BLDE
(DEEMED TO BE UNIVERSITY)

Competency Based Medical Education (CBME)

PG Curriculum

M.S. ENT

2023-24

Published by
BLDE
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The Constituent College
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(DEEMED TO BE UNIVERSITY)

Declared as Deemed to be University u/s 3 of UGC Act, 1956
Accredited 'A' Grade by NAAC (Cycle-2)

BLDE(DU)/REG/PG Curri./2023-24/3149/1 January 11, 2024

NOTIFICATION

Sub: Implementation of PGME Regulations (PG Curriculum) 2023 for 2023-24 Batch onwards.

Ref: 1. NMC New PGME Regulations 2023 vide No. F.No.CDN-19012/5/2023-Coord-NMC dtd. 29.12.2023.
2. Notification of PGMER 2023 Regulations/ Curriculum at SBMPMCHR&C of BLDE(DU) vide no. BLDE(DU)/REG/PGMER/2023-24/3097 dtd. 09.01.2024
3. Detailed PG Curriculum as per PGMER 2023 submitted by Dean, Faculty of Medicine, BLDE(DU).
4. Approval of Hon'ble Vice-Chancellor vide no. 1395/1 dtd. 11.01.2024.

NMC has notified Post Graduate Medical Education Curriculum Regulations 2023 on 29.12.2023 (PGMER-2023) for the students enrolled in the Academic Year 2023-24. Accordingly, BLDE(DU) adopted & notified the regulations (PGMER-2023) for implementation on 09.01.2024.

Accordingly, the BLDE(DU) hereby notifies the detailed PG Curriculum as per PGME Regulations 2023 and this is applicable to the students enrolled during the academic year 2023-24.

REGISTRAR

REGISTRAR
BLDE(Deemed to be University)
Vijayapura-586103. Karnataka

Copy to:

- The Secretary, NMC, New Delhi
- The Secretary, UGC, New Delhi
- The Dean, Faculty of Medicine
- The Principal, SBMPMCH&RC
- The Vice-Principal (Pre & Para Clinical)
- The Vice-Principal (Clinical)
- The Controller of Examinations
- The Dean, Student Affairs
- The Prof. and HoD of Pre, Para & Clinical Departments
- All the Concerned Officials
- The Co-ordinator/ Director, IQAC

Copy respectfully submitted to:

- The Hon'ble Pro-Chancellor
- The Hon'ble Vice-Chancellor
- The Hon'ble Pro Vice-Chancellor

Vision

To be a leader in providing quality medical education, healthcare & to becomean Institution of eminence involved in multidisciplinary and translational research, the outcome of which can impact the health & the quality of life ofpeople of this region.

Mission

- To be committed to promoting sustainable development of higher education, including health science education consistent with statutory and regulatory requirements.
- To reflect the needs of changing technology.
- Make use of academic autonomy to identify dynamic educational programs.
- To adopt the global concepts of education in the healthcare sector

SECTION – I

Goals and General Objectives of Postgraduate Medical Education Program

Goals :

The goal of postgraduate medical education shall be to produce a competent specialist and / or a medical teacher as stated in the Post Graduate Medical Education Regulations 2000 and its amendments thereof [Dec 2023] of National Medical Commission.

(i) 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.

(ii) Who shall have mastered most of the competencies, pertaining to the specialty, that are required to be practiced at the secondary and the tertiary levels of the health care delivery system.

(iii) Who shall be aware of the contemporary advances and developments in the discipline concerned.

(iv) Who shall have acquired a spirit of scientific inquiry and is oriented to the principles of research methodology and epidemiology, and

(v) Who shall have acquired the basic skills in teaching of the medical and paramedical professionals.

(vi) Acquire basic management skills in human resources, materials and resource management related to health care delivery, general hospital management, principal inventory skills and counselling;

(vii) Develop personal characteristics and attitudes required for professional life such as personal integrity, sense of responsibility and dependability and ability to relate to or show concern for other individuals;

(viii) Become an exemplary citizen by observing the highest standards of professional ethics and working towards fulfilling social and professional obligations to respond to national aspirations.

General Objectives :

At the end of the postgraduate training in the discipline concerned the student shall 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 programs, 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 concept 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 team engaged in health care, research or training.

Statement of the Competencies :

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

Source: Post Graduate Medical Education Regulations 2023 published on 29/11/23

Eligibility for Admission :

Post graduate degree course:
The candidate seeking admission should have passed MBBS from a college recognized by National Medical Commission of India.

As per requisites of statutory bodies & as laid out in Post graduate regulations of NMC & its amendments thereof, the minimum percentage of marks obtained in the entrance test conducted by competent authority shall be as per NMC regulations & its amendments as applicable time to time.

Eligibility for Foreign / PIO / NRI students will be based on qualifying examination marks and NMC amendments as applicable at the time of selection and admission process.

Candidates seeking admission to superspeciality [M.Ch/DM]

The candidate seeking admission to superspeciality course should have passed MS/MD in concerned subjects (As per NMC regulations & its amendments thereof) or passed DNB in concerned broad specialties & should fulfill requirements of NMC regulations.

2.As per requisites of statutory bodies & as laid out in Post graduate regulations of NMC& its amendments thereof, the minimum percentage of marks obtained in the entrance test / NEXT conducted by competent authority shall be as per NMC regulations & its amendments as applicable time to time.

Eligibility for Foreign / PIO / NRI students will be based on qualifying examination marks and NMC amendments as applicable at the time of selection and admission process.

Obtaining Eligibility Certificate by the University before making Admission

Candidate shall not be admitted for any postgraduate degree course unless he/she obtains and produces the eligibility certificate issued by the University. The candidate has to make an application to the University with the following documents along with the prescribed fee:

a) Allotment Letter issued by MCC.
b) Admit Card issued by NBE.
c) Result / Rank Letter issued by NBE.
d) Mark Sheets of MBBS 1st, 2nd, and 3rd Professional Examinations.
e) MBBS Provisional / Permanent degree certificate issued by the University.
f) Internship Completion Certificate from the Head of the Institution that the candidate shall complete the internship as decided by the competent authority.
g) Permanent / Provisional Registration Certificate issued by MCI / NMC / State Medical Council.
h) Higher School / Higher Secondary Certificate / Birth Certificate as proof of Date of Birth.
i) Identification proofs as mentioned in NBE information bulletin.
j) The candidate shall also bring the following certificates, if applicable.
a) SC / ST Certificate issued by the competent authority as per MCC guidelines and format.
b) EWS Certificate as per the Central Government norms & as MCC guidelines and format.
c) OBC Certificate issued by the competent authority as per MCC guidelines and format.
d) Disability Certificate issued from a duly constituted and authorized Medical Board for 21 Benchmark Disabilities as per the Right of Persons with Disability Act, 2016 and NMC Norms as per MCC guidelines and format.
k) Candidates allotted seat under NRI quota / category shall furnish documents / certificates as per MCC / DGHS Notice and according to Supreme Court guidelines.

For DM / M.Ch admission: In addition to the above mentioned documents, candidates have to produce MD/MS/DNB Marks card and Provisional / Permanent Degree certificate.

Intake of Students

The intake of students to each course shall be in accordance with the ordinance in this behalf.

Course Duration

a. M.D. / M.S. Degree Courses:

The course of study shall be for a period of 3 completed years including examinations.

