

THE TAMIL NADU Dr. M.G.R. MEDICAL UNIVERSITY

No. 69, ANNA SALAI, GUINDY, CHENNAI – 600 032.

M.D. / M.S.

POST GRADUATE DEGREE COURSES



SYLLABUS AND CURRICULUM

2021 – 2022

M.D. FORENSIC MEDICINE

THE TAMIL NADU Dr. M.G.R MEDICAL UNIVERSITY, CHENNAI

M. D. (FORENSIC MEDICINE)

GOAL:

This program aims at educating & training a medical professional towards becoming a competent expert in Forensic Medicine & Toxicology.

OBJECTIVES:

A. KNOWLEDGE

At the end of the course the professional shall be:

1. Able to identify and deal with all Medico legal issues & cases.
2. Able to know the procedure of examination of a Medico legal case and be aware about the procedure of collection of the requisite evidential materials.
3. Aware about the prevalent law and legal procedures and be able to appear in a court of law as an Expert and give evidence in cases of Suicide, Homicide, Accident, Assault, Sexual offences, Alcoholic intoxication, Drug dependence and all other cases requiring medical opinion
4. Aware about the procedure of preparation of Medico legal reports.
5. Having fundamental knowledge of all branches of Medical disciplines related to their medico legal applications. The professional will also be able to refer & understand relevant application of few other branches of Science like Botany, Zoology, Physics, Chemistry, Law etc.
6. Able to plan, implement, evaluate & modulate Medico legal services.

B. ATTITUDE

At the end of the course the professional shall:

1. Keep oneself abreast with all recent developments & emerging trends in the field of Medical ethics & Law.
2. Remain knowledgeable with emerging trends in the field of Forensic Medicine.
3. Evaluate his professional knowledge & skills, select appropriate learning resources for updating his / her knowledge.

C. SKILLS

At the end of the course the professional shall be:

1. Able to conduct a proper Medicolegal examination, document and report in all Medicolegal cases.
2. Able to prepare Medical record and reports.
3. Able to conduct the Medico Legal Autopsies.
4. Able to examine, document, preserve evidential material, dispatch specimens and relevant materials to the concerned centers in all medicolegal cases.
5. Able to interpret HPE, Microbiological, Radiological, FSL & other investigative reports.
6. Able to properly depose evidence in a court of law.
7. Competent to issue all Medical and Medicolegal certificates.
8. Able to impart education in Forensic Medicine & Toxicology to Undergraduate students, Medical officers & other professionals using modern teaching aids.

COMPONENTS OF POSTGRADUATE CURRICULUM

THEORETICAL KNOWLEDGE

1. Knowledge about Medical, Legal and Medicolegal responsibilities of a physician.
2. Laws & Special Acts in relation to Medical Practice.
3. Medical Ethics and Etiquette to be followed during Medical Practice.
4. Relevant aspects of basic medical sciences useful in Medicolegal practice
5. Examination of a case and furnish medicolegal opinion
6. Procedure of issuance of certificates in medicolegal practice
7. Get update on Recent Advances in Medical Practice & its medico legal implication

PRACTICAL KNOWLEDGE

1. Perform Medico Legal Autopsy independently.
2. Conduct Medico legal examination of Skeletal remains.
3. Conduct examination of evidential materials such as Weapons, Clothing, Wet specimens etc & furnish medico legal opinion.
4. Examine Photographs, X-rays etc. & furnish medico legal opinion.
5. Collect, preserve & dispatch materials for investigation.
6. Prepare reports in Medico legal cases such as Age Estimation.
7. Prepare independently Medico Legal Wound report.
8. Conduct examination, collect evidential material in cases of Alcohol intoxication.
9. Conduct examination, collect evidential material in cases of Substance Abuse.
10. Conduct examination, collect evidential material in cases of Sexual offences.

11. Conduct psychiatric assessment & furnish medico legal opinion in such cases
12. Conduct examination & collect evidential material in cases of poisoning.
13. Conduct basic tests for detection of poisons in Toxicological laboratory.
14. To treat & manage poisoning cases in Hospital setup as Toxicology Expert.
15. Conduct laboratory examination of all biological & Trace evidential materials.
16. Interpret Investigative reports for Medico legal purposes.
17. Give evidence in a court of law as an expert.
18. Awareness of various intensive care & OT setups & related medico legal aspects.

