



# BLDE UNIVERSITY

## PG CURRICULUM 2012-13

### MD Forensic Medicine and Toxicology

Published by

**BLDE UNIVERSITY**

[Declared as Deemed to be University u/s 3 of UGC act, 1956, vide notification No.F.9-37/2007-U.3(A)]

The Constituent College

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

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## B.L.D.E. UNIVERSITY

(Declared vide notification No. F.9-37/2007-U 3 (A) Dated. 29-2-2008 of the MHRD, Government of India under Section 3 of the UGC Act,1956)  
The Constituent College

### SHRI. B. M. PATIL MEDICAL COLLEGE, HOSPITAL AND RESEARCH CENTRE

BLDEU/REG/PG/2012-13/845

September 20, 2012

#### NOTIFICATION

Subject: Revised Curriculum for the Post Graduate Degree and Diploma Courses – 2012

Reference:

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 meeting of the Academic Council of the University held on April 11, 2012
3. Minutes of the meeting of the BOM of the University held on May 23, 2012.

The Board of Management of University is pleased to approve the Curriculum for Post Graduate Degree and Diploma Courses at its meeting held on May 23, 2012.

The revised curriculum shall be effective, from the Academic Session 2012-13 onwards, for Post Graduate Degree and Diploma Course in the Constituent College of the University viz Shri B. M. Patil Medical College, Hospital and Research Centre.

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

  
REGISTRAR  
REGISTRAR.  
BLDE University, Bijapur.

Copy to:

1. The Secretary, UGC, New Delhi
2. The Controller of Examinations
3. Prof. & HODs of Pre, Para and Clinical Departments.
4. PS to Hon'ble President
5. PS to Hon'ble Vice Chancellor
6. Office Copy

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## **Vision and Mission**

- *Committed to provide globally competitive quality medical education.*
- *To provide the best health care facilities in this backward region, in particular, to socially disadvantaged sections of the society.*
- *Constantly striving to become a reputed research University with world-class infrastructure, latest tech-tools for teaching/research and adopting global best practices.*

## **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:

- (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, retraining 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

Source: Medical Council of India, Regulations on Postgraduate Medical Education, 2000. [amended upto January 2010]

### **Eligibility for Admission:**

Eligibility requirements for Post Graduate Diploma and Degree Courses are : -

1. The candidates seeking admission to these courses should have passed MBBS from the college recognized by Medical Council of India.

Eligibility requirements for Post graduate degree in superspeciality courses, M.Ch./D.M are:

The candidate seeking admission to these courses should have passed MS/MD from the college recognized by Medical Council of India.

2. As per the requisitions of statutory bodies, as laid out in post graduate regulations 2000 of Medical Council of India and its amendments thereof, the minimum percentage of marks in the entrance test conducted by the University for eligibility for admission to Post Graduate courses in broad specialties and super specialties shall be 50 percent for candidates belonging to General category and 40 percent for the candidates belonging to Scheduled Caste, Scheduled Tribes and Other Backward Classes. Eligibility for persons with locomotor disability of lower limbs category will be 45 percent.

Eligibility for Foreign / PIO / NRI students will be based on qualifying examination marks.

### **The MCI norms to qualify for Admissions**

Candidates seeking admission to these Post Graduate Degree courses should have passed M.B.B.S. recognised 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 and Diploma Courses even if he/she is placed in the merit list of BLDEU-PGET/BLDEU-SUPERSPECIALTY ET.

## **Obtaining Eligibility Certificate by the University before making Admission**

Candidate shall not be admitted for any postgraduate degree/diploma 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 superspecialty courses has to produce degree/pass certificate of MD/MS 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 years consisting of 6 terms including examinations. For Candidates possessing recognized two year Postgraduate Diploma in the same subject the duration of the course shall be two 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 years including examinations.

### **c.Diploma Courses:**

The course of study shall be for a period of 2 years consisting of 4 terms including examinations(MCI PG REG 2000,10.3).

## **Training Method**

The postgraduate training for degree/diploma 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. Similarly, clinical subjects' students should be posted to basic medical sciences and allied specialty departments or institutions.

## **Attendance, Progress and Conduct**

A candidate pursuing degree/diploma 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, assessed 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 specialities, 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 out comes to be assessed include:

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

### Personal Attitudes:

The essential items are :

- Caring attitudes
- Initiative
- Organizational ability
- Potential to cope with stressful situations and undertake responsibility
- Trust worthiness and reliability
- To understand and communicate intelligibly with patients and others
- To behave in a manner which establishes professional relationships with patients and colleagues
- Ability to work in team
- A critical enquiring approach to the acquisition of knowledge

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

### Acquisition of Knowledge:

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

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

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

- Bio-statistics
- Use of library,
- Journal review
- Use of computers,
- Appropriate use of AV aids
- Research Methods,
- Search of literature,
- Rational drug therapy
- Medical code of Conduct and Medical Ethics
- National Health and Disease Control Programmes
- Communication skills etc.

