

Faculty of Medicine



JSS Academy of Higher Education & Research

(Deemed to be University)

Accredited "A" Grade by NAAC

Sri Shivarathreshwara Nagar, Mysuru – 570 015

Regulation & Syllabus

Post Graduate Degree & Diploma Programs
OTORHINOLARYNGOLOGY 2016

MS/PG Dip

Regulation & Syllabus

MS OTORHINOLARYNGOLOGY

2016



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**REGULATION AND SYLLABUS FOR
POST GRADUATE DEGREE PROGRAMS 2016**

**MS & DIPLOMA
OTORHINOLARYNGOLOGY**

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CHAPTER I

REGULATION FOR POST GRADUATE DEGREE AND DIPLOMA COURSES

1. Branch of study

Post graduate degree courses

Doctor of Medicine

- a) Anaesthesiology
- b) Anatomy
- c) Biochemistry
- d) Community medicine
- e) Dermatology, venereology and leprosy
- f) Emergency medicine
- g) Forensic medicine
- h) General medicine
- i) Hospital administration
- j) Microbiology
- k) Pathology
- l) Paediatrics
- m) Pharmacology
- n) Physiology
- o) Psychiatry
- p) Tuberculosis and Respiratory Medicine
- q) Radio Diagnosis

Master of Surgery

- a) General surgery
- b) Obstetrics and gynaecology
- c) Ophthalmology
- d) Orthopaedics
- e) Otorhinolaryngology

Post graduate diploma courses

- a) Anaesthesiology (DA)
- b) Child Health (DCH)
- c) Clinical Pathology (DCP)
- d) Dermatology, Venereology & Leprosy (DDVL)
- e) Medical Radio Diagnosis (DMRD)
- f) Obstetrics & Gynaecology (DGO)
- g) Ophthalmology (DO)
- h) Orthopaedics (D Ortho)
- i) Otolaryngology (DLO)
- j) Psychiatric Medicine (DPM)

2. Eligibility for admission

MD / MS Degree and Diploma courses: A candidate who has passed final year MBBS examination after pursuing a study in a medical college recognized by the Medical Council of India and has completed one year compulsory rotating internship in a teaching institution or other institution recognized by the Medical Council of India, and has obtained permanent registration of any State Medical Council, shall be eligible for admission.

3. Admission

A candidate desirous of admission to Post Graduate Medical Programmes MD/MS / PG Diploma Courses is required to complete the application form and submit to the Deemed to be University along with prescribed documents on or before the scheduled date. Eligibility criteria, application form and details of documents to be submitted are available in the Deemed to be University website: www.jssuni.edu.in.

4. Registration

A candidate who has been admitted to postgraduate course shall register in the Deemed to be University within a month of admission after paying the registration fee.

5. Intake of students

The intake of students to each course shall be in accordance with the MCI.

6. Duration of study

MD, MS Degree Courses: The course of study shall be 3 completed years including the period of examination.

Provided that in case of students having a recognized 2 years postgraduate diploma course in the same subject, the period of training including the period of examination shall be 2 years.

Diploma courses: The course of study shall be 2 completed years including the examination period.

7. Methodology of training

The training of postgraduate for degree/diploma shall be residency pattern, with graded responsibilities in the management and treatment of patients entrusted to his/her care. The participation of the students in all facets of educational process is essential. Every candidate should take part in seminars, group discussions, grand rounds, case demonstration, clinics, journal review meetings, CPC and clinical meetings. Every candidate shall participate in the teaching and training programme of undergraduate students. Training should include involvement in laboratory and experimental work, and research studies. Basic medical sciences students should be posted to allied and relevant clinical departments or institutions. Similarly, clinical subjects' students should be posted to basic medical sciences and allied specialty departments or institutions.

8. Attendance, progress and conduct

A candidate pursuing degree/diploma course, shall work in the concerned department of the institution for the full period as full time student. No candidate is permitted to run a clinic/laboratory/nursing home while studying postgraduate course, nor can he/she work in a nursing home or other hospitals/

clinic/laboratory while studying postgraduate course.

Each year shall be taken as a unit for the purpose of calculating attendance.

Every student shall attend symposia, seminars, conferences, journal review meetings, grand rounds, CPC, case presentation, clinics and lectures during each year as prescribed by the department and not absent himself / herself from work without valid reasons.

Every candidate is required to attend a minimum of 80% of the training during each academic year of the post graduate course. Provided, further, leave of any kind shall not be counted as part of academic term without prejudice to minimum 80% attendance of training period every year.

Any student who fails to complete the course in the manner stated above shall not be permitted to appear for the Deemed to be University Examinations.

9. Monitoring progress of study

Work diary / Log Book: Every candidate shall maintain a work diary and record his/her participation in the training programmes conducted by the department such as journal reviews, seminars, etc. Special mention shall be made of the presentations by the candidate as well as details of clinical or laboratory procedures, if any, conducted by the candidate. The work diary shall be scrutinized and certified by the Head of the Department and Head of the Institution, and presented in the Deemed to be University practical/clinical examination.

Periodic tests: In case of degree courses of three years duration (MD/MS), the concerned departments shall conduct three tests, two of them be annual tests, one at the end of first year and the other at the end of the second year. The third test shall be held three months before the final examination. The tests shall include written papers, practical / clinical and viva voce. Records and marks obtained in such tests shall be maintained by the Head of the Department and sent to the Deemed to be University, when called for.

In case of diploma courses of two years duration, the concerned departments shall conduct two tests, one of them at the end of first year and the other in the second year, three months before the final examination. The tests shall include written papers, practical / clinical and viva voce.

Records: Records and marks obtained in tests shall be maintained by the Head of the Department and shall be made available to the Deemed to be University or MCI.

10. Dissertation

Every candidate pursuing MD/MS degree course is required to carry out work on a selected research project under the guidance of a recognised post graduate teacher. The results of such a work shall be submitted in the form of a dissertation.

The dissertation is aimed to train a postgraduate student in research methods and techniques. It includes identification of a problem, formulation of a hypothesis, search and review of literature, getting acquainted with recent advances, designing of a research study, collection of data, critical analysis, and comparison of results and drawing conclusions.

Every candidate shall submit to the Controller of Examinations of the Deemed to be University in the prescribed proforma, a synopsis containing particulars of proposed dissertation work within six months from the date of commencement of the course, on or before the dates notified by the Deemed to be University. The synopsis shall be sent through proper channel.

Such synopsis will be reviewed and the dissertation topic will be registered by the Deemed to be University. No change in the dissertation topic or guide shall be made without prior approval of the Deemed to be University.

The dissertation should be written under the following headings:

- a) Introduction
- b) Aims or Objectives of study
- c) Review of Literature
- d) Material and Methods
- e) Results
- f) Discussion
- g) Conclusion
- h) Summary
- i) References
- j) Tables
- k) Annexure
- l) Proof of Paper presentation and publication

The written text of dissertation shall be not less than 50 pages and shall not exceed 150 pages excluding references, tables, questionnaires and other annexure. It should be neatly typed in double line spacing on one side of paper (A4 size, 8.27" x 11.69") and bound properly. Spiral binding should be avoided. The dissertation shall be certified by the guide, head of the department and head of the Institution.

Four copies of dissertation thus prepared shall be submitted to the Controller of Examinations, six months before final examination, on or before the dates notified by the Deemed to be University.

The dissertation shall be valued by examiners appointed by the Deemed to be University. Approval of dissertation work is an essential precondition for a candidate to appear in the Deemed to be University examination.

Guide: The academic qualification and teaching experience required for recognition as a guide for dissertation work is as per MCI Minimum Qualifications for Teachers in Postgraduate Medical Education Regulations, 2000. Teachers in a medical college/institution having a total of eight years teaching experience out of which at least five years teaching experience as Assistant Professor gained after obtaining post graduate degree shall be recognised as post graduate teachers.

Co Guide: A Co-guide may be included provided the work requires substantial contribution from a sister department or from another medical institution recognised for teaching/training by JSS Deemed to be University / Medical Council of India.

Change of guide: In the event of a registered guide leaving the college for any reason or in the event of death of guide, guide may be changed with prior permission from the Deemed to be University.

A postgraduate student is required to present one poster presentation, to read one paper at a national/state conference and to present one research paper which should be published/accepted for publication/sent for publication during the period of his postgraduate studies so as to make him eligible to appear at the postgraduate degree examination.

11. Schedule of examination

The examination for MD / MS courses shall be held at the end of three academic years (six academic terms). The examination for the diploma courses shall be held at the end of two academic years.

For students who have already passed Post Graduate Diploma and appearing for MD examination, the examination shall be conducted after two academic years including submission of dissertation. The Deemed to be University shall conduct two examinations in a year at an interval of four to six months between the two examinations. Not more than two examinations shall be conducted in an academic year.

12. Scheme of examination

MD/MS

Dissertation: Every candidate shall carry out work and submit a dissertation as indicated in Sl. No. 10. Acceptance of dissertation shall be a precondition for the candidate to appear for the final examination.

Written Examination (Theory): A written examination shall consist of four question papers, each of three hours duration. Each paper shall carry 100 marks. Out of the four papers, the 1st paper in clinical subjects will be on applied aspects of basic medical sciences. Recent advances may be asked in any or all the papers. In basic medical subjects and para-clinical subjects, questions on applied clinical aspects shall also be asked.