WRITING THESIS / RESEARCH ARTICLES

The student shall plan & conduct systematic scientific enquiry, analyze the data and arrive at a conclusion, which shall be utilized as scientific information for health planning & research. Further this shall be the topic on which the student brings out their dissertation

Student will publish at least one scientific research article in University Journal of Medical Sciences.

ATTITUDE INCLUDING COMMUNICATION SKILLS

The student shall undergo training in attitude, communication skills during his / her course. Student shall learn to communicate with Police, Judicial Officers, Public regarding Medico Legal procedures.

TRAINING IN RESEARCH METHODOLOGY / MEDICAL ETHICS / BIOETHICS & MEDICOLEGAL ASPECTS

The student shall undergo training in research methodology before submitting / registering his Dissertation topic to the university. Students should compulsorily attend the research Methodology workshop conducted by the University within first six months of the M.D course.

Students are encouraged to attend workshops/CME's on Bioethics conducted by the University and other reputed Institutions, since Medical ethics, moral and legal issues are part and parcel of the curriculum and syllabus.

The student shall undergo training in Medical audit, Health economics, Health information system, Basics of statistics during his / her course.

The student will have exposure to human behavior studies during his / her course.

The student will have knowledge of Pharmacoeconomics & will have introduction to nonlinear mathematics during his / her course.

THEORY SYLLABUS:

I Basic sciences:

Anatomy	Parts of the body relevant from the Medicolegal aspects (Structure & Functions), Embryology & Fetal development with respect to Fetal autopsy, Osteology with respect to Age & Sex assessment. Museum specimen preparation.
Biochemistry	Basic lab values needed in Clinical Forensic Medicine, Chromatography, Role of Body fluids in Time Since Death (TSD).
Physiology	Homeostasis, Fluid & Electrolytes - Regulation & Imbalance, Thermoregulation.
Pathology	Pathophysiology of Disease process, Tissue reaction to Injury, Repair process, Infection, Inflammation, Neoplasm, Degenerative process, Histopathological & Histochemical aspect of diseases that can cause sudden / natural deaths, Seminal fluid analysis for Sexual Offence cases.
Immunology	Immune system – Cellular bases, Complement System, Cell mediated Immunity, Antigen-Antibody reactions, Immune response, Immune deficiency diseases, Immunological aspects related to Organ Transplantation, Precipitin Tests, Blood grouping typing, Gel diffusion tests, ELISA, RIA
Microbiology	Infections caused by Microorganisms which are relevant in medicolegal practice, HIV & AIDS, Sampling in suspected bacterial / virological cause of death
Pharmacology	Pharmacological actions of common Drugs, Idiosyncrasy, Drug reaction, Management of Anaphylaxis, Drug overdoses
Community Medicine	National Health Policies, Nutritional Disorders, Starvation, WMA guidelines on hunger strikers Hazards of Pollution, Occupational hazards, Waste disposal

II Clinical Subjects:

General Medicine	CVS : Clinical features, Management & autopsy findings in respect of diseases of Pericardium, Heart Congenital Heart Diseases
	RESP SYS: Clinical features, Management & autopsy findings in respect of diseases of Larynx, Bronchial Tree, Pleura, Lungs,
	GIT : Clinical features, Management & autopsy findings in respect of diseases of Pharynx, Stomach & GI Tract. Diseases of Liver, Kidneys Pancreas. Infections of GI Tract
	CNS : Normal anatomy, Physiological aspects of brain, Spinal cord & adnexas, Clinical Presentation of Neurological cases Clinical features, Management & autopsy findings in respect of infectious diseases involving CNS
	TOXICOLOGY: Clinical features, Management, Lab report interpretation of common poisoning cases
Surgery Traumatology	Clinical features, Management & autopsy findings in cases of Shock, Head injuries, Thoracic & abdominal injuries Clinical features, Management & autopsy findings in respect of Surgical emergencies Medicolegal aspects of Intra operative, Post operative Deaths

