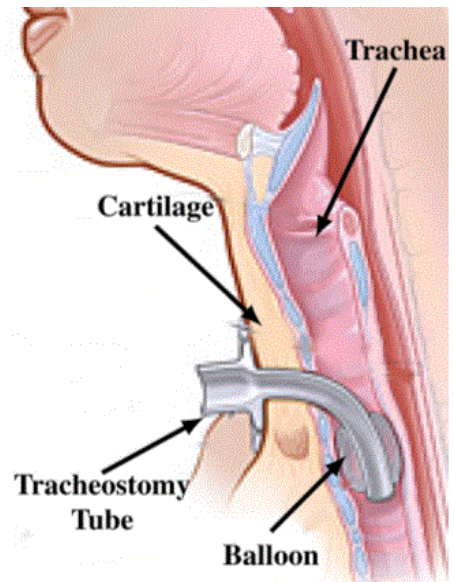
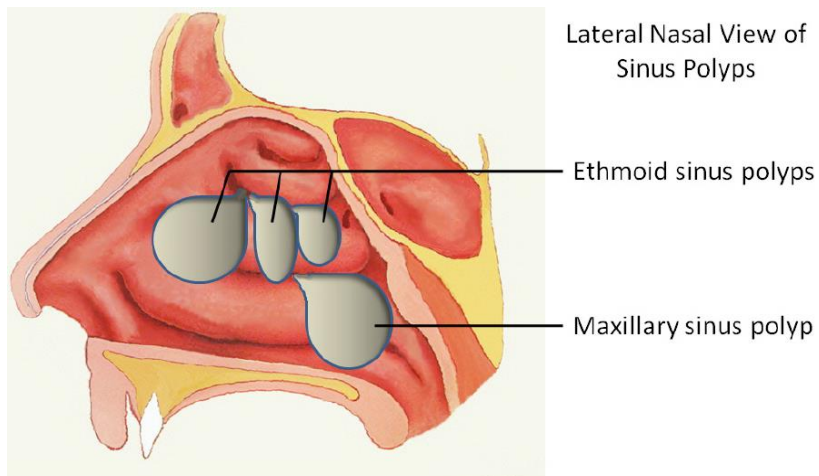
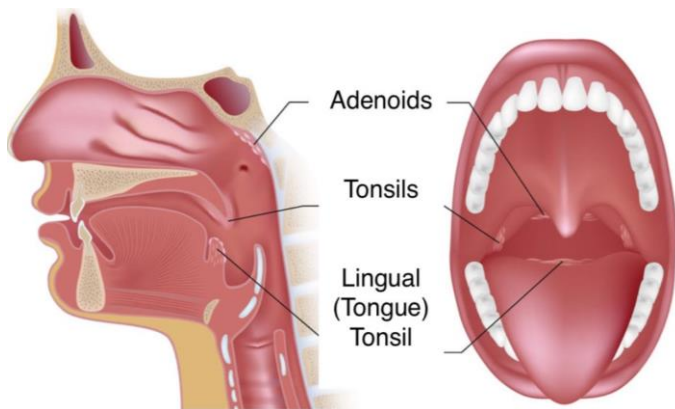
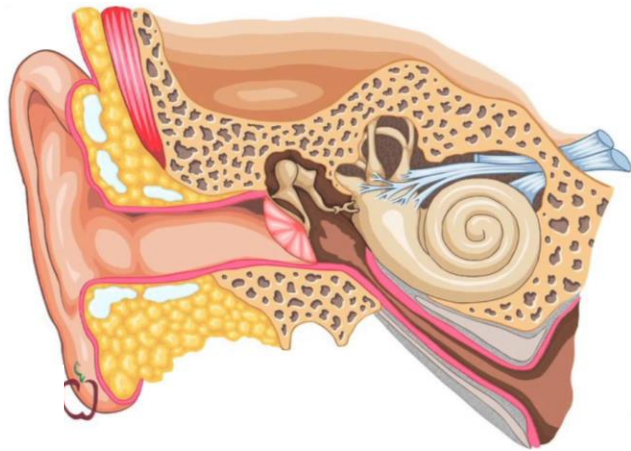


# STUDY GUIDE

## EAR, NOSE & THROAT MODULE

### FOURTH YEAR MBBS SEMESTER VIII

23<sup>rd</sup> Apr-12<sup>th</sup> May 2018  
Duration: Three weeks



**LIAQUAT NATIONAL HOSPITAL  
& MEDICAL COLLEGE**





**STUDY GUIDE**  
**EAR, NOSE & THROAT MODULE**  
**SEMESTER VII, FOURTH YEAR MBBS**

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**MODULE INTEGRATED COMMITTEE**

<b>MODULE COORDINATOR:</b>	<i>Dr. Ahmed Nawaz (Assistant Professor, ENT)</i>
<b>CO-COORDINATORS:</b>	<i>Dr. Sobia Ali (DHCE) Dr. Zia ul Islam Rizvi (ENT)</i>

