



BOARD OF STUDIES

Minutes of Meeting



APRIL 25, 2024

DEPARTMENT OF FORENSIC MEDICINE & TOXICOLOGY
Teerthanker Mahaveer Medical College & Research Centre, Moradabad



Teerthanker Mahaveer Medical College & Research Center
 Bagarpur, Delhi Road, NH-24 Moradabad-244001(U.P.)

Date: - 25-04-2024

Department of Forensic Medicine & Toxicology
Minutes of Meeting of Board of Studies

A meeting of Board of Studies members was held in the Department of Forensic Medicine & Toxicology, on 25-04-2024 at 11:00 AM.

The internal members present in the meeting:

1. Dr. Navinkumar M. Varma (Professor & HOD)
2. Dr. Pramod Dode (Associate Professor)
3. Dr. Abhishek Kumar Varshney (Associate Professor)

Internal Invitee member

4. Dr. Anish Prabhakar, Professor, Dept. of Community Medicine, TMMC&RC, Moradabad.

The external members:

External Invitee Subject Expert

1. Dr. Dhiraj Buchade, Professor, Dept. of Forensic Medicine & Toxicology, Maulana Azad Medical College, New Delhi.

The meeting commenced with welcome of all the members by Chairperson Specially External Invitee Subject Expert Member.

A discussion held on the guidelines for postgraduate (PG) courses, specifically focusing on the three-year training program for the MD (Forensic Medicine) degree (PGMER 2023; dated 29th December 2023) and Guidelines for competency based Post Graduate Training Programme for MD Forensic Medicine.

Proposed agenda items which was already circulated

Post Graduate Education

1. Implementation of Competency based Postgraduate curriculum of MD Forensic Medicine.
2. Preparation & approval of PG Logbook and e-logbook as per CBME Curriculum.
3. Implementation of PG teaching and activity schedule.
4. Implementation of District Residency Programme of 3 months.
5. Implementation of contents of gazette notification dated 29th December 2023 PGMER 2023.
6. Any other item with permission of chair.

Undergraduate Education

1. Implementation of Competency based undergraduate curriculum of MBBS in Forensic Medicine.
2. Preparation & approval of Competency wise & Term wise syllabus of Phase II & Phase III part one.
3. Providing Exercise certificate/ medico-legal reports Proforma in all formative and summative under-graduate practical exams.
4. Prepare and approve the scheme of theory and practical exam of formative and summative assessment.
5. Implementation of OSPE in Practical exam. (Ex. To show incisions of autopsy on mannequins, Viscera preservation etc.)
6. To approve updated Practical Manual of undergraduate course.
7. Implementation of Updated AETCOM module (3.3 & 3.4) for MBBS.
8. To prepare and approve the Internship schedule in FMT.
9. To decide internal assessment marks and method of calculation.

10. Inclusion of 40- 60% (aggregate 50%) internal marks as eligibility for UG exam.
11. Inclusion of Bharatiya Nyaya Sanhita, Bharatiya Nagarik Suraksha Sanhita and Bharatiya Sakshya Act in UG PG curriculum
12. Any other item with permission of chair.

Post Graduate Education Agenda

1. Implementation of Competency based Postgraduate curriculum of MD Forensic Medicine-

The institutions shall continually work to synchronize the institutional goals with the national goals to produce the kind of trained manpower with high knowledge, appropriate skills and impeccable ethical standards required.

It is decided to implement Competency based (CBME) Post Graduate curriculum of MD Forensic Medicine as per the National Medical Commission Notification, New Delhi, the 29th December, 2023 and Guidelines for the CBME PG Programme.

Duration of Course (including period of examination)

Post-graduate broad-specialty Qualifications 3 Years/ 2 years*

*- 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.

Curriculum:

The Post-graduate Medical Education Board shall publish the model curriculum and the outcome objectives of the same from time to time on the NMC website, which shall be implemented by the colleges/institutions.

By the end of the course, the student should have acquired knowledge (cognitive domain), professionalism (affective domain) and skills (psychomotor domain) as given below:

A. Cognitive domain

1. Describe the legal and medico-legal system in India.
2. Acquire knowledge on the philosophy and guiding principles of Forensic Medicine course.