Anesthesia	Pharmacological aspects of Anesthetic drugs Medicolegal aspects of Deaths during Anesthetic procedures
OBG	Diagnosis, Therapeutic procedures & Medicolegal aspects of Impotence, Infertility, Sterility, Pregnancy, Delivery, Abortion, MTP Act, Assisted Reproductive technology, Surrogacy,
Pediatrics	Clinical & Medicolegal aspects of Child Neglect, SIDS, Infanticide, Genocide
Orthopedics	Functional aspects of Skeletal system & Joints Medicolegal aspects of the Diseases of Bones & Joints, Disability certification
Psychiatry	Behavioral Science, Common terminologies of Forensic importance in Psychiatry Medicolegal aspects of Psychiatry & Mental Health Role of Psychiatry in Crime investigation, Trial & Punishment Civil & Criminal responsibilities of an Insane person Mental Health act, Personality disorders
Radiology	Primary & Secondary ossification centers for Age assessment & Secondary changes / Age related changes for Age assessment using X – rays / CT; Recent advances like Virtopsy, Needle autopsy.

III Forensic Medicine:

Legal Procedures	Relevant sections of Constitution of India, Indian Penal Code, Code of Criminal Procedure, Indian Evidence act, Hospital Administration act Court procedures, Deposition of Evidence Land mark judgments of Supreme court, High courts, NHRC.. Government orders in relation to Medical Practice.
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Ethics & Law	Medical Ethics, Etiquette, Medical Council Laws governing Medical profession Negligence, Infamous conduct Euthanasia, Advance directives, COPRA, TOHA, ESI ACT, WORKMANS COMPENSATION ACT
Clinical research	Human experimentation, Clinical Trials Ethical committees : Constitution, roles & functions Ethical guidelines for biomedical research
Torture Medicine	Define & explain issues relating to torture Identify injuries caused by torture NHRC guidelines & protocols in suspected torture related death
Identification Anthropology Odontology	Establishment of Identity in living & Dead Estimation of Age in living & Dead Medico legal importance of Age Exploitation of Children, Child labor, POCSO ACT Determination of Sex. Intersex, Certification of Third gender Dactylography, Poroscopy, Superimposition, DNA finger printing, Forensic Anthropology Forensic Odontology Comparative Anthropology Estimation of skeletal age Carbon dating of bones

Thanatology	Death & its causes Mode, Manner of death, Sudden death Medical Certification of Cause of Death (MCCD) Postmortem Changes & estimation of Time since death Autopsy techniques & procedures [Regular & Special cases] Psychological Autopsy Collection of materials for further Histopathological, Microbiological, Serological studies & for Chemical analysis Crime scene Investigation
Traumatology	Injuries in living & Dead Differentiate between Ante mortem & Postmortem injuries Biophysical & Biodynamic aspects of Injuries Enzyme histochemistry Injuries caused by Fire arms & Explosion Terminal ballistics Injuries caused by Physical agents Regional Injuries, Thermal Injuries, Transportation Injuries, Medicolegal aspects of Injuries Clinical, Social. Ethical & Medicolegal aspects of Mass disasters.
Violent Asphyxial Deaths	Autopsy findings in cases of asphyxial deaths. Differentiate between Suicidal accidental & Homicidal asphyxial deaths. Study of structural & traumatological aspects of Hyoid bone & thyroid cartilage

IV Sexual Jurisprudence:

Sexual jurisprudence	Impotence, Sterility, Virginity, Pregnancy, Delivery, Abortion, MTP act Legitimacy, Disputed paternity Sexual offences Fetal Examination, Placenta
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V TOXICOLOGY:

General	Law relating to Poisons Drugs & Cosmetic act Narcotic drugs & Psychotropic substances act
Clinical	Examine, Diagnose & manage cases of poisoning in casualty Collect, Preserve & dispatch materials for chemical / Toxicological / Druganalysis