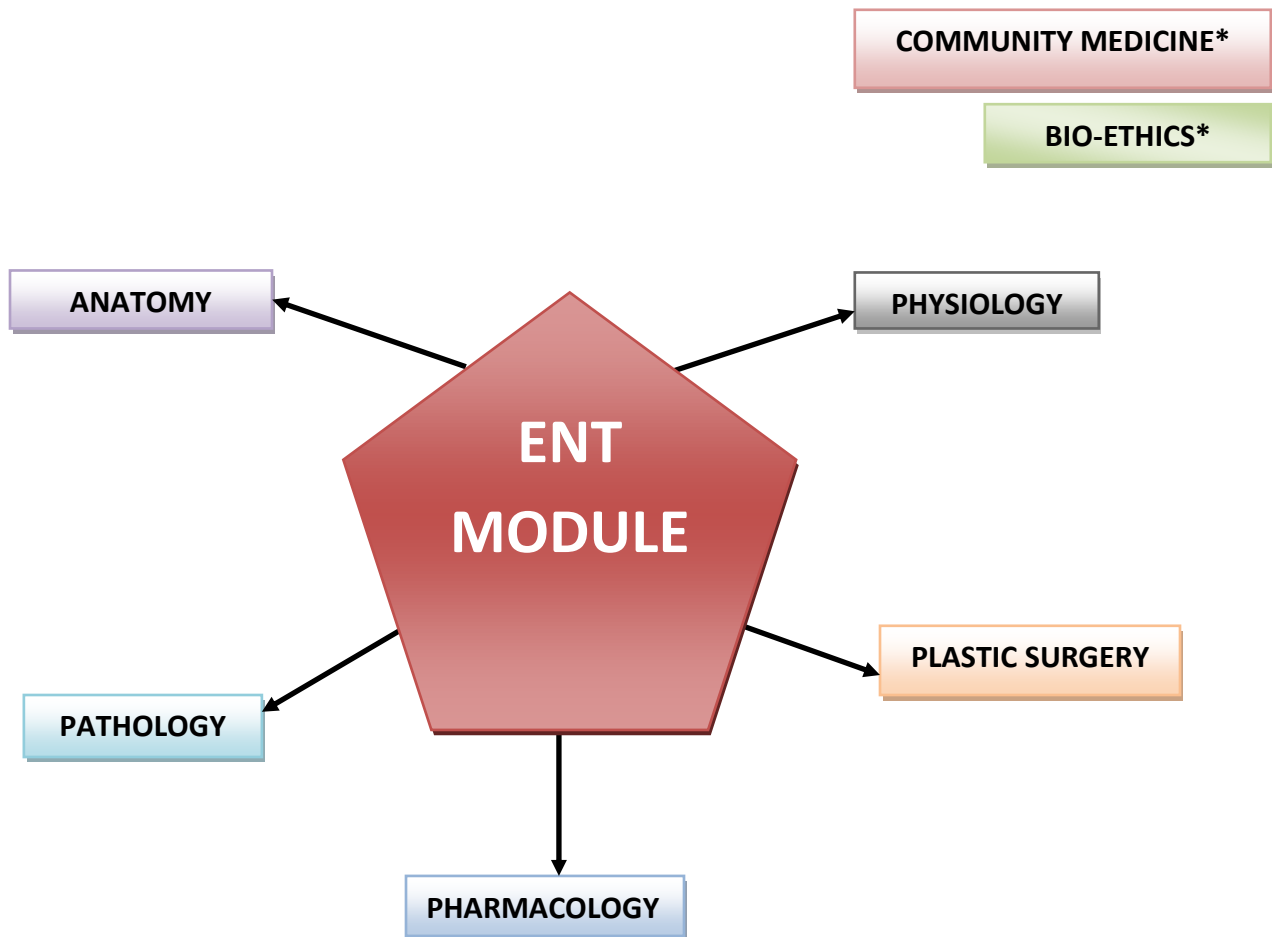
**DEPARTMENTS & RESOURCE PERSONS**

<b>BASIC HEALTH SCIENCES</b>	<b>CLINICAL AND ANCILLARY DEPARTMENTS</b>
<p><b>ANATOMY</b></p> <p>Professor Zia-ul-Islam Professor Masood Javed</p>	<p><b>ENT</b></p> <p>Professor. Shakil Aqil Dr. Saeed Akhter Dr. Ahmed Nawaz Dr. Zia-ul-Islam</p>
<p><b>PHARMACOLOGY</b></p> <p>Professor Nazir Ahmad Solangi</p>	<p><b>RESEARCH AND SKILLS DEVELOPMENT CENTER</b></p> <p>Dr. Kahkashan Tahir</p>
<p><b>PHYSIOLOGY</b></p> <p>Professor Syed Hafeezul Hassan</p>	<p><b>PLASTIC SURGERY</b></p> <p>Dr. Mirza Shehab Afzal Baig</p>
<p><b>PATHOLOGY</b></p> <p>Professor Naveen Faridi</p>	
<p><b>LNH&amp;MC MANAGEMENT</b></p> <p>Professor Amir Ali Shoro, Dean &amp; Principal, Director FHS LNH&amp;MC Dr. Shaheena Akbani, Controller A.A &amp; R.T LNH&amp;MC</p>	
<p><b>DEPARTMENT OF HEALTHCARE EDUCATION</b></p> <p><i>Prof. Nighat Huda                      Dr. Mirza Aroosa Baig                      Dr. Sobia Ali</i> <i>Dr. Afifa Tabassum                      Dr. Muhammad Suleman Sadiq                      Dr. Mehnaz Umair</i></p>	
<p><b>COMPILED BY:</b> Dr. Sobia Ali, Assistant Professor, Department of Health Care Education Dr. Mehnaz Umair, Lecturer III, Department of Health Care Education</p>	

**CURRICULUM FRAMEWORK**

Students will experience integrated curriculum in 4<sup>th</sup> year, semester VII at LNMC in accordance with the JSMU guidelines and most recent developments that have an impact on individual health. In semester VII, two groups of fifty students will be formed. Group I (A & B) of 50 students will experience ENT Module, and 50 students of Group II (C & D) will experience Eye module. In semester VIII, these groups will switch in order to get the whole batch of 4<sup>th</sup> year MBBS students trained for both Eye and ENT modules.







**INTEGRATED CURRICULUM** is comprised of system-based modules such as ENT, Eye, Reproductive module II and Orthopedics. This integrates basic science knowledge of anatomy, physiology, pharmacology and pathology to clinical problems and presentations of ENT diseases. Integrated curriculum means that subjects are presented as a meaningful whole for better understanding of basic sciences in relation to clinical experience and application.



\*Community Medicine & Bio-ethics will run parallel throughout the semester

## LEARNING METHODOLOGIES

The module focuses on integrating basic health sciences to clinical medicine. Teaching and learning methodologies will be a combination of interactive lectures, tutorials, small group sessions, and task oriented learning, e-learning, skills teaching sessions and clinical postings.

