



إعتماد توصيف مقررات برنامج الدبلوم فى الطب الشرعى والسموم
الاكلينيكية

نقر نحن الموقعون على هذا أدناه أن توصيف وثيقة البرنامج التعليمى لدرجة الدبلوم فى الطب الشرعى والسموم الاكلينيكية والمقررات الدراسية المكونة له قد تم وضعها بمعرفة الأقسام

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عميد الكلية



وكيل الكلية للدراسات العليا

Peer Revision

Reviewers	University	Date of Revision
- Prof. Dawlat Salem	Cairo	10/12/2011
- Prof. Ahmad K. Mansur	Mansura	28/11/2011

PROGRAM SPECIFICATION of Diploma Degree of Forensic medicine & Clinical toxicology

Sohag University

Faculty of Medicine

Program Specification

A. Basic Information

1. Program title: Diploma Degree in Forensic Medicine & Clinical Toxicology
2. Program type: Multiple
3. Faculty: Faculty of Medicine
4. Department: Forensic Medicine & Clinical Toxicology.
5. Coordinator: Dr. Soheir Ali Mohamed
6. Ass. Co-coordinator : Rania Ahmed Redwn
7. External evaluator: Prof. Dr. Ragaa Mohamed Abdel Maboud
8. Last date of program specifications approval: Faculty council No. "250",
decree No. "1378" dated 28/12/2013.

B. Professional Information :

1. Program aims:

1. Scientific Knowledge essential for the practice of forensic medicine & clinical toxicology according to the international standards.
2. Skills necessary for proper diagnosis and management of problems in the field of forensic medicine & clinical toxicology including .problem solving and decision making skills.
3. Ethical principles related to the practice in this specialty.
4. Active participation in community needs management and problems solving.
5. Maintenance of abilities for continuous medical education.

2. Attributes of the post graduate:

By the end of the diploma programme the post graduate should be able to:

1. Application of the specific knowledge gained during practice of Forensic medicine.
2. Identification of professional problems in this specialty and suggest solutions for them.
3. Mastering professional skills and usage of suitable technologies in practice of Forensic medicine.
4. Ability to efficiently communicate and lead team works throughout organized professional work.
5. Decision making at the lights of the available information.
6. Perfect utilization of available resources.
7. Awareness of his role in community development and maintain good environment.
8. Reflects the commitment to act with integrity, credibility and professional norms and accountability.
9. Recognize the need to develop himself and to engage in continuous learning

3. Intended learning outcomes (ILOs):

a) Knowledge and understanding

By the end of the study of diploma program in forensic medicine and clinical toxicology the graduate should be able:

- a1. Mention types and procedure for forensic autopsy.
- a2. Describe how to examine the scene of death and diagnose death.
- a3. Describe medico legal aspects of personal identification of living and dead human bodies
- a4. Mention the pathology of wounds and different types of injuries in human body.
- a5. Explain of forensic serology that deals with different body fluids.
- a6. List the analytical and instrumental methods used in investigating crimes.
- a7. Describe extraction of various drugs or poisons from body fluids and the keratinized tissues .
- a8. Describe principles of toxicology of different types of poisonous substances and drugs including classification, mechanism of action and clinical features of toxicity.
- a9. Describe examination of the scene of death in cases of poisoning
- a10. List chemicals and drugs which induce organ toxicity.
- a11. Demonstrate the criteria, clinical features, diagnosis and general management of dependence producing substances and drugs
- a12. Mention the antidotal studies and evaluation of toxicity in human subjects.
- a13. List the general scheme for testing drugs or poisons
- a14. know the sources of data collection for vital statistics
- a15. Mention how to construct tables and graphs .
- a16. List the ethical and legal principles of professional practice in the field of forensic medicine and clinical toxicology
- a17. know the principles and fundamentals of quality in professional practice in the field of forensic medicine and clinical toxicology.
- a18. know the effect of professional practice on the environment and the methods of environmental development and maintenance.

b) Intellectual skills

By the end of the study of diploma program in forensic medicine and clinical toxicology the graduates should be able to:

- b1. Interpret the features of the scene of the crime in the field of forensic medicine and clinical toxicology for proper diagnosis of forensic and toxicology cases.
- b2. Solve problems in the area of forensic and clinical toxicology.
- b3. Analyze research and issues related to the forensic medicine and clinical toxicology.
- b4. Assess risk in professional practices in the field of Forensic Medicine and Clinical Toxicology
- b5. Analyze features of injured cases to determine its type and severity
- b6. Analyze data of intoxicated patient and formulate the suitable detection technique. and managements

c) Professional and practical skills

By the end of the study of diploma program in forensic medicine and clinical toxicology the graduates should be able to:

- c1. Master of the basic and modern professional skills in the area of forensic medicine and clinical toxicology.
- c2. Write and evaluate of medico legal reports.
- c3. Assess methods and tools existing in the area of forensic medicine and clinical toxicology

d) General and Transferable skills

By the end of the study of diploma program in forensic medicine and clinical toxicology the graduates should be able to:

- d1. Performing good communication with the patient and/or the patients relatives for explanation of the nature of illness to provide appropriate basic health education.
- d2. Manipulate computer programs, do web search, to write an essay about recent subjects
- d3. Present orally report in accordance with the standard scientific guidelines in seminars or group meetings, discuss results, defend his/her ideas with staff members
- d4. Participate in the medical progress by having the basis of medical research studies.
- d5. Work together to perform some laboratory tests about detection of some poisons

4. Academic Standards:

Sohag Faculty of Medicine adopted the general National Academic Reference Standards (NARS) provided by the national authority for quality assurance and accreditation (naqaae) for postgraduate program . This was approved by the faculty Council decree No. 6854, in its cession No. 177 Dated : 18/5/2009 .Based on these NARS; The Academic Reference Standards(ARS) were suggested for this program These ARS were approved by the faculty council decree No7528, in its cession No 191, dated : 15/3/2010 . The adoption of NARS and the suggested ARS were approved by University council degree No 587, in its cession No.60. dated 26-12-2011.

5. Curriculum structure and contents:

5. a- Program duration: 3 semesters (1.5 years).

5. b- Program structure:

5. b.i- Number of hours per week:

Subject	No. of		Clinical
	Lectures	hours/week Practical	
<u>First Part:</u>			
<u>Minor</u>			
Pathology	7	10	-
Biostatistic	1	2	
<u>Second Part:</u>			
Major			
Serology module	1.5	2	-
Clinical toxicology module	2	2	

Forensic chemistry module	1.5	2	
Forensic medicine module	2	2	
Injuries & permanent infirmities module	1.5	2	

Code	Item	No	%	
b.i	Total credit hours	Compulsory	41	100
		Elective	0	0
		Optional	0	0
b.iii	credit hours of basic sciences courses	17	34	
b.iv	credit hours of courses of social sciences and humanities	0	0	
b.v	credit hours of specialized courses:	22	44	
b.vi	credit hours of other course	2	4	
b.viii	Program Levels (in credit-hours system):			
	Level 1: 1 st part	14	28	
	Level 2: 2 nd Part	27	54	

6. Program Courses

6 courses are compulsory

6.c1. level of program:

Semester 1

First part:

a. Compulsory

Course title	No. Of units	Total No. of hours	<u>No of Lectures</u>	<u>hours / Practical</u>	<u>week Clinical</u>	program ILOs Covered
<u>First Part:</u>						
Pathology		4	2	2	-	a4,a16,a17,a18 b1,b3, b5,C1, c2, ,d2,d3,d4,d5
Biostatistics		2	1	1		a14,a15, a16, b3, c1, d3

Second part

Forensic Medicine	4	2	2	-	a1,a2,a3,a4,a5,a16,a17,a18 b1,b2,b3, b5, C1, c2,c3,d2,d3,d4,d5,
Injuries & permanent	4	2	2		a4,a16,a17,a18 b1,b2,b3,b4,b5,b6 C1, c2,c3 d1,d2,d3,d4,d5

infirmities	4	2	2	-	a6,a7,a8,a9,a10,a12 ,a13,a16,a17,1a8 B1,b2,b3, b6 C1, c2,c3. d1,d2,d3,d4,d5
Clinical Toxicology	4	2	2	-	A9,a11,a12,a16,a17,a18,c1,c2,c 3,d1,d2,d3,d4,d5
Forensic chemistry	4	2	2	-	a2,a3,a5,a7,a9,a17,a18 B1,b2,b3,b4,b5,b6, C1, c2,c3. d2,d3,d4,d5
Serology					

7. Program admission requirements

1-General requirements

- a. A-Graduates should have either:
 - MBChB Degree from any Egyptian Faculty of Medicine or
 - Equivalent Degree from Medical school abroad approved by the Ministry of Higher Education.
- b. Candidate should complete the house office training year.
- c. Follow postgraduate regulatory rules of Sohag faculty of Medicine.

8. Regulations for progression and programme completion

Duration of program is 3 semesters (1, 5 years), starting from registration till the 2nd part divided to:

First Part: (≥ 6 months=1 semester):

- Program- related basic science, pathology course.
- At least six months after registration should pass before the student can ask for examination in the 1st part.
- Two sets of exams: 1st in April — 2nd in October.
- For the student to pass the first part exam, a score of at least 60% in each curriculum is needed (with at least 40% in written exam.)
- Those who fail in one curriculum need to re-exam it only.

Second Part: (≥ 12 months=2 semesters):

Program related specialized science in forensic medicine and clinical toxicology courses

- After passing at least

Basic sciences departments. Actual work for 12 months as a demonstrator trainee in the department of forensic medicine and clinical toxicology.

