

Dr. M.G.R. EDUCATIONAL AND RESEARCH INSTITUTE

Deemed to be University

Maduravoyal, Chennai – 600 095, Tamilnadu, India

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University with Graded Autonomy Status



SYLLABUS & CURRICULUM
for
M.D. FORENSIC MEDICINE AND TOXICOLOGY

2020 onwards

Sponsored by

Dr. M.G.R. EDUCATIONAL AND RESEARCH INSTITUTE TRUST

M.D. FORENSIC MEDICINE AND TOXICOLOGY

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M.D. FORENSIC MEDICINE AND TOXICOLOGY

1. INTRODUCTION

1.1 GOAL

The Goal of MD Forensic Medicine is to train a doctor to become a competent medico-legal expert, teacher and researcher in the subject who:

1. Is aware of medico legal aspects in various settings
2. Is aware of contemporary advances and developments in the field of Forensic Medicine.
3. Has acquired the competencies pertaining to the subject of Forensic Medicine that are required to be practiced at all levels of health system.
4. Is oriented to the principles of research methodology.
5. Has acquired skills in educating and imparting training to medical, paramedical and allied professionals.

1.2 OBJECTIVES

A postgraduate student, upon successfully qualifying in the M.D (Forensic Medicine) examination, should be able to:

1. Become an expert in Forensic Medicine.
2. Identify and define medico-legal problems as they emerge in the community and work to resolve such problems by planning, implementing, evaluating and modulating Medico-legal services.
3. Undertake medico-legal responsibilities and discharge medico-legal duties in required settings.
4. Keep abreast with all recent developments and emerging trends in Forensic Medicine, Medical Ethics and the law.
5. Deal with general principles and practical problems related to forensic,

clinical, emergency, environmental, medico-legal and occupational aspects of toxicology.

7. Deal with medico-legal aspects of Psychiatry, mental health and drug addiction.
8. Impart education in Forensic Medicine and Toxicology to undergraduate and post-graduate students with the help of modern teaching aids.
9. Assess the students' knowledge and skills in the subject of Forensic Medicine
10. Oriented to research methodology and conduct of research in the subject

2. COURSE OUTCOMES

A post graduate student, upon successfully qualifying in the M.D (Forensic Medicine & Toxicology) examination, should be able to:

1. Acquire knowledge on the philosophy and guiding principles of Forensic Medicine course.
2. Acquire knowledge and perform medico-legal autopsy independently with required physical assistance, prepare report and derive inferences.
3. Acquire knowledge and perform medico-legal examination of users of alcohol, drugs and poisons and prepare report.
4. Acquire knowledge and perform medico-legal examination in cases of sexual offences and prepare report.
5. Interpret histo-pathological, microbiological, radiological, chemical analysis, DNA profile and other investigative reports for medico-legal purposes.
6. Perform medico-legal examination of bones, clothing, wet specimens and weapons.

7. Describe relevant legal/court procedures applicable to medico-legal/medical practice.
8. Depose as an expert witness in a court of Law on medico-legal matters.
9. 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.
10. Examine, identify, prepare reports and initiate management on medico-legal cases in emergency setup.
11. Collect, preserve and dispatch various samples and trace evidences to the concerned authorities in appropriate manner.
12. Help and advice authorities on matters related to medical ethics and medico-legal issues.
13. Plan, organize and manage toxicological laboratory services in any health care set up.
14. Manage medico-legal responsibilities in mass disasters involving multiple deaths like fire, traffic accident, aircraft accident rail accident and natural calamities.
15. Participate in various workshops/seminars/journal clubs/demonstration in the allied departments, to acquire various skills for collaborative research.
16. 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.
17. Impart education in Forensic Medicine and Toxicology to under-graduate and post-graduate students with the help of modern teaching aids.

3. TIME FRAME TO ACQUIRE KNOWLEDGE & SKILLS

First year of PG course

- 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 seminar, CME, workshop etc.
- 10 Orientation to organization and functioning of toxicology/research laboratory.
- 11 Preparation of thesis protocol.
- 12 Being self-updated with recent advances in the subject

Second year of PG course:

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 course

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 where deputed to attend in cases where an expert is required to depose by 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.

