

SYLLABUS FOR POST GRADUATE M.S. DEGREE COURSE IN E.N.T.

TRAINING PROGRAMME

FIRST YEAR:

E.N.T.	:	6 Months
General Surgery	:	1 Month
Anaesthesia	:	1 Month
Plastic Surgery	:	1 Month
Cardio Thoracic Surgery	:	1 Month
Neuro Surgery	:	1 Month
Oral * Facio Maxillary Surgery	:	1 Month

Total	:	12 Months

SECOND YEAR

Audiology and Neurotology	:	2 Months
Paediatric Otorhinolaryngology	:	2 Months
Anaesthesia	:	1 Month
Radiology and Radiotherapy	:	1 Month
ENT including upper aerodigestive tract endoscopy:	:	6 Months

Total	:	12 Months

THIRD YEAR

ENT	:	12 Months
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PAPER 1

APPLIED BASIC SCIENCES IN OTORHINOLARYNGOLOGY INCLUDING GENERAL SURGICAL PRINCIPLES

ANATOMY

1. Embryogenesis of Ear, Nose and Throat including Palate, Larynx, Esophagus, Trachea, Lungs, Tongue, Salivary Gland, Head & Neck & Skull Base.
2. Deep neck spaces
3. Applied anatomy of skull bones, external, middle and inner ear, nose & PNS, nasopharynx, meninges, brain, pharynx, larynx, trachea & bronchi, lungs, oesophagus.
4. Anatomy of all cranial nerves with their functions.

PHYSIOLOGY

1. Mechanism of:
 - Perception of Smell & Taste
 - Breathing & voice production
 - Lacrimation
 - Deglutition
 - Salivation
 - Perception of sound & speech production
2. Functional tests of nose & PNS
3. Head & neck protective reflexes
4. Physics of sound
5. Theories of hearing
6. Physiology of equilibrium & Cerebral function
7. Physiology of brain in connection with hearing, speech, smell and phonation
8. Physiology of larynx, tracheobronchial tree & oesophagus

PATHOLOGY:

1. General pathologic aspects of wound hearing
2. Pathology and pathogenesis of ENT disease

OTHERS:

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|--------------------------------|---|-----------------------------------|
| 1. Pharmacology | } | |
| 2. Molecular biology | } | |
| 3. Genetics | } | Applicable to otorhinolaryngology |
| 4. Haematology | } | |
| 5. Immunology and microbiology | } | |
| 6. Imaging related to ENT | } | |

PAPER 2

OTOLOGY INCLUDING AUDIOLOGY:

1. Vestibular Testing
2. Eustachian tube diseases
3. Tinnitus, its evaluation & management
4. Diseases of the external auditory canal including malignancies
5. Inflammatory diseases of the middle ear, its complications and management
6. Otosclerosis
7. Meniere's disease
8. Facial nerve pathologies and management
9. Tumours of the temporal bone
10. Petrous apex lesions
11. Reconstructions for conductive hearing loss
12. Congenital aural atresia
13. Auditory brainstem implants
14. Temporal bone trauma
15. Hearing loss & its management
16. Vertigo evaluation and its management

AUDIOLOGY:

1. Pure Tone Audiometry
2. Impedance Audiometry
3. Otoacoustic Emissions
4. Brainstem Evoked Response Audiometry
5. Nystagmus
6. Speech Audiometry
7. Electrocochleography
8. VEMP
9. CHAMP

PAPER 3

ORAL CAVITY, PHARYNX, LARYNX, HEAD AND NECK SURGERY AND ONCOLOGY

1. Epidemiology of head and neck cancer
2. Molecular biology of head and neck cancer
3. Complications in head and neck cancer
4. Benign neck disease
5. Benign tumours of mouth and jaw
6. Benign and Malignant thyroid disease and its management
7. Malignant disease of lips, oral cavity
8. Malignant disease of Nasopharynx, Oropharynx and Hypopharynx
9. Malignant disease of Larynx
10. Metastatic neck disease and management
11. Management of unknown primary
12. Malignant disease of nose and PNS
13. Reconstruction of head and neck defects
14. Palliation in head and neck cancer
15. Evaluation of voice
16. Phonosurgery
17. Acute and chronic infections of larynx
18. Laryngeal trauma
19. Upper airway obstruction
20. Tracheostomy
21. Benign and malignant disease of salivary glands
22. Pharyngeal pouches
23. Dysphagia
24. Oesophageal diseases
25. Benign tumours of the pharynx
26. Pathologies in deep neck spaces