The student should pass the 1st part before asking for examination in the 2nd part.

- Two sets of exams: 1st in April — 2nd in October.
- For the student to pass the first part exam, a score of at least 60% is needed (with at least 60% in written exam and 50% of the oral , clinical and practical exam)

9. Methods of student assessments:

Method of assessment	The assessed ILOs
1-Research assignment	- General transferable skills, intellectual skills
2-Written Exam: -Short essay: 40% -structured questions: 25% -MCQs: 20% -Commentary, Problem solving: 15%	- Knowledge - Knowledge - Knowledge, intellectual skills - Intellectual skills, General transferable skills
3-OSPE	-Practical skills, intellectual skills
4-Structured Oral Exam	- Knowledge, Intellectual skills, General transferable skills

Assessment schedule:

Part I:

- Pathology: Written Exam (3 hours) + OSPE + structured oral Exam.

Part II:

- Two Written Exam (3 hours for each) for Forensic medicine and Clinical toxicology
+ Structured oral Exam for each + OSPE for Injuries & permanent infirmities,
Clinical toxicology and Forensic chemistry and serology

10. Evaluation of program.

Evaluator	Tool	Sample
1- Senior students	Questionnaire	2
2- Alumni	Questionnaire	1
3- Stakeholders (Employers)	Questionnaire	7
4-External Evaluator(s) (External Examiner(s))	Report	1
5- Other		

Course Specification of Pathology in Forensic Medicine & Clinical Toxicology

Sohag University

Faculty of Medicine

1. Program (s) on which the course is given: Diploma degree in forensic medicine & clinical toxicology
2. Major or Minor element of program: Minor.
3. Department offering the program: Dept. of Forensic Medicine & Clinical Toxicology
4. Department offering the course: Dept. of pathology
5. Academic year / Level; 1st part
6. Date of specification approval: Faculty council No. "250", decree No. "1378" dated 28/12/2013

A. Basic Information

Title: pathology in Forensic Medicine & Clinical Toxicology

Code: PAT:0509-100

Total hours:

Lectures	Practical	Tutorial	Total hours	Credit
105	150		255	12

B. Professional Information

1. Overall Aims of Course

Provide essential knowledge about pathogenesis and pathologic manifestation of poisoning and injuries.

2. Intended Learning Outcomes of Course (ILOs)

a) Knowledge and Understanding:

By the end of the course, students should be able to:

- a1. Describe bases of general and systemic pathology.
- a2. Describe etiology, pathogenesis and pathologic manifestation of diseases and injuries
- a3. Mention the progress, complications and fate of different types of injuries of human body.
- a4. List the ethical and legal principles of professional practice in the field of pathology.
- a5. List the principles and fundamentals of quality in professional practice in the field of pathology.
- a6. List the effect of professional practice on the environment and the methods of environmental development and maintenance

b) Intellectual Skills

By the end of the course, students should be able to:

- b1. Interpret the macroscopic and microscopic criteria of the altered structure (pathology) of the body seen in poisoning or injuries.
- b2. Analyze research and issues related to the pathology.
- b3. Analyze features of injured cases to determine its type and severity

c) Professional and Practical Skills

By the end of the course, students should be able to:

- c1. Mention the basic and modern professional skills in the area of pathology.
- c2. Write and evaluate pathological report .

d) General and Transferable Skills

By the end of the course, students should be able to:

- d1. Manipulate computer programs, do web search, to write an essay about recent pathological subjects
- d2. Present orally report in accordance with the standard scientific guidelines in seminars or group meetings, discuss results, defend his/her ideas with staff members
- d3. Participate in the medical progress by having the basis of medical research studies.
- d4. Work in a team and manage time.
- d5. Work as a team leadership in familiar professional contexts.
- d6. Learn himself continuously

3. Contents of the course:

Topic	No. of hours	Lecture	Practical
1- <u>General Pathology:</u>	34	14	20
1.1. Cell response to injury and aging.	17	7	10
1.2. Disturbances of circulation.	17	7	10
2- <u>Heart & blood vessels:</u>	34	14	20
2.1. Ischemic heart diseases & heart failure.	8	3	5
2.2. Diseases of the pericardium.	9	4	5
2.3. Atherosclerosis & hypertension.	8	3	5
2.4. Aneurysms.	9	4	5
3- <u>Respiratory system:</u>	34	14	20
3.1. Lung atelectasis & collapse.	6	2	4
3.2. Pulmonary hypertension	7	3	4
3.3. Pulmonary edema.	7	3	4
3.4. Emphysema.	7	3	4
3.5. Pneumothorax & pyopneumothorax.	7	3	4
4- <u>Gastrointestinal, hepatobiliary tracts & pancreas:</u>	34	14	20
4.1. Ulcers of the gastrointestinal tract	5	2	3
4.2. Gastrointestinal bleeding.	6	2	4
4.3. Intestinal obstruction.	5	2	3
4.4. Cholecystitis & gall stones.	5	2	3
4.5. Pancreatitis.	7	3	4
4.6. Peritonitis.	6	3	3
5- <u>Diseases of the genitourinary system</u>	34	14	20

