



PRAVARA INSTITUTE OF MEDICAL SCIENCES

(DEEMED TO BE UNIVERSITY)

Loni, Tal. Rahata, Dist. Ahmednagar 413736

NAAC Re-accredited with 'A' Grade

SYLLABUS

UG Programme- Otorhinology

(Competency Based Undergraduate Curriculum will be implemented from August 2019, i.e. MBBS batch admitted for first year in 2019)

COURSE CONTENT

(Total teaching hours for Otorhinology = 25+40+5 = 70)

Lectures:

Small group discussions

MBBS phase III/I-

Total Teaching hours: 40 hours

SR. NO.	TOPICS	COMPETENCIES	SUBTOPICS	AIT	HOURS
Anatomy and Physiology of ear, nose, throat, head & neck					
1.		AN40.1	Describe & identify the parts, blood supply and nerve supply of external ear		0.5 hour
2.		AN40.2	Describe & demonstrate the boundaries, contents, relations and functional anatomy of middle ear and auditory tube		1 hour
3.		AN37.1	Describe & demonstrate features of nasal septum, lateral wall of nose, their blood supply and nerve supply		1 hour
4.		AN38.1	Describe the morphology, identify structure of the wall, nerve supply, blood supply and actions of intrinsic and extrinsic muscles of the larynx		0.5 hour
5.		PY10.15	Describe and discuss functional anatomy of ear and auditory pathways & physiology of hearing		1 hour
6.		PY10.16	Describe and discuss pathophysiology of deafness. Describe hearing tests		0.5 hour

General Medicine				
7.		IM24.17	Describe and discuss the aetiopathogenesis, clinical presentation, identification, functional changes, acute care, stabilization, management and rehabilitation of hearing loss in the elderly	1.5 Hours
Paediatrics				
8.		PE28.5	Discuss the etio-pathogenesis, clinical features and management of Epiglottitis	0.5 hour
9.		PE28.6	Discuss the etio-pathogenesis, clinical features and management of Acute laryngo- tracheo-bronchitis	0.5 hour
10.		PE28.7	Discuss the etiology, clinical features and management of Stridor in children	1 hour
11.		PE28.8	Discuss the types, clinical presentation, and management of foreign body aspiration in infants and children	1 hour
Clinical Skills				
12.		EN 2.9	Choose correctly and interpret radiological, microbiological & histological investigations relevant to the ENT disorders X Rays of mastoid, PNS, nasopharynx, neck, thorax -Routine blood investigations, Pus- bacterial culture, sensitivity, Fungal culture and KOH mount -FNAC and biopsy	1 hour 1 hour 1 hour
13.		EN2.15	Describe the national programs for prevention of deafness, cancer, noise & environmental pollution	1.5 hour
Management of diseases of ear, nose & throat				
14.		EN4.1	Elicit document and present a correct history, demonstrate and describe the clinical features, choose the correct investigations and describe the principles of management of Otalgia	1 hour
15.		EN4.3	Elicit document and present a correct history, demonstrate and describe the clinical features, choose the correct investigations and describe the principles of management of ASOM	1.5 hour

16.		EN4.7	Elicit document and present a correct history demonstrate and describe the clinical features, choose the correct investigations and describe the principles of management of CSOM	1.5 hours
17.		EN4.12	Elicit document and present a correct history demonstrate and describe the clinical features, choose the correct investigations and describe the principles of management of Hearing loss	1.5 hour
18.		EN4.13	Describe the clinical features, investigations and principle of management of Otosclerosis	1 hour
19.		EN 4.14	Describe the clinical features, investigations and principle of management of Sudden Sensorineural Hearing Loss	1 hour
20.		EN4.15	Describe the clinical features, investigations and principle of management of Noise Induced Hearing Loss	0.5 hour
21.		EN 4.18	Describe the clinical features, investigations and principle of management of Facial Nerve palsy	1 hour
22.		EN 4.19	Describe the clinical features, investigations and principle of management of Vertigo	0.5 hour
23.		EN 4.18	Describe the clinical features, investigations and principle of management of Tinnitus	0.5 hour
24.		EN4.27	Elicit document and present a correct history, demonstrate and describe the clinical features, choose the correct investigations and describe the principles of management of Allergic Rhinitis	1 hour
25.		EN4.29	Elicit, document and present a correct history, demonstrate and describe the clinical features, choose the correct investigations and describe the principles of management of Acute & Chronic Rhinitis	1.5 hours
26.		EN 4.30	Elicit document and present a correct history demonstrate and describe the clinical features, choose the correct investigations and describe the principles of management of epistaxis	1 hour
27.		EN4.33	Elicit document and present a correct history demonstrate and describe the clinical features, choose the correct investigations and describe the principles of management of Acute & Chronic	2 hours

