



**NUMS**

NATIONAL UNIVERSITY  
OF MEDICAL SCIENCES

**STUDY GUIDE**

**ENT**

**CMH Lahore Medical**

**&**

**College of Dentistry**

**2021-2022**

## Study Guide 4<sup>th</sup> year MBBS ENT and Head and Neck Surgery

### Department Information:-

The department of ENT and Head & Neck Surgery has following Faculty members

1. **Lt Col (R) Ayub Ahmad Khan**  
Professor of ENT
2. **Brig Attique Ahmed**  
Associate Professor of ENT
3. **Col Usman Rafique**  
Assistant Professor
4. **Lt Col Khalid Azam**  
Associate Professor
5. **Maj Nadia**  
Senior Registrar
6. **Dr Anam Asif**  
Registrar
7. **Maj Tayyab**  
PGR
8. **Dr Wajiha**  
PGR
9. **Dr Affaf**  
PGR

Prof Lt Col (r) Ayub Ahamd Khan is considered to be the part of Civilian Faculty while other faculty members are considered army faculty. Civil faculty have their offices in the College building and share the same clinics for patient consultation in Combined Military Hospital Lahore. Civil and Military faculty both are equally involved in teaching the students. Faculty not only teach fourth years MBBS but also take care of learning needs of first, second and third year MBBS and BDS Classes. Combined Military Hospital is a multidisciplinary organization and our undergraduate and postgraduate students work in harmony with Maxillofacial, Neurosurgical, Ophthalmic and Plastic Surgery Departments. Our Postgraduate trainees do their clinical rotations with these departments.

### Our Mission:

Our mission is to equip the average student with the minimum essential knowledge, skill and attitude to make him able to:-

- Identify common ENT diseases, emergencies, providing primary health care, referral to an appropriate center and conducting follow-ups.
- Perform minor procedures safely, and enabling the student to communicate effectively with the patient and his/her family about the disease and other relevant issues.
- Understanding ethics, being empathetic to the patient's plight and maintaining patient confidentiality.

Our strategy to achieve the aforementioned goals will be:

- I. Interactive lectures
- II. Small group discussion
- III. Problem based learning
- IV. Clinical rotations and ward visits
- V. Tutorials
- VI. CPCs and Seminars
- VII. PBL- group taken
- VIII. SDL-online tutorial and lecture
- IX. Research projects

**Outcome:**

By the end of the rotation in the Department of ENT and Head and Neck Surgery, the student should be able to:

- I. Obtain an appropriate History including history of present illness, past, personal, Socioeconomic and family history.
- II. Perform routine examination
  - a. General Physical Examination
  - b. Examination of Neck
  - c. Examination of Swelling
  - d. Examination of Oral Cavity and throat.
  - e. Examination of Nose
  - f. Examination of Ear
- III. Identify common ENT problems and perform tests
  - a. Ear
    - i. Pre-auricular region swelling
    - ii. Swelling of Pinna
    - iii. Seroma of Pinna
    - iv. Abscess of Pinna
    - v. Otitis Externa including localized and generalized
    - vi. Tympanic membrane perforation
    - vii. Tympanic membrane granulation
    - viii. Ossicles including Handle of Malleus and long process of incus
    - ix. Tuning fork tests
    - x. Tests of Vestibular Function
    - xi. Tests of cerebellar function
    - xii. Interpret audiogram and tympanogram
  - b. Nose
    - i. Vestibule of nose
    - ii. Nasal septum
    - iii. Lateral wall of Nose
    - iv. Inferior turbinate
    - v. Middle turbinate
    - vi. Deviated nasal septum
    - vii. Check patency of nose

- viii. Nasal Polyps
  - ix. Identify unilateral and bilateral nasal obstruction
  - x. Interpret X Ray PNS
  - xi. Interpret X Ray Neck for adenoids
  - c. Throat and Oral Cavity
    - i. Teeth
    - ii. Vestibule of Oral Cavity
    - iii. Floor of oral cavity
    - iv. Openings of submandibular and parotid ducts
    - v. Anterior and posterior faucial pillars
    - vi. Tonsils
    - vii. Posterior pharyngeal wall
    - viii. Hard palate, soft palate and uvula
    - ix. Tongue and its lateral borders
  - d. Neck
    - i. Colour
    - ii. Thyroid gland
    - iii. Parotid and submandibular gland
    - iv. Neck nodes
    - v. Examination of swelling
    - vi. Laryngeal cartilages
- IV. Outline appropriate management plans
- a. Interpret investigations
    - i. Blood CBC
    - i. Hepatitis Profile
    - ii. Coagulation profile
    - iii. Tympanogram
    - iv. Audiogram
    - v. X Ray Neck, PNS and Chest
  - b. Co-relate history, examination findings and investigations and do clinical reasoning and establish diagnosis considering all differential diagnosis.
  - c. Plan treatment in the light of established diagnosis.

# ENT - BLOCK I

## (EAR)

Course coordinator- Prof Lt Col Ayub Ahmad Khan

Professor ENT

drayubahmadkhan@gmail.com

Cell- 0321-6146101(contact between 1200-1400hrs)

He will be available in his office for any question or query on Mon, Wed and Friday (900-1200hrs)

**CODE: Y4B1**

**Duration: 12 weeks**

**At the end of this block,  
student will be able to:**

S No	Theme/ Topic	Learning out comes	Course content	%
1	<b>Basic of hearing and balance</b>	<ul style="list-style-type: none"> <li>• Revisit the applied anatomy and physiology of hearing and balance as well as Eustachian tube and its role in hearing</li> <li>• Recall the pathophysiology of vertigo</li> </ul>	<ul style="list-style-type: none"> <li>• Anatomy and physiology of hearing and balance</li> <li>• Effects of Eustachian tube malfunction</li> <li>• Pathophysiology of vertigo</li> </ul>	05
2	<b>Discharge &amp; Deafness</b>	Suggest a management plan for a patient with ear discharge after interpreting relevant investigations if needed	<b>Discharge Ear</b> DD of Discharging Ear Overview and Classification of Otitis Media <u>Diseases*</u> <ul style="list-style-type: none"> <li>• Acute Suppurative Otitis Media</li> <li>• Chronic                Suppurative                Otitis Media                CSF Otorrhoea                Bleeding from Ear [                Trauma Base of Skull</li> </ul>	40