4. SYLLABUS

Course contents:

I. General Principles of Forensic Medicine and Toxicology

- i. Identify the role of anatomy, physiology, biochemistry, microbiology, pathology, blood bank, psychiatry, radiology, forensic science laboratory as well as other disciplines of medical science to logically arrive at a conclusion in medico-legal autopsies and examination of medico-legal cases.

- ii. Describe the basic principles of techniques used in toxicological laboratory namely TLC, GLC, AAS, HPLC and Breath Alcohol Analyzer.
- iii. Execute the skills and knowledge expected at undergraduate level.

ii. Basic Sciences and allied Subjects

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

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

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

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

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

- i. Describe pathology of inflammation and repair, immunity and hypersensitivity
- ii. Thrombosis and embolism, electric and ionizing radiation injuries, genetic factors in disease, deficiency disorders and malnutrition.
- iii. 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.
- iv. Describe the pathology of sudden death.
- v. Describe local and systemic response to trauma and patho-physiology of shock.
- vi. Describe pathology of common infections and infestations of medico legal significance.

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

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

F. Fundamentals of Forensic Medicine:

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

II. Medical Ethics and Law (Medical Jurisprudence)

- i. Describe the history of Forensic Medicine.
- ii. Describe the legal and medico-legal system in India.
- iii. Describe medical ethics and the law in relation to medical practice, declarations, oath, etiquette, Medical Council of India, disciplinary control, rights and duties of a registered medical practitioners, professional misconduct, consent, confidentiality, medical negligence (including all related issues) and Consumer Protection Act.
- iv. Describe medical ethics and law in relation to Human Organ Transplantation Act, biomedical human research and experimentation, human rights, cloning, genetic engineering, human genome, citizen's charter, International codes of medical ethics and Bombay Anatomy Act.
- v. Describe the ethics and law in relation to artificial insemination, abortion, antenatal sex, foetus, genetics and euthanasia.
- vi. Interpret the ethics and law applicable to the human (clinical trials) and animal experimentation.
- vii. Describe ethics in relation to elderly, women and children.
- viii. Describe various scenarios of negligence cases and how to proceed in it.

III. Clinical Forensic Medicine

- i. Examine, assess legal implications and prepare report or certificate in cases of physical assault, suspected drunkenness, sexual offences, consummation of marriage and disputed paternity.
- ii. Collect, preserve and dispatch the specimen/material to the concerned authority and interpret the clinical and laboratory findings which are reported.

- iii. Examine injured person, prepare medico-legal report and initiate management.
- iv. Determine the age and establish identity of an individual for medico-legal purpose.
- v. Examine a person and assess disability in industrial accidents and diseases.
- vi. Perform examination and interpret findings for medico-legal purposes in cases pertaining to pregnancy, delivery, artificial insemination, abortion, sterilization, Impotence, AIDS and infectious disease.
- vii. Describe normal and abnormal sexual behaviour and its medico-legal implications.
- viii. Examine and assess the medical fitness of a person for insurance, government service, sickness and fitness on recovery from illness.
- ix. Examine medico-legal problems related to clinical disciplines of medicine and allied subjects, Paediatrics, Surgery And allied subjects, ENT, Ophthalmology, Obstetrics and Gynaecology, Dermatology and Anaesthesiology.
- x. Examine medico-legal problems related to children, women and elderly.
- xi. Identify the cases of torture and violation of human rights and issues thereto.

IV. Forensic Pathology

- i. Apply the principles involved in methods of identification of human remains by race, age, sex, religion, complexion, stature, hair, teeth, anthropometry, dactyl lography, footprints, hairs, tattoos, poroscopy and super imposition techniques.
- ii. Perform medico-legal postmortem and be able to exhume, collect,

preserve and dispatch specimens or trace evidence to the appropriate authority.