			Sinusitis		
28.		EN4.39	Elicit document and present a correct history, demonstrate and describe the clinical features, choose the correct investigations and describe the principles of management of Acute & Chronic Tonsillitis		1.5 hours
29.		EN 3.5 EN4.10 EN4.11	Observe and describe the indications for and the steps involved in the surgical procedures in ear, nose and throat		3 hours
30.		EN4.42	Elicit, document and present a correct history, demonstrate and describe the clinical features, choose the correct investigations and describe the principles of management of hoarseness of voice		1.5 hours
31.		EN4.47	Describe the clinical features, investigations and principles of management of Stridor		1 hour
32.		EN4.49	Elicit document and present a correct history, demonstrate and describe the clinical features, choose the correct Investigations and describe the principles of management of foreign bodies in the air & food passages		1.5 hours
33.		EN4.53	Describe the clinical features, investigations and principles of management of HIV manifestations of the ENT		1 hour
Community Medicine					
34.		CM3.1	Describe the health hazards of air, water, noise, radiation and pollution		1.5 hours

Self Directed Learning

MBBS phase III/I-

Total Teaching hours: 5 hours

Sr. No.	Competencies	SUBTOPICS	AIT	TL Methods	HOURS
1.	EN1.1	Anatomy and blood supply of Tonsil		Quiz-Poster Presentation (on topic given in groups)	5 hours
2.	EN1.2	Clinical features, diagnosis and treatment of: ASOM			
3.	EN2.4	Tuning Fork Tests			
4.	EN 3.5	Complications of tonsillectomy			
5.	EN 4.24	Septoplasty –Technique, Procedure and Complications			
6.	EN 4.5	Clinical features and management Otitis media with effusion, Myringotomy			
7.	EN 4.50	Indications and Complications of Tracheostomy			

Subject: Otorhinolaryngology Lectures

MBBS phase III-

Total Teaching hours: 25 hours

S. NO	TOPICS	COMPETENCIES	SUBTOPICS	AIT	HOURS
1.	Anatomy and Physiology of ear, nose, throat, head & neck				
			Lecture: 1		1
		EN 1.1 AN40.1 AN40.2 AN40.3	Describe the Anatomy & physiology of ear Describe & identify the parts, blood supply and nerve supply of external ear Describe & demonstrate the boundaries, contents, relations and functional anatomy of middle ear and auditory tube Describe the features of internal ear	Anatomy	
			Lecture: 2		1
		EN 1.1 AN37.1 AN37.2 AN37.3	Describe the Anatomy & physiology of Nose, Throat Describe & demonstrate features of nasal septum, lateral wall of nose, their blood supply and nerve supply Describe location and functional anatomy of paranasal sinuses Describe the morphology, identify structure of the wall, nerve supply, blood supply and actions of intrinsic and extrinsic muscles of the larynx	Anatomy Physiology	
		PY10.13	Describe and discuss perception of smell and taste sensation		
			Lecture: 3		1
		EN 1.1 EN 1.2	Describe the Anatomy & physiology of Head and Neck Describe the pathophysiology of common diseases in Head and Neck	Anatomy	
2.	Clinical Skills				
			Lecture: 4		1
		EN 2.11 EN 2.15	Describe and identify by clinical examination malignant & pre- malignant ENT diseases Describe the national programs for prevention of deafness, cancer, noise & environmental pollution	Community Medicine	
3	Management of diseases of ear, nose & throat				
			Lecture: 5		1

		EN4.1 EN4.6 EN4.2	Elicit document and present a correct history, demonstrate and describe the clinical features, choose the correct investigations and describe the principles of management of Otagia Elicit document and present a correct history, demonstrate and describe the clinical features, choose the correct investigations and describe the principles of management of Discharging ear Elicit document and present a correct history, demonstrate and describe the clinical features, choose the correct investigations and describe the principles of management of diseases of the external Ear		
			Lecture: 6		1
		EN4.3 PE28.4 EN4.5	Elicit document and present a correct history, demonstrate and describe the clinical features, choose the correct investigations and describe the principles of management of ASOM Discuss the etio-pathogenesis, clinical features and management of Acute Otitis Media (AOM) Elicit document and present a correct history, demonstrate and describe the clinical features, choose the correct investigations and describe the principles of management of OME	Paediatrics	
			Lecture: 7		1
		EN4.6 EN4.7	Elicit document and present a correct history demonstrate and describe the clinical features, choose the correct investigations and describe the principles of management of CSOM Elicit document and present a correct history, demonstrate and describe the clinical features, choose the correct investigations and describe the principles of management of squamosal type of CSOM		
			Lecture: 8		1