	Signs, Symptoms, Management, Autopsy findings & Medicolegal aspects in cases of: Corrosive Poisons Irritant Poisons : Metallic, Non metallic, Organic Insecticides, Pesticides, Rodenticides & Weed killers Inebriants, Somniferous compounds, Deleriants Alcohol, [Including certification of Drunkenness] Food poisoning, Food Adulterants, Substances causing cardiac toxicity Poisons acting on spinal cord Poisons causing Asphyxia Toxic Envenomation House hold poisons Industrial poisons causing occupational toxicity Biological & Chemical Warfare Drug overdose
	Signs, Symptoms, Management, Autopsy findings & Medicolegal aspects in cases of: Substance abuse Drug dependence
Analytical	Develop methods for identification & analysis of common poisons TLC, GLC, HPLC, ASS & Spectrophotometer

TEACHING LEARNING METHODS:

➤ Regular

- ☐ AUTOPSY POSTINGS & TRAINING
- ☐ CASUALTY POSTING FOR TRAINING IN CLINICAL FORENSIC MEDICINE
- ☐ ATTEND / PARTICIPATE IN UG THEORY CLASSES & PRACTICAL SESSIONS

➤ **Posting Given Once During The Course**

- ☐ POSTING AT TOXICOLOGY UNITS TO LEARN CLINICAL TOXICOLOGY & MANAGEMENT OF POISONING CASES – 3 weeks.
- ☐ FORENSIC SCIENCE LABORATORY (FSL) POSTING FOR TRAINING IN ANTHROPOLOGY, BIOLOGY, SEROLOGY, DNA FINGER PRINTING, BALLISTICS CHEMISTRY, PROHIBITION / TOXICITY, ANALYTICAL TOXICOLOGY etc– 3 weeks
- ☐ PATHOLOGY POSTINGS TO LEARN ABOUT HPE, CLINICAL PATHOLOGY – 2 weeks
- ☐ DENTISTRY POSTING FOR TRAINING IN FORENSIC ODONTOLOGY – 1 week
- ☐ RADIOLOGY POSTING FOR TRAINING IN FORENSIC RADIOLOGY - AGE ASSESMENT & VIRTOPSY – 2 weeks
- ☐ PSYCHIATRY POSTING FOR TRAINING IN FORENSIC PSYCHIATRY – 2 weeks

➤ **Once In A Week**

- ☐ SEMINARS
- ☐ MORTALITY MEETING (DEATH AUDIT)
- ☐ AUTOPSY CASE DISCUSSION
- ☐ JOURNAL REVIEW MEETING
- ☐ CLINICAL FORENSIC MEDICINE CASE DISCUSSION
- ☐ STATISTICS OF MLC CASES

➤ **Once In A Month**

- ☐ THESIS REVIEW

➤ **Once In Six Months**

- ☐ WRITTEN TESTS
- ☐ VIVA
- ☐ GUEST LECTURES BY LEGAL LUMINARIES / SUBJECT EXPERTS

STRUCTURED TRAINING PROGRAM:

DAY 1	DOCUMENTATION & JOINING FORMALITIES
0 -15 DAYS	ORIENTATION PROGRAM
16 - 30 DAY	BASIC AUTOPSY SKILLS TRAINING INTRODUCTION TO CLINICAL TOXICOLOGY
BY THE END OF 6 MONTHS	RESEARCH METHODOLOGY TRAINING PREPARATION OF THESIS PROTOCOL POSTING WITH BASIC MEDICAL SCIENCES DEPARTMENTS • ANATOMY [2 Wks] • PHYSIOLOGY [1 Wk] • BIOCHEMISTRY [1 Wk] • PATHOLOGY [2 Wks] • MICROBIOLOGY [2 Wk] THESIS TOPIC SUBMISSION TO UNIVERSITY
UPTO 12 MONTHS	AUTOPSY WORK CLINICAL FORENSIC MEDICINE WORK @ CASUALTY ATTEND UG CLASSES
BEFORE 24 MONTHS	TOXICOLOGICAL POSTING [3 Wks] FSL POSTING [3 Wks] PATHOLOGY [3 Wks] RADIOLOGY DEPARTMENT POSTING [2 Wk] POSTING TO DENTISTRY [1 Wk] [2 Wks] PSYCHIATRY DEPARTMENT POSTING THESIS WORK EXPOSURE TO COURT PROCEDURES DEPOSITION OF EVIDENCE
THROUGHOUT THE COURSE THE STUDENT WILL ATTEND	AUTOPSY WORK CLINICAL FORENSIC MEDICINE WORK PARTICIPATION IN ACADEMIC SESSIONS OF UGS MORTALITY MEETING AUTOPSY CASE DISCUSSION JOURNAL REVIEW MEETING SEMINARS, GUEST LECTURES ALL OTHER ACADEMIC ACTIVITIES CONDUCTED IN THE DEPARTMENT

