



Suez Canal University  
Faculty of Medicine



Forensic Medicine and  
Clinical Toxicology Department  
Program Specification- Master

## *Programme Specification*

*Programme Title:*

***Master degree in Forensic medicine  
& Toxicology***

*Code:*

***FTFT***



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### Programme Specifications:

- 1. Program Title:** Master degree in Forensic medicine & Toxicology.
- 2. Major or minor element of the Program:** Major.
- 3. Department offering the Program:** Forensic medicine and Clinical Toxicology.
- 4. Department offering the course:** Forensic medicine and Clinical Toxicology.
- 5. Academic level:** Second part, Post Graduate Studies.
- 6. Date of specification approval:** The bylaws of the Master program in Forensic medicine and Toxicology in the Faculty of Medicine, Suez Canal University were approved by the Supreme Council of Universities in 2016.
- 7. Date of specification revision approval:** 2017.
- 8. Number of credit points for this degree:** 120 CP

### Professional Information

#### **1. Program Aims:**

The overall goals of the program are to develop the candidate with the following characteristics:

1. A candidate who understands and consults on methods of diagnostic toxicological test development, test utilization in the context of both generally applicable as well as patient-specific clinical settings, and assay interpretation in the acute and chronic clinical management of patients. These activities include the CT's role in the development and implementation of integrated medical informatics that optimize patient care.
2. A candidate who understands methods and implementation of clinical laboratory-based therapeutics, including minimally manipulated and engineered cellular therapy.
3. A candidate who has the skills to consult in these areas at the broader systems level, and in the various extant healthcare delivery models.



**Suez Canal University  
Faculty of Medicine**

**Forensic Medicine and  
Clinical Toxicology Department  
Program Specification- Master**

4. A candidate who understands the role of research, in its broadest definition, in clinical decision-making, test development, knowledge generation, and continuing education.
5. A candidate of forensic medicine who can interpret the medico-legal problems that can face them in their practice.
6. The forensic physician who can deal with the medico-legal reports and can criticize them adequately.

## **2. Intended Learning Outcomes (ILOs):**

### **a) Knowledge and Understanding:**

- a1- Be able to use all relevant information resources and maintain a knowledge base in the basic and clinical sciences necessary for effective consultation in toxicological laboratory medicine .
- a2- Describe sufficient knowledge to determine clinically optimal yet cost-effective testing.
- a3- Recognize the unique aspects of toxicological practice as modified by patient age and other patient population characteristics, especially aspects of pediatric and geriatric practice.
- a4- Define awareness and understanding of proficiency programs.
- a5. Define the ability to optimize the performance of the forensic physicians to reach the final cause of death in criminal cases
- a6- Describe knowledge of the principles of clinical research design, implementation, and interpretation. Understand the various levels of evidence in medicine and their translation into evidence-based practice.
- a7- Be able to describe a study that can be used to validate methodologies and parameters of clinical utility for the implementation and continuing use of new evidence-based analytes in the local setting

### **b- Intellectual Skill.**

- b1. Recognize common ethical dilemmas and suggest a proper solution
- b2. Analyze case scenario of clinical forensic medicine and recognize their medico legal aspects



**Suez Canal University  
Faculty of Medicine**



**Forensic Medicine and  
Clinical Toxicology Department  
Program Specification- Master**

- b3. Analyze different problems of malpractice
- b4. Interpret the findings in a case scenario of intoxicated patient
- b5. Formulate appropriate management plan for intoxicated patients.

