

**State Of Libya**  
**University of Benghazi**  
**Faculty of Medicine**

**Program Specification for Master Degree  
in Forensic Medicine and Toxicology**

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**Program type:** Single

**Department offering the program:** Forensic Medicine and Toxicology

**Program code:** Foren 0210

**Total credit hours:** 36 hour

**Academic year:** 2016/2017

**Program Coordinators:** Associate Prof. Mahmud Kaddura  
Assistant Prof. Samir Elmrghni

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**I. Aim of program:**

The program is a professional degree that provides a competent medical examiner that is able to perform adequate ante-mortem (AM) and post-mortem (PM) examination and interpret the different findings to give final expert opinion and formulate competent medico-legal reports to resolve different legal and ethical dilemmas. The program also aims to allow the candidates to interact with community problems, to respect ethical values according to community culture, and promote their medical standards through engaging in continuing medical education and introduce them to the basics of scientific medical research.

**II. General Rules of conditions**

1. this plan conforms to the regulation of the general frame of the program of graduation studies.
2. Area of specialty for admission in this program : **Medicine**

**III. special conditions**

Attendance must be not less than 75% of total credit hours.

**IV. The method by which credit hours are calculated.**

1. Total credit hours: 36 hours divided into 4 semesters (two years) One semester= 6 months
2. One credit hour= one theoretical hour weekly through one semester
3. One credit hour =three practical or clinical hours weekly through one semester

## V. The Study Plan.

Master degree requirements : Studying 36 credit hours as follows:

practical	theory	Credit hours	Course Title (Obligatory)	Course number	
-	6	6	All weekly different activities will be recorded 1. Autopsy reports 2. Attendance of scientific academic conferences and workshops 3. Seminars on recent Forensic medicine	Foren 0210-A1,2,3	Activity log-book

practical	theory	Credit hours	Course Title (Obligatory)	Course number	
-	2	2	1. Toxicology 2. Forensic Sciences : Forensic Chemistry, Forensic Serology, Fingerprints and DNA fingerprinting, Ballistics, Crime scene 3. Pathology	Foren 0210-B1,2,3	1st Part
-	1	1			
3	2	3			
		6			

practical	Theory	Credit hour	Course title	Course number	
9	3	6	<b><u>I.Obligatory courses:</u></b>	Foren 0210-C1,2	2nd part
12	4	8	1. Clinical Forensic Medicine 2. Forensic Pathology		
			<b><u>II.Elective courses:</u></b> <i>Student will be able to select two of these three courses:</i>	Foren 0210-D1,2,3	
-	2	2	1. Medical Ethics and Medical law		
-	2	2	2. Medical Statistics		
-	2	2	3. Research methodology		
		18			

-		6	Thesis
24	28	36	Total credit hours

## VI. Course Description:

### **1) Foren 0210-B1- Toxicology(2 credit hours):**

The aim behind this course is to get theoretical definitions of toxicology and to be able to correlate and interpret pathological and clinical results for final report.

This course include:

#### **A-General Toxicology:**

Principles of toxicology as definitions and fields related, classification of poisons , pharmacokinetics (absorption, diffusion, metabolism and excretion ) , mechanism and lethal dose, factors affecting the poison, interacts between toxic substances, circumstances of poisoning , methods of toxicity,

Role of physician in intoxicated patients and laboratory safety measures

#### **B. Special toxicology:**

**1-Forensic toxicology:** toxic affecting different body organs e.g narcotics,gaseous poisons, dangerous chemical substances as insecticides , heavy metals, other environmental poisons as in animal and pollutions of food, water ,air, sand and radiations ,post-mortem signs.

How to deal with biological and non biological samples regarding, types,collections,storage, and collection of all information about the case either forensic cases or in drug abuse, and to be able to write a report.

**2-Clinical toxicology :**is concerned with disease caused by or uniquely associated with toxic substances and principles of their managements.