Teaching/Learning Technique	Icons
Interactive Lectures	
Clinical rotations	
Small Group Sessions/ Task oriented learning	
Case- Based Discussions	
Self-Directed Study	
E-Learning (edmodo, websites, podcasts)	

## Task Oriented Learning

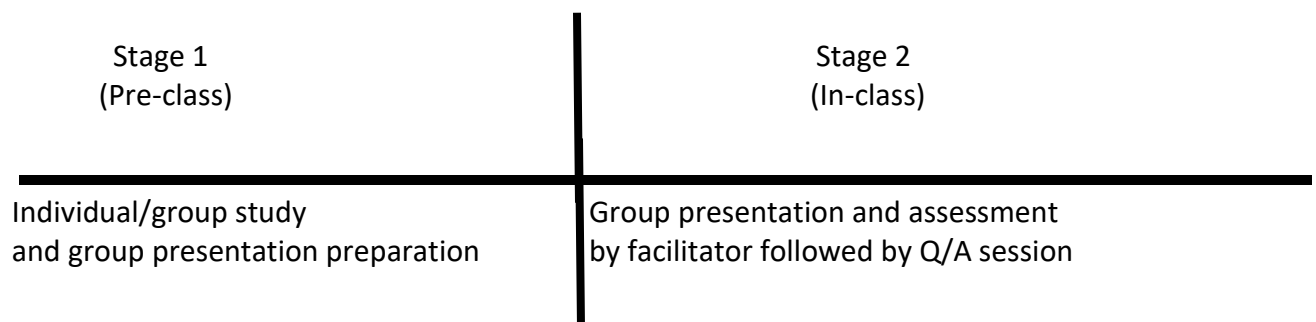
In this module, objectives will be achieved by using multiple instructional strategies other than lectures only. **Task oriented learning** is being introduced to enhance students' learning and to get insight of the content necessary to move forward in to practical application of course materials. Students will be engaged in self directed learning as well as peers' collaboration and faculty led instructions

### Process of TOL

Learning in this strategy will comprises of two stages

Stage 1: Pre-class learning in groups

Stage 2: In-class group focused active learning



**TOL process stage 1:** Students will be divided in 6 groups (8-9 members in each group). Each week, students' group will be given task based on few objectives. These objectives will be posted on edmodo ([For groupings see Appendix B](#)).

**Link for edmodo:** <https://support.edmodo.com/hc/en-us/articles/205009754-Student-Sign-Up>

**Class name for Group A and B:** 4thyr jsmu VII A

**Class code:** w7yjvu

Students will have defined time slots for achieving the objectives. They will be required to study the recommended authentic website ([patient education websites are strictly NOT ADVISED!!!](#)) and work in groups to develop presentations during allotted study hours.

**TOL process stage 2:** The groups will then be required to present their PPT/Prezi in class to show their understanding of subject matter.

**Time for group presentation:** Each presentation should not exceed 10 minutes followed by five minutes discussion

### Assessment

The group presentations and collaborative work will be graded on defined criteria ([See Appendix A](#)). Each student is to demonstrate active participation and effective contribution during the group activities. It is mandatory for the students to participate in this activity as their scores will contribute to **internal evaluation**.

## SEMESTER VII MODULE 1: Ear, Nose & Throat

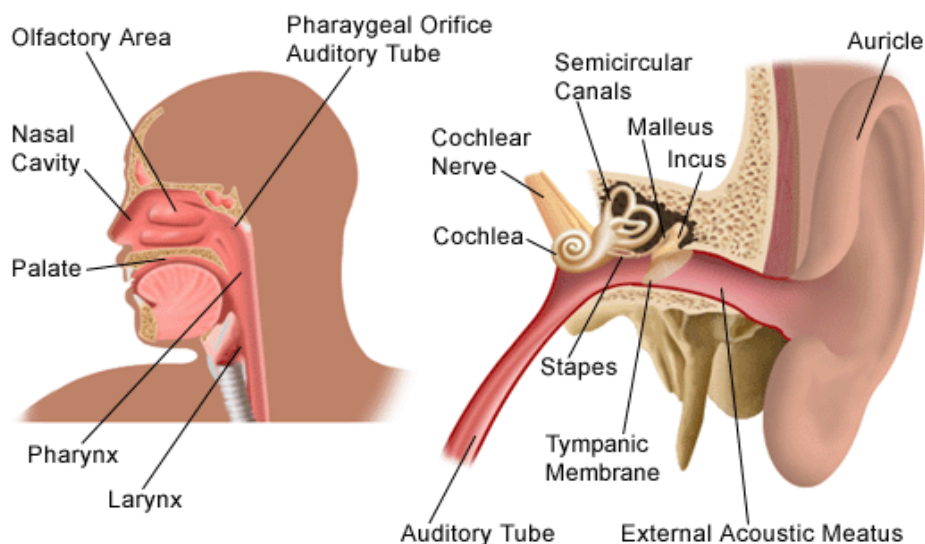
### IMPORTANCE

As a general trend, disease burden is increasing with passage of time and is also true for common ENT problems. According to a local study, the highest incidence is noted for ear diseases; especially discharging ear, followed by nose (rhinosinusitis) and throat (sore throat) respectively with a general increasing trend over the past decade (Z. Awan, 2009). So this module is designed to specifically address the basic needs of medical students as graduating doctors, enabling them to diagnose and treat common everyday diseases of ear, nose and throat and contribute to better overall health care.

### AIMS OF THIS MODULE

The module aims to provide:

- Knowledge and understanding of the structures and functions of the ear, nose and throat with application to clinical practice, integrating basic science knowledge to solve and manage common related diseases in community
- Knowledge and understanding of the origin and associated risk factors of common diseases of ear, nose and throat and application in real context
- Application of knowledge in management and prevention of common pathologies of ear, nose and throat
- Practice of basic skills used to diagnose and treat diseases in a simulated clinical setting
- Knowledge of drugs used to treat ear, nose and throat diseases and their application