3. Describe the programme goals and objectives of the Forensic Medicine course.
4. Acquire knowledge on conduct of medico-legal autopsy independently with required physical assistance, prepare reports and derive inferences.
5. Outline the principles and objectives of postmortem examination.
6. Describe the formalities and procedures of medico-legal autopsies in accordance with existing conventions and the law.
7. Identify the role of anatomy, physiology, biochemistry, microbiology, pathology, blood bank, psychiatry, radiology, forensic science laboratory as well as other disciplines of medical science to logically arrive at a conclusion in medico-legal autopsies and examination of medico-legal cases.
8. Describe the principles of the techniques used in toxicological laboratory namely TLC (Thin Layer Chromatography), GLC (Gas Liquid Chromatography), AAS (Atomic Absorption Spectrophotometry), HPLC (High Performance Liquid Chromatography) and Breath Alcohol Analyzer.
9. Describe relevant legal/court procedures applicable to medico-legal/medical practice.
10. Describe the general forensic principles of ballistics, serology, analytical toxicology and photography.
11. Interpret, analyze and review medico-legal reports prepared by other medical officers at the time of need.
11. Describe role of DNA profile and its application in medico-legal practice.
12. Describe the law/s relating to poisons, drugs, cosmetics, narcotic drugs and psychotropic substances.
13. Describe the legal and ethical aspects of Forensic Procedures including Narco-analysis, Brain mapping and Polygraph etc.
14. Describe the medico-legal aspects of Psychiatry, addiction and mental health.

B. Affective domain

1. Should be able to function as a part of a team, develop an attitude of cooperation with colleagues, and interact with the clinician or other colleagues to provide the best possible opinion.

2. Should be able to follow ethical principles in dealings with patients, police personnel, relatives and other health personnel and to respect their rights.
3. Follow medical etiquettes in dealing with each other.
4. Develop communication skills to word reports and professional opinion as well as to interact with patients, relatives, peers and paramedical staff, and for effective teaching.

C. Psychomotor domain

At the end of the course, the student should acquire following skills and be able to:

1. Perform medico-legal autopsy independently with required physical assistance, prepare reports and derive inferences.
2. Perform medico-legal examination of users of alcohol, drugs and poisons and prepare a report.
3. Perform medico-legal examination in cases of sexual offences and prepare reports.
4. Interpret histo-pathological, microbiological, radiological, chemical analysis, DNA profile and other investigative reports for medico-legal purposes.
5. Perform medico-legal examination of bones, clothing, wet specimens and weapons.
6. Depose as an expert witness in a court of Law on medico-legal matters.
7. Examine, identify, prepare reports and initiate management on medico-legal cases in an emergency set up.
8. Identify and discharge all legal responsibilities in medico-legal matters.
9. Plan, organize and supervise medico-legal work in general/teaching/district hospitals and in any health care set up.
10. Collect, preserve and dispatch various samples and trace evidences to the concerned authorities in an appropriate manner.
11. Help and Advise authorities on matters related to medical ethics and medico-legal issues.
12. Discharge duties in respect of forensic, clinical, emergency, environmental, medico-legal and occupational aspects of toxicology.

13. Plan, organize and manage toxicological laboratory services in any health care set up.
14. Provide information and consultation on all aspects of toxicology to professionals, industry, Government and the public at large.
15. Manage medico-legal responsibilities in mass disasters involving multiple deaths like fire, traffic accidents, aircraft accidents, rail accidents and natural calamities.
16. Do interaction with allied departments by rendering services in advanced laboratory investigations and relevant expert opinion.
17. Participate in various workshops/seminars/journal clubs/demonstration in the allied departments, to acquire various skills for collaborative research.

Time frame to acquire knowledge & skills

First year of PG programme:

1. Orientation Programme
2. Basic autopsy skills.
3. Orientation to the applied aspects of Anatomy, Physiology, Biochemistry
4. General principles of Forensic Medicine.
5. Introduction to Medical Toxicology.
6. Assisting in scheduling of teaching sessions.
7. Participation in undergraduate teaching.
8. Posting for autopsy work, clinical forensic medicine and toxicology.
9. Participation in departmental activities
10. Participation in seminar, CME, workshop etc.
11. Orientation to organization and functioning of toxicology/research laboratories.
12. Preparation of thesis protocol.
13. Being self-updated with recent advances in the subject

Second year of PG programme:

1. Conduct of autopsy examination without supervision in routine autopsy cases
2. Conduct of autopsy examination with supervision in expert opinion cases.
3. Conduct of theory and practical sessions for undergraduates
4. Thesis and other research work
5. Clinical forensic medicine work for practical experience in medico-legal procedures and on-the-job practical training in medico-legal aspects of emergency

medicine, radiology and other clinical disciplines.