	EN4.12	Elicit document and present a correct history demonstrate and describe the clinical features, choose the correct investigations and describe the principles of management of Hearing loss		
	EN4.12	Describe the clinical features, investigations and management principles of Sudden Sensori-neural Hearing Loss		
	EN4.15	Describe the clinical features, investigations management principles of Noise Induced Hearing Loss		
		Lecture: 9		1
	EN4.18	Describe the clinical features, investigations and principles management of Facial Nerve palsy		
		Lecture: 10		1
	EN4.19	Describe the clinical features, investigations and principles of management of Vertigo		
	EN4.13	Describe the clinical features, investigations and principles of management of Otosclerosis		
	EN4.21	Describe the clinical features, investigations and principles of management of Tinnitus		
	EN4.14	Describe the clinical features, investigations and management of Sudden Sensorineural Hearing Loss		
		Lecture: 11		1
	EN4.23	Describe the clinical features, investigations and principles of management of DNS		
	EN4.25	Elicit document and present a correct history, demonstrate and describe the clinical features, choose the correct investigations and describe the principles of management of type of Nasal Polyps		
		Lecture: 12		1
	EN4.27	Elicit document and present a correct history, demonstrate and describe the clinical features, choose the correct investigations and describe the principles		

	EN4.28	of management of Allergic Rhinitis Elicit document and present a correct history, demonstrate and describe the clinical features, choose the correct investigations and describe the principles of management of Vasomotor Rhinitis	Paediatrics	
	EN4.29	Elicit, document and present a correct history, demonstrate and describe the clinical features, choose the correct investigations and describe the principles of management of Acute & Chronic Rhinitis		
	PE31.1	Describe the etio-pathogenesis, management and prevention of Allergic Rhinitis in Children		
		Lecture: 13		1
	EN4.30	Elicit document and present a correct history, demonstrate and describe the clinical features, choose the correct investigations and describe the principles of management of Epistaxis		
	EN4.31	Describe the clinical features, investigations and principles of management of trauma to the face & neck		
	EN4.32	Describe the clinical features, investigations and principles of management of nasopharyngeal Angiofibroma		
		Lecture: 14		1
	EN4.33	Elicit document and present a correct history demonstrate and describe the clinical features, choose the correct investigations and describe the principles of management of type of Acute & Chronic Sinusitis		
		Lecture: 15		1
	EN4.34	Describe the clinical features, investigations and principles of management of Tumors of Maxilla		
	EN4.35	Describe the clinical features, investigations and principles of management of Tumors of Nasopharynx		
		Lecture: 16		1

		EN4.36 EN4.37 EN4.41 EN4.38	Describe the clinical features, investigations and principles of management of diseases of the Salivary glands Describe the clinical features, investigations and principles of management of Ludwig's angina Describe the clinical features, investigations and principles of management of Acute & chronic abscesses in relation to Pharynx Elicit document and present a correct history demonstrate and describe the clinical features, choose the correct investigations and describe the principles of management of type of dysphagia		
			Lecture: 17		1
		EN4.39 PE28.1 PE28.2 PE28.3	Elicit document and present a correct history, demonstrate and describe the clinical features, choose the correct investigations and describe the principles of management of Acute & Chronic Tonsillitis Discuss the etio-pathogenesis, clinical features and management of Naso pharyngitis Discuss the etio-pathogenesis of Pharyngo Tonsillitis Discuss the clinical features and management of Pharyngo Tonsillitis	Paediatrics	
			Lecture: 18		1
		EN4.4 EN4.4 AN38.3	Describe the clinical features, investigations and principles of management of Acute & Chronic Laryngitis Describe the clinical features, investigations and principles of management of Benign lesions of the vocal cord Describe the clinical features, investigations and principles of management of Vocal cord palsy Describe anatomical basis of recurrent	Anatomy	

