how	L&PPT

Practical Training Activity

Practical Training 30.1 Head & Neck Cancers.
Total Learning Hours: 06 Hours **1. Bedside Demonstration: (02 Hours)** The teacher will demonstrate the method of diagnosis of Head & Neck Cancers through proper History Taking, General Physical Examination, Clinical features, interpretation & reading of relevant diagnostic tools (CT scan, MRI) & Laboratory Investigations. **2. Powerpoint-Presentation/Video Clips: (01 Hour)** The teacher will also demonstrate the method of screening for various types of cancers in a given age group through PPT/Videos **3. Team-Based Learning: (03 Hours)** The teacher will demonstrate the management protocols for various types of Head & neck Cancers in collaboration with surgical/Medical/Radiation Oncologists.
Practical Training 30.2 Brachytherapy, Teletherapy, Molecular Radiotherapy, Photodynamic Therapy, Stereotactic Radiosurgery (Gamma Knife).
Total Learning Hours: 04 Hours **1. Powerpoint Presentation /Video Clips: (02 hours)** The teacher shall demonstrate the newer techniques of radiotherapy like Brachytherapy, Teletherapy, Molecular Radiotherapy, Photodynamic Therapy, and Stereotactic Radiosurgery (Gamma Knife) through PPT/Video Clips. **2. Simulation lab/Skill Lab: (02 hours)** The teacher will demonstrate the method of Brachytherapy and teletherapy Photodynamic therapy through simulation/3D models or in the Skill lab.
Practical Training 30.3 Chemotherapy & Chemotherapeutic Drugs/Agents.
Total Learning Hours: 06 Hours 1. **Classroom Presentation: (02 Hours)** The teacher will demonstrate various chemotherapy protocols for Head & neck Cancers , common side effects of Various Chemotherapeutic agents and their management through a Power-pointPresentation

2. **Hands on Practice/ Clinical training: (04 Hours)**

The teacher will demonstrate the method of administration of Chemotherapeutic Drugs, dose & dosage form in a Hospital Setting.

Practical Training 30.4 Radiotherapy.

Total Learning Hours: 04 Hours

1. Powerpoint-Presentaion with Video-Clips: (01 Hour)

The teacher shall demonstrate the techniques, and delivery methods to students through PPT/Video Clips.

2. Early Clinical exposure/Bedside Demonstration: (03 Hours)

The teacher in collaboration with the radio-oncology department shall demonstrate the patient setup, radiation delivery, positioning of beams & delivering radiations in the Radiotherapy Unit on simulations/3D models.

Experiential Learning Activity

Experiential-Learning Learning 30.1: Head & Neck Cancers.

Total Learning Hours: 06 Hours.

1. Case Diagnosis: (02 Hours)

The student will present a correct history taking & demonstrate the method of diagnosing the cases of Head &Neck Cancers through General Physical examination, local examination, & advising relevant investigations /diagnostic tools in bedside demonstration. Students will advise the treatment plan/protocol management in the diagnosed cases of Head & Neck Cancers.

2. Clinical Rotation/Field Visits: (03 Hours)

Clinical rotation or Posting in the oncology department to have real-life experience with Patients of Head & Neck Cancers.

3. Journal Club/seminars: (01 Hour)

Journal Club/seminars will be held to have insights on the recent research in the field of Head & neck cancers & discussion on published Papers on a topic shall be held.

Experiential-Learning Learning 30.2: New Radiotherapy Techniques (Brachytherapy,Teletherapy,Molecular Radiotherapy,Photodynamic Therapy & Gamma Knife).

Total Learning Hours: 06 Hours

1. Classroom Presentation: (1 Hour)

Students shall demonstrate the newer techniques of radiotherapy like Brachytherapy, Teletherapy, Molecular Radiotherapy, Photodynamic Therapy, and Stereotactic Radiosurgery (Gamma Knife) through PPT/Video Clips.

2. Simulation labs: (2 Hours)

Students will demonstrate the method of Brachytherapy, teletherapy, Phodynamic Therapy on a 3D model/Simulation.

3. Observation/Assistance: (02 Hours)

Students shall be posted in the Radio-oncology department to have hands-on experience in observing treatment plans, patient setup & delivering radiation therapy.

4. Workshops and conferences: (01 Hour)

Students shall attend workshops /conferences to gain recent knowledge about new techniques, and new research going on in radiation therapy.

Experiential-Learning Learning 30.3: Chemotherapy & management of Common Side Effects of chemotherapy drugs.

Total Learning Hours: 08 Hours

1. Classroom Presentation: (02 Hours)

Students will demonstrate the types of head & neck Cancers, Chemotherapeutic modalities & drugs used in Chemotherapy through PPT or Classroom Teaching.

2. Clinical Rotation/Field Visits: (05 Hours)

Students shall be posted in the Oncology department for real-life experience/Practical Training.

Students will diagnose the common side effects of chemotherapy drugs and advise their management.

3. Journal Clubs/Seminars: (01 Hour)

Journal Clubs and Seminars shall be held at regular intervals to discuss case studies and recent research happening in the field of Head & Neck Cancers.

Experiential-Learning Learning 30.4: Radiation therapy.

Total Learning Hours: 06 Hours

1. Classroom Presentation: (01 hour)

Students shall demonstrate the techniques, & delivery methods of Radiotherapy through PPT/Video Clips.

2. Clinical Posting (Observation/Assistance): 03 Hours

Students shall be posted in the radio-oncology department to have hands-on Practice in observing treatment plans, assisting in Patient setup & delivering radiation therapy.

3. Simulation Labs: 02 Hours

Students shall demonstrate the techniques & delivery methods on 3D Models/simulations.

In addition to above Students shall attend workshops /conferences to gain recent knowledge about new techniques, and new research going on in radiation therapy

Modular Assessment

Assessment	**Hour**
Instructions—Conduct a structured Modular assessment. The assessment will be for 50 marks. Keep a structured marking pattern. Use different assessment methods in each module for the semester. Keep a record of the structured pattern used for assessment. Calculate the Modular grade point as per Table 6 C. 1. Case-based evaluation (50 Marks) Each student will be given a case or simulated patient for bedside clinical examination or clinical video cases or lab reports to evaluate and diagnose the case with justification Or Any practical in converted form can be taken for assessment. (25 Marks)	4

and Any experiential, such as portfolios/ reflection/ presentations can be taken as an assessment. (25 Marks)	

Semester No : 6

Module 31 : الجراحات التجميلية والتجميلية المتعلقة بالأنف والحنجرة Plastic & Cosmetic Surgeries related to ENT

Module Learning Objectives

(At the end of the module, the students should be able to)

1. Describe the Basic principles of Grafting, reconstructive & cosmetic surgery, use of Lasers and plasma-rich platelets in the field of ENT.

2. Conduct the procedures of Grafting, reconstructive & cosmetic surgery related to ENT and how & when to use lasers.

3. Identify& diagnose the pre and post-treatment complications and manage these complications efficiently.

Unit 1 Grafts, Local Flaps & Reconstructive Micro Surgery.

31.1.1. History and basic Principles of Plastic and reconstructive surgery.

31.1.2. Basic Concepts of Skin Grafting and Flaps.

31.1.3. Types of Grafts &Flaps and their application.

31.1.4. Enlist the steps of Skin Grafting &useofFlaps in reconstructive microsurgery.

31.1.5. Various types of Skin Grafts & Flaps including Z-Plasty

References: 38,41,96

3A	3B	3C	3D	3E	3F	3G
CO2,CO3,CO5	Describe Grafts, Local Flaps & Reconstructive Micro Surgery and discuss the history & basic Principles of Plastic and reconstructive surgery.	2	Lecture	CC	Knows-how	FC,L_VC

CO2,CO3,CO5	Demonstrate Procedure of Skin Grafting & Flaps in reconstructive microsurgery.	4	Practical31.1	AFT-RES	Shows-how	SIM,BL
CO2,CO3,CO5	Perform various methods of Skin Grafts & Flaps including Z-Plasty.	5	Experiential-Learning31.1	PSY-GUD	Shows-how	PBL,SIM
CO2,CO3,CO5	Describe basic concepts of Skin Grafting and Flaps and types of Grafts & Flaps.	2	Lecture	CC	Knows-how	BS,L&PPT
CO2,CO3,CO5	Demonstrate Procedures of reconstructive microsurgery related to ENT.	4	Practical31.2	AFT-REC	Shows-how	CBL,D-M
CO2,CO3,CO5	Perform various methods of reconstructive micro Surgery.	5	Experiential-Learning31.2	PSY-GUD	Shows-how	W

Unit 2 Basic Knowledge of Plastic & Cosmetic Surgery related to Ear, Nose & throat

31.2.1. History of Plastic & Cosmetic Surgery in ENT.

31.2.2. Various types of Plastic & cosmetic Surgeries related to ENT & their Indications, pre & postoperative assessment.

31.2.3. Describe the steps of Otoplasty and Pinnaplasty, its complications & management.

References: 23,38,91

3A	3B	3C	3D	3E	3F	3G
CO2,CO3,CO5	Discuss the history of Plastic & Cosmetic Surgery in ENT.	2	Lecture	CC	Knows-how	JC,BS
CO2,CO3,CO5	Describe various Plastic & cosmetic Surgeries related to ENT & their Indications	2	Lecture	CC	Knows-how	BL,L&PPT

CO2,CO3,CO5	Demonstrate the steps of Procedure of Otoplasty	4	Practical31.3	AFT-RES	Shows-how	SIM,CBL
CO2,CO3,CO5	Demonstrate the steps of Procedure of Pinnaplasty	4	Practical31.4	AFT-RES	Shows-how	SIM,BL
CO2,CO3,CO5	Conduct Otoplasty surgical Procedures.	5	Experiential-Learning31.3	PSY-GUD	Shows-how	BS
CO2,CO3,CO5	Conduct Pinnaplasty Surgical Procedures.	5	Experiential-Learning31.4	PSY-GUD	Shows-how	SIM,BL

Unit 3 Lasers & Platelet Rich Plasma in Cosmetics in ENT.

31.3.1. Indications, Mechanism & application of Lasers & Platelet Rich Plasma in Cosmetic Surgeries in ENT.

31.3.2. Indications, Techniques, pre & postoperative assessment, complications & management of Lasers & Platelet Rich Plasma in Cosmetics surgeries in ENT.

References: 11,45,96

3A	3B	3C	3D	3E	3F	3G
CO2,CO3,CO5	Describe the Indications, Mechanism & application of Lasers & Platelet Rich Plasma in Cosmetic surgeries in ENT.	2	Lecture	CC	Knows-how	L_VC,L&PPT
CO2,CO3,CO5	Demonstrate Procedure/Technique of use of Lasers & Platelet Rich Plasma in Cosmetics surgeries in ENT.	4	Practical31.5	AFT-RES	Shows-how	SY,CBL
CO2,CO3,CO5	Perform the procedure of Lasers & Platelet Rich Plasma in cosmetics in ENT.	6	Experiential-Learning31.5	PSY-GUD	Shows-how	D-M,SIM

Practical Training Activity
Practical Training 31.1 Practice the types of Skin Grafting & Flaps in reconstructive microsurgery.
Total learning hours - (04 hours) **Activity 1 - Overview & Flap Planning Workshop (45 minutes) Case based learning, Interactive Lecture** Teacher will Demonstrate Introduce the principles of skin grafts (split and full-thickness) and local flaps, discuss flap classifications, blood supply (random vs axial), and indications, technique of harvesting various types of skin grafts (e.g., split-thickness or full-thickness) from donor sites, ensuring proper methods to minimize complications and optimize healing **Activity 2 - Hands-On Skin Grafting Techniques (1 hour 15 minutes), Simulation-Based Practical Stations** Teacher will plan and demonstrate how to harvest, prepare, and inset both STSG and FTSG.properly, learn meshing, fixation (tie-over dressing), and donor site management.apply and secure grafts to recipient sites, including techniques for suturing, tacking, or using biological adhesives, and ensuring the graft is appropriately positioned for optimal integration and healing., handling surgical instruments. **Activity 3 - Local Flaps: Rotation, Transposition, Advancement (1 hour) Small Group Practical with Marking, Suturing** Teacher will Demonstrate the design of local flaps based on vascular supply and the defect's characteristics, considering factors such as size, shape, and tension on surrounding tissues Teacher will plan and demonstrate the surgical techniques for elevating local flaps, ensuring preservation of blood supply, and insetting the flap into the defect, with attention to tension-free closure and aesthetic considerations Teacher will explain the viability of local flaps postoperatively, including evaluating perfusion, colour changes, and monitoring for signs of necrosis or complications **Activity 4 - Z-Plasty Demonstration & Practice (1 hour) Video Demonstration + Hands-On Practice** Teacher will explain and develop skills in assessing graft viability and managing postoperative care, including monitoring for complications such as infection, hematoma, or graft failure, and implementing appropriate interventions as needed. Teacher will explain and understands tissue rearrangement in scar revision and contracture release, Execute Z-plasty with different angles and flap transposition.

Student keep the record of the cases assisted or observed.

Student make a logbook of the assisted or observed cases .

Practical Training 31.2 Reconstructive microsurgery procedures related to ENT.

Total learning hours - (04 hours)

Activity 1 - ENT-Specific Microsurgery Overview & Case-Based Discussion (0.5 hour) Interactive Lecture, Case Scenarios

Teacher will review anatomy and principles of ENT reconstructive microsurgery, understand indications for free flaps in head and neck surgery. Demonstrate the detailed visuals of ENT defects and flap reconstructions, microsurgical techniques using surgical microscopes, including delicate tissue handling, microvascular anastomosis (joining small blood vessels), and employing fine suturing techniques to ensure successful reconnections.

Activity 2 - Microsurgical Skill Station (1 hour 30 minutes) Hands-On Microsurgery Lab Simulation

Teacher will demonstrate and student practice microvascular anastomosis relevant to ENT free flap procedures, Improve handling of fine instruments and microscope skills on workstations with synthetic or animal models. Teacher will plan and demonstrate vascular anastomosis, including end-to-end and end-to-side connections of blood vessels, which are critical for successful free flap procedures. Teacher will perform and explain simulation exercises or using animal models to practice complex reconstructive microsurgical procedures, focusing on precision, suturing techniques, and the management of tissues at the microscale level.

Activity 3 - Flap Harvest & Insetting Simulation (ENT-focused) (1 hour) Model-Based Workshop/Group Practical

Teacher will assign a case to the small group of students after demonstration and student will do the preparation as discussed or demonstrated by the teacher like PAC, part preparation, proper explanation regarding anaesthesia, surgical procedure, planning and elevation of common ENT flaps, Practice designing, harvesting, and insetting flaps pre and post operative complications etc on foam models to simulate flap design and inset on 3D printed or mannequin heads.. students will also take written and informed consent on the prescribed proforma.

Students will give special emphasis on anatomical orientation and flap inset to reconstruct ENT defects.

Activity 4 - Operative Video Demonstration with Structured Debrief (1 hour) High-Resolution Operative Video/Group Debrief

Teacher will demonstrate and student observed or assisted ENT microvascular procedure (e.g., oral cancer reconstruction with free flap) the surgery and learn intraoperative decision making and surgical precision and complication management on real patients or with audio-visuals.

Practical Training 31.3 Surgical procedure on Ear
Total Learning hours (04 hours) **Activity 01 - Brief & Interactive Lecture Review on Surgical anatomy and its Principle (0.5 hour) Interactive Lecture, Case-Based Learning** Students will understand the surgical anatomy of the ear with slides or real/cadaveric/simulated images. Students divided into small groups to review anatomy, Pre operative preparation, Indications contraindications, techniques, and its complications. **Activity 02 - Surgical Planning & Consent Role Play (1 hour) Case based learning, Discussion, Demonstration** Teacher will demonstrate pre anaesthetic workup of the patient suturing material used and its techniques, safe manipulation of Cartilage and steps of pinnaplasty. Students will learn the activities demonstrated by the teacher on simulators or working stations. Teacher will assign a case to the small group of students after demonstration and student will do the preparation as discussed or demonstrated by the teacher like PAC, part preparation, proper explanation regarding anaesthesia, surgical procedure, pre and post operative complications etc. students will also take written and informed consent on the prescribed proforma. **Activity 3- Cadaveric or Live or audio-Visual Demonstration (1 hours 30 min) Live Demonstration or recorded high quality video, Virtual 3D platform** Teacher will demonstrate and student observed or assisted the surgery and learn steps of Otoplasty, proper dissection method, proper handling of viscera for e.g cartilage etc, how go achieve complete haemostasis manage per operative complication and closure of the wound on real patients or with audio-visuals. Student will maintain a Logbook to keep the number of surgeries assisted/ observed with date **Activity 4 - Postoperative Care and Complication Management Workshop (1 hour) Case Based Discussion, Demonstration** Teacher will discuss and demonstrate on postoperative care routines, recognizing complications (e.g., hematoma, infection), and its management strategies to prepare students for effective postoperative monitoring and intervention. These activities provide foundational knowledge and practical skills necessary for understanding plastic and cosmetic surgery within the ENT specialty
Practical Training 31.4 Pinnaplasty
Total Learning hours (04 hours) **Activity 01 - Brief & Interactive Lecture Review on Surgical anatomy and its Principle (0.5 hour) Interactive Lecture, Case-Based Learning**

Students will understand the surgical anatomy of the ear with slides or real/cadaveric/simulated images. Students divided into small groups to review anatomy, Pre operative preparation, Indications contraindications, techniques, and its complications.

Activity 02 - Surgical Planning & Consent Role Play (1 hour) Case based learning, Discussion, Demonstration

Teacher will demonstrate pre anaesthetic workup of the patient suturing material used and its techniques, safe manipulation of Cartilage and steps of pinnaplasty. Students will learn the activities demonstrated by the teacher on simulators or working stations.

Teacher will assign a case to the small group of students after demonstration and student will do the preparation as discussed or demonstrated by the teacher like PAC, part preparation, proper explanation regarding anaesthesia, surgical procedure, pre and post operative complications etc. students will also take written and informed consent on the prescribed proforma.

Activity 3 - Cadaveric or Live or audio-Visual Demonstration (1 hours 30 min) Live Demonstration or recorded high quality video, Virtual 3D platform

Teacher will demonstrate and student observed or assisted the surgery and learn steps of Pinnaplasty, proper dissection method, proper handling of viscera for e.g cartilage etc, how go achieve complete haemostasis manage per operative complication and closure of the wound on real patients or with audio-visuals.

Student will maintain a Logbook to keep the number of surgeries assisted/ observed with date

Activity 4 - Postoperative Care and Complication Management Workshop (1 hour) Case Based Discussion, Demonstration

Teacher will discuss and demonstrate on postoperative care routines, recognizing complications (e.g., hematoma, infection), and its management strategies to prepare students for effective postoperative monitoring and intervention.

Practical Training 31.5 Technique of Lasers & Platelet Rich Plasma in Cosmetics surgeries in ENT.

Total Learning hours (04 hours)

Activity 1 - Hands on Laser practice on simulation models (01 hour)

Teacher will demonstrate and give hands on training on various types of lasers (CO_2, Er:YAG, or diode lasers etc) on simulation models. Trainees use synthetic or animal tissue models to practice precise incisions, ablation, and resurfacing and also understands the importance of patient assessment, setting adjustments and post treatment care for proper results and minimize complications

Activity 2 - PRP Preparation and Injection Technique Lab (01 hour) Powerpoint Presentation, Demonstration

Teacher will plan and demonstrate process of extraction of platelet rich plasma (PRP) using centrifuge and inject it into targeted areas like face scalp etc.

Activity 3- Live or Recorded Procedure Demonstration (02 hours) Powerpoint Presentation, Video Demonstration

Teacher will demonstrate or student watch live-streamed expert technique in real-world like laser-assisted rhinophyma treatment or PRP in post-rhinoplasty scar management etc

Experiential Learning Activity

Experiential-Learning Learning 31.1: Methods of Skin Grafts & Flaps including Z-Plasty.

Total learning hours - (05 hours)

Activity 1 - Interactive Demonstration & Planning Workshop (1 hour) Mini-Lecture, Group-Based Simulation

Student will review and plan the Pre-operative preparations, indications, types, and principles of skin grafts and flaps (split-thickness, full-thickness, rotation, advancement, transposition). Review flap planning concepts including vascularity, tissue laxity, and tension lines by short interactive lecture with real surgical photos and video clips.

Sttudents use drawing templates: trainees sketch designs (e.g., rotation flap, bilobed flap) on paper or tablet-based tools to practice flap and grafts reconstruction.

Activity 2 - Hands-On Workshop: Skin Grafts and Flaps (2 hour 30 minutes) Simulation-Based Skill Station (Rotating Format)

Student will be engaged in multidisciplinary case review sessions to discuss complex reconstructive cases involving grafts and flaps on simulation models or animal tissues to develop their dexterity and precision in performing delicate procedures including evaluating pre-operative assessments, planning surgical approaches, and reviewing post-operative outcomes.

Students will perform harvesting and application of Split-thickness skin grafts (STSG), Full-thickness skin grafts (FTSG), Local flaps: rotation, advancement, transposition with synthetic skin pads or silicone models.

Participate in hands-on workshops focused on the various techniques of grafting and local flap surgery, can work with models or cadaveric specimens to practice harvesting grafts (such as skin or fat grafts) and creating local flaps, focusing on the incision design, flap elevation, and securing grafts in place.

Activity 3 - Z-Plasty Design & Execution on Models (1 hour 30 minutes) Model-Based Marking, Suturing Practical, Case-Based Discussion

Students are able to plan and execute Z-plasty for scar revision and contracture release,utilize simulation technology to understand tissue rearrangement principles and gain confidence in flap geometry, practice incisions, flap transposition, and suturing technique, discuss real clinical cases (e.g., post-burn contractures, facial scars), compare outcomes and analyze variations.

These experiential activities provide practical skills and knowledge necessary for effectively performing grafts, local flaps, and microsurgical techniques in reconstructive surgery.

Experiential-Learning Learning 31.2: Reconstructive micro Surgery.

Total Learning hours (05 hours)

Activity 01 - Microsurgical Techniques Orientation & Case Discussion (1 hour) Interactive Lecture, Case-Based Discussion

Students will review and understands the microanatomy, principles, Pre operative preparation, Indications, contraindications, techniques and complications of microsurgery (free flap, perforator flap), magnification and instrumentation.

Activity 02 - Hands-On Microsurgical Skills Lab (2 hours), Simulation-Based Training, Bench Models under Microscope

Teacher will demonstrate pre anaesthetic workup of the patient suturing material used and microvascular techniques, develops hand eye coordination using a microscope and also master use of microinstruments and miccrrosutures like nylon 10-0. Students will learn the activities demonstrated by the teacher on simulators or working stations.