6. Orientation to the applied aspects of Microbiology, Pathology, Blood Bank, Psychiatry as related to forensic Medicine.
7. Posting for autopsy work, clinical forensic medicine and toxicology laboratory.
8. Attend court summons for cases conducted by themselves or where deputed to attend in cases where an expert is required to depose by Court of Law

Third year of PG programme:

1. Organize teaching sessions and thesis work.
 2. Submission of thesis six months prior to examination.
 3. Posting for autopsy work, clinical forensic medicine and toxicology laboratory to continue.
 4. The PG trainee shall be required to conduct minimum of 100 autopsy cases and minimum of 100 clinical cases during the entire training period.
 5. Attend Court summons for cases conducted by themselves or when deputed where an expert is required to depose by the Court of Law.
 6. The PG trainee shall be required to attend or accompany an expert to attend a minimum of 20 court summons, of which at least 5 should pertain to clinical cases.
- (i) All 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.
 - (ii) All broad-specialty students will do thesis related research and will write their thesis.
 - (iii) The training programme 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 programme shall be written and strictly followed, to enable the examiners to determine the training undergone by the candidates.
 - (iv) Post-graduate students of broad 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 programme undergone during the period of training.

- (v) It shall be the duty of the Post-graduate guide imparting the training to assess and authenticate monthly record (e-Log) books.
- (vi) The post-graduate students shall essentially be required to participate in the teaching and training programme of undergraduate students and interns.
- (vii) 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 programmes emphasis has to be laid on preventive and social aspects. All post-graduate medical colleges / institutions shall have facilities for teaching the basic science subjects as per guidelines.
- (viii) A postgraduate student of a degree course in broad 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.

Syllabus

Course contents:

I. General Principles of Forensic Medicine and Toxicology

- i. Identify the role of anatomy, physiology, biochemistry, microbiology, pathology, blood bank, psychiatry, radiology, forensic science laboratory as well as other disciplines of medical science to logically arrive at a conclusion in medico-legal autopsies and examination of medico-legal cases.
- ii. Describe the basic principles of techniques used in toxicological laboratory namely TLC, GLC, ASS, HPLC and Breath Alcohol Analyzer.
- iii. Execute the skills and knowledge expected at undergraduate level.

II. Basic Sciences and allied Subjects

A. Anatomy: Anatomy of parts and organs of the body which are important from the medico-legal aspect.

- i. Describe surface and regional anatomy of head, neck, chest and abdomen.
- ii. Describe gross anatomy and blood supply of heart, brain, lungs, spleen, liver and kidneys.
- iii. Describe gross anatomy of male and female genitalia.
- iv. Describe the comparative anatomy of male and female skeleton.
- v. Perform histological examination of various tissues.
- vi. Describe the development of a foetus.

B. Physiology and Biochemistry: Mechanism of phenomena that are important in the body from the medico-legal viewpoint.

- i. Describe mechanism of fluid and electrolyte balance, thermoregulation in newborn and adults, endocrine functions.
- ii. Describe physiology of sexual behavior.
- iii. Describe physiological functioning of circulatory system, digestive system, respiratory system, haemopoietic system, central nervous system and reproductive system including pregnancy.

C. Pathology: Pathophysiology of vital processes and response mechanisms that modulate tissue and organ reaction to all forms of injury and have a bearing on antemortem and postmortem appearance in medico-legal cases, assessment of the duration of injuries and correlate trauma and disease.

- i. Describe pathology of inflammation and repair, immunity and hypersensitivity, Thrombosis and embolism, electric and ionizing radiation injuries, genetic factors in disease, deficiency disorders and malnutrition.
- ii. Describe pathology of myocardial infarction, congenital heart diseases, tuberculosis of lungs, cirrhosis of liver, diseases of glomeruli and tubules and interstitial; tissues of Kidney, tumours, endocrine disorders, venereal diseases, spontaneous intracranial hemorrhages.
- iii. Describe the pathology of sudden death.
- iv. Describe local and systemic response to trauma and patho-physiology of shock.
- v. Describe pathology of common infections and infestations of medico-legal significance.

D. Dentistry: Adequate knowledge of dentistry for solution of medico-legal problems like, injuries, age determination and identification

E. Radiology: Adequate knowledge of radiological procedures for solution of medico-legal problems.

F. Fundamentals of Forensic Medicine:

- i. Describe the general forensic principle of ballistics, serology, analytical toxicology and photography.
- ii. Interpret the scene of crime.
- iii. Describe role of DNA profile and its application in medico-legal practice.
- iv. Examine bloodstains for blood grouping, nuclear sexing, HLA typing, seminal stains and hair for medico-legal purposes.
- v. Describe ethical aspects of Forensic Procedures including Narco-analysis, Brain mapping and Polygraph

III. Medical Ethics and Law (Medical Jurisprudence)

- i. Describe the history of Forensic Medicine.
- ii. Describe the legal and medico-legal system in India.

