



SRI DEVARAJ URS ACADEMY OF HIGHER EDUCATION AND RESEARCH

(A Deemed to be University Declared under Section 3 of UGC Act, 1956)

Comprising Sri DevarajUrs Medical College

[Constituent Unit of Sri DevarajUrs Educational Trust for Backward Classes (Regd.)]

TAMAKA, KOLAR-563103, KARNATAKA, INDIA

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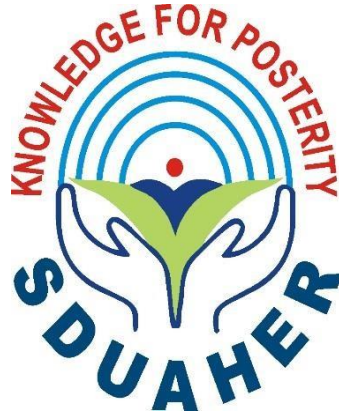
(With effect from 2019-2020 batches)

Competency Based Postgraduate Curriculum for Master of Surgery ENT


Dean Faculty Of Medicine
Sri Devaraj Urs Academy of Higher
Education & Research, Tamaka, Kolar.

Approved as per BOM-56-2019, (Resolution No-LVI.06) Dated-20/12/2019

REGULATIONS GOVERNING
POST GRADUATE DEGREE PROGRAMMES
CURRICULUM 2019-2020

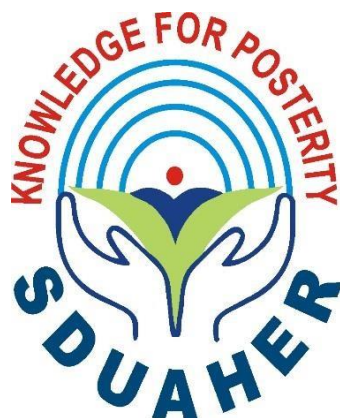


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Comprising Sri Devaraj Urs Medical College
A Deemed To Be University

Declared under section 3 of UGC, Act,1956,
MHRD GOI NO.F,9-36/2006-U.3(A), Dt.25th may 2007
Post box No.62, Tamaka, Kolar-563101, Karnataka, INDIA
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REGULATIONS AND CURRICULA
FOR
POST GRADUATE DEGREE PROGRAMMES
IN
MEDICAL SCIENCES
2019-2020



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Edition Year: 2020

Published by SDUAHER

VISION:

“UNIVERSITY OF EXCELLENCE - KNOWLEDGE FOR POSTERITY”

MISSION:

1. To be a global centre of excellence for Teaching, Training and Research in the field of Higher education.
2. To inculcate scientific temper, research attitude and social accountability amongst faculty and students.
3. To promote with value based education for the overall personality development and leadership qualities to serve the humanity.

OBJECTIVES:

1. To provide need based infrastructure and facilities to students to become responsible professionals with social commitment and accountability.
2. To implement effectively innovative programs in teaching learning and evaluation.
3. To impart scientific and socio cultural temperament among students to forge national identity and needs.
4. To provide instruction and training in Basic and advanced branches of learning.
5. To provide facilities for research for the advancement and dissemination of knowledge.
6. To undertake extra mural studies, consultancy, extension programmes and field outreach services for the development of society.
7. To collaborate with other Universities, Institutions of excellence and research organizations within the country and outside for the purpose of teaching, training and research.
8. To undertake need based activities for the betterment of socially and educationally backward society.

At a glance this logo is abstract, yet it contains the vital ingredients for an institution like Sri Devaraj Urs Academy of Higher Education and Research, Tamaka, Kolar.

The institution's medical background, Humanitarian values, Compassion,

Approachability, Social Commitment and the subsequent research towards the most precious thing, the human life, is the core theme.

The graphic form of a person in the centre of a bud represents the humanity. It denotes the growing process of life and its existence. And the two hands safeguarding them show the care and a sense of security. It is also capable of holding something within the vast expanse of knowledge by the University for the People's benefit. Hence, the motto "Knowledge for Posterity" is very appropriate and gives a punch in Red. The four light blue half circles (smaller to bigger) depict the unending quest for knowledge and imparting it to a wider horizon, growing higher and higher.

And finally, the whole unit is embedded in a "D" shaped graphic template as background to give it a corporate identity.

COLORS USED:

Deep Blue: Credible, Confident and Dependable. Represents Peace, Tranquility, Stability, Harmony, Trust, Security, Cleanliness and Loyalty

Light Blue: For Sky and Water (color scheme for 4 half circles)

Red: A dominant color for strengths.

Green: For Nature, Health and Generosity. It is cool quality soothes and has great healing powers



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No. SDUAHER/KLR/ ADMN/1322/2020-21

Date:12/10/2020

NOTIFICATION

Sub: Regulations, curricula and syllabi of Postgraduate medical degree programmes in Preclinical, Paraclinical and clinical subjects- reg

Ref.

- I. Proceedings of the Academic Council meetings**
- II. Proceeding of the Board of Management meetings**
- III. MCI notifications**
- IV. SDUAHER notification:**

Academic Council Meetings		Board of Management Meetings	
19 th	17.11.2014	34 th	19.06.2015
21 st	25.04.2015	36 th	04.12.2015
22 nd	18.11.2015	44 th	23.06.2017
27 th	29.04.2017	45 th	09.11.2017
28 th	04.11.2017	48 th	20.06.2018
30 th	05.05.2018	50 th	22.12.2018
31 st	03.11.2018	54 th	06.07.2019
33 rd	04.06.2019	56 th	20.12.2019
34 th	15.11.2019	59 th	09.10.2020
36 th	30.09.2020		

Agenda discussed:

- Objectives of external postings of Post Graduates
- Internal & External postings of PG's with assessment tools
- Minimum marks to be scored in PG theory examinations
- Topics to be included in Forensic medicine and toxicology in paper 4 for PG students
- Work placed based assessment for PG students
- Introduction of Assessment of AETCOM in formative/summative assessment
- Design and development of E-portfolio for all PG's
- Patient handover as common EPA for all departments
- Preparation of Question paper from question bank using software

- Coding of answer booklet by software enabled barcoding
- Development of CBME in PG programmes
- Quarterly formative assessment as an assessment tool for all PGs
- Start course in MD psychiatry
- Implement E- Portfolio of PG's
- Discontinuation of practice for 5th evaluation in PG exam
- Post graduate training programme MCI-PG Medical Education Regulations 2000, amended upto May 2018
- Approval of EPA's as competency based medical training for PG's
- Work placed based assessment as part of quarterly assessment for PG's
- PLO's for all programmes

V. MCI Notifications

- MCI Notification dated 09-12-2009, vide No.MCI.18(1)/2009-Med.55455
- No. MCI-23(1)/2014/Med/153433 Dated 28-01-2015
- MCI Guidelines 2017(CBME based)
- MCI postgraduate medical education regulations 2000 amended upto 2018 (clause 13.2,gazette notification dated 05/04/2018)
- Basic Programme in Biomedical Research(MCI-23(1)/2019-Med./141602 dated 27-08-2019).
- MCI-12(2)/2019-Med.Misc./189334.- Dated:12th February 2020
- MCI-18(1)/2020-Med./121415.-date 16/09/2020- (District Residency Programme' (DRP)

VI. Office Memorandum No. SDUAHER / KLR/ ADMN /8071/2019- 20 Dated 22/06/2019

VII. SDUAHER / KLR/ ADMN /1571/2019-20 dated 12/09/2019

REGULATIONS FOR POST GRADUATE DEGREE PROGRAMME IN MEDICAL SCIENCES

CHAPTER- I

1. Branches of Study

1.1 Postgraduate Degree Programme

The following programmes may be pursued.

A. M.D. (Doctor of Medicine)

1. Anatomy
2. Physiology
3. Biochemistry
4. Pharmacology
5. Pathology
6. Microbiology
7. Forensic Medicine
8. Community Medicine
9. General Medicine
10. Dermatology, Venereology and Leprosy
11. Anesthesiology
12. Paediatrics
13. Radio-Diagnosis
14. Psychiatry

B. M.S. (Master of Surgery)

1. General Surgery
2. Obstetrics and Gynecology
3. Orthopedics
4. Ophthalmology
5. OTO-Rhino-Laryngology

1.2. Eligibility for Admission

1.2.1 MD / MS Degree Programme: A candidate affiliated to this academy and who has passed final year M.B.B.S. examination after pursuing a study in a medical college recognised by the Medical Council of India, from a recognised Medical College affiliated to any other Academy recognised as equivalent thereto, and has completed one year compulsory rotating internship in a teaching Institution or other Institution recognised by the Medical Council of India, and has obtained permanent registration of any State Medical Council will be eligible for admission.

1.2.2 A Candidate seeking admission should have successfully cleared the qualifying examination - NEET (National Eligibility cum Entrance Test) conducted by NBE (National Board of Examination).

1.3. Obtaining Eligibility Certificate by the Academy before making Admission

No candidate will be admitted for any postgraduate degree programme unless the candidate has obtained and produced the eligibility certificate issued by the Academy. The candidate has to make an application to the Academy with the following documents along with the prescribed fee:

1. S.S.L.C Marks card
2. 10+2 Certificate
3. All MBBS Marks Cards
4. Internship Completion Certificate
5. Attempt / Academic certificate
6. Degree Certificate
7. Transfer Certificate
8. Migration Certificate
9. Study/ Bonafide Certificate
10. Character & Conduct certificate
11. MCI Recognized Certificate by college
12. Karnataka Medical Council/State medical council
13. MCC Allotment Letter
14. NEET Admission Ticket
15. NEET Rank card
16. Caste (SC/ST) /OBC certificate (domicile) & Income Certificate
17. Aadhar card of both candidate and parents / sponsors
18. Bond for SR Ship
19. Remaining years fee bond

NOTE: The NRI/NRI Sponsor students have to submit the documents as per the MCC/DGHS Criteria for NRI status

Candidates should obtain the Eligibility Certificate before the last date for admission as notified by the Academy.

