



BLDE **(DEEMED TO BE UNIVERSITY)**

Competency Based Medical Education **(CBME)**

PG CURRICULUM **2019-20**

MD Forensic Medicine **and Toxicology**

Published by

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(DEEMED TO BE UNIVERSITY)

Declared as Deemed to be University u/s 3 of UGC Act, 1956

The Constituent College

SHRI B. M. PATIL MEDICAL COLLEGE, HOSPITAL & RESEARCH CENTRE, VIJAYAPURA

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BLDE(DU)/REG/PG-Curr/2019-20/268

May 06, 2019

NOTIFICATION

Sub: **Competency Based Medical Education (CBME) based Revision of Post Graduate Curriculum**

- Ref: 1. Medical Council of India Regulation on Graduate Medical Education, 1997 and subsequent amendments of the same from time to time.
2. Minutes of the 28th meeting Academic Council of the University held on April 26, 2019.
3. Minutes of the 47th meeting Board of Management held on May 04, 2019.

The Board of Management of the University is pleased to **approve the CBME based Revised Curriculum for Post Graduate Degree Course** at in its 47th meeting held on May 04, 2019.

The Revised Curriculum shall be effective, from the Academic Session 2020-21 onwards, for Post Graduate Degree Course in the Constituent College of the University viz. Shri B. M. Patil Medical College, Hospital and Research Centre, Vijayapura.

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

To,

The Dean, Faculty of Medicine and Principal
Shri B. M. Patil Medical College,
Hospital and Research Centre,
Vijayapura

Copy to:

- The Secretary, UGC, New Delhi
- The Secretary, MCI
- The Controller of Examinations
- The Vice Principal
- The Vice Principal (Academics)
- The Prof. & HODs Pre, Para and Clinical Departments
- The Co-ordinator, IQAC
- PS to the Hon'ble Chancellor
- PS to the Hon'ble Vice-Chancellor

Smt. Bangaramma Sajjan Campus, B. M. Patil Road (Sholapur Road), Vijayapura - 586103, Karnataka, India.

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College : Phone: +918352-262770, Fax: +918352-263019, E-mail: bmpmc.principal@bldedu.ac.in

Our Vision

“To be a Leader and be recognized as an Institution striving for maintenance and enhancement of Quality Medical Education and Healthcare”

Our Mission

- To be committed to promote sustainable development of higher education including Health science education, consistent with the statutory and regulatory requirements.
- Reflect the needs of changing technology and make use of the academic autonomy to identify the academic programs that are dynamic.
- Adopt global concepts in education in the healthcare sector.

Section - I

**Goals and General Objectives of Postgraduate
Medical Education Program**

Goal

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 [May2018]

- (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.

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.

Components of the PG Curriculum

The major components of the PG curriculum shall be:

- Theoretical knowledge
- Practical/clinical Skills
- Training in writing thesis/research articles
- Attitudes, including communication.
- Training in research methodology, medical ethics & medicolegal aspects
- Teaching skills to the undergraduates, juniors and support teams

Source: Medical Council of India, Regulations on Postgraduate Medical Education, 2000. [amended upto May 2018]

Eligibility for Admission:

1. Post graduate degree course:

The candidate seeking admission should have passed MBBS from a college recognized by Medical Council of India.

As per requisites of statutory bodies & as laid out in Post graduate regulations of MCI & its amendments thereof, the minimum percentage of marks obtained in the entrance test

conducted by competent authority shall be as per MCI regulations & its amendments as applicable time to time.

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

Candidates seeking admission to superspeciality [M.Ch]

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

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

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

The MCI norms to qualify for Admissions

Candidates seeking admission to these Post Graduate Degree courses should have passed M.B.B.S. recognized by Medical Council of India or equivalent qualification and should have obtained permanent Registration from the Medical Council of India or any of the State/ Medical council or candidate should register the same within one month from the date of admission, failing which the admission of the candidate shall be cancelled. Provided that in the case of a foreign national, the MCI may on the payment of prescribed fee for the registration, grant temporary registration for the duration of post graduate training restricted to the medical college/ institute to which the applicant is admitted for the time being exclusively for post graduate studies; provided further, that temporary registration to such foreign national shall be subjected to the condition that such person is duly registered with appropriate registering authority in his /her country wherefrom he has obtained his basic medical qualification ,and is duly recognized by the corresponding Medical Council or concerned authority.

If the candidate fails to fulfill the relevant eligibility requirements as mentioned above he/she will not be considered eligible for admission for Medical Postgraduate Degree Courses even if he/she is placed in the merit list of statutory authority and BLDE (Deemed to be University).