- iii. Describe medical ethics and the law in relation to medical practice, declarations, oath, etiquette, Medical Council of India, disciplinary control, rights and duties of a registered medical practitioner's professional misconduct, consent, confidentiality, medical negligence (including all related issues) and Consumer Protection Act.
- iv. Describe medical ethics and law in relation to organ transplantation, biomedical human research and experimentation, human rights, cloning, genetic engineering, human genome, citizen's charter and International codes of medical ethics.
- v. Describe the ethics and law in relation to artificial insemination, abortion, antenatal sex, foetus, genetics and euthanasia.
- vi. Interpret the ethics and law applicable to the human (clinical trials) and animal experimentation.
- vii. Describe ethics in relation to elderly, women and children.
- viii. Describe medical ethics and law in relation to nursing and other medical services/practices.
- ix. Understanding about bioethics

IV. Clinical Forensic Medicine

- i. Examine, assess legal implications and prepare report or certificate in cases of physical assault, suspected drunkenness, sexual offences, consummation of marriage and disputed paternity.
- ii. Collect, preserve and dispatch the specimen/material to the concerned authority and interpret the clinical and laboratory findings which are reported.
- iii. Examine injured persons, prepare medico-legal reports and initiate management.
- iv. Determine the age and establish the identity of an individual for medico-legal purposes.
- v. Examine a person and assess disability in industrial accidents and diseases.
- vi. Perform examination and interpret findings for medico-legal purposes in cases pertaining to pregnancy, delivery, artificial insemination, abortion, sterilization, Impotence, AIDS and infectious disease.
- vii. Describe normal and abnormal sexual behavior and its medico-legal implications.
- viii. Examine and assess the medical fitness of a person for insurance, government service, sickness and fitness on recovery from illness.
- ix. Examine medico-legal problems related to clinical disciplines of medicine and allied subjects, Pediatrics, Surgery and allied subjects, ENT, Ophthalmology, Obstetrics and Gynecology, Dermatology and Anesthesiology.
- x. Examine medico-legal problems related to children, women and elderly.
- xi. Identify the cases of torture and violation of human rights and issues thereto

V. Forensic Pathology

- i. Apply the principles involved in methods of identification of human remains by race, age, sex, religion, complexion, stature, hair, teeth, anthropometry, dactylography, foot prints, hairs, tattoos, poroscopy and superimposition techniques.
- ii. Perform medico-legal postmortem and be able to exhume, collect, preserve and

- dispatch specimens or trace evidence to the appropriate authority.
- iii. Diagnose and describe the pathology of wounds, mechanical and regional injuries, ballistics and wound ballistics, electrical injuries, lightning, neglect and starvation, thermal injuries, deaths associated with sexual offences, pregnancy, delivery, abortion, child abuse, dysbarism and barotraumas.
- iv. Describe patho-physiology of shock and neurogenic shock.
- v. Describe patho-physiology of asphyxia, classification, medico-legal aspects and postmortem findings of different types of asphyxial deaths.
- vi. Diagnose and classify death, identify the signs of death, postmortem changes, interpret autopsy findings, artifacts and results of the other relevant investigations to logically conclude the cause, manner (suicidal, homicidal and accidental) and time of death.
- vii. Manage medico-legal responsibilities in mass disasters involving multiple deaths like fire, traffic accidents, aircraft accidents, rail accidents and natural calamities.
- viii. Demonstrate postmortem findings in infant death and to differentiate amongst live birth, still birth and dead born.
- ix. Perform postmortem examination in cases of death in custody, torture and violation of human rights.
- x. Perform postmortem examination in cases of death due to alleged medical negligence as in operative and anesthetic deaths.

VI. Toxicology

- i. Describe the law relating to poisons, drugs, cosmetics, narcotic drugs and
 - a. psychotropic substances.
- ii. Examine and diagnose poisoning cases and apply principles of general management and organ system approach for the management of poisoning cases.
- iii. Describe the basic principles of pharmacokinetics and pharmacodynamics of poisonous substances.
- iv. Describe the toxic hazards of occupation, industry, environment and the principles of predictive toxicology.
- v. Collect, preserve and dispatch material/s for analysis, interpret the laboratory findings and perform the Medico-legal formalities in a case of poisoning.
- vi. Demonstrate the methods of identification and analysis of common poisons
- vii. Describe the signs, symptoms, diagnosis and management of common acute and chronic poisoning due to:
 - a. Corrosives
 - b. Nonmetallic substances
 - c. Insecticides and weed killers
 - d. Metallic substances
 - e. Vegetable and organic irritants
 - f. Somniferous compounds
 - g. Inebriant substances
 - h. Deliriant substances
 - i. Food Contamination/adulteration.