A candidate who has been admitted to postgraduate programme should register his / her name in the Academy within a month of admission after paying the registration fee.

1.4. Intake of Students

The intake of students to each programme will be in accordance with the ordinance in this behalf.

1.5. Duration of Study

a) M.D/M.S Degree Programme

The programme of study will be for a period of 3 years consisting of 6 academic terms.

1.6. Method of training

The training of postgraduate for degree will 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 participate in seminars, group discussions, grand rounds, case demonstration, clinics, journal review meetings, CPC and clinical meetings. Every candidate should participate in the teaching and training programme of undergraduate students. Training includes involvement in laboratory and experimental work and research studies.

1.6.1. Teaching methodology

1.6.1.1 Includes Didactic lectures, small group discussion such as seminars, journal clubs, symposia, reviews and guest lectures for acquiring theoretical knowledge.

1.6.1.2 Bedside teaching, grand rounds, structured interactive group discussions and clinical demonstrations should be the hallmark of clinical/practical learning with appropriate emphasis on e-learning. Student should have hand-on training in performing various procedures and ability to interpret various tests/investigations.

1.6.1.3 Exposure to newer specialized diagnostic/therapeutic procedures concerning her/his subject should be given.

1.6.4 Self-learning tools like assignments and case-based learning should be promoted.

1.6.2. Clinical postings and Rotation of posting

Basic medical sciences students will be posted to allied and relevant clinical departments or institutions. Students working in clinical departments will be posted to basic medical sciences and allied speciality departments or institutions. It should be done as concurrent studies during the 1st year of training Similarly Inter-unit rotation in the department should be done for a period of up to one year. Rotation in appropriate related subspecialties **should not extend for a period exceeding 06 months.** Postings to other specialty departments will be during the second year.

All postgraduates' students pursuing MD/MS in broad specialities shall undergo a compulsory residential rotation of three months in District Hospital / District Health system as a part of the course curriculum. Such rotation shall take place in the 3rd or 4th or 5th semester of the postgraduates programme. This rotation shall be termed as District residency programme and the postgraduate medical student undergoing training shall be termed as a District Resident.

Satisfactory completion of the District Residency shall be an essential condition before the candidate is allowed to appear in the final examination of the respective postgraduate course. The District Residency Programme Coordinator (DRPC) shall issue certificate of satisfactory completion of DRP and report on the performance of the District Resident on a prescribed format to the concerned Medical College and the Government of State/Union Territory. No. MCI-18(1)/2020-Med./121415. – date 16/09/2020

1.6.3. Clinical meetings:

Clinical meetings will be conducted within the department weekly and also inter departmental meetings will be conducted monthly to discuss uncommon/interesting cases.

1.6.4 Log book:

Each student should maintain a logbook and document day to-day activities like documentation of ward work, teaching and learning activities , clinical case discussion, procedures performed , seminars, journal clubs, symposium ,CPC meets, inter-unit/interdepartmental teaching sessions, mortality meets, workshops, CME/conferences .The Log books will be checked and assessed periodically by the faculty members imparting the training. This will in turn be evaluated/assessed by an external reviewer appointed by the Director of PG Studies biannually during the months of July and January. The log book should be preserved and presented at the time of summative examinations conducted by the Academy.

1.6.5 Research activities:

- 1.6.5.1 The student should know the basic concepts of research methodology plan a research project and be able to retrieve information from the library. The student should have a basic knowledge of statistics.
- 1.6.5.2 A postgraduate student of a postgraduate degree programme in broad specialities should present one poster presentation, read one paper at a national/state conference and publish 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. MCI Notification No.18(1)/2009/medicine/55455 Dated:09-12-2009
- 1.6.5.3 Department should encourage e-learning activities.

1.6.6 Basic Programme in Biomedical Research:

In order to improve the research skills of post-graduate students, the Board of Governors (BoG) has recommended a uniform research methodology programme across the country, the online programme, “Basic programme in Bio-medical Research”, will be offered by ICMR-National Institute of Epidemiology (ICMR-NIE), Chennai (www.nie.gov.in). The programme will explain fundamental concepts in

Research methodology. This programme is being offered through SWAYAM programme of ministry of human resource development through SWAYAM NPTEL (http://swayam.gov.in/nc_details/NPTEL)

1.6.7 Synopsis and Dissertation:

Every candidate will submit to the Registrar of the Academy in the prescribed proforma, a synopsis containing particulars of proposed dissertation work within six months from the date of commencement of the programme on or before the dates notified by the Academy. The synopsis will be sent through the proper channel.

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

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

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 and comparison of results and drawing conclusions.

The dissertation should be written under the following headings:

- Introduction
- Aims or Objectives of study
- Review of Literature
- Material and Methods
- Results
- Discussion
- Conclusion
- Summary
- References
- Tables
- Annexures

The written text of dissertation will be not less than 50 pages and will not exceed 150 pages excluding references, tables, questionnaires and other annexures. 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 will be certified by the guide, Head of the department and Head of the Institution.

Six hard copies of dissertation and one soft copy thus prepared will be submitted to

the Controller of Examination (CoE), six months before final examination on or before the dates notified by the Academy.

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

Guide: The academic qualification and teaching experience required for recognition by this Academy as a guide for dissertation work is as per Medical Council of India, Minimum Qualifications for Teachers in Medical Institutions Regulations, 1998. Teachers in a medical college/institution having a total of eight years teaching experience out of which at least four years teaching experience as Assistant Professor with at least one research publication in indexed journals gained after obtaining post graduate degree will be recognized as post graduate teachers. (No.MCI- 12(2)/2019-Med.Misc./189334.- Dated: 12th February 2020)

Co-guide: may be included provided the work requires substantial contribution from a sister department or from another medical institution recognized for teaching/training by Sri Devaraj Urs Academy /Medical Council of India. The co- guide will be a recognized post graduate teacher of Sri Devaraj Urs Academy.

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 academy.

1.6.8 Journal Club:

Journal club will be conducted once a week. All the PG students are expected to attend and actively participate in discussion and enter the relevant details in the log book. 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 presentations in three years. The presentations would be evaluated using check lists and would carry weightage for internal assessment (See checklist - I in Chapter V). A time table with names of the student and the moderator should be announced periodically, (Quarterly).

1.6.9 Subject Seminar:

Subject seminar will be conducted once a week. All the PG students are expected to attend and actively participate in discussion and enter the relevant details in the log book, Further, every candidate must present selected topics 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-II in Chapter V). A timetable for the subject with names of the student and the moderator should be announced periodically, (Quarterly).

1.6.10 Student Symposium:

Student Symposium as an additional inter departmental programme will be conducted periodically, once in three months. The evaluation may be similar to that described for subject seminar.

1.6.11 Ward Rounds:

Ward rounds are service or teaching rounds.

- i. *Service Rounds:* Postgraduate students and Interns will 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.
- ii. *Teaching Rounds:* Every unit will have 'grand rounds' for teaching purpose. A diary should be maintained for day to day activities by the students. Entries of (i) and (ii) should be made in the Log book.

1.6.12 Clinico-Pathological Conference:

CPC will be conducted once in two months for all post graduate students. Presentation will be done by rotation. If cases are not available due to lack of clinical postmortems, it could be supplemented by published CPCs.

1.6.13 Inter Departmental Meetings:

These will be conducted once a month. These meetings will be attended by post graduate students and relevant entries must be made in the Log Book.

1.6.14 Teaching & Learning 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 as students. (See model checklist -III in Chapter V). Record of their participation should be documented in the Log book. Training of post graduate students in Educational Science and Technology is recommended.

Further, all postgraduate students are required to attend at least about 35 hours of didactic lecture as notified by the individual departments.

1.6.15 Entrustable Professional Activity:

EPAs are units of professional practice, defined as tasks or responsibilities to be entrusted to the unsupervised execution by a trainee once he or she has attained sufficient specific competence. EPAs are independently executable, observable, and measurable in their process and outcome, and therefore, suitable for entrustment decisions. The Entrustable professional activity (EPA) concept allows faculty to make competency-based decisions on the level of supervision required by trainees. The Academy has identified few such EPA's for all students in various degree programme. These are:

1. EPA 1: Gather a history and perform a physical examination

2. EPA 2: Prioritize a differential diagnosis following a clinical encounter
3. EPA 3: Recommend and interpret common diagnostic and screening tests
4. EPA 4: Obtain informed consent for tests and / or procedures
5. EPA 5: Recognize a patient requiring urgent or emergent care and initiate evaluation and management
6. EPA 6: Give or receive a patient handover to transition care responsibility
7. EPA 7: Undertake complete patient monitoring including the preoperative and post-operative care of the patient.
8. EPA 8: Provide basic and advanced lifesaving support services in emergency situations
9. EPA 9: Collaborate as a member of an inter-professional team
10. EPA 10: Perform general procedures of a physician
11. EPA 11: Enter and discuss orders and prescriptions
12. EPA 12: Prepare a comprehensive discharge summary.
13. EPA 13: Form clinical questions and retrieve evidence to advance patient care.

However in addition to these common EPA's individual departments are advised to develop their own EPA's.

1.7. Continuing Medical Education (CME):

Every PG student must attend at least 2 CME programmes either at state/regional /zonal/national levels.

1.8. Conferences:

Attending conferences is optional. However it has to be encouraged. All students are encouraged to attend conferences (at state/national/international levels) to enable them to make paper/poster presentations, which is a mandatory requirement to fulfill before appearing for final examinations.

1.9. Attendance, Progress and Conduct:

- A candidate pursuing degree programme will work in the concerned department of the institution for the full period as a full time student. No candidate is permitted to run a clinic/laboratory/nursing home while studying postgraduate programme.
- Academic term of 6 months will be taken as a unit for the purpose of calculating attendance. The candidate should have 80% attendance in each academic term of 6 months.

