



مركز الاعتماد
وإضمان الجودة
ACCREDITATION & QUALITY ASSURANCE CENTER



The University of Jordan

Accreditation & Quality Assurance Center

Course Syllabus

Course Name:

Forensic Medicine and Toxicology

1	Course title	Forensic Medicine and Toxicology
2	Course number	0548502
3	Credit hours (theory, practical)	
	Contact hours (theory, practical)	
4	Prerequisites/corequisites	Finished 4 th year of Medicine
5	Program title	Doctor of Medicine
6	Program code	
7	Awarding institution	University Of Jordan
8	Faculty	Medicine
9	Department	Pathology, microbiology and Forensic Medicine
10	Level of course	Fifth year
11	Year of study and semester (s)	all academic year (three semesters)
12	Final Qualification	
13	Other department (s) involved in teaching the course	
14	Language of Instruction	English
15	Date of production/revision	Nov.2016

16. Course Coordinator:

Dr. Hasan Abderahman
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Prof. Kamal Hadidi
Dr. Hasan Abderahman
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17. Other instructors:

Office numbers, office hours, phone numbers, and email addresses should be listed.

18. Course Description:

Each student will spend two weeks in forensic medicine and toxicology department. During this period the student will prepare and attend seminars in forensic medicine and toxicology, according to the schedule attached. The student will also attend examinations that are conducted at forensic medicine clinics at the hospitals and courts of law, emergency room, and mortuaries. Also, the students will attend the National Poison and Drug Information Center at JUH

19. Course aims and outcomes:**A- Aims:**

The student is expected to acquire knowledge and understanding of

- Legal aspect of medical practice and principles of medical ethics.
- Medical issues needed for the application of non medical Acts of law.
- Principles of medico-legal cases and writing medico-legal reports.
- Physician's legal rights and duties towards Acts of Law
- Medical subjects related to forensic Medicine
- Principles of management of acute poisoning, types of poisoning, substance of abuse and their pathophysiology of intoxication and manifestation and their principle investigation of toxicology

B- Intended Learning Outcomes (ILOs):

Successful completion of the course should lead to the following outcomes:

- Demonstrate awareness of ethical codes of medical practice.
- Demonstrate awareness of Medical issues needed for the application of non-medical Acts of law.
- Demonstrate awareness of analysis of medico-legal cases and preliminary reporting on them, including injuries, sexual crimes, criminal abortion, criminal death, etc.
- Know and understand the principles of pathophysiology of intoxication by selected examples of poisons and substance of abuse.

Recognize the sources and circumstances of poisoning, routes of exposure, clinical manifestation and the principles lines of management

20. Topic Outline and Schedule:

Topic	Week	Instructor	Achieved ILOs	Evaluation Method	Reference
Medical ethics and Medical Jurisprudence	1		1. Definition of Forensic Medicine and Medical Jurisprudence 2. forensic laboratory investigations 3. Introduction to non medical acts of law 4. Aims or laws. Medico-legal cases, patients' rights and Physician duties regarding them, Medical laws (MOH, Medical councils, licensing) 5. Professional conduct, Etiquette and Ethics in medical practice. 6. Rights and privileges and duties of a registered medical practitioner 7. Medical certification and medico-legal reports including dying declaration		
Injuries or wounds	2		1. Definition, classification of mechanical injuries; description of blunt force ,sharp force and firearm injuries. 2. Medico-legal aspects of injuries		
Burns	3		1. definition 2. Types		

			3.General complication 4. differences between antemortem and post-mortem burns. 5.medico-legal aspects		
Violent Asphyxias ,hanging and drowning	4		1.Definition, 2.causes, types, post-mortem appearances 3.medico-legal aspects		
Domestic violence	5		Child abuse		
Sexual Offences and illegal pregnancies	6		1.Virginity, rape, unnatural sexual offences; sexual perversions, illegal pregnancies, illegal abortions		
Firearm Wounds	7		1. understand the basic principles on which modern firearms work and the major substances emitted by a gun when it fires 2. know the basic principles of determination of the range of fire in rifled and smoothbore firearms 3. know the basic distinguishing features of entry and exit firearm wounds. 4. know the basic principles on which determination of accidental, suicidal and homicidal firearm wounding is made.		
Identification	8		1. Definition 2. Identification of unknown person, dead bodies and remains of a person by age, sex, stature, dental examination, scars, moles, tattoos, dactylography, DNA typing and personal belonging including photographs		
Death and Postmortem Changes	9		1. know the methods by which the postmortem interval can be estimated and their limitations. 2. know the way in which the body cools after death, its rate of doing so and the factors which influence this 3. know the nature and significance of hypostasis, cadaveric spasm, rigor mortis, putrefaction, mummification and adipoceros change and the rates at which these phenomena occur 4. know the nature and significance of postmortem injury. 5. sudden death		
Mental health and organ transplant	10		1.Laws and regulations 2.Role of physician		
Principles of clinical toxicology	11		1. Definitions and scope of toxicology related to management approach 2. Comprehend principles of dose response relationship 3. List the factors affecting dose toxic effects 4. List unusual toxic response 5. List types of chemical interactions		
Approach to management of patient with suspected acute poisoning	12		1. Apply supportive medicine 2. Recognize patients with suspected poisoning 3. Apply method for patient stabilization 4. Evaluate patients with suspected poisoning 5. Apply procedures to decontaminate the poison		