Pattern of Theory Examination Question Paper:

Each paper shall consist of two long essay questions each carrying 20 marks, 3 short essay questions each carrying 10 marks and 6 short answer questions each carrying 5 marks. Total marks for each paper shall be 100.

Practical/Clinical Examination: In case of Practical examination for the subjects in Basic Medical Sciences Practical Examination shall be conducted to test the knowledge and competence of the candidates for making valid and relevant observations based on the experimental/Laboratory studies and his ability to perform such studies as are relevant to his subject.

Clinical examination for the subjects in Clinical Sciences shall be conducted to test the knowledge and competence of the candidates for undertaking independent work as a specialist/Teacher, for which candidates shall examine a minimum one long case and two short cases.

The total marks for Practical / clinical examination shall be 200.

Viva Voce: Viva Voce shall be thorough and shall aim at assessing the candidate knowledge and competence about the subject, investigative procedures, therapeutic technique and other aspects of the speciality, which form a part of the examination.

The total marks shall be 100 and the distribution of marks shall be as under:

- | | | |
|-----|-----------------------------------------------|----|
| i) | For examination of all components of syllabus | 80 |
| ii) | For Pedagogy | 20 |

If there is skills evaluation, 10 marks shall be reserved for Pedagogy and 10 marks for skill evaluation.

Examiners. There shall be at least four examiners in each subject. Out of

them, two shall be external examiners and two shall be internal examiners. The qualification and teaching experience for appointment as an examiner shall be as laid down by the Medical Council of India.

Criteria for declaring as pass in Deemed to be University Examination:

A candidate shall pass theory and practical including clinical and viva-voce examination separately and shall obtain 40% marks in each theory paper and not less than 50% marks cumulatively in all the four papers for post graduate degree examination to be declared as pass.

A candidate obtaining less than 40% marks in any paper and obtaining less than 50% of marks cumulatively in all the four papers for postgraduate degree examination shall be declared to have failed in the examination. Failed candidate may appear in any subsequent examination upon payment of fresh fee to the Controller of Examinations.

Declaration of class: A successful candidate passing the Deemed to be University examination in first attempt and secures grand total aggregate 75% of marks or more will be declared to have passed the examination with distinction, 65% but below 75% declared as First Class and 50% but below 65% declared as Second Class.

A candidate passing the Deemed to be University examination in more than one attempt shall be declared as Pass Class irrespective of the percentage of marks.

Post Graduate Diploma Examinations

Diploma examination in any subject shall consist of theory (written papers), Practical / Clinical and Viva - Voce.

Theory: There shall be three written question papers each carrying 100 marks. Each paper will be of three hours duration. In clinical subjects one paper out of this shall be on basic medical sciences. In basic medical subjects and Para-clinical subjects, questions on applied clinical aspects shall also be asked.

Pattern of Theory Examination Question Paper:

Each paper shall consist of two long essay questions each carrying 20 marks, 3 short essay questions each carrying 10 marks and 6 short answer questions each carrying 5 marks. Total marks for each paper shall be 100.

Practical Clinical Examination: In case of practical examination it shall be aimed at assessing competence, skills related to laboratory procedures as well as testing students ability to make relevant and valid observations, interpretation of laboratory or experimental work relevant to his/her subject.

In case of clinical examination, it shall aim at examining clinical skills and competence of candidates for undertaking independent work as a specialist. Each candidate shall examine at least one long case and two short cases.

The maximum marks for Practical / Clinical shall be 150.

Viva Voce Examination: Viva Voce examination shall be thorough and shall aim at assessing the candidate's knowledge and competence about the subject, investigative procedures, therapeutic technique and other aspects of the speciality, which shall form a part of the examination. The total marks shall be 50.

Examiners. There shall be at least four examiners in each subject. Out of

them, two shall be external examiners and two shall be internal examiners. The qualification and teaching experience for appointment as an examiner shall be as laid down by the Medical Council of India.

Criteria for declaring as pass in Deemed to be University Examination:

A candidate shall pass theory and practical including clinical and viva-voce examination separately and shall obtain 40% marks in each theory paper and not less than 50% marks cumulatively in all the three papers for post graduate diploma examination to be declared as pass.

A candidate obtaining less than 40% marks in any paper and obtaining less than 50% of marks cumulatively in all the three papers for post graduate diploma examination shall be declared to have failed in the examination. Failed candidate may appear in any subsequent examination upon payment of fresh fee to the Controller of Examinations.

Declaration of class: A successful candidate passing the Deemed to be University examination in first attempt and secures grand total aggregate 75% of marks or more will be declared to have passed the examination with distinction, 65% but below 75% declared as First Class and 50% but below 65% declared as Second Class.

A candidate passing the Deemed to be University examination in more than one attempt shall be declared as Pass Class irrespective of the percentage of marks.

13. Number of candidates per day

The maximum number of candidates to be examined in Clinical/ practical and Oral on any day shall not exceed eight for M.D./M.S. degree, eight for diploma.

CHAPTER II

GOALS AND GENERAL OBJECTIVES OF POSTGRADUATE MEDICAL EDUCATION PROGRAM

GOAL

The goal of postgraduate medical education shall be to produce competent specialists and/or medical teachers:

1. Who shall recognize the health needs of the community and carry out professional obligations ethically and in keeping with the objectives of the national health policy.
2. Who shall have mastered most of the competencies, pertaining to the specialty, that are required to be practiced at the secondary and the tertiary levels of the health care delivery system.
3. Who shall be aware of the contemporary advance and developments in the discipline concerned.
4. Who shall have acquired a spirit of scientific inquiry and is oriented to the principles of research methodology and epidemiology and
5. Who shall have acquired the basic skills in teaching of the medical and paramedical professionals.

GENERAL OBJECTIVES

At the end of the postgraduate training in the discipline concerned the student shall be able to:

1. Recognize the importance to the concerned speciality in the context of the health needs of the community and the national priorities in the health section.
2. Practice the specialist concerned ethically and in step with the principles of primary health care.
3. Demonstrate sufficient understanding of the basic sciences relevant to the concerned 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 speciality concerned on the basis of clinical assessment, and appropriately selected and conducted investigations.
6. Plan and advice measures for the prevention and rehabilitation of patients suffering from disease and disability related to the 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 and their families and exhibit interpersonal behavior in accordance with the societal norms and expectations.
9. Play the assigned role in the implementation of national health programme, 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 analyze relevant 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 health care, research or training.

STATEMENT OF THE COMPETENCIES: Keeping in view the general objectives of postgraduate training, each discipline shall aim at development of specific competencies which shall be defined and spelt out in clear terms. Each department shall produce a statement and bring it to the notice of the trainees in the beginning of the programme so that he or she can direct the efforts towards the attainment of these competencies.

COMPONENTS OF THE POSTGRADUATE CURRICULUM:

The major components of the Postgraduate curriculum shall be:

- Theoretical knowledge
- Practical and clinical skills
- Dissertation skills.
- Attitudes including communication skills.
- Training in Research Methodology, Medical Ethics and Medicolegal aspects.

(Source: Medical Council of India, Regulations on Postgraduate Medical Education, 2000)

CHAPTER III

Monitoring Learning Progress

It is essential to monitor the learning progress of each candidate through continuous appraisal and regular assessment. It not only helps teachers to evaluate students, but also students to evaluate themselves. The monitoring shall be done by the staff of the department based on participation of students in various teaching / learning activities. It may be structured and assessment be done using checklists that assess various aspects. Model checklists are given in this chapter which may be copied and used.

The learning outcomes to be assessed should include:

1. Personal Attitudes.
2. Acquisition of Knowledge.
3. Clinical and operative skills and
4. Teaching skills.

1. Personal Attitudes: The essential items are:

- a) Caring attitude.
- b) Initiative.
- c) Organisational ability.
- d) Potential to cope with stressful situations and undertake responsibility.
- e) Trustworthiness and reliability.
- f) To understand and communicate intelligibly with patients and others.
- g) To behave in a manner that establishes professional relationships with patients and colleagues.
- h) Ability to work in a team.
- i) A critical enquiring approach to the acquisition of knowledge.

The methods used mainly consist of observation. It is appreciated that these items require a degree of subjective assessment by the guide, supervisors and peers.

2. Acquisition of Knowledge: The methods used comprise of 'Log Book' which records participation in various teaching / learning activities by the students. The number of activities attended and the number in which presentations are made are to be recorded. The log book should periodically be validated by the supervisors. Some of the activities are listed. The list is not complete. Institutions may include additional activities, if so, desired.

- a) **Journal Review Meeting (Journal Club).** The ability to do literature search, in depth study, presentation skills, and use of audio-visual aids are to be assessed. The assessment is made by faculty members and peers attending the meeting using a checklist (see Model Checklist – I, Chapter III)
- b) **Seminars / Symposia.** The topics should be assigned to the student well in advance to facilitate in depth study. The ability to do literature search, in depth study, presentation skills and use of audio-visual aids are to be assessed using a checklist (see Model Checklist-II, Chapter III)

- c) **Clinico-pathological conferences.** This should be a multidisciplinary study of an interesting case to train the candidate to solve diagnostic and therapeutic problems by using an analytical approach. The presenter(s) are to be assessed using a check list similar to that used for seminar.
- d) **Medical Audit.** Periodic morbidity and mortality meeting shall be held. Attendance and participation in these must be insisted upon. This may not be included in assessment.