- Every student will 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 term of the post graduate programme. Provided further, leave of any kind will not be counted as part of academic term without prejudice to minimum 80% attendance of training period every term.
- All the candidates joining the Post Graduate training programme will work as 'Full Time Residents' during the period of training and will attend not less than 80% (Eighty percent) of the imparted training during each academic term. Including assignments, full time responsibilities and participation in all facets of the education process.
- Any student who fails to complete the programme in the manner stated above will not be permitted to appear for the Academy Examinations.
- A Postgraduate student of a postgraduate degree programme would be 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 postgraduate studies so as to make him eligible to appear at the postgraduate degree examination.

Ref: As MCI Notification dated 09-12-2009, vide No.MCI.18 (1)/2009- Med.55455 and Para No.4.

Procedure for defaulters:

Every department will have a committee containing Head of the department and PG guides 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.

2 Monitoring Progress of Studies:

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 will 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 V.

The learning outcomes to be assessed should include:

- Personal Attitudes,
- Acquisition of Knowledge,
- Clinical and operative skills,
- Teaching skills and
- Dissertation.

a. Personal Attitudes:

The essential items are:

- Caring attitudes
- Initiative
- Organisational ability
- Potential to cope with stressful situations and undertake responsibility
- Trustworthiness and reliability
- To understand and communicate intelligibly with patients and others
- To behave in a manner which establishes professional relationships with patients and colleagues
- Ability to work in team
- 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, self, peers, faculty from the unit and nurses. (Multi source feedback MSF) checklist XII

b. Acquisition of Knowledge:

The methods used comprise of

2.1 Log book: (Check List - XIII Chapter - V)

'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 must be recorded. The log book will periodically be validated by the supervisors. Some of the activities are listed. During the training period, the post graduate student should maintain a Log Book indicating various teaching / learning activities, duration of the postings/work done in Wards including super specialty, OPDs and Casualty. This should indicate the specified number of cases for clinical discussion, procedures and operations observed, assisted and performed / presented seminars and review articles from various journals in inter- unit/inter departmental teaching sessions.

The purpose of the Log Book is to:

- Help maintain a record of the work done during training,
- Enable Consultants to have direct information about the work; intervene if necessary,
- Use it to assess the experience gained periodically.

The log book will be used to aid the internal evaluation of the student.

The Log books will be checked and assessed periodically, monthly basis by guide / head of the unit/ head of the department and biannually by external reviewer.

Procedure for defaulters:

Every department will 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 will 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

2.2 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, in Chapter V)

2.3 Seminars/Symposia:

The topics will 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 will be assessed using a checklist (see Model Checklist -II, Chapter V)

2.4 Clinico'-Pathological conferences:

This will 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.

2.5 Surgical Audit:

Periodic morbidity and mortality meeting must be held. Attendance and participation in these must be insisted upon. This may not be included in assessment.

2.6 Clinical skills

Day to Day work: Skills in outpatient and ward work will be assessed periodically. The assessment should include the candidates' sincerity and punctuality, analytical ability and communication skills (see Model Checklist -V, Chapter V). – Mini CEX (Model check list VII, Chapter V)

2.7 Clinical meetings (Clinical Presentations) :

Candidates should periodically present cases to his peers and faculty members. This should be assessed using a check list (see Model checklist V, Chapter V).

2.8 Clinical and Operative skills:

The candidate will be given graded responsibility to enable learning by apprenticeship. The performance is assessed by the guide by DOPS (Model check list VI, Chapter V). Particulars are recorded by the student in the log book.

2.9 Teaching skills:

Post graduates are required to teach undergraduate medical students and paramedical students, if any (*as a part of Post graduate training*). This performance should be based on assessment by the faculty members of the department and from feedback from the undergraduate students (See Model checklist III, Chapter V) - Microteaching Pedagogy (Model check list VIII, Chapter V)

2.10 Dissertation in the Department:

Periodic presentations must be made in the department. Initially the topic selected is to be presented before submission to the Academy for registration and again before finalization for critical evaluation and before final submission of the completed work (See Model Checklist IX & X, Chapter V)

2.11 Periodic tests:

The concerned departments will conduct quarterly tests. The final test will be held three months before the final examination. The tests may include written papers, practical's / clinical and viva voce. Records and marks obtained in such tests will be maintained by the Head of the Department and sent to the Academy, when called for.

2.12 Work diary / Log Book-

Every candidate will 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 must be made of the presentations by the candidate as well as details of clinical or laboratory procedures, if any conducted by the candidate.

2.13 Records:

Monthly and quarterly reviews of records, log books and marks obtained in tests will be maintained by the Head of the Department and will be made available to the Academy, when called for.

3. ASSESSMENT:

3.1 Formative Assessment

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 to 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. This includes assessment of patient care, procedural & academic skills, interpersonal skills, professionalism, self-directed learning and ability to practice in the system.

Checklists are given in Chapter-V

Assessment during the MS/MD training should be based on:

Assessment at end of rotation (Quarterly Postgraduate Student's Appraisal Form) by the Unit Head. The student to be assessed periodically as per categories listed in **Postgraduate Student Appraisal Form** (See Model checklist-X, Chapter V).

Multisource Feedback (MSF) - Quarterly

MSFs should be obtained quarterly from:- 2 from faculty of the unit/department; 2 from peers posted in the unit; 2 from interns, 2 from staff nurses from the areas attached to the unit, 2 from patient/patient relative. (Checklist XII - Chapter V)

Periodic assessment -The Quarterly tests may include written papers (theory), practical's / clinical and viva voce.

Quarterly Postgraduate Student's Appraisal Form (See Model checklist-X I, Chapter V).

- Journal based/ recent advances learning
- Patient based or Skill based learning
- Self-directed learning and teaching
- Departmental & interdepartmental learning activity
- External & Outreach activities/ Continuing Medical Education (CME)
- Attendance, Progress and Conduct

A candidate pursuing degree programme should work in the concerned department of the institution for the full period as a full time student. No candidate is permitted to run a clinic/laboratory/nursing home while studying postgraduate programme.

Academic term of 6 months will be taken as a unit for the purpose of calculating attendance. Every student will 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 term of the post graduate programme. Provided further, leave of any kind will not be counted as part of academic term without prejudice to minimum 80% attendance of training period every term.

All the candidates joining the Post Graduate training programme will work as 'Full Time Residents' during the period of training and will attend not less than 80% (Eighty percent) of the imparted training during Academic Term of 6 months including assignments, full time responsibilities and participation in all facets of the education process.

Any student who fails to complete the programme in the manner stated above will not be permitted to appear for the Academy Examinations.

A Postgraduate student of a postgraduate degree programme in broad specialities/super specialities would be 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 postgraduate studies so as to make him eligible to appear at the postgraduate degree examination.

Ref: As MCI Notification dated 09-12-2009, vide No.MCI.18 (1)/2009-Med.55455 and Para No.4.

Procedure for defaulters:

Every department should have a committee containing Head of the department and PG guides 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.

3.2 Scheme of examinations

Summative assessment

The summative examination would be carried out as per the Rules given in POSTGRADUATE MEDICAL EDUCATION REGULATIONS, 2000 and amended up to 2018. (The Clause 14 under the heading "EXAMINATION" shall be substituted in terms of Gazette Notification published on 05.04.2018).

The examination will be in three parts:

3.2.1 DISSERTATION

Every post graduate student will carry out work on an assigned research project under the guidance of a recognized Post Graduate Teacher, the result of which will be written and submitted in the form of a dissertation. Work for writing the dissertation is aimed at contributing to the development of a spirit of enquiry, besides exposing the candidate to the techniques of research, critical analysis, acquaintance with the latest advances in medical science and the manner of identifying and consulting available literature. Dissertation will be submitted at

least six months before the Theory and Clinical / Practical examination. The dissertation will be examined by a minimum of three examiners; one internal and two external examiners, who will not be the examiners for Theory and Clinical examination. A candidate will be allowed to appear for the Theory and Practical/Clinical examination only after the acceptance of the dissertation by the examiners.

3.2.2. THEORY

There will be four question papers, each of three hours duration. Each paper will consist of ten questions each question carrying 10 marks, so the total marks for each paper will be 100. Questions on recent advances maybe asked in any or all the papers. The examinations will be organised on the basis of 'Grading' or 'Marking system' to evaluate and to certify candidate's level of knowledge, skill and competence at the end of the training. The Clause 14 under the heading "EXAMINATION" shall be substituted in terms of Gazette Notification published on 05.04.2018 and the same is as under:-

Obtaining a minimum of 40% marks in each theory paper and not less than 50% cumulatively in all the four papers for degree examinations and three papers in diploma examination. Obtaining of 50% marks in Practical examination shall be mandatory for passing the examination as a whole in the said degree/diploma examination as the case may be. Obtaining a minimum of 50% marks in 'Theory' as well as 'Practical' separately will be mandatory for passing examination as a whole. The examination for MS/MD will be held at the end of 3rd academic year.

3.2.3. Clinical / Practical and viva voce Examination

Clinical examination will be conducted to test the knowledge, skills, attitude and competence of the post graduate students for undertaking independent work as a specialist/Teacher, for which post graduate students will examine a minimum one long case and two short cases.

The Oral examination will be thorough and will aim at assessing the post graduate student's knowledge and competence about the subject, investigative procedures, therapeutic technique and other aspects of the specialty, which form a part of the examination.

Assessment may include Objective Structured Clinical Examination (OSCE) Oral/Viva-voce examination needs to assess knowledge on X-rays, instrumentation, operative procedures. Due weightage should be given to Log Book Records and day to-day observation during the training.