Obtaining Eligibility Certificate by the University before making Admission

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

1. MBBS pass/degree certificate issued by the University.
2. Marks cards of all the university examinations passed MBBS course.
3. Attempt Certificate issued by the Principal
4. Certificate regarding the recognition of the Medical College by the Medical Council of India.
5. Completion of internship certificate.
6. In case internship was done in a non-teaching hospital, a certificate from the Medical Council of India that the hospital has been recognized for internship.
7. Registration by any State Medical council and
8. Proof of SC/ST or OBC or physically handicapped status, as the case may be.

In addition to the above mentioned documents, candidate applying for admission to superspeciality courses has to produce degree/pass certificate of MD/MS/DNB degree with prescribed fee.

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. (MCI PG REG 2000 10:1)

- b. D.M/M Ch Degree Courses; (MCI PG REG 2000, 10:2)

The duration of these courses shall be for a period of 3 completed years including examinations.

Training Method

The postgraduate training for degree shall be of residency pattern. The post graduate shall be trained with graded responsibilities in the management and treatment of patients entrusted to his/her care. The participation of the students in all facets of educational process is essential. Every candidate should take part in seminars, group discussions grand rounds, case

demonstration, clinics, journal review meetings, CPC and clinical meetings. Every candidate should be required to participate in the teaching and training program of undergraduate students. Training should include involvement in laboratory and experimental work, and research studies. Basic medical sciences students should be posted to allied and relevant clinical departments or institutions. Exposure to applied aspects of their learning should be addressed. Similarly, clinical subjects' students should be posted to basic medical sciences and allied specialty departments or institutions.

Training of superspeciality [M.Ch] 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.

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

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. Provided further, leave of any kind shall not be counted as part of academic term without prejudice to minimum 80% attendance of training period every year. Leave benefits shall be as per university rules.

A post graduate student pursuing degree course in broad specialties, MD, MS and superspeciality courses DM, M.Ch would be required to present one poster presentation, read one paper in 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/her to be eligible to appear at the university degree examinations. (MCI, PG 2000, 13.9)

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

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 outcomes to be assessed include:

- Personal Attitudes,
- Acquisition of Knowledge,
- Clinical and operative skills, skills of performing necessary tests/experiments
- Teaching skills.
- Documentation skills

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.

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.

- a) 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 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/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, ie., assessment during the training would include:

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

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 MCI.

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 or before the dates notified by the University.

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

Guide:

The academic qualification and teaching experience required for recognition by this University as a guide for dissertation work is as per Medical Council of India Minimum Qualifications for Teachers in Medical Institutions Regulations, 1998 and its amendments thereof. Teachers in a medical college/institution having a total of eight years teaching experience out of which at least five years teaching experience as Lecturer or Assistant Professor gained after obtaining post graduate degree shall be recognized as post graduate teachers.

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 / Medical Council 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.

Dissertation:

Every candidate shall carryout work and submit a Dissertation as indicated above. Acceptance of dissertation shall be a precondition for the candidate to appear for the final examination.

Written Examination (Theory):

Written examination shall consist of **four** question papers, each of **three** hours duration. Each paper shall carry 100 marks. Out of the **four** papers, the 1st paper in clinical subjects will be on applied aspects of basic medical sciences and 4th paper on Recent advances, which may be asked in any or all the papers. In basic medical subjects and para-clinical -subjects, questions on applied clinical aspects should also be asked.

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 and competence of candidates for undertaking independent work as a specialist. Each candidate should examine at least one long case and two short cases minimum. However additional assessment methods can be adopted which will test the necessary competencies reasonably well.

The total marks for Practical / Clinical examination shall be 300.

Viva Voce:

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

The total marks shall be 100:

- 80 Marks, for examination of all components of syllabus
- 20 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 Medical Council of India.

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: vide MCI pg 2000 Reg no 14(4) (Ciii)

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.[amendment of MCI PG Regulations clause 14 dated 5.4.2018]

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.

Written Examination (Theory):

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

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.

The total marks for Practical / clinical examination shall be 300.

Viva Voce:

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

The total marks shall be 100:

- 80 Marks, for examination of all components of syllabus
- 20 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 Medical Council of India.

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 vide: MCI pg 2000 Reg no 144-c (iii).

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.[amendment of MCI PG Regulations clause 14 dated 5.4.2018]

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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 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

SIGNATURE OF UNIT CHIEF

SECTION II

FORENSIC MEDICINE

GOALS

The postgraduate course **M.D. forensic medicine** and toxicology should enable a medical graduate to become a competent specialist, acquire knowledge and skills in educational technology for teaching medical, dental and health sciences, serve as expert in the medico-legal field and conduct research in bio-medical science.

SUBJECT SPECIFIC COMPETENCIES

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 report 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.
12. Describe role of DNA profile and its application in medico-legal practice.