The period of training, including the period of examination, shall be two years for the students, who possess a recognized two-year post-graduate diploma course in the same subject.(chapter II, 2.1 PGMER 2023, Page no 29)

b. D.M/M Ch Degree Courses: The duration of these courses shall be for a period of 3 completed years including examinations. (chapter II, 2.1 PGMER 2023, Page no 29)

Training Method

Major Components of the PG Curriculum:

The major components of the PG curriculum shall be:

Theoretical knowledge

Practical/clinical Skills

Training in writing thesis &basic course in research methodology

Attitude and communication skills.

Training in medical ethics & medicolegal aspects

Teaching skills to the undergraduates, juniors and support teams

Training in good clinical/ laboratory practices

Training in basic cardiac life support (BCLS) and advanced cardiac life support (ACLS).

District residency program

5.2 Training Programme:

(i) Post-graduate training shall consist of training of the students through lectures, seminars, journal clubs, group discussions, participation in laboratory and experimental work, involvement in research, clinical meetings, grand rounds, clinic-pathological conferences, practical training in the diagnosis and medical and surgical treatment, training in the basic medical sciences as well as in allied clinical specialties, etc. as per the requirement of Specialty training.

Specialities where patient treatment is involved the teaching and training of the students shall include graded responsibility in the management and treatment of patients entrusted to their care.

All the post-graduate students will work as full-time resident doctors. They will work for reasonable working hours and will be provided reasonable time for rest in a day.
All broad-speciality and super-speciality students will do thesis related research and will write thesis.
The training program shall be updated as and when required while keeping in mind the curriculum requirements and other relevant requirements prescribed by PGMEB from time to time. The structured training program shall be written and strictly followed, to enable the examiners to determine the training undergone by the candidates.

Post-graduate students of broad and super Speciality degree courses shall maintain a dynamic e-log book which needs to be updated on a weekly basis about the work being carried out by them and the training program undergone during the period of training. Provided that M.S. /M.Ch students shall mandatorily enter details of surgical procedures assisted or done independently.

It shall be the duty of the Post-graduate guide imparting the training to assess and authenticate monthly the record (e-Log) books.
The post-graduate students shall essentially be required to participate in the teaching and training program of undergraduate students and interns.
During the training for award of Degree/Diploma, there shall be proper training in basic medical sciences related to the disciplines concerned. During the training program, emphasis has to be laid on preventive and social aspects.
A post-graduate student of a degree course in broad specialty/super specialty will do at least one of the following to make him/her eligible to appear in his/her final examination:
a) Poster presentation at a National/Zonal/State conference of his/her speciality;
b) Podium presentation at a National/Zonal/State conference of his/her speciality;
c) Have one research paper published/accepted for publication in journal of his/her speciality as
first author.

Course in Research Methodology :

a) All post-graduate students shall complete an online course in Research Methodology.
b) The students shall have to register on the portal of the designated training institutions.
c) The students are expected to complete the course in the first year.
d) The online certificate generated on successful completion of the course and examination

thereafter will be acceptable evidence of having completed this course.

e) The above certification shall be a mandatory requirement to be eligible to appear for the final examination of the respective post-graduate course.

f) This requirement shall be applicable for all post-graduate students.

Course in Ethics:

a) All post-graduate students shall complete course in Ethics including Good Clinical Practices and Good Laboratory Practices, whichever is relevant to them, to be conducted by institutions/Universities.

b) The students are expected to complete the course in the first year.

c) No post-graduate student shall be permitted to appear in the examination without the above certification.

Course in Cardiac Life Support Skills:

a) All post-graduate students shall complete a course in Basic Cardiac Life Support (BCLS) and Advanced Cardiac Life Support (ACLS) skills to be conducted by the institution.

b) The students are expected to complete the course in the first year.

c) No post-graduate student shall be permitted to appear in the examination without the above certification.

Others:

Institutions may arrange training in any other courses like awareness in medical audit, medical law, exposure to human behavior studies, finance, accounts, etc, which are beneficial to the post graduate students.

District Residency Program (DRP) :

All post-graduate students pursuing M.D./M.S. in broad specialties in all medical colleges/institutions under the purview of the National Medical Commission shall undergo a compulsory residential rotation of three months in District Hospitals/ 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 post graduate program. In the case of those students who have taken admission after completion of the Diploma in the relevant Speciality, the District Residency Program shall take place in the third semester only.

Similarly, the post-graduate diploma students shall undergo the District Residency Programme in the third semester.

This rotation shall be termed as 'District Residency Programme' (DRP) and the post-graduate medical student undergoing training shall be termed as a 'District Resident'. Training and Responsibilities of District Residents: The District Resident will work under the overall directions and supervision of the District Residency Programme Coordinator

(DRPC).

Training and Responsibilities of District Residents:

The District Resident will work under the overall directions and supervision of the District Residency Programme Coordinator (DRPC). During this rotation, the Resident doctor will be posted with the concerned/allied Speciality team/unit/ sections/services at the District Health System/ District Hospital. The clinical responsibilities assigned to the Residents would include serving in outpatient, inpatient, casualty, and other areas pertaining to their Speciality and encompass night duties.

Post-graduate students of specialities where direct patient care is not involved will be trained by District Health System/ District Hospital teams within the available avenues in coordination with the District Health Officer/Chief Medical Officer. They would be trained in and contribute to the diagnostic/laboratory services, pharmacy services, forensic services, general clinical duties, managerial roles, public health programmes etc., as applicable.

They may also be posted in research units / facilities, laboratories and field sites of the Indian Council of Medical Research and other national research organizations.

Training of superspeciality [M.Ch/DM] should follow similar pattern. In addition, they have to be trained in advanced techniques of diagnosis and treatment pertaining to their specialty, participate actively in surgical operations as well wherever applicable.

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. No candidate is permitted to run a clinic/laboratory/nursing home while studying postgraduate course.

Leave Rules for Post-graduate Students:

The following leave rules will be followed:

a) Every post-graduate student will be given minimum 20 days of paid leave(casual leave) per year.
b) Subject to exigencies of work, post-graduate students will be allowed one weekly holiday.
c) Female post-graduate students shall be allowed maternity leave as per existing Government rules and regulations.
d) Male post-graduate students shall be allowed paternity leave as per existing Government rules and regulations.
e) In addition to 20 days' paid leave, the candidates will be allowed academic paid leave of 5 days per year. The training period shall be as per rules. If candidate avails

leave in excess of the permitted number of days, his/her term of course shall be extended by the same number of days to complete the training period. However, one shall be able to appear in the examination if one has 80% (eighty per cent) of the attendance.

Each year shall be taken as a unit for the purpose of calculating attendance. Every student shall attend symposia, seminars, conferences, journal review meetings, grand rounds, CPC, case presentation, clinics and lectures during each year as prescribed by the department and not absent himself / herself from work without valid reasons. Every Candidate is required to attend a minimum of 80% of the training during each academic year of the post graduate course. This shall include assignments, assessment of full time responsibilities and participation in all facets of educational process

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

Monitoring Progress of Studies:

The learning process of students should be monitored through continuous appraisal and regular assessment. It not only helps teachers to evaluate students, but also students to evaluate themselves. The monitoring is done by the staff of the department based on participation of students in various teaching / learning activities. It may be structured and assessment done by using checklists that assess various aspects.