ALLOTMENT OF MARKS

THEORY	MARKS ALLOTMENT	MAXIMUM MARKS	
PAPER-I	10 X 10	100	400
PAPER-II	10 X 10	100	
PAPER-III	10 X 10	100	
PAPER-IV	10 X 10	100	

<u>CLINICALS/ PRACTICALS</u>		200
<u>VIVA VOCE</u>	<u>80</u>	100
<u>PEDAGOGY</u>	<u>20</u>	
TOTAL		700

3.2 Examiners:

There will be at least four examiners in each subject. Out of them two will be external examiners and two will be internal examiners. The qualification and teaching experience for appointment as an examiner will be as laid down by the Medical Council of India. No person will be appointed as internal examiner in any subject unless he/she has three years' experience as recognized PG teacher in the concerned subject. For external examiners he/she should have minimum six years of experience as recognized PG teacher in the concerned subject.

3.2.4 Criteria for declaring as pass in Academy Examination:

A candidate should score minimum 40% marks in each theory paper and not less than 50% marks cumulatively in all the papers in postgraduate degree/diploma, to be declared as pass in the examinations. A candidate shall secure not less than 50% marks in each head of passing which shall include (1) Theory, (2) Practical including clinical and viva voce examination. A candidate securing less than 50% of marks as described above shall be declared to have failed in the examination. (No. MCI-23(1)/2014/Med/153433 Dated 28-01-2015) A failed candidate may appear in any sub-subsequent examination upon payment of fresh fee to the Registrar of the University.

3.2.5 Declaration of distinction:

A successful candidate passing the Academy examination in first attempt will be declared to have passed the examination with distinction, if the grand total aggregate marks are 75 percent and above. Distinction will not be awarded for candidates passing the examination in more than one attempt.

3.2.6 Number of Candidates per day.

The maximum number of candidates for practical/clinical and viva-voce examination will be as under: MD / MS Programme: Maximum of 8 per day

4. ELIGIBILITY CRITERIA FOR APPEARING FOR EXAMINATIONS 4.1 ATTENDANCE

All the candidates joining the Post Graduate training programme will work as 'Full Time Residents' during the period of training and will attend not less than 80% (Eighty percent) of the imparted training during Academic Term of 6 months including assignments, full time responsibilities and participation in all facets of the education process.

- Every student will attend all teaching programmes 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 programme. Provided further, leave of any kind will not be counted as part of academic term without prejudice to minimum 80% attendance of training period every term.
- Any student who fails to complete the programme in the manner stated above will not be permitted to appear for the Academy Examinations.

4.2. PROGRESS AND CONDUCT

- Every student will attend symposia, seminars, conferences, journal review meetings, grand rounds, CPC, case presentation, clinics and lectures during each term 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 term of the post graduate programme. Provided further, leave of any kind will not be counted as part of academic term without prejudice to minimum 80% attendance of training period every term.

4.3. RESEARCH ACTIVITIES-PAPER/POSTER/PUBLICATIONS

- A Postgraduate student of a degree programme in broad speciality would be 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 postgraduate studies so as to make him eligible to appear at the postgraduate degree examination. Ref: As MCI Notification dated 09-12-2009, vide No.MCI.18 (1)/2009-Med.55455 and Para No.4.
- It is mandatory for all postgraduate students to undergo training in online programme in "Basic Programme in Biomedical Research" Which should be completed by the end of second semester .Not completing the programme will make them ineligible for appearing for the final academy examinations.(MCI-23(1)/2019-Med./141602 dated 27-08-2019).

4.4 DISSERTATION

Every post graduate student will carry out work on an assigned research project under the guidance of a recognised Post Graduate Teacher, the result of which will

be written and submitted in the form of a dissertation. Dissertation will be submitted at least six months before the Theory and Clinical / Practical examination. The dissertation will be examined by a minimum of three examiners; one internal and two external examiners, who will not be the examiners for Theory and Clinical examination. A candidate will be allowed to appear for the Theory and Practical/Clinical examination only after the acceptance of the dissertation by the examiners.

4.5 District Residency Programme

All postgraduates students pursuing MD/MS in broad specialties shall undergo a compulsory residential rotation of three months in District Hospital / District Health system as a part of the course curriculum. Such rotation shall take place in the 3rd or 4th or 5th semester of the postgraduates programme. This rotation shall be termed as District residency programme and the postgraduate medical student undergoing training shall be termed as a District Resident.

Satisfactory completion of the District Residency shall be an essential condition before the candidate is allowed to appear in the final examination of the respective postgraduate course. The District Residency Programme Coordinator (DRPC) shall issue certificate of satisfactory completion of DRP and report on the performance of the District Resident on a prescribed format to the concerned Medical College and the Government of State/Union Territory. No. MCI-18(1)/2020-Med./121415. – date 16/09/2020

Procedure for defaulters:

Every department should have a committee containing Head of the department and PG guides 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.

CHAPTER II
**GOALS AND GENERAL OBJECTIVES OF POSTGRADUATE MEDICAL
EDUCATION PROGRAM**

GOALS:

The goal of postgraduate medical education will be to produce a competent specialist and/or a medical teacher:

- i. Who will recognize the health needs of the community, and carry out professional obligations ethically and in keeping with the objectives of the national health policy;
- ii. Who will have mastered most of the competencies, relating to the specialty, that are required to be practiced at the secondary and the tertiary levels of the health care delivery system;
- iii. Who will be aware of the contemporary advances and developments in the discipline concerned;
- iv. Who will have acquired a spirit of scientific inquiry and is oriented to the principles of research methodology and epidemiology; and
- v. Who will 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 will be able to:

- i. Recognize the importance of the concerned specialty in the context of the health need of the community and the national priorities in the health sector.
- ii. Practice the specialty concerned ethically and in step with the principles of primary health care.
- iii. Demonstrate sufficient understanding of the basic sciences relevant to the concerned specialty.
- iv. 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 promotive measures/strategies.
- v. Diagnose and manage majority of the conditions in the specialty concerned on the basis of clinical assessment, and appropriately selected and conducted investigations.
- vi. Plan and advice measures for the prevention and rehabilitation of patients suffering from disease and disability related to the specialty.
- vii. Demonstrate skills in documentation of individual case details as well as morbidity and mortality data relevant to the assigned situation,
- viii. Demonstrate empathy and humane approach towards patients and their families and exhibit interpersonal behavior in accordance with the societal norms and expectations.
- ix. Play the assigned role in the implementation of national health programmes, effectively and responsibly.

- x. Organize and supervise the chosen/assigned health care services demonstrating adequate managerial skills in the clinic/hospital or the field situation.
- xi. Develop skills as a self-directed learner, recognize continuing educational needs; select and use appropriate learning resources.
- xii. Demonstrate competence in basic concepts of research methodology and epidemiology, and be able to critically analyse relevant published research literature.
- xiii. Develop skills in using educational methods and techniques as applicable to the teaching of medical/nursing students, general physicians and paramedical health workers.
- xiv. 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 disciplines will aim at development of specific competencies, which will be defined and spelt out in clear terms. Each department will 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 PG CURRICULUM

The major components of the PG curriculum will be:

- Theoretical knowledge
- Practical/clinical Skills
- Training in Thesis.
- Attitudes, including communication.
- Training in research methodology.

Source: Medical Council of India, Regulations on Postgraduate Medical Education, 2006 and 2008.

COMPETENCY BASED POSTGRADUATE TRAINING PROGRAMME FOR M.S. ENT

Vision:

To be one of the best academic centers of Otorhinolaryngology and Head & Neck Surgery which imparts best available knowledge and surgical training in the field.

Mission:

- To improve the overall health of the population through world-class excellence in:
- Education: Imparting knowledge, skills and competence in Otorhinolaryngology practice for faculty and students
- Patient care: Ensuring specialty-based, evidence-based, equity-driven and state-of-the-art Otorhinolaryngology care
- Research: Creating and translating knowledge to improve the therapeutic results, both conservative and surgical
- Innovation: Innovating solutions and harnessing novel technologies to preserve, protect and restore the vital functions of hearing, olfaction and speech.
- Policy assistance: Extending technical assistance for National health policy and programs to government and other stakeholders especially for National Cancer Control Programme and National Programme for Prevention of Childhood Deafness.

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1. GOALS:

The goal of postgraduate medical education shall be to produce a competent specialist and /or a medical teacher:

- 1.1** 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
- 1.2** Who shall have mastered most of the competencies, relating to the speciality, that are required to be practiced at the secondary and the tertiary levels of the health care delivery system
- 1.3** Who shall be aware of the contemporary advances and developments in the discipline concerned
- 1.4** Who shall have acquired a spirit of scientific inquiry and is oriented to the principles of research methodology and epidemiology
- 1.5** Who shall have acquired the basic skills in teaching of the medical and paramedical professionals.

2. 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

- 2.1** Knowledge (Cognitive domain)
- 2.2** Skills (Psycho motor domain)
- 2.3** Human values, Ethical practice and Communication abilities

2.1 Knowledge:

- 2.1.1 Demonstrate understanding of basic sciences relevant to general surgery
- 2.1.2 Describe etiology, pathophysiology, principles of diagnosis and management of common surgical problems including emergencies, in adults and children.
- 2.1.3 Describe indications and methods for fluid and electrolyte replacement therapy including blood transfusion
- 2.1.4 Describe common malignancies in the country and their management including prevention
- 2.1.5 Identify social, economic, environmental and emotional determinants in a given case, and take them into account for planning therapeutic measures.

- 2.1.6 Recognize conditions that may be outside the area of his specialty/competence and to refer them to the proper specialist.
- 2.1.7 Advise regarding the operative or non-operative management of the case and to carry out this management effectively.
- 2.1.8 Update himself by self study and by attending courses, conferences and seminars relevant to surgery.
- 2.1.9 Teach and guide his team, colleagues and other students.
- 2.1.10 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.