13. Describe the law/s relating to poisons, drugs, cosmetics, narcotic drugs and **psychotropic substances**.
14. Describe the legal and ethical aspects of Forensic Procedures including Narco-analysis, Brain mapping and Polygraph etc.
15. 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 report and derive inferences.
2. Perform medico-legal examination of users of alcohol, drugs and poisons and prepare report.
3. Perform medico-legal examination in cases of sexual offences and prepare report.
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 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 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 accident, aircraft accident, rail accident 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 laboratory.
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 sciences.
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.

Syllabus

Course contents:

I. General Principles of Forensic Medicine and Toxicology

- 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.
- Describe the basic principles of techniques used in toxicological laboratory namely TLC, GLC, ASS, HPLC and Breath Alcohol Analyzer.
- 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.
- Describe surface and regional anatomy of head, neck, chest and abdomen.
 - Describe gross anatomy and blood supply of heart, brain, lungs, spleen, liver and kidneys.
 - Describe gross anatomy of male and female genitalia.
 - Describe the comparative anatomy of male and female skeleton.
 - Perform histological examination of various tissues.
 - Describe the development of foetus.
- B. **Physiology and Biochemistry:** Mechanism of phenomena that are important in the body from the medico-legal viewpoint.
- Describe mechanism of fluid and electrolyte balance, thermoregulation in newborn and adults, endocrine functions.
 - Describe physiology of sexual behavior.

- Describe physiological functioning of circulatory system, digestive system, respiratory system, haemopoietic system, central nervous system and reproductive system including pregnancy. 6
- 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.
- 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.
 - 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.
 - Describe the pathology of sudden death.
 - Describe local and systemic response to trauma and patho-physiology of shock.
 - 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:**
- Describe the general forensic principle of ballistics, serology, analytical toxicology and photography.
 - Interpret the scene of crime.
 - Describe role of DNA profile and its application in medico-legal practice.
 - Examine bloodstains for blood grouping, nuclear sexing, HLA typing, seminal stains and hair for medico-legal purpose.
 - Describe ethical aspects of Forensic Procedures including Narco-analysis, Brain mapping and Polygraph

III. Medical Ethics and Law (Medical Jurisprudence)

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

- 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.
- Describe the ethics and law in relation to artificial insemination, abortion, antenatal sex, foetus, genetics and euthanasia. 7
- Interpret the ethics and law applicable to the human (clinical trials) and animal experimentation.
- Describe ethics in relation to elderly, women and children.
- Describe medical ethics and law in relation to nursing and other medical services/practices.
- Understanding about bio-ethics

IV. Clinical Forensic Medicine

- Examine, assess legal implications and prepare report or certificate in cases of physical assault, suspected drunkenness, sexual offences, consummation of marriage and disputed paternity.
- Collect, preserve and dispatch the specimen/material to the concerned authority and interpret the clinical and laboratory findings which are reported.
- Examine injured person, prepare medico-legal report and initiate management.
- Determine the age and establish identity of an individual for medico-legal purpose.
- Examine a person and assess disability in industrial accidents and diseases.
- Perform examination and interpret findings for medico-legal purposes in cases pertaining to pregnancy, delivery, artificial insemination, abortion, sterilization, Impotence, AIDS and infectious disease.
- Describe normal and abnormal sexual behavior and its medico-legal implications.
- Examine and assess the medical fitness of a person for insurance, government service, sickness and fitness on recovery from illness.
- 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.
- Examine medico-legal problems related to children, women and elderly.
- Identify the cases of torture and violation of human rights and issues thereto

V. Forensic Pathology

- 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.

- Perform medico-legal postmortem and be able to exhume, collect, preserve and dispatch specimens or trace evidence to the appropriate authority.
- 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.
- Describe patho-physiology of shock and neurogenic shock. 8
- Describe patho-physiology of asphyxia, classification, medico-legal aspects and postmortem findings of different types of asphyxial deaths.
- 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.
- Manage medico-legal responsibilities in mass disasters involving multiple deaths like fire, traffic accident, aircraft accident, rail accident and natural calamities.
- Demonstrate postmortem findings in infant death and to differentiate amongst live birth, still birth and dead born.
- Perform postmortem examination in cases of death in custody, torture and violation of human rights.
- Perform postmortem examination in cases of death due to alleged medical negligence as in operative and anesthetic deaths.

VI. Toxicology

- Describe the law relating to poisons, drugs, cosmetics, narcotic drugs and psychotropic substances.
- Examine and diagnose poisoning cases and apply principles of general management and organ system approach for the management of poisoning cases.
- Describe the basic principles of pharmacokinetics and pharmacodynamics of poisonous substances.
- Describe the toxic hazards of occupation, industry, environment and the principles of predictive toxicology.
- Collect, preserve and dispatch material/s for analysis, interpret the laboratory findings and perform the Medico-legal formalities in a case of poisoning.
- Demonstrate the methods of identification and analysis of common poisons
- Describe the signs, symptoms, diagnosis and management of common acute and chronic poisoning due to:
 - Corrosives
 - Nonmetallic substances
 - Insecticides and weed killers
 - Metallic substances
 - Vegetable and organic irritants