		<ul style="list-style-type: none"> <li>• Differentiate between various types of deafness on the basis of history and examination</li> <li>• Interpret appropriate investigations to reach the final diagnosis</li> <li>• Suggest appropriate plan for treatment and rehabilitation</li> </ul>	<p><b>Deafness</b></p> <p>Overview of Deafness</p> <ul style="list-style-type: none"> <li>• Causes [Unilateral/Bilateral/Sudden/Children]</li> <li>• DD</li> <li>• Social/Medico legal aspects</li> </ul> <p><u>Diseases Causing Conductive deafness</u></p> <ul style="list-style-type: none"> <li>• Wax</li> <li>• FB</li> <li>• Fluid in Middle Ear [ Sec OM]</li> </ul>	
		<ul style="list-style-type: none"> <li>• Retell medico legal and social aspects of deafness</li> </ul>	<ul style="list-style-type: none"> <li>• Trauma to ear [Traumatic Perforation of TM Haemotympanum/Ossicular disruption</li> <li>• Otosclerosis</li> </ul> <p><u>Diseases Causing Senso Neural Deafness</u></p> <ul style="list-style-type: none"> <li>• Presbycusis</li> <li>• Drug Induced Deafness</li> <li>• Noise Induced Deafness and Acoustic Trauma</li> </ul> <p>Psychogenic Deafness Deaf-Mutism in Children Rehabilitation of the Deaf Hearing Aid Cochlear implant</p>	

3	<b>Otalgia</b>	<ul style="list-style-type: none"> <li>• Differentiate between referred otalgia and that arising from local conditions of ear</li> <li>• Suggest appropriate treatment after the interpretation of relevant investigations if needed</li> </ul>	<b>Causes and Differential Diagnosis of Otalgia</b> *Eiology/ Pathogenesis, Signs Symptoms, Investigations, treatment Complications Follow-up <ul style="list-style-type: none"> <li>• Boil</li> <li>• Otitis Externa</li> <li>• Ac Otitis media</li> <li>• Herpes Simplex</li> <li>• Perichondritis</li> <li>• Traumatic conditions of external and middle ears</li> <li>• Referred otalgia</li> <li>• Barotrauma</li> <li>• Complications of CSOM</li> <li>• Ca- Middle Ear??</li> </ul>	20
4	<b>Vertigo &amp; Tinnitus</b>	<ol style="list-style-type: none"> <li>1. Differentiate between various types of vertigo in relation to its pathophysiology</li> <li>2. Suggest appropriate treatment including rehabilitation after the interpretation of investigations if needed</li> </ol> <ol style="list-style-type: none"> <li>3. Diagnose a case presenting with tinnitus on the basis of signs, symptoms and appropriate investigations</li> <li>4. Suggest thorough management plan</li> </ol> <ul style="list-style-type: none"> <li>• Retell medico legal and social aspects of deafness</li> </ul>	<b>Overview of Vertigo</b> <ul style="list-style-type: none"> <li>• Differentiation between True rotator vertigo, Dizziness and Unsteadiness</li> <li>• Causes of vertigo <ul style="list-style-type: none"> <li><u>Diseases Causing Vertigo</u>(BPPV, Vestibular Neuronitis, Meniere, S Disease)</li> </ul> </li> </ul> <b>Overview of Tinnitus</b> <ul style="list-style-type: none"> <li>• Causes of Tinnitus</li> <li>• How to investigate and manage a case of Tinnitus</li> </ul> <ul style="list-style-type: none"> <li>• <b>Trauma to ear [Traumatic Perforation of TM Haemotympanum/Ossicular disruption</b></li> <li>• <b>Otosclerosis Diseases Causing Senso Neural Deafness</b></li> <li>• <b>Presbycusis</b></li> <li>• <b>Drug Induced Deafness</b></li> <li>• <b>Noise Induced Deafness and Acoustic Trauma</b></li> </ul>	25

			<b>Psychogenic Deafness</b> <b>Deaf-Mutism in Children</b> <b>Rehabilitation of the Deaf</b> <b>Hearing Aid</b> <b>Cochlear implant</b>	
3	<b>Otalgia</b>	<ul style="list-style-type: none"> <li>• Differentiate between referred otalgia and that arising from local conditions of ear</li> <li>• Suggest appropriate treatment after the interpretation of relevant investigations if needed</li> </ul>	<b>Causes and Differential Diagnosis of Otalgia</b> <b>*Eiology/ Pathogenesis, Signs Symptoms, Investigations, treatment Complications Follow-up</b> <ul style="list-style-type: none"> <li><input type="checkbox"/> Boil</li> <li><input type="checkbox"/> Otitis Externa</li> <li><input type="checkbox"/> Ac Otitis media</li> <li><input type="checkbox"/> Herpes Simplex</li> <li><input type="checkbox"/> Perichondritis</li> <li><input type="checkbox"/> Traumatic conditions of external and middle ears</li> <li><input type="checkbox"/> Referred otalgia</li> <li><input type="checkbox"/> Barotrauma</li> <li><input type="checkbox"/> Complications of CSOM</li> <li><input type="checkbox"/> Ca- Middle Ear??</li> </ul>	20
4	<b>Vertigo &amp; Tinnitus</b>	3. Differentiate between various types of vertigo in relation to its pathophysiology 4. Suggest appropriate treatment including rehabilitation after the interpretation of investigations if needed	<b>Overview of Vertigo</b> <ul style="list-style-type: none"> <li>• <b>Differentiation between True rotator vertigo, Dizziness and Unsteadiness</b></li> <li>• <b>Causes of vertigo Diseases Causing Vertigo(BPPV, Vestibular Neuronitis, Meniere, S Disease)</b></li> </ul>	25
		5. Diagnose a case presenting with tinnitus on the basis of signs, symptoms and appropriate investigations 6. Suggest thorough management plan	<b>Overview of Tinnitus</b> <ul style="list-style-type: none"> <li>• <b>Causes of Tinnitus</b></li> <li>• <b>How to investigate and manage a case of Tinnitus</b></li> </ul>	
			<ul style="list-style-type: none"> <li>• Acoustic Neuroma</li> </ul>	