			laryngeal nerve injury		
			Lecture: 19		1
		EN4.4	Describe the clinical features, investigations and principles of management of Malignancy of the Larynx & Hypopharynx		
		N4.47	Describe the clinical features, investigations and principles of management of Stridor		
			Lecture: 20		
		DE4.1	Discuss the prevalence of oral cancer and enumerate the common types of cancer that can affect tissues of the oral cavity	Pathology	
		DE4.2	Discuss the role of etiological factors in the formation of precancerous / cancerous lesions		
		EN4.52	Describe the Clinical features, Investigations and principles of management of diseases of Oesophagus		
			Lecture: 21		1
		EN4.53	Describe the clinical features, investigations and principles of management of HIV manifestations of the ENT		
		EN3.6	Observe and describe the indications for and steps involved in the skills of emergency procedures in ear, nose & throat		
			Lecture: 22		1
			Revision lecture		
			Lecture: 23		1
			Revision lecture		
			Lecture: 24		1
			Revision lecture		
			Lecture: 25		1
			Revision lecture		

Section wise distribution of topics for Prelim & Annual Examination
Year: **III-I MBBS**

Paper	Section	Topics
1	A	MCQs on all topics of Otorhinolaryngology Basic Science (2), Otology (6), Rhinology (6), Head Neck Laryngology (6)
	B Basic Sciences, Recent Advances, Otology	Anatomy and Physiology of Ear, Nose, Throat & Head and Neck; Recent Advances; Audiology and Hearing loss; Vestibular System; Diseases of External Ear and Middle Ear; Eustachian Tube and its disorder; Cholesteatoma, Chronic Otitis media and Complications; Otosclerosis; Facial Nerve and its Disorder; Meniere's Disease; Tumours of External Ear, Middle Ear and Mastoid; Deaf Child & Rehabilitation of Hearing Impaired
	C Rhinology, Laryngology, Head and Neck	Diseases of External Nose; Nasal Septum and its diseases Acute and Chronic Rhinitis and Sinusitis and its complications; Allergic, Vasomotor Rhinitis and NARES; Nasal Polypi; Epistaxis; Facial Trauma; Granulomatous Diseases of Nose; Neoplasm of Nasal Cavity and PNS; Disorders and Tumours of Oral Cavity and Salivary Gland; Acute and Chronic Tonsillitis, Adenoiditis and Pharyngitis Head and Neck space infections; Tumours of Nasopharynx, Hypopharynx, Oropharynx and Pharyngeal Pouch; Snoring and Sleep Apnoea; Laryngotracheal Trauma; Acute and Chronic inflammation of Larynx; Congenital Lesions and Benign Tumours of Larynx; Laryngeal paralysis; Carcinoma Larynx; Stridor and Tracheostomy; Voice and Speech Disorder; Foreign Bodies in Air and Food passage; Disorders of Oesophagus and Dysphagia

Internal Assessment Subject – Otorhinolaryngology

Phase		
	Theory	Practical
Second MBBS	-	EOP Practical Examination may be conducted. However, these marks shall not be added to the Internal Assessment.

3rd Year (III MBBS, PART I)						
Phase	I-Exam (March)			II-Exam Prelim (August)		
	Theory	Practical	Total Marks	Theory	Practical	Total Marks
III/I MBBS	50	50	100	100	100	200

Assessment in CBME is ONGOING PRCESS, No Preparatory leave is permitted.

1. There shall be 2 internal assessment examinations in Otorhinolaryngology including Prelim.
2. The suggested pattern of question paper for internal assessment internal examinations, except prelim examination is attached at the end. Pattern of the prelims examinations should be similar to the University examinations.
3. Internal assessment marks for theory and practical will be converted to out of 25 (theory) + 25 (practical). Internal assessment marks, after conversion, should be submitted to university within the stipulated time as per directives from the University.

4. Conversion Formula for calculation of marks in internal assessment examinations.

	Theory	Practical
Phase II	-	-
Phase III/I	150	150
Total	150	150
Conversion out of	25	25
Conversion formula	Total marks in 2 IA theory examinations /6	Total marks in 2 IA Practical examinations /6
Eligibility criteria after conversion	10	10
	Combined theory + Practical = 25	

5. While preparing Final Marks of Internal Assessment, the rounding-off marks shall done as illustrated in following table.

Total Internal Assessment Marks	Final rounded marks
13.01 to 13.49	13
13.50 to 13.99	14

6. Students must secure at least 50% marks of the total marks (combined in theory and practical / clinical; not less than 40 % marks in theory and practical separately) assigned for internal assessment in order to be eligible for appearing at the final University examination of that subject.
7. Internal assessment marks will not to be added to marks of the University examinations and will be shown separately in mark list.