- Somniferous compounds
- Inebriant substances
- Deliriant substances
- Food Contamination/adulteration.
- Substances causing spinal and cardiac toxicity
- Substances causing asphyxia (Asphyxiants)
- Household toxins
- Toxic envenomation 9
- Biological and chemical warfare
- Environmental intoxicants
- Occupational intoxicants

VII. Forensic Psychiatry

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

TEACHING AND LEARNING METHODS

Teaching methodology

1. **Lectures:** Lectures are to be kept to a minimum. They may, however, be employed for teaching certain topics. Lectures may be didactic or integrated. 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 programme can be modified depending upon the work load and academic assignments of the department.
2. **Journal Club & Subject seminars:** Both 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.
3. **Case Presentations:** Minimum of 5 cases to be presented by every PG trainee each year. They should be assessed using check lists and entries made in the log book

4. **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.
5. **Inter-Departmental Meetings:** These meetings should be attended by post graduate students and relevant entries must be made in the Log Book.
6. **Teaching Skills:** The postgraduate students shall be required to participate in the teaching and training programme of undergraduate students and interns.
7. Undertake audit, use information technology tools and carry out research, both basic and clinical, with the aim of publishing his work and presenting his work at various scientific fora. 10
8. **Continuing Medical Education Programmes (CME):** At least two CME programmes should be attended by each student in 3 years.
9. **Conferences:** The student to attend courses, conferences and seminars relevant to the speciality.
10. 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.
11. **Rotation:** Other than the Department of Forensic Medicine, student may be posted for training in the following clinical disciplines for a given period of time on rotational basis:
Place of posting First year Second year Third year
 - 01 Trauma & Emergency/Casualty / Emergency medicine department
 - 1 month 15 days 15 day
 - 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
12. Department should encourage e-learning activities.

Specific learning objectives:

FORENSIC PATHOLOGY

Should be able to:

1. Perform autopsy, describe and interpret the findings and draft report on an adult body, fetus and mutilated bodies/skeletal remains.
2. Help the DVI team in identification of victims of disaster including environmental calamities, building collapse, boat capsized etc.
3. Collect, preserve, pack, label and dispatch the viscera to FSL in suspected poisoning cases.

Should be able to:

Describe, interpret and opine on the following:

- a) Slides of medico-legal importance.
- b) Soft specimens of medico-legal importance
- c) Photographs of medico-legal importance
- d) Weapon of assault, firearm cartridges
- e) Instruments/appliances used in medico-legal autopsy.

EXPERT OPINION

- a) Should be able to interpret and give opinion on Medico-legal matters referred. [Professional ethics]
- b) Should be able to give evidence in an elegant manner and defend his case in the court of law, when summoned.

CLINICAL FORENSIC MEDICINE

Clinical:

Should be able to:

Exhibit Professional ethics and Human values in examining, describing and interpreting the findings and opine in the following cases:

- a) Poisoning including environmental gases.
- b) Drunkenness
- c) Accused/Victim in cases of sexual assault.
- d) Injury cases.
- e) Determination of age by physical and radiological examination.
- f) Microscopic and chemical tests for blood and semen stains/sample.
- g) Medico-legal aspects of Psychiatry, mental health and drug addiction.

- h) Advice authorities on matters related to medical ethics and medico-legal issues.
- i) Visit to the crime scene and help the investigative agencies in solving a case.

Laboratory:

Should able to perform the following tests:

- a) Microscopic and chemical tests for blood and semen stains/sample.

FORENSIC TOXICOLOGY

Toxicology:

- a) Identify the poisonous materials/contents.
- b) Describe the clinical features and management of poisoning including environmental gases.

Laboratory:

Should able to perform the tests and give opinion in:

- a) Samples containing poison received from hospital during treatment procedure.
- b) Drug addiction samples received from investigating agencies.

TEACHING

Should be able to take lectures, demonstrate practical exercises for undergraduate students.

SPECIALITY POSTINGS

At the end of specialty postings in each discipline, the student should be able to fulfill the objectives, which are stated for each department

POST GRADUATE TRAINING

The course is of three years duration, organized in six terms of six month duration each. This pattern is only a guideline to the department to organize training schedule, subject to modification depending up on the workload and academic assignments of the department.