Activity 3 - Flap Design & Insetting Workshop (1 hour) Case based learning, Group-Based Planning & Simulation, Demonstration

Teacher will assign a case to the small group of students after demonstration and student will do the preparation as discussed or demonstrated by the teacher like PAC, part preparation, proper explanation regarding anaesthesia, surgical procedure, pre and post operative complications, learn geometric planning of common flaps, practice flap elevation lines, perforator identification and inset strategy etc.students will also take written and informed consent on the prescribed proforma. Student will maintain a Logbook to keep the number of surgeries assisted/ observed with date

Activity 4- Live or Video-Based Operative Demonstration (1 hour) High-Quality Video Demonstration or Live Surgery Stream

Teacher will demonstrate the sequence of reconstructive microsurgery, proper dissection method, achieving complete haemostasis manage per operative complication and closure of the wound and student observed, understands or assisted real-time troubleshooting, flap perfusion checks, and team dynamics on real patients or with audio-visuals.

Experiential-Learning Learning 31.3: Otoplasty.

Total Learning hours (05 hours)

Activity 01 - Brief & Interactive Lecture Review on Surgical anatomy and its Principle (0.5 hour) Interactive Lecture, Case-Based Learning

Students will understand the surgical anatomy of the ear with slides or real/cadaveric/simulated images. Students divided into small groups to review anatomy, Pre operative preparation, Indications contraindications, techniques, and its complications.

Activity 02 - Hands-On Simulation with Synthetic Models (1 hour 30 min) skill station, Guided simulation on synthetic ear models

Teacher will demonstrate pre anaesthetic workup of the patient suturing material used and its techniques, safe manipulation of Cartilage and steps of Otoplasty. Students will learn the activities demonstrated by the teacher on simulators or working stations.

Activity 3 - Surgical Planning & Consent Role Play (0.5 hour) Case based learning, Discussion, Demonstration

Teacher will assign a case to the small group of students after demonstration and student will do the preparation as discussed or demonstrated by the teacher like PAC, part preparation, proper explanation regarding anaesthesia, surgical procedure, pre and post operative complications etc. students will also take written and informed consent on the prescribed proforma.

Student will maintain a Logbook to keep the number of surgeries assisted/ observed with date

Activity 4-Cadaveric or VR/AR Dissection Lab (1 hour) Cadaver dissection, Virtual 3D platform

Teacher will demonstrate the steps of Surgical procedure, proper dissection method, proper handling of viscera for e.g cartilage or external ear etc, how go achieve complete haemostasis manage per operative complication and closure of the wound

Activity -5- Live or audio-Visual Demonstration (1 hour 30 min) Live Demonstration or recorded high quality video

Teacher will demonstrate and student observed or assisted the surgery and learn surgical decision making and surgical precision and complication management on real patients or with audio-visuals.

Experiential-Learning Learning 31.4: Pinnaplasty.
Total Learning hours (05 hours) **Activity 01- Brief & Interactive Lecture Review on Surgical anatomy and its Principle (0.5 hour) Interactive Lecture, Case-Based Learning** Students will understand the surgical anatomy of the ear with slides or real/cadaveric/simulated images. Students divided into small groups to review anatomy, Pre operative preparation, Indications contraindications, techniques, and its complications. **Activity 02 - Hands-On Simulation with Synthetic Models (1 hour 30 min) skill station, Guided simulation on synthetic ear models** Teacher will demonstrate pre anaesthetic workup of the patient suturing material used and its techniques, safe manipulation of Cartilage and steps of pinnaplasty. Students will learn the activities demonstrated by the teacher on simulators or working stations. **Activity 3 - Surgical Planning & Consent Role Play (0.5 hour) Case based learning, Discussion, Demonstration** Teacher will assign a case to the small group of students after demonstration and student will do the preparation as discussed or demonstrated by the teacher like PAC, part preparation, proper explanation regarding anaesthesia, surgical procedure, pre and post operative complications etc. students will also take written and informed consent on the prescribed proforma. Student will maintain a Logbook to keep the number of surgeries assisted/ observed with date **Activity 4- Cadaveric or VR/AR Dissection Lab (1 hour) Cadaver dissection, Virtual 3D platform** Teacher will demonstrate the steps of Surgical procedure, proper dissection method, proper handling of viscera for e.g cartilage etc, how go achieve complete haemostasis manage per operative complication and closure of the wound **Activity 5- Live or audio-Visual Demonstration (1 hour 30 min) Live Demonstration or recorded high quality video** Teacher will demonstrate and student observed or assisted the surgery and learn surgical decision making and surgical precision and complication management on real patients or with audio-visuals.
Experiential-Learning Learning 31.5: Lasers & Platelet Rich Plasma in cosmetics in ENT
Total Learning hours (06 hours) **Activity 1- Simulation-Based Procedure Practice (01 hour) Demonstration, Case based learning**

Students will perform laser and PRP therapy on silicone facial mannequins or synthetic skin models Including microneedling, mock laser shots, and PRP injection techniques.

Activity 2 - PRP Preparation Lab Workshop (02 hours), Power point presentation, Discussion, Demonstration

Student will be engaged in Hands on sessions for PRP preparation and safe injection techniques on simulation models, focusing on areas commonly treated in cosmetic ENT, such as under-eye areas, nasal folds, and jawline etc to enhance aesthetic results also learn to draw, centrifuge, and prepare platelet-rich plasma.

Students will Participate in workshops focused on laser techniques for facial rejuvenation, such as skin resurfacing, scar reduction, and pigment correction. They are able to learn to adjust laser parameters, understand skin response to different wavelengths, and safely apply lasers to facial areas relevant to ENT

These activities provide hands-on experience, clinical insights, and practical skills for using lasers and PRP in cosmetic ENT procedures.

Activity 3- Patient Consultation and Consent (1.5 hours) Discussion, Demonstration

Group of learners practice patient interaction scenarios: one as the ENT specialist, one as the patient.

Discuss treatment plan, benefits, risks, and obtain informed consent.

Activity 4 - Case-Based Problem Solving with Complication Scenarios (1.5 hour) Discussion, Demonstration, Bedside Teaching

Students present a real-life or simulated case, identify key findings, order relevant investigations, reach a diagnosis, and propose its management.

Modular Assessment

Assessment	Hour
Instructions—Conduct a structured Modular assessment. The assessment will be for 50 marks. Keep a structured marking pattern. Use different assessment methods in each module for the semester. Keep a record of the structured pattern used for assessment. Calculate the Modular grade point as per Table 6 C. 1. Case-based evaluation (50 Marks) Each student will be given a case or simulated patient for bedside clinical examination or clinical video cases or lab reports to evaluate and diagnose the case with justification. Or	4

Any practical in converted form can be taken for assessment. (25 Marks) and Any experiential, such as portfolios/ reflection/ presentations can be taken as an assessment. (25 Marks)	

Module 32 : Lasers, Fibre-optics, Cryosurgery, Powered Instrumentation & Other novel methods used in ENT.

Module Learning Objectives

(At the end of the module, the students should be able to)

1. Describe the recent advances in diagnosis, Pathogenesis, and treatment of ENT diseases

2. Conduct and Assist with the procedures

3. Identify the complications and their management.

Unit 1 Laser Surgery & Basics of Lasers.

32.1.1. Introduction & Principles of Laser Action. Nature of Laser Light. Laser Light Delivery Devices. Types of Lasers Used in Otolaryngology. Indications & Applications of Laser Surgery in ENT. Laser Safety.

32.1.2. Photodynamic Therapy

References: 9,11,23,85,96

3A	3B	3C	3D	3E	3F	3G
CO2,CO3,CO5	Describe Lasers & its principles of action. Components of Lasers & Laser Light Delivery Devices. Types of Lasers. Commonly Used Lasers their advantages and disadvantages.	2	Lecture	CC	Knows-how	L_VC,BS
CO2,CO3,CO5	Demonstrate the Procedure of Laser Surgery.	4	Practical32.1	CAN	Shows-how	SIM,DL

CO2,CO3,CO5	Conduct the procedure of Laser Surgery and devices with clinical applications	6	Experiential-Learning32.1	PSY-GUD	Shows-how	BL,SIM

Unit 2 Fibre-optics

32.2.1. History, Concepts, Uses, Principles of Operation, mechanisms, Advantages, and disadvantages, Applications in ENT, procedure, and steps of fibre-optics.

References: 12,41,91

3A	3B	3C	3D	3E	3F	3G
CO2,CO3,CO5	Discuss fibre optics history, concepts, uses, principles of operation, mechanisms, advantages & disadvantages and its application in the field of ENT	2	Lecture	CC	Knows-how	L&GD,TUT
CO2,CO3,CO5	Demonstrate the Procedure of application of fibre-optics	4	Practical32.2	AFT-RES	Shows-how	D,SIM
CO2,CO3,CO5	Perform the procedure and steps of fibre optics	4	Experiential-Learning32.2	PSY-GUD	Does	BL,SIM

Unit 3 Cryosurgery

32.3.1. Introduction to Cryosurgery

32.3.2. Types of Therapy: Open method & Closed system

32.3.3. Indications, Advantages & Disadvantages

References: 9,12,85

3A	3B	3C	3D	3E	3F	3G
CO2,CO3,CO5	Describe Cryosurgery, the mechanism of action. Its Indications, advantages, and disadvantages.	1	Lecture	CC	Knows-how	L&PPT ,PER
CO2,CO3,CO5	Demonstrate the clinical applications of cryosurgery & Its Procedure	2	Practical32.3	AFT-RES	Shows-how	D,SIM
CO2,CO3,CO5	Perform the Procedure of Cryosurgery.	3	Experiential-Learning32.3	PSY-GUD	Shows-how	SIM,BL

Unit 4 Powered Instrumentation

32.4.1.Coblation - Historical perspective of, its Principles of action. Components, Applications, Indications, advantages & disadvantages.procedure

32.4.2. Harmonic Scalpel- its applications Technique& Principles of action. Advantages & Disadvantages.

32.4.3. Temperature Controlled Radiofrequency Ablation (TCRFA)- Historical perspective, working unit, principles of radiofrequency, applications, types of electrosurgical instruments and radiofrequency (RF) units, advantages, complications & management of Temperature Controlled Radiofrequency Ablation (TCRFA).

References: 12,23,33,85

3A	3B	3C	3D	3E	3F	3G
CO2,CO3,CO5	Discuss the historical perspective of Coblation, its Principles of action. Applications, Indications, advantages & disadvantages.	1	Lecture	CC	Knows-how	DIS,L

CO2,CO3,CO5	Demonstrate components of the Coblation system and its applications in the management of ENT Diseases.	2	Practical32.4	AFT-RES	Shows-how	CBL,SIM
CO2,CO3,CO5	Perform Coblation procedure in the management of ENT diseases	3	Experiential-Learning32.4	PSY-GUD	Does	SIM,PBL
CO2,CO3,CO5	Describe Harmonic Scalpel its applications & Principles of action. Advantages & Disadvantages.	1	Lecture	CC	Knows-how	BL,L&PPT
CO2,CO3,CO5	Demonstrate Harmonic Scalpel Technique in the management of ENT Diseases.	2	Practical32.5	AFT-RES	Shows-how	CBL,SIM
CO2,CO3,CO5	Perform the working of Harmonic Scalpel & Its Technique.	3	Experiential-Learning32.5	PSY-GUD	Shows-how	SIM,BS
CO2,CO3,CO5	Discuss the historical perspective, working unit, principles of radiofrequency, applications, types of electrosurgical instruments and radiofrequency (RF) units, advantages, complications & management of Temperature Controlled Radiofrequency Ablation (TCRFA)	2	Lecture	CC	Knows-how	L_VC,DIS
CO2,CO3,CO5	Demonstrate the Procedure of Temperature Controlled Radiofrequency Ablation (TCRFA) in the management of ENT & Head & Neck diseases.	4	Practical32.6	AFT-RES	Shows-how	PT,SIM

CO2,CO3,CO5	Perform Temperature-controlled radiofrequency ablation (TCRFA)n the management of ENT diseases	4	Experiential-Learning32.6	PSY-GUD	Shows-how	SIM,PBL

Unit 5 Hyperbaric Oxygen Therapy In ENT

32.5.1.Introduction to Hyperbaric Oxygen Therapy. Indications & applications of Hyperbaric oxygen Therapy.

References: 12,23,41,85

3A	3B	3C	3D	3E	3F	3G
CO2,CO3,CO5	Describe the Indications, contraindications, patient selection, management and cost effectiveness of Hyperbaric oxygen therapy in ENT	1	Lecture	CC	Knows-how	L&PPT ,BL
CO2,CO3,CO5	Discuss the clinical implications of Hyperbaric oxygen therapy in ENT	2	Practical32.7	AFT-RES	Shows-how	FC,D-M
CO2,CO3,CO5	Demonstrate the use of Hyperbaric oxygen therapy in ENT	3	Experiential-Learning32.7	PSY-GUD	Does	SIM,BL

Practical Training Activity

Practical Training 32.1 Laser Surgery.

Total learning Hours - (04 Hours)

Activity 1- Laser Surgery Equipment Orientation and Safety Protocols (1 hour) Demonstration, Guided Hands-on Session

The teacher will demonstrate to Identify and differentiate types of surgical lasers, its set up and calibration of laser equipment safely, Understand laser-tissue interaction and safety zones (eye, skin, flammables), safety protocols, including the use of protective eyewear and equipment handling, to minimize risks associated with laser use in the surgical setting. This includes understanding laser classifications and the hazards associated with different wavelengths

Group-based interaction with machine and hands-on rotation to understand and practice working and safety protocols of laser equipments

Activity 2 - Stepwise Demonstration of Laser Surgery Procedure (1 hour) Video-Assisted Demonstration, Live Walkthrough

The teacher will plan and demonstrate laser parameters (such as wavelength, pulse duration, and power settings) according to tissue types and treatment goals, with step by step surgical technique, hands-on practice to understand how these variables affect laser-tissue interactions for effective outcomes, including cutting, coagulation and ablation.

Activity 3 - Hands-on Laser Surgery Simulation on Models (1 hr 15 min) Simulation-Based Practical Session

Teacher will supervise practice on tissue models or simulators for common ENT laser applications, laser aiming, incision, ablation, and coagulation such as tonsillectomy, nasal polyp removal, or laryngeal lesion treatment, to develop precision and control in using lasers for minimally invasive ENT surgeries.

Students divided into small groups and case will be allocated with rotation on skill stations under faculty supervision to apply laser in controlled movements for tissue cutting and coagulation, practice proper hand positioning, motion control, and smoke evacuation, adjust laser parameters (wavelength, pulse, power) for different tissues.

Activity 4 - Complication Management and Troubleshooting in Laser Surgery (45 minutes) Scenario-Based Group Discussion + Case Analysis

Student will present clinical scenarios involving intraoperative laser complications (e.g., thermal injury, bleeding, fire risk, eye injury) in small groups, learn safety protocols during unexpected events, reinforce proper technique and prevention of common errors

Practical Training 32.2 Application of fibre-optics

Total Learning hours (04 hour)

Activity 1 - Orientation to Fiber-Optic Instruments (1 hour) Demonstration, Hands-on Training

Teacher will demonstrate live demonstration of fiber-optic scopes (flexible & rigid), light source, fiber bundle, camera attachment, eyepiece, suction/working channel, proper handling, cleaning, sterilization methods, and maintain fibre optic cables to prevent damage, ensure signal clarity, and maintain longevity, which is essential for consistent performance in medical and diagnostic applications.

Teacher will plan and demonstrate the use of fibre optic cables in endoscopic imaging by inserting and manoeuvring flexible fibre optic endoscopes to visualize internal structures, such as the nasal passages, throat or ear, while optimizing light transmission and image quality.

Install Small working stations and assigned small groups to each working station for practical.

Activity 2 - Video Demonstration of Clinical Fiber-Optic Procedures (1 hr 15 min) Case-Based Video Demonstration

Teacher will demonstrate Clinical Applications of Fiber-Optics, its indications, contraindications, technique for fiber-optic use in ENT, anesthesia stategy, scope handling, patient positioning, and visualization techniques. Discuss clinical findings and interpretation of endoscopic images

Activity 3 - Simulated Fiber-Optic Procedure Practice (1 hr 15 min) Simulation-Based Hands-On Practice

Teacher use mannequins, airway trainers, or anatomical head models for guided insertion of fiber-optic insertion via nasal/oral route and navigation using fiber-optic scopes. Practice minimal discomfort and clear visualization techniques

Activity 4 - Clinical Integration and Emergency Use (0.5 hour) Interactive Scenario-Based Learning

Teacher will demonstrate Clinical scenarios involving Integrate fiber-optic use in patient care settings,, scope selection, positioning, and anesthesia difficult airway management, nasal bleeding, vocal cord lesion diagnosis. Response to ccomplications like fogging, bleeding, and failed intubation.

Practical Training 32.3 Clinical applications of cryosurgery

Total Learning hours (02 hours)

Activity 1 - Cryosurgery Equipment Demonstration and Handling (0.5 hour) Demonstration, audio visuals

Teacher will introduce the cryosurgical tools andgive live demonstration of cryosurgery devices (cryoprobes, cryoguns, gas tanks, contact and spray systems), proper handling and setup techniques,Safety briefing with visual aids

Activity 2 - Clinical Case Demonstration and Video presentation (0.5 hour) Case based learning, video demonstration

The teacher will plan and demonstrate how to operate cryosurgery equipment, including cryoprobes and spray devices, the procedural steps and cryotherapy techniques with a focus on maintaining safety protocols, discuss patient selection, indications, contraindications, and expected outcomes to protect both the practitioner and patient from accidental cryogen exposure or cold burns.

Activity 3 - Hands-On Cryosurgery Practice on Simulated Models (1 hour) Simulation based

Teacher will demonstrate application of basic cryosurgical techniques safely on tissue models or simulation devices to achieve controlled freezing for different depths and areas, depth, and area of freeze, learn tissue response and post-procedure care instructions which is essential for targeting lesions or unwanted tissue precisely without damaging surrounding areas.

Teacher will assess & explain the tissue response immediately after cryosurgery and during follow-up, including monitoring for tissue changes, assessing freezing adequacy, and managing potential side effects like swelling or blister formation.

These activities provide essential skills for safely and effectively performing cryosurgery.

Practical Training 32.4 Coblation system and its applications

Total learning hours - (02 hours)

Activity 1 - Coblation System Setup and Component Identification (45 minutes) Demonstration, Guided Hands-on

The teacher will demonstrate coblation system with actual components (generator, wand, suction-irrigation system, foot pedal) & Practice the safe handling and setup of Coblation wands. This includes understanding equipment-specific safety measures, activation protocols, and guidelines to prevent accidental injury.

Activity 2 - Demonstration of Coblation in ENT Procedures (45 minutes) simulation based, video demonstration, Model based

The teacher will plan and demonstrate the procedures on tissue models or animal tissue or working stations to understand the role of Coblation, observe wand manipulation, tissue response, and device handling .This helps to develop precision and control while minimizing thermal damage to surrounding tissues.

Activity 3 - Troubleshooting & Safety Protocols (0.5 hour) Problem based practical discussion

The teacher will give simulated problem solving scenarios to learn basic troubleshooting techniques for Coblation equipment, apply basic safety protocols, to understand importance of device maintenance and calibration.

These activities provide hands-on experience with specialized powered instruments, preparing practitioners for safe and effective clinical application

Practical Training 32.5 Harmonic Scalpel Technique in the management of ENT Diseases.

Total learning hours (02 hours)

Activity 1 - Device Orientation and Video Demonstration (0.5 hour) Short Lecture, Surgical Video

The teacher will Demonstrate & Practice the safe handling and setup of Harmonic Scalpels. Introduce the working principle: ultrasonic vibration-based cutting and coagulation.Show real-life applications in ENT surgeries. This includes understanding equipment-specific safety measures, activation protocols, and guidelines to prevent accidental injury.

Activity 2 - Hands-On Simulation with Tissue Models (1 hour) Practical Skill Lab on Simulators

Teacher explains and demonstrate grasping and cutting synthetic or animal tissue, Achieve safe tissue traction, blade angulation, and vessel sealing, Understand activation timing and sealing indicators

Activity 3 - Clinical Case Application (0.5 hour) Mini Case Discussion, Interactive Q & A

The teacher will plan, demonstrate and apply knowledge to ENT scenarios where Harmonic Scalpel is useful procedures on tissue models or animal tissue to understand how each device interacts with tissue, such as, the Harmonic Scalpel's ultrasonic vibrations. Discuss advantages, limitations, and thermal safety and identify risks. This helps practitioners develop precision and control while minimizing thermal damage to surrounding tissues.

Quick MCQ or oral quiz to reinforce key takeaways.

Practical Training 32.6 Temperature Controlled Radiofrequency Ablation (TCRFA) in the management of ENT & Head & Neck diseases.

Total learning hours (04 hours)

Activity 1 - Interactive Clinical Briefing + Video Demonstration (45 minutes) Interactive Lecture with powerpoint and Surgical Video Demonstration

Students understand the principles of TCRFA (thermal ablation, submucosal fibrosis, tissue shrinkage), review its indications in ENT & head/neck diseases, temperature regulation, tissue monitoring, and thermal safety.

Activity 2 - Hands-On TCRFA Simulation on Anatomical Models (1 hour 30 minutes) Simulation-Based Practical Session

The teacher will plan and demonstrate the procedures on tissue models or animal tissue to understand how each device interacts with tissue, such as TCRFA's temperature-sensitive ablation.

Activity 3 - Clinical Scenario and Device Handling Workshop (1 hour) Small Group Case-Based Discussion, Live Equipment Demonstration

The teacher will explain how to apply clinical reasoning to select patient for TCRFA and demonstrate device setup, correct probe selection and insertion, positioning, temperature setting, power caliberation and safety checks. This helps practitioners develop precision and control while minimizing thermal damage to surrounding tissues. Students learn to interpret temperature feedback and adjust settings for different tissue types and target areas.

Activity 4 - Post-TCRFA Care & Complication Management Role Play (45 minutes) Clinical Role Play, Protocol Review

Student Practice counseling of patients post-procedure for pain, crusting, healing time, Identify and manage complications like: Thermal burns, Epistaxis, Infection, Overcorrection or insufficient response.

Students make a record of the cases and post operative complications and management

These activities provide hands-on experience with specialized powered instruments, preparing practitioners for safe and effective clinical application

Practical Training 32.7 Clinical implications of Hyperbaric oxygen therapy in ENT

Total Learning Hours (02 hours)

Activity 1 - Clinical Case-Based Group Discussion 0.5 hour) Problem-Based Learning in small groups

Teacher will explain how to conduct thorough assessments of patients prior to HBOT, including evaluating medical history, specific ENT conditions (such as chronic sinusitis, radiation necrosis, or sudden sensorineural hearing loss), and contraindications. This activity emphasizes developing skills for identifying patients who would benefit from HBOT, also discuss the clinical indications, mechanisms, and outcomes of HBOT in ENT practice.