5	<b>Facial disfigurement</b>	Identify the lesions of facial nerve relating to its etiology	<ul style="list-style-type: none"> <li>• Anatomy of Facial Nerve</li> <li>• Electrophysiological Test for Facial Nerve</li> <li>• Differentiation between upper and lower motor Neuron lesion</li> <li>• Causes and work-up in a case of Facial Paralysis</li> <li>• Treatment/ Complications and Follow- up</li> <li>• facial nerve palsy (secondary to ear surgery, trauma, bell's palsy and Attic disease), Unsafe chronic otitis media, Fracture Temporal bone</li> </ul>	10
		Recognize the salient features of common tumors of Ear	<ul style="list-style-type: none"> <li>• Presentation, features and diagnosis of Basal cell carcinoma of pinna, Squamous cell carcinoma of external and middle ear, Glomus tumor and Acoustic neuroma</li> </ul>	
Total				<b>100</b>
	<b>End Block Assessment</b>	<b>End Block Assessment to be taken by concerned institute itself Assessment tools: MCQs &amp; SAQs/SEQs</b>		

## ENT – BLOCK II

Course coordinator- Prof Lt Col Ayub Ahmad Khan

Professor ENT

drayubahmadkhan@gmail.com

Cell- 0321-6146101(contact between 1200-1400hrs)

He will be available in his office for any question or query on Mon, Wed and Friday (900-1200hrs)

CODE- Y4B1

Duration: 12 Weeks

By the end of Block-1 , the Student will be able to :

S.NO	Theme	Learning Outcomes	Contents	
1.	Basic of Nose and Para nasal Sinuses	<ul style="list-style-type: none"> <li>• Revisit the applied anatomy and physiology of nose and Paranasal sinuses</li> </ul>	<p><b>Anatomy of Nose &amp; Para-Nasal Sinuses</b> Basic concepts in clinical anatomy of nose &amp; Paranasal sinuses Anatomical routes of extensions of disease of nose and PNS into oral cavity, nose, orbit and skull base.</p> <p><b>Physiology of Nose &amp; Para-Nasal Sinuses</b> Basic concepts in clinical physiology of nose &amp; Paranasal sinuses Patho-physiology and extensions of diseases of nose and PNS into oral cavity, nose, orbit and skull base</p>	10
2.	<b>Nasal obstructions</b>	<ul style="list-style-type: none"> <li>• Enlist different causes of unilateral and bilateral obstruction</li> <li>• Suggest appropriate plan of investigations and management</li> </ul>	<p><b>Overview of Nasal Obstruction</b> <b>[unilateral/Bilateral/Adults /Children/Neonate]</b> Diseases causing Obstruction DNS Nasal Polyp [ in Children, adults, Elderly] FB Nose Septal Haematoma/Abscess ADENOIDS Obstructive Sleep Apnoea</p>	40

			<b>Congenital abnormalities</b> Choanal Atresia/Meningocele/Encephalocele Tumors of Nose [Classification + special Emphasis on Angiofibroma, Ca-Maxilla and Ca-Nasopharynx ]	
3.	<b>Discharge and Epistaxis</b>	Differentiate between various types of Rhinitis on the basis of signs and symptoms <input type="checkbox"/> Interpret necessary investigations <input type="checkbox"/> Suggest symptomatic and curative treatment	<b>Overview of Rhinitis</b>  <b>Rhinitis*</b> o Allergic rhinitis o Vasomotor Rhinitis o Infective rhinitis [Viral, Bacterial] o Rhinitis Medica Mentosa o Atrophic Rhinitis o Wegners Granuloma and list of other  <b>Granulomatous diseases</b> <input type="checkbox"/> Etiology of Nasal Allergy <input type="checkbox"/> Symptoms and signs of Allergic Rhinitis. <input type="checkbox"/> Examination of patients of Allergic Rhinitis. <input type="checkbox"/> Investigation of Allergic Rhinitis  Symptomatic and curative treatment options	30
		Suggest thorough management plan in case of Epistaxis <input type="checkbox"/> Suggests measures to control refractory epistaxis	<b>Blood Supply of Nose</b> <input type="checkbox"/> Epistaxis <input type="checkbox"/> Angiofibroma	

4.	<b>Headache and facial pains</b>	<p>Differentiate between various causes of Facial Pain and Headache on the basis of history and clinical examination</p> <ul style="list-style-type: none"> <li><input type="checkbox"/> Advise necessary investigations if needed</li> <li><input type="checkbox"/> Suggest appropriate treatment plan</li> </ul>	<p>Overview of Facial Pain and headache</p> <p><b>Acute and Chronic Sinusitis</b></p> <ul style="list-style-type: none"> <li><input type="checkbox"/> Patho-physiology of sinus infection</li> <li><input type="checkbox"/> Signs and symptoms of sinus disease.</li> <li><input type="checkbox"/> Detailed Investigation of sinus infection / how to read a PNS CT scan</li> <li><input type="checkbox"/> Medical &amp; Surgical treatment of sinus infection</li> <li><input type="checkbox"/> Basics of FESS its indication /procedure/ complications</li> </ul> <p><b>Complications of Sinusitis</b></p> <ul style="list-style-type: none"> <li><input type="checkbox"/> Common orbital, nasal, oral, dental and intra-cranial complication of Sinus</li> </ul> <p>Pathology and its management.</p> <ul style="list-style-type: none"> <li><input type="checkbox"/> Fungal Sinusitis and its management.</li> <li><input type="checkbox"/> Atypical facial pains</li> <li><input type="checkbox"/> Granulomatous diseases and Tumors</li> <li><input type="checkbox"/> Sinus barotrauma</li> </ul>	20
Total				100
<p><b>End Block Assessment</b></p> <p>End Block Assessment to be taken by concerned institute itself</p> <p>Assessment tools: MCQs &amp; SAQs/SEQs</p>				