First term:

- A. Orientation programme including gender sensitization
- B. Basic autopsy skill (by witnessing)
- C. Attending all the undergraduate classes taken by all the faculty
- D. Self-directed learning (allowing full freedom to learn at their own pace)
- E. Discussions on autopsy conducted
- F. Preparation of Dissertation synopsis and submission to the university

Second term and Third term:

- A. Postings to other departments with objectives clearly stated
- B. Continuation of dissertation work
- C. Regular fortnightly seminars, Journal article presentation and autopsy case presentation
- D. Organized teaching
- E. Conducting the autopsies but reports signed by the concerned staff
- F. Seminars, Journal article presentations, case presentations
- G. Attending to the court to witness evidence given by the staff summoned

Fourth, Fifth & Sixth term:

- A. Seminars, Journal article presentations, case presentations
- B. Autopsy work
- C. Dissertation work progression and finalization
- D. Assessment of the overall performance
- E. Periodic mock examinations
- F. Conduct of undergraduate tutorials and practicals to enhance teaching ability

Specialty postings:

Anatomy – 15 days

Learning objectives:

- A. Acquire knowledge of human anatomy with emphasis on brain, bones & Heart
- B. Identify normal histology of heart, liver, lung, kidney, spleen & adrenals.
- C. Fetal circulation

Pathology- 1 month

Learning objectives:

- A. Description of the gross specimens of various organs.
- B. Tissue processing & sectioning.
- C. Staining techniques
- D. Description of microscopic appearance. Normal, diseases, Trauma.

Casualty- 2months

Learning objectives:

- A. Basics of life saving measures.
- B. Making a case Medico-legal.
- C. Description of various wounds.
- D. Issue of wound certificate.
- E. Maintenance of Medico legal documents.

Obstetrics and Gynecology - 15 days

Learning objectives:

- A. Clinical methods of examination of genitalia.
- B. Clinical examination for evidence of pregnancy.
- C. Abortion & its Medico legal implications.
- D. Recent signs of Pregnancy, Abortion & delivery.
- E. Artificial insemination.

Psychiatry-15 days

Learning objectives:

- A. Mental Health Act.
- B. Clinical signs of mental illness
- C. Classification of mental illness.
- D. True & feigned insanity.
- E. Interpretation of Mc Naughten's rule.
- F. Mental status examination.

Microbiology-15 days

Learning objectives:

- A. Basics of staining techniques.

Oral Medicine and Radiology – 15 days

- A. Gain knowledge about anatomy of teeth (Both temporary and permanent).
- B. Acquire the knowledge of interpreting OPG.
- C. Acquire the skill of documenting the dental findings.

Forensic Science

Posting at RFSL Belgaum- 15 days

Learning objectives:

- A. Analysis of poisons.
- B. HPLC & Chromatography
- C. Narco analysis
- D. DNA fingerprinting.
- E. Dactylography.
- F. Internal & External ballistics.

Scheme of examination

Theory

Preparatory exam shall be of four papers of 100 marks each similar to University exam.

University exam

Four papers of 100 mark each. Each paper comprises - 2 long essays of 20 marks each, 6 short essays of 10 mark each.

1. Paper one=Basic medical sciences of medico legal significance
2. Paper two=Forensic Pathology
3. Paper three=Forensic Toxicology & Psychiatry
4. Paper four=Medical Ethics & Law, Recent advances.

Practical

Preparatory Practical examination shall be conducted by four examiners from the department teaching staff as per university exam pattern.

PRACTICAL EXAMINATION - SYLLABUS

1. Basic Human Anatomy (Gross and Histological), Physiology, Clinical biochemistry in relation to Forensic Medicine.
2. Basic Pathology and Microbiology (Clinical Pathology, Hematology, Histopathology: Tissue processing and staining techniques – Routine and Special, Museum Technology, Blood Bank, etc.) in relation to Forensic Medicine.
3. Medico legal Postmortem Examination: Adult and Foetal (Routine and Special Techniques).
4. Forensic Osteology: Examination and reporting on Skeletal Remains.
5. Forensic Radiology: Examination of Radiographs for Expert Opinion.
6. Determination of Age by Physical and Dental Examination.
7. Wound Examination and issuing Wound Certificate.
8. Examination and Certifying Cases of Impotency, Pregnancy, Delivery etc.
9. Examination and Opinion on Sexual Offences cases, such as rape, Sodomy etc.
10. Examination of cases for Drunkenness Certification.
11. Expert opinion on Referred Medico legal cases.
12. Setting up and maintaining Forensic Medicine Dept.
13. Reporting and discussion on Poisons.
14. Reporting and discussion on mounted Soft Specimens of Medico legal Importance.
15. Reporting on Autopsy Instruments and appliances.
16. Reporting on the Weapons of alleged assault.
17. Micro-teaching.