- j. Substances causing spinal and cardiac toxicity
- k. Substances causing asphyxia (Asphyxiants)
- l. Household toxins
- m. Toxic envenomation
- n. Biological and chemical warfare
- o. Environmental intoxicants
- P. Occupational intoxicants

VII. Forensic Psychiatry

- i. Explain the common terminologies of forensic importance in Psychiatry.
- ii. Describe the medico-legal aspects of Psychiatry and mental health.
- iii. Describe medico-legal aspects of drug addiction.
- iv. Describe role of Psychiatry in criminal investigation, punishment and trial.
- v. Describe the civil and criminal responsibilities of a mentally ill person.
- vi. Describe the role of Psychology in criminal investigation, punishment and trial

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 Research Methodology: All students must complete an online course, in **“Basic Course in Biomedical Research”**, offered by **ICMR-National Institute of Epidemiology (ICMR-NIE), Chennai**. This online course covers essential topics such as research design, data collection methods, statistical analysis, ethics in research, and academic writing. Upon successful completion of the course, students are required to generate an online certificate as proof of completion.

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.

Three-Year Training Program Structure: The three-year training program for the MD degree will consist of postings to different assignments / laboratories / clinical discipline for specified periods, on rotational basis.

Flexibility in Posting Schedules: Posting schedules may be modified based on the needs, feasibility, and exigencies of the training program. The feasibility of extramural postings for facilities not available in the parent institution was discussed and the scope of which was explored.

Variations in Postings: Departments have the flexibility to vary postings slightly based on situations.

PGMER 2023 states that “A postgraduate 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 specialty;
- b. Podium presentation at a National / Zonal / State conference of his / her specialty;
- c. Have one research paper published / accepted for publication in journal of his / her specialty as first author”

But 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.

We thus agreed to adopt implementation of both CBME and PGMER 2023 and thus makes it compulsory for all post graduate student to present one poster presentation, to present one research paper which should be published/accepted for publication/sent for publication during the period of his postgraduate studies in an indexed journal so as to make him eligible to appear at the postgraduate degree examination.

Others - Institutions may arrange training in any other courses like awareness in medical audit, medical law, exposure to human behaviour studies, finance, accounts, etc, which are beneficial to the postgraduate students.

2. Preparation & approval of PG Logbook and e-logbook as per CBME Curriculum.

Both CBME and PGMER 2023 mandates Students to maintain a logbook to record their training experiences, including details of procedures performed during laboratory and clinical postings in real-time. However, PGMER 2023 stresses upon maintaining e-logbooks (dynamic electroniclogbooks).

IT and financial support is required from the institute for the preparation of e-logbook.

3. Implementation of PG teaching and activity schedule.

Period of Training

The period of training for the award of post-graduate degrees shall be as mentioned in duration of course.

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 Speciality training.
- (ii) **Full-time Engagement as Junior Residents/Demonstrators:** All students enrolled in PG courses are required to work as full-time (junior) residents/demonstrators throughout their training period. Attendance at training activities must not be less than 80% during the calendar year.
- (iii) **Participation in Educational Process:** Students are expected to actively participate in all assignments and facets of the educational process relevant to their course.
- (iv) **Participation in Teaching and Training Program:** It was agreed that postgraduate trainees must actively participate in the teaching and training program of undergraduate students in the department. This involvement is crucial for their professional development and the enhancement of educational standards within the department.
- (v) **Attendance at Accredited Scientific Meetings:** It was decided that postgraduate trainees must attend accredited scientific meetings such as Continuing Medical

Education (CME), symposia, and conferences at least once a year. This exposure will broaden their knowledge base and keep them updated with the latest advancements in their respective fields.

- (vi) **Encouragement of E-Learning Activities:** The department will actively encourage e-learning activities among postgraduate trainees. This includes utilizing online resources, participating in webinars, and engaging with digital learning platforms to supplement their traditional training.
- (vii) **Various teaching-learning methods discussed include:** Lectures-Didactic or integrated, Demonstrations, Symposia, Journal clubs, Clinical meetings, Seminars, Small group discussions, Case presentation, Clinico-pathological correlation/ conference, Case-based learning, Simulation-based teaching, Self-directed learning, Integrated learning, Interdepartmental meetings, Laboratory work/Interactive slide and gross sessions
- (viii) **Training in Information Technology and Computer Usage:** The department will provide training sessions for postgraduate trainees in information technology and the use of computers. Proficiency in these areas is indispensable in modern medical practice and research.
- (ix) **Lectures:** Lectures are to be kept to a minimum. They may, however, be employed for teaching certain topics. Lectures may be didactic or integrated. The course shall be of three years, organized in six units (0-5). This modular pattern is a guideline for the department, to organize training. Training programmes can be modified depending upon the work load and academic assignments of the department. It was decided that didactic lectures should be used sparingly, with a minimum of **10 lectures per year**. The topics for lectures will be selected based on subject requirements.
- (x) **Journal clubs** are 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 PG trainee must make a presentation from the allotted journal(s), selected articles and a total of 12 seminar presentations in three years. The presentations would be evaluated and would carry weightage for internal assessment.
- (xi) **Student seminars** will take place twice a week, focusing on in-depth study of important topics selected as per subject requirements.
- (xii) **Student symposiums** will be organized once every 3 months, aiming for an evidence-based exhaustive review of broad topics of significance.
- (xiii) **Case Presentations:** Minimum of 5 cases to be presented by every PG trainee each year. They should be assessed using checklists and entries made in the log book