During IInd year, the Students are encouraged to undergo special postings for learning new advanced techniques / procedure / skills in institutions of higher repute where the requisite facilities are available without affecting the duties of the parent department.

Evaluation of the candidates in both theory and practical aspects will help the candidate in improvement of his/her knowledge, skills and attitude.

COMPETENCY ASSESSMENT:

1. OVERALL:

a) Communication / commitment / Contribution / Compassion towards patient and Innovation	- 5 marks
b) Implementation of newly learnt techniques/Skills	

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| 2. Number of cases presented in Clinical Meetings/
Journal Clubs/Seminars | – 5 marks |
| 3. Number of papers presented in conferences/Publications /
Research Projects. | - 5 marks |
| 4. No. of Medals / Certificates won in the conference /
Quiz competitions and other academic meetings with details. | - 5 marks |

Total	20 marks
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PG NON – CLINICAL COURSE

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|---|------------------------------|
| VIVA including Competency Assessment | - 60 Marks (40 + 20) |
| Pedagogy | - 40 marks |

ASSESSMENT SCHEDULE IS AS FOLLOWS

Year of study	Period				Total Max.20 marks
I year	Upto Dec	10 marks	Upto June	10 marks	20 Marks
II year	Upto Dec	10 marks	Upto June	10 marks	20 Marks
III year	Upto Oct	10 marks	Upto Feb	10 marks	20 Marks
	AVERAGE				20 Marks

DISSERTATION AND UNIVERSITY JOURNAL OF MEDICAL SCIENCES

As per the 49th SAB Resolution under Point No. 2 and in the 52nd SAB it was reiterated regarding the topic for dissertation

The topic for the dissertation should be registered and sent to the University after Ethics Committee approval before 31st of December of the first Post Graduate Year. Only one change of topic with proper justification from the Head of the Department is permitted before 31st March of the first Post Graduate Year. The change of dissertation title will not be permitted after 31st March of the First Post Graduate Year. This modification in regulation will be scrupulously followed from the academic year 2015-16 admission onwards.

As per Medical Council of India Post Graduate Medical Education Regulations 2000 (amended upto 10th August 2016) clause 13.9 A Postgraduate student of a Postgraduate degree Course in broad specialties/Super Specialties 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.

As per MCI Clause 14 (4)(a), thesis shall be submitted atleast 6 Months before the Theory and Clinical/Practical Examination.

A candidate shall be allowed to appear for the Theory and Practical/Clinical Examination only after the acceptance of the Thesis by the Examiners.

The periodical evaluation of dissertation/log book should be done by the guide / HOD once in every six months. The HOD should ensure about the submission of dissertation within the stipulated time.

Regarding submission of articles to the University Journal of Medical Sciences for all the PG Degree/Diploma courses, it is mandatory that the students have to submit at-least one research paper. Case Reports are not considered as Research Paper.

THEORY EXAMINATION

Theory Examination:

There shall be four theory papers.

Paper I: Basics 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.