Students divided into small groups and assigned a hypothetical case to each group. then the group discuss the whether HBOT is indicated in that specific case, its evidence of benefit, timing, duration and risks

Activity 2 - Evidence Review & Debate: HBOT in ENT (0.5 hour) Journal Club, Structured Debate

Teacher will evaluate the scientific evidence and controversies around the use of HBOT in ENT,

Teacher will explain the assessment of patients post-HBOT to evaluate treatment effectiveness, monitor for any adverse effects, and adjust follow-up care, which involves conducting audiometric tests, visual examinations of nasal and throat conditions, and discussing patient-reported outcomes to assess overall improvement.

Activity 3 - Live or audio-Visual Demonstration (1 hour) Live Demonstration or recorded high quality video

Teacher will demonstrate and student observed or assisted the surgery and learn surgical decision making and surgical precision and complication management on real patients or with audio-visuals.

These activities provide essential skills and knowledge for safely and effectively utilizing hyperbaric oxygen therapy in ENT practice.

Experiential Learning Activity

Experiential-Learning Learning 32.1: Laser Surgery and its devices.

Total Learning hours - (06 hours)

Activity 1 - Laser Devices – Classification, Assembly & Clinical Relevance (1 hour 30 min) Instructor-led Demonstration, Hands-on Rotation

Student will identify laser machine components (CO_2, diode, KTP, Nd:YAG) after demonstration, classify and compare different surgical lasers and their tissue effects and practice proper techniques for setting up, caliberating and using laser devices on simulated tissues to ensure patient safety and precision during procedures. student will be able to assemble and disassemble laser machines and accessories safely

Activity 2 - Safety Protocols and Laser-Tissue Interaction Dynamics (1 hour) Interactive Workshop, Simulation

Student will be able to demonstrate Laser safety measures identify and explain the interaction between different different types of Lasers and various tissues using this knowledge to select the appropriate laser for specific surgical applications.

Students will be divided into small group of 2-3 students activity will be assigned to identifying potential hazards in simulated settings and management protocols for the identified hazard

Activity 3 - Supervised Hands-on Laser Procedures on Models (2 hours) Hands-On Simulation,

Student will perform stepwise laser procedures with precision in conducting basic laser surgical procedures such as excisions or incisions ensuring correct application of safety protocols and patient care standards on working stations, Synthetic or animal models under supervision.

Activity 4 - Clinical Application Review and Case-Based Integration (1 hour 30 min) Case-Based Discussion, Video Review

Student will be able to Identify appropriate laser indications and contraindications, Plan laser surgery based on patient condition and tissue type, perform real clinical cases under guidance using laser surgery.

Students will be divided into small group and discuss laser type selection, parameter planning, and outcome review for the alloted patient Video clips showcasing good vs. poor laser use with instructor analysis
Experiential-Learning Learning 32.2: Fibre-optics in the mangement of ENT diseases.
Total Learning hours (04 hours) **Activity 1 - Step-by-Step Orientation to Fiber-Optic Equipment (1 hour) Interactive Equipment Workshop, discussion** Students will participate in instructor led demonstration, Identify all parts of the fiber-optic system (light source, cable, scope, camera, monitor), learn stepwise setup and calibration, guided assembly/disassembly of fiber optics scopes. Safety and sterilization protocol discussion **Activity 2 - Procedural Walkthrough Using Simulation Models (1 hr 30 min) Simulation-Based Hands-On Practice** Students use airway mannequins, ENT anatomical models, or virtual endoscopy trainers for supervised scope insertion, navigate fiber-optic scope to key landmarks/target structures, maintain image clarity and control patient discomfort during the procedure **Activity 3 - Clinical Scenario-Based Role-Play (1 hour) Scenario-Based Learning** Student will be participating in workshops using fibre optic endoscopes to perform various ENT endoscopy procedures and can practice inserting and manoeuvring endoscopes on simulators/models/realistic patients to understand visualization techniques, light transmission, and the anatomy of the areas being examined. Discuss regarding route of entry, type of scope used,and patient preparation **Activity 4 - Video Review and Error Analysis (0.5 hour) Audio- visuals, group discussions** After Case based or scenario based learning student will be able to recognize common procedural errors (e.g., fogging, trauma, poor visualization), learn strategies for prevention and troubleshootingand also reinforce correct procedural sequence These experiential activities help practitioners develop practical skills and a deeper understanding of fibre optics in medical applications.
Experiential-Learning Learning 32.3: Cryosurgery in ENT disorders.
Total Learning Hours - (03 hours) **Activity - Hands-on Familiarization with Cryosurgery Equipment (45 minutes) Interactive Hands on demonstration, Group based hands on setup**

Student will be participating in hands-on demonstration of cryotherapy units to identify cryosurgery tools, its assembling, safe handling, and functioning and student can practice cryosurgical techniques on simulated tissue models to understand freezing patterns, tissue response, and how to optimize treatment for different ENT conditions with safety guidelines.

Activity 2 - Clinical Demonstration with ENT Case Videos and Models (45 minutes) Clinical Case-Based Video

Students participate in video demonstrations of ENT cryosurgical procedures, observe the procedure on anatomical models or simulators, case review sessions where practitioners discuss real or simulated cryosurgery cases, examining treatment plans, outcomes, and any complications to enhance clinical decision-making skills.

Activity 3 - Simulated Cryosurgery Practice (1 hour 30 min), Simulation based, Demonstration

Students will practice the steps of cryosurgery procedure on simulators using spray or contact probes, correct probe placement, timing, depth control proper handling, manage procedural complication and evaluate procedural performance and post-treatment care steps.

Experiential-Learning Learning 32.4: Coblation in the mangement of ENT diseases.

Total Learning hours - (03 hours)

Activity 1 - Introductory Simulation & Didactic Overview (45 minutes) Powerpoint presentation, Audio video demonstration

Student will participate in guided sessions to learn and understands the principles of coblation therapy its indications, contraindications, advantages over other modalities and review Coblation devices and settings for ENT procedures.

Activity 2 - Hands-on Simulation with Coblation Devices (1 hour 30 minutes) Simulation based, Group discussion

Student divided into small groups and participate in hands-on workshops using cadaveric specimens or simulators/ working stations to practice surgical techniques with Coblation. This activity allows students to get familiar with Coblation wands and foot pedal control, practice proper angulation, suction and tissue ablation technique in real surgical settings, focusing on tissue manipulation and ablation techniques and understanding the devices' effects on different tissue types.

Activity 3 - Case-Based Learning & Decision-Making (45 minutes) Case based learning, Group Discussion

Cases allocated to the students at bedside to take proper history of the patient and discuss the feasibility, risks appropriate coblation applications, type of wand used and anaesthesia strategy and outcomes of coblation.

Student will be reviewing real or simulated cases involving these powered instruments, where they analyse pre- and post- treatment outcomes, discuss indications, and review procedural adjustments. This helps in developing clinical decision-making skills and understanding the impact of these tools on different tissues and outcomes.

These experiential activities help build practical skills, clinical judgment, and familiarity with advanced surgical tools.

Experiential-Learning Learning 32.5: Working of Harmonic Scalpel.

Total learning hours (03 hours)

Activity 1 - Conceptual Introduction & Device Demonstration (0.5 hour) Short Lecture, Live Device Walkthrough

Teacher explains the working principle and handling of the Harmonic Scalpel (Ultrasonic vibrations at ~55,000 Hz). Simultaneous cutting and coagulation.

Familiarize students with Generator settings, Blade types (e.g., curved shear, hook), Activation techniques (foot pedal/hand trigger)

Activity 2 - Hands-On Practice on Tissue Simulators (1 hour 15 minutes) Simulation-Based Skill Station

Students will participate in hands-on workshops using cadaveric specimens to practice surgical techniques with Harmonic Scalpels. Practice grasping, cutting, and sealing tissues, safe angulation, tissue tension techniques, sealing time and signs of complete vessel closure. This activity allows Students to gain experience in real surgical settings, focusing on tissue manipulation and ablation techniques and understanding the devices' effects on different tissue types.

Activity 3 - Case-Based Application in ENT/Head & Neck Surgery (45 minutes) Surgical Video, Group Case Review

Students will engage in live demonstrations, either in the operating room or through surgical simulation labs in precise dissection, reduce intraoperative bleeding, shorter operative time where they are able to monitor real-time feedback such as temperature or power adjustments. This experiential learning allows to see expert techniques and adjust parameters based on immediate tissue effects.

Activity 4 - Postoperative Care and Complication Management Discussion (0.5 hour) Interactive Group Exercise, case based discussions Rapid-Fire Quiz

Case-based discussion on typical post-op care and potential complications (hematoma, infection).

Management strategies and emergency protocols

Students will be reviewing real or simulated patient cases involving these powered instruments, where practitioners analyze pre- and postoperative outcomes, discuss indications for each device, and review procedural adjustments. This helps in developing clinical decision-making skills and understanding the impact of these tools on different tissues and surgical outcomes.

These experiential activities help build practical skills, clinical judgment, and familiarity with advanced surgical tools.

Experiential-Learning Learning 32.6: Temperature-controlled radiofrequency ablation (TCRFA) in the management of ENT diseases

Total learning hours (04 hours)

Activity 1 - Introductory Lecture + Video Demonstration (45 minutes) Mini-Lecture by powerpoint presentation, Real-Time or Pre-recorded Surgical Video

Teacher will demonstrate to understand the basic principles of radiofrequency energy causes submucosal tissue ablation, its indication in ENT diseases e.g., turbinate reduction, snoring, sleep apnea, tonsillar hypertrophy, Recognize device settings, probe types, and thermal safety limits.

Activity 2 - Hands-on Simulation: TCRFA on Models (1 hour 30 minutes) Skill Station Using Simulated Nasal or Oropharyngeal Models

Teacher demonstrates and student perform submucosal insertion of TCRFA probes under supervision on anatomical models, Practice probe positioning, temperature settings, and footswitch control, Understand tissue response and tactile feedback.

Activity 3 - Case-Based Clinical Scenarios & Device Handling (1 hour) Problem-Based Learning (PBL), Live Demonstration of Equipment Setup

Students divided into small groups to analyze and Interpret clinical indications and select appropriate candidates for TCRFA, Learn to assemble and troubleshoot the TCRFA unit, Discuss preoperative consent and postoperative expectations, also identifies the either TCRFA is suitable or not.

Demonstrate setting up the machine, checking probe compatibility, and adjusting temperature limits.

Activity 4 - Post-Procedural Monitoring & Complication Management (45 minutes) Role-Play, Case Debrief, Discussion

Student will learn immediate and delayed post-op care after TCRFA, Identify and respond to complications like edema, pain, crusting, or thermal burns.

Student will be reviewing real or simulated patient cases involving these powered instruments, where practitioners analyse pre- and post-operative outcomes, discuss indications for each device, and review procedural adjustments. This helps in developing clinical decision-making skills and understanding the impact of these tools on different tissues and surgical outcomes, complications and management.

These experiential activities help build practical skills, clinical judgment, and familiarity with advanced surgical tools.

Experiential-Learning Learning 32.7: Hyperbaric oxygen therapy (HBOT) in ENT	
Total learning hours - (03 hours) **Activity 1 - Clinical Orientation to HBOT in ENT (45 minutes) Powerpoint Presentation, Case-Based learning** Student will participate in guided sessions where they learn principles of Hyperbaric oxygen therapy its physiology, mechanism, indications, how to operate hyperbaric chambers, including entering and exiting procedures, adjusting pressure settings, and managing oxygen delivery systems and also able to understand the technical aspects of HBOT while ensuring patient safety and comfort. **Activity 2 - HBOT Facility Walkthrough / Virtual Simulation (0.5 hour) On-site Visit to HBOT Chamber OR Virtual Tour Video/virtual simulation video** Students will be engaged in the working of Hyperbaric oxygen therapy (HBOT) simulation exercises that involve managing various patient scenarios, especially those with ENT conditions requiring HBOT. Understands patient preparation, session protocol, and safety checks.They can practice decision-making skills, communication with patients, and implementing emergency protocols, including handling potential complications like barotrauma or oxygen toxicity. **Activity 3 - Case-Based Group Discussion & Decision-Making (1 hour) Problem-Based Learning (PBL) / Small Group Discussion** Student will be engaged in case-based discussions with a multidisciplinary team, where they are able to analyse real-world scenarios involving HBOT for ENT conditions such as radiation-induced injuries, hearing loss, or sinus infections it also encourages critical thinking about treatment efficacy, patient outcomes, and potential complications, fostering collaborative learning. **Activity 4 - Patient Monitoring & Safety Simulation (45 minutes) Demonstration, Role-Play/Simulation-Based Activity** Student practice patient preparation, HBOT plan, risks, and monitoring during HBOT, Identify and respond to common complications (e.g., middle ear barotrauma, claustrophobia), Simulate patient education, pressure equalization maneuvers	
Modular Assessment	
Assessment	**Hour**

Instructions—Conduct a structured Modular assessment. The assessment will be for 50 marks. Keep a structured marking pattern. Use different assessment methods in each module for the semester. Keep a record of the structured pattern used for assessment. Calculate the Modular grade point as per Table 6 C. 1. Theory based/ Viva-voce based Examination: (20 Marks): Knowlegde of students will be asssesed through theoary based examination or viva voce regadging the recent advances in diagnosis, Pathogenesis, and treatment of ENT diseases 2. Classroom Presentation:(20 Marks) Each student will present a recent research paper on given topis in ENT diseases. 3.Literature Survey (10 Marks): Literature survey of a given topic using resources from the library and relevant online academic material. Or Any practical in converted form can be taken for assessment. (25 Marks) and Any experiential, such as portfolios/ reflection/ presentations can be taken as an assessment. (25 Marks)	4

Table 4 : Practical Training Activity

(*Refer table 3 of similar activity number)

Practical No*	Practical name	Hours
1.1	Demonstration of the art of History taking of Amrāḍ-i-Uzn, Anf wa Ḥalq case. .	2
1.2	History taking of a patient presenting with complaints related to Oral cavity and Salivary glands	2
1.3	Physical Examination of Pinna, pre & post auricular area, Eustachian tube and Otoscopic examination of External auditory canal,Tympanic membrane	2
1.4	Functional examination (Auditory & vestibular) of ear	2
1.5	Examination of the external nose, vestibule, Nasal cavity, Nasopharynx, Anterior rhinoscopy and Posterior rhinoscopy including the use of nasal speculum	2
1.6	Examination of Para nasal sinuses and Functional examination of nose	2
1.7	Examination of Lips, Buccal mucosa, Gums, Teeth, Hard palate, Tongue, Floor of mouth and Retromolar trigone	2
1.8	Examination of Parotid, Submandibular and Sublingual salivary glands	2
1.9	Examination of Tonsils, pillars,Soft palate, Uvula, Base of tongue and Posterior pharyngeal wall	2
1.10	External examination of larynx, Indirect laryngoscopy and assessment of voice.	2
2.1	Tuning fork tests and its interpretation	4
2.2	Demonstration of special tests of hearing	2
2.3	Screening procedures, Behaviour observation audiometry and Distraction techniques of assessment of hearing in infants and children	3
2.4	Conditioning techniques and Objective tests of hearing in infants and children	3
2.5	Vestibular function test like Spontaneous nystagmus, fistula test, Rhomberg test and Gait	2
2.6	Vestibular function tests like Past pointing and falling, Positional tests to assess the vestibular function and test of cerebral Dysfunction	2

2.7	Caloric test to assess the vestibular function	2
2.8	Optokinetic test,Rotation test,Galvanic test to assess the vestibular function	2
3.1	Examination of Lymph nodes of Head & Neck	2
3.2	Examination of Neck lymph nodes according to level	2
3.3	Examination of Neck mass and Neck Muscles	2
3.4	Examination of thyroid Swelling	2
3.5	Examination of Olfactory, Facial and trigeminal nerve	2
3.6	Examination of Vestibulocochlear, Glossopharyngeal,Vagus,Accessory and Hypoglossal nerve	2
3.7	Examination of a case of Facial nerve Palsy	2
3.8	Electrodiagnostic tests for facial nerve	2
3.9	Examination of a case of Head injury	2
3.10	Examination of a case of vertigo	2
4.1	Examination of a case of otalgia	3
4.2	Investigations to diagnose a case of otalgia	3
4.3	Examination of a case of Otorrhoea	3
4.4	Investigations required for a case of Otorrhoea	3
4.5	Examination of a case of Stridor	2
4.6	Investigations for a case of Stridor	2
4.7	Diagnosis of Snoring in children and adults	4
5.1	Examination and identification of Nabḍ in Amrāḍ Ṣafrāwiyya of Uzn, Anf wa Halq	2
5.2	Diagnosis of Amrāḍ Ṣafrāwiyya of Uzn, Anf wa Ḥalq on the basis of Bawl wa Barāz	2
5.3	Diagnosis of Amrāḍ Damawiyya of Uzn, Anf wa Ḥalq on the basis of Nabḍ and Bawl	2
5.4	Diagnosis of Amrāḍ Damawiyya of Uzn, Anf wa Ḥalq on the basis of Ghalaba'-i-Dam	2

5.5	Examination and identification of Nabḍ in Amrāḍ Balghamiyya of Uzn, Anf wa Halq	2
5.6	Diagnosis of Amrāḍ Balghamiyya of Uzn, Anf wa Ḥalq on the basis of Bawl wa Barāz	2
5.7	Examination and identification of Nabḍ in Amrāḍ Sawdāwiyya of Uzn, Anf wa Halq	2
5.8	Diagnosis of Amrāḍ Sawdāwiyya of Uzn, Anf wa Ḥalq on the basis of Bawl wa Barāz	2
5.9	Concept of Sū'-i-Mizāj Sāda of Uzn, Anf wa Ḥalq and its diagnosis on the basis of 'Alāmāt wa Kayfiyāt	2
5.10	Concept of Sū'-i-Mizāj Māddī of Uzn, Anf wa Ḥalq and its diagnosis on the basis of 'Alāmāt, Kayfiyāt and other Unani Uṣūl-i-Tashkhīṣ.	2
6.1	Pure tone audiometry with and without masking	2
6.2	Speech audiometry demonstration	2
6.3	Demonstration of the Impedance Audiometer	2
6.4	Tympanometry test	2
6.5	Demonstration of Electrocochleography	2
6.6	Demonstration of BERA	2
6.7	Demonstration of ASSR	2
6.8	Demonstration of OAE and Calorimetry test	2
6.9	Demonstration of ENG	2
6.10	Demonstration of VNG	2
7.1	X-rays Nose Water's view, Caldwell's view, Lateral view	2
7.2	X-ray Mastoid, Soft tissue neck lateral view for adenoids, neck mass, and styloid process	3
7.3	CT scan Nose, Para nasal sinuses, and Mastoid bone	2
7.4	CT Scan throat, larynx, head, and PET scan	2
7.5	MRI Nose and Paranasal sinuses, MRI Throat, and Larynx	2

7.6	MRI Head Axial, Coronal, and Sagittal planes	2
7.7	FNAC and CBC	2
7.8	Nucleic acid amplification tests	1
7.9	Polymerase chain reaction	1
7.10	ELIZA and CRP	2
7.11	Immunoglobulins and antinuclear antibody	1
8.1	Demonstration of Laryngoscopes and laryngoscopy	4
8.2	Diagnostic nasal endoscopy (DNE)	3
8.3	Flexible laryngoscopy	3
8.4	Bronchoscopy Demonstration	3
8.5	Flexible & Rigid esophagoscopy	3
8.6	Rhino-manometry	2
8.7	Sialoendoscopy	2
9.1	Udhn ke Khalqi awarezat (Congenital deformities of Ear) اذن کے خلقی یوارضات	4
9.2	Iltehab-e-Uzn kharji aur uski Jumla aqsam (Otitis externa and it's all types) التہاب الاذن خارجی	4
9.3	Waskhul Uzn (Ear wax) وسخ الاذن Qaziul Uzn (Foreign Body in the ear) قذی الاذن Taneen wa Dawi (Tinnitus) طنین ودوی Duwar (Vertigo) دوار	4
9.4	Deafness , Hearing Aids and Assistive devices in Hearing handicapped Patient	4
9.5	Training of Hearing handicapped Patient for lip reading, auditory training and speech conservation and rehabilitation of hearing loss in the elderly	4
10.1	Iltehab Uzn wasti (Otitis media)	4
10.2	Qanaate samiya ke Khalqi awarezat (Eustachian tube disorder) قنات سمعیہ کے عوارضات - (Eustachian catarrh) سمعیہ	4
10.3	Iltihabe Sudgi Hulmi (Mastoiditis) التہاب صدگی حلمی Khuraj-e-Sudgi Hulmi (Mastoid abscess) خراج صدگی حلمی	4

10.4	Tasallub-ul-uzn (Otosclerosis) تصلب الاذن and Salaat-ul-Uzn (Tumours of Ear) سلعات اذن	4
10.5	Iltehab tahhaya (Labrynthitis) التہاب تیہ and Menier(Menier's Disease) عارضہ مینی ار	4
11.1	Anf ke Khalqi awarezat (Congenital deformities of Nose) انف کے خلقی عوارضات	4
11.2	Iltihabe anf aur uski jumla aqsam (Rhinitis and its all types) التہاب انف اور اس کی جملہ اقسام	4
11.3	Ru'af /Nakseer (Epistaxis) رعاف نکسیر	4
11.4	Munharif fasile anf (Deviated nasal septum) منحرف فاصل انف	4
11.5	Busoor e-anf (Nasal Boils) بثور انف Qurooh-e-anf (Nasal ulcers) قروح انف	4
12.1	Iltihab Tajaweef e Anaf aur uski aqsaam (Sinusitis & its types) التہاب تجاویف انف اس کی جملہ اقسام	4
12.2	Bawaseere anf (Nasal polyp) بواسیر انف	4
12.3	Fasade Sham فساد شم -Adame sham عدم شم	4
12.4	Qazaf-ul- anf (Foreign body in the Nose) نف قذی الا	4
12.5	Salaat-ul- anf (Tumor of nose) سلعات انف	4
13.1	Congenital disorders of Larynx, pharynx , Trachea and Oesophagus (Hanjarah,Baloom,Mari wa Qasbat-u-ria ke khalqi awarizat)	4
13.2	Dysphagia and Pharyngitis	4
13.3	Adenoid hypertrophy (Ta'zzum-e-Ghudade anfi Halaqi)	4
13.4	Tumours of pharynx (Salaat Baloom)	4
13.5	Laryngitis and Tumours of larynx (Iltihab-e- Hanjrah and Salaat-e-Hanjra	4
14.1	Iltihab-e-Lauzatain (Tonsillitis) and Khuraj-e-Atrafe Laozatain (Quinsy)	4
14.2	Injuries ,tumours of oral cavity and oral Sub mucosal fibrosis	4
14.3	Voice and speech disorder and their management strategies	4
14.4	Oral Mucosal Lesions (Stomatitis, ulceration etc)	4
14.5	Salivary gland disorders	4