# ENT - BLOCK III (THROAT & LARYNX)

CODE: Y4B3

**Duration: 10 weeks**

Course coordinator- Brig Attique

Associate Professor ENT

Cell- 03005197980(contact between 1200-1400hrs)

He will be available in his office for any question or query on Tuesday and Thursday (900-1200hrs)

**At the end of this block, student will be able to:**

S No	Theme/Topic	Learning Outcomes	Course Contents	%
1.	<b>Sore throat and pain</b>	<input type="checkbox"/> Manage acute and chronic tonsillitis <input type="checkbox"/> Identify need of tonsillectomy in a case of chronic tonsillitis <input type="checkbox"/> Revisit the applied anatomy and physiology of pharynx <input type="checkbox"/> Manage acute and chronic Pharyngitis <input type="checkbox"/> Manage the common disorders of oral cavity <input type="checkbox"/> Suspect a tumor of oropharynx on the basis of signs and symptoms	<p><b>Acute &amp; Chronic Tonsillitis</b></p> <input type="checkbox"/> symptoms and signs of Acute and Chronic Tonsillitis <input type="checkbox"/> important investigations <input type="checkbox"/> medical and surgical treatment options <input type="checkbox"/> Indications and technique of tonsillectomy	40
			<p>Acute &amp; Chronic Pharyngitis</p> <ul style="list-style-type: none"> <li>• Basic anatomy and physiology of pharynx and oesophagus and its clinical importance</li> </ul> <p>symptoms, signs, investigations and management of sore throat and recurrent throat infections</p> <p>Common disorders of oral cavity. Basic understanding of the common disorders of oral cavity</p>	
			<p><b>Tumors of Oro-pharynx</b></p> <ul style="list-style-type: none"> <li>• Common sites of tumor of oro-pharynx</li> </ul> <p>Symptoms, signs, investigations and management of these tumors</p>	
2.	<b>Dysphagia and Odynophagia</b>	<p>Differentiate between various types of dysphagia basing on its etiology and patho physiology</p> <p><b>Dysphagia &amp; Disorders of Oesophagus –</b></p> <input type="checkbox"/> Normal swallowing mechanism <input type="checkbox"/> Types of dysphagia	<p><b>Dysphagia &amp; Disorders of Oesophagus –</b></p> <input type="checkbox"/> Normal swallowing mechanism <input type="checkbox"/> Types of dysphagia	30
			<p>Causes and patho-physiology of each cause</p> <p><b>Abscesses around Pharynx</b> (Retro-Pharyngeal Abscess &amp; Peri-Tonsillar Abscess)</p> <input type="checkbox"/> Symptoms of Acute Retero-	

			<p>pharyngeal abscess, and possible complications if this condition is not recognized in time</p> <ul style="list-style-type: none"> <li><input type="checkbox"/> Emergency investigations and management of this condition</li> </ul> <p><b>Oropharyngeal tumors</b>  Carcinoma Tongue &amp; Oral Cavity CBL  symptoms, signs and examination of CA. Tongue emergency investigations and management of this condition</p>	
3.	<b>Hoarseness and stridor</b>	<p>Differentiate between different causes of hoarseness and stridor on the basis of signs and symptoms</p> <ul style="list-style-type: none"> <li><input type="checkbox"/> Outline relevant investigations</li> <li><input type="checkbox"/> Suggest treatment modalities for hoarseness and stridor</li> </ul>	<p>Congenital Lesions of Larynx &amp; Stridor  Basic differences between anatomy and physiology of larynx of a child as compared to the adult  Pathophysiology of congenital lesions of larynx</p> <hr/> <p>Acute &amp; Chronic Laryngitis CBL:  <input type="checkbox"/> Symptoms, signs and examination of Acute Laryngitis  <input type="checkbox"/> Emergency investigations and management of this condition</p> <hr/> <p>Laryngeal Paralysis, Voice &amp; Speech Disorders –  <input type="checkbox"/> Patho-physiology of Laryngeal paralysis  <input type="checkbox"/> Patho-physiology of Voice and speech disorders  Carcinoma of Larynx –  <input type="checkbox"/> symptoms, signs and examination of a patient suspected to have CA.  <b>Larynx</b>  <input type="checkbox"/> emergency investigations and different management plan of this condition</p>	20
4.	<b>Neck masses</b>	<p>Differentiate between different types of neck masses on the basis of signs and symptoms  Advise relevant Investigations and management plan</p>	<p>Distribution and drainage area of Neck Lymph Nodes</p> <ul style="list-style-type: none"> <li><input type="checkbox"/> D/D of Lateral Neck Masses</li> <li><input type="checkbox"/> D/D of Lymph Node enlargement in Neck</li> <li><input type="checkbox"/> Work-up for a suspected Metastatic Lymph Node</li> <li><input type="checkbox"/> Thyroid gland-</li> </ul>	
5.	<b>Advances in ENT/Neck surgeries</b>	<p>Reproduce the basic concept about recent trends in different ENT</p>	<p>Laser Surgery, Cryosurgery, HIV Infection/ AIDS &amp; ENT Managements</p>	10

		treatment modalities	<input type="checkbox"/> Physics and physiology of LASER surgery and Cryosurgery <input type="checkbox"/> Basics of HIV and AIDS infection  Radiotherapy / Chemotherapy for Head & Neck Cancers – Basics of Radiotherapy and Chemotherapy in head and neck cancers	
Total				100
	<b>End Block Assessment</b>	<b>End Block Assessment to be taken by concerned institute itself</b> <b>Assessment tools: MCQs &amp; SAQs/SEQs</b>		