THEORY PAPERS PATTERN

Question Paper Pattern: PAPER I, II, III & IV

Structured Essay Questions	- 2 x 15 Marks	= 30 Marks
Short Notes	- 10 x 5 Marks	= 50 Marks
Reasoning out	- 4 x 5 Marks	= 20 Marks
		----- 100 Marks -----

PRACTICAL EXAMINATION

DAY 1 : FORENOON [9.00AM - 1.00 PM]

1	SPOTTERS [10 Nos – 2 Marks Each]	00 Hrs 20 Min	20
	A) FORENSIC SPECIMEN / PHOTOGRAPHS - 2 Nos		
	B) PATHOLOGY SPECIMEN - 2 Nos		
	C) ANIMAL IRRITANT / CHEMICAL IRRITANT - 2 Nos		
	D) POISONOUS PLANT / SEEDS - 2 Nos		
	E) WEAPONS OF OFFENCE - 2 Nos		
2	CLINICAL EXAMINATION OF A CASE OF DRUNKENNESS	00 Hrs 20 Min	10
3	CLINICAL EXAMINATION OF A CASE OF INJURY	00 Hrs 20 Min	10
4	CLINICAL EXAMINATION OF A SEXUAL OFFENCES CASE - VICTIM	00 Hrs 20 Min	10
5	CLINICAL EXAMINATION OF A MALE FOR POTENCY	00 Hrs 20 Min	10
6	PSYCHIATRIC CASE INTERPRETATION	00 Hrs 20 Min	10
	FOR EXERCISE Nos 2 TO 6 WHEREVER POSSIBLE SUBJECTS MUST BE PROVIDED FOR EXAMINATION		

DAY 1 : AFTERNOON [2.00PM - 5.00PM]

	EXERCISE	DURATION	MARKS
1	O S P E [4 STATIONS - 3 MARKS EACH]	00 Hrs 40 Min	12
	A) EXAMINATION OF BODY FLUID		
	B) COLLECTION, PRESERVATION & FORWARDING OF VISCERA TO FSL FOR CHEMICAL ANALYSIS		
	C) EXAMINATION OF A WEAPON		
	D) TOXICOLOGY SPOT TEST		
2	MICROSCOPIC EXAMINATION OF SLIDES & REPORTING - [4 Nos - 2 MARKS EACH]	00 Hrs 20 Min	08
	A) SEX CHROMATIN		
	B) HAIR / FIBRE / CLUE MATERIAL		
	C) BLOOD PICTURE IN A CASE OF POISONING		
	D) FORENSIC PATHOLOGY		
3	ESTIMATION OF AGE BY PHYSICAL & DENTAL EXAMINATION	00 Hrs 20 Min	10
4	EXAMINATION OF A CLUSTER OF BONES	00 Hrs 20 Min	10
5	EXAMINATION OF A SET OF XRAYS	00 Hrs 20 Min	10
6	EXPERT OPINION BY STUDY OF DOCUMENTS [HPE / FSL REPORT] PROVIDED IN A MEDICOLEGAL CASE	00 Hrs 15 Min	10
7	INTERPRETATION OF PHOTOGRAPHS & CORRELATION OF INJURIES SEEN WITH THE WEAPON PROVIDED	00 Hrs 15 Min	10
8	MOCK COURT	00 Hrs 30 Min	10
	FOR EXERCISE No 3 WHEREVER POSSIBLE SUBJECTS MUST BE PROVIDED FOR EXAMINATION		

DAY 2 : FORENOON [9.00AM - 1.00 PM]

	EXERCISE	DURATION	MARKS
1	ADULT AUTOPSY	02 Hrs 30 Min	30
2	FOETAL AUTOPSY	01 Hrs 30 Min	20

The time slots allotted include the time required for preparation & submission of reports on the Autopsy conducted. Distribution of marks are as under:

- **PROCEDURE** 25% Marks
- **OBSERVATION** 25% Marks
- **INTERPRETATION** 25% Marks
- **REPORTING** 25% Marks

DAY 2 : AFTERNOON [2.00PM - 4.30PM]

PEDAGOGY	01 Hrs 00 Min	40
VIVA	01 Hrs 30 Min	60

(A) PRACTICALS - TOTAL MARKS	200
(B) PEDAGOGY & VIVA	100
TOTAL AGGREGATE (A+B)	300
MINIMUM REQUIRED FOR PASS (50%)	150
DISSERTATION	APPROVED / NOT APPROVED

LOG BOOK

The post graduate students shall maintain a record(log)book of the work carried out by them and the training program undergone during the period of training.

Periodic review of Log book and Dissertation have to be done in the Department by guide/HOD once in every 6 months.