- iii. Diagnose and describe the pathology of wounds, mechanical and regional injuries, ballistics and wound ballistics, electrical injuries, lightning, neglect and starvation, thermal injuries, deaths associated with sexual offences, pregnancy, delivery, abortion, child abuse, dysbarism and barotraumas.
- iv. Describe patho-physiology of shock and neurogenic shock.
- v. Classification, medico-legal aspects and post-mortem findings of different types of asphyxial deaths.
- vi. Diagnose and classify death, identify the signs of death, Forensic Taphonomy (postmortem changes), Forensic entomology, interpret autopsy findings, artefacts and results of the other relevant investigations to logically conclude the cause, manner (suicidal, homicidal and accidental) and time of death.
- vii. Manage medico-legal responsibilities in mass disasters involving multiple deaths like fire, traffic accident, aircraft accident, rail accident and natural calamities.
- viii. Demonstrate post-mortem findings in infant death and to differentiate amongst live birth, still birth and dead born.
- ix. Perform postmortem examination in cases of death in custody, torture and violation of human rights.
- x. Perform postmortem examination in cases of death due to alleged medical negligence as in operative and anaesthetic deaths.
- xi. Perform postmortem examination in cases of death due to virus affected bodies (HIV, Rabies, SARS, COVID-19)
- xii. Describe Verbal autopsy and Virtual autopsy.

V. Toxicology

- ix. Describe the law relating to poisons, drugs, cosmetics, narcotic drugs and

psychotropic substances.

- x. Examine and diagnose poisoning cases and apply principles of general management and organ system approach for the management of poisoning cases.
- xi. Describe the basic principles of pharmacokinetics and pharmacodynamics of poisonous substances.
- xii. Describe the toxic hazards of occupation, industry, environment and the principles of predictive toxicology.
- xiii. Collect, preserve and dispatch material/s for analysis, interpret the laboratory findings and perform the Medico-legal formalities in a case of poisoning.
- xiv. Demonstrate the methods of identification and analysis of common poisons.
- xv. Describe the signs, symptoms, diagnosis and management of common acute and chronic poisoning due to:
 - a. Corrosives
 - b. Non-metallic substances
 - c. Insecticides and weed killers
 - d. Metallic substances
 - e. Vegetable and organic irritants
 - f. Somniferous compounds
 - g. Inebriant substances
 - h. Deliriant substances
 - i. Food Contamination/adulteration.
 - j. Substances causing spinal and cardiac toxicity
 - k. Substances causing asphyxia (Asphyxiants)
 - l. Toxic envenomation
 - m. Biological And chemical warfare
 - n. Environmental intoxicants
 - o. Occupational intoxicants
 - p. Household toxins

VI. Forensic Psychiatry

- i. Explain the common terminologies of forensic importance in Psychiatry.

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

5. DISSERTATION

Every candidate shall carry out work on an assigned research protocol under the guidance of a recognized Postgraduate teacher, the protocol shall be

- i. Written and submitted in the form of dissertation.
- ii. Every candidate shall submit Dissertation plan in the form of synopsis within the given time frame. The process has to be completed within six months of admission to MD program.
- iii. Dissertation shall be submitted to the Academic section six months prior to commencement of theory examination.

6. TEACHING SCHEDULE

The course shall be of three years.

The teaching schedule is as follows:

SI. No.	ACTIVITY	FREQUENCY
1.	Seminar	Once a week
2.	Journal club	Once a week
3.	Case presentation	Once a week
4.	Tutorials	Once a week
5.	Clinical society meeting/CPC	Once a month
6.	Dissertation work	Once every 6 months

- One CME & One Conference must be attended every year by Postgraduate student.

- A postgraduate student should present one poster presentation, to read one paper at a national/state conference and to publish one research paper which should be published/accepted for publication/sent for publication during the period of his postgraduate studies so as to make him eligible to appear at the postgraduate degree examination.
- Each PG should present minimum 5cases each year under case presentation.
- CPC s recommended once a month for all post graduate students.
- The post graduate students shall be required to participate in the teaching and training programme of undergraduate students and interns.

7. POSTINGS IN OTHER DEPARTMENTS:

Other than the Department of Forensic Medicine, student maybe posted for training in the following clinical disciplines for a given period of time on rotational basis.

Sl. No	Place of Posting	First year	Second year	Third year
1	Histopathology	7days	5days	3days
2	Trauma Emergency/Casualty / Emergency Medicine Departments	1month	15days	15days
3	Radiology	7days	5days	3 days
4	Psychiatry	5days	3days	2 days
6	Forensic Science Lab–Ballistics, Serology, Forensic photography, Analytical Toxicological methods	7days	15days	Not required

8. ASSESSMENT

FORMATIVE ASSESSMENT

Half Yearly assessment during the MD training should be based on following educational activities:

1. Journal based / recent advances learning
2. Patient based /Laboratory or Skill based learning
3. Self-directed learning and teaching
4. Departmental and interdepartmental learning activity

5. External and outreach activities/CMEs

The student to be assessed half yearly as per categories listed in postgraduate student appraisal form.