3. Clinical skills:

- a. **Day to Day work:** Skills in outpatient and ward work should be assessed periodically. The assessment should include the candidates' sincerity and punctuality, analytical ability and communication skills (see Model Checklist III, Chapter III).
 - b. **Clinical meetings:** Candidates should periodically present cases to his peers and faculty members. This should be assessed using a check list (see Model checklist IV, Chapter III).
 - c. **Clinical and Procedural skills:** The candidate should be given graded responsibility to enable learning by apprenticeship. The performance is assessed by the guide by direct observation. Particulars are recorded by the student in the log book. (Table No.3, Chapter III).
4. **Teaching skills:** Candidates should be encouraged to teach undergraduate medical students and paramedical students, if any. This performance should be based on assessment by the faculty members of the department and from feedback from the undergraduate students (See Model checklist V, Chapter III).
 5. **Periodic tests:** In case of degree courses of three years duration, the department may conduct three tests, two of them be annual tests, one at the end of first year and the other in the second year. The third test may be held three months before the final examination. In case of diploma courses of two year duration, the departments may conduct two tests. One of them at the end of first year and the other in the second year, three months before the final examination. The tests may include written papers, practical / clinical and viva voce.
 6. **Work diary:** Every candidate shall maintain a work diary and record his/her participation in the training programmes conducted by the department such as journal reviews, seminars, etc. Special mention may be made of the presentations by the candidate as well as details of clinical or laboratory procedures, if any conducted by the candidate.
 7. **Records:** Records, log books and marks obtained in tests will be maintained by the Head of the Department and will be made available to the Deemed to be University or MCI.
 8. **Log book:** The log book is a record of the important activities of the candidates during his training. Internal assessment should be based on the evaluation of the log book. Collectively, log books are a tool for the evaluation of the training programme of the institution by external agencies. The record includes academic activities as well as the presentations and procedures carried out by the candidate. Format for the log book for the different activities is given in Tables 1, 2 and 3 of Chapter III. Copies may be made and used by the institutions.

Procedure for defaulters: Every department should have a committee to review such situations. The defaulting candidate is counseled by the guide and head of the department. In extreme cases of default the departmental committee may recommend that defaulting candidate be withheld from appearing the examination, if she/he fails to fulfill the requirements in spite of being given adequate chances to set him or herself right.

Format of Model Check Lists

Check List-I

MODEL CHECK-LIST FOR EVALUATION OF JOURNAL REVIEW PRESENTATIONS

Name of the Student:

Name of the Faculty/Observer:

Date:

Sl No	Items for observation during presentation	Poor 0	Below Average 1	Average 2	Good 3	Very Good 4
1.	Article chosen was					
2.	Extent of understanding of scope & objectives of the paper by the candidate					
3.	Whether cross references have been consulted					
4.	Whether other relevant publications consulted					
5.	Ability to respond to questions on the paper / subject					
6.	Audio-visual aids used					
7.	Ability to defend the paper					
8.	Clarity of presentation					
9.	Any other observation					
	Total Score					

Check List – II

MODEL CHECK-LIST FOR EVALUATION OF SEMINAR PRESENTATIONS

Name of the Student:

Name of the Faculty/Observer:

Date:

Sl No	Items for observation during presentation	Poor 0	Below Average 1	Average 2	Good 3	Very Good 4
1.	Whether other relevant publications consulted					
2.	Whether cross references have been consulted					
3.	Completeness of Preparation					
4.	Clarity of Presentation					
5.	Understanding of subject					
6.	Ability to answer questions					
7.	Time scheduling					
8.	Appropriate use of Audio-Visual aids					
9.	Overall Performance					
10.	Any other observation					
	Total Score					

Check List - III

MODEL CHECK LIST FOR EVALUATION OF CLINICAL WORK IN WARD / OPD

(To be completed once a month by respective Unit Heads,
including posting in other departments)

Name of the Student:

Name of the Faculty/Observer:

Date:

SI No	Points to be considered	Poor 0	Below Average 1	Average 2	Good 3	Very Good 4
1.	Regularity of attendance					
2.	Punctuality					
3.	Interaction with colleagues and supportive staff					
4.	Maintenance of case records					
5.	Presentation of cases during rounds					
6.	Investigations work up					
7.	Beside manners					
8.	Rapport with patients					
9.	Counseling patient's relatives for blood donation or Postmortem and Case follow up.					
10.	Overall quality of ward work					
	Total Score					

Check List - IV
EVALUATION FORM FOR CLINICAL PRESENTATION

Name of the Student:

Name of the Faculty:

Date:

Sl No	Points to be considered	Poor 0	Below Average 1	Average 2	Good 3	Very Good 4
1.	Completeness of history					
2.	Whether all relevant points elicited					
3.	Clarity of Presentation					
4.	Logical order					
5.	Mentioned all positive and negative points of importance					
6.	Accuracy of general physical examination					
7.	Whether all physical signs elicited correctly					
8.	Whether any major signs missed or misinterpreted					
9.	Diagnosis: Whether it follows logically from history and findings					
10.	Investigations required <ul style="list-style-type: none"> • Complete list • Relevant order • Interpretation of investigations 					
11.	Ability to react to questioning Whether it follows logically from history and findings					
12.	Ability to defend diagnosis					
13.	Ability to justify differential diagnosis					
14.	Others					
	Total Score					

Check List - V

MODEL CHECK LIST FOR EVALUATION OF TEACHING SKILL PRACTICE

SI No		Strong Point	Weak Point
1.	Communication of the purpose of the talk		
2.	Evokes audience interest in the subject		
3.	The introduction		
4.	The sequence of ideas		
5.	The use of practical examples and/or illustrations		
6.	Speaking style (enjoyable, monotonous, etc., specify)		
7.	Attempts audience participation		
8.	Summary of the main points at the end		
9.	Asks questions		
10.	Answers questions asked by the audience		
11.	Rapport of speaker with his audience		
12.	Effectiveness of the talk		
13.	Uses AV aids appropriately		

Check List - VI

MODEL CHECK LIST FOR DISSERTATION PRESENTATION

Name of the Student:

Name of the Faculty:

Date:

Sl No	Points to be considered divine	Poor 0	Below Average 1	Average 2	Good 3	Very Good 4
1.	Interest shown in selecting a topic					
2.	Appropriate review of literature					
3.	Discussion with guide & other faculty					
4.	Quality of Protocol					
5.	Preparation of proforma					
	Total Score					

Check List - VII

**CONTINUOUS EVALUATION OF DISSERTATION WORK
BY GUIDE / CO GUIDE**

Name of the Student:

Name of the Faculty:

Date:

Sl No	Items for observation during presentations	Poor 0	Below Average 1	Average 2	Good 3	Very Good 4
1.	Periodic consultation with guide/co-guide					
2.	Regular collection of case Material					
3.	Depth of analysis / discussion					
4.	Departmental presentation of findings					
5.	Quality of final output					
6.	Others					
	Total Score					

LOG BOOK

Table 1: Academic activities attended

Name:

Admission Year:

Date	Type of Activity Specify Seminar, Journal Club, Presentation, UG teaching	Particulars

LOG BOOK

Table 2: Academic presentations made by the student

Name:

Admission year:

Date	Topic	Type of Presentation Specify Seminar, Journal Club, Presentation, UG teaching

LOG BOOK

Table 3: Diagnostic and Operative procedures performed

Name:

Admission year:

College:

Date	Name	ID No.	Procedure	Category O, A, PA, PI*

*** Key:**

O - Washed up and observed

A - Assisted a more senior Surgeon

PA - Performed procedure under the direct supervision of a senior Surgeon
PI - Performed independently

Model Overall Assessment Sheet

SI No	Faculty Member & Others	Name of Student and Mean Score*																		
		A	B	C	D	E	F	G	H	I	J									
1.	Journal Review Presentations																			
2.	Seminars																			
3.	Clinical work in wards																			
4.	Clinical presentation																			
5.	Teaching skill practice																			
	Total Score																			

Note: Use separate sheet for each year.

Signature of HOD

Signature of Principal

The above overall assessment sheet used along with the logbook should form the basis for certifying satisfactory completion of course of study, in addition to the attendance requirement.

* KEY:

Mean score : Is the sum of all the scores of checklists 1 to 7.
A, B, Name of the trainees.

Chapter IV

Medical Ethics Sensitisation and Practice

Introduction

There is now a shift from the traditional individual patient- doctor relationship and medical care. With the advances in science and technology and the needs of patients, their families and the community, there is an increased concern with the health of society. There is a shift to greater accountability to the society. Doctors and health professionals are confronted with many ethical problems. It is, therefore necessary to be prepared to deal with these problems. To accomplish the Goal and General Objective stated in Chapter II and develop human values it is urged that ethical sensitisation be achieved by lectures or discussion on ethical issues, clinical discussion of cases with an important ethical component and by including ethical aspects in discussion in all case presentation, bedside rounds and academic postgraduate programmes.