			<p>6. Apply procedures to enhance illumination of the poison</p> <p>6. Knows when and how to apply antidotes</p> <p>7. Apply procedure to continuous support for the patient.</p>		
Alcohol poisoning (ethanol, Methanol, Ethylene glycols)	13		<p>1. know briefly the sources, absorption, metabolism and elimination of ethanol.</p> <p>2. know the measurement of ethanol consumption in units.</p> <p>3. know the effects of ethanol.</p> <p>4. know the local and some foreign laws concerning drinking & driving.</p> <p>5. understand the interpretation of clinical findings in relation to alcohol levels.</p> <p>6. understand the alcohol related causes of death.</p>		
Toxic gases and volatiles (Carbon monoxide, cyanide and sulfides)	14		<p>1. Know the physical characteristics of these gases</p> <p>2. Recognize the sources and circumstances of poisoning</p> <p>3. Explain the mechanism of toxicity</p> <p>4. Explain their toxicokinetics</p> <p>5. Recognize acute poisoning and list their clinical manifestation</p> <p>6. Conduct the proper investigations</p> <p>7. Manage poisoned patients</p>		
Substance of Abuse	15		<p>1. know the terms related to substance of abuse.</p> <p>2. Laws and regulations related to psychoactive substances and drugs of abuse.</p> <p>3. List examples of abusable substances to include common CNS depressants, Stimulants and Hallucinogen agents</p> <p>4. List examples for each category</p> <p>5. Recognize method of abuse, manifestation of abuse and toxicity of them, mechanism of action and investigations</p> <p>6. Outline management approach for acute poisoning and physical dependence</p>		
Pesticides (Organophosphates, carbamates)	16		<p>1. Type on common pesticides</p> <p>2. Mechanism of toxicity of insecticides</p> <p>2. Toxicokinetics</p> <p>3. Recognize acute poisoning and their clinical manifestation</p> <p>4. Management of acute poisoning</p>		
Common drug poisoning (acetaminophen)	17		<p>1. mechanism of toxicity</p> <p>2. absorption, metabolism and excretion</p> <p>3. acute poisoning and clinical manifestation of poisoning</p> <p>4. treatment of poisoning</p>		
Doping in sport	18		<p>1. Prohibited list</p> <p>2. Prohibited method and types of doping</p> <p>3. Role of physician</p>		

21. Teaching Methods and Assignments:

Development of ILOs is promoted through the following teaching and learning methods:

1. Problem solving sessions.
2. Seminars.
3. Case Studies.
4. Attendance forensic medicine clinics, emergency room, poison information center and mortuaries

Projects and Assignments

1. Reports presentations
2. Seminars presentation

22. Evaluation Methods and Course Requirements:

Opportunities to demonstrate achievement of the ILOs are provided through the following assessment methods and requirements:

1. Evaluation will be done based on the following:-
2. Reports presentations
3. Seminars presentation
4. Activities attendance
5. End of Rotation practical and oral Examination

23. Course Policies:

A- Attendance policies:

B- Absences from exams and handing in assignments on time:

C- Health and safety procedures:

D- Honesty policy regarding cheating, plagiarism, misbehavior:

E- Grading policy:

F- Available university services that support achievement in the course:

24. Required equipment:**25. References:**

1. Forensic Pathology. Night B.
2. Gunshot wounds. DiMaio JM.
3. Forensic Medicine. Maison
4. Medical Toxicology, Diagnosis and Treatment of Human Poisoning, Ellenhorn, Barceloux
5. Principles of Clinical Toxicology, Gossel TA, Bricker JD.
6. Casarett and Doulls Toxicology, The Basic Science of Poisons, Klaassen CD, Amadur MO and Doull J.
7. Goodman and Gilman's, The Pharmacological Basis of Therapeutics, Gilman AG, Goodman LS and Gilman A.
7. National Poison and drug information center at JUH
8. Internet search

26. Additional information:

•Concerns or complaints should be expressed in the first instance to the module lecturer; if no resolution is forthcoming, then the issue should be brought to the attention of the module coordinator (for multiple sections) who will take the concerns to the module representative meeting. Thereafter, problems are dealt with by the Department Chair and if still unresolved the Dean and then ultimately the Vice President. For final complaints, there will be a committee to review grading the final exam.

•For more details on University regulations please visit:
<http://www.ju.edu.jo/rules/index.html>

Name of Course Coordinator: -----Signature: ----- Date: -----

Head of curriculum committee/Department: ----- Signature: -----

Head of Department: ----- Signature: -----

Head of curriculum committee/Faculty: ----- Signature: -----

Dean: ----- -Signature: -----

Copy to:

Head of Department
 Assistant Dean for Quality Assurance
 Course File