15.1	Sammiyat udhn (Ototoxicity)	4
15.2	Jabhi fakki awr sar awr gurdan ke zarbat (Faciomaxillary and head and neck trauma)	4
15.3	Udhn, Anf ,Hanjra, Sar awr gurdan ke hisso k Muttadi amraz ke hifaze ma taqqadum ar illaj (Prevention and treatment of infectious disease of otorhinolaryngology and head and neck region)	4
15.4	Udhn, Anf ,Halaq ke daurane khoon ki kharabi ke jism ke aza pr asraat (Circulatory disturbance of Ear nose and throat and their effects on other organ of the body)	4
15.5	Udhn, Anf ,Halaq ke Asaabi ki kharabi ke jism ke aza pr asraat (Nervous disturbance of Ear nose and throat and their effects on other organ of the body)	4
16.1	Amraze Udhn, Anf ,Halaq me Ilaj bid tadbeer ka Itllaq (Application Of Ilaj bit Tadbeer in Amraz –e – Uzn Anf wa Halaq)	4
16.2	Unani advia Mufrad)āt wa Murakkabāt (Single and compound Unani drugs}	4
16.3	Dāfi‘-i- Jarāsīm (Antibiotics)جراثیم دافع,Dāfi‘-i-Virus (Antiviral) وریس دافعDāfi‘-iTa‘affun (Antiseptic) تعفن دافع	4
16.4	Dāfi‘-i- faṭar (Antifungal) فطر دافعMusakkin(Analgesic)مسکن	4
16.5	Dāfi‘-i-Hassāsiyat (Antihistaminic) حساسیت دافعMukhaddir (Anaesthetic)	4
17.1	/R’āb-al- Ṭablā m‘a–al-Khashā-al-JĪRAḤĪ; Qaṭ‘–al-Khashā-al-jazrī;Qaṭ‘–al- Khashā-al-qūshrī(Tympanoplasty with Mastoid Surgery;Radical Mastoidectomy; CorticalMastoidectomy)	4
17.2	Qaṭ‘–al- rīkābī, baḍ‘aṭablā’m‘a idkhāal jarūmīt,R’āb-al- Ṭablā (Stapedectomy,Myringotomy withGrommet insertion,Myringoplasty)	4
17.3	Iste’ṣāl-al-salīlā-al-uzn, Ratq-al-qanā-al-khārjī (Aural Polypectomy,External CanalAtresia)	4
17.4	Uzn ki Khilqī tashuwwhāt (Congenital deformities of Ear)	4
17.5	Qadhā-al-Uzn, Iṣlāḥ Ṣadafa al-Udhun/ Iṣlāḥ Shaḥma al- Udhun Jūdarā aur Iste’ṣāl Shaḥma al-Udhun (Foregin Body Ear, Pinna Repair/Ear Lobule Repair (Post-Traumatic), Keloid Excision ofPinna)	4
18.1	Iste’ṣāl taḥat-al mūkhaṭī, r’āb-al- ḥajīz-al-anfī, Iste’ṣāl- al-salīlā-al-anf, Ru‘āf and Kasr al-Anf. (Submucosal resection and Septoplasty, Nasal Polypectomy,Common Emergencies like Epistaxis and Fracture of nasal bone)	5

18.2	Iste'ṣāl-al- gharbāl Ethmoidectomy(inter nasal, external, external fronto)	4
18.3	Iste'ṣāl-al-fak-al'ulwī [Maxillectomy (partial and total)], Anf ki Khilqī tashuwwhāt (Congenital deformities of nose), Jabhi Fakkī Ḍarar (Facio Maxillary Injury)	4
18.4	Ratq qam'ī-al-anf ka 'amal jīrāḥī, 'amal jīrāḥī tajāwīf –al-Anf waẓīfā bīal minẓār dākhlī (Surgery of Choanal Atresia,FunctionalEndoscopic Sinus Surgery)	4
18.5	Qadhā-al-anf, al-ghūsl –al-ghārī, r'āb-al- ḥajīz-al-anfī (Rhinoseptoplasty,Antral Washout,Foreign Body Nose)	3
19.1	Iste'ṣāl-al- Lawzatayn aur Iste'ṣāl-al-Iltihāb-i- Tajāwīf ḤulqūmīAnfi (Tonsillectomy, Adenoidectomy)	4
19.2	Quincy ka Shaqq aur Tanqiya; Rabt'a- al-lisān Yūṭlaq (Incision and Drainage of Quincy/Other Abscess, Tongue Tie Release)	4
19.3	Iste'ṣāl-al-Akyās -al-ihtībās, Qadhā-al-bal'ūm (Excision of Retention Cyst, Foreign Body Throat)	4
19.4	Fibre optic bronchoscopy & oesophagoscopy including foreign body removal	4
19.5	Qaṣaba al-Ri'a ki Khilqī tashuwwhāt ki 'amal jīrāhī (Surgery of Congenital Deformity of Trachea / Oesophagus)	4
20.1	Iste'ṣāl-al- Ḥanjra –al-kāmīl (Total Laryngectomy)	4
20.2	Aqīdāt-al- ḥabl-al- Ṣawtī, Bawāsīr aur Akyās ke liye jīrāhat-al- Ṣawt, bī-al minẓār-al- Ḥanjri-al-daqiq (Micro-Laryngoscopic Voice Surgery for Vocal cord nodules,Polyps and Cyst)	4
20.3	Shiqāq- al- Ḥanjra, Ḍarar al- Ḥanjra-al rūghāmiyy ki Iṣlāḥ (Laryngeal Fissure, Repair of Laryngotracheal Trauma)	4
20.4	Shalal nūkhā'ī ke liye jīrāhat Ṣawtī (Phonosurgery for Cord palsy including type I Thryo plasty)	4
20.5	Taḍayyuq aur nāṣūr al- Ḥanjra-al rūghāmiyy ka Iṣlāh jīrāhī (Laryngotracheal Stenosis and Fistula, Surgical Correction)	4
21.1	Iste'ṣāl-al- Ghudda nakfīyya–al-saṭ ḥiyyā (Superficial Parotidectomy)	4
21.2	Iste'ṣāl-al- Ghudda nakfīyya 'amīq (Deep Parotidectomy)	8
21.3	Iltihāb-i-Ghuddī mūtā'adid ashkāl ka Iste'ṣāl (Excision of Pleomorphic Adenoma)	4

21.4	Ghudda Lu'ābiyya aur qanā se Ḥaṣā ka Iste'ṣāl (Excision of Stone from Salivary Gland and Duct).	4
22.1	Thuqb-al- Qaṣaba'-al-hawāiyyah (Tracheostomy)	4
22.2	Uqdah Limphāwiyyah aur Intifākh –al- raqaba (Fine needle aspration cytology from Neck Swellings and Lymph Nodes)	4
22.3	Akyās-al-Khaīshūmī Iste'ṣāl, aljūyūb-al-anfiyyā'aur nāsūr-al- Khaīshūmī; Al-akyās-al-darqiyy-al-līsāniyya' (Excision of Branchial Cyst, Branchial Sinus & Fistula; Excision of Thyroglossal Cyst)	4
22.4	Raṭij bal'ūm ka Iste'ṣāl, Shiryān Subātī Ẓāhir ka 'Amal-i-Rabṭ (Excision of Pharyngeal Diverticulum, Ligation of External Carotid Artery)	4
22.5	Radical Block Dissection of the Neck for Metastatic Nodes	4
23.1	Iste'ṣāl ayman wa aysar nīṣfī guddah darqiyya (Right and Left Hemi thyroidectomy)	4
23.2	Iste'ṣāl guddah darqiyya-alfarī-al-kūlī (Sub Total Thyroidectomy)	4
23.3	Kūlī Iste'ṣāl guddah darqiyya ke qarīb (Near Total Thyroidectomy)	4
23.4	Kūlī Iste'ṣāl guddah darqiyya me Iste'ṣāl guddah jār-al-darqiyya (Total Thyroidectomy including Excision of Parathyroid Gland)	4
23.5	darqiyya Saraṭān ki jīrāhī (Surgery for Thyroid Cancer)	4
24.1	Qaṭ'–al- kais –al-jildānī aur qīlā-al- mūkhātiyyā (Excision of Dermoid Cyst, Mucocele).	4
24.2	Minṭqa rā 's se akyās Duhniyyah ka Qaṭ' (Excision of Sebaceous Cyst from scalp region)	4
24.3	Minṭqa ra's se Sal'a Shaḥmiyya ka Qaṭ' (Excision of lipoma from scalp region)	4
24.4	Ḍifda', Takhfīf-al-Ḍaghaṭ-al-'Asāb Wajhī (Ranula, Facial Nerve Decompression)	4
24.5	Endoscopic Dacryocystorhinostomy (DCR)	4
25.1	Tinnitus & Tinnitus Therapy.	4
25.2	Trans-tympanic Medical Therapy.	4
25.3	Diagnosis of Allergic & genetic disorders related to ENT. Immunotherapy and Gene Therapy.	4
25.4	Computer Assisted Surgery System.	4

25.5	Endoscopic Examination of Eustachian Tube & Mamagement of Eustcahian Tube dysfunction.	4
26.1	Clinical implications of Magnetic Resonance Imaging (MRI)	4
26.2	Application of Positron Emission Tomography (PET) Scan	2
26.3	Digital Subtraction Angiography (DSA) in ENT.	2
26.4	Applications of DNA sequencing	2
26.5	Interpretation of the findings of the Polymerase Chain Reactions (PCR).	2
26.6	X-rays, CT scans, and Angiography in ENT.	6
26.7	Analyze the procedure of Fluoresence in Situ Hybridization (FISH).	2
27.1	Cochlear Implant device.	2
27.2	Selection criteria/Candidature for Cochlear Implant.	2
27.3	Cochlear Implant Surgery.	2
27.4	Auditory Brainstem Implant Surgery.	4
27.5	Active Middle-ear Implants (AMEI).	4
27.6	Components of Bone Anchored Hearing Aid (BAHA). Surgical Procedure of Bone Anchored Hearing Aid (BAHA).	4
27.7	Biomaterials used in ENT.	2
28.1	Diagnosis & mangement of Facial Bone Fractures.	4
28.2	Endoscopic management of Cerebrospinal fluid (CSF) Rhinorrhoea & Cerebrospinal fluid (CSF) Otorrhoea.	4
28.3	Surgical Approach of Trans-Sphenoidal Hypophysectomy.	3
28.4	Surgical Aproach of Trans-Cranial Hypophysectomy	3
28.5	Diagnosis of Optic Nerve Compression. Optic Nerve Decompression Surgery.	4
28.6	Recent advances in Phonosurgery & Post-Phonosurgery Rehabilitation Methods.	2

29.1	Clinical Evaluation & Treatment of Sleep-related Breathing Disorders	4
29.2	Medical Management of Sleep Related Breathing Disorders.	3
29.3	Uvulopalatopharyngoplasty(UPPP) & Post-Operative Care & Rehabilitation.	5
29.4	Continous Positive Airway Pressure (CPAP) Equipment, Technique of its Use & Preparation.	2
29.5	Patient Set Up & Methodology of Staging & Scoring of Polysomnograph.	6
30.1	Head & Neck Cancers.	6
30.2	Brachytherapy, Teletherapy, Molecular Radiotherapy, Photodynamic Therapy, Stereotactic Radiosurgery (Gamma Knife).	4
30.3	Chemotherapy & Chemotherapeutic Drugs/Agents.	6
30.4	Radiotherapy.	4
31.1	Practice the types of Skin Grafting & Flaps in reconstructive microsurgery.	4
31.2	Reconstructive microsurgery procedures related to ENT.	4
31.3	Surgical procedure on Ear	4
31.4	Pinnaplasty	4
31.5	Technique of Lasers & Platelet Rich Plasma in Cosmetics surgeries in ENT.	4
32.1	Laser Surgery.	4
32.2	Application of fibre-optics	4
32.3	Clinical applications of cryosurgery	2
32.4	Coblation system and its applications	2
32.5	Harmonic Scalpel Technique in the management of ENT Diseases.	2
32.6	Temperature Controlled Radiofrequency Ablation (TCRFA) in the management of ENT & Head & Neck diseases.	4
32.7	Clinical implications of Hyperbaric oxygen therapy in ENT	2

Table 5 : Experiential learning Activity

(*Refer table 3 of similar activity number)

Experiential learning No*	Experiential name	Hours
1.1	Evaluate and perform History taking & Symptomatology in a patient presenting with complaints related to Amrāḍ-i-Uzn, Anf wa Ḥalq	3
1.2	Evaluate and perform the act of History taking & Symptomatology in a patient presenting with complaints related to Oral cavity and Salivary glands	2
1.3	Examination of Pinna, pre & post auricular area, Eustachian tube and Otoscopic examination of the External auditory canal, Tympanic membrane	4
1.4	Perform the Functional examination (Auditory & vestibular) of the ear	2
1.5	Examination of the external nose, vestibule, Nasal cavity, Nasopharynx, Anterior rhinoscopy and Posterior rhinoscopy including the use of nasal speculum	3
1.6	Perform the examination of Para nasal sinuses and Functional examination of nose	2
1.7	Examination of Lips, Buccal mucosa, Gums, Teeth, Hard palate, Tongue, Floor of mouth and Retromolar trigone	3
1.8	Examination of Parotid, Submandibular and Sublingual salivary glands	2
1.9	Perform the Examination of Tonsils, pillars, Soft palate, Uvula, Base of tongue and Posterior pharyngeal wall.	3
1.10	Perform the Examination of larynx, Indirect laryngoscopy and assessment of voice	2
2.1	Tuning fork tests in a patient of deafness	4
2.2	Special tests of hearing in a patient of deafness	4
2.3	Screening procedures, Behaviour observation audiometry and Distraction techniques of assessment of hearing in infants and children	4
2.4	Conditioning techniques and Objective tests of hearing in infants and children	4

2.5	Vestibular function test like Spontaneous nystagmus, fistula test, Rhomberg test, and Gait to assess the vestibular function	3
2.6	Vestibular function tests like Past pointing and falling, Positional tests to assess the vestibular function and test of cerebral Dysfunction	2
2.7	Caloric test to assess the vestibular function	3
2.8	Optokinetic test,Rotation test,Galvanic test to assess the vestibular function	2
3.1	Examination of Lymph nodes of Head & Neck	3
3.2	Examination of Neck lymph nodes according to level	2
3.3	Examination of Neck mass and Neck Muscles	3
3.4	Examination of thyroid Swelling	3
3.5	Examination of Olfactory, Facial and trigeminal nerve	2
3.6	Examination of Vestibulocochlear, Glossopharyngeal, Vagus, Accessory and Hypoglossal nerve	3
3.7	Examination of a case of Facial nerve Palsy	3
3.8	Electrodiagnostic tests for facial nerve	2
3.9	Examination of a case of vertigo	2
3.10	Examination of a case of Head injury	3
4.1	Diagnosis of otalgia	3
4.2	Diagnostic investigations of otalgia	3
4.3	Examination and diagnosis of a case of Otorrhoea	3
4.4	Diagnostic investigations of Otorrhoea	3
4.5	Examination and diagnosis of a case of Stridor	3
4.6	Diagnostic investigations of stridor	3
4.7	Examination of snoring in children	4

4.8	Examination of snoring in adult	4
5.1	Diagnosis of Amrāḍ Ṣafrāwiyya of Uzn, Anf wa Ḥalq on the basis of Nabḍ, Bawl wa Barāz	3
5.2	Diagnosis of Amrāḍ Ṣafrāwiyya of Uzn, Anf wa Ḥalq on the basis of ‘Alāmāt and Kayfiyāt	3
5.3	Diagnosis of Amrāḍ Damawiyya of Uzn, Anf wa Ḥalq on the basis of Nabḍ and Bawl	2
5.4	Diagnosis of Amrāḍ Damawiyya of Uzn, Anf wa Ḥalq on the basis of ‘Alāmāt and Kayfiyāt	3
5.5	Diagnosis of Amrāḍ Balghamiyya of Uzn, Anf wa Ḥalq on the basis of Nabḍ, Bawl wa Barāz	2
5.6	Diagnosis of Amrāḍ Balghamiyya of Uzn, Anf wa Ḥalq on the basis of ‘Alāmāt and Kayfiyāt	3
5.7	Diagnosis of Amrāḍ Sawdāwiyya of Uzn, Anf wa Ḥalq on the basis of ‘Alāmāt and Kayfiyāt	2
5.8	Diagnosis of Amrāḍ Sawdāwiyya of Uzn, Anf wa Ḥalq on the basis of Nabḍ, Bawl wa Barāz	3
5.9	Diagnosis of Sū’-i-Mizāj Sāda of Uzn, Anf wa Ḥalq on the basis of ‘Alāmāt wa Kayfiyāt	2
5.10	Diagnosis of Sū’-i-Mizāj Māddī of Amrāḍ-i-Uzn, Anf wa Ḥalq on the basis of ‘Alāmāt, Kayfiyāt and other Unani Uṣūl-i-Tashkhīṣ	3
6.1	Identification of audiometer	2
6.2	Audiometry Test	2
6.3	Speech audiometry Test	2
6.4	Impedance audiometer identification	2
6.5	Tympanometry test	2
6.6	Identification of Electrocochleography machine	2
6.7	Electrocochleography test	2
6.8	Brain-evoked response audiometry test	2
6.9	Auditory steady-state Response test	2
6.10	Perform an Otoacoustic Emission test	2
6.11	Calorimetry test	2

6.12	Perform an Electronystagmography test	2
6.13	Perform a Videonystagmography test	2
7.1	X-ray Nose	2
7.2	X-ray neck mass and for adenoids	2
7.3	X-ray Styloid process and Mastoid	2
7.4	CECT and NCCT PNS	2
7.5	CT Scan of throat, larynx, mastoid, and head	2
7.6	PET Scan	2
7.7	MRI Throat and Larynx.	2
7.8	MRI Nose and Paranasal sinuses	2
7.9	MRI Head	2
7.10	FNAC and CBC	2
7.11	NAAT and PCR tests	2
7.12	ELISA and CRP	2
7.13	Immunoglobulins and antinuclear antibody	2
8.1	Identification of laryngoscopes	4
8.2	Perform Direct laryngoscopy	4
8.3	Nasal Endoscopy	4
8.4	Flexible laryngoscopy	4
8.5	Bronchoscopy	3
8.6	Esophagoscopy	3
8.7	Rhinomanometry	2
8.8	Sialoendoscopy	2

9.1	Udhn ke Khalqi awarezat (Congenital deformities of Ear) اذن کے خلقی یوارضات	5
9.2	Iltehab-e-Uzn kharji aur uski Jumla aqsam (Otitis externa and it's all types)	5
9.3	Waskhul Uzn (Ear wax) وسخ الاذن Qaziul Uzn (Foreign Body in the ear) قذی الاذن Taneen wa Dawi (Tinnitus) طنین ودوی Duwar (Vertigo) دوار	6
9.4	Deafness , Hearing Aids and Assistive devices in Hearing handicapped Patient	4
9.5	Training of Hearing handicapped Patient for lip reading, auditory training and speech conservation and rehabilitation of hearing loss in the elderly	6
10.1	Iltehab Uzn wasti (Otitis media)aur uski Jumla aqsam التہاب الاذن وسطی	6
10.2	Aarza-e- Eustachian tube disorder- (Eustachian catarrh)	4
10.3	Iltihabe Sudgi Hulmi (Mastoiditis) التہاب صدگی حلمی Khuraj-e-Sudgi Hulmi (Mastoid abscess) خراج صدگی حلمی	6
10.4	Tasallub-ul-uzn (Otosclerosis) تصلب الاذن and Salaat-ul-Uzn (Tumours of Ear) سلعات اذن	6
10.5	Iltehab tahhaya (Labrynthitis) التہاب تیہ and Menier(Menier's Disease) عارضہ مینی ار	4
11.1	Anf ke Khalqi awarezat (Congenital deformities of Nose) انف کے خلقی عوارضات	6
11.2	Iltihabe anf aur uski jumla aqsam (Rhinitis and its all types) التہاب انف اور اس کی جملہ اقسآم	6
11.3	Ru'af /Nakseer (Epistaxis) رعاف نکسیر	4
11.4	Munharif fasile anf (Deviated nasal septum) منحرف فاصل انف	4
11.5	Busoor e-anf (Nasal Boils) بثور انف Qurooh-e-anf (Nasal ulcers) قروح انف	6
12.1	Iltihab Tajaweef e Anaf aur uski aqsaam (Sinusitis & its types) التہاب تجاویف انف اس کی جملہ اقسآم	6
12.2	Bawaseere anf (Nasal polyp) بواسیر انف	6
12.3	Fasade Sham فساد شم –Adame sham عدم شم	4
12.4	Qazaf-ul- anf (Foreign body in the Nose) نف قذی الا	4
12.5	Salaat-ul- anf (Tumor of nose) سلعات انف	6
13.1	management of Congenital disorders of Larynx, pharynx, Trachea and Oesophagus.	6