- (xiv) **Clinico-Pathological correlation \ Conference:** Recommended once a month for all post graduate students. Presentation is to be done by rotation. If cases are not available, it could be supplemented by published CPCs.
- (xv) **Inter-Departmental Meetings:** These meetings should be attended by post graduate students and relevant entries must be made in the Log Book.
- (xvi) **Laboratory work and interactive sessions** will be conducted twice a week, guided by faculty members from the department.
- (xvii) **Interdepartmental colloquiums** will be held (already being conducted) monthly to discuss topics of common interest or clinical cases.
- (xviii) **Rotational clinical/community/institutional postings** will be arranged based on institutional policy and subject specialty needs.

Students shall complete the following mandatory postings on rotational basis as follows:

	Place of posting	First year	Second Year	Third Year
01	Trauma & Emergency / Casualty / Emergency medicine department	1 month	15 days	15 days
02	Radiology	7 days	5 days	3 days
03	Psychiatry	5 days	3 days	2 days
04	Forensic science lab	7 days	15 days	Not required
05	Histopathology	7 days	5 days	3 days

- (xix) Schedule regular meetings to review assessment outcomes and make necessary adjustments.

Leave Rules for Post-graduate Students - The following leave rules will be followed:

- Every post-graduate student will be given a minimum 20 days of paid leave (casual leave) per year.
- Subject to exigencies of work, post-graduate students will be allowed one weekly holiday.
- Female post-graduate students shall be allowed maternity leave as per existing Government rules and regulations.
- Male post-graduate students shall be allowed paternity leave as per existing Government rules and regulations.
- 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 of 3 years as mentioned in course duration. 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.

4. Implementation of District Residency Programme of 3 months.

Students will be posted for **DISTRICT RESIDENCY PROGRAMME (DRP)** for a period of 3 months on rotation basis in the 3rd or 4th or 5th semester of the postgraduate program as mandated by PGMER 2023.

In addition, the HOD office will review and update **their posting schedules**.

5. Implementation of contents of gazette notification dated 29th December 2023 PGMER 2023.

After discussion and deliberation of subject specific **learning objectives, subject specific competencies and syllabus from contents of gazette notification dated 29th December 2023 PGMER 2023** is unanimously adopted.

Discussion on Formative Assessment:

It was unanimously agreed that formative assessment is crucial for improving learning outcomes. Assessment should encompass medical knowledge, patient care, procedural & academic skills, interpersonal skills, professionalism, self-directed learning, and ability to practice within the healthcare system. Internal assessment should be frequent, covering all domains of learning and used to provide feedback to enhance learning. It should particularly emphasize professionalism and communication skills.

Formative Assessment, i.e., during the training

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 MD training 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

The student to be assessed periodically as per categories listed in postgraduate student appraisal form (**Annexure I**).

SUMMATIVE ASSESSMENT:

Thesis: 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 post graduate student in broad specialty shall be allowed to appear for the Theory and Practical/Clinical examination only after the acceptance of the Thesis by the examiners.

The examination format for postgraduate medical education will adhere to 'Marking system' as specified in the latest POSTGRADUATE MEDICAL EDUCATION REGULATIONS.

It is mandatory for postgraduate students to obtain a minimum of 50% marks in both 'Theory' and 'Practical' components separately to pass the examination.

Examinations for M.D./ M.S. programs will be conducted at the conclusion of the 3rd academic year. Four theory papers will be included in the examination structure as per PG Regulations:

Paper I: Basic of Forensic Medicine, Basic sciences and allied subjects.

Paper II: Clinical Forensic Medicine and Medical Jurisprudence.

Paper III: Forensic Pathology & Toxicology

Paper IV: Recent advances in Forensic Medicine, Forensic Psychiatry & Medical Toxicology, Applied aspect of Clinical Discipline and Forensic Sciences.

Practical Examination: It was agreed that the practical examination should be spread over at least two days for each student. The examination should cover various major components of the syllabus, with a focus on the psycho motor domain.

Day 1

- **Clinical Cases - (any 4)** Age estimation, injury report, examination of an insane person to evaluate criminal/civil responsibility, examination of an intoxicated person, examination of a suspected case of poisoning (acute/chronic), disputed paternity case and sexual offences (accused and victim).
- **Spots - (10)** Histopathology slides, photographs, exhibit material, X-rays, mounted specimens, bones, poisons and weapons, charts etc.
- **Toxicology Exercises - (02)** Identification and details of common poisons or chemical tests etc.
- **Laboratory Tests - (01)** Identification of biological stains (Semen, Blood, Body fluids), Histopathology slides of medico legal relevance, gram and acid fast staining etc.