Through out the course and recorded in the logbook.

9. EXAMINATION PATTERN & MARKS DISTRIBUTION

Formative (Internal assessment)

A. Theory

IA Schedule	Marks
At the end of First year	100(1paper)
At the end of Second year	100(1paper)
Pre-Professional examination	400(4 papers of 100 marks each)
TOTAL	600MARKS

B. Practical

Schedule	Marks
At the end of First year	100
At the end of Second year	100
Pre-Professional examination	300 (Practical200+Viva100)
Total	500marks

Candidate should secure a minimum of 50 % marks in Theory and Practical separately, in order to be eligible to appear for Professional examination.

Theory & Practical Examination pattern

At the end of First year	Theory	10 SEQ (10x10 =1000marks)
	Practical	Spotters (20marks) Exercises: 4 exercises (10x 4=40 marks). Postmortem Examination : 20 marks Viva voce: (20 marks)
At the end of Second year	Theory	10 SEQ (10 x 10 =100marks)
	Practical	Spotters (20marks) Exercises: 4 exercises (10 x 4=40 marks). Postmortem Examination:20 marks Viva voce: (20 marks)

Pre Professional exam	Theory (Paper I, II, III, IV each of 100 marks Total= 400 marks)	10SEQ (10x10 =100marks)
	Practical Total= 300marks	<p>Day1(100marks)</p> <ul style="list-style-type: none"> ● Clinical Cases - (5 x 10=50 marks) Age estimation, injury report/weapon examination, examination of an intoxicated person, sexual offences (accused and victim), and examination of an insane person to evaluate criminal/civil responsibility. ● Spotters - (20 marks) Histopathology slides, photographs, X-rays, mounted specimens, bones, poisons, charts etc. ● Toxicology Exercises-(2 x 10=20 marks) Identification and details of common poisons ● Laboratory Tests-(10 marks) Identification of Semen, Blood, Body fluids. Histopathology slides of medico legal relevance, gram and acid fast staining etc. <p>Day2(200marks)</p> <ul style="list-style-type: none"> ● Postmortem Examination. (80 marks) ● Discussion on a case for expert opinion (20marks) ● Thesis/Seminar Presentation/ Pedagogy - For assessment of research/teaching ability(20marks) ● Grand Viva Voce. (80marks)

Professional exam	Theory (Paper I, II, III, IV each of 100 marks Total= 400 marks)	10SEQ (10x10 =100marks)
	Practical Total= 300marks	<p>Day1(100marks)</p> <ul style="list-style-type: none"> ● Clinical Cases - (5 x 10=50 marks) Age estimation, injury report/weapon examination, examination of an intoxicated person, sexual offences (accused and victim), and examination of an insane person to evaluate criminal/civil responsibility. ● Spotters - (20 marks) Histopathology slides, photographs, X-rays, mounted specimens, bones, poisons, charts etc. ● Toxicology Exercises-(2 x 10=20 marks) Identification and details of common poisons ● Laboratory Tests-(10 marks) Identification of Semen, Blood, Body fluids. Histopathology slides of medico legal relevance, gram and acid fast staining etc. <p>Day2(200marks)</p> <ul style="list-style-type: none"> ● Postmortem Examination. (80 marks) ● Discussion on a case for expert opinion (20marks) ● Thesis/Seminar Presentation/ Pedagogy - For assessment of research/teaching ability(20marks) ● Grand Viva Voce. (80marks)

10. SUMMATIVEASSESSMENT

1. Theory:

There shall be four question papers, each of three hours duration. Each paper shall consist of 10 short essay questions carrying 10 marks each .Total marks for each paper will be 100.

Paper I = 100 Marks

Paper II = 100 Marks

Paper III = 100 Marks

Paper IV = 100 Marks

Total -----
400 Marks

- These are:

Paper 1: Basic of Forensic Medicine, basic sciences and allied subjects.

Paper II: Clinical Forensic Medicine and medical jurisprudence.