13.2	Pharyngitis and Dysphagia (Iltihab-e-Balaum wa Usrul Bala)	6
13.3	Adenoid hypertrophy (Ta'zzum-e-Ghudade anfi Halaqi)	4
13.4	Medical, surgical and IBT procedures in the management of Tumours of pharynx.	4
13.5	Laryngitis and Tumours of larynx (Iltihab-e- Hanjrah and Salaat-e-Hanjra	6
14.1	Iltihab-e-Lauzatain (Tonsillitis) and Khuraj-e-Atrafe Laozatain (Quinsy)	6
14.2	Injuries ,tumours of oral cavity and oral Sub mucosal fibrosis	6
14.3	Voice and speech disorder and their management strategies	6
14.4	Oral Mucosal Lesions (Stomatitis, ulceration etc)	4
14.5	Salivary gland disorders	4
15.1	Sammiyat udhn (Ototoxicity)	4
15.2	Jabhi fakki awr sar awr gurdan ke zarbat (Faciomaxillary and head and neck trauma)	4
15.3	Udhn, Anf ,Hanjra, Sar awr gurdan ke hisso k Muttadi amraz ke hifaze ma taqqadum ar illaj	6
15.4	Udhn, Anf ,Halaq ke daurane khoon ki kharabi ke jism ke aza pr asraat (Circulatory disturbance of Ear nose and throat and their effects on other organ of the body)	6
15.5	Udhn, Anf ,Halaq ke Asaabi ki kharabi ke jism ke aza pr asraat (Nervous disturbance of Ear nose and throat and their effects on other organ of the body)	6
16.1	Amraze Udhn, Anf ,Halaq me Ilaj bid tadbeer ka Itllaq (Application Of Ilaj bit Tadbeer in Amraz –e – Uzn Anf wa Halaq)	4
16.2	Unani advia Mufradāt wa Murakkabāt (Single and compound Unani drugs)	6
16.3	Dāfi'-i- Jarāsīm (Antibiotics)جراثیم دافع,Dāfi'-i-Virus (Antiviral) وروئیس دافعDāfi'-iTa'affun (Antiseptic) تعفن دافع	6
16.4	Antifungal and Analgesic drugs used in the management of ENT and head and neck diseases.	4
16.5	Dāfi'-i-Hassāsiyat (Antihistaminic) حساسیت دافعMukhaddir (Anaesthetic)	6
17.1	R'āb-al- Ṭablā m'a–al-Khashā-al-JĪRAḤĪ; Qaṭ'–al-Khashā-al-jazrī;Qaṭ'–al- Khashā-al- qūshrī (Tympanoplasty with MastoidSurgery;Radical Mastoidectomy;CorticalMastoidectomy)	6

17.2	Qaṭ‘–al-rīkābī, baḍ‘aṭablā’ m‘a idkhāal jarūmīt, R’āb-al- Ṭablā (Stapedectomy,Myringotomy with Grommet insertion, Myringoplasty)	6
17.3	Iste’ṣāl-al-salīlā-al-uzn, Ratq-al-qanā-al-khārjī (Aural Polypectomy,External CanalAtresia)	5
17.4	Uzn ki Khilqī tashuwwhāt (Congenital deformities of Ear)	4
17.5	Qadhā-al-Uzn, Iṣlāḥ Ṣadafa al-Udhun/Iṣlāḥ Shaḥma al-Udhun, Jūdarā aur Iste’ṣāl Shaḥma al-Udhun (Foregin Body Ear, Pinna Repair/Ear Lobule Repair (Post-Traumatic), Keloid Excision of Pinna)	5
18.1	Iste’ṣāl taḥat-al mūkhaṭī, r’āb-al- ḥajīz-al-anfī, Iste’ṣāl- al-salīlā-al-anf, Ru‘āf and Kasr al-Anf. (Submucosal resection (SMR) and Septoplasty, Nasal Polypectomy,Common Emergencies like Epistaxis and Fracture of nasal bone)	6
18.2	Iste’ṣāl-al- gharbāl Ethmoidectomy(inter nasal, external, external fronto)	5
18.3	Iste’ṣāl-al-fak-al‘ulwī [Maxillectomy (partial and total)]; Anf ki Khilqī tashuwwhāt (Congenital deformities of nose); Jabhi Fakkī Ḍarar (Facio Maxillary Injury)	6
18.4	Ratq qam‘ī-al-anf ka ‘amal jīrāḥī, ‘amal jīrāḥī tajāwīf –al-Anf waẓīfā bīal minẓār dākhlī (Surgery of Choanal Atresia,FunctionalEndoscopic Sinus Surgery)	5
18.5	Qadhā-al-anf, al-ghūsl –al-ghārī, r’āb-al- ḥajīz-al-anfī (Rhinoseptoplasty, Antral Washout, Foreign Body Nose)	4
19.1	Iste’ṣāl-al- Lawzatayn aur Iste’ṣāl-al-Iltihāb-i- Tajāwīf ḤulqūmīAnfi (Tonsillectomy, Adenoidectomy)	6
19.2	Quincy ka Shaqq aur Tanqiya; Rabt’a- al-lisān Yūṭlaq (Incision and Drainage of Quincy/Other Abscess, Tongue Tie Release)	6
19.3	Iste’ṣāl-al-Akyās -al-ihtībās, Qadhā-al-bal‘ūm (Excision of Retention Cyst, Foreign Body Throat)	5
19.4	Fibre optic bronchoscopy & oesophagoscopy including foreign body removal	5
19.5	Qaṣaba al-Ri’a ki Khilqī tashuwwhāt ki ‘amal jīrāhī (Surgery of CongenitalDeformity ofTrachea/Oesophagus)	4
20.1	Iste’ṣāl-al- Ḥanjra –al-kāmīl (Total Laryngectomy)	6

20.2	Aqīdāt-al- ḥabl-al- Ṣawtī, Bawāsīr aur Akyās ke liye jīrāhat-al- Ṣawt, bī-al minẓār-al- Ḥanjri-al-daqiq (Micro-Laryngoscopic Voice Surgery for Vocal cord nodules,Polyps and Cyst)	6
20.3	Shiqāq- al- Ḥanjra, Ḍarar al- Ḥanjra-al rūghāmiyy ki Iṣlāḥ (Laryngeal Fissure, Repair of Laryngotracheal Trauma)	5
20.4	Shalal nūkhā'ī ke liye jīrāhat Ṣawtī (Phonosurgery for Cord palsy including type I Thryo plasty)	5
20.5	Taḍayyuq aur nāṣūr al- Ḥanjra-al rūghāmiyy ka Iṣlāh jīrāhī (Laryngotracheal Stenosis and Fistula of Surgical Correction)	4
21.1	Iste'ṣāl-al- Ghudda nakfīyya–al-saṭ ḥiyyā (Superficial Parotidectomy)	6
21.2	Iste'ṣāl-al- Ghudda nakfīyya 'amīq (Deep Parotidectomy)	8
21.3	Iltihāb-i-Ghuddī mūtā'adid ashkāl ka Iste'ṣāl (Excision of Pleomorphic Adenoma)	6
21.4	Ghudda Lu'ābiyya aur qanā se Ḥaṣā ka Iste'ṣāl (Excision of Stone from Salivary Gland and Duct).	6
22.1	Thuqb-al- Qaṣaba'-al-hawāiyyah (Tracheostomy)	6
22.2	Uqdah Limphāwiyyah aur Intifākh –al- raqaba (Fine needle aspration cytology from Neck Swellings and Lymph Nodes)	4
22.3	Akyās-al-Khaīshūmī Iste'ṣāl, aljūyūb-al-anfiyyā'aur nāsūr-al- Khaīshūmī; Al-akyās-al-darqiyy-al-līsāniyya' (Excision of Branchial Cyst, Branchial Sinus & Fistula; Excision of Thyroglossal Cyst)	6
22.4	Raṭij bal'ūm ka Iste'ṣāl, Shiryān Subātī Ẓāhir ka 'Amal-i-Rabṭ (Excision of Pharyngeal Diverticulum, Ligation of External Carotid Artery)	6
22.5	Radical Block Dissection of the Neck for Metastatic Nodes	4
23.1	Iste'ṣāl ayman wa aysar nīṣfī guddah darqiyya (Right and Left Hemi thyroidectomy)	5
23.2	Iste'ṣāl guddah darqiyya-alfarī-al-kūlī (Sub Total Thyroidectomy)	5
23.3	Kūlī Iste'ṣāl guddah darqiyya ke qarīb (Near Total Thyroidectomy)	5
23.4	Kūlī Iste'ṣāl guddah darqiyya me Iste'ṣāl guddah jār-al-darqiyya (Total Thyroidectomy including Excision of Parathyroid Gland)	5

23.5	darqiyya Saraṭān ki jīrāhī (Surgery for Thyroid Cancer)	6
24.1	Qaṭ‘–al- kais –al-jildānī aur qīlā-al- mūkhātiyyā (Excision of Dermoid Cyst, Mucocele)	6
24.2	Minṭqa rā ’s se akyās Duhniyyah ka Qaṭ‘ (Excision of Sebaceous Cyst from scalp region)	5
24.3	Minṭqa ra’s se Sal‘a Shaḥmiyya ka Qaṭ‘ (Excision of lipoma from scalp region)	6
24.4	Ḍifda‘, Takhfīf-al-Ḍaghaṭ-al-‘Asāb Wajhī (Ranula, Facial Nerve Decompression)	5
24.5	Endoscopic Dacryocystorhinostomy (DCR)	4
25.1	Methods/Modalities of Tinnitus Therapy.	4
25.2	Trans-tympanic membrane Medical Therapy.	6
25.3	Immunotherapy.	4
25.4	Computer Assisted Para-nasal Sinus Surgery.	6
25.5	Eustachian tube Examination & surgical managemnt of Eustachain Tube disorders.	6
26.1	Magnetic Resonance Imaging Techniques.	6
26.2	Positron Emission Tomography (PET Scan) in ENT.	3
26.3	Digital Subtraction Angiography (DSA) in ENT	3
26.4	Procedure of DNA Sequencing	3
26.5	Application of Polymerase Chain Reactions (PCR) in diagnosis of ENT diseases.	2
26.6	Computed tomography (CT) and Magnetic Resonance Imaging (MRI) in Temporal bone assesement.	6
26.7	Flouresence in Situ Hybridization (FISH)	3
27.1	Components of the Cochlear Implant Device, technique of Use, maintenance and Programming.	2
27.2	Assessment/Evaluation of Candidates for Cochlear Implant Surgery.	3
27.3	Procedure of Cochlear Implant Surgery & Post Operative Rehabilitation.	4
27.4	Components of Auditory Brainstem Implants. Candidacy Evaluation of Auditory Brainstem Implants	3

27.5	Brainstem Implant Surgery.	3
27.6	Surgical Procedures of Semi-Implantable Vibrant Soundbridge.& Fully Envoy Esteem active Middle Ear Implant.	6
27.7	Bone Anchored Hearing Aids (BAHA).	5
28.1	Facial Bone Fractures.	6
28.2	Cranial Fossae Injury. Endoscopic Surgery in the management of Cerebrospinal Fluid (CSF) Rhinorrhoea & Cerebrospinal Fluid (CSF) Otorrhoea.	8
28.3	Trans-Sphenoidal Approach of Hypophysectomy.	3
28.4	Trans-Cranial Surgical Approach of Hypophysectomy.	3
28.5	Optic Nerve Decompression.	6
29.1	Diagnosis and management of Sleep Related Breathing Disorder.	6
29.2	Management of Sleep-related breathing disorders (Obstructive Sleep Apnoea (OSA), Snoring)	4
29.3	Obstructive Sleep Apnoea & its surgical Management. (Uvulopalatopharyngoplasty (UPPP)	7
29.4	Continuous Positive Airway Pressure (CPAP) therapy.	3
29.5	Polysomnography.	6
30.1	Head & Neck Cancers.	6
30.2	New Radiotherapy Techniques (Brachytherapy,Teletherapy,Molecular Radiotherapy,Photodynamic Therapy & Gamma Knife).	6
30.3	Chemotherapy & management of Common Side Effects of chemotherapy drugs.	8
30.4	Radiation therapy.	6
31.1	Methods of Skin Grafts & Flaps including Z-Plasty.	5
31.2	Reconstructive micro Surgery.	5
31.3	Otoplasty.	5
31.4	Pinnaplasty.	5

31.5	Lasers & Platelet Rich Plasma in cosmetics in ENT	6
32.1	Laser Surgery and its devices.	6
32.2	Fibre-optics in the mangement of ENT diseases.	4
32.3	Cryosurgery in ENT disorders.	3
32.4	Coblation in the mangement of ENT diseases.	3
32.5	Working of Harmonic Scalpel.	3
32.6	Temperature-controlled radiofrequency ablation (TCRFA) in the management of ENT diseases	4
32.7	Hyperbaric oxygen therapy (HBOT) in ENT	3

Table 6 : Assessment Summary: Assessment is subdivided in A to H points

6 A : Number of Papers and Marks Distribution

Subject Code	Paper	Theory	Practical	Total
UNIPG-UAH	4	100 x 4 Papers = 400	400	800

6 B : Scheme of Assessment (Formative and Summative Assessment)

Credit frame work

UNIPG-UAH consists of 32 modules totaling 64 credits, which correspond to 1920 Notional Learning Hours. Each credit comprises 30 Hours of learner engagement, distributed across teaching, practical, and experiential learning in the ratio of 1:2:3. Accordingly, one credit includes 5 hours of teaching, 10 hours of practical training, 13 hours of experiential learning, and 2 hours allocated for modular assessment, which carries 25 marks.

Formative Assessment : Module wise Assessment:will be done at the end of each module. Evaluation includes learners active participation to get Credits and Marks. Each Module may contain one or more credits.

Summative Assessment: Summative Assessment (University examination) will be carried out at the end of Semester VI.

6 C : Calculation Method for Modular Grade Points (MGP)

Module Number & Name (a)	Credits (b)	Actual No. of Notional Learning Hours (c)	Attended Number of notional Learning hours (d)	Maximum Marks of assessment of modules (e)	Obtained Marks per module (f)	MGP =d*f/c*e*100
Semester No : 3						
Paper No : 1 (امراض اذن، انف وحلق کے سریری وتشخیصی اسالیب Amrāḍ-i-Udhun, Anf Wa Ḥalq Ke Sarīrī Wa Tashkhīṣī Asālīb (Clinical Methods and Diagnostic Techniques of Ear, Nose and Throat Diseases))						
M 1 (امراض اذن، انف وحلق، جوف الفم وغدد لعابیہ کا طبی طریقہ Amrāḍ-i-Uzn, Anf wa Ḥalq, Jauf-al- Fam, Ghudda Lu'ābiyya ka Tibbi tariqah) Clinical methods of ear, nose and throat, Oral cavity and Salivary glands)	2	60		50		
M 2 سامعہ کا سریری اختبار اور دہلیزیہ کے عمل کا تعین Sāmi'a ka sarīrī ikhtibār aur Dehlīziyya 'amal ka ta'iyyūn (Clinical tests of hearing & Assessment of Vestibular function)	2	60		50		
Paper No : 2 (امراض اذن، انف وحلق کے طبی وجراحی معالجات Amrāḍ-i-Udhun, Anf Wa Ḥalq Ke Ṭibbi Wa Jirāḥi Mu'alajāt (Medical and Surgical Management of Ear, Nose and Throat Diseases))						
M 9 امراض اذن Amrāḍ-i- Uzn (Diseases of Ear)	2	60		50		
M 10 امراض اذن وسطی وداخلی Amrāz Uzn wasṭi wa dākhli (Diseases of Middle and internal Ear)	2	60		50		
Paper No : 3 (امراض اذن، انف وحلق کی جراحی عملیات Amrāḍ-i-Udhun, Anf Wa Ḥalq Ki Jīraḥī 'Amalīyyāt (Operative Surgery of Ear, Nose and Throat Diseases))						
M 17 العملیات الاذن Al-'amalīyā-al- Uzn (OPERATIONS ON EAR)	2	60		50		
M 18 چہرہ کی عمل جراحی کے ساتھ انف اور جیوب الانف کی عمل جراحی Chehrā ki 'AMALĪ JĪRAḤĪ ke sath, anf aur Jūyūb-al- Anf ki 'AMALĪ JĪRAḤĪ (OPERATIONS ON FACE INCLUDING NOSE AND PARANASAL SINUSES)	2	60		50		
Paper No : 4 (امراض اذن، انف، حلق، راس ورقبہ میں جدید تحقیقات Amrāḍ-i-Udhun, Anf Wa Ḥalq, Rās Wa Raqaba Men Jadīd Taḥqīqāt (Recent Advances of Ear, Nose, Throat, Head and Neck Surgery))						

M 25 Amraz-i-Uzn, Anf -wa-Ḥalq ki tashkhīṣ, al-tasab būb-fī- al-marḍ aur ‘Ilāj me jadīd pesh qad mī. (Recent Developments in the Diagnosis, Pathogenesis and Treatments of the ENT Diseases). لتطورات الحديثة في تشخيص وتسبب وعلاج أمراض الأنف والأذن والحنجرة	2	60		50		
M 26 Genetic Testing, Molecular Biology & Radiological Advances in Ear, Nose & Throat الاختبارات الجينية والبيولوجيا الجزيئية والتقدم الإشعاعي في الأذن والأنف والحنجرة	2	60		50		
	16	480		400		
Semester No : 4						
Paper No : 1 (امراض اذن،انف وحلق کے سریری وتشخیصی اسالیب Amrāḍ-i-Udhun, Anf Wa Ḥalq Ke Sarīrī Wa Tashkhīṣī Asālīb (Clinical Methods and Diagnostic Techniques of Ear, Nose and Throat Diseases))						
M 3 راس اور رقبہ کا معائنہ Rās aur Raqba ka mu‘āyana’ (Examination of Head & Neck)	2	60		50		
M 4 اطفال وبالغین میں وجع الاذن، سیلان الاذن، صریر اور غطیط کے کیس کی تشخیصی نقطہ نظر Aṭfāl wa Baligheen me Waja‘al-Uzn, Sayalān al-Uzn, Ṣarīr aur ghaṭīṭ ke case ki tashkhīṣi nūqta naẓar (Diagnostic approach of a case of Otalgia, Otorrhoea, Stridor and snoring in children and adults)	2	60		50		
Paper No : 2 (امراض اذن،انف وحلق کے طبی وجراحی معالجات Amrāḍ-i-Udhun, Anf Wa Ḥalq Ke Ṭibbi Wa Jirāḥi Mu‘alajāt (Medical and Surgical Management of Ear, Nose and Throat Diseases))						
M 11 امراض انف Amrāḍ -i-Anf (Diseases of Nose-I)	2	60		50		
M 12 امراض انف اور جیوب الانف Amrāḍ -i-anf aur Jūyūb-al- Anf (Diseases of Nose-II and PNS)	2	60		50		
Paper No : 3 (امراض اذن،انف وحلق کی جراحی عملیات Amrāḍ-i-Udhun, Anf Wa Ḥalq Ki Jīraḥī ‘Amalīyyāt (Operative Surgery of Ear, Nose and Throat Diseases))						
M 19 البلعوم الانفی اور البلعوم الفمی Al- bal‘ūm –al-anfī aur al- bal‘ūm –al-fammī (Operations on Nasopharynx & Oropharynx)	2	60		50		
M 20 حنجرہ کا عمل جیراہی/Ḥanjra ka ‘amal jīrāhī (Operations on Larynx.....	2	60		50		
Paper No : 4 (امراض اذن،انف، حلق، راس ورقبہ میں جدید تحقیقات Amrāḍ-i-Udhun, Anf Wa Ḥalq, Rās Wa Raqaba Men_Jadīd Taḥqīqāt (Recent Advances of Ear, Nose, Throat, Head and Neck Surgery))						

M 27 زراع قوقع الاذن، مساعد سمعیہ اور مادہ حیویہ.Zarā Q wq ‘a-al-Udhun, sā id s m iyyā ur Mā ā H iwwiyy (Cochlear Implants, Other Hearing aids & Biomaterials)	2	60		50		
M 28 راس مہ کی عمل جرا.Rās, Raqaba wa Jumjuma ki amal Jīrāḥī. (Head & Neck & Skull Base Surgery	2	60		50		
	16	480		400		
Semester No : 5						
Paper No : 1 (امراض اذن، انف وحلق کے سریری وتشخیصی اسالیب Amrāḍ-i-Udhun, Anf Wa Ḥalq Ke Sarīrī Wa Tashkhīṣī Asālīb (Clinical Methods and Diagnostic Techniques of Ear, Nose and Throat Diseases))						
M 5 امراض اذن، انف وحلق میں استعمال ہونے والے یونانی تشخیصی ذرائع Amrāḍ-i-Uzn, Anf -wa- Ḥalq me iste‘māl hone wale Unani tashkhīṣi Zarāye (Unani Diagnostic tools used in ear, nose and throat)	2	60		50		
M 6 امراض اذن، انف وحلق میں خصوصی تشخیصی آلات اور اختبار تشخیصی Amrāḍ-i-Uzn, Anf wa Ḥalq me khūṣūṣi tashkhīṣi Ālāt aur ikhtibār tashkhīṣi (Special diagnostic apparatus and Diagnostic tests in otorhinolaryngology)	2	60		50		
Paper No : 2 (امراض اذن، انف وحلق کے طبی وجراحی معالجات Amrāḍ-i-Udhun, Anf Wa Ḥalq Ke Ṭibbi Wa Jirāḥi Mu‘alajāt (Medical and Surgical Management of Ear, Nose and Throat Diseases))						
M 13 امراض بلعوم اور حنجرہ Amrāḍ -i- Bal‘ūm aur Ḥanjra (Diseases of Pharynx and Larynx)	2	60		50		
M 14 امراض حلق، جوف الفم اور غدہ لعابیہ Amrāḍ -i- Halq, Jauf-al- Fam aur Ghudda Lu‘ābiyyah (Diseases of Throat, Oral cavity and Salivary gland)	2	60		50		
Paper No : 3 (امراض اذن، انف وحلق کی جراحی عملیات Amrāḍ-i-Udhun, Anf Wa Ḥalq Ki Jīraḥī ‘Amalīyyāt (Operative Surgery of Ear, Nose and Throat Diseases))						
M 21 غدد لعابیہ کا عمل جیراہی Ghudda Lu‘ābiyya ka amal jīrāhī (Operations on salivary glands)	2	60		50		
M 22 رقبہ کا عمل جراحی Raqaba ka amal jīrāhī (Operations on Neck)	2	60		50		
Paper No : 4 (امراض اذن، انف، حلق، راس ورقبہ میں جدید تحقیقات.Amrāḍ-i-Udhun, Anf Wa Ḥalq, Rās Wa Raqaba Men_Jadīd Taḥqīqāt (Recent Advances of Ear, Nose, Throat, Head and Neck Surgery))						