22 Skills

- 2.2.1 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.
- 2.2.2 Perform common operative procedures in ENT.
- 2.2.3 Provide basic and advanced life saving support services (BLS & ALS) in emergency situations
- 2.2.4 Undertake complete patient monitoring including the preoperative and post operative care of the patient.

23 Human values, Ethical practice and Communication abilities

- 2.3.1 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.
- 2.3.2 Develop communication skills, in particular the skill to explain various options available in management and to obtain a true informed consent from the patient.
- 2.3.3 Provide leadership and get the best out of his team in a congenial working atmosphere.
- 2.3.4 Apply high moral and ethical standards while carrying out human or animal research.
- 2.3.5 Be humble and accept the limitations in his knowledge and skill and to ask for help from colleagues when needed.
- 2.3.6 Respect patient's rights and privileges including patient's right to information and right to seek a second opinion.

3. Subject Specific Competencies

3.1 COGNITIVE DOMAIN

At the end of training the student should be able to demonstrate ability to:

- 3.1.1** Demonstrate ability to practically apply knowledge gained of applied aspect of basic science related to otorhinolaryngology like applied anatomy, physiology, biochemistry, pathology, microbiology and pharmacology.
- 3.1.2** Demonstrate ability to practically apply knowledge gained about etiology, pathophysiology, principles of diagnosis and management of common diseases affecting ear nose and throat including emergencies in adult and children.
- 3.1.3** Demonstrate ability to practically apply knowledge gained of principles and interpretation of common diagnostic and therapeutic procedures.
- 3.1.4** Demonstrate ability to practically apply knowledge gained of recent advances in otorhinolaryngology Head and Neck surgery.
- 3.1.5** Demonstrate ability to practically apply knowledge gained of surgical principles, Head and Neck oncology, medicine as applicable to ENT disorders/ disease.

3.2 PSYCHOMOTOR DOMAIN

By the end of training a student should be able to:

- 3.2.1** Take good history and demonstrate the practical skills in field of ENT.
- 3.2.2** Arrive at a logical working diagnosis, differential diagnosis and order investigation. Keeping in mind their relevance and provide appropriate care that is ethical, compassionate, response and cost effective and in conformation with statutory rules.
- 3.2.3** Provide basic and advanced life saving support in case of emergency.
- 3.2.4** Demonstrate and perform various therapeutic skills related to the speciality.
- 3.2.5** Observed / performed under supervision the various surgical procedures in relation to speciality.

3.3 AFFECTIVE DOMAIN

- 3.3.1** Should be able to function as part of team and establish professional relationship with colleagues.
- 3.3.2** The student will show integrity, accountability, respect, compassion and dedicated patient care.

- 3.3.3** The student will demonstrate a commitment to excellence and continuous professional development.
- 3.3.4** The student should demonstrate a commitment to ethical principles relating to providing patient care, confidentiality of patient information and informed consent.
- 3.3.5** The student should show sensitivity and responsiveness to patients' culture, age, gender and disabilities.

3.4 PROGRAM CONTENTS

3.4.1 MUST TO KNOW

3.4.1.1 Basic Sciences

Anatomy of the ear / physiology of hearing and equilibrium / Anatomy of nose and paranasal sinuses / physiology of nose and paranasal sinuses / Anatomy and physiology of mouth, pharynx oesophagus / Deglutition / Anatomy and physiology of larynx and tracheobronchial tree / Physiology of respiration / Physiology of generation and reception of speech. Surgical anatomy of skull base / Cranial nerves .A Thorough knowledge of anatomy of head and neck region including thyroid, neck spaces and salivary glands/ Physiology of smell. Imaging and Radiology pertaining to ear, nose and throat (ENT) / Cell Biology, wound healing, Knowledge of Immunology and Microbiology as regarding ENT / Haematology / Endocrinology / Pharmacotherapeutics / Radiotherapy and Chemotherapy in Head & Neck Cancers / Principles of Laser Surgery / Basics of anaesthesia and Intensive Care in relation to ENT /Recent advances

3.4.1.2 Otology And Audiology

3.4.1.2.1 Otology

- Diagnostic imaging of the temporal bone
- Diseases of pinna and ext. auditory canal
- Ear trauma
- Plastic Surgery of ear –Otoplasty
- Diseases of middle ear-Acute suppurative otitis media/Otitis media with effusion/Chronic suppurative otitis media/Tubotympanic disease/Attico Antral disease/ Complication of CSOM
- Reconstructive surgery of the ear
- Otagia
- Otosclerosis
- SN Loss in adults and children and noise induced & sudden and fluctuant

- Sensorineural hearing loss
- Vertigo
- Tinnitus
- Meniere's disease
- Ototoxicity
- Tumours of External ear and middle ear cleft
- Glomus tumors of the middle ear and skull base
- Vestibular Schwannoma(Acoustic neuroma)
- Trauma to middle ear and temporal bone
- Hearing Aids
- Cochlear implants
- Bone anchored hearing aid and middle ear implants
- Evaluation and rehabilitation of the hearing impaired
- Evaluation and rehabilitation of disequilibrium
- Skull base surgeries
- HIV Otolaryngologic manifestations
- Lasers in ENT
- Recent advances

3.4.1.2.2 Audiology

(A)	(B)	(C)
a) Brief knowledge of acoustics	1) Epidemiology / prevention / rehabilitation of balance & hearing disorders	1) Diagnostic audiometry
b) Use of computers in audiological and vestibular testing and rehabilitation	2) Hearing aids	2) Diagnostic testing of vestibular system
	3) BAHA	
	4) Cochlear implants	

3.4.1.3 Rhinology

- Radiology of Nose and Para nasal sinuses
- Endoscopy of nose and paranasal sinuses
- Congenital anomalies of the nose and PNS
- Diseases of external nose
- Olfaction& Abnormalities of smell

- Allergic rhinitis
- Vasomotor rhinitis and Atrophic rhinitis
- Nasal polyposis
- Acute & Chronic Inflammations of Nose & PNS & management
- Infective rhinosinusitis / Complication and surgical management
- Fungal RhinoSinusitis
- FESS
- Disorders and trauma of facial skeleton (nose, maxilla,mandible,zygoma&orbit)
- Disorders of nasal septum
- CSF rhinorrhoea
- Epistaxis
- Snoring and sleep apnea
- Chronic granulomatous conditions of Nose and PNS
- The orbit in relation to ENT-orbital and optic decompression,DCR
- Transphenoidal hypophysectomy
- Overview of facial pain and Headache
- Recent advances

3.4.1.4 Laryngology and Head and Neck Surgery

3.4.1.4.1 Laryngology

- Diseases of the oral cavity
- Acute infections of the pharynx and tonsils
- Acute and chronic Laryngitis
- Disorders of voice and speech therapy
- Trauma & stenosis of larynx
- Management of obstructed airway and tracheostomy
- Neurological affections of pharynx and larynx
- Pharyngeal pouch
- Juvenile Papillomatosis larynx
- Deep neck space infections
- Non neoplastic salivary gland diseases
- The oesophagus in Otolaryngology
- Lower respiratory tract conditions in otolaryngology
- Foreign body in the aerodigestive tract
- Recent advances

3.4.1.4.2 Head and neck surgery

- Epidemiology of Head and Neck cancers

- Aetiology of Head and Neck cancers
- Examination and Imaging of Neck
- Neck trauma
- Benign diseases of the neck
- Staging of Head and Neck cancers
- Nasal cavity and paranasal sinuses malignancy
- Juvenile Angiofibroma
- Nasopharyngeal carcinoma
- Neoplastic conditions of the salivary glands
- Tumors of the oral cavity
- Tumours of oropharynx
- Tumours of hypopharynx
- Tumours of larynx
- Reconstructive surgery of the Head and Neck
- Rehabilitation after Laryngectomy
- Thyroid gland Neoplasms
- Metastatic Neck disease
- Tumour of infra- temporal fossa and parapharyngeal space
- Tumours of jaw
- Radio therapy in Head& Neck cancers
- Chemo therapy in Head& Neck cancers
- Terminal care of head and neck cancer
- Recent advances

3.4.2 DESIRABLE TO KNOW

3.4.2.1 Ear

- The ear in the aerospace environment
- Physiological consideration of pressure effects on the ear in deep water diving
- Traumatic lesions of the inner ear
- Inflammatory lesions of the vestibular and auditory nerve
- Vascular lesions of the inner ear
- Electronystagmography
- Anterior and Lateral Skull base surgeries
- Neuro-otological surgical procedures

3.4.2.2 Nose

- The nasal sinuses in the aerospace environment
- Physiological consideration of pressure effects on the sinuses in deep water diving

- Cosmetic surgery of the nose
- Non-healing granuloma of the nose
- Surgery of the pterygopalatine fossa.
- LASER Surgery
- Anterior skull base surgeries

3.4.2.3 Throat

- Oesophageal conditions in the practice of ear, nose and throat surgery
- Disorders of speech
- Lower respiratory conditions in Otorhinolaryngology

3.4.2.4 Miscellaneous and head and neck

- Functional Anatomy of intracranial structures
- 3 dimensional Anatomy of mediastinum
- Pleura, plural cavity, broncho-pulmonary segments and their clinical importance
- The principles of cancer immunology with particular reference to head and neck cancer
- Principles of chemotherapy in head and neck cancer
- Facial plastic surgery

3.4.3 Drugs used in ENT:

- Antibiotics
- Antihistaminic
- Nasal vasoconstrictors
- Local anaesthetics
- Corticosteroids
- Anticancer agents
- Radioactive isotopes
- Antifungal agents
- Vasopressive and other agents used in shock like states.
- Anticoagulants

3.5 ESSENTIAL LIST OF SURGICAL PROCEDURES

Following procedures are classified as To be done independently (PI)

To assist a senior specialist /consultant (PA) To wash and observe the procedure (O)

3.5.1 Otology

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

Cortical mastoidectomy	- 5 cases
MRM-	- 2 cases
Myringoplasty	- 3 cases
Myringotomy and Grommet insertion	- 3 cases
Tympanoplasty	- 5 cases
Ossiculoplasty	- optional

Removal of Impacted Foreign bodies from the ear - 3 cases

To have assisted or observed - Stapedectomy (PA/O)

To have assisted or observed- Radical mastoidectomy (PA/O) To assist or observe – facial nerve decompression

3.5.2 Rhinology

To be done independently (PI)

Reduction of fracture nasal bones	- 1 case
SMR	- 7 cases
Septoplasty	- 2 cases
Diagnostic nasal endoscopy	- 30 cases
FESS	- 5 cases
Caldwel Luc	- 1 case
Antral lavage	- 5 cases
Intranasal antrostomy	- 3 cases
Middle meatal antrostomy	- 10 cases
Removal of Impacted Foreign bodies/ Rhinolith from the nose	- 3 cases

Assist or observe:

FESS – Posterior Ethmoid / sphenoid / frontal sinus surgery Maxillo facial surgeries External operations of frontoethmoid sinus Maxillectomy - Total – Partial.