These topics may preferably taken up in the first few weeks of the 1<sup>st</sup> year commonly for all new postgraduates

b) Integrated teaching : These are recommended to be taken by multidisciplinary teams for selected topics, eg. Jaundice, Diabetes mellitus, thyroid diseases etc.

### **Journal Review Meeting (Journal club):**

The ability to do literature search, in depth study, presentation skills, and use of audio – visual aids are to be assessed. The assessment is made by faculty members and peers attending the meeting using a checklist

### **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

**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

**Work diary / Log Book:**

Every candidate shall maintain a work diary 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, if any, conducted by the candidate. The work diary 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,

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

One of these practical/clinical tests should be conducted by OSPE or OSCE method.

**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.

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

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

**Guide:**

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

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 1<sup>st</sup> 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 and 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 200.

#### **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 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)

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 1<sup>st</sup> 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 200.

**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 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).

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

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

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

**Diploma Examination:**

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

**Theory:**

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

**Practical / Clinical Examination:**

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

In case of clinical examination, it 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.

The maximum marks for Practical/Clinical shall be 150.

Viva-Voce Examination: Viva Voce examination should aim at assessing depth of knowledge, logical reasoning, confidence and oral communication skills. The total marks shall be 50.

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 viva voce examination.

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

**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.

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 6 per day

Diploma Courses: Maximum of 6 per day

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

## SECTION II

### 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 medicolegal field and conduct research in bio-medical science.

### 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. Collect, preserve, pack, label and dispatch the viscera to FSL in suspected poisoning cases.
3. Describe, interpret and opine on the following:
  - a) Slides of medicolegal significance
  - b) Soft specimens medicolegal significance
  - c) Photographs medicolegal significance
  - d) Weapon of assault
  - e) Instruments/appliances medicolegal significance

#### EXPERT OPINION

Should be able to interpret and give opinion on medicolegal matters referred.

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:

Examine, describe and interpret the findings and opine in the following cases:

- a. Poisoning
- b. Drunkenness
- c. Accused/Victim in cases of sexual assault.
- d. Injury cases.
- e. Determination of age by physical and radiological examination.

**Laboratory:**

Should be able to perform the following tests:

Microscopic and chemical tests for blood and semen stains/sample.

**FORENSIC TOXICOLOGY****Toxicology:**

Identify the specimen; describe the clinical features and management of poisoning.

**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
- 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

#### **Speciality postings:**

##### **Anatomy – 15 days**

##### **Learning objectives:**

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

##### **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 Medicolegal.
- C. Description of various wounds.
- D. Issue of wound certificate.
- E. Maintenance of Medicolegal 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. Clinical signs of mental illness.
- B. Classification of mental illness.
- C. True & feigned insanity.
- D. Interpretation of Mc Naughten's rule.

## **Microbiology-15 days**

### Learning objectives:

- A. Basics of staining techniques.

## **Forensic Science**

Posting at RFSL Belgaum- 15 days.

### Learning objectives:

- A. Analysis of poisons.
- B. HPLC & Chromatography
- C. Narco analysis
- D. DNA fingerprinting.
- E. Dactillography.
- F. Internal & terminal 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 I = Basic medical sciences of medicolegal significance
2. Paper II = Forensic Pathology
3. Paper III = Forensic Toxicology & Psychiatry
4. Paper IV = Medical Ethics & Law, Recent advances.

### **Practical**

Preparatory Practical examination shall be conducted by four examiners from the dept 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. Medicolegal 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 Medicolegal cases.
12. Setting up and maintaining Forensic Medicine Dept.
13. Reporting and discussion on Poisons.
14. Reporting and discussion on mounted Soft Specimens of Medicolegal 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: 300

### First day

#### First half Marks

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

#### Second half

- Preservation of viscera / body fluids/ stains etc 10
- Examination & opinion as to examination of body parts /skeletal remains 20
- Examination of set of poisons 10
- Examination of weapons & opinion 10

### Second day

#### First half (Clinical Forensic medicine)

- Examination, treatment & reporting of Poison case 10
- Examination and issue of Potency certificate 10
- Examination and certification as to Drunkenness 10
- Examination and certification as to accused / victim of sexual assault 10
- Age estimation by subject 10

#### Second half [viva voce]

- Pedagogy 20
- Grand viva 80

## Reference books

Sl No	Book title	Author	Publisher	Edition
1	Forensic Medicine & Toxicology volume I & II	J B Mukharjee	Academic Publishers Kolkata	3 <sup>rd</sup> edition
2	Text book of Medical Jurisprudence & Toxicology	C K Parikh	CBS Publishers New delhi	6 <sup>th</sup> edition
3	Essentials of Forensic Medicine & Toxicology	K S Narayana reddy	Medical book company Hyderabad	29 <sup>th</sup> edition
4	Modi's text book of medical Jurisprudence & Toxicology	Mathiharan		
5	Cox's Medical Jurisprudence & Toxicology.			
6	Bernard Knight et.all : Cox's Medical Jurisprudence & Toxicology.	Bernard Knight et.all		
7	.Russel S.Fisher & Charles S. Petty :Forensic Pathology.			
8	Keith Simpson's Forensic Medicine.	Jason Payne James Richards Jones	HODDER ARNOLD UK COMPANY	13 <sup>th</sup> 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 <sup>nd</sup> edition
11	The essentials of Forensic Medicine.	Polson C.J. :		
12	Legal Medicine , Bristol Wright.	Camps F.E.Gradwohls-		
13	A Doctors guide to Court.	Simpson's :		
14	The pathology of Homicide.	Adelson L. :		
15	Atlas of Legal Medicine :	Tomio Watanabe.		
16	Medici Legal Investigation of Death.	Spitz W.U& Fisher R.S. ,		
17	Principles & practice of Medical Jurisprudence	Taylor's. A.Keith Mant ,		