Day 2

- Postmortem Examination.
- Thesis/Seminar Presentation - For assessment of research/teaching ability
- Discussion on a case for expert opinion
- Grand Viva Voce.

It was noted that the examination structure should adhere to general guidelines outlined with modifications allowed according to local university guidelines.

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 universities outside the state.**
- c. An examiner **shall not be appointed for more than two consecutive regular examinations** for the same institution.

Oral/Viva Voce Examination: Each examiner will conduct oral examinations separately, focusing on defined areas to comprehensively test the postgraduate student's overall knowledge of the subject, particularly focusing on the psychomotor and affective domains.

Emphasis was placed on the comprehensive nature of the oral examination, ensuring it adequately assesses the student's understanding and competence in the subject matter.

It was reiterated that the oral/viva voce examination should be comprehensive enough to test the postgraduate student's overall knowledge of the subject.

Valuation:

- a. All the teachers of the other colleges of the concerned University or other Universities, who are eligible to be post-graduate examiners, can perform the valuation of the answer scripts.
- b. All the answer scripts shall be subjected for two valuations by the concerned University. The average of the total marks awarded by the two valuers for the paper, which is rounded off to the nearest integer (whole number), shall be considered for computation of the results. All the answer scripts, where the difference between two valuations is 15% and more of the total marks prescribed for the paper, shall be subjected to third valuation. The average of the best two total marks, awarded by the three evaluators for the paper, rounded off to the nearest integer (whole number), shall be considered for final computation of the results.

- c. After the computation and declaration of the results, under no circumstances, revaluation is permitted.
- d. All the Health Universities/Institutions imparting post-graduate courses shall implement digital valuation.

CRITERIA FOR EVALUATION OF M.D.

Sr.No.	Description	MD Course
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
	<p>The candidate shall secure not less than 50% marks in each head of passing which shall include</p> <p>(1) Theory – aggregate 50% (In addition, in each Theory paper a candidate has to secure minimum of 40%)</p> <p>(2) Practical / Clinical and Viva voce - aggregate 50%</p> <p>(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.</p> <p>(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 examiners 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.</p> <p>(5) No grace mark is permitted in post-graduate examination either for theory or for practical.</p>	

Recommended books-

The latest editions of the book are prescribed in Guidelines for CBME PG training Programme for MD in Forensic Medicine.

Journals-

Sr. No.	Title
1	Forensic Science International
2	Forensic Science International: Genetics
3	Journal of Forensic and Legal Medicine
4	Journal of Toxicology
5	Indian Journal of Forensic Odontology
6	Journal of Forensic Chemistry And Toxicology
7	Indian Journal of Forensic Medicine & Toxicology
8	Indian Internet Journal of Forensic Medicine & Toxicology
9	Journal of Indian Academy of Forensic Medicine

Undergraduate Education Agendas**1.Implementation of Competency based undergraduate curriculum of MBBS in Forensic Medicine.**

- MBBS curriculum as per CBME guidelines already implemented from Batch 2019-2020 and shall be continued as per the NMC & competent authority notifications/order.

2.Preparation & approval of Competency wise & Term wise syllabus of Phase II & Phase III part one.

- Competency wise and term wise Syllabus for Phase II and Phase III Part I decided for implementation as per (**Annexure II**).

3.Providing Exercise certificate/ medico-legal reports Proforma in all formative and summative under-graduate practical exams.

- It was unanimously decided that, Exercise certificate/ medico-legal reports proforma in all formative and summative under-graduate practical exams shall be provided to students with intention to train them for preparing scientific, legally acceptable reports instead of wasting their energy and mind to mug up proformas.

Many health universities have already adopted and implemented the same.

4.Prepare and approve the scheme of theory and practical exam of formative and summative assessment.

- For every exam including term end, pre-university; syllabus, scheme of both theory and practical shall be declared in advance to exam so students can prepare accordingly.

Theory Exam

- MCQ - 20%
- Short Answer Questions (including differentiate, give reasons, justify, AETCOM, Medico-legal aspect, Problem based questions)- 60%
- Long Answer Questions- 20%

Practical Exam

- Preparation of medicolegal report – 45%
- Spots/OSPE- 15%
- Viva Voce- 40%.

5. Implementation of OSPE in Practical exam. (Ex. To show incisions of autopsy on mannequins, Viscera preservation etc.).

- University exam shall have at least two OSPE stations which will contain practically useful and applicable skill based questions in real / simulated environment like use of mannequin. Student shall demonstrate/ perform procedures for example incisions used for autopsy, preservation of viscera, collection of evidences, performance of lab test, etc.