M 29 طب النوم .Sleep Medicine. Tibu Alnawm	2	60		50		
M 30 المعرفۃ الأساسیۃ لعلم الأورام فی أمراض الأذن عناف حلق Basic Knowledge of Oncology in Amraz-e Uzn Anaf Halq almaerifat al'asasiat lieilm al'awram fi 'amraz 'azn eanaaf halaq	2	60		50		
	16	480		400		
Semester No : 6						
Paper No : 1 (امراض اذن، انف وحلق کے سریری وتشخیصی اسالیب Amrāḍ-i-Udhun, Anf Wa Ḥalq Ke Sarīrī Wa Tashkhīṣī Asālīb (Clinical Methods and Diagnostic Techniques of Ear, Nose and Throat Diseases))						
M 7 طب شعاعی اور دیگر تشخیصی طریقہ کار Ṭibb-i-shū'āi aur dīgar-al tiqniyyah-al-tashkhīṣi Tarīqa kār (Radiology and Other Diagnostic techniques)	2	60		50		
M 8 تنظیر داخلی اور دیگر تشخیصی عملیات Tanẓīr dākhlī aur dīgar tashkhīṣī amaliyāt (Endoscopy & other Diagnostic Procedures)	2	60		50		
Paper No : 2 (امراض اذن، انف وحلق کے طبی وجراحی معالجات Amrāḍ-i-Udhun, Anf Wa Ḥalq Ke Ṭibbi Wa Jirāḥi Mu'alajāt (Medical and Surgical Management of Ear, Nose and Throat Diseases))						
M 15 اذن، انف وحلق اور راس ورقبہ کے متعدی امراض Uzn, Anf wa Ḥalq aur Rās wa Raqaba ke muta'addi Amrāḍ (Infectious disease of otorhinolaryngology and head & neck region)	2	60		50		
M 16 Ilāj bi'l-Dawā' and 'Ilāj bi'l-Tadbīr in Uzn, Anf wa Ḥalq, rās aur Raqaba) Pharmacotherapy and treatment in Ear, nose and throat and head and neck) علاج بالدواء اور علاج بالتدبیر اذن، انف، حلق، راس اور رقبہ	2	60		50		
Paper No : 3 (امراض اذن، انف وحلق کی جراحی عملیات Amrāḍ-i-Udhun, Anf Wa Ḥalq Ki Jīraḥī 'Amalīyyāt (Operative Surgery of Ear, Nose and Throat Diseases))						
M 23 غدہ درقیہ کا عمل جراحی Guddah darqiyya ka amal jīrāhī (Operations on the thyroid gland)	2	60		50		
M 24 امراض اذن، انف وحلق میں دیگر عام جراحی Amraz-i-Uzn, Anf -wa-Ḥalq me dīgar 'Ām Jirāḥi (Other common surgeries in Ear, Nose & Throat)	2	60		50		
Paper No : 4 (امراض اذن، انف، حلق، راس ورقبہ میں جدید تحقیقات .Amrāḍ-i-Udhun, Anf Wa Ḥalq, Rās Wa Raqaba Men_Jadīd Taḥqīqāt (Recent Advances of Ear, Nose, Throat, Head and Neck Surgery))						

M 31 الجراحات التجميلية والتجميلية المتعلقة بالأنف والحنجرة Plastic & Cosmetic Surgeries related to ENT	2	60		50		
M 32 Lasers, Fibre-optics, Cryosurgery, Powered Instrumentation & Other novel methods used in ENT.	2	60		50		
	16	480		400		
MGP = ((Number of Notional learning hours attended in a module) X (Marks obtained in the modular assessment) / (Total number of Notional learning hours in the module) X (Maximum marks of the module)) X 100						

6 D : Semester Evaluation Methods for Semester Grade Point Average (SGPA)

SGPA will be calculated at the end of the semester as an average of all Module MGPs. Average of MGPS of the Semester For becoming eligible for Summative assessment of the semester, student should get minimum of 60% of SGPA

SGPA = Average of MGP of all modules of all papers = add all MGPs in the semester/ no. of modules in the semester Evaluation Methods for Modular Assessment

Semester No : 3

Paper No : 1 امراض اذن، انف و حلق کے سریری و تشخیصی اسالیب Amrāḍ-i-Udhun, Anf Wa Ḥalq Ke Sarīrī Wa Tashkhīṣī Asālīb (Clinical Methods and Diagnostic Techniques of Ear, Nose and Throat Diseases)

A S.No	B Module number and Name	C MGP
1	M1. امراض اذن، انف و حلق، جوف الفم و غدد لعابیہ کا طبی طریقہ (Amrāḍ-i-Uzn, Anf wa Ḥalq, Jauf-al- Fam, Ghudda Lu'ābiyya ka Tibbi tariqah) Clinical methods of ear, nose and throat, Oral cavity and Salivary glands)	C 1
2	M2. سامعہ کا سریری اختبار اور دہلیزیہ کے عمل کا تعین Sāmi'a ka sarīrī ikhtibār aur Dehlīziyya 'amal ka ta'iyyūn (Clinical tests of hearing & Assessment of Vestibular function)	C 2

Paper No : 2 امراض اذن، انف و حلق کے طبی و جراحی معالجات Amrāḍ-i-Udhun, Anf Wa Ḥalq Ke Ṭibbi Wa Jirāḥi Mu'alajāt (Medical and Surgical Management of Ear, Nose and Throat Diseases)

A S.No	B Module number and Name	C MGP
3	M9. امراض اذن Amrāḍ-i- Uzn (Diseases of Ear)	C 3
4	M10. امراض اذن وسطی و داخلی Amrāz Uzn wasṭi wa dākhli (Diseases of Middle and internal Ear)	C 4

Paper No : 3 امراض اذن، انف و حلق کی جراحی عملیات Amrāḍ-i-Udhun, Anf Wa Ḥalq Ki Jīraḥī 'Amalīyyāt (Operative Surgery of Ear, Nose and Throat Diseases)

A S.No	B Module number and Name	C MGP

5	M17.العملیات الاذن/Al-‘amalīyā-al- Uzn (OPERATIONS ON EAR)	C 5
6	M18.چہرہ کی عمل جراحی کے ساتھ انف اور جیوب الانف کی عمل جراحی Chehrā ki ‘AMALĪ JĪRAḤĪ ke sath, anf aur Jūyūb-al- Anf ki ‘AMALĪ JĪRAḤĪ (OPERATIONS ON FACE INCLUDING NOSE AND PARANASAL SINUSES)	C 6
Paper No : 4 امراض اذن، انف، حلق، راس ورقبہ میں جدید تحقیقات.Amrāḍ-i-Udhun, Anf Wa Ḥalq, Rās Wa Raqaba Men_Jadīd Taḥqīqāt (Recent Advances of Ear, Nose, Throat, Head and Neck Surgery)		
A **S.No**	**B** **Module number and Name**	**C** **MGP**
7	M25.Amraz-i-Uzn, Anf -wa-Ḥalq ki tashkhīṣ, al-tasab būb-fī- al-marḍ aur ‘Ilāj me jadīd pesh qad mī. (Recent Developments in the Diagnosis, Pathogenesis and Treatments of the ENT Diseases). لتطورات الحدیثۃ فی تشخیص وتسبب وعلاج أمراض الأنف والأذن والحنجرۃ	C 7
8	M26.Genetic Testing, Molecular Biology & Radiological Advances in Ear, Nose & Throat الاختبارات الجینیۃ والبیولوجیا الجزیئیۃ والتقدم الإشعاعی فی الأذن والأنف والحنجرۃ	C 8
	Semester Grade point Average (SGPA)	(C1+C2+C3+C4+C5+C6+C7+C8) / Number of modules(8)
Semester No : 4		
Paper No : 1 امراض اذن، انف وحلق کے سریری وتشخیصی اسالیب Amrāḍ-i-Udhun, Anf Wa Ḥalq Ke Sarīrī Wa Tashkhīṣī Asālīb (Clinical Methods and Diagnostic Techniques of Ear, Nose and Throat Diseases)		
A **S.No**	**B** **Module number and Name**	**C** **MGP**
1	M3. راس اور رقبہ کا معائنہ Rās aur Raqba ka mu‘āyana’ (Examination of Head & Neck)	C 1
2	M4. اطفال وبالغین میں وجع الاذن، سیلان الاذن، صریر اور غطیط کے کیس کی تشخیصی نقطہ نظر Aṭfāl wa Baligheen me Waja‘al-Uzn, Sayalān al-Uzn, Ṣarīr aur ghaṭīṭ ke case ki tashkhīṣi nūqta naẓar (Diagnostic approach of a case of Otalgia, Otorrhoea, Stridor and snoring in children and adults)	C 2

Paper No : 2 امراض اذن، انف و حلق کے طبی و جراحی معالجات Amrāḍ-i-Udhun, Anf Wa Ḥalq Ke Ṭibbi Wa Jirāḥi Mu'alajāt (Medical and Surgical Management of Ear, Nose and Throat Diseases)		
A S.No	B Module number and Name	C MGP
3	M11. امراض انف Amrāḍ -i-Anf (Diseases of Nose-I)	C 3
4	M12. امراض انف اور جیوب الانف Amrāḍ -i-anf aur Jūyūb-al- Anf (Diseases of Nose-II and PNS)	C 4
Paper No : 3 امراض اذن، انف و حلق کی جراحی عملیات Amrāḍ-i-Udhun, Anf Wa Ḥalq Ki Jīraḥī 'Amalīyyāt (Operative Surgery of Ear, Nose and Throat Diseases)		
A S.No	B Module number and Name	C MGP
5	M19. البلعوم الانفی اور البلعوم الفمی Al- bal'ūm –al-anfī aur al- bal'ūm –al-fammī (Operations on Nasopharynx & Oropharynx)	C 5
6	M20. حنجرہ کا عمل جیراہی/ Ḥanjra ka 'amal jīrāhī (Operations on Larynx.....	C 6
Paper No : 4 امراض اذن، انف، حلق، راس و رقبہ میں جدید تحقیقات Amrāḍ-i-Udhun, Anf Wa Ḥalq, Rās Wa Raqaba Men_Jadīd Taḥqīqāt (Recent Advances of Ear, Nose, Throat, Head and Neck Surgery)		
A S.No	B Module number and Name	C MGP
7	M27. زراع قوقع الاذن، مساعد سمعیہ اور مادہ حیویہ Zarā Q wq 'a-al-Udhun, sā id s m iyyā ur Mā ā H iwwiyy (Cochlear Implants, Other Hearing aids & Biomaterials)	C 7
8	M28. راس مہ کی عمل جرا Rās, Raqaba wa Jumjuma ki amal Jīrāḥī. (Head & Neck & Skull Base Surgery	C 8
	Semester Grade point Average (SGPA)	(C1+C2+C3+C4+C5+C6+C7+C8) / Number of modules(8)
Semester No : 5		

Paper No : 1 امراض اذن، انف وحلق کے سریری وتشخیصی اسالیب Amrāḍ-i-Udhun, Anf Wa Ḥalq Ke Sarīrī Wa Tashkhīṣī Asālīb (Clinical Methods and Diagnostic Techniques of Ear, Nose and Throat Diseases)		
A S.No	B Module number and Name	C MGP
1	M5. امراض اذن، انف وحلق میں استعمال ہونے والے یونانی تشخیصی ذرائع Amrāḍ-i-Uzn, Anf -wa- Ḥalq me iste'māl hone wale Unani tashkhīṣi Zarāye (Unani Diagnostic tools used in ear, nose and throat)	C 1
2	M6. امراض اذن، انف وحلق میں خصوصی تشخیصی آلات اور اختبار تشخیصی Amrāḍ-i-Uzn, Anf wa Ḥalq me khūṣūṣi tashkhīṣi Ālāt aur ikhtibār tashkhīṣi (Special diagnostic apparatus and Diagnostic tests in otorhinolaryngology)	C 2
Paper No : 2 امراض اذن، انف وحلق کے طبی وجراحی معالجات Amrāḍ-i-Udhun, Anf Wa Ḥalq Ke Ṭibbi Wa Jirāḥi Mu'alajāt (Medical and Surgical Management of Ear, Nose and Throat Diseases)		
A S.No	B Module number and Name	C MGP
3	M13. امراض بلعوم اور حنجرہ Amrāḍ -i- Bal'ūm aur Ḥanjra (Diseases of Pharynx and Larynx)	C 3
4	M14. امراض حلق، جوف الفم اور غدہ لعابیہ Amrāḍ -i- Halq, Jauf-al- Fam aur Ghudda Lu'ābiyyah (Diseases of Throat, Oral cavity and Salivary gland)	C 4
Paper No : 3 امراض اذن، انف وحلق کی جراحی عملیات Amrāḍ-i-Udhun, Anf Wa Ḥalq Ki Jīraḥī 'Amalīyyāt (Operative Surgery of Ear, Nose and Throat Diseases)		
A S.No	B Module number and Name	C MGP
5	M21. غدد لعابیہ کا عمل جیراہی Ghudda Lu'ābiyya ka amal jīrāhī (Operations on salivary glands)	C 5
6	M22. رقبہ کا عمل جراحی Raqaba ka amal jīrāhī (Operations on Neck)	C 6
Paper No : 4 امراض اذن، انف، حلق، راس ورقبہ میں جدید تحقیقات Amrāḍ-i-Udhun, Anf Wa Ḥalq, Rās Wa Raqaba Men_Jadīd Taḥqīqāt (Recent Advances of Ear, Nose, Throat, Head and Neck Surgery)		

A S.No	B Module number and Name	C MGP
7	M29.طب النوم.Sleep Medicine. Tibu Alnawm	C 7
8	M30المعرفة الأساسية لعلم الأورام في أمراض الأذن عناف حلقBasic Knowledge of Oncology in Amraz-e Uzn Anaf Halq almaerifat al'asasiat lieilm al'awram fi 'amraz 'azn eanaaf halaq	C 8
	Semester Grade point Average (SGPA)	(C1+C2+C3+C4+C5+C6+C7+C8) / Number of modules(8)

Semester No : 6

Paper No : 1 امراض اذن، انف وحلق کے سریری وتشخیصی اسالیبAmrāḍ-i-Udhun, Anf Wa Ḥalq Ke Sarīrī Wa Tashkhīṣī Asālīb (Clinical Methods and Diagnostic Techniques of Ear, Nose and Throat Diseases)

A S.No	B Module number and Name	C MGP
1	M7.طب شعاعی اور دیگر تشخیصی طریقہ کارṬibb-i-shū'āi aur dīgar-al tiqniyyah-al-tashkhīṣi Tarīqa kār (Radiology and Other Diagnostic techniques)	C 1
2	M8. تنظیر داخلی اور دیگر تشخیصی عملیاتTanẓīr dākhlī aur dīgar tashkhīṣī amaliyāt (Endoscopy & other Diagnostic Procedures)	C 2

Paper No : 2 امراض اذن، انف وحلق کے طبی وجراحی معالجاتAmrāḍ-i-Udhun, Anf Wa Ḥalq Ke Ṭibbi Wa Jirāḥi Mu'alajāt (Medical and Surgical Management of Ear, Nose and Throat Diseases)

A S.No	B Module number and Name	C MGP
3	M15.اذن، انف وحلق اور راس ورقبہ کے متعدی امراض.Uzn, Anf wa Ḥalq aur Rās wa Raqaba ke muta'addi Amrāḍ (Infectious disease of otorhinolaryngology and head & neck region)	C 3
4	M16.Ilāj bi'l-Dawā' and 'Ilāj bi'l-Tadbīr in Uzn, Anf wa Ḥalq, rās aur Raqaba) Pharmacotherapy and treatment in Ear, nose and throat and head and neck) علاج بالدواء اور علاج بالتدبیر اذن، انف، حلق، راس اور رقبہ	C 4

Paper No : 3 امراض اذن، انف وحلق کی جراحی عملیات Amrāḍ-i-Udhun, Anf Wa Ḥalq Ki Jīraḥī ‘Amalīyyāt (Operative Surgery of Ear, Nose and Throat Diseases)		
A **S.No**	**B** **Module number and Name**	**C** **MGP**
5	M23. غدہ درقیہ کا عمل جراحی/Guddah darqiyya ka amal jīrāhī (Operations on the thyroid gland)	C 5
6	M24. امراض اذن، انف وحلق میں دیگر عام جراحی/Amraz-i-Uzn, Anf -wa- Ḥalq me dīgar ‘Ām Jirāḥi (Other common surgeries in Ear, Nose & Throat)	C 6
Paper No : 4 امراض اذن، انف، حلق، راس ورقبہ میں جدید تحقیقات Amrāḍ-i-Udhun, Anf Wa Ḥalq, Rās Wa Raqaba Men Jadīd Taḥqīqāt (Recent Advances of Ear, Nose, Throat, Head and Neck Surgery)		
A **S.No**	**B** **Module number and Name**	**C** **MGP**
7	M31. الجراحات التجميلية والتجميلية المتعلقة بالأنف والحنجرة Plastic & Cosmetic Surgeries related to ENT	C 7
8	M32.Lasers, Fibre-optics, Cryosurgery, Powered Instrumentation & Other novel methods used in ENT.	C 8
	Semester Grade point Average (SGPA)	(C1+C2+C3+C4+C5+C6+C7+C8) / Number of modules(8)

S. No	Evaluation Methods
1.	Method explained in the Assessment of the module or similar to the objectives of the module.

6 E : Question Paper Pattern

MD/MS Unani Examination

UNIPG-UAH

Sem VI

Time: 3 Hours ,**Maximum Marks:** 100

INSTRUCTIONS: All questions compulsory

		Number of Questions	Marks per question	Total Marks
Q 1	Application-based Questions (ABQ)	1	20	20
Q 2	Short answer questions (SAQ)	8	5	40
Q 3	Analytical based structured Long answer question (LAQ)	4	10	40
				100

6 F : Distribution for summative assessment (University examination)

S.No	List of Module/Unit	ABQ	SAQ	LAQ
Paper No : 1 (امراض اذن، انف وحلق کے سریری وتشخیصی اسالیب Amrāḍ-i-Udhun, Anf Wa Ḥalq Ke Sarīrī Wa Tashkhīṣī Asālīb (Clinical Methods and Diagnostic Techniques of Ear, Nose and Throat Diseases))				
(M-1) امراض اذن، انف وحلق، جوف الفم وغدد لعابیہ کا طبی طریقہ (Amrāḍ-i-Uzn, Anf wa Ḥalq, Jauf-al- Fam, Ghudda Lu'ābiyya ka Tibbi tariqah) Clinical methods of ear, nose and throat, Oral cavity and Salivary glands) (Marks: Range 5-20)				
1	**(U-1)** بالغ اور اطفال میں امراض اذن، انف وحلق، جوف الفم، غدد لعابیہ کی روداد مریض اور علامات ونشانیاں Bāligh aur aṭfāl me Amrāḍ-i-Uzn, Anf wa Ḥalq, Jauf-al- Fam, Ghudda Lu'ābiyya ki rūdād-i-Marīḍ aur 'Alāmāt wa Nishāniya (History taking & Symptomatology of Amrāḍ-i-Uzn, Anf wa Ḥalq, Oral cavity and Salivary glands in adult & children)	No	Yes	Yes
2	**(U-2)** معائنہ/Minẓār-al-uzn ke sath wa beghair, uzn ka Mu'āyana' (Examination of ear with and without Otoscope)	Yes	Yes	Yes
3	**(U-3)** انف اور جیوب الانفی کا معائنہ/Anf aur Jūyūb-al- Anfi ka mu'āyana' (Examination of the Nose & PNS)	Yes	Yes	Yes
4	**(U-4)** معائنہ/Jauf-al- Fam, Ghudda Lu'ābiyya ka mu'āyana' (Examination of Oral Cavity and Salivary glands)	No	Yes	Yes
5	**(U-5)** معائنہ/Ḥalq aur Ḥanjara ka mu'āyana' (Examination of Throat and Larynx)	No	Yes	Yes
(M-2) سامعہ کا سریری اختبار اور دہلیزیہ کے عمل کا تعین Sāmi'a ka sarīrī ikhtibār aur Dehlīziyya 'amal ka ta'iyyūn (Clinical tests of hearing & Assessment of Vestibular function) (Marks: Range 5-20)				
1	**(U-1)** سامعہ کا سریری اختبار، سامعہ کا خاص اختبار، صحیح تقنیہ اور اختبار الشوکہ الرنانہ کی تشریح Sāmi'a ka sarīrī ikhtibār, Sāmi'a ka khāṣ ikhtibār, ṣaḥīyy tiqniyyah aur ikhtibār –al-shawkah-al-ranānā ki tashrīh (Clinical tests of hearing, special tests of hearing, correct technique & interpretation of tuning fork tests)	No	Yes	Yes
2	**(U-2)** اطفال میں سامعہ کا تعین/Aṭfāl me sāmi'a ka ta'iyyūn (Assessment of hearing in infants and children)	Yes	Yes	Yes

3	**(U-3)** دہلیزیہ عمل کا سریری اختبار/Dehlīziyya ‘amal ka sarīrī ikhtibār (Clinical tests of vestibular function)	No	Yes	Yes
4	**(U-4)** دہلیزیہ عمل کا معمل اختبار/Dehlīziyya ‘amal ka mū‘ammal ikhtibār (Laboratory tests of vestibular function)	No	Yes	Yes
(M-3) راس اور رقبہ کا معائنہ/Rās aur Raqba ka mu‘āyana’ (Examination of Head & Neck) (Marks: Range 5-20)				
1	**(U-1)** راس اور رقبہ کی غدہ لمفاویہ کا معائنہ/Rās aur Raqaba ki Gudda Limphāwiyyah ka mu‘āyana (Examination of Lymph nodes of Head & Neck)	Yes	Yes	Yes
2	**(U-2)** Kūtlā –al- raqaba, ‘aḍlāt raqaba aur Al-Intifākh Darqiyya ka mu‘āyana’(Examination of Neck mass, Neck Muscles and thyroid swelling)	Yes	Yes	Yes
3	**(U-3)** اعصاب دماغیہ کا معائنہ/A‘ṣāb-al-Dimāghiyya ka mu‘āyana’ (Examination of Cranial nerves)	Yes	Yes	Yes
4	**(U-4)** عصب وجہی کا معائنہ/Shalal ‘Asāb Wajhī ka mu‘āyana’ aur ikhtibār al-tashkhīṣ-al- kaharbāī (Examination of a Facial nerve Palsy and Electrodiagnostic tests)	Yes	Yes	Yes
5	**(U-5)** راس کا ضربہ اور دوار کے کیس کا معائنہ/Rās ka ḍarba aur duwār ke Case ka mu‘āyana’ (Examination of a case of Head injury and Vertigo)	Yes	Yes	Yes
(M-4) اطفال و بالغین میں وجع الاذن، سیلان الاذن، صریر اور غطیط کے کیس کی تشخیصی نقطہ نظر/Aṭfāl wa Baligheen me Waja‘al-Uzn, Sayalān al-Uzn, Ṣarīr aur ghaṭīṭ ke case ki tashkhīṣi nūqta naẓar (Diagnostic approach of a case of Otalgia, Otorrhoea, Stridor and snoring in children and adults) (Marks: Range 5-15)				
1	**(U-1)** وجع الاذن کے کیس کی تشخیصی نقطہ نظر/Waja‘al-Uzn, ke case ki tashkhīṣi nūqta naẓar (Diagnostic approach of a case of Otalgia)	No	Yes	Yes
2	**(U-2)** سیلان اذن کے کیس کی تشخیص/Sayalān al-Uzn ke case ki tashkhīṣ (Diagnosis of a case of Otorrhoea)	No	Yes	Yes
3	**(U-3)** صریر کے کیس کی تشخیص/Ṣarīr ke case ki tashkhīṣ (Diagnoses of a case of Stridor)	No	Yes	Yes