	.Churchil Lvng.			
18	The Indian Penal Code.	Justice Hidayatullah & V.R.Manohar , Ratanlal & Dhirajlal :		
19	The Code of Crm.Procdr.	Justice Hidayatullah & S.P.Sathe : Ratanlal & Dhirajlal ;		
20	The Law of Evidence.	Justice Hidayatullah & V.R.Manohar , Ratanlal & Dhirajlal		
21	Medical Law & Ethics in India.	H.S.Mehata		
22	Bernard Knight ; Forensic Pathology.	Pekka Saukko Bernard Knight	HODDER ARNOLD UK COMPANY	3 <sup>rd</sup> 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.		
25	F.E.Camps, J.M.Cameren , David Lanham : Practical Forensic Medicine.			
26	Modern Medical Toxicology.	VV Pillay	JAYPEE BROTHERS New Delhi	3 <sup>rd</sup> edition
27	Textbook of Forensic Medicine & Toxicology , Principles & Practice.	Krishan Vij	ELSEVIER	5 <sup>th</sup> edition
28	Textbook of Forensic Medicine & Toxicology.	Dr.B.V.Subrahmanyam		
29	Handbook of Forensic Pathology.	Vincent J.M. Di Maio & Suzzanna E. Dana :		
30	The Medical Profession & Law	, Dr.R.D.Lele	.( IMA , Mumbai Publication).	
31	Forensic Medicine & Toxicology , Oral , Practical & Mcq.	R.N.Karmarkar	Academic Publishers Kolkata	3 <sup>rd</sup> edition

32	Forensic Medicine.	P V GUHRAJ	Universities press	2 <sup>nd</sup> edition
33	Forensic Medicine.	Gordon & Shapiro		
34	Pediatric Forensic Medicine & Pathology,	J.K.Mason	Chopraman & Hall Medical.	
35	Forensic Medicine & Pathology,	J.K.Mason	Chopraman & Hall Medical.	
36	Forensic Medicine	B. Umadethan	CBS Publishers	New edition
37	Forensic Medicine. Physical Trauma. Vol.1,2,3.	C.G.Tedeshi		
38	Gradwohl's Legal Medicine.	Francis C.J.Mehata		
39	Pathology Of Trauma.	Allen Moritz		
40	Principles of Forensic Medicine & Toxicology	Rajesh Bardale	JAYPEE BROTHERS New Delhi	New edition
41	Medical Ethics ,.	Francis C.M.	J.P.Publications , Bangalore	

### 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

#### Additional reading

1. Compendium of Recommendations of Various committees on Health and Development (1943-1975) DGHS, 1985 Central Bureau of Health Intelligence, Directorate General of Health Services, Min. Of Health and Family Welfare, Govt. of India, Nariman Bhawan New-Delhi, P-335
2. National Health Policy: Min. of Health & Family Welfare, Nirman Bhawan, New Delhi, 1983
3. Santosh Kumar: The elements of Research, writing and editing 1994, Dept. of Urology, JIPMER, Pondicherry.
4. Srinivasa D K et al : Medical Education Principles and Practice, 1995. National Teacher Training Centre, JIPMER, Pondicherry.
5. Ethical guidelines for biomedical research on human participants I.C.M.R. New Delhi 2006.
6. Code of Medical Ethics framed under Section 33 of the Indian Medical Council Act, 1956. Medical Council of India, Kotla Road, New Delhi.
7. Francis C.M: Medical Ethics, Jaypee Publications, Bangalore, 2<sup>nd</sup> Edn-2004.
8. Indian National Science Academy, Guidelines for care and use of animals in Scientific Research, New Delhi, 1994.
9. International Committee of Medical Journal Editors, Uniform requirements for manuscripts submitted to biomedical journals, N England Journal of Medicine. 1991, 424-8
10. Kirkwood B.R. Essentials of Medical Statistics, 1<sup>st</sup> Ed. Oxford, Blackwell Scientific Publications 1988.
11. Mahajan B.K: Methods in Bio-statistics for Medical students, 5<sup>th</sup> Edition new Delhi, Jaypee Brothers Medical Publishers, 1989.
12. K.R.Sundaram, S.N.Dwivedi, V.Srinivas. Medical Statistics. Principles & Methods .B.I.Publications, New Delhi, 2010
13. R.K.Chaube: Consumer Protection Act and Medical Profession, 1st Edition, 1999, Jaypee Brothers.

  
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