Course Contents

1. Introduction to Medical Ethics

- What is Ethics?
- What are values and norms?
- Relationship between being ethical and human fulfillment.
- How to form a value system in one's personal and professional life.
- Heteronomous Ethics and Autonomous Ethics.
- Freedom and personal Responsibility.

2. Definition of Medical Ethics

- Difference between medical ethics and bio-ethics
- Major Principles of Medical Ethics
 - Beneficence = fraternity
 - Justice = equality
 - Self determination (autonomy) = liberty

3. Perspective of Medical Ethics

- The Hippocratic Oath.
- The Declaration of Helsinki.
- The WHO Declaration of Geneva.
- International code of Medical Ethics. (1993)
- Medical Council of India Code of Ethics.

4. Ethics of the Individual

- The patient as a person.
- The Right to be respected.
- Truth and Confidentiality.
- The autonomy of decision.
- The concept of disease, health and healing.
- The Right to health.
- Ethics of Behaviour modification.
- The Physician – Patient relationship.
- Organ donation.

5. The Ethics of Human life

- What is human life?
- Criteria for distinguishing the human and the non-human.

- Reasons for respecting human life.
- The beginning of human life.
- Conception, contraception.
- Abortion.
- Prenatal sex-determination.
- In vitro fertilization (IVF).
- Artificial Insemination by Husband (AIH).
- Artificial Insemination by Donor (AID).
- Surrogate motherhood.
- Semen Intra-fallopian Transfer (SIFT).
- Gamete Intra-fallopian Transfer (GIFT).
- Zygote Intra-fallopian Transfer (ZIFT).
- Genetic Engineering.

6. The Family and Society in Medical Ethics

- The Ethics of human sexuality.
- Family Planning perspectives.
- Prolongation of life.
- Advanced life directives – The Living Will
- Euthanasia
- Cancer and Terminal Care

7. Profession Ethics

- Code of conduct.
- Contract and confidentiality.
- Charging of fees, Fee-splitting.
- Prescription of drugs.
- Over-investigating the patient.
- Low – Cost drugs, vitamins and tonics.
- Allocation of resources in health care.
- Malpractice and Negligence.

8. Research Ethics

- Animal and experimental research / humaneness.
- Human experimentation.
- Human volunteer research — Informed Consent Drug trials.

9. Ethical workshop of cases

- Gathering all scientific factors.
- Gathering all human factors.
- Gathering all value factors.
- Identifying areas of value — conflict, setting of priorities
- Working out criteria towards decisions.

Recommended Reading

1. Francis C.M., Medical Ethics, 1 Ed, 1993, Jaypee Brothers, New Delhi.
2. Good Clinical Practices:GOI Guidelines for clinical trials on Pharmaceutical Products in India (www.cdsco.nic.in)
3. INSA Guidelines for care and use of Animals in Research – 2000.
4. CPCSEA Guidelines 2001 (www.cpcsea.org.)
5. Ethical Guidelines for Biomedical Research on Human Subjects, 2000, ICMR, New Delhi.
6. ICMR Guidelines on animal use 2001, ICMR, New Delhi.

CHAPTER V - Syllabus

M S Otorhinolaryngology

Goals:

The goals of postgraduate training course would be to train a MBBS doctor who will:

1. Practice efficiently and effectively, backed by scientific knowledge and skill base.
2. Exercise empathy and a caring attitude and maintain high ethical standards.
3. Continue to evince keen interest in continuing education in the specialty, irrespective of whether he is in a teaching institution or is a practicing surgeon.
4. Be a motivated 'teacher', defined as a specialist keen to share his knowledge and skills with a colleague or a junior or any learner.

Objectives:

The following objectives are laid out to achieve the goals of the course. These objectives are to be achieved by the time the candidate completes the course. The objectives may be considered under the subheadings:

1. Knowledge (cognitive domain).
2. Skills (psycho motor domain).
3. Human values, ethical practice and communication abilities.

Knowledge:

1. Demonstrate understanding of basic sciences relevant to this specialty.
2. Describe aetiology, pathophysiology, Investigations, principles of diagnosis and management of common problems including emergencies, in adults and children.
3. Describe indications and methods for fluid and electrolyte replacement therapy, including blood transfusion
4. Describe common malignancies of Head and neck region and their management including prevention.
5. Identify social, economic, environmental and emotional determinants in a given case, and take them into account for planning therapeutic measures.
6. Recognize conditions that may be outside the area of his specialty/competence and to refer them to the proper specialist.
7. Advice regarding the operative or non-operative management of the case and to carry out this management effectively.
8. Update oneself by self study and by attending courses, conferences and seminars relevant to the specialty.
9. Teach and guide his team, colleagues and other students.
10. Undertake audit, use information technology tools and carry out research, both basic and clinical, with the aim of publishing his work and presenting his work at various scientific fora.

Skills

1. Take a proper clinical history, examine the patient, perform essential diagnostic procedures and order relevant tests and interpret them to come to a reasonable diagnosis about the surgical condition.
2. Perform common operative procedures in otorhinolaryngology.

3. Provide basic and advanced life saving support services (BLS & ALS) in emergency situations.
4. Undertake complete patient monitoring including the preoperative and post operative care of the patient.

Human values, Ethical practice and Communication abilities

1. Adopt ethical principles in all aspects of his/her practice. Professional honesty and integrity are to be fostered. Care is to be delivered irrespective of the social status, caste, creed or religion of the patient.
2. Develop communication skills, in particular, the skill to explain various options available in management and to obtain a true informed consent from the patient.
3. Provide leadership and get the best out of his team in a congenial working atmosphere.
4. Apply high moral and ethical standards while carrying out human or animal research.
5. Be humble and accept the limitations in his knowledge and skill and to ask for help from colleagues when needed.
6. Respect patient's rights and privileges including patient's right to information and right to seek a second opinion.

Course Contents

1. Theory

- a. **Basic Sciences** Anatomy of the ear, physiology of hearing and equilibrium, anatomy of nose and paranasal sinuses, anatomy of pharynx, oesophagus, deglutition anatomy of larynx and tracheobronchial tree, physiology of respiration, physiology of generation and reception of hearing and speech. surgical anatomy of skull base, cranial nerves, imaging and radiology pertaining to ear, nose and throat (ENT), knowledge of immunology and microbiology as regarding ENT, radiotherapy and chemotherapy in head & neck cancers, wound healing, principles of laser surgery, basics of anaesthesia and intensive care in relation to ENT, a thorough knowledge of anatomy of head and neck region including thyroid, neck spaces and salivary glands, physiology of smell.

b. Audiology

- | (A) | (B) | (C) |
|---------------------------------------------------------------------------------|---------------------------------------------------------------------------|----------------------------------------------|
| i) Brief knowledge of acoustics. | i) Epidemiology/prevention/rehabilitation of balance & hearing disorders. | i) Diagnostic audiometry. |
| ii) Use of computers in audiological and vestibular testing and rehabilitation. | ii) Hearing aids. | ii) Diagnostic testing of vestibular system. |
| | iii) Cochlear implants. | |

- c. **Otology and neurotology:** Diseases of External auditory canal: Wax, Inflammatory conditions and Tumours, Diseases of middle ear: Acute suppurative otitis media, Chronic suppurative otitis media (CSOM), Complications of CSOM, plastic surgery of ear, Otosclerosis, Hearing loss in adults and children, vertigo, Meniere's disease, Ototoxicity, Vestibular Schwannoma, Tumours of middle ear

cleft, Glomus jugulare, Disorders of facial nerve, Cochlear implants, Deaf Mutism, Audiological rehabilitation, lateral skull base surgery, Endoscopic ear surgery and evaluation of giddiness.

d. Laryngology and Head and Neck

- i. Acute & chronic infections of oral cavity, pharynx, tonsils and larynx.
 - Trauma & stenosis of larynx.
 - Causes of stridor in Children and adults
 - Management of obstructed airway and tracheostomy in Children and in adults.
 - Disorders of voice.
 - Thyroplasty surgeries
 - Neurological affections of pharynx and larynx.
 - Pharyngeal pouch.
 - Tumours of larynx.
- ii. Tumors of oropharynx and lymphoma head and neck.
- iii. Tumors of hypopharynx.
- iv. Benign diseases of the neck.
- v. The Thyroid gland and disorders.
- vi. Diseases of salivary gland: neoplastic & non-neoplastic.
- vii. Tumors of infra temporal fossa and parapharyngeal space, cysts, granulomas and tumours of jaw, nose and sinuses.
- viii. The oesophagus in otolaryngology, facial plastic surgery and reconstructive surgery of head and neck.
- ix. Terminal care of head and neck cancer.
- x. Robotic Surgery
- xi. Laser Surgery

e. Rhinology and skull base

- i. Congenital anomalies of the nose.
- ii. Conditions of external nose.
- iii. Abnormalities of smell.
- iv. Allergic rhinitis.
- v. Intrinsic rhinitis and nasal polyposis.
- vi. Infective rhinosinusitis, complication and surgical management.
- vii. Disorders and trauma of facial skeleton.
- viii. Disorders of nasal septum.
- ix. CSF rhinorrhoea.
- x. Epistaxis.
- xi. Snoring and sleep apnea.
- xii. Chronic granulomas of nose and PNS.
- xiii. Angiofibroma and nasopharyngeal lesions.
- xiv. The orbit in relation to ENT.
- xv. Transphenoidal hypophysectomy.
- xvi. Overview of facial pain and headache.
- xvii. Radiology of nose and paranasal sinuses
- xviii. Skull base surgeries
- xix. Endoscopic sinus surgeries
- xx. Endoscopic Transphenoidal skull base surgeries
- xxi. Lateral Skull base surgeries