**COURSE OBJECTIVES & TEACHING LEARNING STRATEGIES:**

At the end of the module, the student will be able to

**NOSE**

OBJECTIVES	SUBJECTS/ TOPICS	TEACHING & LEARNING STRATEGIES
<ul style="list-style-type: none"> <li>Correlate the anatomy of nose and paranasal sinuses with their clinical presentations</li> </ul>	<b>Anatomy</b>	<i>Interactive lectures/ Small group sessions</i>
<ul style="list-style-type: none"> <li>Correlate the process of olfaction with diseases of nasal cavity</li> </ul>	<b>Physiology</b>	
<ul style="list-style-type: none"> <li>Explain the pathology of the diseases of nasal cavity</li> </ul>	<b>Pathology</b>	
<ul style="list-style-type: none"> <li>Describe pharmacological treatment of common nasal pathologies</li> <li>Advise prescriptions for rhinosinusitis</li> </ul>	<b>Pharmacology</b>	
<ul style="list-style-type: none"> <li>Diagnose fractures of the external nose based on history, clinical examination and investigation</li> <li>Develop management plan for trauma to external nose</li> </ul>	<b>ENT</b> External nose	<i>Interactive lectures</i>
<ul style="list-style-type: none"> <li>Diagnose epistaxis, deviated nasal septum, hematoma, septal abscess and perforation</li> <li>Discuss management plans for epistaxis, deviated nasal septum, hematoma, septal abscess and perforation</li> </ul>	Septum	
<ul style="list-style-type: none"> <li>Define polyps</li> <li>Diagnose ethmoidal and antrochoanal polyps</li> <li>Discuss management plans for ethmoidal and antrochoanal polyps</li> </ul>	Polyps	
<ul style="list-style-type: none"> <li>Diagnose foreign bodies in nose (i.e. rhinoliths) based on clinical examination &amp; investigation</li> <li>Discuss management plans for rhinolith</li> </ul>	Foreign body	
<ul style="list-style-type: none"> <li>Discuss the etiology, pathophysiology, clinical presentations, examination findings, investigations, differential diagnosis for acute and chronic sinusitis</li> <li>Discuss complications of sinusitis</li> <li>Develop treatment plan for sinusitis</li> </ul>	Sinusitis	
<ul style="list-style-type: none"> <li>Describe the etiology, pathophysiology, clinical presentations, investigations and treatment plans for allergic rhinitis and rhinitis due to foreign bodies</li> </ul>	Rhinitis	<i>Task oriented learning/ Small group sessions</i>
<ul style="list-style-type: none"> <li>Diagnose fungal sinusitis based on the basis of clinical presentation and investigations</li> </ul>	Sinusitis	<i>Task oriented learning</i>

<ul style="list-style-type: none"> <li>Discuss management plans for fungal sinusitis</li> </ul>		
<ul style="list-style-type: none"> <li>Order investigations, develop differential diagnosis and treatment plans for headaches with emphasis on ENT causes</li> </ul>	ENT causes of headache	<i>Interactive lectures</i>
<ul style="list-style-type: none"> <li>Diagnose congenital lesions of external nose (choanal atresia) based on clinical examination and investigation</li> <li>Discuss management plans for external nose deformities</li> </ul>	External nose	<i>Interactive lectures</i>
<ul style="list-style-type: none"> <li>Describe the etiology, pathophysiology, clinical presentations, investigations and treatment plans for common types of atrophic rhinitis, hypertrophic rhinitis and VMR</li> <li>Diagnose CSF rhinorrhoea based on clinical examination and investigations</li> </ul>	Rhinosinusitis	<i>Task oriented learning/ Small group sessions</i>
<ul style="list-style-type: none"> <li>Diagnose bleeding polyps</li> <li>Discuss management plans for bleeding polyps</li> </ul>	Polyps	<i>Interactive lectures</i>
<ul style="list-style-type: none"> <li>Diagnose foreign bodies in nose (i.e. maggots) based on examination &amp; investigations</li> <li>Discuss management plans for maggots</li> </ul>	Foreign body	

### EAR

OBJECTIVES	SUBJECTS/ TOPICS	TEACHING & LEARNING STRATEGIES
<ul style="list-style-type: none"> <li>Correlate the anatomy of ear with clinical presentations of ear diseases</li> </ul>	<b>Anatomy</b>	<i>Interactive lectures/ Small group sessions</i>
<ul style="list-style-type: none"> <li>Correlate the process of hearing with clinical presentations of ear diseases</li> </ul>	<b>Physiology</b>	
<ul style="list-style-type: none"> <li>Correlate the pathogenesis of ear diseases with clinical presentations of ear diseases</li> </ul>	<b>Pathology</b>	
<ul style="list-style-type: none"> <li>Describe pharmacological treatment of common pathologies of ear</li> <li>Advise prescriptions for:               <ol style="list-style-type: none"> <li>1. Otomycosis</li> <li>2. Acute otitis media</li> <li>3. Otitis externa</li> </ol> </li> </ul>	<b>Pharmacology</b>	
<ul style="list-style-type: none"> <li>Discuss the etiology, investigations, treatment and complications for acute otitis externa</li> <li>Develop management plan for impacted wax and foreign body</li> </ul>	<b>ENT</b> External ear	<i>Interactive lectures</i>

<ul style="list-style-type: none"> <li>Discuss the etiology, pathophysiology, clinical presentations, examination findings, investigations and treatment plans for:             <ol style="list-style-type: none"> <li>Acute otitis media</li> <li>Serous otitis media</li> <li>Chronic otitis media</li> </ol> </li> <li>Diagnosis and develop management plans for complications of otitis media and mastoiditis</li> </ul>	Middle ear	<i>Interactive lectures/ Case-based discussions</i>
<ul style="list-style-type: none"> <li>Define deafness</li> <li>List causes of deafness</li> <li>Interpret investigation findings related to deafness</li> <li>Diagnose deafness and mutism in a child</li> <li>Discuss the clinical presentations and treatment options for:             <ol style="list-style-type: none"> <li>Vestibular neuritis</li> <li>Benign paroxysmal positional vertigo</li> <li>Meniere's Disease</li> <li>Migraine-associated vertigo</li> </ol> </li> <li>Discuss the differential diagnosis, investigations and treatment of:             <ol style="list-style-type: none"> <li>Tinnitus</li> <li>Acoustic Neuroma</li> </ol> </li> </ul>	Inner ear	<i>Interactive lectures/ Small group sessions/ Case-based discussions</i>
<ul style="list-style-type: none"> <li>Describe management plan for pinna trauma and traumatic rupture of tympanic membrane</li> <li>Discuss the etiology, investigations, treatment and complications for malignant otitis externa</li> <li>Discuss the clinical presentations, examination findings, investigations and treatment plans for benign tumors of external ear</li> </ul>	External ear	
<ul style="list-style-type: none"> <li>Discuss the etiology, investigations, treatment and complications for:             <ol style="list-style-type: none"> <li>Myringitis bullosa,</li> <li>Perichondritis and</li> <li>Fungal infections</li> </ol> </li> <li>Discuss the clinical presentations, examination findings, investigations and treatment plans for malignant tumors of external ear</li> </ul>	External ear	<i>Interactive lectures</i>
<ul style="list-style-type: none"> <li>Discuss the etiology, pathophysiology, clinical presentations, examination findings, investigations and treatment plans for acute necrotising otitis media</li> <li>Discuss the clinical presentations, examination findings, investigations and treatment plans for benign and malignant tumors of middle ear</li> </ul>	Middle ear	<i>Interactive lectures/ Case-based discussions</i>