VIVA

VIVA (including Competency Assessment) – 60 Marks (40 + 20)

An unstructured viva will be carried out by the examiners. VIVA including Competency Assessment for PG Non – Clinical courses

PEDAGOGY

The examiners must evaluate the postgraduate student in respect of his / her methodology of teaching – Pedagogy, during final examination. Pedagogy topic will be given to the Postgraduate student on the previous day & the examiners will evaluate the student's performance under the following aspects:

(8 minutes Presentation and 2 Minutes Q & Ans)

- | | |
|--|------|
| • Demeanour | - 10 |
| • Audio visual Aids usage, voice modulation and Attitude | - 10 |
| • Subject Content | - 10 |
| • Q & Ans / Interaction | - 10 |

Total

40 Marks

OSPE / OSCE

The students will have OSPE as part of their practical during their final examinations. There shall be four OSPE exercises & will comprise of both manned & unmanned stations. The exercises are:

- EXAMINATION OF BODY FLUID
- PACKING LABELLING & FORWARDING VISCERA
- WEAPON EXAMINATION
- TOXICOLOGY SPOT TEST

REFERENCE BOOKS

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 of Forensic Medicine and Toxicology, K. Saguna Devi Publishers, Hyderabad.
5. Parikh CK. Parikh's Textbook of Medical Jurisprudence, Forensic Medicine and Toxicology, CBS Publishers and Distributors, New Delhi.
6. Bernard Knight. Forensic Pathology. Arnold Publishers London.
7. Di Maio VJ, Di Maio D. Forensic Pathology. CRC Press New York.
8. Camps FE. Gradwohl's legal Medicine. Bristol: John Wright and Sons Ltd.
9. American College of Legal Medicine, Textbook Committee, Legal Medicine, Mosby Publishers, USA.
10. Di Maio VJM. Gunshot Wounds, CRC Press USA.

11. Gordon I, Shapiro HA, Berson SD. Forensic Medicine – A Guide to Principle. Churchill Livingstone New York.
12. Mant AK. Taylor's Principles and Practice of Medical Jurisprudence, Churchill Livingstone, New York.
13. Parikh CK. Medicolegal Postmortems in India. Medical Publications, Bombay.
14. Gresham GA, Turner AF. Postmortem Procedures. An illustrated Text Book. Wolfe Medical Publications.
15. Ludwig J. Current Methods of Autopsy Practice. WB Saunders Company, London.
16. Tamilnadu Medico Legal Manual, Ed. K. Tamilmani and M. Manivasagam.
17. Spitz WU, Fisher RS. Medico-legal Investigation of Death. Charles Thomas Publishers.
18. Schroeder O.C. Dental Jurisprudence. PSG Publishing Company, Littleton, Massachusetts.
19. Stark MM. A Physicians Guide to Clinical Forensic Medicine. Humana Press Totowa, New Jersey.
20. Olshakar JS, Jackson JS, Jackson MC, Smock WS. Forensic Emergency Medicine. Lippincott William and Wilkins, Philadelphia.
21. Norah Rudin, Keith Inman. An introduction to Forensic DNA Analysis. CRC Press, London.
22. Robertson J, Ross AM, Burgoyne LA. DNA in Forensic Science - Theory, Technique and Application. Ellis Horwood, UK.
23. Curry AS. Method of Forensic Science Vol. I-III. Inter-science Publishers London.
24. Clement JG, Ranson DL. Craniofacial Identification in Forensic Medicine. Arnold Publishers, London.
25. Sellier GK, Kneubuechl BP. Wound Ballistics and the scientific background. Elsevier, Amsterdam.
26. Bernard Knight. Simpson's Forensic Medicine. Arnold Publishers London.
27. Bernard Knight. Legal aspects of Medical Practice. Churchill Livingstone New York.
28. Gunn and Taylor. Forensic Psychiatry Clinical, Legal and Ethical issues. Butterworth Heinemann.
29. G Gustafson. Forensic Odontology. Staples Press.
30. Gonzalez TA. Legal Medicine, Pathology and Toxicology- Appleton Century-Crofts Inc. New York.
31. Hirsch CS, Morris RC, Moritz AR. Handbook of Legal Medicine. CV Mosby Company London.
32. Lincoln PJ, Thomas J. Forensic DNA Profiling Protocols. Methods in Molecular Biology, Vol. 98, Humana Press, Totowa, New Jersey.
33. Lee HC, Gaensslen RE. DNA and other polymorphism in Forensic Science. Yearbook Medical Publishers, London.
34. Bergaus G, Brinkmann B, Rittner C, Staak M. (Eds.). DNA Technology and its Forensic Application. Springer- Verlag. Berlin
35. Beveridge A. Forensic Investigation of Explosions. Taylor and Francis USA.
36. Jay Dix. Colour Atlas of Forensic Pathology. CRC Press New York.
37. Bernard Knight. (ed.) The Estimation of Time since Death in the early Post Mortem Period. Arnold Publishers London.
38. Mant AK. Modern Trends in Forensic Medicine 1-3. Butterworth, London.
39. Luntz and Luntz. Handbook for Dental Identification. JB Lippincott. Toronto.
40. Buttler JM. Forensic DNA Typing. Academic Press New York.
41. Mason JK. Forensic Medicine- an illustrated reference. Chapman and Hall, London.