The learning out comes to be assessed include:
Personal Attitudes,
Acquisition of Knowledge,
Clinical and operative skills, skills of performing necessary tests/experiments
Teaching skills.
Documentation skills
Timely completion of the academic requirements

Personal Attitudes:
The essential items are:
Caring attitude, empathy,
Initiative in work and accepting responsibilities
Organizational ability
Potential to cope with stressful situations and undertake graded 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. Any appropriate methods can be used to assess these. It is appreciated that these items require a degree of subjective assessment by the guide, supervisors and peers. However every attempt should be made to minimize subjectivity.

Acquisition of Knowledge:

Lectures: Lectures/theory classes as necessary may be conducted. It is preferable to have one class per week if possible. They may, be employed for teaching certain topics. Lectures may be didactic or integrated.

The following selected common topics for post graduate students of all specialties to be covered are suggested here. These topics can be addressed in general with appropriate teaching-learning methods centrally or at departmental level.
History of medicine with special reference to ancient Indian medicine
Basics of health economics and health insurance
Medical sociology, Doctor –Patient relationship, role of family in disease
Professionalism & Medical code of Conduct and Medical Ethics
Research Methods, Bio-statistics
Use of library, literature search ,use of various software and databases
Responsible conduct of research
How to write an article, publication ethics and Plagiarism
Journal review and evidence based medicine
Use of computers &Appropriate use of AV aids
Rational drug therapy
National Health and Disease Control Programmes
Roles of specialist in system based practice
Communication skills.
Bio medical waste management
Patient safety, medical errors and health hazards
Patient's rights for health information and patient charter.
Good clinical/ laboratory practices

These topics may preferably taken up in the first few weeks of the 1st year commonly for all new postgraduates and later in 2nd year or 3rd year as required during their progression of the programme. The specialty wise topics can be planned and conducted at departmental level.

Integrated teaching: These are recommended to be taken by multidisciplinary teams for selected topics, eg. Jaundice, Diabetes mellitus, thyroid diseases etc. They should be planned well in advance and conducted.

Journal Review Meeting (Journal club):
The ability to do literature search, in depth study, presentation skills, use of audio – visual aids, understanding and applying evidence based medicine are to be focused and assessed. The assessment is made by faculty members and peers attending the meeting using a checklist

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.

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.

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

Clinical Skills :
Day to Day Work: Skills in outpatient and ward work should be assessed periodically. The assessment should include the candidates' sincerity and punctuality, analytical ability and communication skills

Clinical Meetings :
Candidates should periodically present cases to his peers and faculty members. This should be assessed using a check list.

Group discussions :
Group discussions are one of the means to train and assess the student's ability to analyse the given problem or situation, apply the knowledge and make appropriate decisions. This method can be adopted to train and assess the competency of students in analyzing and applying knowledge.

Death review meetings/Mortality meetings :
Death review meetings is important method for reflective learning. A well conducted morbidity and mortality meetings bring about significant reduction in complications, improve patient care and hospital services. They also address system related issues. Monthly meetings should be conducted with active participation of faculty and students. Combined death review meetings may be required wherever necessary.

Clinical and Procedural Skills :
The candidate should be given graded responsibility to enable learning by apprenticeship. The performance is assessed by the guide by direct observation. Particulars are recorded by the student in the log book.

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

Attitude and Communication skills :
Candidates should be trained in proper communication skills towards interaction and communication with patients, attendees and society in general. There should be appropriate training in obtaining proper written informed consent, discussion and documentation of the proceedings. Structured training in various areas like consent, briefing regarding progress and breaking bad news are essential in developing competencies.

Variety of teaching :
Learning methods like Role play, video based training, standardized patient scenarios, reflective learning and assisting the team leader in all these areas will improve the skills. Assessment can be done using OSCE simulated scenarios and narratives or any appropriate means. Training to work as team member, lead the team whenever situation demands is essential. Mock drills to train and assess the readiness are very helpful.

Work diary / Log Book :
Every candidate shall maintain a Work Diary or an electronic e - log book and record his/her participation in the training programs 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, conducted by the candidate. A well written and validated Log Book reflects the competencies attained by the learner and points to the gap which needs address. This Log Book shall be scrutinized by concerned teachers periodically and certified, by the Head of Department and Head of the Institution, and presented during University Practical / Clinical examination.

Periodic tests :
In case of degree courses of three years duration (MD/MS, DM, M.Ch), the concerned departments may conduct three tests, two of them be annual tests, one at the end of first year and the other in the second year. The third test may be held three months before the final examination. The tests may include written papers, practical / clinical and viva voce.
One of these practical/clinical tests should be conducted by OSPE (objective structured practical examination or OSCE (objective structured clinical examination) method.
Records and marks obtained in such tests will be maintained by the Head of Department and sent to the University, when called for,

Assessment :
Assessment should be comprehensive & objective. It should address the stated competencies of the course. The assessment needs to be spread over the duration of the course.

FORMATIVE ASSESSMENT:
Formative assessment should be continual and should assess medical knowledge, patient care, procedural & academic skills, interpersonal skills, professionalism, self-directed learning and ability to practice in the system.

General Principles :
Internal Assessment should be frequent, 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.
Quarterly assessment during the Postgraduate training course should be based on following educational activities:

1. Journal based/recent advances learning
2. Patient based/Laboratory or Skill based learning
3. Self directed learning and teaching
4. Departmental and interdepartmental learning activity
5. External and outreach Activities/CMEs
6. Regular entries and documentation of day to day activities in the E-Log books
7. Diligence in day to day responsibilities performed.

Records: Records and marks obtained in tests will be maintained by the Head of the Departments and will be made available to the University or NMC.

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

Dissertation:
Every candidate pursuing MD/MS degree course 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 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 hypothesis, search and review of literature, getting acquainted with recent advances, designing of a research study,

collection of data, critical analysis and comparison of results and drawing conclusions.

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

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 shall be written under the following headings:

1. Introduction
2. Aims or Objectives of study
3. Review of Literature
4. Material and Methods
5. Results
6. Discussion
7. Conclusion
8. Summary
9. References
10. Tables
11. Annexure

The written text of dissertation shall be not less than 50 pages and shall not exceed 150 pages excluding references, tables, questionnaires and other annexure. It should be neatly typed in double line spacing on one side of paper (A4 size, 8.27" x 11.69") and bound properly. Spiral binding should be avoided. The dissertation shall be certified by the guide, head of the department and head of the Institution.
Adequate number of copies as per norms and a soft copy of dissertation thus prepared shall be submitted to the Controller of Examinations six months before final examination on or before the dates notified by the University. Evaluation of the dissertation shall be done as per existing NMC norms.

Guide:
The academic qualification and teaching experience required for recognition by this University as a guide for dissertation work is as per National Medical Commission of India Minimum Qualifications for Teachers in Medical Institutions Regulations, 2022 and its amendments thereof.

Eligibility for being designated as Postgraduate Guide :
5.1 Broad Specialties: A teacher in a Medical College or Institution having a total of 5 years of teaching experience as Assistant Professor and above after obtaining post-graduate degree

in the concerned broad specialty subject shall be recognized as Post Graduate Guide in that specialty, provided the department has been recognized/permitted for conducting Postgraduate course in that subject.
5.2 Super Specialties: A teacher in a Medical College or Institution having a total of 3 years of teaching experience as Assistant Professor and above after obtaining Super Specialty degree in the concerned super specialty subject, shall be recognized as Post Graduate Guide in that Super Specialty subject, provided the department has been recognized/ permitted for conducting Super Specialty courses in that subject.