6. To approve updated Practical Manual of undergraduate course.

- Considering NMC guidelines and all recent updated notifications, a practical manual for undergraduate courses has been prepared. Students shall complete all the practical's/ exercises in this manual.

7. Implementation of Updated AETCOM module (3.3 & 3.4) for MBBS.

- AETCOM modules 3.3 & 3.4 have been included in the UG syllabus in the Forensic Medicine subject as per the NMC guidelines.

8. To prepare and approve the Internship schedule in FMT.

- Following Internship Schedule from National Medical Commission (Compulsory Rotating Medical Internship) Regulations, 2021 dated 18th November, 2021 for upcoming batches of interns is accepted as follows

Day 1	Death, PM Changes, Medicolegal Autopsy, Artifacts. MCCD, Declaration and Certification of Death.	9 AM to 1 PM- Self Study 2 PM to 4 PM- SGT
Day 2	Age Estimation- General Development, Secondary Sexual Characters, teeth, radiological examination, reporting, medicolegal importance of age.	9 AM to 1 PM- Self Study 2 PM to 4 PM- SGT
Day 3	Injury Certificate- Examination, Reporting, collection of evidence. Various definitions, classification, Simple, Grievous, IPC	9 AM to 1 PM- Self Study 2 PM to 4 PM- SGT
Day 4	Sexual Assault- Examination, Reporting, collection of evidence.	9 AM to 1 PM- Self Study 2 PM to 4 PM- SGT
Day 5	Communication in Medicolegal Cases- MLC, Information, Privileged Communication, Vicarious Liability, Types of Communication, 39 Cr.P.C, Legal duties in various medicolegal cases (Poisoning, dying declaration, evidence collection).	9 AM to 1 PM- Self Study 2 PM to 4 PM- SGT
Day 6	Assessment- MCQs, Certificate Exercise and viva. PPT on one Topic	9 AM to 4 PM
Day 7	Sunday Holiday	-----

9. To decide internal assessment marks and method of calculation.

- All the exams will be given equivalent weightage for calculation of internal theory and practical marks and accordingly internal assessment will be calculated as per the University guidelines.

10. Inclusion of 40- 60% (aggregate 50%) internal marks as eligibility for UG exam.

- As per the NMC guidelines, Students should score minimum 40% in both theory and practical exams and collectively 50% so as to be eligible for University examination.

11. Inclusion of Bharatiya Nyaya Sanhita, Bharatiya Nagarik Suraksha Sanhita and Bharatiya Sakshya Act in UG PG curriculum.

- Bharatiya Nyaya Sanhita, Bharatiya Nagarik Suraksha Sanhita And Bharatiya Sakshya Act bill passed by both Houses of parliament, will be implemented in the Country after Central Govt's Gazette Notification, probably from 1st July 2024.
- So, these acts shall be included in both UG and PG curriculum in due course.

The meeting was concluded with vote of thanks by Chairperson (professor & Head, FMT) to External invitee Subject Expert & Internal invitee and all members for their valuable time and inputs.

Dr. Navinkumar M. Varma
Prof.& HOD, Dept. of FMT

Copy to-

1. The Principal, TMMC & RC, Moradabad.
2. The Registrar, TMU, Moradabad.

Annexure I
Postgraduate Students Appraisal Form
Pre / Para /Clinical Disciplines

Name of the 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 inter-departmental 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 students is strongly recommended.

**Signature
of Assessee**

**Signature
of Co-Guide**

Signature of HOD



Teerthankar Mahaveer Medical College & Research Centre Moradabad
Department of Forensic Medicine & Toxicology

Ref. No – FMT / TMMC / 2024 /

Date: 25.04.2024

Attendance Sheet of Board of Studies held on 25th April 2024

Sr. No.	Name of Faculty	Designation	BOS Position	Signature
Internal Members				
1	Dr. Navinkumar M. Varma	Professor & Head	Chairperson	<i>Navinkumar</i>
2	Dr. Pramod Dode	Associate Professor	Member	<i>Pramod</i>
3	Dr. Abhishek Kumar Varshney	Associate Professor	Member	<i>Abhishek</i>
External Invitee Subject Expert				
4	Dr. Dhiraj Buchade	Professor, Dept. of Forensic Medicine, Maulana Azad Medical College, New Delhi.	Member	<i>Dhiraj Buchade</i>
Internal Invitee Member				
5	Dr. Anish Prabhakar	Professor, Dept. of Community Medicine, TMMC & RC, Moradabad	Member	<i>Anish Prabhakar</i>

Navinkumar
Dr. Navinkumar M. Varma
 Chairman, BOS (FMT)
 Prof. & HOD, Dept. of FMT