### **c- Professional and Practical Skills**

*By the end of the course, Graduate should be able to:*

- c1- Demonstrate compassion: be understanding and respectful of patients, their families, and the staff and other physicians caring for them.
- c2- Interact with others without discriminating on the basis of religious, ethnic, sexual, or educational differences.
- c3- Demonstrate positive work habits, including punctuality, dependability, and professional appearance.
- c4- Demonstrate a responsiveness to the needs of patients and society that supersedes self-interest.
- c5- Demonstrate principles of confidentiality with all information transmitted both during and outside of a patient encounter.
- c6- Demonstrate knowledge of regulatory issues pertaining to the use of human subjects in .research
- c7- Perform all toxicological laboratory tests required in the course specifications
- c8- Writing a primary medical report and full and final forensic report on medico-legal basis
- c9- Writing a death certificate properly without additional not needed information and misleading of the cause or pathophysiology of death.
- c10. Demonstrate the ability to critically assess the scientific literature.
- c11- Demonstrate knowledge of evidence-based medicine and apply its principles in practice.
- c12- Use multiple sources, including information technology, to optimize lifelong learning and support patient care decisions.



**Suez Canal University  
Faculty of Medicine**



**Forensic Medicine and  
Clinical Toxicology Department  
Program Specification- Master**

- c13- Develop personally effective strategies for the identification and remediation of gaps in medical knowledge needed for effective practice.
- c14- Use laboratory problems and clinical inquiries to identify process improvements to increase patient safety.
- c15- Use proficiency programs to improve toxicological practices.
- c16. Use the scientific literature and the experience to improve the forensic practice.
- c17. Demonstrate knowledge of how to write a medico legal reports of criminal and accidental cases that face the forensic physicians.
- c18- Demonstrate the ability to write an articulate, legible, and comprehensive yet concise consultation note. Provide a clear and informative report, including a clear diagnosis whenever possible, a differential diagnosis when appropriate, and recommended follow-up or additional studies as appropriate.
- c19- Conduct both individual consultations and presentations at multidisciplinary conferences that are focused, clear, and concise.
- C20- Choose effective modes of communication (listening, nonverbal, explanatory, questioning) and mechanisms of communication (face-to-face, telephone, e-mail, written), as appropriate.
- c21- Demonstrate skills in obtaining informed consent, including effective communication to patients about procedures, alternative approaches, and possible complications.
- c22- Demonstrate skills in educating colleagues and other healthcare professionals :
- (1)demonstrate the ability to help other residents obtain proficiency in laboratory medicine;
  - (2) Demonstrate the ability to work well with other medical personnel and to present toxicological concepts to them effectively in continuing education settings and in the day-to-day management;
  - (3) demonstrate an understanding of the principles one must follow when educating other practicing physicians through publications or seminars on new therapeutic strategies, research discoveries, and other cutting-edge professional knowledge

**d- General and Transferable Skills**



**Suez Canal University  
Faculty of Medicine**

**Forensic Medicine and  
Clinical Toxicology Department  
Program Specification- Master**

- d1. Adopt the principles of lifelong learning
- d2. Use computers in reaching biomedical information
- d3. Present information clearly in written and verbal forms
- d4. Work effectively within a team

### **3. Academic Standards:**

- National Academic Reference Standards (NARS)
- Comparison of Provision to External References (attached)

### **4. Curriculum Structure and Contents:**

**4.a- Program duration:** the program lasts for a minimum of 2 academic years and maximum 5 years, as specified in the internal bylaws for postgraduate studies based on credit points system in the Faculty of Medicine, Suez Canal University approved on February 7th, 2016.

#### **4.b- Program structure:**

Master Program Credit points (CP) structure:

Total needed credit points for getting master degree are 120 CP: The program consists of First part (30 CP) , Thesis (30 CP) , and Second part (60 CP)

✚ ***The first part of the program:*** 30 CP, its duration 15 weeks for one academic semester. It includes

- A course in Research Methodology planned and held in the Community Medicine Department of the Faculty of Medicine, Suez Canal University( 4 CP).
- A course in Research ethics planned and held in the Forensic and Toxicology Department of the Faculty of Medicine, Suez Canal University( 2 CP).
- One elective course, the students should select one elective among six courses (2CP)
- The specialized course in Toxicology and held in the Forensic Medicine and Clinical Toxicology Department (14 CP)



**Suez Canal University  
Faculty of Medicine**



**Forensic Medicine and  
Clinical Toxicology Department  
Program Specification- Master**

- The specialized course in Forensic Chemistry and held in the Forensic Medicine and Clinical Toxicology Department (8 CP).