Endoscopic DCR-2, Anterior ethmoidectomy-1

Rhinoplasty

Extended FESS

Extended frontal sinus surgeries

Rhytidectomy

Lateral rhinotomy

Trans palatal nose and nasopharyngeal surgeries

Compartment resection of infratemporal fossa

3.5.3 Laryngology Head and Neck

To be done independently (PI)

Tracheostomy - 4 cases

Tonsillectomy - 10 cases

Adenoidectomy - 10 cases

DL Scopy - 10 cases

Oesophagoscopy / Upper oesophagus foreign body removal - 5 cases

Quinsy drainage - 3 cases

Ludwigs Angina drainage - 3 cases To

Assist or observe

Bronchoscopy –Rigid , Fibreoptic bronchoscopy

Total / Partial laryngectomy

Block dissections of neck

Thyroid surgery – Hemi and total

Salivary gland surgery – Parotidectomy, submandibular gland excision. Parapharyngeal tumour excision

Microlaryngeal surgery

Sistrunk operation UPPP

Reconstructive surgeries of head and neck – PMMC Flap

4. TEACHING AND LEARNING METHODS

The training of postgraduate for degree 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 participate in seminars, group discussions, grand rounds, case demonstration, clinics, journal review meetings, CPC and clinical meetings. Every candidate should be required to participate in the teaching and training programme of undergraduate students. Training should include involvement in laboratory and experimental work and research studies.

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

4.1. Lectures

Lectures are to be kept to a minimum. They may, however, be employed for teaching certain topics. Lectures may be didactic or integrated.

4.1.1 Didactic Lectures:

Recommended for selected common topics for post graduate students of all specialties. Few topics are suggested as examples:

- Bio-statistics
- Use of library
- Research Methods
- Medical code of Conduct and Medical Ethics
- National Health and Disease Control Programmes
- Communication Skills etc.

These topics may preferably take up in the first few weeks of the 1 year.

4.1.2 Integrated Lectures: These are recommended to be taken by multidisciplinary teams for selected topics.

4.2 Clinical postings and Rotation of posting

A major portion of posting should be in otorhinolaryngology. It should include inpatients, outpatients, ICU, trauma, emergency room and speciality clinics. Inter-unit rotation in the department should be done for a period of up to 1 academic term. Rotation in appropriate related subspecialties should not extend for a period exceeding 1 academic term in the 3rd - 4th academic terms.

4.3 Clinical meetings:

There should be intra- and inter- departmental meetings for discussing the uncommon / interesting cases involving multiple departments.

4.4 Log book:

Each student must be asked to present a specified number of cases for clinical discussion, perform procedures, tests, operations, present seminars, review articles from various journals in inter-unit/interdepartmental teaching sessions. They should be entered in a Log Book. The Log books shall be checked and assessed periodically by the faculty members imparting the training. This will in turn be evaluated/assessed by an external reviewer appointed by PG Director biannually during the months of July and January.

4.5 Research activities

The student should know the basic concepts of research methodology, plan a research project, be able to retrieve information from the library. The student should have a basic knowledge of statistics.

A postgraduate student of a postgraduate degree course in broad specialities/super specialities would be 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.

4.6 Basic Course in Biomedical Research

In order to improve the research skills of post-graduate students, the board of Governors(BoG) has recommended a uniform research methodology course across the country ,The online course, “Basic course in Bio-medical Research”, will be offered by ICMR-National Institute of Epidemiology (ICMR-NIE), Chennai (www.nie.gov.in). The course will explain fundamental concepts in research methodology. This courses is being offered through SWAYAM programme of ministry of human resource development through SWAYAM NPTEL ([http://swayam.gov.in/nc details/NPTEL](http://swayam.gov.in/nc_details/NPTEL))

4.7 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 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.

Every candidate shall submit to the Registrar (Academic) of SDUU 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 University. The synopsis shall be sent through the properchannel.

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

The dissertation should be written under the following headings:

Introduction

- ii. Aims or Objectives of study
- iii. Review of Literature
- iv. Material and Methods

- v. Results
- vi. Discussion
- vii. Conclusion
- viii. Summary
- ix. References (Vancouver style)
- x. Tables
- xi. Annexures

The written text of dissertation shall be not less than 50 pages and shall not exceed 150 pages excluding references, tables, questionnaires and other annexures. 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 Registrar (Evaluation), six months before final examination on or before the dates notified by the University.

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

Guide/Co-Guide:

The academic qualification and teaching experience required for recognition by this University as a guide/co-guide for dissertation work is as per Medical Council of India on 12th February 2020, vide Notification No. MCI-12(2)/2019- Med.Misc./189334 notified the Minimum Qualifications for Teachers in Medical Institutions (Amendment) Regulations,

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 university.

48 Journal Club :

Recommended to be held once a week. All the PG students are expected to attend and actively participate in discussion and enter the relevant details in the log book. 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 presentations in three years. The presentations would be evaluated using check lists and would carry weightage for internal assessment. A time table with names of the student and the moderator should be announced at the beginning of every year.

49 Subject Seminar

Recommended to be held once a week. All the PG students are expected to attend and actively participate in discussion and enter the relevant details in the log book. Further, every candidate must present selected topics 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. A timetable for the subject with names of the student and the moderator should be scheduled at the beginning of every year.

410 Student Symposium

Recommended as an optional multi disciplinary programme. The evaluation may be similar to that described for subject seminar.

411 Ward Rounds:

Ward rounds may be service or teaching rounds.

Service Rounds: Postgraduate students 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.

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 (i) and (ii) should be made in the Log book.

412 Clinico-Pathological Conference:

Recommended to attend as per regulation by SDUAHER, for all post graduate students. Presentation be done by rotation.

413 Interdepartmental 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.

Pathology: A dozen interesting cases may be chosen and presented by the post graduate students and discussed by them as well as the senior staff of Surgery department. The staff of Pathology department would then show the slides and present final diagnosis. In these sessions the advanced immuno-histo-chemical techniques, the burgeoning markers & other recent developments can be discussed.

Radio-diagnosis: Interesting cases and the imaging modalities should be discussed.

4.14 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 as students. Record of their participation be kept in Log book. Training of post graduate students in Educational Science and Technology is recommended.

4.15 Continuing Medical Education Programmes (CME) :

A Postgraduate student of a postgraduate degree program in broad specialities/super specialities would be 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 postgraduate studies.

4.16 Conferences:

Attending conferences is encouraged.

Temporal bone dissection which includes:

Cortical mastoidectomy

MRM and Radical mastoidectomy

Facial nerve decompression Posterior

tympanotomy Labrintectomy

Endolymphatic sac decompression

4.17 CLINICAL POSTING(rotation &posting in otherdepartment):

The listed knowledge and skills are to be learnt over a period of 3 years. The process is a continuous one. However the recommended period and timing of training in basic subjects, allied departments and specialty departments is given below.

4.17.1.1 ANATOMY:

At the end of the posting in the Department of Anatomy ,the PG student should be able to Reorient to anatomy of ear, nose, throat and head and neck.

Assessment:

1.DOPS

• Dissection of head and neck

2.Seminar on a selected topic

3.Evaluation of logbook

4.Formative assessment – Internal assessment test in theory

4.17.2.2 (AUDIOLOGY) (NIMHANS 2 WEEKS)

At the end of posting in the Department of Audiology & Speech and Hearing, the post graduate students should :

Understand the basic principles and techniques of Pure Tone Audiometry, Impedence BERA, OAE, Neonatal screening, speech therapy, evaluation and rehabilitation of congenital deaf mutism, voice analysis and stroboscopy.

Assessment:

- 1.DOPS
 - 2.Seminar on a selected topic
 - 3.Evaluation of logbook
 4. Formative assessment
- Internal assessment test in theory

4.17.2.1 ANAESTHESIA: (2 weeks)

At the end of posting in the Department of Anaesthesiology, the post graduate students should :

Understand the basic principles in general anaesthesia & regional anaesthesia. Know about commonly used anaesthetic agents and their side effects.

Understand basic principles of mechanical ventilation. Be able to insert central line and peripheral lines.

Be able to perform Endo tracheal intubation.

Assessment:

- 1.DOPS
 - Perform Endo tracheal intubation,
 - Start I.V line
 - 2.Seminar on a selected topic
 - 3.Evaluation of logbook
 4. Formative assessment
- Internal assessment test in theory

4.17.2.3 NEUROSURGERY: (TOTAL 4 WEEKS - 2 WEEKS IN NIMHANS)

At the end of posting in the Department of Neurosurgery the students should : - Understand the basic principles and management of various head injuries Understand the basic principles and management of csf leak, Cerebellopontine angle tumors, transphenoidal approaches to pituitary, intracranial complications of chronic suppurative otitis media

Know about rehabilitation of patients recovering from neuro-deficits and develop adequate counselling skills.