2. Practical / Clinical

Mandatory: Dissection of head & neck and 10 temporal bone dissection which in-

cludes:

- a. Cortical mastoidectomy.
- b. MRM & radical mastoidectomy.
- c. Facial nerve decompression.
- d. Post tympanotomy.
- e. Labyrinthectomy.
- f. Endosympathetic sac decompression.
- g. Translabyrinthine approach to IAM.
- h. Thyroid and submandibular gland dissection
- i. Laryngectomy and Neck dissections
- j. Cadaveric endoscopic nasal and sinus surgeries

3. Essential list of Surgical Procedures

Following procedures are classified as:

- a. To be done independently (PI).
- b. To assist a senior specialist /consultant (PA).
- c. To wash and observe the procedure (O).

a. Otolology and neurootology

To be done independently (PI). The minimum number to be done is given against each procedure:

- i. Cortical mastoidectomy - 5 cases.
- ii. MRM & radical mastoidectomy - 2 cases.
- iii. Myringoplasty – 3.
- iv. Myringotomy and Grommet insertion - 5cases
- v. Ossiculoplasty – 1 case.
- vi. Facial nerve Decompression – optional.
- vii. To have assisted or observed - Stapedectomy (PA/O).

b. Rhinology and skull base

To be done independently (PI):

- i. Reduction of fracture nasal bones – 1 case.
- ii. SMR- 7 cases.
- iii. Septoplasty - 5cases.
- iv. Diagnostic nasal endoscopy - 5 cases.
- v. FESS.
 - Uncinectomy.
 - Polypectomy - 2 cases.
 - Middle meatal antrostomy
 - Anterior ethmoidal cell clearance
- vi. Antral lavage - 5 cases.

To assist or observe:

- i. FESS - posterior ethmoid, sphenoid, frontal sinus surgery.
- ii. Maxillo facial surgeries.
- iii. External operations of frontoethmoid sinus.
- iv. Surgeries for OSA
- v. Maxillectomy – Total & Partial.
- vi. Excision of Nasopharyngeal Angiofibroma

c. Laryngology Head and Neck

To be done independently (PI):

- i. Tracheostomy - 2 cases.
- ii. Tonsillectomy - 10 cases.
- iii. Adenoidectomy - 5 cases.

- iv. Hemithyroidectomy-2cases
- v. DL Scopy - 10 cases.
- vi. Oesophagoscopy, upper oesophagus foreign body removal- 5 cases.
- vii. Hemithyroidectomy

To assist or observe:

- i. Bronchoscopy.
- ii. Total & partial laryngectomy.
- iii. Neck dissections
- iv. Thyroid surgery.
- v. Salivary gland surgery.
- viii. Microlaryngeal surgery.
- ix. Laryngotracheal Stenosis

Teaching and Learning Activities

A candidate pursuing the course should work in the institution as a full time student. No candidate should be permitted to run a clinic/laboratory/nursing home while studying postgraduate course. Each year should be taken as a unit for the purpose of calculating attendance.

Every student shall attend teaching and learning activities during each year as prescribed by the department and not absent himself / herself from work without valid reasons.

A list of teaching and learning activities designed to facilitate students acquire essential knowledge and skills outlined is given below.

1. **Lectures:** Lectures are to be kept to a minimum. They may, however, be employed for teaching certain topics. Lectures may be didactic or integrated.
 - a. Didactic Lectures: Recommended for selected common topics for post graduate students of all specialties. Few topics are suggested as examples:
 - i. Bio-statistics.
 - ii. Use of library.
 - iii. Research methods.
 - iv. Medical code of conduct and medical ethics.
 - v. National Health and Disease Control Programmes.
 - vi. Communication Skills etc.

These topics may preferably taken up in the first few weeks of the 1st year.
 - b. Integrated Lectures: These are recommended to be taken by multidisciplinary teams for selected topics, eg. Allergy, jaundice, diabetes mellitus, thyroid gland disorder, Vertigo, Sleep Apnea and hearing and speech related topics etc.
2. **Journal Club:** Recommended to be held once a week. All the PG students are expected to attend and actively participate in discussion and enter in the log book relevant details. Further, every candidate must make a presentation from the allotted journal(s), selected articles at least four times a year and a total of 12 seminar presentations in three years. The presentations would be evaluated using check lists and would carry weightage for internal assessment (see checklist in chapter IV). A time table with names of the student and the moderator should be announced in advance.
3. **Subject Seminar:** Recommended to be held once a week. All the PG students are expected to attend and actively participate in discussion and enter in the log book relevant details. Further, every candidate must present on selected topics as least four times a year and a total of 12 seminar presentations in

three years. The presentations would be evaluated using check lists and would carry weightage for internal assessment (see checklist in chapter IV). A timetable for the subject with names of the student and the moderator should be announced in advance.

4. **Ward Rounds:** Ward rounds may be service or teaching rounds.
 - a. Service Rounds: Postgraduate and interns should do every day for the care of the patients. Newly admitted patients should be worked up by the PGs and presented to the seniors the following day.
 - b. Teaching Rounds: Every unit should have `grand rounds' for teaching purpose. A diary should be maintained for day to day activities by the students. Entries of (a) and (b) should be made in the log book.
5. **Clinico-pathological Conference:** Recommended at least once in three months for all post graduate students. Presentation be done by rotation. If cases are not available due to lack of clinical postmortems, it could be supplemented by published CPCs.
6. **Clinical cases** (minimum of 40 cases) to be presented, which will be assessed by using check lists (see chapter IV)
7. **Inter-departmental Meetings:** With departments of pathology and radio-diagnosis at least once a week. Radio-diagnosis: Interesting cases and the imaging modalities should be discussed. These meetings should be attended by post graduate students and relevant entries must be made in the log book.
8. **Dissection- Head and Neck and Temporal bone**
 - Cortical mastoidectomy.
 - MRM and radical mastoidectomy.
 - Facial nerve decompression.
 - Posterior tympanotomy.
 - Labrintectomy.
 - Endolymphatic sac decompression.
 - Translarbyrinthine approach to IAM.
 - Thyroid and submandibular gland dissection
 - Laryngectomy and Neck dissections
 - FESS
 - Study of endoscopic anatomy of ear
9. **Teaching Skills:** Post graduate students must teach under graduate students (eg. medical, nursing) by taking demonstrations, bed side clinics, tutorials, lectures etc. Assessment is made using a checklist by surgery faculty as well students. (see model check list in chapter IV). Record of their participation be kept in Log book. Training of post graduate students in educational science and technology is recommended.
10. **Continuing Medical Education Programmes (CME):** Recommended that at least 2 state level CME programmes should be attended by each student in 3 years.
11. **Conferences:** Paper/Poster presentation in State or National conference is mandatory.
12. Paper publication in national journal is compulasary

Dissertation

1. Every candidate pursuing MD/MS degree course is required to carry out work on a selected research project under the guidance of a recognised post graduate teacher. The results of such a work shall be submitted in the form of a dissertation.
2. The dissertation is aimed to train a post graduate student in research methods and techniques. It includes identification of a problem, formulation of a hypothesis, search and review of literature, getting acquainted with recent advances, designing of a research study, collection of data, critical analysis, comparison of results and drawing conclusions.
3. Every candidate shall submit to the Registrar (Academic) of JSS Deemed to be University in the prescribed proforma, a synopsis containing particulars of proposed dissertation work, six months from the date of commencement of the course, on or before the dates notified by the Deemed to be University. The synopsis shall be sent through proper channel.
4. Such synopsis will be reviewed and the dissertation topic will be registered by the Deemed to be University. No change in the dissertation topic or guide shall be made without prior approval of the Deemed to be University.
5. The dissertation should be written under the following headings:
 - a. Introduction.
 - b. Aims or objectives of study.
 - c. Review of literature.
 - d. Material and methods.
 - e. Results.
 - f. Discussion.
 - g. Conclusion.
 - h. Summary.
 - i. References (Vancouver style).
 - j. Tables.
 - k. Annexures.
6. The written text of dissertation shall be not less than 50 pages and shall not exceed 150 pages excluding references, tables, questionnaires and other annexure. It should be neatly typed in double line spacing on one side of paper (A4 size, 8.27" x 11.69") and bound properly. Spiral binding should be avoided. The dissertation shall be certified by the guide, head of the department and head of the Institution.
7. Four copies of dissertation thus prepared shall be submitted to the Registrar (Evaluation), six months before final examination, on or before the dates notified by the Deemed to be University.
8. The dissertation shall be valued by examiners appointed by the Deemed to be University. Approval of dissertation work is an essential precondition for a candidate to appear in the Deemed to be University examination.
9. For some more details regarding guide etc, please see chapter I and for books on research methodology, ethics etc, see chapter IV.