### SCHEDULE OF CLINICAL TRAINING

S. No.	LEARNING OUTCOMES	ACTIVITY
<b>At the end of 8 weeks training the student should be able to:</b>		
<b>EAR</b>		
<b>1.</b>	<b><u>SPECIAL SKILLS</u></b>	<b><u>OPD / Ward</u></b>
	<ol style="list-style-type: none"> <li>1. Take history of a patient with Ear pathology</li> <li>2. Demonstrate the use of Otoscope to aid in examination of the external auditory canal and the tympanic membrane and learn (Use of Seigle's speculum).</li> <li>3. Demonstrate the use of tuning forks and interpret the findings.</li> <li>4. Demonstrate Syringing of ear.</li> <li>5. Reproduce steps of recording tympanogram and hearing levels on audiogram.</li> <li>6. Interpret audiogram and tympanogram</li> <li>7. Identify all common Ear instruments used in OPD</li> </ol>	<ol style="list-style-type: none"> <li>1. Video clip of examination of ear.</li> <li>2. Demonstration of clinical examination of ear.</li> <li>3. Practical session of examination of ear</li> <li>4. Examination of ear on patients</li> <li>5. Assessment of Hearing</li> <li>6. Audiogram / Tympanogram, practical demonstration &amp; discussion</li> </ol> <p><b>Instruments</b> Students must be able to identify ear instruments used in ENT OPD</p>
<b>2.</b>	<ol style="list-style-type: none"> <li>1. Perform OT scrub for surgery according to the protocol</li> <li>2. Reproduce the procedure of the operations, mentioned in column III, including their indications and post-operative care</li> <li>3. Identify all common Ear instruments used in OT</li> </ol>	<b><u>OT</u></b>
		<ol style="list-style-type: none"> <li>1. How to enter the operation theatre.</li> <li>2. How to behave in OT</li> <li>3. Steps of washing and preparation for operation</li> <li>4. Students should observe the following operations</li> <li>5. Myringotomy</li> <li>6. I/D of hematoma ear</li> <li>7. Removal of Foreign body ear</li> <li>8. Removal of wax</li> <li>9. Myringoplasty and Mastoidectomy</li> </ol>



		10. Abscess incision drainage/Hematoma ear <b>Instruments</b> <input type="checkbox"/> Students must be shown ear instruments used in above mentioned surgeries
<b>NOSE</b>		
<b>1.</b>	<b>Special Skills</b> 1. Take history of a patient with nasal pathology 2. Perform basic examination of nose and paranasal sinuses in a stepwise fashion 3. Diagnose a case of Nasal Polypi on the basis of glistening appearance of nasal polypi in anterior rhinoscopy 4. Interpret a simple X-Ray / CT Scan for Sinus, Paranasal Sinus, Nasopharynx and other simple ENT pathologies 5. Identify all common Nasal instruments used in OPD	<b>OPD / Ward</b> 1. Examination of nose and para nasal sinuses. The steps and logic behind it 2. Video clip of examination of nose and para nasal sinuses. 3. Demonstration of nose and para nasal sinuses 4. Practical session of examination of nose and para nasal sinuses in patients 5. Nasal Polypi – demonstration on patient 6. Simple X-Ray / CT Scan for Sinus, Paranasal Sinus, Nasopharynx and other simple ENT pathologies
<b>2.</b>	1. Reproduce the procedure of the operations, mentioned in column III, including their indications and post-operative care 2. Identify all common Nasal instruments used in OT	<b>OT</b> Students should observe the following operations 1. Septoplasty 2. Anterior nasal packing 3. Sinus lavage 4. Electrocautery 5. SMR, procedure, indications and post-operative care 6. FESS procedure and post-operative care 7. Observation of FESS procedure 8. Epistaxis and its management <b>Instruments</b> Students must be shown instruments used in above mentioned surgeries

<b>Throat &amp; Larynx</b>		
<b>1.</b>	<p><b>Special Skills</b></p> <ol style="list-style-type: none"> <li>1. Take history of a patient with throat and laryngeal pathology</li> <li>2. Perform examination of throat</li> <li>3. Perform basic examination of larynx in a clinical setting</li> <li>4. Identify all common instruments used in OPD</li> </ol>	<p><b>OPD / Ward</b></p> <ol style="list-style-type: none"> <li>1. Clinical examination of throat, the steps and logic behind it</li> <li>2. Video clip of throat examination.</li> <li>3. Demonstration of examination of throat</li> <li>4. Practical session of examination of throat on patients</li> <li>5. Laryngeal Disorders – Ward demonstration</li> </ol>
<b>2.</b>	<p>Reproduce the procedure of the operations, mentioned in column III, including their indications and post-operative care</p> <ol style="list-style-type: none"> <li>1. Perform tracheostomy in emergency situations</li> <li>2. Identify all common instruments used in OT</li> </ol>	<p><b>OT</b></p> <p>Students should observe the following operations</p> <ol style="list-style-type: none"> <li>1. Tracheostomy, procedure, indications and post-operative care</li> </ol> <p><b>Instruments</b></p> <p>Students must be shown instruments used in above mentioned surgeries</p>
<b>WARD TEST</b>		