5.1. Pyelonephritis & hydronephrosis.	6	2	4
5.2. Acute tubular necrosis.	7	3	4
5.3. Renal stones.	7	3	4
5.4. Obstruction & calculi of urinary bladder.	7	3	4
5.5. Testicular atrophy & male infertility.	7	3	4
6- The musculoskeletal system:	17	7	10
6.1. Healing of bone fracture.	6	2	4
6.2. Osteomyelitis.	7	3	4
6.3. Arthritis.	7	3	4
6.4. Myopathy	7	3	4
6.5. Peripheral neuropathy.	7	3	4
7- Nervous system:	34	14	20
7.1. Intracranial hemorrhage & stroke.	17	7	10
7.2. Increase intracranial tension.	17	7	10
8- Diseases of female genital system:	34	14	20
8.1. Uterine bleeding	17	7	10
8.2. Abortion & ectopic pregnancy.	17	7	10
Total	255	105	150
Credit	12	7	5

4. Teaching and Learning Methods:

4.1- Lectures

4.2- practical lessons

4.3- Assignment

4.4- attending and participating in scientific conferences, work shops and discussion to acquire the general and transferable skills.

5. Student Assessment Methods

Method of assessment	The assessed ILOs
5.1- Observation of attendance and absenteeism.	- General transferable skills, intellectual skills
5.2- Written Exam: - Short essay: 40% - structured questions: 25% - MCQs: 20% - Commentary, Problem solving: 15%	- Knowledge - Knowledge - Knowledge, intellectual skills - Intellectual skills, General transferable skills,
5.3- Structured Oral Exam	- Knowledge, Intellectual skills, General transferable skills
5.4- OSPE	- Practical skills, intellectual skills
5.5 assignments	- General transferable skills, intellectual skills

Assessment Schedule

Assessment 1: Log book week (20)

Assessment 2 :Final Written exam week (24)

Assessment 2 :Final OSPE week (24)

Assessment 2 :Final Structured Oral Exam week (24)

Weighting of Assessments

Final written exam	50%
Final oral exam	30%
Final OSCE exam	20%

Total **100%**

6. List of References

6.1- Course notes :

Lectures notes prepared by the staff members of the department.

6.2- Essential Books (Text Books):

- Muir's text book of pathology.
- Robbins pathologic basis of diseases.

6.3- Recommended Books:

- Rosi&Ackerman text book of pathology.
- Sternberg text book of pathology.

6.4- Periodicals, American journal of pathology

Pathology

Human pathology

Web Sites: <http://www.ncbi.nlm.nih.gov/pubmed/>

7. Facilities Required for Teaching and Learning

1-ADEQUATE INFRASTRUCTURE: including teaching places (teaching class, teaching halls, teaching laboratory), comfortable desks, good source of aeration, bathrooms, good illumination, and safety & security tools.

2- TEACHING TOOLS: including screens, computers including cd (rw), data shows, projectors, flip charts, white boards, video player, digital video camera, scanner, copier, colour and laser printers.

3- COMPUTER PROGRAM: for designing and evaluating MCQs

Course Coordinator: Dr. Fatma El Zahraa

Head of Department: Prof. Eman Muhammad Salah El Deen

Date: 18/12/2011, **Revised:**1/9/2012, **Revised:**1/12/2013

Course Specification of Biostatistics in Diploma Degree of Forensic Medicine & Clinical Toxicology

Sohag University

Faculty of Medicine

1. Program on which the course is given: Diploma Degree of Chest Diseases and Tuberculosis
2. Major or minor element of program: minor
3. Department offering the program: Forensic Medicine & Clinical Toxicology
4. Department offering the course: public Health and community medicine department.
5. Academic year/ Level: first part
6. Date of specification approval: Faculty council No. "250", decree No. "1378" dated 28/12/2013

A. Basic Information

Program title Course Specification of medical Biostatistics in Diploma degree in Forensic Medicine & Clinical Toxicology

Code: COM 0509-100

Course	Lectures	Practical:	Total:	Total credit hours :
Medical Biostatistics	15 hrs	30	45	2 hrs

B. Professional Information

1. Overall Aims of Course

To develop a graduate who will apply the knowledge and skills learned, and is able to utilize the basics of medical statistics in his career and research

2. Intended Learning Outcomes of Course (ILOs):

According to the intended goals of the faculty

a) Knowledge and understanding:

By the end of the course, the student is expected to practice the following:

- a1. Define the screening tests pertinent to selected diseases and the at-risk approach in the application of screening tests
- a2. Explain the usefulness of screening tests, and calculate sensitivity, specificity, and predictive values Define terms of research methodology

b) Intellectual Skills

By the end of the course, the student is expected to practice the following:

- b1. Identify and collect data variables impacting health and disease
- b2. Assess risk in professional practices in the field of Chest Diseases and Tuberculosis.
- b3. Analyze research and issues related to the Chest Diseases and Tuberculosis

c) Professional and Practical Skills:

By the end of the course, the student is expected to practice the following:

- c1. Perform community diagnosis
- c2. Conduct Social & Health Surveys

c3. Diagnose an epidemic

d) General and Transferable Skills

By the end of the course, the student is expected to practice the following:

d1. Use different sources to obtain information and knowledge.

d2. Work coherently and successfully as a part of a team and team's leadership.

d3. Use different sources to obtain information and knowledge and collect data

3. Course Contents:

Topic	No. of hours	Lecture	Practical
Methodology & statistics Terminology and rationale Data collection Types of Data Tabulation of data Graphical presentation of data Measures of central tendency Measures of dispersion Normal distribution curves International classification of diseases International death certificate Study design: Cross sectional study and the prevalence rate Cohort study, incidence rate, relative & attributable risk Case-control study, Odd's ratio Sampling Investigation of an epidemic, the attack rates	45	15	30
Total	45	15	30

1- Teaching and Learning Methods:

4.1. Lectures.

4.2 practical sessions

4.3- Computer search assignments

2- Student Assessment Methods

Method of assessment	The assessed ILOs
5.1- Observation of attendance and absenteeism.	- General transferable skills, intellectual skills
5.2-Written Exam: -Short essay: 40% -structured questions: 25% -MCQs: 20% -Commentary, Problem solving: 15%	- Knowledge - Knowledge - Knowledge, intellectual skills - Intellectual skills, General transferable skills,
5.3-Structured Oral Exam	- Knowledge, Intellectual skills, General transferable skills
5.4 Computer search assignment	-General transferable skills, intellectual skills

Assessment Schedule

Assessment 1. Written examination 24week

Assessment 2. Structured Oral Exam 24week

Assessment 3. Attendance and absenteeism

Weighting of Assessments

Final-term Written Examination	50 %
Structured Oral Examination	50 %
Total	100%

Formative only assessments: attendance and absenteeism and Computer search assignments

3- List of References

6.1- Course Notes

Lecture notes prepared by staff members in the department

Epidemiology in medical practice, 5th edition. Churchill Livingstone. New York, London and Tokyo, 2003.

6.4- Periodicals, Web Sites etc

1-American Journal of Epidemiology

2-British Journal of Epidemiology and Community Health

3- WWW. CDC and WHO sites

4- Facilities Required for Teaching and Learning

1-Adequate infrastructure: including teaching places (teaching class), comfortable desks, good source of aeration, bathrooms, good illumination and safety and security

2-Teaching tools: including screens, computers data shows, projectors, flip charts, white board, video player, digital video camera, scanner, copier, color and laser printers

Course Coordinator: Dr /Ahmed Fathy Hammed

Head of Department: Prof /Eman Abd El-Baset Mohammed

Date: 18/12/2011, **Revised:**1/9/2012, **Revised:**1/12/2013

Course Specification of Injuries & Infirmities, Forensic chemistry, Clinical Toxicology Medicine, Serology and Forensic Medicine in Forensic Medicine & Clinical Toxicology

Sohag University

Faculty of Medicine

Course Specifications

1. Program (s) on which the course is given: Diploma degree in forensic medicine & clinical toxicology
2. Major or Minor element of program: Major
3. Department offering the program: **Dept. of Forensic Medicine & Clinical Toxicology**
4. Department offering the course: **Dept. of Forensic Medicine & Clinical Toxicology**
5. Academic year / Level 2nd part
6. Date of specification approval: Faculty council No. "250", decree No. "1378" dated 28/12/2013

A. Basic Information

Title: Injuries & infirmities, Forensic chemistry in Forensic Medicine & Clinical Toxicology

Code: FOR:0509-100

Total hours:

Module	Lectures	Practical	Total hours	Credit
Injuries & infirmities	45	60	105	5
Forensic chemistry	45	60	105	5
Clinical Toxicology Medicine	60	60	120	6
Serology	45	60	105	5
Forensic Medicine	60	60	120	6

B. Professional Information

1. Overall Aims of Course

Injuries & infirmities module:

Provide basic knowledge of different types of injuries and toxins which can cause permanent infirmity. The student should be able to examine the injured person and determine the percent of permanent infirmity accurately. Write a medico legal report about work injuries independently.