**3-Analytical toxicology:** deals with biological samples,regarding,types,collections,storage, and collection of all information about the case either forensic cases or in drug abuse then to know different equipments and their work principles in separation and detection of toxic substances in forensic field, analysis of substances by quantitative and qualitative means And the interpretation of the results

**4-Molecular toxicology:** Deals with. effect of toxic substances , drugs and environmental pollutions on genes , study of deferent methods in measurement of effects of toxic substances on genes as by insecticides and others, factors affecting the toxic substances on genes.

### **2) Foren 0210-B2-Forensic sciences(1 credit hour):**

*This will include:*

Forensic chemistry

Serology. collection and storage of blood and other contaminated stains

Fingerprints and DNA fingerprinting(DNA extraction, analysis and interpretation

Ballistics and firearms

Crime scene and role of medical examiner in this field.

### **3) Foren 0210-B3-Pathology: (3 credit hours):**

Including the whole subject including the general as well as specific pathology grossn with giving special attention to the cardiovascular, respiratory, neurological causes of death as well as the liver diseases including gross nand microscopic examination of pathological specimens. Slide preparation for microscopic examinaqt6ion. Writing clinical laboratory reports..

### **4) Foren 0210-C1-Clinical Forensic Medicine: (5 credit hours)**

Skills of clinical medical examination of living cases and writing of medical report includes any violence signs, deformities and how to estimate their percentage, sexual offences and legal responsibility, dispute paternity ...etc.

### **5) Foren 0210-C2-Forensic pathology and autopsy (7 credit hours):**

Includes training of procedure of autopsy in the mortuary to know the cause of death and to write scientific medical report about different cases like wounds, strangulation, burns, firearm injuries and other suspected and sudden deaths in addition to this safety measures inside mortuary. During the first as well as the second part students

### **6) Foren 0210-D1- Medical Law and Medical Ethics (1 hour credit)**

Medical laws including the medical responsibility law and the laws related to autopsies as well as the laws related to the whole practice such as crime law. Ethics including philosophy, duties of doctors towards his colleagues and toward other community members. Research ethics. International Declaration and conventions related to medical doctors and medical practice in general.

### **7) Master Thesis: (6 credit hours)** Student only after passing the 2<sup>nd</sup> part can register point of research for the master.

## **VII. Assessment:**

### **A-First Part.**

#### **1-Toxicology:**

Writing exam- 3hours

Practical and oral exam

#### **2- Forensic Sciences:**

Writing exam-2 hours

Practical and oral exam

### **3-Pathology:**

Writing exam-3 hours

Practical and oral exam

Evaluation of class seminars

### **B. Second Part:**

#### **1-Clinical Forensic Medicine.**

Writing exam-3 hours

Practical and oral exam

Clinical exam(clinical forensic examination on living cases and writing reports ,discussion of other reported previous cases).

#### **2-Forensic Pathology:**

Writing exam-3 hours

Practical( museum, x-rays, and cases photos) and oral exam + autopsy in the mortuary and writing and discussion of other reported previous cases.

### **Weekly fixed course Time table for 1<sup>st</sup> Part:**

<b>Course title</b>	<b>Time</b>	<b>Day</b>
<b>Toxicology</b>	<b>9-11</b>	<b>Saturday</b>
<b>Forensic sciences</b>	<b>12-1</b>	
<b>Autopsy training</b>	<b>9-1:30</b>	<b>Sunday</b>
<b>Pathology ,practical and theory</b>	<b>9-2</b>	<b>Monday</b>
<b>Autopsy training</b>	<b>9-1:30</b>	<b>Tuesday</b>
<b>Class seminars</b>	<b>12-2</b>	<b>Wednesday</b>
<b>University and faculty requirements</b>		<b>Thursday</b>

**Signature:**

**Associate Prof. Mahmud Kaddura**

**Assistant Prof. Samir Elmrghni**