Paper III: Forensic pathology and toxicology.

Paper IV: Recent advances in Forensic Medicine, Forensic Psychiatry and Medical Toxicology, applied aspects of clinical disciplines and forensic sciences

2. Practical Examination

Duration of Practical examination will be for two days including viva voce.

Day 1

- **Clinical Cases** - (any 5) (5x10=50marks) Age estimation, injury report, examination of an insane person to evaluate criminal/civil responsibility, examination of an intoxicated person, examination of a suspected case of poisoning (acute/chronic),disputed paternity case and sexual offences (accused and victim)

- **Spotters-** (any 10) (2x10=20marks) Histopathology slides, photographs, exhibit material, X-rays, mounted specimens, bones, poisons and weapons, charts, firearms, wet specimens of foetus etc.
- **Toxicology Exercises-**(any 02) (2x10=20marks) Identification and details of common poisons or chemical tests etc.
- **Laboratory Tests** - (any 01) (10marks) Identification of biological stains (Semen, Blood, etc.),Histopathology slides of medicolegal relevance, gram & acid fast staining etc.

Day 2

- Postmortem Examination—80marks.
- Thesis / Seminar Presentation / Pedagogy – for assessment of Research/teaching ability - 20marks.
- Discussion on a case for expert opinion—20marks.
- Grand Viva Voce - 80marks.

Maximum marks for M.D. Forensic Medicine and Toxicology	Theory	Practical & Viva	Grand Total
	400	300 (Practical – 200 & Viva – 100)	700

MARKS QUALIFYING FOR A PASS

Obtaining a minimum of 40% marks in each theory paper and not less than 50% cumulatively in all the four papers for degree examination. Obtaining of 50% marks in Practical examination shall be mandatory for passing the examination as a whole in the degree examination.

11. RECOMMENDED READING

Books (latest edition)

1. Subramanyam BV. Modi's Medical Jurisprudence and Toxicology. Butterworths India, New Delhi.
2. Nandy A. Principles of Forensic Medicine, New Central Book Agency, Calcutta.
3. Lyon's Medical Jurisprudence for India. Delhi Law House, Delhi.
4. Reddy KSN. The Essentials Forensic Medicine and Toxicology, K. Saguna Devi Publishers, Hyderabad.
5. Parikh CK. Parikh's Text book of Medical Jurisprudence, Forensic Medicine and Toxicology, CBS Publishers and Distributors, New Delhi.
6. Bernard Knight. Forensic Pathology. Arnold Publishers London.
7. Krishan Vij. Text book of Forensic Medicine and Toxicology, Churchill Livingstone.
8. Pillay VV. Textbook of Forensic Medicine and Toxicology, Paras Publishing, Hyderabad.
9. Mukherjee JB. Textbook of Forensic Medicine and Toxicology, Arnold's Publishers, London
10. DiMaio VJ, DiMaio D. Forensic Pathology. CRC Press. New York.
11. Camps FE. Gradwohl's legal Medicine. Bristol: John Wright and Sons Ltd.
12. American College of Legal Medicine Text book Committee. Legal Medicine Mos by Publishers, USA.
13. DiMaio VJM. Gunshot Wounds, CRC Press USA.
14. Gordon I, Shapiro HA, Berson SD. Forensic Medicine—A Guide to Principle. Churchill Livingstone, New York.

15. MantAK. Taylor's Principles and Practice of Medical Jurisprudence, Churchill Livingstone, New York.
16. Parikh. Medicolegal Postmortem in India. Medical Publications, Bombay.
17. GreshamGA, TurnerAF. Postmortem Procedure An illustrated Text Book. Wolfe Medical Publication.
18. Ludwing J. Current Methods of Autopsy Practice. WB Saunders Company, London.
19. Gordon I, Turner R. Medical Jurisprudence E and S Livingstone Ltd. London
20. Spitz WU, Fisher RS. Medico-legal Investigation of Death. Charles Thomas Publishers.