Rotation posting in other Departments (Total-3months)

1. Neurosurgery 2 weeks

2.	Plastic surgery	2 weeks
3.	Head & neck oncology	2 weeks
4.	Anesthesia	2 weeks
5.	OMFS	2 weeks
6.	Speech & hearing (JSS Speech and Hearing)	2 weeks

Monitoring Learning Progress

It is essential to monitor the learning progress of each candidate through continuous appraisal and regular assessment. It not only helps teachers to evaluate students, but also students to evaluate themselves. The monitoring be done by the staff of the department based on participation of students in various teaching / learning activities. It may be structured and assessment be done using checklists that assess various aspects. Checklists are given in chapter IV.

The learning out comes to be assessed should included: (1) Personal attitudes, (2) Acquisition of knowledge, (3) Clinical and operative skills, (4) Teaching skills and (5) Dissertation.

1. **Personal Attitudes:** The essential items are:

- a. Caring attitudes.
 - b. Initiative.
 - c. Organizational ability.
 - d. Potential to cope with stressful situations and undertake responsibility.
 - e. Trust worthiness and reliability.
 - f. To understand and communicate intelligibly with patients and others.
 - g. To behave in a manner that establishes professional relationships with patients and colleagues.
 - h. Ability to work in team.
 - i. A critical enquiring approach to the acquisition of knowledge.
- The methods used mainly consist of observation. It is appreciated that these items require a degree of subjective assessment by the guide, supervisors and peers.

2. **Acquisition of Knowledge:** The methods used comprise of 'Log Book' which records participation in various teaching / learning activities by the students. The number of activities attended and the number in which presentations are made are to be recorded. The log book should periodically be validated by the supervisors. Some of the activities are listed. The list is not complete. Institutions may include additional activities, if so, desired.

- a. **Journal Review Meeting (Journal Club):** The ability to do literature search, in depth study, presentation skills, and use of audio-visual aids are to be assessed. The assessment is made by faculty members and peers attending the meeting using a checklist (see model checklist – I, chapter IV).
- b. **Seminars / Symposia:** The topics should be assigned to the student well in advance to facilitate in depth study. The ability to do literature search, in depth study, presentation skills and use of audio- visual aids are to be assessed using a checklist (see model checklist-II, Chapter IV).
- c. **Clinico-pathological conferences:** This should be a multidisciplinary case study of an interesting case to train the candidate to solve diagnostic and therapeutic problems by using an analytical approach. The presenter(s) are to be assessed using a

check list similar to that used for seminar.

3. Clinical skills

- a. **Day to Day work:** Skills in outpatient and ward work should be assessed periodically. The assessment should include the candidates' sincerity and punctuality, analytical ability and communication skills (see model checklist III, chapter IV).
 - b. **Clinical meetings:** Candidates should periodically present cases to his peers and faculty members. This should be assessed using a check list (see model checklist IV, chapter IV).
 - c. **Clinical and Procedural skills:** The candidate should be given graded responsibility to enable learning by apprenticeship. The performance is assessed by the guide by direct observation. Particulars are recorded by the student in the log book. (Table No 3, chapter IV).
4. **Teaching skills:** Candidates should be encouraged to teach undergraduate medical students and paramedical students, if any. This performance should be based on assessment by the faculty members of the department and from feedback from the undergraduate students (see model checklist V, Chapter IV).
 5. **Dissertation in the Department:** Periodic presentations are to be made in the department. Initially the topic selected is to be presented before submission to the Deemed to be University for registration, again before finalisation for critical evaluation and another before final submission of the completed work (see model checklist VI & VII, chapter IV).
 6. **Work diary / Log Book:** Every candidate shall maintain a work diary and record his/her participation in the training programmes conducted by the department, such as journal reviews, seminars, etc. Special mention may be made of the presentations by the candidate as well as details of clinical or laboratory procedures, if any conducted by the candidate. The work diary shall be scrutinized and certified by the Head of the Department and Head of the Institution, and presented in the Deemed to be University practical/clinical examination.
 7. **Periodic tests:** The departments may conduct three tests, two of them be annual tests, one at the end of first year and the other in the second year. The third test may be held three months before the final examination. The tests may include written papers, practical / clinical and viva voce.
 8. **Records:** Records, log books and marks obtained in tests will be maintained by the Head of the Department and will be made available to the Deemed to be University or MCI.

Log book

The log book is a record of the important activities of the candidates during his training. Internal assessment should be based on the evaluation of the log book. Collectively, log books are a tool for the evaluation of the training programme of the institution by external agencies. The record includes academic activities as well as the presentations and procedures carried out by the candidate.

Format for the log book for the different activities is given in Tables 1,2 and 3 of chapter IV, Copies may be made and used by the institutions.

Procedure for defaulters: Every department should have a committee to review such situations. The defaulting candidate is counselled by the guide and head of the department. In extreme cases of default the departmental committee may recommend that defaulting candidate be withheld from appearing the examination, if she/he fails to fulfill the requirements in spite of being given adequate chances to set himself or herself right.

Scheme of Examination

A. Theory

There shall be four question papers, each of three hours duration. Each paper shall consist of two long essay questions, each question carrying 20 marks and 3 short essay questions, each carrying 10 marks, 6 Short notes carrying 5 marks each. Total marks for each paper will be 100. Questions on recent advances may be asked in any or all the papers. Details of distribution of topics for each paper will be as follows:

Paper I	Basic Sciences: Anatomy, physiology, other basic science topics covered in syllabus.	100 marks
Paper II	Rhinology including recent advances.	100 marks
Paper III	Laryngology, pharyngology, Broncho-oesophagology and recent advances	100 marks
Paper IV	Otology, Neuro otology and skull base including recent advances.	100 marks

Note: The distribution of chapters / topics shown against the papers is suggestive only.

B. Clinical

200 marks

There shall be one long case and two short cases and one workstation discussion to be examined and presented by each candidate. Marks shall be 200.

Type of cases

Long case	1	80 marks
Short cases	2	80 marks (40x2)
Work station discussion	1	40 marks

c. Viva Voce:

100 Marks

a. Viva-Voce Examination: (80 Marks)

All examiners will conduct viva-voce conjointly on candidate's comprehension, analytical approach, expression and interpretation of data. It includes all components of course contents. In addition candidates may also be given case reports, audiogram charts, skull, temporal bones, gross specimens, pathology slides, instruments, X-rays, ultrasound images, CT scan images, etc. for interpretation will be asked. It includes discussion on dissertation also.

b. Pedagogy Exercise and log book evaluation: (20 Marks)

A topic will be given to each candidate in the beginning of clinical examination. He/she is asked to make a presentation on the topic for 8-10 minutes. Evaluation of logbook done by questioning

Distribution of Marks:

Maximum marks for M S Otorhinolaryngology	Theory	Practical	Viva	Grand Total
	400	200	100	700

Recommended Books

Sl No	Name of the Book	Year	Edition	Publisher
1	Scott Brown 6 volumes	2008	Eight	Edward Arnold Ltd.
2	Cummins - 5 volumes Otolaryngology, Head and Neck Surgery.	2013	Fifth	Mosby
3	Rob and Smith Operations surgery pertaining to ENT.			
4	Paperalla Otolaryngology (4 Vol set).	2009	Fourth	W.B. Saunder's Company
5	Logan & Turner Diseases of ENT.	2011	Twelveth	Wright / Varghese
6	Lore - Atlas of Head and Neck Surgery.	2009	fourth	W.B. Saunder's Company
7	Shambagh / Glasscock Surgery of the Ear.	2003	Fifth	W.B. Saunder's Company
8	Diseases of Nose,throat ear and head and neck-Ballenger Snow Jr.	2011	Sixteenth	Williams & Wilkins
9	Tumours of Head and Neck-clinical and pathological considerations-John G Batsakis	20		Williams & Wilkins
10	Learning ear surgery by temporal bone surgery KK Ramalingam and Dr Sreerammoorthy			J P Publishers

References

1. Microsurgery of skull base by Ugo Fisch and Douglas matto
2. Text book of Operative surgery by LEE
3. Radiology of Head and Neck by Valvassori
4. Recent advances in Otolaryngology

Journals

1. The Laryngoscope - Lippincott Williams & William.
2. Indian Journal of Otolaryngology - AOI.
3. Annals of Otology / Rhinology / laringology - Annals Publishing Co.
4. Archives of Otorhinolaryngology..
5. Indian Journal of Otology.
6. Recent advances in Otorhinolaryngology – MOSBY.
7. The Otolaryngology Clinics of North America - WB Saunders Company.
8. Journal of Paediatric otolaryngology

DIPLOMA IN OTORHINOLARYNGOLOGY (DLO) SYLLABUS

Goals:

The goals of postgraduate training course would be to train a MBBS doctor who will:

1. Practice efficiently and effectively, backed by scientific knowledge and skill base.
2. Exercise empathy and a caring attitude and maintain high ethical standards.
3. Continue to evince keen interest in continuing education in the specialty, irrespective of whether he is in a teaching institution or is a practicing surgeon.

Objectives:

The following objectives are laid out to achieve the goals of the course. These objectives are to be achieved by the time the candidate completes the course. The Objectives may be considered under the subheadings

1. Knowledge (cognitive domain).
2. Skills (psycho motor domain).
3. Human values, ethical practice and communication abilities.