Forensic chemistry module:

- Provide basic knowledge about trace evidence obtained after a crime is committed.
- Provide basic knowledge about various separation, extraction, detection and quantitation techniques of certain substance or drug.
- Describe the common procedures, techniques, and applications of forensic chemistry.

Clinical Toxicology Medicine module:

- Provide basic knowledge of different types of poisonous substances and drug.
- Demonstration of knowledge of types, actions, clinical features, circumstances,
- diagnosis, detection, and management of poisoning which operate on the human
- body demonstrate the criteria, clinical features, diagnosis and general management of dependence producing substances and drugs

Serology module:

Provide basic knowledge of serology and how to examine scene of death to diagnose the cause of death. Also he/she can examine different types of samples found at the scene of the crime accurately. The student should also be able write a medicolegal report independently

Forensic Medicine module:

Provide basic knowledge of different types of injuries and how to diagnose death and differentiate between natural and criminal causes. Also he/she can diagnose injuries and determine the percent of permanent infirmity accurately. The student should also be able to examine the scene of the crime and write a medico legal report independently.

2. Intended Learning Outcomes of Course (ILOs)

Injuries & infirmities module:

a) Knowledge and Understanding:

By the end of the course, students should be able to:

- a1. Explain and define permanent infirmity
- a2. Describe different types of injuries which can cause permanent infirmity
- a3. Describe different types of poisons which can cause permanent infirmity
- a4. Describe different types of injuries to which the worker can be exposed during his work.
- a5. Describe different types of toxins to which the worker can be exposed during his work.
- a6. Describe how to examine the injured person
- a7. Describe how to examine the poisoned person
- a8. Explain how to determine the percent of permanent infirmity
- a9. List the ethical and legal principles of professional practice in the field of forensic medicine and clinical toxicology
- a10. List the principles and fundamentals of quality in professional practice in the field of forensic medicine and clinical toxicology
- a11. Mention the effect of professional practice on the environment and the methods of environmental development and maintenance

b) Intellectual Skills

By the end of the course, students should be able to:

- b1. Interpret the features of the scene of the crime in the field of forensic medicine and clinical toxicology for proper diagnosis of forensic cases .
- b2. Solve problems in the area of forensic cases.
- b3. Analyze research and issues related to the forensic medicine .
- b4. Assess risk in professional practices in the field of forensic medicine.
- b5. Analyze features of injured cases to determine its type , severity and the probability of occurrence of permanent infirmity.
- b6. Analyze data of intoxicated patient , formulate the suitable detection technique the and detect the probability of occurrence of permanent infirmity.

c) Professional and Practical Skills

By the end of the course, students should be able to:

- c1. Mention of the basic and modern professional skills in the area of forensic medicine and clinical toxicology.
- c2. Write and evaluate of medico legal reports
- c3. Assess methods and tools existing in the area of forensic medicine and clinical toxicology.

d) General and Transferable Skills

By the end of the course, students should be able to:

- d1. Performing good communication with the patient and/or the patients' relatives for explanation of the nature of injury or poisoning to decrease the probability of occurrence of permanent infirmity
- d2. Manipulate computer programs, do web search, to write an essay about recent subjects
- d3. Present orally report in accordance with the standard scientific guidelines in seminars or group meetings, discuss results, defend his/her ideas with staff members
- d4. Participate in the medical progress by having the basis of medical research studies.
- d5. Work in a team and time management.
- d6. Work as a team leadership in familiar professional contexts.
- d7. Learn himself continuously

Forensic chemistry module:

a) Knowledge and Understanding:

By the end of the course, students should be able to:

- a1. Describe examination of the scene of death in cases of poisoning
- a2. Demonstrate the criteria, clinical features, extraction and detection of dependence producing substances and drugs
- a3. Mention the antidotal studies and evaluation of toxicity in human subjects.
- a4. List the general scheme for testing drugs or poisons forensic chemistry
- a5. List the principles and fundamentals of quality in professional practice in the field of forensic chemistry.
- a6. List the effect of professional practice on the environment and the methods of environmental development and maintenance

b) Intellectual Skills

By the end of the course, students should be able to:

- b1. Interpret the features of the scene of the crime in the field of forensic medicine and clinical toxicology for proper diagnosis of forensic and toxicology cases.
- b2. Solve problems in the area of forensic chemistry cases.
- b3. Analyze research and issues related to the forensic chemistry.
- b4. Assess risk in professional practices in the field of Forensic chemistry.
- b5. Analyze features of poisoned cases to determine its type and severity
- b6. Analyze data of intoxicated patient and formulate the suitable detection technique.

c) Professional and Practical Skills

By the end of the course, students should be able to:

- c1. Perform some laboratory tests for detection of some poisons or drugs.
- c2. Write and evaluate of toxicological reports
- c3. Assess methods and tools existing in the area of forensic chemistry.

d) General and Transferable Skills

By the end of the course, students should be able to:

- d1. Manipulate computer programs, do web search, to write an essay about recent subjects in forensic chemistry.
- d2. Present orally report in accordance with the standard scientific guidelines in seminars or group meetings, discuss results, defend his/her ideas with staff members
- d3. Participate in the medical progress by having the basis of medical research studies.
- d4. Work in a team and time management.
- d5. Work as a team leadership in familiar professional contexts.
- d6. Learn himself continuously

Clinical Toxicology Medicine module:

a) Knowledge and Understanding:

By the end of the course, students should be able to:

- a1. List the analytical and instrumental methods used in investigating crimes.
- a2. Describe extraction of various drugs or poisons from body fluids and the keratinized tissues
- a3. Describe principles of toxicology of different types of poisonous substances and drugs including classification, mechanism of action and clinical features of toxicity.
- a4. Describe examination of the scene of death in cases of poisoning
- a5. List chemicals and drugs which induce organ toxicity.
- a6. Demonstrate the criteria, clinical features, diagnosis and general management of dependence producing substances and drugs
- a7. Mention the antidotal studies and evaluation of toxicity in human subjects.
- a8. List the general scheme for testing drugs or poisons
- a9. List the ethical and legal principles of professional practice in the field of clinical toxicology
- a10. List the principles and fundamentals of quality in professional practice in the field of clinical toxicology
- a11. List the effect of professional practice on the environment and the methods of environmental development and maintenance

b) Intellectual Skills

By the end of the course, students should be able to:

- b1. Interpret the features of the scene of the crime in the field of forensic medicine and clinical toxicology for proper diagnosis of toxicology cases.
- b2. Solve problems in the area of toxicology.
- b3. Analyze research and issues related to the clinical toxicology.
- b4. Analyze data of intoxicated patient and formulate the suitable detection technique. and managements

c) Professional and Practical Skills

By the end of the course, students should be able to:

- c1. Mention the basic and modern professional skills in the area of clinical toxicology.
- c2. Write and evaluate of toxicological reports
- c3. Assess methods and tools existing in the area of clinical toxicology.

d) General and Transferable Skills

By the end of the course, students should be able to:

- d1. Performing good communication with the patient and/or the patients' relatives for explanation of the nature of poisoning to provide appropriate basic health education.
- d2. Manipulate computer programs, do web search, to write an essay about recent subjects
- d3. Present orally report in accordance with the standard scientific guidelines in seminars or group meetings, discuss results, defend his/her ideas with staff members
- d4. Participate in the medical progress by having the basis of medical research studies.
- d5. Work in a team and time management.
- d6. Work as a team leadership in familiar professional contexts.
- d7. Learn himself continuously

Serology module:

a) Knowledge and Understanding:

By the end of the course, students should be able to:

- a1. Describe how to examine the scene of death.
- a2. Describe medico legal aspects of personal identification of living and dead human bodies.
- a3. Describe blood testing and bloodstain examination
- a4. Describe the difference between animal and human blood
- a5. Demonstrate how to identify sex, age, and race from blood
- a6. Explain semen analysis
- a7. Demonstrate saliva and other body fluids analysis
- a8. Explain DNA typing.
- a9. List the analytical and instrumental methods used in investigating crimes.
- a10. Describe examination of the scene of death in cases of poisoning
- a11. List the ethical and legal principles of professional practice in the field of serology.
- a12. List the principles and fundamentals of quality in professional practice in the field of serology.
- a13. List the effect of professional practice on the environment and the methods of environmental development and maintenance

b) Intellectual Skills

By the end of the course, students should be able to:

- b1. Interpret the features of the scene of the crime in the field of forensic medicine and clinical toxicology for proper diagnosis of forensic and toxicology cases.
- b2. Solve problems in the area of forensic and clinical toxicology.
- b3. Analyze research and issues related to the forensic medicine and clinical toxicology.

- b4. Assess risk in professional practices in the field of serology.
- b5. Analyze features of injured cases to determine its type and severity
- b6. Analyze data of intoxicated patient and formulate the suitable detection technique.

c) Professional and Practical Skills

By the end of the course, students should be able to:

- c1. Mention of the basic and modern professional skills in the area of serology.
- c2. Write and evaluate of medico legal reports
- c3. Assess methods and tools existing in the area of serology.

d) General and Transferable Skills

By the end of the course, students should be able to:

- d1. Performing good communication with the patient and/or the patients' relatives for explanation of the nature of injury or poisonings to provide appropriate basic health education.
- d2. Manipulate computer programs, do web search, to write an essay about recent subjects
- d3. Present orally report in accordance with the standard scientific guidelines in seminars or group meetings, discuss results, defend his/her ideas with staff members
- d4. Participate in the medical progress by having the basis of medical research studies.
- d5. Work in a team and time management.
- d6. Work as a team leadership in familiar professional contexts.
- d7. Learn himself continuously