**Master thesis:** 30 CP, not included in the total marks for master degree, the candidate has the right to register the thesis protocol after 6 months from the degree registration. The thesis defense is allowed after 6 months from the date of Faculty council approval on the thesis protocol and after passing the first part exam.

✚ **The second part of the program:** 60 CP, its duration 45 weeks for 3 consecutive academic semesters. The second part comprises the specialized courses in Forensic Medicine, and includes course of Traumatology and infirmities, course of Autopsy. planned and held in the Forensic Medicine and Clinical Toxicology Department. This part lasts for 1.5 years ending by written and practical exams.

**4bI-** No. of hours per week: 2 CP / week which are equivalent to 50 hours/ week, including lectures, tutorials, self-learning and hands-on training.

**4bII-** No. of credit Points: the Master program is 60 Credit Points. Every credit point include 25 working hours (30% = 500 hours for face to face learning activities, and 70% =1000 hours for self-learning activities).

## **5. Program Courses:**

### **5.1- Level/Year of Program: 1st part MSc (30 CP)**

#### **a. Compulsory**



**Suez Canal University  
Faculty of Medicine**

**Forensic Medicine and  
Clinical Toxicology Department  
Program Specification- Master**

\*E: Student should select one course of the following as an elective course: One elective course has 2 CP. The students should select one elective in first part of the Master degree.

Courses			Assessment				
Code No.	Course Title	No. of Credit points	Written Exam			Oral exam	Practical or clinical Exam
			No of Papers	Duration	Marks		
<b>RB</b>	Research methodology and Biostatistics	4	1	2 hours	80		
<b>RE</b>	Research Ethics	2	1	1 hour	40		
<b>FTFT01</b>	Toxicology	14	1	3 hours	210	70	
<b>FTFT 02</b>	Forensic Chemistry	8	1	3 hours	120	40	
<b>E</b>	Elective Course*	2	1	1 hour	40		
<b>Total</b>		<b>30 credit points</b>			<b>600 marks**</b>		

\*\*Every credit point equal 20 marks

**b. Elective**

<b>E01</b>	<b>Evidence Based medicine</b>	<b>(Community Department)</b>
<b>E02</b>	<b>Scientific Writing</b>	<b>(Medical Education Department)</b>
<b>E03</b>	<b>Quality in Medical Education</b>	<b>(Medical Education Department)</b>
<b>E04</b>	<b>Infection Control</b>	<b>(Microbiology Department)</b>
<b>E05</b>	<b>Critical Appraisal</b>	<b>(Community Department)</b>
<b>E06</b>	<b>Communication Skills</b>	<b>(Medical Education Department)</b>

**5.2- Level/Year of Program: 2nd part MSc (60 CP) (Compulsory)**





Suez Canal University  
Faculty of Medicine

Forensic Medicine and  
Clinical Toxicology Department  
Program Specification- Master

Courses			Assessment					
Code No.	Course Title	No. of Credit points	Written Exam			Oral exam	Practical or clinical Exam	Continues assessment *(Portfolio)
			No of papers	Duration	Marks			
FTFT03	Forensic Medicine	30	2	3 hours For each paper	165 for each paper	110	330	330
	Traumatology and infirmities	15						
	Autopsy	10						
	***Scientific activities	5 (not included in the total marks)						
<b>Total</b>		<b>60 credit points</b>			<b>** 1100 scores</b>			

\*Portfolio scores distributed in the different parts of the portfolio and its total score included among the total mark of the second part

\*\*Every credit point equal 20 marks

\*\*\*Scientific activities are not included in the total marks

**5.3- Thesis:** Senior & junior faculty members from the department staff are nominated by the department council to supervise a candidate thesis work. The supervisors help the candidate in preparing the proposal of the thesis after the selection of a topic that match the research plans of the department, college & University. Data collection, methodologies, study question, time table, ethical considerations and budget are formulated by the candidate under guidance of his supervisors. The research protocol is discussed in one of the department councils to be approved and diverted to the Faculty research committee where it is subjected to a critical appraisal to meet the research basic standards set by the committee. The final approval of the research protocol is then issued by the committee of post graduate studies, the Faculty and University Council to be registered. The candidate has the right to register his/her thesis protocol after 6 months from the degree registration. The first time for thesis defense after 6 months from the date of the faculty council approval on the thesis protocol and passing the first part exam.