PAPER 4

RHINOLOGY, PAEDIATRIC, ENT & RECENT ADVANCES

RHINOLOGY:

1. Rhinosinusitis & its Management
2. Allergic Rhinitis, Vasomotor, Occupational, Perennial Rhinitis
3. Fungal Sinusitis
4. Chronic specific infections of nasal cavity
5. Nasal polyposis
6. Nasal septal diseases
7. Epistaxis
8. Fractures of facial skeleton including nasal bones

9. CSF rhinorrhea
10. Headache & facial pain

PAEDIATRIC ENT:

1. Diseases of children in connection with Ear, Nose, Throat & Larynx
2. Congenital & Neonatal Stridor
3. Deaf Mutism
4. Congenital malformations of head & neck and syndromes

RECENT ADVANCES:

1. Rhinoplasty, Endoscopic Sinus Surgery and Anterior Cranial Fossa Surgeries
2. Lateral Skull Base Surgery
3. Lasers in ENT
4. Cochlear Implant & Implantable Hearing Aids
5. Etiology & Management - Sleep Apnea/Snoring
6. Endoscope skull base surgery including pituitary surgeries
7. Newer techniques for Radiotherapy
8. Immunotherapy
9. Image Guided Surgery
10. Endoscopic assisted Ear Surgeries

CLINICAL EXAMINATION

TOTAL MARKS – 400

I.	CASE PRESENTATION	300 Marks
	a) LONG CASE	
	<ul style="list-style-type: none"> • Any case of Ear, Nose, Throat • Time for examination and write-up (60 min.) 	(1 x 150 = 150)
	b) SHORT CASE	(3 x 50 = 150)
	<ul style="list-style-type: none"> • No. of cases three. • One from each Ear, Nose and Throat • Time for each case examination is 20 min. 	
II	ORAL EXAMINATION	100 Marks
	a) Viva voce (including recent advances)	- 20 Marks
	b) Log book (evaluation and questions)	- 15 Marks
	c) Operative surgery	- 15 Marks
	d) Audiology	- 10 Marks
	e) Radiology	- 10 Marks
	f) Instruments	-10 Marks
	g) Specimen (1 wet and 1 dry)	- 10 Marks

h) Slides (1 pathology and 1 microbiology)

-10 Marks

RECOMMENDED LIST OF TEXT BOOKS AND JOURNALS

1. Scott Brown's Otolaryngology – Five Volumes
2. Otolaryngology Volumes I to IV Edited by Paperella, Shumrick, Gluckman and Meyerhoff.
3. Ballenger – Diseases of the Nose, Throat, Ear, Head and Neck
4. Mawson's Diseases of the Ear.
5. Glasscock and Shambaugh – Surgery of the Ear.
6. Learning Ear Surgery by Temporal Bone Dissection by Dr.K.K. Ramalingam and Dr. B. Sreeramorthy
7. Year Book of Otolaryngology, Head and Neck Surgery Edited by Michael M. Paperella and Byron J. Bailey.
8. Tumours of the Head and Neck – Clinical and Pathological Considerations by John. G. Batsakis.
9. Rob and Smith – Operative Surgery – Three volumes
10. Recent Advances in Otolaryngology
11. Jacksons Textbook of Broncho – Oesophagology
12. Radiology of Head and Neck by Valvassori

REFERENCES:

Lore's Atlas of Head and Neck Surgery
Microsurgery of the skull base by Ugo Fisch and Douglas Matto
Text Book of Operative Surgery by Lee.

JOURNALS

1. Indian Journal of Otolaryngology
2. British Journal of Otolaryngology
3. Laryngoscope
4. North American Clinics of Otolaryngology
5. Annals of Otolology, Rhinology and Laryngology
6. Acta Otolaryngologic
7. Archives of Otolaryngology, Head and Neck Surgery
8. Journal of Paediatric Otolaryngology