Assessment:

- 1.Seminar on a selected topic
 - 2.Evaluation of logbook
 - 3.Mini CEX-Case based discussion (Counselling skills)
 - 4.Formativ assessment
- Internal assessment test in theory

4.17.2.5 PLASTIC SURGERY: (2 weeks)

At the end of posting in the Department of Plastic surgery, students should : Understand basic principles of covering raw area with graft / flaps (in trauma / postoperative cases). Understand basic principles of nerve injuries & repair.

Assessment:

- 1.DOPS
- Perform skin grafting, tendon repair
- 2.Seminar on a selected topic
 - 3.Evaluation of logbook
 - 4.Mini CEX-Case based discussion
 - 5.Formativ assessment
- Internal assessment test in theory

5. 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.

The learning out comes to be assessed should include:

- 5.1** Personal Attitudes,
- 5.2** Acquisition of Knowledge,
- 5.3** Clinical and operative skills,
- 5.4** Teaching skills and
- 5.5** Dissertation.

5.1 Personal Attitudes.

The essential items are:

- Caring attitudes
- Initiative
- Organisational ability
- Potential to cope with stressful situations and undertake responsibility
- Trust worthiness and reliability
- To understand and communicate intelligibly with patients and others
- To behave in a manner which establishes professional relationships with patients and colleagues
- Ability to work in team
- 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.

The methods used mainly consist of observation. It is appreciated that these items require a degree of subjective assessment by self, faculty from the unit, peers from the unit & nurses.

5.2 Acquisition of Knowledge :

The methods used comprise of

5.2.1 Log book:

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 During the training period, the post graduate student should maintain a Log Book indicating the in various teaching / learning activities duration of the postings/work done in Wards including superspeciality, OPDs and Casualty. This should indicate the specified number of cases for clinical discussion, procedures and operations observed, assisted and performed /presented seminars and review articles from various journals in inter-unit/inter departmental teaching sessions. They should be entered in a Log Book.

The purpose of the Log Book is to:

- a) Help maintain a record of the work done during training,
- b) Enable Consultants to have direct information about the work

c) Use it to assess the experience gained periodically.

The log book shall be used to aid the internal evaluation of the student.

The Log books shall be checked and assessed periodically monthly basis by guide / head of the unit/ head of the department and biannually by the external reviewer.

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

5.2.2 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

5.2.3 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

5.2.4 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.

5.2.5 Audit:

Periodic morbidity and mortality meeting be held. Attendance and participation in these must be insisted upon. This may not be included in assessment.

5.2.6 Clinical skills

5.2.6.1 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

5.2.6.2 Clinical meetings(Clinical Presentations:) : Candidates should periodically present cases to his peers and faculty members. This should be assessed using a check list

5.3 Clinical and Operative skills :

The candidate should be given graded responsibility to enable learning by apprenticeship. The performance is assessed by the guide by DOPS. Particulars are recorded by the student in the log book.

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 Microteaching Pedagogy.

5.4 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 University for registration, again before finalisation for critical evaluation and another before final submission of the completed work

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.

Records: Monthly and quarterly reviews of records, log books and marks obtained in tests will be maintained by the Head of the Department and will be made available to the University or MCI.

6. ASSESSMENT

6.1 Formative Assessment

General Principles

Internal Assessment should be frequent(quaterly), cover all domains of learning and used to provide feedback to improve learning; it should also cover professionalism and communication skills. The Internal Assessment should be conducted in theory and clinical examination. It not only helps teachers to evaluate students, but also students to evaluate themselves. The monitoring to 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. This includes assessment of patient care, procedural & academic skills,

interpersonal skills, professionalism, self-directed learning and ability to practice in the system.

Assessment during the MS training should be based on:

- Assessment at end of rotation (Quarterly Postgraduate Student's Appraisal Form) by the Unit Head.
- The student to be assessed periodically as per categories listed in Postgraduate Student Appraisal Form
- Periodic assessment
- The tests may include written papers (theory), practicals / clinical and viva voce.

Quarterly Postgraduate Student's Appraisal Form

- Journal based/ recent advances learning
- Seminars
- Journal Clubs
- Evidence based medicine (EBM) based Journal clubs

Patient based or Skill based learning – Monthly once

- Mini-CEX (mini clinical examination)
- Case based discussions – Long case discussion (Holistic) –& Short case discussion (Focused)
- DOPS (Directly Observed Procedural Skills)

Self-directed learning and teaching

- Log book
- Basic life support (BLS)
- Additional training certificates

Departmental & interdepartmental learning activity

- Interdepartmental PG symposium
- Clinico-pathological conference (CPC)
- Clinical case discussion
- Pedagogy session
- Central mortality meeting (Once in 3 months)
- Monthly departmental mortality meeting (Once a month)

External & Outreach activities/ Continuing Medical Education (CME)

- External postings details: SDUMC

- Camp details
- Annual Departmental CME
- CMEs/Conferences/Workshops – External

Attendance, Progress and Conduct

A candidate pursuing degree course should work in the concerned department of the institution for the full period as a full time student. Academic term of 6 months 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 term 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 term. All the candidates joining the Post Graduate training programme shall work as 'Full Time Residents' during the period of training and shall attend not less than 80% (Eighty percent) of the imparted training during Academic Term of 6 months including assignments, full time responsibilities and participation in all facets of the education process. Any student who fails to complete the course in the manner stated above shall not be permitted to appear for the University Examinations. A Postgraduate student of a postgraduate degree course in broad specialities/super specialities would be 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 postgraduate studies so as to make him eligible to appear at the postgraduate degree examination.

Ref: As MCI Notification dated 09-12-2009, vide No.MCI.18(1)/2009-Med.55455 and Para No.4.

Procedure for defaulters: Every department should have a committee containing Head of the department and PG guides 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.

6.2 SUMMATIVE ASSESSMENT

The summative examination would be carried out as per the Rules given in POSTGRADUATE MEDICAL EDUCATION REGULATIONS, 2000

The examination will be in three parts:

6.2.1. THESIS

Every post graduate student shall carry out work on an assigned research project under the guidance of a recognised Post Graduate Teacher, the result of which shall be written up and submitted in the form of a Thesis. Work for writing the Thesis is aimed at contributing to the development of a spirit of enquiry, besides exposing the candidate to the techniques of research, critical analysis, acquaintance with the latest advances in medical science and the manner of identifying and consulting available literature. Thesis shall be submitted at least six months before the Theory and Clinical / Practical examination. The thesis shall be examined by a minimum of three examiners; one internal and two external examiners, who shall not be the examiners for Theory and Clinical examination. A candidate shall be allowed to appear for the Theory and Practical/Clinical examination only after the acceptance of the Thesis by the examiners.

6.2.2. THEORY

There shall be four question papers, each of three hours duration. Each paper shall consist of ten questions each question carrying 10 marks, so the total marks for each paper will be 100. Questions on recent advances maybe asked in any or all the papers. Details of distribution of topics for each paper will be as follows. The examinations shall be organised on the basis of 'Grading' or 'Marking system' to evaluate and to certify candidate's level of knowledge, skill and competence at the end of the training. A candidate will secure not less than 50% marks in each head of passing which will include (1) Theory, (2) Practical including clinical and viva voce examination. A candidate securing less than 50% of marks as described above will be declared to have failed in the examination. The examination for MS shall be held at the end of 3rd academic year. An academic term shall mean six month's training period.

Theory shall consist of four papers of 3 hours each.

Paper I:	Basic Sciences -	100 marks
	1. Anatomy	
	2. Physiology	
	3. Other basic science topics covered in syllabus	
Paper II:	Rhinology including recent advances	100 marks
Paper III:	Otology including recent advances	100 marks
Paper IV:	Laryngology and pharyngology & Broncho-oesophagology including recent advances	100 marks

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

6.2.3 Clinical

200 marks

There shall be one long case and three short cases to be examined and presented by each candidate.

Type of cases

Long case	1	80 marks
Short cases	3 (40x3)	120 marks

6.2.4 Viva voce

100 marks

6.2.4.1 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 be also be given case reports, charts, gross specimens, Histo pathology sliders, X-rays, ultrasound, CT scan images, Temporal bone dissection, etc., for interpretation. Questions on operative surgery and use of instruments will be asked. It includes discussion on dissertation also.

6.2.4.2 Pedagogy Exercise: (20 marks)

A topic 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.

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

Number of Candidates per day.

The maximum number of candidates for practical/clinical and viva-voce examination will be 6-8 candidates per day

ENTRUSTABLE PROFESSIONAL ACTIVITY

EPAs are units of professional practice, defined as tasks or responsibilities to be entrusted to the unsupervised execution by a trainee once he or she has attained sufficient specific competence. EPAs are independently executable, observable, and measurable in their process and outcome, and therefore, suitable for entrustment decisions. The entrustable professional activity (EPA) concept allows faculty to make competency-based decisions on the level of supervision required by trainees. The Academy has identified few such EPA's for all students in various degree courses. These are:

EPA 1: Gather a history and perform a physical examination

EPA 2: Prioritize a differential diagnosis following a clinical encounter EPA 3:

Recommend and interpret common diagnostic and screening tests

EPA 4: Obtain informed consent for tests and / or procedures

EPA 5: Recognize a patient requiring urgent or emergent care and initiate evaluation and management

EPA 6: Give or receive a patient handover to transition care responsibility

RECOMMENDED LIST OF TEXT BOOKS & JOURNALS

Text Books:

01. Scott-Brown's Otolaryngology and Head & Neck surgery. (8th Edition)
02. Cumming's Otolaryngology and Head & Neck surgery. (6th Edition)
03. Stell & Maran's Head & neck surgery. (6th Edition)
04. Shambaugh's Surgery of the ear. (6th Edition)
05. Stamberger's Functional Endoscopic Sinus Surgery. (3rd Edition)
06. Clinical Audiovestibulometry by Anirban Biswas. (5th Edition)

