Forensic Medicine & Toxicology –Syllabus 25-26

Course information

Course title: Forensic Medicine & Toxicology

Course number: 161501402

Credit hours:2.25h
Course date :sep.2025
Course meeting time:8 am
Course location: This course will take place in PHH. It's a 2-wk. rotation for 4th yr. students. Students are expected to attend clinics and mortuary, participate in seminars in the 2-week rotation. Time commitments are designated by the clinical instructor, but students should expect to work parallel hours with the clinical instructor.
Instructor: Dr. Mohammed Azab, Faculty of Medicine, Ext. 5496, office hours Wed: 9-12, Wed.: 2-4, E-mail: azab128@yahoo.cm
Pre-requested course: introductory course

Course description:

The aim of this rotation is to provide information about the forensic aspects of medicine and related fields for those who will be involved in the clinical and pathologic aspects of health care, forensic assessment, investigation and diagnosis for victims, assailants and others involved in police or judicial systems.

Learning outcomes:

At the end of the course:
1 – The student will be able to deal with medico-legal cases due to natural and unnatural conditions and poisonings.
2- The student will be able to recognize relationship between the doctor of medicine and the law and they will be aware of applicable court events related to the medico-legal cases.
3 - The student will be able to visit scene of crime and shall detect, describe, interpret the observations
4 - The student will be able to recognize, investigate and prepare medico-legal certificate in accordance with Jordanian Law.
5- The student will be able to offer consultancy services to the health, home and law departments in connection with medico-legal work, crime investigation process and courts.
6 - The student will be familiar with medical negligence and legal Responsibilities of the physicians towards patients, profession, society, state and humanity at large.
7-The student will be able to manage medico-legal implications, diagnosis and principles of therapy of common poisons.

TOPICS COVERED (SEMINARS/ LECTURES):

Definition of Legal medicine and Medical Jurisprudence

Medico-legal certificates and medical reports (births, fitness, illness and death.)
Courts in Jordan and their powers, types of witnesses, recording of evidence, conduct of doctor in witness box.

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Death Scene Investigation

Death and postmortem changes(Def. ,types ,body change after death , rigor mortis, instantaneous rigidity, heat and cold rigidity, hypostasis, postmortem decomposition, adipocere formation , mummification , maceration and estimation of time of death)

Sudden natural death: definition and classification of causes

Wounds and regional injuries (def., types, medico-legal importance, age estimation, complications, causes of death and wounding and the law)

Gunshot and explosion (The mechanics of missile injury, Types of weapon, Shotgun and rifled wounds, exit wounds, estimating the range of discharge and the autopsy findings

Injury and death on the road (Pedestrians, Vehicular occupants, seatbelts and airbags injuries and manner of death)

Mechanical asphyxia (Hanging, Strangulation, Throttling, Suffocation, Smothering, Overlying, choking and drowning)

Burns and scalds (Classification, gross appearance at autopsy and ante-mortem versus post-mortem burns)

Medico-legal aspects of virginity, pregnancy, delivery and criminal abortion.

Sexual offences (examination of the victim, examination of the accused and medico legal aspects)

Infant and childhood deaths: Viability, determination of age of foetus, live birth, still birth and dead born child, sudden infant death syndrome, child abuse, and medico-legal aspects of precipitate labour.

Manifestations and medico-legal aspects of death from cold, heat, electricity and lightning

Medico-legal aspects of medical malpractice

Duties of doctor in cases of poisoning, medico-legal autopsy in poisoning, preservation and dispatch of viscera for chemical analysis.

General treatment of poisoning

Alcohols (ethyl alcohol, methyl alcohol, isopropyl alcohol and ethylene Glycol) acute poisoning, chronic poisoning, measuring alcohol, treatment and post-mortem appearances

Carbon monoxide and carbon dioxide poisoning (Sources, Acute poisoning, Chronic Poisoning, Treatment, Autopsy findings and Toxicology interpretation)

Opium, Cannabis, Cocaine, (mode of action, absorption and excretion, signs and symptoms, fatal dose, fatal period, treatment and post-mortem appearances)

Cholinesterase inhibitor pesticides (acute poisoning, chronic poisoning, fatal dose, fatal period, treatment and post-mortem appearances)

Metallic poisons (lead, mercury, cadmium, thallium and arsenic):acute poisoning, chronic poisoning, treatment and post-mortem appearances)

Drug abuse and dependence.

Instructional methods:

Structured interactive sessions, Small group discussion, Practical including demonstrations, Problem based exercises, Video clips, Written case scenario, Self learning tools, Interactive learning and e-modules

Text book and material:

Forensic Pathology Principles and Practice, David Dolinak, Evan W. Matshes, Emma O. w, ISBN: 0-12-219951-0

Forensic Medicine: Clinical and Pathological Aspects.J.James,A.Busutti,W.Smock. . ISBN 1841100269 publishers Greenwich Medical Media Ltd

Forensic Pathology. Bernard Knight. . ISBN 0340588977 Publishers Arnold : 2nd Edition

Forensic Pathology, Second Edition, by Vincent J. M. Di Maio and Dominick Dimaio ISBN-13: 9780849300721

Principles of Forensic Toxicology, edited by B. Levine, AACC Press, 3rd Edition, 2010.

Drug Abuse Handbook, edited by S.B. Karch, CRC Press, 2nd Edition 2007

JOURNALS

Journal of Analytical Toxicology

Journal of Forensic Sciences

Forensic Science International

Science and Justice

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Grading Policy:

Grades can be based on the following:
Assignments: 35%
Final Exam:45 %
Class attendance10 %/participation: 10 %
Total Points 100

Course Policies:

Late Assignments

Students are expected to present their assignment on scheduled time, if not, a new date is given to the student to present his seminar. Late assignment will affect the grade by 5 points unless there is an excuse.

Missed exams

Make up exam will be held to students who missed their exam when they have an excuse accepted by the department.

Absence

Absence by 2 or more days requires repeating the rotation.

Cheating

Cheating is prohibited and will be dealt with according to university policies.

Classroom Protocol:

Attendance and participation in clinical activities and related discussion is required in order to optimize the educational benefit for all students. Notification of absence must be directed to clinical instructors and the program director (Dr. Mohammed Azab). Unexcused absence will result in a failing grade for the rotation.

Professional behavior is essential for successful learning environment. Therefore professional behavior is expected of all students during clinical rotations. Professional behavior is not limited to arriving on time, and being prepared for daily activities and discussions.

Equipment/Clothing – During clinical activities, appropriate clothing should be worn, professional clothing and a white coat are adequate.

Important Dates to Remember:

Final exam will be set by department.
End of rotation exam will be on Thursday in the second week of each rotation.

Student rights and responsibilities:

Will be respected during Forensic Medicine course.

Course Schedule:

Scheduling of activities during the clinical rotation is determined by the clinical instructor and should be communicated to the student at the beginning of the rotation. Changes to scheduled activities should be communicated to the student as soon as possible during the rotation.