Further, in the case of broad specialty/super specialty courses which were newly instituted, relaxation of qualification and experience for recognition as Post Graduate Guide was granted for ten years from the date of start of the course by the erstwhile Medical Council of India (MCI).Now, the existing rules of NMC "Teachers eligibility qualifications in medical institutions regulations 2022" shall be applicable.

A 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 this University / National Medical Commission of India. The co-guide shall be a recognized post graduate teacher of BLDE (Deemed to be University).

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.

Schedule of Examination:
The examination for M.D. /M.S and DM/M.Ch courses shall be held at the end of three academic years. The university shall conduct two examinations in a year at an interval of four to six months between the two examinations. Not more than two examinations shall be conducted in an academic year.

Scheme of Examination
M.D. /M.S. Degree
M.D. / M.S. Degree examinations in any subject shall consist of dissertation, written papers (Theory), Practical/Clinical and Viva Voce.

Source: PGMER 2023, pages no 38-41

8.2 Examiners:
a) The examiner (both internal and external) for the post-graduate examination in Broad and Super Specialties shall have three years' experience as recognized Post-graduate Guide in the concerned subject.
b) The minimum number of examiners for post-graduate examination shall be four. Out of which, at least two shall be external examiners and least one of them shall be from

different university outside the state.

8.3 An examiner shall not be appointed for more than two consecutive regular examinations for the same institution.

Methodology

Broad Specialties: Doctor of Medicine (M.D.)/Master of Surgery (M.S.): M.D./M.S. examinations, in any subject shall consist of theory papers, and clinical/practical and viva voce examinations.

a) **Theory**: The theory examination (both formative and summative) may be of descriptive answer of a question type, Multiple Choice Question (MCQ) type or mix of both types. Theory examination for summative examination shall be of four theory papers. The first and the fourth paper shall be on basic medical science and recent advances, respectively.

The theory examination shall be held well in advance before the clinical and practical examination.

b) **Clinical/Practical and Viva voce**

Clinical examination for the subjects in clinical sciences shall be conducted to test the knowledge and competence of the candidates for undertaking independent work as a consultant/specialist/teacher, for which candidates shall be examined for one long case and two short cases.

Practical examination for other subjects shall be conducted to test the knowledge and competence of the candidates for making valid and relevant observations based on the experimental/ laboratory studies and his ability to perform such studies as are relevant to his subject.

The viva voce examination shall be thorough and shall aim at assessing the candidate's knowledge and competence about the subject, investigative procedures, therapeutic technique and other aspects of the Speciality.

Clinical/practical examination shall include Objective Structured Clinical Examination/Objective Structured Practical Examination (OSCE/OSPE).

Super Specialties: Doctorate of Medicine (D.M.)/Master of Chirugrie (M.Ch):

The Examination consists of theory and clinical/practical and viva voce.

a) **Theory**: The theory examination (both formative and summative) may be of descriptive answer of a question type, Multiple Choice Question (MCQ) type or mix of both types. Theory examination for summative examination shall be of four theory papers. The first and the fourth paper shall be on basic medical science and recent advances, respectively. The theory examination shall be held well in advance before the clinical and practical examination.

b) Clinical/Practical and Viva voce :

Clinical examination for the subjects in clinical sciences shall be conducted to test the knowledge

and competence of the candidates for undertaking independent work as a consultant/specialist/teacher, for which candidates shall be examined for one long case and two short cases.

Practical examination may consist of carrying out special investigative techniques for Diagnosis

and Therapy. M.Ch. candidates shall also be examined in surgical procedures.

Viva voce examination shall be comprehensive enough to test the candidate's overall knowledge and competence about the subject, investigative procedures, therapeutic technique and other aspects of the Specialty.

Clinical/practical examination shall include Objective Structured Clinical Examination/ Objective Structured Practical Examination (OSCE/OSPE).

CRITERIA FOR EVALUATION OF M.S./M.D./M.Ch./DM COURSES

Sl. No.	Description M.S./M.D./M.Ch./DM Courses	
1	THEORY	
	No. of Theory Papers	4
	Marks for each Theory Paper	100
	Total marks for Theory Paper	400
	Passing Minimum for Theory	200/400 (40% minimum in each paper)
2	PRACTICAL/CLINICAL	300
3	VIVA VOCE	100

Passing minimum for Practical/Clinical including Viva voce 200/400

The candidate shall secure not less than 50% marks in each head of passing which shall include

(1) Theory – aggregate 50% (In addition, in each Theory paper a candidate has to secure minimum of 40%)

(2) Practical/Clinical and Viva voce - aggregate 50%

(3) If any candidate fails even under one head, he/she has to re-appear for both Theory and Practical/Clinical and Viva voce examination.

(4) Five per cent of mark of total marks of Clinical/Practical and Viva Voce marks (20 marks) will be of dissertation/thesis and it will be part of clinical/practical examination marks. External examiner outside the state will evaluate dissertation/ thesis and take viva voce on it and marks will be given on quality of dissertation/thesis and performance on its viva voce.

The total marks for Practical / Clinical examination shall be 300.Among this 300, there shall be 20 marks allotted to the evaluation of thesis/ dissertation. So 280 will be for clinicals / practicals & 20 for thesis.(As per the clarification regarding FAQS on PGMER 23 no 6 page no 3 as per notification of NMC, dated 10-4-24)

(5) No grace mark is permitted in post-graduate examination either for theory or for practical.

Viva Voce:

Examination shall aim at assessing depth of knowledge, logical reasoning, confidence and oral communication skills.

The total marks shall be 100:

- 80 or 90 Marks, for examination of all components of syllabus
- 10 or 20 marks for Pedagogy

Criteria for pass & distinction:

Criteria for declaring as pass in University Examination:

A candidate shall secure not less than 50% marks in each head of passing which shall include (1) Theory, (2) Practical/clinical and (3) viva voce examination. The candidate should pass independently in practical/clinical examination and Viva Voce.

Obtaining a minimum of 40% marks in each theory paper and not less than 50% cumulatively in all the four papers for degree examinations. Obtaining of 50% marks in Practical examination shall be mandatory for passing the examination as a whole in the said degree examination as the case may be. [PGMER 2023 Page no 40]

A candidate securing less than 50% of marks as described above shall be declared to have failed in the examination. Failed candidate may appear in any subsequent examination upon payment of fresh fee to the Controller of Examinations.

Declaration of distinction: A successful candidate passing the University examination in first attempt will be declared to have passed the examination with distinction, if the grand total aggregate of marks is 75 percent and above.

Distinction will not be awarded for candidates passing the examination in more than one attempt.

D.M/M.Ch Degree

DM/M.Ch Degree examinations in any subject shall consist of written theory papers (theory), practical/clinical and Viva voce.

The existing pattern of theory question paper:

Type of Questions	Number of questions	Marks for each question	Total marks=100
Long Essay type questions	2	20	40
Short Essay types questions	6	10	60

Practical / Clinical Examination:

In case of practical examination, it should be aimed at assessing competence and skills of techniques and procedures as well as testing students ability to make relevant and valid observations, interpretations and inference of laboratory or experimental work relating to his/her subject.