University practical Exam pattern including viva voce

Max Marks: 400

Day 1 **Marks**

First half

- Medico legal autopsy Protocol 20
- Medico legal autopsy External examination 30
- Medico legal autopsy internal examination 50

Day 1 Second half

- Preservation of viscera / body fluids/ stains etc 20
- Examination & opinion as to examination of body parts /skeletal remains 40
- Examination of set of poisons 20
- Examination of weapons & opinion 20

Day 2

First half (Clinical Forensic medicine)

- Examination, treatment & reporting of Poison case 20
- Examination and issue of Medico legal injury report. 20
- Examination and certification as to Drunkenness 20
- Examination and certification as to accused / victim of sexual assault 20
- Age estimation by subject 20

II half [viva voce]

- Pedagogy 20
- Grand viva 80

RECOMMENDED TEXT BOOKS & REFERENCE BOOKS:

Sl No	Book title	Author	Publisher	Edition
1	Forensic Medicine & Toxicology volume I & II	J B Mukherjee	Academic Publishers Kolkata	3 rd edition
2	Text book of Medical Jurisprudence & Toxicology	C K Parikh	CBS Publishers New delhi	6 th edition
3	Essentials of Forensic Medicine & Toxicology	K S Narayana reddy	Medical book company Hyderabad	29 th edition
4	Modi's text book of medical Jurisprudence & Toxicology	Mathiharan	Lexis Nexis, Tripathi Publication (ND)	22ed
5	Cox's Medical Jurisprudence & Toxicology.	---	---	1 st
6	Bernard Knight et.all : Cox's Medical Jurisprudence & Toxicology.	Bernard Knight et.all	---	1st
7	Russel S.Fisher & Charles S. Petty: Forensic Pathology.		CRC, Press	---
8	Keith Simpson's Forensic Medicine.	Jason Payne James Richards Jones	HODDER ARNOLD UK COMPANY	13 th edition
9	Principles of .A.Nandy.	Apurba Nandy	New Central Book Agency LTD	
10	Textbook of Forensic Medicine and Toxicology	Nageshkumar G Rao	JAYPEE BROTHERS NEW DELHI	2 nd edition
11	The essentials of Forensic Medicine.	Polson C.J. :	Tailore Francis, Google book	5 th 2014
12	Legal Medicine, Bristol Wright.	Camps F.E.Gradwohls-	Abebooks	3 rd 1968
13	A Doctors guide to Court.	Simpson's :	Amazon	2 nd 1967
14	The pathology of Homicide.	Adelson L. :	Charles C Thomas, Amazon	1 st 1974
15	Atlas of Legal Medicine :	Tomio Watanabe.	Lippicot, Amazon	3 rd 1975
16	Medici Legal Investigation of Death.	Spitz W.U& Fisher R.S. ,	Charles C Thomas, Amazon	4 th 2016

17	Principles & practice of Medical Jurisprudence .Churchil Lvng.	Taylor's. A.Keith Mant ,	Churchill, Google book	7 th 1920
18	The Indian Penal Code.	Justice Hidayatullah & V.R.Manohar , Ratanlal & Dhirajlal:	Lexis Nexis (New Delhi), Amazon	34 th 2015
19	The Code of Crm.Procdr.	Justice Hidayatullah & S.P.Sathe : Ratanlal & Dhirajlal ;	Lexis Nexis (New Delhi), Amazon	21 st 2013
20	The Law of Evidence.	Justice Hidayatullah & V.R.Manohar , Ratanlal & Dhirajlal	Lexis Nexis (New Delhi), Amazon	24 th 2011
21	Medical Law & Ethics in India.	H.S.Mehata	Macmillan, Amazon	1965
22	Bernard Knight; Forensic Pathology.	Pekka Saukko Bernard Knight	HODDER ARNOLD UK COMPANY	3 rd edition
23	Code of Medical Ethics, Medical Council of India, approved by Central Govt. U/S 33(m) of IMC Act 1956 (Oct. 1970).	---	---	---
24	The Human Skeleton in Legal Medicine.	Krogman W.M.	Charles C Thomas, Amazon	2 nd 1986
25	F.E.Camps, J.M.Cameren, David Lanham: Practical Forensic Medicine.	---	Hutchinson Medical Publishers, Amazon	1956
26	Modern Medical Toxicology.	VV Pillay	JAYPEE BROTHERS New Delhi	3 rd edition
27	Textbook of Forensic Medicine & Toxicology, Principles & Practice.	Krishan Vij	ELSEVIER	5 th edition
28	Textbook of Forensic Medicine & Toxicology.	Dr.B.V.Subrahmanyam	CBS, Amazon	1 st 2008
29	Handbook of Forensic Pathology.	Vincent J.M. Di Maio & Suzzanna E. Dana :	CRC Press, Amazon	2 nd 2006
30	The Medical Profession & Law	Dr.R.D.Lele	(IHA, Mumbai Publication). Google book	2 nd 1993
31	Forensic Medicine & Toxicology , Oral , Practical & Mcq.	R.N.Karmarkar	Academic Publishers Kolkata	3 rd edition