Reference Books:

01. Paparella's Otolaryngology and Head & neck surgery.
02. The Sinuses by Paul J. Donald.
03. Surgery of the skull base by Paul J. Donald.
04. Brackman's Otologic surgery. (4th Edition)
05. Montgomery's Surgeries of upper respiratory system. (2nd Edition)
06. Ballanger's Diseases of nose, throat and ear. (8th Edition)
07. Rob & Smith's Clinical surgery of ear, nose and throat. (4th Edition)
08. Jackson's Bronchoesophagology.
09. Bluestone's Pediatric otolaryngology. (5th Edition)
10. Kleinsasser's Microlaryngoscopy and Endolaryngeal microsurgery. (2nd Edition)
11. Ludman's Diseases of ear. (6th Edition)
12. Harnsberger's Head & neck imaging. (3th Edition)
13. Jatin P Shah's Head & neck surgery. (4th Edition)
14. Bailey and Biller's Surgery of Larynx. (1st Edition)
15. Nasal and Sinus Surgery by Steven C. Marks. (1st Edition)

List of Journals:

1. Oto-laryngology and Head & Neck Surgery.
2. Journal of Laryngology and Otology
3. Laryngoscope
4. Archives of Otolaryngology Head & Neck Surgery.
5. Indian Journal of Oto-rhinolaryngology and Head & Neck Surgery.
6. Otolaryngologic Clinics of North America.
7. Annals of Otology, Rhinology and Laryngology.
8. Journal of Facio-maxillary surgery.

9. Asian Journal of Ear, Nose and Throat.

10. Ear, Nose and Throat journal.

**MODEL CHECK-LIST FOR EVALUATION OF JOURNAL
REVIEW PRESENTATIONS**

Name of the Student: Name of the Faculty/Observer:

Date:

SI. No.	Items for observation during presentation	Poor 0	Below Average	Average 2	Good 3	Very Good
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 :-						

MODEL CHECK-LIST FOR EVALUATION OF SEMINAR PRESENTATIONS

Name of the Student:

Name of the Faculty/Observer:

Date:

SI. No.	Items for observation during presentation	Poor 0	Below Average	Average 2	Good 3	Very Good
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					
9.	Overall Performance					
10.	Any other observation					
	Total Score:-					

MODEL CHECK LIST FOR EVALUATION OF TEACHING SKILL PRACTICE

Sl. 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		

**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 Unit Head:

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					
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					
10.	Over all quality of Ward work					
	Total Score :-					

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	Above Average 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					
	• 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					
Grand Total :-						

DISSERTATION REVIEW

STUDENT:

PERIOD OF REVIEW:

TITLE:

CONDUCTED ON:

SL.NO	GUIDELINES	COMMENTS	CORRECTIONS DONE
01	PROGRESS IN THE REVIEW OF LITERATURE		
02	RESEARCH METHODOLOGY		
03	NEW DATA		
04	MATERIALS AND METHODS		
05	DISCUSSION		
06	CONCLUSIONS		
07	COMMENTS BY THE GUIDE AND REVIEWER		
08	STATUS OF PROGRESS		

SIGNATURE OF CANDIDATE

SIGNATURE OF GUIDE

SIGNATURE OF HOD

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

SI. 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 :-					

Direct Observation of Procedural Skills (DOPS)

Trainee		Assessor	
Name		Name	
Batch		Designation	
Assessment date:		Department	
DOPS DETAILS			
Name of Procedure:			
No. times procedure previously performed:		Emergency / Elective (please circle)	
Performed in a simulated setting	Description of the simulation:		
Difficulty of procedure: Easier than usual than usual	Average difficulty More difficult		
Trainee's signature:		Assessor's signature:	
FEEDBACK:			
Verbal and written feedback is a mandatory component of this assessment.			

General		
Strengths		
Development needs		
Recommended actions		
TRAINEE REFLECTIONS ON THIS ACTIVITY (optional)		
What did I learn from this experience?		
What did I do well?		
What do I need to improve or change? How will I achieve it?		
RATINGS		
Your ratings should be judged against the standard laid out in the syllabus for the trainee's stage of training. N = Not observed D = Development required, S = Satisfactory (no prompting or intervention required) O = Outstanding		
Domain	Rating	Comments
1: Describes indications, anatomy, procedure and complications to assessor		
2: Obtains consent, after explaining procedure and possible complications to patient		
3: Prepares for procedure according to an agreed protocol		
4: Administers effective analgesia or safe sedation (if no anaesthetist)		
5: Demonstrates good asepsis and safe use of instruments and sharps		
6: Performs the technical aspects in line with the guidance notes		
7: Deals with any unexpected event or seeks help when appropriate		
8: Completes required documentation (written or dictated)		
9: Communicates clearly with patient and staff throughout the procedure		
10: Demonstrates professional behaviour throughout the procedure		
GLOBAL SUMMARY		Tick
Level at which completed elements of the PBA were performed on this occasion		
Level 0	Insufficient evidence observed to support a summary judgement	

Level 1a	Able to assist with guidance (was not familiar with all steps of procedure)	
Level 1b	Able to assist without guidance (knew all steps of procedure and anticipated next move)	
Level 2a	Guidance required for most/all of the procedure (or part performed)	
Level 2b	Guidance or intervention required for key steps only	
Level 3a	Procedure performed with minimal guidance or intervention (needed occasional help)	
Level 3b	Procedure performed competently without guidance or intervention but lacked confidence	
Level 4a	Procedure performed confidently to a high standard without any guidance or intervention	
Level 4b	As 4a and was able to anticipate, avoid and/or deal with common problems/complications	

Mini Clinical Examination(mini-CEX)

Student name:

Assessor name:

Year: 1 2 3

Date of assessment: / / /

Patient complaint:

Case difficulty: Low Medium

High

Patient age:

Gender: Male Female

Observed complaint: History

Exam Management

Rate the following areas of the consultation(based on student year level):

	Well below expectation	Below expectation	Borderline	Meets expectation	Above expectation	Well above expectation	Not observed
Information gathering	1	2	3	4	5	6	X
Clinical examination	1	2	3	4	5	6	X
Counselling & communication skills	1	2	3	4	5	6	X
Clinical Judgement	1	2	3	4	5	6	X
Professionalism	1	2	3	4	5	6	X

lism							
Organisation & efficiency	1	2	3	4	5	6	X
Overall clinical competence	1	2	3	4	5	6	

Aspects that were performed well

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Aspects that need development and improvement

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Learning plan

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Examiner satisfaction using mini-CEX	(Low)	1	2	3	4	5	6	(High)
Student satisfaction using mini-CEX	(Low)	1	2	3	4	5	6	(High)

Examiner signature:

Student signature:

PEDAGOGY STUDENT OBSERVATION SHEET

Rating scale: A- well done: B- done fairly: C- needs to improve: D not applicable

DIRECTIONS: Please enter ratings as A, B, C or D in the boxes

Name of teacher:

Title:

33. _____
 34. _____
 35. _____
 36. _____
 37. _____
 38. _____
 39. _____
 40. _____

33. _____
 34. _____
 35. _____
 36. _____
 37. _____
 38. _____
 39. _____
 40. _____

Sl No	Skill	Teacher's action	Teachers performance											
			1	2	3	4	5	6	7	8	9			
1	Set induction	1.10 Aroused interest in the beginning by relation to previous learning, throwing a new idea, questioning, etc. 1.11 Specified the objectives of presentation												
2	Planning	2.1 Organized material in a logical sequence 2.2 Used relevant content matter												
3	Presentation	3.1 Changed the pace of presentation by shifting emphasis, joke, etc 3.2 Used specific example to illustrate main ideas 3.3 Used non-verbal cues, eye contact, etc												
4	Pupil participation	4.1 Allowed questions from students 4.2 Asked questions 4.3 Solicited/ raised questions 4.4 Rewarded pupil effort												
5	Use of AV aids	5.1 Used proper AV aids 5.2 Used the aid (s) effectively												
6	Closure`	6.1 Summarized most important												

		points at the end of the lesson											
7	Lesson of the whole was effective												

For additional comments use the reverse side

Remarks:

Teacher 1:
Teacher 2:
Teacher 3:
Teacher 4:
Teacher 5:
Teacher 6:
Teacher 7:
Teacher 8:
Teacher 9:

Quarterly Postgraduate Student’s Appraisal Form

Name of the PG Student:

Period of Training:
 FROM.....TO.....

Sl No	Particulars	Not Satisfactory			Satisfactory			More Than Satisfactory			Attendance (Wherever applicable) %	Remarks
		1	2	3	4	5	6	7	8	9		
1	Journal based / recent advances learning											
2	Patient based/ Skill based learning											

3	Self directed learning and teaching					
4	Departmental and Interdepartmental learning activity					
5	External and Outreach activities / CMEs					
6	Thesis / Research work					
7	Log Book Maintenance					
8	Professionalism					
9	Attendance					

Publications: Yes/ No

Remarks* _____

*REMARKS: Any significant positive or negative attributes of a postgraduate student to be mentioned. For score less than 4 in any category, remediation must be suggested.

Individual feedback to postgraduate student:

 Signature of
 Resident

 Signature of
 Unit Head

 Signature of
 Guide

 Signature of
 HoD

LOG BOOK

Table 1 : Academic activities <u>attended</u> Name: _____ Admission Year: _____ College: _____		
Date	Type of Activity Specify : Seminar, Journal Club, Case Presentation, UG teaching	Particulars

LOG BOOK

Table 2 : Academic <u>presentations</u> made by the student Name: _____ Admission Year: _____ College: _____		
Date	Topic	Type of Presentation Specify : Seminar, Journal Club, Case Presentation, UG teaching, etc.

LOG BOOK

Table 3: Diagnostic and Operative procedures performed

Name: _____ **Admission Year:** _____

Date	Name	IP 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