42. Mason JK. Paediatric Forensic Medicine and Pathology. Chapman and Hall, London.
43. Patnaik VP. MKR Krishnan's handbook of Forensic Medicine. Paras Publishing.
44. Lundquist Frank. Methods of Forensic science, vol. II, Interscience publishers.
45. Mehta HS. Medical, Law and Ethics in India. The Bombay Samachar Pvt. Ltd.
46. Gaur's firearms, Forensic Ballistics, Forensic Chemistry and Criminal Jurisprudence. Law Publishers (India) Pvt. Ltd. Allahabad.
47. Tedeschi Eckert. Forensic Medicine Vol. I -IV, WB Saunders Company.
48. Polson, Gee, Knight. The Essentials of Forensic Medicine. Pergomann Press, UK.
49. Redsicker DR. Forensic Photography, CRC Press USA.
50. Krogmann. Human skeleton in Forensic Medicine.
51. Abdullah Fateh. Handbook of Forensic Pathology
52. Simpson K. Taylor's Principle and Practice of Medical Jurisprudence. Vol. I-II.
53. Krishan Vij. Textbook of Forensic Medicine and Toxicology, Churchill Livingstone.
54. Principles and basics of Autopsy by K. Tamilmani, Mahi Publications, Ahmedabad.
55. Mukherjee JB. Textbook of Forensic Medicine and Toxicology, Arnold's Publishers, London.
56. Henry J, Wiseman H. Management of Poisoning. Published by WHO, UNEP and ILO.
57. Flanagan RJ et al. Basic Analytical Toxicology. Published by WHO, UNEP and ILO.
58. Practical guide for Forensic Medicine and Toxicology by K Tamil Mani, Jaypee Pub., Delhi
59. Guidelines for Poison Control. Published by WHO, UNEP and ILO
60. Genetics in Medicine – J. S. Thompson and M.W. Thompson.
61. Research – How to plan, speak and write about it – C. Hawkins and M. Sorgi.

**** Note :** The editions are as applicable and the latest editions shall be the part of the syllabi.

JOURNALS

1. JOURNAL OF INDIAN ACADEMY OF FORENSIC MEDICINE
2. JOURNAL OF SOUTH INDIA MEDICOLEGAL ASSOCIATION
3. JOURNAL OF INDIAN SOCIETY OF TOXICOLOGY
4. JOURNAL OF PUNJAB ACADEMY OF FORENSIC MEDICINE & TOXICOLOGY
5. JOURNAL OF KARNATAKA MEDICOLEGAL SOCIETY
6. INDIAN JOURNAL OF FORENSIC MEDICINE & TOXICOLOGY
7. JOURNAL OF MAHARASTRA MEDICO LEGAL ASSOCIATION
8. SCIENCE & JUSTICE : JOURNAL OF FORENSIC SCIENCE SOCIETY UK
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