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

The total marks for Practical / clinical examination shall be 300.Out of this 300, 20 marks shall be allotted to evaluation of thesis/dissertation. The assessor shall be external examiner from outside university and state.

Viva Voce:

Examination shall aim at assessing depth of knowledge, logical reasoning, confidence and oral communication skills.

The total marks shall be 100:

- 90 Marks, for examination of all components of syllabus
- 10 Marks for pedagogy

Examiners: There shall be at least four examiners in each subject. Out of them two shall be external examiners and two shall be internal examiners. The qualification and teaching experience for appointment as an examiner shall be as laid down by the National Medical Commission.

Criteria for passing and distinction: Criteria for declaring as pass in University Examination: A candidate shall secure not less than 50% marks in each head of passing which shall include (1) Theory, (2) Practical including clinical and (3) viva voce examination. The candidate should pass independently in practical/clinical examination.

The candidate shall secure not less than 50% marks in each head of passing which shall include

(1) Theory – aggregate 50% (In addition, in each Theory paper a candidate has to secure minimum of 40%)

(2)(3) Practical/Clinical and Viva voce - aggregate 50%

If any candidate fails even under one head, he/she has to re-appear for both Theory and Practical/Clinical and Viva voce examination.

(4) Five per cent of mark of total marks of Clinical/Practical and Viva Voce marks (20 marks) will be of dissertation/thesis and it will be part of clinical/practical examination marks. External examiner outside the state will evaluate dissertation/ thesis and take viva voce on it. Out of 20 marks, 15 marks will be allotted to thesis evaluation on quality of the work and 5 marks for response in viva-voce regarding questions on dissertation.

(5) No grace mark is permitted in post-graduate examination either for theory or for practical.

Declaration of distinction: A successful candidate passing the University examination in first attempt will be declared to have passed the examination with distinction, if the grand total aggregate of marks is 75 percent and above.

A candidate securing less than 50% of marks as described above shall be declared to have failed in the examination. Failed candidate may appear in any subsequent examination upon payment of fresh fee to the Controller of Examinations.

Distinction will not be awarded for candidates passing the examination in more than one attempt.

Number of candidates per day: The maximum number of candidates for practical / clinical and viva-voce examination shall be as under:

MD / MS Courses: Maximum of 8 per day

DM/M.Ch Courses: Maximum of 3 per day

Additional annexure to be included in all curricula
Postgraduate Students Appraisal Form
Pre/Para/Clinical Disciplines

Name of Department/Unit :
Name of the PG Student :
Period of Training : FROM…… TO……..

Sr. No	PARTICULARS	Not Satisfactory	Satisfactory	More Than Satisfactory	Remarks
		1 2 3 4 5 6 7	8 9		
1	Journal based/recent advances learning				
2	Patient based /Laboratory or 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				

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 is strongly recommended.

SIGNATURE OF ASSESSEE SIGNATURE OF GUIDE

SIGNATURE OF HOD

MS In Otorhinolaryngology & Head & Neck Surgery

Preamble:

The purpose of PG education is to create specialist who would provide high quality health care and advance the cause of science through research and training.
The purpose of MS ENT is to standardize Otorhinolaryngology teaching at post graduate level throughout the country so that it will benefit in achieving uniformity in postgraduate teaching aswell as resultantly creating competent ENT surgeons with appropriate expertise

Goal
The postgraduate course, M.S(Otolaryngology) should enable a medical graduate to become Competent specialist, acquire knowledge and skills in educational technology for teaching medical, dental and health sciences and conduct research in bio-medical science.

The MS course in Otolaryngology is a three year integrated course after satisfactory completion of the course the candidate shall be fully conversant with theory and practical aspects otolaryngology and be able to practice otolaryngology completely, confidently and safely in the community that he/she serves.

Objectives
1) Who shall recognize the health needs of the community, and carry out professional obligations ethically and in keeping with the objectives of the national health policy.
2) Who shall have mastered most of the competencies that are required to be practiced at the secondary and the tertiary levels of the health care delivery system.
3) Who shall be aware of the contemporary advances and developments in Otolaryngology.
4) Who shall have acquired a spirit of scientific inquiry and is oriented to the principles of research methodology and epidemiology:
5) Who shall have acquired the basic skills in teaching the medical and paramedical students.
6) Continue to evince keen interest in learning and teaching Otolaryngology whether he is in a teaching institution or is a practicing surgeon.

Specific Objective
The following objective is laid out to achieve the goals of the course. These objectives are to be achieved by the time the candidate completes the course. The Objectives may be considered under the subheadings.
1. Knowledge (Cognitive domain)
2. Skills (Psycho motor domain)
3. Human values, Ethical practice and Communication abilities
4. Research
5. Teaching

SUBJECT SPECIFIC COMPETENCIES

A. Cognitive Domain

At the end of training, the student should be able to demonstrate ability to practically apply knowledge gained during training period. This would include the following:

Basic Sciences related to Otorhinolaryngology

Physiology- Mechanism of perception of smell and taste, mechanism of breathing and voice production, lacrimation, deglutition and salivation. Functional tests of the nose and paranasal sinuses, mechanism of cough and sneezing.

Physics of sound, theories of hearing, mechanism of perception of sound and speech production, physiology of equilibrium and cerebral function. Physiology of brain in connection with hearing, speech, smell and phonation. Audiologic tests like audiometry, impedance, evoked potentials, OAE, Speech audiometry.

Physiology of larynx, tracheobronchial tree and oesophagus - Histology of mucous membranes, internal ear and other associated organs and structures, nose, Paranasal sinuses, Nasopharynx, Larynx, Tracheo-Bronchial tree, Lymphoepithetical system. Mechanism of immune system/immunology and genetics.

Anatomy-Embryogenesis of ear, nose and throat including palate and the larynx, Oesophagus, trachea and lungs, tongue, salivary gland Head and Neck and skull base etc.

Parapharyngeal spaces in the neck including connective tissue barriers of larynx.

Applied anatomy of the skull bones, accessory sinuses, external, middle and inner ears, nose, PNS, nasopharynx, meninges, brain, pharynx, larynx, trachea and bronchi, lungs, pleurae, oesophagus and the mediastinum.

Anatomy of all cranial nerves with their functions.

Principles and Practices of Otorhinolaryngology

Clinical Methodology as applied to ORL HN diseases in adult and children and the accessory sinuses, diagnosis and surgical treatment of diseases of nose, throat and ear in adult and children. Prevention and treatment, infectious diseases of Otolaryngology and Head Neck region. Circulatory and nervous disturbances of the nose, throat and ear and their effects on other organs of the body. Deformities, injuries sinus infections, polyps and the tumors of the nose, and paranasal sinuses.

Examination of the ear, deafness and allied diseases, complications of diseases of the ear. Injuries, tumors, nervous and circulatory neurological disturbances of the ear. Diagnosis and treatment of tinnitus and vertigo. Diagnosis and rehabilitation of the Hearing handicapped including, dispensing of hearing aid other vibrotatile aids.

Surgical pathology of Otolaryngology and Head Neck region.

Basic knowledge of anaesthesia as related to ENT.

Examination of diseases of children (Paediatric ORL) in connection with throat and larynx. Neurological and vascular disturbances. Congenital and neonatal stridor.

Pathology of various diseases of the larynx and throat, tracheo- bronchial tree and their causative organisms.