4	**(U-4)** اطفال اور بالغین میں غطیط کے کیس کی تشخیصی نقتہ نظر/Aṭfāl wa Baligheen me ghaṭīṭ ke case ki tashkhīṣi nūqta naẓar (Diagnostic approach of a case of Snoring in children and adults)	No	Yes	Yes
(M-5) امراض اذن، انف وحلق میں استعمال ہونے والے یونانی تشخیصی ذرائع/Amrāḍ-i-Uzn, Anf -wa- Ḥalq me iste'māl hone wale Unani tashkhīṣi Zarāye (Unani Diagnostic tools used in ear, nose and throat) (Marks: Range 5-15)				
1	**(U-1)** امراض اذن، انف وحلق سے متعلق امراض صفراویہ کی تشخیص بذریعہ نبض، بول اور براز/Amrāḍ-i-Uzn, Anf wa Ḥalq se mūtā'lliq Amrāḍ Ṣafrāwiyya ki tashkhīṣ bazariya Nabḍ, bawl aur Barāz (Diagnosis of bilious diseases related to ear, nose and throat by the interpretation of pulse, urine, and faeces)	No	Yes	Yes
2	**(U-2)** امراض اذن، انف وحلق سے متعلق امراض دمویہ کی تشخیص بذریعہ نبض، بول اور براز/Amrāḍ-i-Uzn, Anf wa Ḥalq se mūtā'lliq Amrāḍ Damawiyya ki tashkhīṣ, bazariya Nabḍ, bawl aur Barāz (Diagnosis of sanguineous diseases related to ear, nose and throat by the interpretation of pulse, urine and faeces)	No	Yes	Yes
3	**(U-3)** امراض اذن، انف وحلق سے متعلق امراض بلغمیہ کی تشخیص بذریعہ نبض، بول اور براز/Amrāḍ-i-Uzn, Anf wa Ḥalq se mūtā'lliq Amrāḍ Balghamiyya ki tashkhīṣ, bazariya Nabḍ, bawl aur Barāz (Diagnosis of phlegmatic diseases related to ear, nose and throat by the interpretation of pulse, urine and faeces)	No	Yes	Yes
4	**(U-4)** امراض اذن، انف وحلق سے متعلق، سوداوی امراض کی تشخیص بذریعہ نبض، بول اور براز/Amrāḍ-i-Uzn, Anf wa Ḥalq se mūtā'lliq Ṣawdawī Amrāḍ ki tashkhīṣ bazariya Nabḍ, bawl aur Barāz (Diagnosis of melancholic diseases related to ear, nose, and throat by the interpretation of pulse, urine, and faeces)	No	Yes	Yes
5	**(U-5)** امراض اذن، انف وحلق سے متعلق سوء مزاج سادہ و مادّی/Amrāḍ-i-Uzn, Anf wa Ḥalq se mūtā'lliq Sū'-i-Mizāj Sāda wa Māddī (Simple & substantial morbid temperament related to ear, nose and throat)	No	Yes	Yes
(M-6) امراض اذن، انف وحلق میں خصوصی تشخیصی آلات اور اختبار تشخیصی/Amrāḍ-i-Uzn, Anf wa Ḥalq me khūṣūṣi tashkhīṣi Ālāt aur ikhtibār tashkhīṣi (Special diagnostic apparatus and Diagnostic tests in otorhinolaryngology) (Marks: Range 5-15)				
1	**(U-1)** السمع/Qiyās-al-samā' aur Miqyās-al- samā' (Audiometry & Audiometer)	Yes	Yes	Yes

2	**(U-2)** مقیاس مقاومہ السمع اور قیاس المعاوقہ السمعیہ/Miqyās mūqāwīmah-al- samā‘ aur qiyās-al-mū‘āwiqah-al-sam‘īyyah (Impedance Audiometer & Impedance Audiometry)	Yes	Yes	Yes
3	**(U-3)** قیاس سمع استجابۃ الدماغ/Evoked response audiometry & its equipment (BERA & Electrocochleography)	No	Yes	Yes
4	**(U-4)** آڈیٹری سٹیڈی سٹیٹ ریسپانس، اوٹو کوسٹک ایمیشن، کیلوری میٹری/Auditory Steady state Response (ASSR) & Otoacoustic Emission (OAEs) & Calorimetry	No	Yes	Yes
5	**(U-5)** الیکٹرونیسٹیگو گرافی/Electronystagmography (ENG)	No	Yes	Yes
(M-7) طب شعاعی اور دیگر تشخیصی طریقہ کار Ṭibb-i-shū‘āi aur dīgar-al tiqniyyah-al-tashkhīṣi Tarīqa kār (Radiology and Other Diagnostic techniques) (Marks: Range 5-20)				
1	**(U-1)** مختلف مناظر میں جیوب الانف کا ایکس رے۔ الخشاء کا ایکس رے۔ غدہ انفی حلقی کا ایکسرے۔ زائدہ ابریہ۔ کتلہ الرقبہ کے لئے مناظر جانبی میں راس کا ایکس رے/Mūkhtalif manāẓir me Jūyūb-al- Anf ka X-ray; Al-Khashā ka X-ray; Allahmiya ka X-ray, Zā’ida Ibriyya aur Kūtlā –al-raqaba ke liye manāẓīr jāabīm me rās ka X-ray. (X-Ray PNS in different views; X-ray Mastoid;X-rays of neck in lateral view for adenoids, styloid process and Neck masses)	Yes	Yes	Yes
2	**(U-2)** راس، رقبہ، امراض اذن، انف اور حلق کا سی ٹی سکین اور پیٹ سکین/Rās, raqaba aur Amrāḍ-i-Uzn, Anf wa Ḥalq ka CT scan aur PET scan (CT scan of ENT, head & neck and PET scan)	Yes	Yes	Yes
3	**(U-3)** انف اور جیوب الانف کا ایم آر آئی۔ حنجرہ اور حلق کا ایم آر آئی مختلف مناظر میں راس کا ایم آر آئی۔/Anf aur Jūyūb-al- Anf ka MRI; Ḥanjara aur Ḥalq ka MRI; Mūkhtalif manāẓir me rās ka MRI (MRI of Nose and Paranasal sinuses; MRI of Throat and Larynx; MRI of Head in different views)	Yes	Yes	Yes
4	**(U-4)** امراض اذن، انف و حلق سے متعلق علم الخلیات، علم الدم، بیلوجیہ الجزیہ اور علم المناعت/Amrāḍ-i-Uzn, Anf wa Ḥalq se mutalliq ‘Ilm-al-khalyāt, ‘Ilm-al-dam, biologiyyah-al-Juziyyā, ‘Ilm-al-manā‘at (Cytology, hematology, molecular biology and immunology related to Otorhinolaryngology)	Yes	Yes	Yes

(M-8) تنظیر داخلی اور دیگر تشخیصی عملیات Tanẓīr dākhlī aur dīgar tashkhīṣī amaliyāt (Endoscopy & other Diagnostic Procedures) (Marks: Range 5-15)				
1	**(U-1)** بلاواسطہ تنظیر الحنجرہ/Bilā wāsiṭa tanẓīr-al-Ḥanjara (direct laryngoscopy)	No	Yes	Yes
2	**(U-2)** تنظیر داخلی الانف، لین تنظیر الحنجرہ/Tanẓīr dākhlī-al-Anf, Layyin tanẓīr-al-Ḥanjara (Nasal endoscopy, Flexible laryngoscopy)	No	Yes	Yes
3	**(U-3)** تنظیر القصبات اور تنظیر المری/Tanẓīr-al-qaṣbāt aur Tanẓīr-al- marī (Bronchoscopy and Esophagoscopy)	No	Yes	Yes
4	**(U-4)** قیاس الہوئے التنفس الانف اور تنظیر اللعابیہ/Qiyās-al-hawaī-al tanaffūṣ-al-anf aur Tanẓīr-al- Lu'abiyya (Rhinomanometry & Sialoendoscopy)	No	Yes	Yes
S.No	**List of Module/Unit**	**ABQ**	**SAQ**	**LAQ**
Paper No : 2 (امراض اذن، انف وحلق کے طبی وجراحی معالجات Amrāḍ-i-Udhun, Anf Wa Ḥalq Ke Ṭibbi Wa Jirāḥi Mu'alajāt (Medical and Surgical Management of Ear, Nose and Throat Diseases))				
(M-9) امراض اذن Amrāḍ-i- Uzn (Diseases of Ear) (Marks: Range 5-15)				
1	**(U-1)** تشوھات/Uzn ki Khilqī tashuwwhāt (Congenital deformities of Ear)	No	Yes	Yes
2	**(U-2)** التہاب الاذن خارجی اور اس کی جملہ اقسام/Iltihāb-i-Uzn khārji wa uske Jūmla Aqsām (Otitis externa and it's all types)	No	Yes	Yes
3	**(U-3)** طنین ودوی، دوار، وسخ الاذن، قذیٰ الاذن/Ṭanīn-o- Dawī, Duwār, Wasakh -al-Uzn and Qadhā-al-Uzn (Tinnitus, vertigo, Ear wax, and foreign Body in the ear)	No	Yes	Yes
4	**(U-4)** وقر، مساعدات السمع، اور معاق سمعی مریض میں الوسائل مساعدہ/Waqr, mūsā'dāt-al-sama' aur m'āq samaī' marīz me al wasāil-al-mūsā'dā (Deafness , Hearing Aids and Assistive devices in Hearing impaired Patient)	No	Yes	Yes
5	**(U-5)** Training of Hearing Patient for lip reading, auditory training and speech conservation and rehabilitation of hearing loss in the elderly	No	Yes	Yes
(M-10) امراض اذن وسطی وداخلی Amrāz Uzn wasṭi wa dākhli (Diseases of Middle and internal Ear) (Marks: Range 5-20)				

1	**(U-1)** التہاب الاذن وسطی اور اس کی جملہ اقسام/Iltihāb-i- Uzn wasṭi wa uske Jūmla Aqsām (Otitis media and it's all types)	Yes	Yes	Yes
2	**(U-2)** استا کیس قنات/Qanat Astākīūs (Eustachian tube disorder)	No	Yes	Yes
3	**(U-3)** التہاب الخشاء/Iltihāb-i- al- Khashā (Mastoiditis), دبیلہ الخشاء/Dubayla-i- al-Khashā (Mastoid abscess)	No	Yes	Yes
4	**(U-4)** Taṣallub-al-Uzn (Otosclerosis) تصلب الاذن and Sal'at -al-Uzn (Tumours of Ear) سلعات اذن	No	Yes	Yes
5	**(U-5)** الاذن التہاب تیہ/Iltihāb-i- Tīh-al-Uzn (Labyrinthitis) and Marḍ Meniers (Menier's Disease)	No	Yes	Yes
(M-11) امراض انف Amrāḍ -i-Anf (Diseases of Nose-I) (Marks: Range 5-15)				
1	**(U-1)** انف کے خلقی تشوھات/Anf ki Khilqī tashuwwhāt (Congenital deformities of Nose)	No	Yes	Yes
2	**(U-2)** التہاب انف اور اس کی جملہ اقسام/Iltihabe anf wa uske Jūmla Aqsām (Rhinitis and it's all types)	No	Yes	Yes
3	**(U-3)** رعاف یا نکسیر/Ru'āf / Naksīr (Epistaxis)	No	Yes	Yes
4	**(U-4)** منحرف فاصل انف/Mūnḥarif fāsil-i- anf (Deviated nasal septum)	No	Yes	Yes
5	**(U-5)** بثور الانف/Buthūr al-Anf (Eruptions of nose) and قروح انف/Qurūḥ-i-Anf (Nasal ulcers)	No	Yes	Yes
(M-12) امراض انف اور جیوب الانف Amrāḍ -i-anf aur Jūyūb-al- Anf (Diseases of Nose-II and PNS) (Marks: Range 5-20)				
1	**(U-1)** التہاب تجاویف اور اسکی اقسام/Iltihāb-i- tajāwīf-i-anf aur uski Aqsām (Sinusitis & its types)	Yes	Yes	Yes
2	**(U-2)** بواسیر انف/Bawāsīr-i-anf (Nasal polyp)	No	Yes	Yes
3	**(U-3)** خشم/Khasham (Anosmia), فساد الشم Fasād al-Shamm (Parosmia)	No	Yes	Yes
4	**(U-4)** قذیٰ الانف/Qadhā- al- anf (Foreign body in the Nose)	No	Yes	Yes
5	**(U-5)** سلعات انف/Saraṭān-i-anf (Nasal tumors)	No	Yes	Yes

(M-13) امراض بلعوم اور حنجرہ Amrāḍ -i- Bal‘ūm aur Ḥanjra (Diseases of Pharynx and Larynx) (Marks: Range 5-15)				
1	**(U-1)** مری، قصبۃ الریہ، بلعوم اور حنجرہ کے خلقی امراض /Marī, Qaṣaba al-Ri’a, Bal‘ūm aur Ḥanjra ke Khilqī Amrāḍ (Congenital disorders of Larynx, pharynx , Trachea and Oesophagus)	No	Yes	Yes
2	**(U-2)** Iltihāb-i- Bal‘ūm aur ‘Usr al-Bal‘ / ‘Usr-i-Izdirār (Pharyngitis and Dysphagia)	No	Yes	Yes
3	**(U-3)** تضخم الغدانیہ /Taḍakhkhūm Alghadāniyy (Adenoid hypertrophy)	No	Yes	Yes
4	**(U-4)** تضخم الغدانیہ /Taḍakhkhūm Alghadāniyy (Adenoid hypertrophy), سلعات بلعو / Sal‘āt -i- Bal‘ūm (Tumours of pharynx)	No	Yes	No
5	**(U-5)** التہاب حنجرہ /Iltihāb-i- Ḥanjra (Laryngitis), Sal‘āt -i- Ḥanjra / سلعات حنجرہ (Tumours of larynx)	No	Yes	Yes
(M-14) امراض حلق جوف الفم اور غدہ لعابیہ Amrāḍ -i- Halq, Jauf-al- Fam aur Ghudda Lu‘ābiyyah (Diseases of Throat, Oral cavity and Salivary gland) (Marks: Range 5-20)				
1	**(U-1)** التہاب لوزتین /Iltihāb-i- Lawzatayn (Tonsillitis) and Quinsy	Yes	Yes	Yes
2	**(U-2)** ضرر، سلعات جوف الفم اور تلیف فم تحت المخاطیہ /Ḍarar ,Sal‘āt -i- Jauf-al- Fam aur talaiyyuf fam-i- taḥat-al-mukhātiyyah (Injuries ,tumours of oral cavity and oral Sub mucosal fibrosis)	No	Yes	Yes
3	**(U-3)** صوت اور اسکی تدابیر امراض /Amrāḍ -i- Ṣawt aur uski tadābīr (Speech disorder and their management), بحت الصوت /Buḥḥa al-Ṣawt (Hoarseness of voice)	No	Yes	Yes
4	**(U-4)** قلاع /Qulā‘ (Stomatitis), Oral mucosal lesion and Ulceration	No	Yes	Yes
5	**(U-5)** امراض غدہ لعابیہ /Amrāḍ -i- Ghudda Lu‘ābiyyah (Salivary gland disorder)	No	Yes	Yes
(M-15) اذن، انف وحلق اور راس ورقبہ کے متعدی امراض Uzn, Anf wa Ḥalq aur Rās wa Raqaba ke muta‘addi Amrāḍ (Infectious disease of otorhinolaryngology and head & neck region) (Marks: Range 5-20)				
1	**(U-1)** مم اذنیہ /Tasammūm Uzniyyah (Ototoxicity)	No	Yes	Yes
2	**(U-2)** جبہی فکی اور راس رقبہ کی ضربی Jabhi Fakkī aur Rās aur Raqaba ki Ḍarbī (Faciomaxillary and head , neck trauma)	No	Yes	Yes

3	**(U-3)** اذن،انف وحلق،راس اور رقبہ کے امراض معدیہ کی تحفظ اور صحت/Uzn, Anf wa Ḥalq, rās aur Raqaba ke amrāḍ Mu'diya ka Tahaffuz aur 'Ilāj (Prevention and treatment of infectious disease of otorhinolaryngology and head and neck region)	Yes	Yes	Yes
4	**(U-4)** اذن،انف وحلق کے اضطراب الدورۃ الدمویہ اور جسم کے دوسرے اعضاء پر انکے اثرات/Uzn, Anf wa Ḥalq ke iḍṭerābāt-al-dawrah-al-damviyyah aur jism ke dusre a'ḍā' per unke athrāt (Circulatory disturbance of Ear, Nose and Throat and their effects on other organ of the body)	No	Yes	Yes
5	**(U-5)** اذن،انف وحلق کے اضطراب اعصاب اور جسم کے دوسرے اعضاء پر انکے اثرات/Uzn, Anf wa Ḥalq ke iḍṭerābāt a'ṣāb aur jism ke dusre a'ḍā' per unke athrāt (Nervous disturbance of Ear nose and throat and their effects on other organ of the body)	No	Yes	Yes
(M-16) Ilāj bi'l-Dawā' and 'Ilāj bi'l-Tadbīr in Uzn, Anf wa Ḥalq, rās aur Raqaba) Pharmacotherapy and treatment in Ear, nose and throat and head and neck) علاج بالدواء اور علاج بالتدبیر اذن،انف،حلق،راس اور رقبہ (Marks: Range 5-15)				
1	**(U-1)** اذن،انف،حلق میں علاج بالتدبیر کا اطلاق/Uzn, Anf wa Ḥalq me 'Ilāj bi'l-Tadbīr ka itlāq (Application of Ilaj bit Tadbeer in Amraz –e – Uzn Anf wa Halaq)	No	Yes	Yes
2	**(U-2)** یونانی ادویہ مفردات ومرکبات/Unani advia Mufradāt wa Murakkabāt (Single and compound Unani drugs)	No	Yes	Yes
3	**(U-3)** دافع جراثیم/Dāfi'-i- Jarāsīm (Antibiotics), دافع فیروسی/Dāfi'-i-Virus (Antiviral) دافع تعفن/Dāfi'-i-Ta'affun (Antiseptic)	No	Yes	Yes
4	**(U-4)** دافع فطر/Dāfi'-i- faṭar (Antifungal), مسکن/Musakkin (Analgesic)	No	Yes	Yes
5	**(U-5)** دافع حساسیت/Dāfi'-i-Hassāsiyat (Antihistaminic), مخدر/Mukhaddir (Anaesthetic)	No	Yes	Yes
S.No	**List of Module/Unit**	**ABQ**	**SAQ**	**LAQ**
Paper No : 3 (امراض اذن،انف وحلق کی جراحی عملیات/Amrāḍ-i-Udhun, Anf Wa Ḥalq Ki Jīraḥī 'Amalīyyāt (Operative Surgery of Ear, Nose and Throat Diseases))				
(M-17)العملیات الاذن/Al-'amalīyā-al- Uzn (OPERATIONS ON EAR) (Marks: Range 5-20)				

1	**(U-1)** رأب الطبلہ الخشاء الجراحی۔ قطع الخشاء الجزری۔ قطع الخشاء الخشری/R'āb-al- Ṭablā m'a –al-Khashā-al- JĪRAḤĪ; Qaṭ'–al- Khashā-al-jazrī; Qaṭ'–al- Khashā-al-qūshrī (Tympanoplasty with Mastoid Surgery; Radical Mastoidectomy; Cortical Mastoidectomy)	Yes	Yes	Yes
2	**(U-2)** قطع الرکابی، بضع الطبلہ مع ادخال جرومیت، رأب الطبلہ/Qaṭ'–al- rīkābī, baḍ'aṭablā' m'a idkhāal jarūmīt, R'āb-al- Ṭablā (Stapedectomy, Myringotomy with Grommet insertion, Myringoplasty)	Yes	Yes	Yes
3	**(U-3)** استئصال السلیلیہ الاذن، رتق القناء الخارجی/Iste'ṣāl-al-salīlā-al- uzn, Ratq-al-qanā-al-khārjī (Aural Polypectomy, External Canal Atresia)	No	Yes	Yes
4	**(U-4)** اذن کے خلقی تشوھات/Uzn ki Khilqī tashuwwhāt (Congenital deformities of Ear)	Yes	Yes	Yes
5	**(U-5)** قدئ الاذن، اصلاح صدف الاذن، اصلاح شحم الاذن، جدرہ اور استئصال شحم الاذن/Qadhā-al-Uzn, Iṣlāḥ Ṣadafa al-Udhun/ Iṣlāḥ Shaḥma al-Udhun, Jūdarā aur Iste'ṣāl Shaḥma al-Udhun (Foregin Body Ear, Pinna Repair/Ear Lobule Repair (Post- Traumatic), Keloid Excision of Pinna)	Yes	Yes	Yes
(M-18) چہرہ کی عمل جراحی کے ساتھ انف اور جیوب الانف کی عمل جراحی/Chehrā ki 'AMALĪ JĪRAḤĪ ke sath, anf aur Jūyūb-al- Anf ki 'AMALĪ JĪRAḤĪ (OPERATIONS ON FACE INCLUDING NOSE AND PARANASAL SINUSES) (Marks: Range 5-20)				
1	**(U-1)** استئصال تحت المخاطی، رأب الحاجز الانفی، استئصال السلیلیہ الانفی، رعاف اور کسر الانف/Iste'ṣāl taḥat-al mūkhaṭī, r'āb-al- ḥajīz-al-anfī, Iste'ṣāl-al-salīlā-al-anfi, Ru'āf and Kasr al-Anf. (Submucosal resection (SMR) and Septoplasty, Nasal Polypectomy, Common Emergencies like Epistaxis and Fracture of nasal bone)	No	Yes	Yes
2	**(U-2)** استئصال الغربال/Iste'ṣāl-al- gharbāl / Ethmoidectomy (intra-nasal, external, external fronto)	No	Yes	Yes
3	**(U-3)** استئصال الفک العلوی، اذن کے خلقی تشوھات، جبھی فکی ضرر/Iste'ṣāl-al-fak-al'ulwī Maxillectomy (partial and total); Anf ki Khilqī tashuwwhāt (Congenital deformities of nose); Jabhi Fakkī Ḍarar (Facio Maxillary Injury)	No	Yes	Yes