Knowledge:

1. Demonstrate understanding of basic sciences relevant to general surgery.
2. Describe aetiology, pathophysiology, principles of diagnosis and management of common surgical problems including emergencies, in adults and children.
3. Describe indications and methods for fluid and electrolyte replacement therapy including blood transfusion.
4. Describe common malignancies in the country and their management including prevention.
5. Identify social, economic, environmental and emotional determinants in a given case, and take them into account for planning therapeutic measures.
6. Recognize conditions that may be outside the area of his specialty/competence and to refer them to the proper specialist.
7. Advice regarding the operative or non-operative management of the case and to carry out this management effectively.
8. Update himself by self study and by attending courses, conferences and seminars relevant to surgery.
9. Teach and guide his team, colleagues and other students.
10. Undertake audit, use information technology tools and carry out research, both basic and clinical, with the aim of publishing his work and presenting his work at various scientific fora.

Skills

1. Take a proper clinical history, examine the patient, perform essential diagnostic procedures and order relevant tests and interpret them to come to a reasonable diagnosis about the surgical condition.
2. Perform common operative procedures in ENT.
3. Provide basic and advanced life saving support services (BLS & ALS) in emergency situations
4. Undertake complete patient monitoring including the preoperative and post operative care of the patient.

Human values, Ethical practice and Communication abilities

1. Adopt ethical principles in all aspects of his/her practice. Professional honesty and integrity are to be fostered. Care is to be delivered irrespective of the social status, caste, creed or religion of the patient.
2. Develop communication skills, in particular, the skill to explain various options available in management and to obtain a true informed consent from the patient.
3. Provide leadership and get the best out of his team in a congenial working atmosphere.
4. Apply high moral and ethical standards while carrying out human or animal research.
5. Be humble and accept the limitations in his knowledge and skill and to ask for help from colleagues when needed.
6. Respect patient's rights and privileges including patient's right to information and right to seek a second opinion.

Course Contents

1. Theory

a. Basic Sciences

Anatomy of the ear, physiology of hearing and equilibrium, anatomy of nose and paranasal sinuses, anatomy of pharynx, oesophagus, deglutition anatomy of larynx and tracheobronchial tree, physiology of respiration, physiology of generation and reception of speech. surgical anatomy of skull base, cranial nerves, imaging and radiology pertaining to ear, nose and throat (ENT), knowledge of immunology and microbiology as regarding ENT, radiotherapy and chemotherapy in head & neck cancers, wound healing, principles of laser surgery, basics of anaesthesia and intensive care in relation to ENT, a thorough knowledge of anatomy of head and neck region including thyroid, neck spaces and salivary glands, physiology of smell.

b. Audiology

- | (A) | (B) | (C) |
|---------------------------------------------------------------------------------|---------------------------------------------------------------------------|----------------------------------------------|
| i) Brief knowledge of acoustics. | i) Epidemiology/prevention/rehabilitation of balance & hearing disorders. | i) Diagnostic audiometry. |
| ii) Use of computers in audiological and vestibular testing and rehabilitation. | ii) Hearing aids. | ii) Diagnostic testing of vestibular system. |
| | iii) Cochlear implants. | |

Otology and Neurootology: Diseases of External auditory canal:Wax,Inflammatory conditions and Tumours, Diseases of middle ear: Acute suppurative otitis media, Chronic suppurative otitis media(CSOM),Complications of CSOM, plastic surgery of ear, Otosclerosis, Hearing loss in adults and children, vertigo, Meniere's disease, Ototoxicity, Vestibular Schwannoma,Tumours of middle ear cleft, Glomus jugulare, Disorders of facial nerve, Cochlear implants,Deaf Mutism,Audiological rehabilitation.

c. Laryngology and Head and Neck

- xii. Acute & chronic infections of oral cavity, pharynx, tonsils and larynx.
 - Trauma & stenosis of larynx.
 - Causes of stridor in Children and adults
 - Management of obstructed airway and tracheostomy in Children and in adults.
 - Disorders of voice.
 - Neurological affections of pharynx and larynx.
 - Pharyngeal pouch.
 - Tumours of larynx.
- xiii. Tumors of oropharynx and lymphoma head and neck.
- xiv. Tumors of hypopharynx.
- xv. Benign diseases of the neck.
- xvi. The Thyroid gland and disorders.
- xvii. Diseases of salivary gland: neoplastic & non-neoplastic.
- xviii. Tumors of infra temporal fossa and parapharyngeal space, cysts, granulo
mas and tumours of jaw, nose and sinuses.
- xix. The oesophagus in otolaryngology, facial plastic surgery and recon-
structive surgery of head and neck.
- xx. Terminal care of head and neck cancer.

d. Rhinology and Skull base

- xxii. Congenital anomalies of the nose.
- xxiii. Conditions of external nose.
- xxiv. Abnormalities of smell.
- xxv. Allergic rhinitis.
- xxvi. Intrinsic rhinitis and nasal polypi.
- xxvii. Infective rhinosinusitis, complication and surgical
management.
- xxviii. Disorders and trauma of facial skeleton.
- xxix. Disorders of nasal septum.
- xxx. CSF rhinorrhoea.
- xxxi. Epistaxis.
- xxxii. Snoring and sleep apnea.
- xxxiii. Chronic granuloma's of nose and PNS.
- xxxiv. Angiofibroma and nasopharyngeal lesions.
- xxxv. The orbit in relation to ENT.
- xxxvi. Transphenoidal hypophysectomy.
- xxxvii. Overview of facial pain and headache.
- xxxviii. Radiology of nose and para nasal sinuses

2. Practical / Clinical –

Mandatory: Dissection of head & neck and 10 temporal bone dissection which in-
cludes:

- a. Cortical mastoidectomy.
- b. MRM & radical mastoidectomy.
- c. Facial nerve decompression.
- d. Post tympanotomy.
- e. Labyrinthectomy.
- f. Endosympathetic sac decompression.
- g. Translarbyrinthine approach to IAM.
- h. Laryngectomy, Thyroid surgeries
- i. Neck dissections

3. Essential list of Surgical Procedures

Following procedures are classified as:

- a. To be done independently (PI).
- b. To assist a senior specialist /consultant (PA).
- c. To wash and observe the procedure (O).

a. Otology and neurootology

To be done independently (PI). The minimum number to be done is given against each procedure:

Cortical mastoidectomy -2 cases.

To wash and observe a senior (O):

MRM & radical mastoidectomy - one case.

Myringoplasty

Myringotomy and Grommet insertion - 2 cases.

To assist a senior specialist I consultant (PA).

Ossiculoplasty.

Facial nerve decompression.

Stapedectomy (PA/O).

b. Rhinology and skull base

To be done independently (PI):

- i. Reduction of fracture nasal bones - 2 cases.
- ii. SMR - 5 cases.
- iii. Septoplasty - 2 cases.
- iv. Diagnostic nasal endoscopy.
- v. FESS.
 - Uncinectomy.
 - Polypectomy.
 - Anterioresmoidal cell clearance.
 - Middle meatal antrostomy.
- vi. Antral lavage - 5 cases.

To Assist or observe:

- i. FESS - posterior ethmoid, sphenoid, frontal sinus surgery.
- ii. Maxillo facial surgeries.
- iii. External operations of frontoethmoid sinus.
- iv. Maxillectomy – total & partial.
- v. Surgeries for OSA
- vi. Excision of Nasopharyngeal Angiofibroma

c. Laryngology Head and Neck

To have done independently (PI)

- i. Tracheostomy - 2 cases.
- ii. Tonsillectomy - 5 cases.
- iii. Adenoidectomy - 5 cases.
- iv. DL scopy - 7 cases.
- v. Oesophagoscopy upper oesophagus foreign body removal- 4 cases.
- vi. Hemithyroidectomy

To assist or observe:

- i. Bronchoscopy.
- ii. Total / Partial laryngectomy.

- iii. Block dissections of neck.

To wash and observe a senior (0):

- i. Thyroid surgery.
- ii. Salivary gland surgery.
- iii. Microlaryngeal surgery.

Teaching and Learning Activities

A candidate pursuing the course should work in the institution as a full time student. No candidate should be permitted to run a clinic/laboratory/nursing home while studying postgraduate course. Each year should be taken as a unit for the purpose of calculating attendance.

Every student shall attend teaching and learning activities during each year as prescribed by the department and not absent himself / herself from work without valid reasons.

A list of teaching and learning activities designed to facilitate students acquire essential knowledge and skills outlined in course contents is given below.