Indications and various techniques of direct laryngoscopy, nasal endoscopy. Bronchoscopy and oesophagoscopy, including micro-laryngoscopic procedures.

Reading of radiograms, scans, audiograms, nystagmograms and tympanograms in connection with ENT diseases/disorders.

Special apparatus for the diagnosis and treatment of the diseases of ear, nose and throat including audiometer, BERA, Speech analyser etc.

Recent advances in Otorhinolaryngology and Head Neck surgery

Recent developments in the diagnosis, pathogenesis and treatment of the ENT diseases

The knowledge of the frontiers of the oto-laryngology and lateral skull base surgery

Rhinoplasty, endoscopic sinus surgery, and anterior cranial fossa surgery

Knowledge of LASERS and fibre optics

Other methods of managing Hearing loss

Implantable hearing aids cochlear implants

Phonosurgery

Etiology and Managements of sleep apnoea/snoring

Hypophysectomy and optic nerve decompressions

Immunotherapy and modalities of the gene therapy

Newer techniques for Radiotherapy including, use of gamma knife for treatment of Intracranial tumors and other malignancy

Chemotherapy of cancer

Head-Neck Surgery and General Surgical Principles

General Surgery, Head and Neck oncology, and Medicine as applicable to the ENT disorders/diseases. Surgery of congenital deformities of nose, ear (Pinna) and trachea/oesophagus etc.

Radiology, Imaging – computed tomography and magnetic resonance imaging, (MRI) and intervention radiology and angiography as related to ENT

General Pathologic aspects such as wound healing and also pathology and Pathogenesis of ENT diseases, Pharmacology, molecular biology, genetics, cytology, haematology, and immunology as applicable to otolaryngology

General Principles of faciomaxillary traumatology and neck injury

Plastic Surgery as applicable to Otolaryngology

B. Affective Domain

1. The student will show integrity, accountability, respect, compassion and dedicated patient care. The student will demonstrate a commitment to excellence and continuous professional development.
2. The student should demonstrate a commitment to ethical principles relating to providing

patient care, confidentiality of patient information and informed consent.

3. Respect patient's rights and privileges including patient's right to information and right to seek a second opinion.
4. The student should show sensitivity and responsiveness to patients' culture, age, gender and disabilities.
5. The student should be able to choose the required investigations to enhance the attitude, communicative skills, including dealing with patient's relatives with the required empathy, adapt to changing trends in education, learning methods and evolving new diagnostic and therapeutic techniques in the subject of ENT.
6. Provide leadership qualities.
7. Apply high moral and ethical standards while carrying out human or animal research.
8. Be humble and accept the limitations in his knowledge and skill and to ask for help from colleagues when needed.

C. Psychomotor Domain

By the end of the training, a student should be able to demonstrate following skills:

Elicit a proper clinical history, examination of patients, perform essential diagnostic procedures and order relevant tests and interpret them to come to a reasonable diagnosis of various ailments in the region.

Should understand principles of and interpret X-rays/CT/MRI, audiograms, ENG, BERA, OAE, ultrasonographic abnormalities and other diagnostic procedures in relation to ENT

Airway management including basic life support skills, Cardiopulmonary resuscitation, intubation, homeostasis maintenance, IV alimentation and fluid, electrolyte maintenance and principles of blood transfusion alimentation including Nasogastric feeding

Perform common operative procedures in Otorhinolaryngology.

Undertake complete patient monitoring including the preoperative and post operative care of the patient.

Should be able to perform OPD procedures; first observe the procedure, then do it under supervision of a teacher and then perform it independently.

Course Contents

i) Theory

1. Basic sciences

Evolution of Otorhinolaryngology, Documentation of Patient information, Statistical Analysis, Publication Methodology, Research avenues in Otorhinolaryngology

Medicolegal aspects in Otolaryngology

Genetics in ENT

Anatomy of the car

Physiology of hearing & equilibrium

Anatomy of nose and paranasal sinuses

Anatomy of pharynx, oesophagus, deglutition

Anatomy of larynx and tracheobronchial tree

Anatomy of head and neck region including thyroid, neck spaces and salivary glands

Physiology of respiration
Physiology of generation and reception of speech.
Surgical anatomy of skull base, cranial nerves
Physiology of smell
Imaging and radiology pertaining to ear, nose and throat (ENT)
Knowledge of immunology and microbiology as regards ENT
Bacteriology in ENT including Diphtheria, manifestations of viral infections such as HIV, HZV, fungal infections in ENT
Wound healing
Physiology of circulation, regulation of blood pressure, reactions of body to hemorrhage, pathophysiology of shock, Electrolyte, fluid balance, blood transfusion and its hazards, fluid replacement therapy, burns
Use of teaching aids
Routine blood, urine testing
Preparation of slides
Principles of laser surgery
Radiotherapy and chemotherapy in head & neck cancers
Basic of anaesthesia and intensive care in relation to ENT
Skin flaps in head and neck reconstruction
Pharmacology in ENT

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

Computer and Robotic surgeries in ENT

2. Audiology and speech

Brief Knowledge of Acoustics. Audiometric tests like pure tone Audiometry, Impedance Audiometry, Free field Audiometry, Specialized tests of hearing including SISI, Tone decay, ABLB, Speech discrimination score etc. Diagnostic Testing of Vestibular system - Vestibular tests like caloric testing, Fukuda's test, Evoked response audiometry, Epidemiology, Prevention, Rehabilitation of Balance and Hearing Disorders, Hearing Aids.

3. Otology

Diseases of External Auditory Canal

Repair of deformities of external ear
Congenital conditions of middle ear cleft
Traumatic conductive deafness
Acute inflammation of the middle ear cleft
Non-suppurative otitis media
Chronic suppurative otitis media
Management of chronic suppurative otitis media
Complications of infections of middle ear.
Tumors of the middle ear cleft and temporal bone
Diseases of the otic capsule-otosclerosis, other diseases
The deaf child
Diagnosis and management of sudden and fluctuant sensorineural hearing loss
Presbycusis
Vertigo, Tinnitus, Nystagmus, Meniere's Disease
Ototoxicity
Disorders of Facial Nerve including Facial nerve stimulation test
Cochlear Implants
Approaches to lateral skull base

4. Laryngology

Acute and Chronic Infections of Oral Cavity, Pharynx, Tonsils, adenoids and Larynx
Trauma And Stenosis of Larynx
Diseases of salivary glands
Diagnosis of voice disorders, laryngeal disorders in singers
Acoustic analysis, Videostroboscopic assessment and Disorders of Voice
Neurological Affections of Pharynx and Larynx
Pharyngeal Pouch
Management of Obstructed Airway and Tracheostomy
Tumours of Larynx
Angiofibroma and Nasopharyngeal Lesions
Tumours of Oropharynx and Lymphoma Head and Neck
Tumours of Hypopharynx
Cervical node dissection
Micro laryngeal surgery/ thyroplasty
Surgeries for anterior and lateral skull base lesions
Benign Diseases of The Neck
Neck space abscesses and Management
The Thyroid Gland and Disorders

5. Rhinology

Congenital anomalies of the nose and surgical management
Conditions of external nose

Disorders and trauma of facial skeleton
Disorders and nasal septum
Foreign bodies in the nose, rhinolith
Acute and chronic inflammations of the nose and paranasal sinuses
Complications of acute and chronic sinusitis
Vasomotor rhinitis-allergic and non-allergic
Nasal polyposis
Abnormalities of smell
Nasal Allergy/Fungal allergic sinusitis
CSF rhinorrhoea
Epistaxis
Snoring and sleep apnea, sleep disorders and sleep laboratory
Chronic granulomatous diseases of nose and paranasal sinuses
The orbit in relation to ENT
Transphenoidal hypophysectomy
Overview of facial pain and headache
Functional endoscopic sinus surgery (FESS)

6. Entrepreneurship and communication skills in ENT
7. Miscellaneous and head and neck:

- Raised intracranial tension-causes, diagnosis, management with particular reference to otitic hydrocephalus
- Head injuries and Intracranial Hemorrhage
- Pituitary gland, anatomy, physiology hypo - and hyper - pituitarism, new growths.
- Intracranial venous sinuses and their affections
- Osteology: skull, mandible cervical and thoracic vertebral sternum
- Large blood vessels in neck, thoracic duct, development of major cervical and thoracic blood vessels.