## Proposed Academic Calendar - 4th Year MBBS (2021-22)

Weeks	Details	Dates	
		From	To
1 – 5	Start of New Class	22 Nov 2021	
	1 <sup>st</sup> Module (5/11 weeks)	22 Nov 2021	23 Dec 2021
6	<b>Winter Vacation (1 week)</b>	<b>24 Dec 2021 (Fri)</b>	<b>02 Jan 2022 (Fri)</b>
7-11	1 <sup>st</sup> Module (5/11 week)	03 Jan 2022	06 Feb 2022
12	<b>1<sup>st</sup> Module Exam (1/11 week)</b>	07 Feb 2022	14 Feb 2022
	Special Pathology	07 Feb 2022 (Mon)	
	Eye	09 Feb 2022 (Wed)	
	ENT	11 Feb 2022 (Fri)	
	Community Medicine	14 Feb 2022 (Mon)	
13-15	2 <sup>nd</sup> Module (3/12 Weeks)	15 Feb 2022	06 Mar 2022
16	<b>Sports Week (Tentative)</b>	<b>07 Mar 2022</b>	<b>13 Mar 2022</b>
17-24	2 <sup>nd</sup> Module (8/12 Weeks)	14 Mar 2022	05 May 2022
	<b>Pakistan Day (Holiday)</b>	<b>23 Mar 2022 (Wed)</b>	
	<b>Eid ul Fitr (Tentatively)</b>	<b>03-05 May 2022 (Tue-Thu)</b>	
25	<b>2<sup>nd</sup> Module Exam (1/12 week)</b>	06 May 2022	15 May 2022
	Special Pathology	06 May 2022 (Fri)	
	Eye	09 May 2022 (Mon)	
	ENT	11 May 2022 (Wed)	
	Community Medicine	13 May 2022 (Fri)	
26-30	3 <sup>rd</sup> Module (5/11 Weeks)	16 May 2022	17 June 2022
31-34	<b>Summer Vacations (4x Weeks)</b>	<b>18 June 2022</b>	<b>17 July 2022</b>
35-39	3 <sup>rd</sup> Module (5/11 weeks)	18 July 2022	21 Aug 2022
	<b>Ashura (Tentatively)</b>	<b>08-09 Aug 2022 (Mon-Tue)</b>	
40	<b>3<sup>rd</sup> Module Exam (1/11 week)</b>	22 Aug 2022	29 Aug 2022
	Special Pathology	22 Aug 2022 (Mon)	
	Eye	24 Aug 2022 (Wed)	
	ENT	26 Aug 2022 (Fri)	
	Community Medicine	29 Aug 2022 (Mon)	
41	Prep Leave for Pre Annual / Send Up Exam	30 Aug 2022	04 Sep 2022
42-43	<b>Pre Annual / Send Up Exam</b>	<b>05 Sep 2022</b>	<b>16 Sep 2022</b>
	Special Pathology	05 Sep 2022 (Mon)	
	Community Medicine	07 Sep 2022 (Wed)	
	Eye	09 Sep 2022 (Fri)	
	ENT	12 Sep 2022 (Mon)	
	<b>OSPE</b>	13 (Tue), 14 (Wed), 15 (Thu), 16 (Fri) Sep 2022	
44-46	Prep Leave for Annual Exam (23 days)	17 Sep 2022	09 Oct 2022
	<b>NUMS Annual Exam</b>	<b>10 Oct 2022 onwards</b>	

# Clinical Rotation Program

Proposed 4th Year MBBS Clinical Rotation Programme Session (2021 - 2022)														
WEEKS	Date	Batch-A	Batch-B	Batch-C	Batch-D	Batch-E	Batch-F	Batch-G	Batch-H	Batch-I	Batch-J	Batch-K	Batch-L	Batch-M
1-3	22 Nov 2021 - 12 Dec 2021	ENT		Medicine / ICU		ENT		EYE		GynaObs		EYE		Surp-3
4-5	13 Dec 2021 - 23 Dec 2021	EYE (D2)	GynaObs (D2)	Psychiatry (D2)	EYE (D2)	Surp-2 (D2)	Surp-3 (D2)	ENT (D2)	Paeds (D2)		Dermatology (D2)	Medicine / ICU (D2)	ENT (D2)	Surp-3 (D2)
6	24 Dec 2021 - 02 Jan 2022	Winter Vacation												
7	03 Jan 2022 - 09 Jan 2022	EYE (I2)	GynaObs (I2)	Psychiatry (I2)	EYE (I2)	Surp-2 (I2)	Surp-3 (I2)	ENT (I2)	Paeds (I2)		Dermatology (I2)	Medicine / ICU (I2)	ENT (I2)	Surp-3 (I2)
8-10	10 Jan 2022 - 30 Jan 2022	Surp-3	ENT	Paeds	Dermatology	Medicine / ICU	ENT	Surp-1	EYE	GynaObs	Psychiatry	EYE		Surp-2
11	31 Jan 2022 - 06 Feb 2022	Surp-1 (I2)	EYE (I2)	GynaObs (I2)	Psychiatry (I2)	EYE (I2)	Surp-2 (I2)	Surp-3 (I2)	ENT (I2)	Paeds (I2)	Dermatology (I2)	Medicine / ICU (I2)	ENT (I2)	ENT (I2)
12	07 Feb 2022 - 14 Feb 2022	1st Module Exam: Sp Pathology - 07 Feb, EYE - 08 Feb, ENT - 09 Feb, Community Medicine - 14 Feb 2022												
13-14	15 Feb 2022 - 27 Feb 2022	Surp-1 (D2)	EYE (D2)	GynaObs (D2)	Psychiatry (D2)	EYE (D2)	Surp-2 (I2)	Surp-3 (D2)	ENT (D2)	Paeds (D2)	Dermatology (D2)	Medicine / ICU (D2)	ENT (D2)	ENT (D2)
15	28 Feb 2022 - 06 Mar 2022	Surp-2 (I2)	Surp-3 (I2)	ENT (I2)	Dermatology (I2)	Medicine / ICU (I2)	ENT (I2)	Surp-1 (I2)	Surp-1 (I2)	EYE (I2)	GynaObs (I2)	Psychiatry (I2)	EYE (I2)	EYE (I2)
16	07 Mar 2022 - 13 Mar 2022	Spring Week												
17-18	14 Mar 2022 - 27 Mar 2022	Surp-2 (D2)	Surp-3 (D2)	ENT (D2)	Dermatology (D2)	Medicine / ICU (D2)	ENT (D2)	Surp-1 (D2)	Surp-1 (D2)	EYE (D2)	GynaObs (D2)	Psychiatry (D2)	EYE (D2)	EYE (D2)
19-21	28 Mar 2022 - 17 Apr 2022	Pakistan Day Holiday												
22-24	18 Apr 2022 - 05 May 2022	ENT	Surp-1	EYE	GynaObs	Psychiatry	EYE	Surp-2 (I2)	Surp-3 (I2)	Surp-3 (I2)	ENT	Paeds	Dermatology	Medicine / ICU
25	06 May 2022 - 15 May 2022	EYE	Surp-2	Surp-3	ENT	Paeds	Dermatology	Medicine / ICU	ENT	Surp-1	Surp-1	EYE	GynaObs	Psychiatry
26-27	16 May 2022 - 29 May 2022	Medicine / ICU	ENT	EYE	GynaObs	Psychiatry	EYE	Surp-2	Surp-2	Surp-3	Surp-3	ENT	Paeds	Dermatology
28-29	30 May 2022 - 12 June 2022	Psychiatry	EYE	Surp-2	Surp-3	ENT	Paeds	Dermatology	Medicine / ICU	Medicine / ICU	ENT	Surp-1	EYE	GynaObs
30	13 June 2022 - 17 June 2022	Dermatology (I2)	Medicine / ICU (I2)	ENT (I2)	Surp-1 (I2)	EYE (I2)	GynaObs (I2)	Psychiatry (I2)	EYE (I2)	Surp-2 (I2)	Surp-2 (I2)	ENT (I2)	Paeds (I2)	Paeds (I2)
31-34	18 June 2022 - 17 July 2022	Summer Vacation												
35	18 July 2022 - 24 July 2022	Dermatology (I2)	Medicine / ICU (I2)	ENT (I2)	Surp-1 (I2)	EYE (I2)	GynaObs (I2)	Psychiatry (I2)	EYE (I2)	Surp-2 (I2)	Surp-2 (I2)	ENT (I2)	Paeds (I2)	Paeds (I2)
36-37	25 July 2022 - 07 Aug 2022	GynaObs	Psychiatry	EYE	Surp-2	Surp-3	ENT	Paeds	Dermatology	Medicine / ICU	Medicine / ICU	ENT	Surp-1	EYE
38-39	08 Aug 2022 - 21 Aug 2022	Paeds	Dermatology	Medicine / ICU	ENT	Surp-1	EYE	GynaObs	Psychiatry	EYE	Surp-2	Surp-2	Surp-3	ENT
40-43	08-09 Aug 2022 (Mon-Tue)	3rd Module Exam: Sp Pathology - 22 Aug, EYE - 24 Aug, ENT - 26 Aug, Community Medicine - 29 Aug 2022												
40	22 Aug 2022 - 29 Aug 2022	Prep Leave for Pre-Annual / Stand Up Exams												
41	30 Aug 2022 - 04 Sep 2022	Pre-Annual / Stand Up Exams												
42-43	05 Sep 2022 - 16 Sep 2022	Pre-Annual / Stand Up Exams												
44-46	17 Sep 2022 - 04 Oct 2022	Pre-Annual / Stand Up Exams												
10 Oct 2022 onwards	MBBS Annual Exam													