N.B. The 30 credit points of the thesis are not included in the total mark for master degree.



Suez Canal University  
Faculty of Medicine



Forensic Medicine and  
Clinical Toxicology Department  
Program Specification- Master

## 6. Program Admission Requirements:

- The program accepts candidates with Bachelor degree in Medicine and Surgery with minimum good grade & very good.
- Registration for the program opens two times/year, according to the internal bylaws for postgraduate studies of the Faculty of Medicine, Suez Canal University.

## 7. Student Assessment Methods

- 7.1 **Written** to assess the cognitive domain.
- 7.3 **Oral** to assess higher cognitive and attitude domains .
- 7.3 **Practical** to assess practical skills.
- 7.4 **Portfolio** to assess the cognitive, psychomotor and the affective domains.

## 8. Weighting of Assessments

Total marks for master degree 1700

Type of exam	
<b>First part (30 credit points= 600 marks)</b>	
• Written exam	490
• Oral and practical exam	110
• <b><u>Total</u></b>	<b>600</b>
<b>Second part (60 credit points including 5 credit points not included in the total marks =1100 marks)</b>	
• Oral exam	110
• Practical exam	330
• Written exam	330
• Portfolio	330
<b><u>Total</u></b>	<b>1100</b>

**Total of the Master degree**

**1700**



**Suez Canal University  
Faculty of Medicine**

**Forensic Medicine and  
Clinical Toxicology Department  
Program Specification- Master**

### **9. Regulations for Progression and Program Completion:**

The regulations for program completion follow general regulations regulations of Master degree of Forensic Medicine and Toxicology in the Faculty of Medicine, Suez Canal University approved by the Supreme Council of Universities. The program in considered complete with the accomplishment of 2 summative assessments (for the first and the second parts) and the defense of a thesis developed and submitted for the purpose of acquiring the degree.

#### **First part**

Passing level 60% of total marks of the exam

At least 50% passing level of the total written exam marks

#### **Second part**

Passing level 60% of total marks of the exam

#### **Thesis**

Passing the thesis defense is a perquisite for getting MSc. Degree.

### **10. Evaluation of Program Intended Learning Outcomes (ILOs)**

Evaluator	Tool	Sample
1- Postgraduate students	Needs assessment questionnaires	Random sample of participants
2- Alumni	Self-administered questionnaires	Comprehensive sample
3-External Evaluator(s) (External Examiner(s))	External audit of the program specifications	
4- Other		

### **11. List of References:**

#### **11.1- Essential books:**

1. Haddad-and-Winchester's Clinical-Management of Poisoning and Drug Overdose-4th-Edition
2. Goldfrank's Toxicologic emergencies. 11th Edition, Kindle Edition.
3. Knight, B.: Forensic Pathology. 4<sup>th</sup> ed.
4. Parikh's Textbook of Medical Jurisprudence & Toxicology.



**Suez Canal University  
Faculty of Medicine**



**Forensic Medicine and  
Clinical Toxicology Department  
Program Specification- Master**

**11.2- Recommended books:**

1. Emergency toxicology / edited by Peter Viccellio; [section editors], Tod Bania
2. Basic Analytical toxicology, 1995

**11.3- Web sites:**

<https://www.amazon.com/Winchesters-Clinical-Management-Poisoning-Overdose/dp/0721606938>

**12. Facilities Required for Teaching and Learning:**

- Library      - Mortuary      - PC      - Data show      - CDs      - Internet

**Head of Department: Prof. Abeer Mohamed Hagra**

**Date:**