8. Course in research methodology – Online Course in Research Methodology to be completed in first year
9. Course in Ethics and Course on Good Clinical Practices to be completed in first year
10. Course in Cardiac Life Support Skills – Basic Cardiac Life Support (BCLS) and Advanced Cardiac Life Support (ACLS) to be completed in first year

Desirable

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

Ear:

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

Nose:

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

Throat:

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

Miscellaneous and head and neck

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

ii) Practical, Clinical

Mandatory

Cadaver Dissection of Head and Neck Including Superficial and Deep Neck space, Laryngectomy. Major salivary gland excision, Thyroidecotomies

5 Cadaver temporal bone dissection which includes Cortical Mastoidectomy, Stapedectomy

MRM and Radical mastoidectomy

Facial nerve decompression

Posterior tympanotomy

Labyrinthectomy

Endolymphatic sac decompression

Stapedectomy

iii) Essential Surgical Procedures list

Following procedures are classified as:

a) To be done independently (PI)

b) To assist a senior specialist, consultant (PA)

c) To wash and observe the procedure (O)

Otology

To be done independently (PI)

Cortical Mastoidectomy - 3 Cases

MRM / Radical Mastoidectomy- 2 Cases

Myringoplasty- 3 Cases

Myringotomy and Grommet Insertion- 2 Cases

Ossiculoplasty- 1 Case

Mastoid Abscess drainage – 2 cases

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

Facial N Decompression

Stapedectomy

Rhinology

To be done independently (PI)

Reduction of fracture nasal bones - 2 cases

SMR/Septoplasty- 5 cases

Septal abscess drainage 2 cases

Diagnostic nasal endoscopy -10 cases

Endoscopic DCR- 1 case

FESS: 2 cases

Uncinectomy

Polypectomy

Anterior ethmoid cell clearance

Middle meatal antrostomy

To assist or observe

FESS – Maxillary, Ethmoid, sphenoid, frontal sinus surgery

Maxillo-facial surgeries

External operations of fronto-ethmoid sinuses

Maxillectomy Total and Partial

Rhinoplasty

Endoscopic DCR

Navigation surgery for anterior or lateral skull base

Caldwell Luc - one case

Laryngology, Head and Neck

To have done independently

Tracheostomy - 3 cases

Tonsillectomy - 5 cases

Adenoidectomy - 3 cases

DL Scopy - 3 cases

Oesophagoscopy, Upper oesophagus foreign body removal 3 cases

I&D Peritonsillar abscess- 2 cases
I&D Submandibular abscess- 2 cases

To Assist or Observe

Bronchoscopy

Total / Partial Laryngectomy

Block dissections of neck

To Wash and Observe a Senior

Thyroid surgery

Salivary gland surgery

Microlaryngeal surgery

Debridement of deep neck space infections

Should be able to perform OPD procedures, first observe the procedure, then do it under supervision of a teacher and then perform it independently. The list includes:

Ear syringing

Repair of car lobe tear

Removal of foreign bodies from ear and nose

Suturing and Dressing of wounds

Diagnostic Nasal Endoscopy

Vídeolaryngoscopy

Videostroboscopy

Otomicroscopy

Suctíon Clearance of ears

Anterior and Posterior Nasal Packing

Removal of Nasal Packs

Nasal Douche

Removal of maggots

Teaching and Learning Activities:

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

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

A list of teaching and 1earning activities designed to facilities students acquire essential knowledge and skills outlined in course contents is given below.

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

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

1) Bio-statistics
2) Use of library
3) Medical code of Conduct and medical Ethics
4) National Health and Disease Control Programmes
5) Communication Skills etc.

b) Integrated Lectures: These are recommended to be taken up by multidisciplinary teams for selected topics, e.g. Jaundice, Diabetes mellitus Thyroid etc.

ii. **Journal Club:** Recommended to be held once a week. All the PG students are expected to attend actively participate in discussion and enter in the Log Book relevant details. Further, every candidate must make a presentation from the allotted journal (s), selected articles at least three times a year and a total of 6 seminar presentations in two years. The presentations would be evaluated using check lists and would carry weightage for internal assessment. (See checklist in Section IV) a time table with names of the student and the moderator should be announced in advance.

iii. **Subject Seminar:** Recommended to be held once a week. All the PG students are expected to attend and actively participate in discussion and enter in the Log Book relevant details further, every candidate must present on selected topics as least 1our 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 (Sec Checklist in section IV). A timetable for the subject with names of the student and the moderator should be announced in advance.

iv. Head and Neck Cadaver Dissection, Cadaver Temporal bone dissection

v. **Ward Rounds :** Ward rounds may be service or teaching rounds

a. Service Rounds: Post graduates and Interns should do every day for the care of the patients. Newly admitted patients should be worked up by the PGs and presented to the seniors the following day.

b. Teaching Rounds: Every unit should have 'grand rounds' for teaching purpose. A diary should be maintained for day to day activities by the students.

vi. **Clinico- Pathological Conference:** Recommended at least once in three 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.

vii. **Clinical cases** (minimum of 40 cases) to be presented, which will be assessed by using Check lists (See Section IV).

viii. **Inter-departmental Meetings: (Vertical and Horizontal Integration)** With departments of Pathology and Radio-Diagnosis. Interesting cases and the imaging modalities should be discussed. These meetings should be held once in two months and attended by post graduate students and relevant entries must be made in the Log Book.

ix. **Teaching skills:** Post graduate students must teach under graduate students (e.g, medical, nursing) by taking demonstrations, bed side clinics, tutorials, lectures etc. Assessment is made using a checklist by faculty, as well as students. (See mode check list section IV). Record of their participation to be kept in log book. Training of post graduate in educational science and technology is recommended.

x. **Continuing Medical Education programmes (CME):** Recommended that at least 2 state level CME program should be attended by each student in 3 years.

xi. **Conferences**: Presentation of at least one poster or read one paper at a Zonal/ State/National conference. At least one paper must be published/accepted for publication/sent for publication to a peer reviewed indexed journal.

xii. Sending paper for publication based on thesis topic. **Dissertation:** As per the University guidelines

xiii. **District Residency Programme:** compulsory residential rotation of three months in District Hospitals/ 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 post-graduate programme

xiv. **Rotation Posting in other Department**

1. Neurosurgery 2 weeks

   PG Student should learn how to recognize, investigate the intracranial complications of ENT. He should observe the neurosurgical procedures for these complications.