**HEAD & NECK, OROPHARYNX, LARYNX, OESOPHAGUS**

OBJECTVES	SUBJECTS/ TOPICS	TEACHING & LEARNING STRATEGIES
<ul style="list-style-type: none"> <li>Correlate the process of salivation, phonation and speech with common diseases of oropharynx</li> </ul>	<b>Physiology</b>	<i>Interactive lectures/ Small group sessions</i>
<ul style="list-style-type: none"> <li>Correlate the pathogenesis of the diseases involving oral cavity, neck and salivary glands with clinical presentations of associated diseases</li> </ul>	<b>Pathology</b>	
<ul style="list-style-type: none"> <li>Correlate the anatomy of the oral cavity, salivary glands, larynx, pharynx, neck and oesophagus (oral, pharyngeal and oesophageal parts) with clinical presentations of associated diseases</li> </ul>	<b>Anatomy</b>	
<ul style="list-style-type: none"> <li>Describe pharmacological treatment of common oropharyngeal pathologies</li> <li>Advise prescriptions for:               <ol style="list-style-type: none"> <li>Acute tonsillitis</li> <li>Peritonsillar abscess</li> <li>Pharyngitis</li> </ol> </li> </ul>	<b>Pharmacology</b>	
<ul style="list-style-type: none"> <li>Discuss the risk factors, etiology and pathophysiology of:               <ol style="list-style-type: none"> <li>Basal Cell</li> <li>Squamous Cell Carcinoma</li> <li>Papilloma</li> <li>Osteoma</li> </ol> </li> </ul>	<b>Pathology</b>	
<ul style="list-style-type: none"> <li>Diagnose cleft palate, hare lip based on clinical presentation and investigations</li> <li>Correlate the embryological defects and etiology of cleft lip and palate with their clinical presentation</li> <li>Describe treatment options for cleft lip and palate</li> </ul>	<b>Plastic Surgery</b>	<i>Interactive lectures</i>
<ul style="list-style-type: none"> <li>Discuss the differential diagnosis for neck mass based on symptoms, signs and investigations</li> <li>Diagnose salivary gland conditions (neoplastic, non-neoplastic and parotitis) based on clinical presentations and investigations</li> </ul>	<b>ENT</b> Head & Neck	
<ul style="list-style-type: none"> <li>Justify diagnosis of oral cavity ulcers based on history, clinical presentations and investigations</li> <li>Develop treatment plans for oral cavity ulcers (Aphthus, Thrush &amp; Leukoplakia)</li> <li>Justify diagnosis of the following based on history, clinical presentations and investigations:               <ol style="list-style-type: none"> <li>Tonsillitis</li> </ol> </li> </ul>	Oropharynx	<i>Interactive lectures/ Small group sessions</i>

<ul style="list-style-type: none"> <li>2. Peritonsillitis</li> <li>3. Peritonsillar abscess</li> <li>• Develop treatment plans for:             <ol style="list-style-type: none"> <li>1. Tonsillitis</li> <li>2. Peritonsillitis</li> <li>3. Peritonsillar abscess</li> </ol> </li> </ul>		
<ul style="list-style-type: none"> <li>• Describe etiology, pathophysiology, investigations and principles of treatment for:             <ol style="list-style-type: none"> <li>1. Vocal Nodules</li> <li>2. Vocal cord paralysis</li> </ol> </li> <li>• Diagnose laryngitis based on symptoms, signs and investigations</li> <li>• Develop treatment and follow up plans for:             <ol style="list-style-type: none"> <li>1. Vocal cord nodules</li> <li>2. Vocal cord paralysis</li> <li>3. Laryngitis</li> </ol> </li> <li>• Describe the etiology and pathophysiology of supraglottitis</li> <li>• Classify laryngeal tumors</li> <li>• Diagnose the following based on symptoms, signs and investigations:             <ol style="list-style-type: none"> <li>1. Papilloma Larynx</li> <li>2. Laryngeal Polyps</li> <li>3. Laryngeal Carcinoma</li> </ol> </li> </ul>	Larynx	<i>Task oriented learning/ Small group sessions</i>
<ul style="list-style-type: none"> <li>• Develop differential diagnosis of:             <ol style="list-style-type: none"> <li>1. Thyroglossal cyst/ sinus</li> <li>2. Pre-auricular cyst/ sinus</li> <li>3. Branchial Cyst</li> <li>4. Branchial Fistula</li> </ol> </li> </ul>	Head & Neck	<i>Task oriented learning/ Small group sessions</i>
<ul style="list-style-type: none"> <li>• Justify diagnosis of oral malignant ulcers on the basis of clinical presentation and investigations</li> <li>• Develop treatment plans for oral malignant ulcers</li> <li>• Justify diagnosis of the following on the basis of clinical presentation and investigations and develop treatment plan:             <ol style="list-style-type: none"> <li>1. Tumors of tonsils</li> <li>2. Sleep apnea syndrome</li> <li>3. Ludwig's angina</li> </ol> </li> </ul>	Oropharynx	<i>Task oriented learning/ Small group sessions</i>
<ul style="list-style-type: none"> <li>• Describe the etiology and pathophysiology of Diphtheria</li> <li>• Diagnose Diphtheria based on symptoms, signs and investigations</li> <li>• Develop treatment and follow plans for Diphtheria</li> </ul>	Larynx	<i>Task oriented learning/ Small group sessions</i>
<ul style="list-style-type: none"> <li>• Describe etiology, pathophysiology, differential diagnosis and investigations for dysphagia (oral,</li> </ul>	Oesophagus	<i>Interactive lectures</i>