32	Forensic Medicine.	P V GUHRAJ	Universities press	2 nd edition
33	Forensic Medicine.	Gordon & Shapiro	---	---
34	Pediatric Forensic Medicine & Pathology,	J.K.Mason	Chopraman & Hall Medical.	1 st
35	Forensic Medicine & Pathology,	J.K.Mason	Chopraman & Hall Medical.	1st
36	Forensic Medicine	B. Umadethan	CBS Publishers	New edition
37	Forensic Medicine. Physical Trauma.Vol.1, 2.3.	C.G.Tedeshi	W.B.Saunders Company, Amazon	1977
38	Gradwohl's Legal Medicine.	Francis C.J.Mehata	J Wright, Amazon, Google book	3 rd 1976
39	Pathology Of Trauma	Allen Moritz	Lear Febiger, Amazon	1 st 1942
40	Principles of Forensic Medicine & Toxicology	Rajesh Bardale	JAYPEE BROTHERS New Delhi	New edition
41	Medical Ethics.	Francis C.M.	J.P.Publications , Bangalore	2 nd 2007

RECOMMENDED JOURNALS

1. Journal of Forensic Sciences.
2. Journal of Legal Medicine (Of American College Medicine.).
3. Journal of Forensic Science Society.
4. Medico-legal Journal.
5. American Journal of Law & Medicine.
6. American Journal of Forensic Medicine.
7. Forensic Science International.
8. Journal of Clinical Forensic Medicine.
9. Medicine Science & Law.
10. Science & Justice.
11. Journal of Indian Academy of Forensic Medicine.
12. Journal of Forensic Medicine & Toxicology, (Medico-legal Society.)
13. Medico-legal Update, An International Journal.
14. Journal of Clinical Forensic Medicine.
15. Journal of Medico-legal Association of Maharashtra.
16. Journal of Karnataka Medico-legal Society.

SECTION III

Check List – I
MODEL CHECK-LIST FOR EVALUATION OF JOURNAL
REVIEW PRESENTATIONS

Name of the Student:**Name of the Faculty/Observer:****Date:****Title and author****Source**

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

Check List – II
MODEL CHECK-LIST FOR EVALUATION OF SEMINAR
REVIEW PRESENTATIONS

Name of the student: _____ Name of the Faculty/Observer: _____

Date: _____

Topic _____

Guide _____

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

Check List – III
MODEL CHECK-LIST FOR EVALUATION OF TEACHING SKILL
PRACTICE

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

Check List-IV
MODEL CHECK LIST FOR DISSERTATION PRESENTION

Name of the Student:

Name of the Faculty:

Date:

Sl. No.	Points to be considered divine	Poor 0	Below Average 1	Average 2	Good 3	Very Good 4
1.	Interest shown in selecting a topic					
2.	Appropriate review of literature					
3.	Discussion with guide & other faculty					
4.	Quality of Protocol					
5.	Preparation of Proforma					
6.	Title <ul style="list-style-type: none"> • Appropriateness • Clarity and brevity • Focus on topic 					
7.	Introduction <ul style="list-style-type: none"> • Purpose of study • Mention of lacuna • Hypothesis, if any 					
8.	Review of literature <ul style="list-style-type: none"> • Relevance • Completeness • Is up to date? 					
9.	Methods <ul style="list-style-type: none"> • Mention type of study • Details of subjects & control • Details of material • Procedure for data collection • Statistical methods employed • Mention ethical issues 					
10.	Discussion					
11.	Bibliography					
	Total Score					

Check List-V
**CONTINUOUS EVALUATION OF DISSERTATION WORK BY GUIDE / CO-
 GUIDE**

Name of the Student:

Name of the Faculty:

Date:

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

Check List-VI**MODEL CHECK LIST FOR AUTOPSY TECHNIQUES/TEST**

Name of the Student:

Name of the Faculty:

Date:

Sl. No.	Items for observation during presentation	Poor 0	Below Average 1	Average 2	Good 3	Very Good 4
1.	Analysis of history & clinical presentation					
2.	Quality of Grossing/ Dissection					
3.	Quality of report writing skills					
4.	Depth of analysis / discussion					
5.	Diagnosis					
6.	Quality of final output					
7.	Others					
	Total Score					

Annexure: VII

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 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 CONSULTANT

SIGNATURE OF HOD

SECTION - IV

MEDICAL ETHICS & MEDICAL EDUCATION

Sensitization and Practice

Introduction

There is now a shift from the traditional individual patient, doctor relationship, and medical care. With the advances in science and technology and the needs of patient, their families and the community, there is an increased concern with the health of society. There is a shift to greater accountability to the society. Doctors and health professionals are confronted with many ethical problems. It is, therefore necessary to be prepared to deal with these problems. To accomplish the Goal (i), General Objectives (ii) stated in Chapter II (pages 2.1 to 2.3), and develop human values it is urged that **ethical sensitization** be achieved by lectures or discussion on ethical issues, clinical case discussion of cases with an important ethical component and by including ethical aspects in discussion in all case presentations, bedside rounds and academic postgraduate programs.