8. Remedial measures

• Remedial measures for non-eligible students

- At the end of each internal assessment examination, students securing less than 50% marks shall be identified. Such students should be counseled at the earliest and periodically. Extra classes for such students may be arranged.
- If majority of the students found to be weak in a particular area then extra classes must be scheduled for all such students. Even after these measures, if a student is failed to secure 50% marks combined in theory and practical (40% separately in theory and practical) after prelim examination, the student shall not be

eligible for final examination.

- Non eligible candidates are offered to reappear for repeat internal assessment examination/s, which must be conducted 2 months before next University examination. The pattern for this repeat internal assessment examination shall be similar to the final University examination. The marks in this examination shall be considered for deciding the eligibility criteria. Following conversion formula shall be used for converting the marks.

	Theory	Practical
Remedial examination	100	100
Conversion out of	25	25
Conversion formula	Marks in remedial theory examinations /4	Marks in remedial Practical examinations /4
Eligibility criteria after conversion	10	10
	Combined theory + Practical = 25	

- Remedial measures for absent students:

If any of the students is absent for any of the 2 IA examinations due to any reasons, following measures shall be taken.

- i. The student is asked to apply to the academic committee of the college for reexamination, through HOD, to ascertain the genuineness of the reason for absentee.
- ii. If permitted by academic committee, an additional examination for such students is to be conducted after prelims examination. Marks for such additional examination shall be equal to the missed examination.
- iii. Even if a student has missed more than one IA examination, he/she can appear for only one additional IA examination. In such scenario, eligibility should be determined by marks obtained in internal assessment examinations for which the candidate has appeared, without changing the denominator.

Format for Practical Examinations
Otorhinolaryngology
Internal Assessment Practical

Seat No.				Table viva				Practical Total
	Case	OSCE 1	OSCE 2	Surgical Pathology Radiology	Instruments and Surgical Procedure	Journal	Log Book	
Max. Marks	20	5	5	5	5	5	5	50

OSCE stations checklists to be prepared so as to give more weightage to crucial steps, if skills are small two or more skills may be included in same station

OSCE stations to include any of these – Clinical skills (case/audiology), Certifiable skills, AETCOM skills

Prelims Practical

Subject: Otorhinolaryngology Practical									
Seat No.						Table Viva			Practical Total
	Case	OSCE 1 (Clinical skills)	OSCE 2 (Clinical skills)	OSCE 3 (Certifiable skills)	OSCE 4 (AETCOM skills)	Surgical Pathology Radiology	Instruments and Surgical Procedure	Journal & log book	
Max. Marks	30	10	10	10	10	10	10	10	100

Final Practical

Subject: Otorhinolaryngology Practical								
Seat No.						Table Viva		Practical Total
	Case	OSCE 1 (Clinical skills)	OSCE 2 (Clinical skills)	OSCE 3 (Certifiable skills)	OSCE 4 (AETCOM skills)	Surgical Pathology Radiology	Instruments and Surgical Procedure	
Max. Marks	30	10	10	10	10	15	15	100

Internal Assessment Theory Examination (I)**Question SECTION "A" MCQ (10 Marks)****No.**

1. Multiple Choice Questions (Total 10 MCQ of 1 mark each) (10x1=10)

a) b) c) d) e) f) g) h) i) j)

SECTION "B" (40 Marks)2. Long Answer Question (Structured clinical Question) (1x15= 15)
a)3. Short Answer Questions (Any 5 out of 6) (including 1 from (5x5= 25)
AETCOM)

a) b) c) d) e) f)

Final Theory Examination Otorhinolaryngology Format / Skeleton of Question Paper

Question SECTION "A" MCQ (20 Marks)

No.

1. Multiple Choice Questions (Total 20 MCQ of 1 mark each) (20x1=20)
 a) b) c) d) e) f) g) h) i) j)
 k) l) m) n) o) p) q) r) s) t)

SECTION "B" (45 Marks)

2. Long Answer Questions (Any 2 out of 3) structured clinical questions (2x15= 30)
 a) b) c)
3. Short Answer Questions (All 3) (1from AETCOM) (3x5= 15)
 a) b) c)

SECTION "C" (32 Marks)

4. Long answer questions (1x15= 15)
 a)
4. Short answer questions(Any 4 out of 5) (4x5= 20)
 (Clinical Reasoning)
 a) b) c) d) e)



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