Syllabus

1. Anatomy and Physiology of Ear, Nose and Throat, Trachea and esophagus.
2. The generation and reception of speech
3. Radiographic anatomy of the ear, nose, throat and imaging.
4. Bacteriology in relation to Otorhinolaryngology
5. Allergy and rhinitis
6. Haematology in relation to Otolaryngology
7. Anaesthesia for Otolaryngology
8. Pharmacology of drugs used in ENT
9. Electrolyte, fluid balance/shock conditions
10. Use of teaching aids
11. Routine blood, urine testing
12. Preparation of slides
13. Facial nerve stimulation test
14. Audiometric tests like pure tone Audiometry, Impedance Audiometry, Free field Audiometry, Specialized tests of hearing including SISI, Tone decay, ABLB, Speech discrimination score etc.
15. Vestibular tests like caloric testing (Water and Air) stopping test, Fukuda's test,
16. Evoked response audiometry.

Ear:

1. The physical and functional examination of the ear
2. The functional and physical examination of the vestibular system.
3. Tinnitus
4. Affections of external ear
5. Repair of deformities of the external ear.
6. Congenital conditions of the middle ear cleft
7. Traumatic conductive deafness
8. Acute inflammation of the middle ear cleft

9. Non-suppurative otitis media
10. Chronic suppurative otitis media
11. Management of chronic suppurative otitis media
12. Complications of infections of middle ear.
13. Tumors of the middle ear cleft and temporal bone
14. Diseases of the otic capsule-otosclerosis
15. Diseases of the otic capsule-other diseases
16. The deaf child
17. Acoustic neuroma
18. Ototoxicity
19. Presbycusis
20. Diagnosis and management of sudden and fluctuant sensorineural hearing loss
21. Meniere's disease
22. Neurologic aspects of vertigo
23. Facial paralysis
24. Rehabilitation of adults with acquired Hearing loss-Hearing aids
25. The cochlear Implants
26. Nystagmus
27. Otoacoustic emissions

Nose:

1. Examination of the nose
2. Conditions of the external nose
3. Injuries of the facial skeleton
4. Congenital diseases of the nose
5. The nasal septum
6. Foreign bodies in the nose, rhinolith
7. Epistaxis
8. Acute chronic inflammations of the nasal cavities
9. Vasomotor rhinitis-allergic and non-allergic

10. Nasal polyposis
11. Abnormalities of smell
12. Acute sinusitis
13. Chronic sinusitis
14. Nasal Allergy/Fungal allergic sinusitis
15. Complications of acute and chronic sinusitis
16. Tumors of nose and sinuses
17. Facial pains
18. Trans-ethmoidal hypophysectomy
19. Functional endoscopic sinus surgery (FESS)

Throat:

1. Methods of examination of the mouth and pharynx
2. Diseases of the mouth
3. Diseases of the salivary glands
4. Pharyngeal lesions associated with general diseases
5. Diseases of the tonsils and adenoids (excluding neoplasms)
6. Tumors of the pharynx
7. Hypopharyngeal diverticulum (Pharyngeal Pouch)
8. Methods of examining and larynx and tracheobronchial tree
9. Congenital diseases of the larynx
10. Laryngeal disorders in singers and other voice users
11. Neurological affections of larynx and pharynx
12. Intubation of the larynx, laryngotomy and tracheostomy
13. Cervical node dissection
14. Skin grafts in Otolaryngology and reconstructive methods including regional anddistant flaps for repair of defects after excision of tumors or trauma.
15. Micro laryngeal surgery/thyroplasty

Miscellaneous and head and neck:

1. Cranial nerves
2. Raised intracranial tension-causes, diagnosis, management with particularreference to otitis hydrocephalus
3. Head injuries and I.C. Haemorrhage
4. Pituitary gland, anatomy, physiology hypo - and hyper - pituitarism, new growths.
5. Intracranial venous sinuses and their affections
5. Osteology: skull, mandible cervical and thoracic vertebral sternum
6. Cervical fascia, facial spaces in neck, retro-pharyngeal and parapharyngealAbscesses
7. Anatomy and physiology of thyroid gland, goitre, diseases of the thyroid andcarcinoma of thyroid
8. Large blood vessels in neck, thoracic duck development of major cervical andthoracic blood vessels.
9. Head and neck reconstructive surgery

Drugs used in ENT:

1. Antibiotics Antihistaminic
2. Nasal vasoconstrictors
3. Local anaesthetics
4. Corticosteroids
5. Cyto-toxic agents
6. Antibiotics
7. Radioactive isotopes
8. Antifungal agents
9. Vasopressive and other agents used in shock like states.