2. Head & Neck Oncology 4 weeks

   PG Student should learn the protocols for chemo and radiotherapy for head and neck cancer. He should observe extensive procedures for advanced head and neck cancers.

3. Anaesthesia 2 weeks

   PG Student should learn the common anesthetic procedures, know about the properties, dosage and side effects of common anesthetic drugs, learn to intubate and manage critically ill patients.

4. Speech & Hearing 2 weeks

   PG Student should learn about advanced audiological investigations particularly in relation to congenitally deaf children. He should acquaint himself with common speech therapy procedures.

ASSESSMENT

Monitoring Learning Progress

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

The learning outcomes to be assessed should included (i) Personal Attitudes,
ii) Acquisition of Knowledge, iii) Clinical and operative skills iv) Teaching skills v) Dissertation.

i) Personal Attitudes. The essential items are:

Caring attitudes,

Organizational 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 relationship 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.

ii) Acquisition of Knowledge: The methods used comprise of Log Book which re cords 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.

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, Section IV).

Seminars, Symposia: The topics should be assigned to the student well in advance to facilitate in depth study. The ability to do literature search, in depth study, presentation skills and use of audio visual aids are to be assessed using a checklist (See Model - I Checklist - II Section IV).

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.

iii) Clinical Skills

Day to day work: Skills in outpatient and ward work should be assessed periodically. The assessment should include the candidate sincerity and punctuality, analytical ability and communication skills (see Model checklist III, Section IV).

Clinical Meetings: Candidates should periodically present cases to his peers and faculty members. This should be assessed using a check list (see Model checklist III, Section IV).

Clinical and Procedural skills: The candidate should be given graded responsibility to enable learning by apprenticeship. The performance is assessed by the guide by direct observation.

Particulars are recorded by the student in the log book (Table No.3, Section IV).

iv) 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

v) Self directed learning

vi) Dissertation in the Department: Periodic presentations are to be made in the department. Checklist Section IV). Initially the topic selected is to be presented before submission to the University for registration, again before finalization for critical evaluation and another before final submission of the completed work.

vii) Work diary / Log Book: Every candidate shall maintain a maintain a dynamic e-log book which needs to be updated on weekly basis about the work being carried out by them and the training programme undergone during the period of training such as journal reviews seminars etc. The record (Log) books shall be checked, assessed and authenticated monthly by the postgraduate guide imparting the training
Special mention may be made of the presentations by the candidate as well as details of clinical or laboratory procedures, if any conducted by the candidate. The work diary shall scrutinized and certified by the Head of the department and Head of the Institution and presented in the university practical, clinical examination.

vii) Periodic tests: The department may conduct three tests, two of them annual tests one at the end of first year and the other in the second year. These tests can include OSCE and MCQs. The third test may be held three months before the final examination. The tests may include written papers practical, clinical and viva voce.

Formative assessment:

Assessment	**Frequency**	**Grading**	**Feedback**
Mini- CEX	Quarterly	E, M, B *	Obtained at the end of assessment from student as well as observer
DOPS	Quarterly	E, M, B *	

*E = Exceeds Expectations, M = Meets Expectations, B = Below Expectations

viii) Records: Records, log books and marks obtained in tests will be maintained by the head of the department and will be made available to the University or MCI.

A post-graduate student of a degree course in broad specialties/super specialties would be required to present one poster presentation or to read one paper at a national/Zonal/state conference of the respective specialty or to have one research paper published/accepted for publication as the first author in the journal of the respective specialty to make him eligible to appear in the post-graduate degree examination.

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

Scheme of Examination:

i) Theory: Total Marks 400 Marks

There shall be four question papers, each of three hours duration. Each paper shall consist of 2 long questions carrying 20 marks each and 6 short questions carrying 10 marks each.
Total marks for each paper will be 100, Questions on recent advance many be asked in any or all the papers. Details of distribution of topics for each paper will be as follows.

Paper I:	Basic Sciences in Otorhinolaryngology	100 marks
Paper II:	Principles and Practices of Otorhinolaryngology	100 marks
Paper III:	Head-Neck Surgery and General Surgical Principles	100 marks
Paper IV:	Recent advances in Otolaryngology and Head Neck surgery	100 marks

ii) Clinical: Total Marks- 300 marks

Five per cent (20 marks) of the total marks of Clinical/Practical and Viva Voce marks will be for dissertation/thesis and it will be part of clinical/practical examination

External examiner outside the state will evaluate dissertation/ thesis and take viva voce on it and marks will be given on quality of dissertation/thesis and performance on its viva voce.

There shall be one long case and two short cases to be examined and presented by each candidate, and 6 OSCE stations.

Distribution of marks:

Long case	1	100 marks
Short cases	2 (60x2)	120 marks
OSCE		60 marks
Dissertation		20 marks

iii) Viva voce 100 marks

1) **Viva -Voce Examination:** (80 marks)

All examiners will conduct viva-voce conjointly on candidates 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 slides, X-rays, ultrasound, CT scans images, Temporal bone dissection etc, for interpretation will be asked. It includes discussion on dissertation also.

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.

Theory	Clinical	Viva Voce	Grand Total
400	300	100	800

Books: (Latest Editions of the following)

i. Scott Brown's Text book of Otolaryngology. 8 Edn. Publishers: Butterworth & Co Ltd
ii. Cummings Otolaryngology, Head & Neck Surgery. 5th Edn.Publishers: Mosby
iii. Rob & Smith; Operative Surgery. Publishers: 4th Edn. Butterworth – Heinemann
iv. Paparella, Otolaryngology. Publishers: W B Saunders Co.
v. Logan & Turner-Diseases of ENT. Publishers: Wright/Verghese & co
vi. Glasscock-Shambaugh- Surgery of the Ear. 6th Edn. Publishers: W B Saunders Co.
vii. Ballenger- Laryngology. Publishers: 17 Edn. Williams & Wilkins
viii. Gerald M. English-Otolaryngology. Publishers: Lippencott-Raven
ix. Stammberger- Endoscopic Sinus Surgery. Publishers: W.B.Saunders Co.
x. Stell & Maran- Head & Neck Surgery. 5 Edn. Publishers: Oxford University Press
xi. Eugene Meyers-Head & Neck Surgery. Publishers: W.B. Saunders Co
xii. David.W. Kennedy-Diseases of the Sinuses, Diagnosis and management, 2001
xiii. Robert Sataloff- Laryngology
xiv. Sultan Pradhan- Surgery of the Larynx and Hypopharynx
xv. Anirban Biswas- Clinical Audio-vestibulometry for Otologists and Neurologists
xvi. K R Setharaman- Communication skills in medical practice (Doctor-Patient communication) Jaypee brother medical publications.
xvii. Innovation and Entrepreneurship in health care sector: from idea to funding to launch. Greenbranch publishing.

Journals:

1) The Laryngoscope - Lippincott Williams & William
2) Journal Of Laryngology and Otology- Cambridge University Press
3) Indian Journal Of Otolaryngology - Head and Neck Surgery -Springer
4) Annals of Otology, Rhinology, Laryngology- Annals Publishing Co
5) Indian Journal of Otology – Wolters Kluwer
6) Recent advances in Otorhinolaryngology – Jaypee
7) The Otolaryngology Clinics of North America - WB Saunders Company