<p>pharyngeal and esophageal)</p> <ul style="list-style-type: none"> <li>Describe indications, contraindications and complication of Oesophagoscopy</li> </ul>		
<ul style="list-style-type: none"> <li>Discuss investigations, differential diagnosis and treatment plans for:             <ol style="list-style-type: none"> <li>Traumatic</li> <li>Vincent's Angina</li> <li>Agranulocytic Tuberculosis</li> <li>Behcet's Disease</li> <li>Ulcerative lesions of Oral Cavity</li> </ol> </li> <li>Discuss investigations, differential diagnosis and treatment plans for pharyngeal &amp; retro-pharyngeal abscesses</li> </ul>	Oropharynx	<i>Interactive lectures/ Small group sessions</i>
<ul style="list-style-type: none"> <li>Describe etiology, pathophysiology, investigations and principles of treatment for:             <ol style="list-style-type: none"> <li>Glottic stenosis/ Laryngocoele,</li> <li>Laryngomalacia</li> </ol> </li> <li>Describe etiology and pathophysiology, diagnosis, investigations and management plans for:             <ol style="list-style-type: none"> <li>Syphilis</li> <li>Leprosy</li> <li>Non-specific laryngitis</li> </ol> </li> </ul>	Larynx	<i>Task oriented learning/ Small group sessions</i>
<ul style="list-style-type: none"> <li>Classify Oesophageal carcinoma</li> <li>Diagnose Oesophageal carcinoma based on symptoms, signs and investigations</li> <li>Develop treatment and follow-up plans for Oesophageal carcinoma</li> </ul>	Oesophagus	<i>Interactive lectures</i>
<ul style="list-style-type: none"> <li>Demonstrate tracheostomy technique on the simulator (indications, contraindications, technique and post-procedure care)</li> <li>Demonstrate suctioning of the tracheostomy tube on the simulator</li> </ul>	<b>RSDC</b>	<i>Small group sessions</i>

**LEARNING RESOURCES**

<b>SUBJECT</b>	<b>LEARNING RESOURCES</b>
<b>ANATOMY</b>	<ol style="list-style-type: none"> <li>1. K.L. Moore, Clinically Oriented Anatomy</li> <li>2. Neuro Anatomy by Richard Snell</li> </ol>
<b>COMMUNITYMEDICINE</b>	<ol style="list-style-type: none"> <li>1. Community Medicine by Parikh</li> <li>2. Community Medicine by Muhammad Iliyas</li> <li>3. Basic <i>Statistics</i> for the Health Sciences by Jan W Kuzma</li> </ol>
<b>PATHOLOGY</b>	<ol style="list-style-type: none"> <li>1. Robbins &amp; Cotran, Pathologic Basis of Disease, 9th edition.</li> <li>2. Rapid Review Pathology, 4th edition by Edward F. Goljan MD</li> </ol>
<b>PHARMACOLOGY</b>	<ol style="list-style-type: none"> <li>1. Lippincot Illustrated Pharmacology</li> <li>2. Basic and Clinical Pharmacology by Katzung</li> </ol>
<b>PHYSIOLOGY</b>	<ol style="list-style-type: none"> <li>1. Textbook of Medical Physiology by Guyton And Hall</li> </ol>
<b>ENT</b>	<ol style="list-style-type: none"> <li>1. Diseases of Ear, nose and Throat by Logan Turner, 11<sup>th</sup> edition</li> <li>2. Lecture notes Ear, Nose and Throat Notes by P. D. Bull, 10<sup>th</sup> edition</li> <li>3. Diseases of Ear, Nose and Throat by P.L. Dhingra, 6<sup>th</sup> edition (optional reading)</li> </ol> <p><b>Reference Books</b></p> <ol style="list-style-type: none"> <li>1. Current medical diagnosis &amp; treatment by Maxine A. Papadakis</li> <li>2. Scott-Brown's Otorhinolaryngology, Head &amp; Neck Surgery</li> </ol> <p><b>Links for references</b></p> <ol style="list-style-type: none"> <li>1. <a href="http://sfo.entuk.org/services/undergraduate-curriculum">http://sfo.entuk.org/services/undergraduate-curriculum</a></li> <li>2. <a href="https://www.omicsonline.org/open-access/teaching-ent-in-primary-care-2161-119X-1000228.php">https://www.omicsonline.org/open-access/teaching-ent-in-primary-care-2161-119X-1000228.php</a></li> <li>3. <a href="https://www.researchgate.net/publication/287718949_Statistical_analysis_of_Ear_Nose_and_Throat_ENT_diseases_in_paediatric_p opulation_at_PIMS_Islamabad_10_Years_experience">https://www.researchgate.net/publication/287718949_Statistical_analysis_of_Ear_Nose_and_Throat_ENT_diseases_in_paediatric_p opulation_at_PIMS_Islamabad_10_Years_experience</a></li> </ol>

**ADDITIONAL LEARNING RESOURCES**

<b><u>Museum</u></b>	Models available in the museum are a rich learning resource for quick review of anatomy and related educational activities
<b><u>Skill Lab</u></b>	Skills acquisition in a simulated environment in the skills lab involving experiential learning will ensure patient safety and will also help to build confidence in approaching the patients
<b><u>Videos/Podcasts</u></b>	Videos and podcasts(uploaded on edmodo) will familiarize the student with the procedures and protocol which they can watch and listen to at any time and wherever they are, as part of task oriented learning
<b><u>Internet Resources</u></b>	Students will use easily accessible internet resources (e.g. edmodo ) with added time flexibility to enrich and update their knowledge and its application

**ASSESSMENT METHODS:****Theory:**

- **Best Choice Questions (BCQs)** also known as MCQs (Multiple Choice Questions) are used to assess objectives covered in each module.
  - A BCQ has a statement or clinical scenario followed by four options (likely answer).
  - Students after reading the statement/scenario select ONE, the most appropriate response from the given list of options.
  - **Correct answer carries one mark, and incorrect 'zero mark'. There is no negative marking.**
  - Students mark their responses on specified computer-based/OMR sheet designed for LNHMC.
- **EMQs:**
  - An EMQ has:
    - An option list of 5-15 which may be nerve supply, functions, diagnosis, investigations etc
    - A Lead In –Statement/Question
    - Two to four Stems or Clinical Scenarios
  - For each stem or clinical scenario, the student should choose the most appropriate option from the option list.
  - A single option can be used once, more than once or not at all.
  - Correct answer carries one mark and incorrect 'zero mark'. There is **NO** negative marking.
  - Student mark their responses on a specified computer-based sheet for EMQs.