Course Contents

1. Introduction to Medical Ethics

What is Ethics?

What are values and norms?

Relationship between being ethical and human fulfillment

How to form a value system in one's personal and professional life

Heteronomous Ethics and Autonomous Ethics

Freedom and personal Responsibility

2. Definition of Medical Ethics

Difference between medical ethics and bio-ethics

Major Principles of Medical Ethics 0

Beneficence = fraternity

Justice = equality

Self determination (autonomy) = liberty

3. Perspective of Medical Ethics

The Hippocratic Oath

The Declaration of Helsinki

The WHO Declaration of Geneva

International code of Medical Ethics (1993)

Medical Council of India Code of Ethics

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

5. The Ethics of Human life
 - What is human life?
 - Criteria for distinguishing the human and the non-human
 - Reasons for respecting human life
 - The beginning of human life
 - Conception, contraception
 - Abortion
 - Prenatal sex-determination
 - In vitro fertilization (IVF), Artificial Insemination by Husband (AIH)
 - Artificial Insemination by Donor (AID)
 - Surrogate motherhood, Semen Intra fallopian Transfer (SIFT),
 - Gamete Intra fallopian Transfer (GIFT), Zygote Intra fallopian Transfer (ZIFT),
 - Genetic Engineering

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

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

8. Research Ethics
 - Animal and experimental research / humanness
 - Human experimentation
 - Human volunteer research – Informed Consent
 - Drug trials\
 - ICMR Guidelines for Ethical Conduct of Research – Human and Animal
 - ICH / GCP Guidelines
 - Schedule Y of the Drugs and Cosmetics Act.

9. Ethical work -up of cases
 - Gathering all scientific factors
 - Gathering all human factors
 - Gathering value factors
 - Identifying areas of value – conflict, setting of priorities,
 - Working our criteria towards decisions

Recommended Reading

1. Francis C. M., **Medical Ethics**, 2nd Ed, 2004 Jaypee Brothers, Bangalore/-
2. Ethical guidelines for biomedical research on human participants, ICMR publication 2017
3. Santosh Kumar: the elements of research, writing and editing 1994, Dept of Urology, JIPMER, Pondicherry
4. Srinivas D.K et al, Medical Education Principles and Practice, 1995, National Teacher Training Centre, JIPMER, Pondicherry
5. Indian National Science Academy, Guidelines for care and use of animals in scientific Research, New Delhi, 1994
6. International committee of Medical Journal Editors, Uniform requirements for manuscripts submitted to biomedical journals, N Engl J Med 1991
7. Kirkwood B.R, Essentials of Medical Statistics, 1st Ed., Oxford: Blackwell Scientific Publications 1998
8. Mahajan B.K. Methods in bio statistics for medical students, 5th Ed, New Delhi, Jaypee, Brothers Medical Publishers, 1989
9. Raveendran, B. Gitanjali: A Practical approach to PG dissertation, New Delhi, Jaypee Publications, 1998.
10. John A Dent. Ronald M Harden, A Practical guide for medical teacher, 4th Edition, Churchill Livingstone, 2009.
11. Tejinder Singh Anshu, Principles of Assessment in Medical Education, Jaypee brothers
12. Dr. K.Lakshman, A Hand Book on Patient Safety, RGUHS & Association of Medical Consultants, 2012

13. Bernard Mogs, Communication skills in health & social care, 3rd Edition, (S) SAGE, 2015
14. Manoj Sharma, R. Lingyak Petosa, Measurement and Evaluation for Health Educators, Jones & Bartlett Learning.
15. David E. Kern, Patricia A, Thomas Mark T, Hughes, Curriculum Development for Medical Education. A six-step approach, The Johns Hopkins University press/Baltimore.
16. Tejinder Singh Piyush Gupta Daljit Singh, Principles of Medical Education (Indian Academy of Paediatrics), 4th Edition, Jaypee Brothers, 2013.
17. Robert Reid, Torri Ortiz Linenemann, Jessica L.Hagaman, Strategy Instruction for Students with learning disabilities, 2nd Edition, The Guilford Press London.
18. Lucinda Becker Pan Demicolo, Teaching in higher education, (S) SAGE, 2013.
19. C.N. Prabhakara, Essential Medical Education (Teachers Training), Mehta publishers.
20. Tejinder Singh Piyush Gupta, Principles of Evaluation & Research for health care programmes, 4th Edition, IAP National Publication House (Jaypee Brothers).
21. R.L.Bijlani, Medical Research, Jaypee Brothers, 2008
22. Stephen Polgar Shane A Thomas, Introduction to Research in the Health Sciences, Churchill Livingstone Elsevier, 2013.
23. Amar A,Sholapurkar. Publish & Flourish -A practical guide for effective scientific writing, Jaypee Brothers, 2011
24. Charles R.K.Hind, Communication Skills in Medicine, BMJ, 1997.


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