Dr. Ayub Ali  
Assistant Professor  
DHPE & POS

Date: 28 Dec 2021  
Prepared by: Mr. Khalid

**Reading Material:**

<b>S. No</b>	<b>Topic</b>	<b>Resource</b>
1.	<b>Basics of Hearing and Balance</b>	<b>Appendex-1(Attached)</b> <b>Youtube Video</b> <a href="https://www.youtube.com/watch?v=3G5jiXl2LSM">https://www.youtube.com/watch?v=3G5jiXl2LSM</a>
2.	<b>Ear Discharge and Deafness</b>	1. <a href="https://www.slideshare.net/DennisLee14/ear-discharge-and-otalgia-58522286?qid=229e390a-0885-4d59-a0a5-875e5d85bda1&amp;v=&amp;b=&amp;from_search=2">https://www.slideshare.net/DennisLee14/ear-discharge-and-otalgia-58522286?qid=229e390a-0885-4d59-a0a5-875e5d85bda1&amp;v=&amp;b=&amp;from_search=2</a> 2. Diseases of Ear Nose and Throat by PL Dhingra 4 <sup>th</sup> Edition Publisher Elsevier Page 22-29, 48-89, 103-109, 110-112.
3.	<b>Otalgia</b>	1. <a href="https://www.slideshare.net/DennisLee14/ear-discharge-and-otalgia-58522286?qid=229e390a-0885-4d59-a0a5-875e5d85bda1&amp;v=&amp;b=&amp;from_search=2">https://www.slideshare.net/DennisLee14/ear-discharge-and-otalgia-58522286?qid=229e390a-0885-4d59-a0a5-875e5d85bda1&amp;v=&amp;b=&amp;from_search=2</a> 2. Diseases of Ear Nose and Throat by PL Dhingra 4 <sup>th</sup> Edition Publisher Elsevier Page 48-89, 103-109, 124-125
4.	<b>Vertigo</b>	1. <a href="https://www.youtube.com/watch?v=1AfvNsaQnTE">https://www.youtube.com/watch?v=1AfvNsaQnTE</a> 2. <a href="https://www.youtube.com/watch?v=jBzID5nVQjk">https://www.youtube.com/watch?v=jBzID5nVQjk</a> 3. Diseases of Ear Nose and Throat by PL Dhingra, 4 <sup>th</sup> Edition Publisher Elsevier Page 99-103, 110-112
5.	<b>Tinnitus</b>	1. <a href="https://www.youtube.com/watch?v=yMigvtQMIEA">https://www.youtube.com/watch?v=yMigvtQMIEA</a> 2. Diseases of Ear Nose and Throat by PL Dhingra, 4 <sup>th</sup> Edition Publisher Elsevier Page
6.	<b>Facial Disfigurement</b>	1. <a href="https://www.slideshare.net/Amro1988/facial-nerve-paralysis-common-causes?qid=bdfd436a-1f10-4772-aaa0-93e1348173e0&amp;v=&amp;b=&amp;from_search=1">https://www.slideshare.net/Amro1988/facial-nerve-paralysis-common-causes?qid=bdfd436a-1f10-4772-aaa0-93e1348173e0&amp;v=&amp;b=&amp;from_search=1</a> 2. <a href="https://www.youtube.com/watch?v=qoE3Mp07tWI">https://www.youtube.com/watch?v=qoE3Mp07tWI</a> 3. Diseases of Ear Nose and Throat by PL Dhingra 4 <sup>th</sup> Edition Publisher Elsevier Page 90-98, 171-178
7.	<b>Tumours of the Ear</b>	1. <a href="https://www.youtube.com/watch?v=z92B-fiUbnE">https://www.youtube.com/watch?v=z92B-fiUbnE</a> 2. <a href="https://www.youtube.com/watch?v=u_h9O4BRbMg">https://www.youtube.com/watch?v=u_h9O4BRbMg</a> 3. <a href="https://www.slideshare.net/Anwaaar/glomus-tumours-pakistan?qid=e15818de-b492-4d9d-bb0b-354411117d37&amp;v=&amp;b=&amp;from_search=5">https://www.slideshare.net/Anwaaar/glomus-tumours-pakistan?qid=e15818de-b492-4d9d-bb0b-354411117d37&amp;v=&amp;b=&amp;from_search=5</a> 4. <a href="https://www.slideshare.net/Anwaaar/tumours-of-ear?qid=e862e755-f592-4c5c-8461-4092588de37d&amp;v=&amp;b=&amp;from_search=1">https://www.slideshare.net/Anwaaar/tumours-of-ear?qid=e862e755-f592-4c5c-8461-4092588de37d&amp;v=&amp;b=&amp;from_search=1</a>