General:

1. Physiology of circulation, regulation of blood pressure, reactions of

body to haemorrhage, patho-physiology of shock, fluid balance, blood transfusion and its hazards, fluid replacement therapy, burns

2. Agents used in shock like states

Desirable

1. The ears and nasal sinuses in the aerospace environment
2. Physiological consideration of pressure effects on the ear and sinuses in deepwater diving
3. The principles of cancer immunology with particular reference to head and neckcancer
4. Principles of chemotherapy in head and neck cancer
5. Recording of nystagmus by ENG and its interpretation

Ear:

1. Traumatic lesions of the inner ear
2. Inflammatory lesions of the vestibular and auditory nerve
3. Vascular lesions of the inner ear
4. Electronystagmography
5. Skull base/Neurologic surgery

Nose:

1. Cosmetic surgery of the nose
2. Non-healing granuloma of the nose
3. Surgery of the pterygopalatine fossa
4. LASER Surgery

Throat:

1. Oesophageal conditions in the practice of ear, nose and throat surgery
2. Disorders of speech
3. Lower respiratory conditions in Otolaryngology

Miscellaneous and head and neck

1. Functional Anatomy of cerebellum and brainstem
2. Anatomy of mediastinum
3. Pleura, plural cavity, broncho-pulmonary segments and their clinical importance
4. Facial plastic surgery

MAPPING OF PROGRAMME OUTCOMES [POs] AND COURSEOUTCOMES [COs] OF PG PROGRAMMES

MS (SURGERY) PROGRAMME OUTCOMES

Sr. No	**By the end of the programme, the Medical Postgraduate Willhave**
PO 1	Knowledge and Skills
PO 2	Planning and problem solving abilities
PO 3	Communication
PO 4	Research Aptitude
PO 5	Professionalism and Ethics
PO 6	Leadership
PO 7	Societal Responsibilities
PO 8	Environment and Sustainability
PO 9	Lifelong Learner

SURGERY COURSE OUTCOME – PGSUBJECT CODE – 01300301

Sr.No	By the end the Course, the student will be able to
1	Recognize the importance to the concerned surgery in the context of the health needs of the community and the national priorities inthe health section.
2	Practice the surgery concerned ethically and in step with the principles of primary health care.
3	Demonstrate sufficient understanding of the basic sciencesrelevant to the surgery specialty.
4	Identify social, economic, environmental, biological and emotional determinants of health in a given case, and take them into account while planning therapeutic, rehabilitative, preventive and primitive measure/strategies.
5	Diagnose and manage majority of the conditions in the surgery concerned on the basis of clinical assessment, and appropriatelyselected and conducted investigations.
6	Plan and advise measures for the prevention and rehabilitation ofpatients suffering from disease and disability related to the surgery specialty.
7	Demonstrate skills in documentation of individual case details as well as morbidity and mortality rate relevant to the assigned situation.
8	Demonstrate empathy and humane approach towards patients andtheir families and exhibit interpersonal behavior in accordance with the societal norms and expectations.
9	Play the assigned role in the implementation of national healthprogramme, effectively and responsibly.
10	Organize and supervise the chosen/assigned health care services demonstrating adequate managerial skills in the clinic/hospital or the field situation
11	Develop skills as a self-directed learner, recognize continuing education needs; select and use appropriate learning resources
12	Demonstrate competence in basic concepts of research methodology and epidemiology and be able to critically analyzerelevant published research literature**.**
13	Develop skills in using educational methods and techniques as applicable to the teaching of medical/nursing students, general physicians and paramedical health workers.
14	Function as an effective leader of a health team engaged in healthcare, research or training.

MS ENT PROGRAMME

Course Code	Course Title
01300301 [	MS ENT

Course 1 (Subject Code)

CO No.	**At the end of the course, the learner should be able to:**	**Mapped Programme Outcomes**
CO 1	To obtain adequate /knowledge in basic Sciences like embryology, Anatomy,Physiology,Biochemistry, Micro-biology, Pharmacology and General Surgical principles related to Oto- Rhino-Laryngology.	PO1, PO2, PO3, PO5, PO6, PO7, PO8, PO9
CO 2	To have proper understanding of patho-physiology of most of the illnesses related to the specialty.	PO1, PO2, PO3, PO4, PO5, PO6, PO7, PO8, PO9
CO 3	To recognize and properly diagnose the ailments pertaining to ENT and also other common health problems of community.	PO1, PO2, PO3, PO4, PO5, PO6, PO7, PO8, PO9
CO 4	He/ she should gain adequate skills to individually manage ENT diseases both medically and surgically as per the need.	PO1, PO2, PO3, PO4, PO5, PO6, PO7, PO8, PO9
CO 5	They should manage all kinds of emergencies in Oto-Rhino-Laryngology, head and neck independently keeping in the mind the Limitations existing in his place of work.	PO1, PO2, PO3, PO5, PO6, PO7, PO9
CO 6	They should be able to perform common audio –vestibular tests like Pure Tone Audiometry, Impedence Audiometry, BERA, Cold Caloric Test Positional tests, etc.	PO1, PO2, PO3, PO5, PO6, PO7, PO8, PO9
CO 7	He/she should learn basic methodology in teaching medical and paramedical students in productive manner.	PO1, PO2, PO3, PO4, PO5, PO7, PO8, PO9
CO 8	He/she should keep a track of current developments in the field of ENT. They should be able to conduct research works, keep proper records and prepare reports and presentations of the same.	PO1, PO2, PO3, PO4, PO5, PO6, PO8, PO9