1. **Lectures:** Lectures are to be kept to a minimum. They may, however, be employed for teaching certain topics. Lectures may be didactic or integrated.
 - a. **Didactic Lectures:** Recommended for selected common topics for post graduate students of all specialties. Few topics are suggested as examples:
 - i. Bio-statistics.
 - ii. Use of library.
 - iii. Medical code of conduct and medical ethics.
 - iv. National Health and Disease Control Programmes.
 - v. Communication skills etc.These topics may preferably taken up in the first few weeks of the 1st year.
 - b. **Integrated Lectures:** These are recommended to be taken by multi-disciplinary teams for selected topics, eg. jaundice, diabetes mellitus, thyroid etc.
2. **Journal Club:** Recommended to be held once a week. All the PG students are expected to attend and actively participate in discussion and enter in the log book relevant details. Further, every candidate must make a presentation from the allotted journal(s), selected articles at least three times a year and a total of 6 seminar presentations in two years. The presentations would be evaluated using check lists and would carry weightage for internal assessment. (see checklist in chapter IV). A time table with names of the student and the moderator should be announced in advance.
3. **Subject Seminar:** Recommended to be held once a week. All the PG students are expected to attend and actively participate in discussion and enter in the log book relevant details. Further, every candidate must present on selected topics as least three times a year and a total of 6 seminar presentations in three years. The presentations would be evaluated using check lists and would carry weightage for internal assessment (see checklist in chapter IV). A timetable for the subject with names of the student and the moderator should be announced in advance.
4. **Dissection Head and Neck and Temporal bone dissection:**
 - a. Cortical mastoidectomy.
 - b. MRM and radical mastoidectomy
 - c. Facial nerve decompression.
 - d. Posterior tympanotomy.

- e. Labrintectomy.
 - f. Endosympathetic sac decompression.
 - g. Laryngectomy and Thyroid surgeries
 - h. Neck Dissections.
5. **Out- patient clinics** and operative work.
6. **Ward Rounds:** Ward rounds may be service or teaching rounds.
- a. Service Rounds: Postgraduate and interns should do every day for the care of the patients. Newly admitted patients should be worked up by the PGs and presented to the seniors the following day.
 - b. Teaching Rounds: Every unit should have 'grand rounds' for teaching purpose. A diary should be maintained for day to day activities by the students.
Entries of (a) and (b) should be made in the log book.
7. **Clinical cases** seen (minimum of 40 cases). Clinical case presentations: Candidates should periodically present cases. The presentations will be assessed using check lists (see chapter IV).
8. **Clinico-pathological Conference:** Recommended at least once in three months for all post graduate Students. Presentation be done by rotation. If cases are not available due to lack of clinical postmortems, it could be supplemented by published CPCs.
9. **Inter-departmental Meetings:** Strongly recommended particularly with departments of pathology and radio-diagnosis at least once a week. These meetings should be attended by post graduate students and relevant entries must be made in the log book.
10. **Radio-diagnosis:** Interesting cases and the imaging modalities should be discussed.
11. **Continuing Medical Education Programmes (CME):** Recommended that at least one state level CME programmes should be attended by each student in 2 years.
13. **Conferences:** Paper/Poster presentation in State or National conference is mandatory.

14. Paper publication in national journal is compulsory

Monitoring Learning Progress

It is essential to monitor the learning progress of each candidate through continuous appraisal and regular assessment. It not only helps teachers to evaluate students, but also students to evaluate themselves. The monitoring be done by the staff of the department based on participation of students in various teaching / learning activities. It may be structured and assessment be done using checklists that assess various aspects. Checklists are given in chapter IV.

The learning out comes to be assessed should included: (1) Personal attitudes, (2) Acquisition of knowledge, and (3) Clinical and operative skills.

1. **Personal Attitudes:** The essential items are:
 - a. Caring attitudes.
 - b. Initiative.
 - c. Organisational ability.
 - d. Potential to cope with stressful situations and undertake responsibility.

- e. Trust worthiness and reliability.
- f. To understand and communicate intelligibly with patients and others.
- g. To behave in a manner that establishes professional relationships with patients and colleagues.
- h. Ability to work in team.
- i. A critical enquiring approach to the acquisition of knowledge.
The methods used mainly consist of observation. It is appreciated that these items require a degree of subjective assessment by the guide, supervisors and peers.

2. Acquisition of Knowledge: The methods used comprise of 'Log Book' which records participation in various teaching / learning activities by the students. The number of activities attended and the number in which presentations are made are to be recorded. The log book should periodically be validated by the supervisors. Some of the activities are listed. The list is not complete. Institutions may include additional activities, if so, desired.

- a. **Journal Review Meeting (Journal Club):** The ability to do literature search, in depth study, presentation skills, and use of audio- visual aids are to be assessed. The assessment is made by faculty members and peers attending the meeting using a checklist (see model checklist – I, chapter IV)
- b. **Seminars/Symposia:** The topics should be assigned to the student well in advance to facilitate in depth study. The ability to do literature search, in depth study, presentation skills and use of audio- visual aids are to be assessed using a checklist (see model checklist-II, chapter IV).
- c. **Clinico-pathological conferences:** This should be a multi-disciplinary case study of an interesting case to train the candidate to solve diagnostic and therapeutic problems by using an analytical approach. The presenter(s) are to be assessed using a check list similar to that used for seminar.

3. Clinical and operative skills

Day to Day work: Skills in outpatient and ward work should be assessed periodically. The assessment should include the candidates' sincerity and punctuality, analytical ability and communication skills (see model checklist III, chapter IV).

Clinical meetings: Candidates should periodically present clinical cases to faculty members. This should be assessed using a check list (see model checklist IV, chapter IV).

Clinical and Procedural skills: The candidate should be given graded responsibility to enable learning by apprenticeship. The performance is assessed by the guide by direct observation. Particulars are recorded by the student in the log book. (table No3, chapter IV).

4. Periodic tests: The departments may conduct two tests, one of them be at the end of first year and the other in the second year, three months before the final examination. The tests may include written papers, practical / clinical and viva voce.

5. Work diary / Log Book: Every candidate shall maintain a work diary and record his/her participation in the training programmes conducted by the department such as journal reviews, seminars, etc. Special mention may be made of the presentations by the candidate as well as details of clinical or laboratory procedures, if any conducted by the candidate.

6. **Records:** Records, log books and marks obtained in tests will be maintained by the Head of the Department and will be made available to the Deemed to be University or MCI.

Log book

The log book is a record of the important activities of the candidates during his training. Internal assessment should be based on the evaluation of the log book. Collectively, log books are a tool for the evaluation of the training programme of the institution by external agencies. The record includes academic activities as well as the presentations and procedures carried out by the candidate.

Format for the log book for the different activities is given in Tables 1, 2 and 3 of chapter IV. Copies may be made and used by the institutions.

List of surgeries must include basic surgeries as indicated as compulsory criteria for completion of degree / diploma programme; may also include other surgical procedures.

Procedure for defaulters: Every department should have a committee to review such situations. The defaulting candidate is counseled by the guide and head of the department. In extreme cases of default the departmental committee may recommend that defaulting candidate be withheld from appearing the examination, if she/he fails to fulfill the requirements in spite of being given adequate chances to set himself or herself right.

Scheme of Examination

A. Theory

There shall be three question papers, each of three hours duration. Each paper shall consist of two long essay questions, each question carrying 20 marks and 6 short essay questions, each carrying 10 marks. Total marks for each paper will be 100. Questions on recent advances may be asked in any or all the papers. Details of distribution of topics for each paper will be as follows:

Paper I:	Otology,neuro otology,skull base including basic sciences and recent advances	100 marks
Paper II:	Rhinology including recent advances	100 marks
Paper III:	Laryngology and pharyngolaryngology & broncho-oesophagology, including basic sciences and recent advances	100 marks

Note: The distribution of chapters / topics shown against the papers is suggestive only.

Clinical **150 marks**

There shall be one long case and one short case and one workstation discussion/ OSCE to be examined and presented by each candidate.

Type of cases

Long case	1	80 marks
Short cases	1	40 marks
Workstation discussion	1	40 Marks

B. Viva voce: **40 marks**

All examiners will conduct viva-voice conjointly on candidate's comprehen-

sion, analytical approach, expression and interpretation of data. It includes all components of course contents. In addition candidates may be also be given case reports, charts, gross specimens, histo pathology slides, X-rays, ultrasound, CT scan images, temporal bone dissection, etc, for interpretation. Questions on operative surgery and use of instruments will be asked.

c. Distribution of Marks:

Maximum marks for Diploma in Otorhinolaryngology	Theory	Practical	Viva	Grand Total
	300	160	40	500

Recommended Books

SI No	Name of the Book	Year	Edition	Publisher
1	Scott Brown 6 volumes.	2008	Eight	EdwardArnold ltd.
2	Cummins - 5 volumes Otolaryngology, Head and Neck Surgery.	2010	Fifth	Mosby Elsevier
3	Rob and Smith Operations surgery pertaining to ENT.			
4	Paperalla Otolaryngology (4 Vol set).	2009	Fourth	W.B. Saunder's Company
5	Logan & Turner Diseases. of ENT	2011	twelveth	Jaypee
6	Lore - Atlas of Head and Neck Surgery.	2009	Fourth	Elsiever Saun-der's Company
7	Shambagh / Glasscock Surgery of the Ear.	2008	Fifth	W.B. Saunder's Company
8	Ballenger Snow Jr.	2011	Sixteen	Williams & Wilkins

Journals

1. The Laryngoscope - Lippincott Williams & William.
2. Indian Journal of Otolaryngology - AOI.
3. Annals of Otology / Rhinology / laryngology - Annals Publishing Co.
4. Archives of Otorhinolaryngology.
5. British Journal of Otolaryngology.
6. Indian Journal of Otology.
7. Recent advances in Otorhinolaryngology – MOSBY.
8. The Otolaryngology Clinics of North America - WB Saunders Company.



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