Reference books

1. Olshakar JS, Jackson JS. Jackson MC, Smock WS. Forensic Emergency Medicine. Lippincott William and Wilkins, Philadelphia.
2. Norah Rudin, Keith Inman. An introduction to Forensic DNA Analysis. CRC Press, London.
3. Robertson J, Ross AM, Burgoyne LA. DNA in Forensic Science - Theory, Technique and Application. Ellis Horwood, UK
4. CurryAS. Method of Forensic Science, Vol.I-III. Inter-science Publishers, London.
5. Clement JG, Ranson DL. Craniofacial Identification in Forensic Medicine. Arnold Publishers, London.
6. Sellier GK, Kneubuechl BP. Wound Ballistics and the scientific background. Elsevier, Amsterdam.
7. Bernard Knight. Simpson's Forensic Medicine. Arnold Publishers London.
8. Bernard Knight. Legal aspects of Medical Practice. ChurchillLivingstone, New York.

9. Gunn and Taylor. Forensic Psychiatry Clinical, Legal and Ethical issues. ButterworthHeinemann GGustafson.ForensicOdontology.StaplesPress.
10. Gonzalez TA. Legal Medicine, Pathology and Toxicology- Appleton Century-CroftsInc. New York.
11. Hirsch CS, Morris RC,Moritz. Handbook of Legal Medicine. CVMosby Company, London.
12. Lincoln PJ, Thomas J. Forensic DNA Profiling Protocols. Methods in Molecular Biology,Vol. 98, Humana Press, Totowa, New Jersey.
13. Lee HC, Gaensslen RE. DNA and other polymorphism in Forensic Science. Year book Medical Publishers, London.
14. Bergaus G, Brinkmann B, Rittner C. Staak M. (Eds.). DNA Technology and its Forensic Application. Springer-Verlag. Berlin
15. Jay Dix.Colour Atlas of Forensic Pathology. CRC Press New York.
16. Bernard Knight. (ed.) The Estimation of Time since Death in the early Post Mortem Period. Arnold Publishers London.
17. MantAK.ModernTrendsinForensicMedicine1-3.Butterworth,London.
18. Luntz and Luntz. Hand book for Dental Identification. JB Lippincott.Toronto.
19. Buttler JM. Forensic DNA Typing. Academic Press, New York.
20. Mason JK. Forensic Medicine-an illustrated reference. Chapman and Hall, London
21. Mason JK. Paediatric Forensic Medicine and Pathology. Chapman and Hall, London.
22. PatnaikVP. MKR Krishnan's hand book of Forensic Medicine. Paras Publishing.
23. Lundquist Frank. Methods of Forensic science, vol. II, Inter science Publishers.
24. Mehta HS. Medical, Law and Ethics in India. The Bombay Samachar Pvt. Ltd.

25. Tedeschi Eckert. Forensic Medicine Vol.I-IV, WB Saunders Company.
26. Polson, Gee, Knight. The Essentials of Forensic Medicine. Pergomann Press, UK.
27. Redsicker DR. Forensic Photography, CRC Press, USA.
28. Krogmann. Human skeleton in Forensic Medicine.
29. Simpson K. Taylor's Principle and Practice of Medical Jurisprudence. Vol.I-II.
30. Flanagan R Jetal. Basic Analytical Toxicology. Published by WHO, UNEP and ILO.
31. Guidelines for Poison Control. Published by WHO, UNEP and ILO
32. Genetics in Medicine – J. S. Thompson and M.W.Thompson.
33. Research–How to plan, speak and write about it–C.Hawkins and M.Sorgi.
34. Sorg MH, Haglund WD. Forensic Taphonomy The Postmortem Fate of Human Remains. 1996. CRC Press.

JOURNALS

1. Forensic Science International
2. Journal of Forensic Sciences
3. Medicine, Science and Law
4. Journal of Forensic and Legal Medicine
5. American Journal of Forensic Medicine and Pathology
6. Journal of Indian Academy of Forensic Medicine
7. Journal of Clinical Forensic Medicine
8. Journal of Forensic Research
9. Journal of Forensic Radiology and Imaging
10. Medico-Legal Journal.

12. POSTGRADUATE STUDENT APPRAISAL FORM

Name of the Department/Unit : Forensic Medicine & Toxicology

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 (Seminar/case presentation)										
2.	Patient based//Laboratory or Skill (Autopsy dissection/ viscera packing/ specimen mounting/ SO case / DNA /fingerprint)										
3.	Self-directed learning and teaching										
4.	Departmental and interdepartmental learning activity (Court visit/crime scene visit/clinical society)										
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