4	**(U-4)** رتق قمعی الانف کا عمل جراحی، عمل جراحی تجاویف الانف وظیفہ بالمناظر داخلی/Ratq qam'ī-al-anf ka 'amal jīrāḥī, 'amal jīrāḥī tajāwīf –al-Anf waẓīfā bīl minẓār dākhlī (Surgery of Choanal Atresia, Functional Endoscopic Sinus Surgery)	No	Yes	Yes
5	**(U-5)** قذیٰ الانف، الغسل الغاری، رأب الحاجز الانفی/Qadhā-al-anf, al-ghūsl –al-ghārī, r'āb-al- ḥajīz-al-anfī (Rhinoseptoplasty, Antral Washout, Foreign Body Nose)	Yes	Yes	Yes
(M-19) البلعوم الانفی اور البلعوم الفمی/Al- bal'ūm –al-anfī aur al- bal'ūm –al-fammī (Operations on Nasopharynx & Oropharynx) (Marks: Range 5-20)				
1	**(U-1)** استئصال لوزتین اور استئصال الغدانیاتی/Iste'ṣāl-al- Lawzatayn aur : Iste'ṣāl-al-Ghudaniyat (Tonsillectomy, Adenoidectomy)	Yes	Yes	Yes
2	**(U-2)** قوینسی کا شق اور تنقیہ، ربطہ اللسان بطلق۔/Quincy ka Shaqq aur Tanqiya; Rabt'a-al-lisān Yūṭlaq (Incision and Drainage of Quincy/Other Abscess, Tongue Tie Release)	No	Yes	Yes
3	**(U-3)** استئصال اکیاس الاحتباس، قذیٰ البلعومی/Iste'ṣāl-al-Akyās -al-ihtībās, Qadhā-al-bal'ūmi (Excision of Retention Cyst, Foreign Body Throat)	No	Yes	Yes
4	**(U-4)** Fibre optic bronchoscopy & esophagoscopy including foreign body removal	No	Yes	Yes
5	**(U-5)** قصبہ الریہ کی خلقی تشوھات کی عمل جیراہی/Qaṣaba al-Ri'a ki Khilqī tashuwwhāt ki 'amal jīrāhī (Surgery of Congenital Deformity of Trachea/Oesophagus)	No	Yes	Yes
(M-20) حنجرہ کا عمل جیراہی/Ḥanjra ka 'amal jīrāhī (Operations on Larynx..... (Marks: Range 5-15)				
1	**(U-1)** استئصال الحنجرہ الکامل/Iste'ṣāl-al- Ḥanjra –al-kāmīl (Total Laryngectomy)	No	Yes	Yes
2	**(U-2)** عقیدات الحبل الصوتی، بواسیر، اکیاس کے لیئے جیراحت الصوت بالمناظر الحنجرۃ الدقیق/Aqīdāt-al- ḥabl-al- Ṣawtī, Bawāsīr aur Akyās ke liye jīrāhat-al- Ṣawt, bī-al minẓār-al-Ḥanjri-al-daqiq (Micro-Laryngoscopic Voice Surgery for Vocal cord nodules, Polyps and Cyst)	No	Yes	Yes

3	(U-3) شقاق الحنجرہ، ضرر الحنجرہ الرغامیہ کی اصلاح Shiqāq- al- Ḥanjra, Ḍarar al- Ḥanjra-al rūghāmiyy ki Iṣlāḥ (Laryngeal Fissure, Repair of Laryngotracheal Trauma)	No	Yes	Yes
4	(U-4) شلل نخاعی کے لئے جیراحت صوتی/Shalal nūkhā'ī ke liye jīrāhat Ṣawtī (Phonosurgery for Cord palsy including type I Thryo plasty)	No	Yes	Yes
5	(U-5) تضیق اور ناسور الحنجرہ الرغامیہ کا اصلاح جیراحی/Taḍayyuq aur nāṣūr al- Ḥanjra-al rūghāmiyy ka Iṣlāh jīrāhī (Laryngotracheal Stenosis and Fistula Surgical Correction)	No	Yes	Yes
(M-21) غدد لعابیہ کا عمل جیراحی/Ghudda Lu'ābiyya ka amal jīrāhī (Operations on salivary glands) (Marks: Range 5-15)				
1	(U-1) استئصال الغدہ نکفیہ السطحیہ/Iste'ṣāl-al- Ghudda nakfīyya–al-saṭ ḥiyyā (Superficial Parotidectomy)	No	Yes	Yes
2	(U-2) استئصال الغدہ نکفیہ عمیق/Iste'ṣāl-al- Ghudda nakfīyya 'amīq (Deep Parotidectomy)	No	Yes	Yes
3	(U-3) التہاب غدی متعدد اشکال کا استئصال/Iltihāb-i-Ghuddī mūtā'adid ashkāl ka Iste'ṣāl (Excision of Pleomorphic Adenoma)	No	Yes	Yes
4	(U-4) غدد لعابیہ اور قناہ سے حصاۃ کا استئصال/Ghudda Lu'ābiyya aur qanā se Ḥaṣā ka Iste'ṣāl (Excision of Stone from Salivary Gland and Duct)	No	Yes	Yes
(M-22) رقبہ کا عمل جراحی/Raqaba ka amal jīrāhī (Operations on Neck) (Marks: Range 5-15)				
1	(U-1) ثقب القصبہ الہوائیہ/Thuqb-al- Qaṣaba'-al-hawāiyyah (Tracheostomy)	No	Yes	Yes
2	(U-2) عقدہ لمفاویہ اور انتفاق الارقبہ کا الیف این اے سی/Uqdah Limphāwiyyah aur Intifākh –al-raqaba ka FNAC (Fine needle aspration cytology from Neck Swellings and Lymph Nodes)	No	Yes	Yes
3	(U-3) اکیاس الخیشومی استئصال، الجیوب الانفیہ اور ناسور الخیشومی۔ الاکیاس الدرقیہ اللیسانیہ/Akyās-al-Khaīshūmī Iste'ṣāl, aljūyūb-al-anfiyyā'aur nāsūr-al- Khaīshūmī; Al-akyās-al-darqiyy-al-līsāniyya' (Excision of Branchial Cyst, Branchial Sinus & Fistula; Excision of Thyroglossal Cyst)	No	Yes	Yes

4	**(U-4)** رتج البلعوم کا استئصال، شریان سباتی ظاہر کا عمل ربط/Raṭij bal'ūm ka Iste'ṣāl, Shiryān Subātī Ẓāhir ka 'Amal-i-Rabṭ (Excision of Pharyngeal Diverticulum, Ligation of External Carotid Artery)	No	Yes	Yes
5	**(U-5)** عقدہ نقیلی کے لئے رَقبہ کے کتلہ الجزریہ کی تشریح/Uqdah –al naqīlī ke liye raqaba ke kutla'-al-jīzrīyya' ki tashrīḥ (Radical Block Dissection of the Neck for Metastatic Nodes)	No	Yes	Yes
(M-23) غدہ درقیہ کا عمل جراحی/Guddah darqiyya ka amal jīrāhī (Operations on the thyroid gland) (Marks: Range 5-20)				
1	**(U-1)** استئصال ایمن و ایسر نصفی غدہ درقیہ/Iste'ṣāl ayman wa aysar nīṣfī guddah darqiyya (Right and Left Hemi thyroidectomy)	Yes	Yes	Yes
2	**(U-2)** استئصال غدہ درقیہ الفرعی الکلی/Iste'ṣāl guddah darqiyya-alfarī-al-kūlī (Sub Total Thyroidectomy)	Yes	Yes	Yes
3	**(U-3)** کلی استئصال غدہ درقیہ کے قریب /Kūlī Iste'ṣāl guddah darqiyya ke qarīb (Near Total Thyroidectomy)	Yes	Yes	Yes
4	**(U-4)** کلی استئصال غدہ درقیہ میں استئصال جار الدرقیہ /Kūlī Iste'ṣāl guddah darqiyya me Iste'ṣāl guddah jār-al-darqiyya (Total Thyroidectomy including Excision of Parathyroid Gland) کلی استئصال غدہ درقیہ میں استئصال جار الدرقیہ	Yes	Yes	Yes
5	**(U-5)** درقیہ سرطان کی جراحی/darqiyya Saraṭān ki jīrāhī (Surgery for Thyroid Cancer)	Yes	Yes	Yes
(M-24) امراض اذن، انف و حلق میں دیگر عام جراحی/Amraz-i-Uzn, Anf -wa- Ḥalq me dīgar 'Ām Jirāḥi (Other common surgeries in Ear, Nose & Throat) (Marks: Range 5-15)				
1	**(U-1)** قطع الکیس الجلدانی اور قیلہ المخاطیہ/Qaṭ'–al- kais –al-jildānī aur qīlā-al-mūkhātiyyā (Excision of Dermoid Cyst, Mucocele)	No	Yes	Yes
2	**(U-2)** منطقہ راس سے اکیاس دہنیہ کا قطع/Minṭqa rā 's se akyās Duhniyyah ka Qaṭ' (Excision of Sebaceous Cyst from scalp region)	No	Yes	Yes
3	**(U-3)** منطقہ راس سے سلعہ شحمیہ کا قطع/Minṭqa ra's se Sal'a Shaḥmiyya ka Qaṭ' (Excision of lipoma from scalp region)	No	Yes	Yes

4	**(U-4)** ضفدع۔ Ḍifda', Takhfīf-al-Ḍaghaṭ-al-'Asāb Wajhī تخفیف الضغط عصب وجہی (Ranula, Facial Nerve Decompression)	No	Yes	Yes
5	**(U-5)** Endoscopic Dacryocystorhinostomy (DCR)	No	Yes	Yes
S.No	**List of Module/Unit**	**ABQ**	**SAQ**	**LAQ**
Paper No : 4 (امراض اذن، انف، حلق، راس ورقبہ میں جدید تحقیقات Amrāḍ-i-Udhun, Anf Wa Ḥalq, Rās Wa Raqaba Men Jadīd Taḥqīqāt (Recent Advances of Ear, Nose, Throat, Head and Neck Surgery))				
(M-25) Amraz-i-Uzn, Anf -wa-Ḥalq ki tashkhīṣ, al-tasab būb-fī- al-marḍ aur 'Ilāj me jadīd pesh qad mī. (Recent Developments in the Diagnosis, Pathogenesis and Treatments of the ENT Diseases). لتطورات الحدیثۃ فی تشخیص وتسبب وعلاج أمراض الأنف والأذن والحنجرۃ (Marks: Range 5-20)				
1	**(U-1)** Ilīj Tanīn-o- Dawī (Tinnitus Therapy) وڈوی ن ت طن	No	Yes	Yes
2	**(U-2)** Ilīj ibbī 'ibr-al-ṭablā (Trans-tympanic Medical therapy) لط علاج طبی عبران لہ	No	Yes	Yes
3	**(U-3)** Ilīj-al- manā'I, 'Ilīj Waḥdā-al- wīrāthā aur iske ṭarā'īq (Immunotherapy, Gene-therapy & its modalities) علاج المناعی، علاج الوحدہ الوراثہ اور اسکے طرائق	No	Yes	Yes
4	**(U-4)** Jūyūb-al- Anf ka al- JĪRAḤat bī mūsā'idat-al-computer (Computer Assisted Surgery of the Para-nasal Sinuses) مپ وترلک ساعدۃ ام ب جیوب الانف کالجراحت Contents: Components of Computer Assisted	Yes	Yes	Yes
5	**(U-5)** Amrā ḍ - i -Qanat astākī -ūs Ka Tashkhī ṣ Wa Ilāj Ka Jadīd Ṭarīqā .(Novel Approaches of the diagnosis and treatment of Eustachian Tube Disorders) اَاور العج اک دجدی رطہقی.	Yes	Yes	Yes
(M-26) Genetic Testing, Molecular Biology & Radiological Advances in Ear, Nose & Throat الاختبارات الجینیۃ والبیولوجیا الجزیئیۃ والتقدم الإشعاعی فی الأذن والأنف والحنجرۃ (Marks: Range 5-20)				
1	**(U-1)** Magnetic Resonance Imaging (MRI)-Scan	No	Yes	Yes
2	**(U-2)** تصویر الأوعیۃ بالطرح الرقمی (DSA)، التصویر المقطعی بالإصدار البوزیترونی (PET-CT Scan) Positron Emission Tomography (PET-CTScan), Digital Subtraction angiography (DSA)	No	Yes	Yes

3	**(U-3)** تسلسل الحمض النووی، تفاعلات البلمرۃ المتسلسلۃ DNA Sequencing, Polymerase Chain Reactions	No	Yes	Yes
4	**(U-4)** طرق تصویر العظم الصدغی Imaging Modalities of Temporal bone	Yes	Yes	Yes
5	**(U-5)** الإزہار فی التہجین الموضعی Florescence in Situ Hybridization (FISH)	No	Yes	Yes
(M-27) زراع قوقع الاذن، مساعد سمعیہ اور مادہ حیویہ .Zarā Q wq ‘a-al-Udhun, sā id s m iyyā ur Mā ā H iwwiyy (Cochlear Implants, Other Hearing aids & Biomaterials) (Marks: Range 5-20)				
1	**(U-1)** زراع قوقع الاذن Zarā Q wq ‘a-al-Udhun (Cochlear Implants)	Yes	Yes	Yes
2	**(U-2)** زراع سمعی جذع الدماغ .Zarā Sam‘i jidh a-al-dīmāgh (Auditory Brain Stem Implants)	No	Yes	Yes
3	**(U-3)** س لی زراع الاذن الوسطی .Za rā -al-Udhun-al-wasṭ -al-nshṭā . (Active Middle-ear Implants(AMEI).	Yes	Yes	Yes
4	**(U-4)** جہازم لعظ مدعل ای عت ع م لس مسا .Jhāz m sā alas-sam a tamī alal iẓm]Bone Anchored Hearing Aid (BAHA)[	Yes	Yes	Yes
5	**(U-5)** امراض اذن، انف وحلق میں مادہ حیویہ کا استعمال. Amrāḍ-i-Udhun, Anf w lq m mā ā Haiwwiyy kā Ist māl. (Biomaterials used in ENT)	No	Yes	Yes
(M-28) راس مہ کی عمل جرا .Rās, Raqaba wa Jumjuma ki amal Jīrāḥī. (Head & Neck & Skull Base Surgery (Marks: Range 5-20)				
1	**(U-1)** ضربی ی ہ ج ت ی فک اور ضرر رقبہ .ar ī Ja h Fakkī aur ḍarar Raqaba. (Facio-maxillary trauma & Neck Injury)	Yes	Yes	Yes
2	**(U-2)** ضرر ن خف ق حفرہ .Ḍarar hufrā Qaḥfīyyā .(Cranial Fossae Injury)	Yes	Yes	Yes
3	**(U-3)** استئصال النخامیۃ .Iste’ṣāl-al-nūkhāmī. (Hypophysectomy).	Yes	Yes	Yes
4	**(U-4)** عصب بصری کا طاع لض تخفیف .Aṣab Baṣarī ka takhfīf-al-ḍaght (Optic Nerve Decompressions)	Yes	Yes	Yes
5	**(U-5)** جراح فونو میں جدید تحقیقات وا J rā n m J q qāt-o-′ ā ā-al-t′āh l-al-J rā(Recent Advances in Phono-surgery and Post-Operative Rehabilitation) التا ھیل ااحا حی.	No	Yes	Yes
(M-29) طب النوم .Sleep Medicine. Tibu Alnawm (Marks: Range 5-20)				

1	**(U-1)** فسیولوجیا النوم واضطرابات التنفس المرتبطة بالنوم Physiology of Sleep & Sleep related Breathing Disorders fisyulujia alnawm wadtirabat altanafus almurtabitat bialnawm	No	Yes	Yes
2	**(U-2)** الإدارة الطبية والجراحية لاضطرابات التنفس المرتبطة بالنوم (الشخير، انقطاع التنفس الانسدادي أثناء النوم (OSA) Medical & Surgical Management of Sleep Related breathing Disorders (Snoring, Obstructive Sleep Apnea (OSA) al'iidarat altibiyat waljirahiat liaidtirabat altanafus almurtabitat bialnawm (alshakhiru, anqitae altanafus aliansidadii 'athna' alnawm (OSA)	No	Yes	Yes
3	**(U-3)** علاج الضغط الهوائي الإيجابي المستمر (CPAP) في انقطاع التنفس أثناء النوم Continuous Positive Airway Pressure (CPAP) therapy in Sleep Apnea. eilaj aldaght alhawayiyi al'iijabii almustamiri (CPAP) fi anqitae altanafus 'athna' alnawm	No	Yes	Yes
4	**(U-4)** Polysomnography (PSG)	Yes	Yes	Yes
(M-30) المعرفة الأساسية بالعلم الأورام في أمراز آزن عناف حلق Basic Knowledge of Oncology in Amraz-e Uzn Anaf Halq almaerifat al'asasiat lieilm al'awram fi 'amraz 'azn eanaaf halaq (Marks: Range 5-20)				
1	**(U-1)** Tumor Biology of Head & Neck Cancers	Yes	Yes	Yes
2	**(U-2)** Chemotherapy & Chemotherapeutic Agents	Yes	Yes	Yes
3	**(U-3)** Radiation therapy (Radiotherapy) in Head & neck Cancers	Yes	Yes	Yes
4	**(U-4)** New Radiographic Techniques	No	Yes	Yes
(M-31) الجراحات التجميلية والتجميلية المتعلقة بالأنف والحنجرة Plastic & Cosmetic Surgeries related to ENT (Marks: Range 5-20)				
1	**(U-1)** Grafts, Local Flaps & Reconstructive Micro Surgery.	Yes	Yes	Yes
2	**(U-2)** Basic Knowledge of Plastic & Cosmetic Surgery related to Ear, Nose & throat	Yes	Yes	Yes
3	**(U-3)** Lasers & Platelet Rich Plasma in Cosmetics in ENT.	Yes	Yes	Yes
(M-32) Lasers, Fibre-optics, Cryosurgery, Powered Instrumentation & Other novel methods used in ENT. (Marks: Range 5-15)				

1	**(U-1)** Laser Surgery & Basics of Lasers.	No	Yes	Yes
2	**(U-2)** Fibre-optics	No	Yes	Yes
3	**(U-3)** Cryosurgery	No	Yes	No
4	**(U-4)** Powered Instrumentation	No	Yes	Yes
5	**(U-5)** Hyperbaric Oxygen Therapy In ENT	No	Yes	No

6 G : Instruction for the paper setting & Blue Print for Summative assessment (University Examination)

Instructions for the paper setting.

1. University examination shall have 4 papers of 100 marks.

Each 100 marks question paper shall contain:-

• Application Based Question: 1 No (carries 20 marks)

• Short Answer Questions: 8 Nos (each question carries 05 marks)

• Long Answer Questions: 4 Nos (each question carries 10 marks)

2. Questions should be drawn based on the table 6F.

3. Marks assigned for the module in 6F should be considered as the maximum marks. No question shall be asked beyond the maximum marks.

4. Refer table 6F before setting the questions. Questions should not be framed on the particular unit if indicated “NO”.

5. There will be a single application-based question (ABQ) worth 20 marks. No other questions should be asked from the same module where the ABQ is framed.

6. Except the module on which ABQ is framed, at least one Short Answer Question should be framed from each module.

7. Long Answer Question should be analytical based structured questions assessing the higher cognitive ability.

8. Create Blueprint based on instructions 1 to 7.

6 H : Distribution of Practical Exam (University Examination)

S.No	Heads	Marks
1	Long case or procedure/Major practical as applicable Minimum two surgical procedures of 50 Marks each should be performed or four Long cases or procedures of 25 marks each can be allotted for demonstration in different modules listed below Module No:- 7,8,10,12,17,18,19,20,21,22,23,24,28,32	100
2	Short case or procedure/Minor practical Minimum one Short case or procedure from paper-1 and one Short case or procedure from paper-2 / paper-3 of 25 Marks each should be allotted in different modules listed below: Module No:- 1,2,3,4,5,6,7,8,9,11,13,14,15,16,25,26,27,29,30,31	50
3	Spotting (Instruments, Equipment, Specimens, Models and Drugs) 10 marks each	50
4	Assessing teaching ability PG student teaching ability can be evaluated by lecture or demonstration. Long-case or short-case topics Allotted to the PG scholar can be asked to demonstrate in UG or junior batch PG students.	25
5	Assessing presentation skills PG student will have to present the allotted topic infront of the examiners. The examiners will evaluate the presentation and communication skills of student.	25
6	Viva (4 examiners: 25 marks/each examiner)#	100
7	Logbook (Activity record) Daily lectures/practical/experiential activities should be recorded in the logbook and checked by the concerned teacher. Marks will be deducted in case of incomplete or unchecked logbook	25

8	Practical/Clinical Record A minimum of 10 case sheets / Clinical Records of each paper should be maintained.	25
Total Marks		**400**

No separate marks for dissertation viva.

Reference Books/ Resources

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Abbreviations

Domain		T L Method		Level	
CK	Cognitive/Knowledge	L	Lecture	K	Know
CC	Cognitive/Comprehension	L&PPT	Lecture with PowerPoint presentation	KH	Knows how
CAP	Cognitive/Application	L&GD	Lecture & Group Discussion	SH	Shows how
CAN	Cognitive/Analysis	L_VC	Lecture with Video clips	D	Does
CS	Cognitive/Synthesis	REC	Recitation		
CE	Cognitive/Evaluation	SY	Symposium		
PSY-SET	Psychomotor/Set	TUT	Tutorial		
PSY-GUD	Psychomotor/Guided response	DIS	Discussions		
PSY-MEC	Psychomotor/Mechanism	BS	Brainstorming		
PSY-ADT	Psychomotor Adaptation	IBL	Inquiry-Based Learning		
PSY-ORG	Psychomotor/Origination	PBL	Problem-Based Learning		
AFT-REC	Affective/ Receiving	CBL	Case-Based Learning		
AFT-RES	Affective/Responding	PrBL	Project-Based Learning		
AFT-VAL	Affective/Valuing	TBL	Team-Based Learning		
AFT-SET	Affective/Organization	TPW	Team Project Work		
AFT-CHR	Affective/ characterization	FC	Flipped Classroom		
		BL	Blended Learning		
		EDU	Edutainment		
		ML	Mobile Learning		
		ECE	Early Clinical Exposure		
		SIM	Simulation		
		RP	Role Plays		

		SDL	Self-directed learning		
		PSM	Problem-Solving Method		
		KL	Kinaesthetic Learning		
		W	Workshops		
		GBL	Game-Based Learning		
		LS	Library Session		
		PL	Peer Learning		
		RLE	Real-Life Experience		
		PER	Presentations		
		D-M	Demonstration on Model		
		PT	Practical		
		X-Ray	X-ray Identification		
		CD	Case Diagnosis		
		LRI	Lab Report Interpretation		
		DA	Drug Analysis		
		D	Demonstration		
		D-BED	Demonstration Bedside		
		DL	Demonstration Lab		
		DG	Demonstration Garden		
		FV	Field Visit		
		JC	Journal Club		
		Mnt	Mentoring		
		PAL	Peer Assisted Learning		
		C_L	Co Learning		