**OSPE/OSCE: Objective Structured Practical/Clinical Examination:**

- Each student will be assessed on the same content and have same time to complete the task.
- Comprise of 12-25 stations.
- Each station may assess a variety of clinical tasks, these tasks may include history taking, physical examination, skills and application of skills and knowledge
- Stations are observed, unobserved, interactive and rest stations.
- Observed and Interactive Stations:
  - They will be assessed by internal or external examiners through structured viva or tasks.
- Unobserved Stations:
  - It will be static stations in which there may be an X-ray, Labs reports, pictures, clinical scenarios with related questions for students to answer on the provided answer copy.
- Rest station
  - It is a station where there is no task given and in this time student can organize



his/her thoughts.

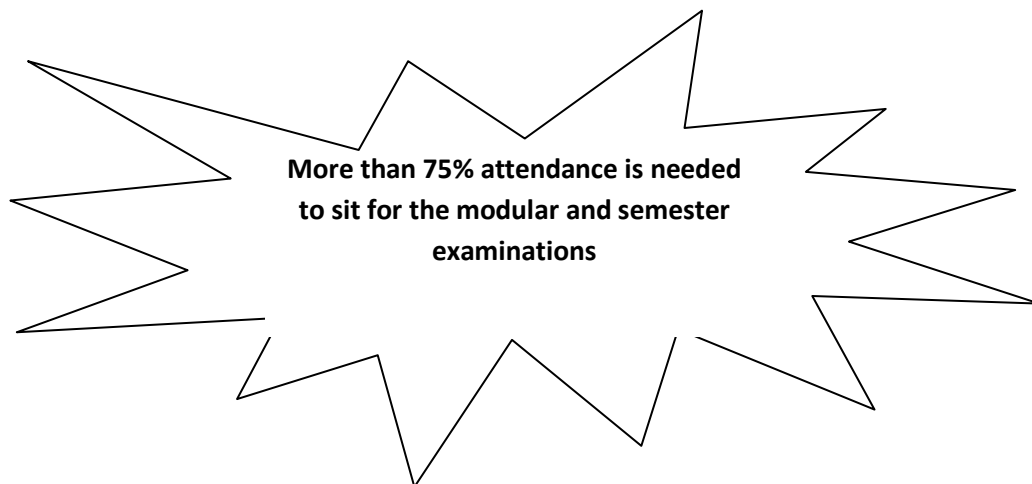
### LNHMC Internal Evaluation Policy

- Students will be assessed to determine achievement of module objectives through the following:
- **Module Examination:** will be scheduled on completion of each module. The method of examination comprises theory exam which includes BCQs and OSPE (Objective Structured Practical Examination).
- **Graded Assessment of students by Individual Department:** Quiz, viva, practical, assignment, small group activities such as CBL, TBL, TOL, online assessment, ward activities, examination, and log book.
- Marks of both modular examination and graded assessment will constitute 20% weightage.
- As per JSMU policy, this 20% will be added by JSMU to Semester Examination.

Example : Number of JSMU Marks allocated for Semester Theory and Internal Evaluation			
Semester	Semester Examination Theory Marks	Internal Evaluation (Task Presentation + Assignments + Modular Exam)	Total (Theory)
	80%	20%	100%

### Formative Assessment

- Individual department may hold quiz or short answer questions to help students assess their own learning. The marks obtained are not included in the internal evaluation



**MODULAR EXAMINATION RULES & REGULATIONS (LNH&MC)**

- Student must report to examination hall/venue, 30 minutes before the exam.
- **Exam will begin sharp at the given time.**
- No student will be allowed to enter the examination hall after 15 minutes of scheduled examination time.
- Students must sit according to their roll numbers mentioned on the seats.
- **Cell phones are strictly not allowed in examination hall.**
- If any student is found with cell phone in any mode (silent, switched off or on) he/she will be not be allowed to continue their exam.
- No students will be allowed to sit in exam without University Admit Card, LNMC College ID Card and Lab Coat
- Student must bring the following stationary items for the exam: Pen, Pencil, Eraser, and Sharpener.
- Indiscipline in the exam hall/venue is not acceptable. Students must not possess any written material or communicate with their fellow students.

**SEMESTER EXAMINATION RULES & REGULATIONS OF JINNAH SINDH MEDICAL UNIVERSITY (JSMU)**

- In one academic year there will be two semesters. The semester duration is approximately sixteen/seventeen weeks.
- Each semester may have two to three modules from two to eight weeks duration.

**JSMU EXAMINATIONS:**

- **JSMU** will schedule and hold Semester Examinations on completion of each semester.
- In one academic year, there will be two semester examinations and one Retake Examination.

**MBBS Fourth year:**

- **Semester VII examination** is scheduled on completion of **EYE**, Orthopedics and Reproductive System-II modules.
- **Semester VIII examination** is scheduled on completion of ENT/EYE, Dermatology, Plastic Surgery & Burns, Neuro-Sciences-II & Psychiatry , Genetics and Rehabilitation modules.

**Examination Protocols:**

- In each semester, module will be assessed by theory paper comprising MCQs and EMQs. For example semester 8 will have separate theory paper of **EYE**, Dermatology, Plastic Surgery & Burns, Neuro-Sciences-II & Psychiatry, Genetics and Rehabilitation modules.
- There will be one OSPE (Objective Structured Practical Examination)/OSCE (Objective Structured Clinical Examinations) which will cover all three modules of semester seven.

**1. Theory**

- Theory paper will comprise of 80 one best type MCQs and 20 EMQs.
- Time duration for theory paper will be 120 minutes.
- Students will mark their responses on JSMU specified response sheets assessed by computer software.
- It will carry out 80% contribution in theory results of the Semester.
- There is no negative marking.

**2. OSPE/OSCE:**

- It may comprise between 12- 25 stations. Each station will carry 10 marks.