**Reading Material:**

<b><u>S. No</u></b>	<b><u>Topic</u></b>	<b><u>Resource</u></b>
<b><u>1</u></b>	<b><u>Basic of Nose and Para nasal Sinuses</u></b>	<p><b>1.</b>Diseases of EAR, NOSE and THROAT and HEAD and NECK surgery_by PL Dhingra, Shruti Dhingra 6<sup>th</sup> edition publisher Elsevier ,chapter 23 page 134-139,chapter 35 pg 187-190.</p> <p><b>2.</b> Diseases of EAR, NOSE and THROAT and HEAD and NECK surgery_by PL Dhingra, Shruti Dhingra 6<sup>th</sup> edition publisher Elsevier ,chapter 24,pg 140-142,chapter 35 pg 190.</p> <p><b>3.</b> Diseases of EAR, NOSE and THROAT and HEAD and NECK surgery_by PL Dhingra, Shruti Dhingra 6<sup>th</sup> edition publisher Elsevier ,chapter 26,pg 127</p> <p><b>4.</b> Diseases of EAR, NOSE and THROAT and HEAD and NECK surgery_by PL Dhingra, Shruti Dhingra 6<sup>th</sup> edition publisher Elsevier ,chapter 25,pg 143-146,chapter 26.pg 147-151</p>
<b><u>2</u></b>	<b><u>Nasal obstructions</u></b>	Diseases of EAR, NOSE and THROAT and HEAD and NECK surgery_by PL Dhingra, Shruti Dhingra 6 <sup>th</sup> edition publisher Elsevier ,chapter 26 pg 148-150,chapter 32 pg 172-175,chapter 29 pg 161,chapter 48 pg 243-244,chapter 55 pg 276-279,chapter 29 pg 163,chapter 39 pg 202-204
<b><u>3</u></b>	<b><u>Discharge and Epistaxis</u></b>	Diseases of EAR, NOSE and THROAT and HEAD and NECK surgery_by PL Dhingra, Shruti Dhingra 6 <sup>th</sup> edition publisher Elsevier ,chapter 27 pg 154-157,chapter 30 pg 166-169,chapter 31 pg 170-171,chapter 28 pg 159-160,chapter 33 pg 176-180.
<b><u>4</u></b>	<b><u>Headache and facial pains</u></b>	<p><b>1.</b>Diseases of EAR, NOSE and THROAT and HEAD and NECK surgery_by PL Dhingra, Shruti Dhingra 6<sup>th</sup> edition publisher Elsevier chapter 36 pg 191-194,chapter 37 pg 195-197,chapter 38 pg 198-201,chapter 39,40,41 pg 202-213</p> <p><b>2.</b> Youtube video link  <a href="https://www.youtube.com/watch?v=mLeq2f-3GbU">https://www.youtube.com/watch?v=mLeq2f-3GbU</a></p>

<b><u>5</u></b>	<b><u>Sore throat and pain</u></b>	Diseases of EAR, NOSE and THROAT and HEAD and NECK surgery_by PL Dhingra, Shruti Dhingra 6 <sup>th</sup> edition publisher Elsevier chapter 51 pg 257-262, chapter 50 chapter 254-256,chapter 47 pg 238-242,chapter 42&43 pg 216-222,chapter 44,45 &46 pg 223-237.chapter 53 pg 269-272.
<b><u>6</u></b>	<b><u>Dysphagia and Odynophagia</u></b>	Diseases of EAR, NOSE and THROAT and HEAD and NECK surgery_by PL Dhingra, Shruti Dhingra 6 <sup>th</sup> edition publisher Elsevier chapter 68&69 pg 342-348.chapter 67 pg 340-341
<b><u>7</u></b>	<b><u>Hoarseness and Stridor</u></b>	Diseases of EAR, NOSE and THROAT and HEAD and NECK surgery_by PL Dhingra, Shruti Dhingra 6 <sup>th</sup> edition publisher Elsevier chapter 56-62
<b><u>8</u></b>	<b><u>Neck masses</u></b>	Diseases of EAR, NOSE and THROAT and HEAD and NECK surgery_by PL Dhingra, Shruti Dhingra 6 <sup>th</sup> edition publisher Elsevier Chapter 52
<b><u>9</u></b>	<b><u>Advances in ENT/Neck surgeries</u></b>	<a href="https://www.slideshare.net/ksreenivask77/recent-advances-in-ent-frmi-contact-endoscopy-pet-scan-and-immunotherapy?qid=70b96ae3-eb5a-4ed5-85ca-eab2704e0f56&amp;v=&amp;b=&amp;from_search=1">https://www.slideshare.net/ksreenivask77/recent-advances-in-ent-frmi-contact-endoscopy-pet-scan-and-immunotherapy?qid=70b96ae3-eb5a-4ed5-85ca-eab2704e0f56&amp;v=&amp;b=&amp;from_search=1</a>