**3. JSMU Grading System**

- It will be based on GPA – 4 system

Marks obtained in Percentage range	Numerical Grade	Alphabetical Grade
80-100	4.0	<b>A+</b>
75-79	4.0	<b>A</b>
70-74	3.7	<b>A-</b>
67-69	3.3	<b>B+</b>
63-66	3.0	<b>B</b>
60-62	2.7	<b>B-</b>
56-59	2.3	<b>C+</b>
50-55	2.0	<b>C</b>
<50 Un-grade-able	0	<b>U</b>

- A candidate obtaining GPA less than 2.00 (50%) is declared un-graded (fail).
- Cumulative transcript is issued at the end of clearance of **all** modules.

#### 4. Retake Examination

- Retake examination will be held after each semester examination as per meeting held on 12 April 2017 (Ref.No.JSMU/REG/2017/-314)
- Retake examinations are for those students who fail in semester examinations and those who have passed semester examinations with GPA less than 3.0 may reappear in respective retake examination to improve grades.
- The format of the retake examination is exactly the same as in semester examinations.
- Retake examination will be conducted 3 weeks after declaration of results.

#### 5. Promotion to next class

- Students who pass both semester examinations are promoted from first year to second year.
- Students who fail the MBBS first year semester retake examination will be promoted to second year.
- Students will be promoted from **second year to third year and onward only** if they have passed the semester examinations of that year.
- Clearance of all modules and their components of semester one to four are mandatory for promotion from second year to third year (as per PMDC rules).
- As per PMDC rules any candidate failing to clear a module or its component in four (1+3) attempts is **NOT** allowed to carry out further medical education.
- Clearance of all modules and their components of semester/s are mandatory for promotion from third year onward.

**SCHEDULE:**

WEEKS	4 <sup>th</sup> Year SEMESTER 7	MONTH
WEEK 1	OPHTHALMOLOGY	23 <sup>rd</sup> April 2018
WEEK 2		
WEEK 3		
WEEK 4		11 <sup>th</sup> May 2018
	MODULAR EXAM	12 <sup>th</sup> May 2018*
WEEK 1	DERMATOLOGY	May 2018*
WEEK 2		May 2018*
	MODULAR EXAM	May 2018*
WEEK 1	NEUROSCIENCE II	June 2018*
WEEK 2		
WEEK 3		
WEEK 4		
WEEK 5		July 2018*
		July 2018*
WEEK 1	GENETICS	July 2018*
WEEK 2		August 2018*
	MODULAR EXAM	August 2018*
WEEK 1	REHABILITATION	August 2018*
WEEK 2		Sept 2018*
	MODULAR EXAM	Sept 2018*
PREPARATORY LEAVE		
	SEMESTER EXAM	

\*Final dates will be announced later.

**Appendix A**                      **Criteria: Group Task Presentation**

Speaker/Group: \_\_\_\_\_

Assignment: \_\_\_\_\_

This criteria is designed to clarify the grading process for Group Oral Presentations	Not Acceptable	Poor	Average	Good	Excellent
	0	1	2	3	4
<b>Content</b>					
1. Objective were achieved during the presentation					
2. Information in presentation is clear and organized.					
3. Material presented was derived from authentic sources					
4. Queries answered appropriately					
<b>Collaboration</b>					
5. Every member of the group contributed to the presentation.					
6. Smooth transition of group members from one presenter to another during presentation.					
<b>Presentation Style/ Professionalism</b>					
7. Appropriate interaction with audience members.					
8. Readiness to present at scheduled time.					
9. Presentation completed within assigned time					

Marks obtained out of 36: \_\_\_\_\_

Facilitators' signature:  
\_\_\_\_\_

## Appendix B

4th Year MBBS FOR ENT

SR.#	Roll. #	Name of Students	Sub Group
<b>Group-C</b>			
1	MC/2020/052	Mohammed Akram	<b>C1</b>
2	MC/2020/053	Muhammad Kamran	
3	MC/2020/054	Muhammad Mairaj Khan	
4	MC/2020/055	Muhammad Shah Zaib Khan	
5	MC/2020/056	Naushad Nizam	
6	MC/2020/057	Nida Nisar	
7	MC/2020/058	Nimra Naeem	
8	MC/2020/059	Nisar Ahmed	<b>C2</b>
9	MC/2020/060	Noor-e-Saba	
10	MC/2020/061	Qurat ul Ain	
11	MC/2020/062	Ramish Rizwan	
12	MC/2020/063	Ramla Ali	
13	MC/2020/064	Ramsha Abbas	
14	MC/2020/065	Rohit Kumar	
15	MC/2020/066	Rumael Jawed Baig	<b>C3</b>
16	MC/2020/067	Saba Abrar	
17	MC/2020/068	Sabahat Ghafoor	
18	MC/2020/069	Saima Rajab	
19	MC/2020/070	Salma Khatoon	
20	MC/2020/071	Salma Zahir Imam	
21	MC/2020/072	Samahir Imtiaz	
22	MC/2020/073	Samiullah	
23	MC/2020/074	Sana Khan	
24	MC/2020/075	Sandeep Kumar	

<b>Group-D</b>			
1	MC/2020/076	Sanna	<b>D1</b>
2	MC/2020/077	Saud Nadeem	
3	MC/2020/078	Shahid Javeed	
4	MC/2020/079	Shahtaj Khan	
5	MC/2020/080	Shahzad Ahmad	
6	MC/2020/081	Shifa Khan	
7	MC/2020/082	Shrooq Anees	
8	MC/2020/084	Syeda Fizza Abbas	
9	MC/2020/085	Syeda Rabea Sarwar	<b>D2</b>
10	MC/2020/086	Syeda Suneela Zaheer	
11	MC/2020/088	Toseef Ahmad	
12	MC/2020/089	Uzma	
13	MC/2020/090	Vijay Kumar	
14	MC/2020/091	Vijay Kumar Vinesh	
15	MC/2020/092	Vinesh Kumar	
16	MC/2020/093	Wajeeha Shah	
17	MC/2020/094	Zainab	<b>D3</b>
18	MC/2020/095	Zainab Hasan	
19	MC/2020/096	Zainab Nadeem	
20	MC/2020/097	Zarmeen Khan	
21	MC/2020/098	Zoha Kashif	
22	MC/2020/099	Zubair Ahmed	
23	MC/2020/100	Sunny Kumar	
24	MC/2020/101	Usama Sadiq	