Forensic Medicine module:

a) Knowledge and Understanding:

By the end of the course, students should be able to:

- a1. Mention types and procedure for forensic autopsy.
- a2. Describe how to examine the scene of death and diagnose death.
- a3. Describe medico legal aspects of personal identification of living and dead human bodies
- a4. Mention the pathology of wounds and different types of injuries in human body.
- a5. Explain of forensic serology that deals with different body fluids.
- a6. List the ethical and legal principles of professional practice in the field of forensic medicine.
- a7. Mention the principles and fundamentals of quality in professional practice in the field of forensic medicine .
- a8. List the effect of professional practice on the environment and the methods of environmental development and maintenance

b) Intellectual Skills

By the end of the course, students should be able to:

- b1. Interpret the features of the scene of the crime in the field of forensic medicine and clinical toxicology for proper diagnosis of forensic cases .
- b2. Solve problems in the area of forensic cases.
- b3. Analyze research and issues related to the forensic medicine .
- b4. Analyze features of injured cases to determine its type and severity

c) Professional and Practical Skills

By the end of the course, students should be able to:

- c1. Mention the basic and modern professional skills in the area of forensic medicine.
- c2. Write and evaluate of medico legal reports
- c3. Assess methods and tools existing in the area of forensic medicine.

d) General and Transferable Skills

By the end of the course, students should be able to:

- d1. Manipulate computer programs, do web search, to write an essay about recent subjects
- d2. Present orally report in accordance with the standard scientific guidelines in seminars or group meetings, discuss results, defend his/her ideas with staff members
- d3. Participate in the medical progress by having the basis of medical research studies.
- d4. Work in a team and time management.
- d5. Work as a team leadership in familiar professional contexts.
- d6. Learn himself continuously

3. Contents of the forensic course:

Injuries & infirmities module:

عدد الساعات العملية	عدد الساعات النظرية	الموضوع
10	10	تعريف العاهة المستديمة و أنواعها
20	20	كيفية تقدير درجات العجز في حالات فقد العضوي
10	10	إصابات العمل
20	20	كيفية تقدير درجات العجز الناشئة عن إصابات العمل
60	60	المجموع
2	4	ساعات معتمده

Forensic chemistry module:

Topic	No. of hours	Lecture	Practical
The various analytical and instrumental methods used in investigating crimes.	8	3	5
Principles of extraction & detection technique: Extraction in acidic or alkaline media Extraction from body fluids and keratinized tissues such as human hair and finger nails	6	3	3
Principles of thin layer chromatography using silica gel G Principles of color test	6	3	3
General scheme for testing some groups or poisons	6	3	3
Irritant poisons and their detection	7	3	4
Corrosive poisons and their detection	6	2	4
Extraction of volatile poisons and their detection such as ethyl alcohol, methyl alcohol, chloroform, petroleum and hydrocyanic acid	8	4	4
Extraction and detection of non volatile organic compounds: Nonbasic compounds as a- analgesics as salicylic acid b- hypnotics c- antipyretic The basic compounds as a- antidepressants b- antihistamines c- narcotics analgesics d- CNS stimulants	8	4	4
Extraction and detection of vegetable alkaloids	6	2	4
Extraction and detection of gases	8	3	5
Extraction and detection of insecticides and zinc phosphide	6	3	3
Extraction and detection of organic chlorine compounds	6	2	4
Extraction and detection drug of addiction	8	4	4
Extraction and detection of antibiotic compounds	8	3	5
Extraction and detection of combustion product of firearm injury	8	3	5
Total hours	105	45	60
Credit	5	3	2

Clinical Toxicology Medicine module:

Topic	No. of hours	Lecture	Practical
The emergency management of poisoning	8	4	4
Active methods for detoxification	8	4	4
Pediatric resuscitation and fluid management	4	2	2
Management of overdose in pregnancy	4	2	2
Management of respiratory complications in poisoned patient	4	2	2
Laboratory diagnosis and drug screening	4	2	2
Toxin induced cardiovascular syndrome	8	4	4
Clinical neurotoxicology	4	2	2
Chemical hepatic injury and renal toxicity	4	2	2
Hematologic consequences of poisoning	4	2	2
Toxic injury of the eye	4	2	2
Endocrine agent toxicity	4	2	2
Geriatric toxicology	4	2	2
Disaster management of massive toxic exposure	4	2	2
Poisonous anthropods, mushrooms, poisonous plants, toxic marine life , botulism and food poisoning	4	2	2
Designer drugs	4	2	2
Drug dependence	4	2	2
Natural hallucinogens	4	2	2
Toxicity of centrally active drugs as: sedatives, tricyclic antidepressants, benzodiazepines , antipsychotic	4	2	2

drugs, anticonvulsants and antihistamines			
Analgesics :acetaminophine salicylate, non steroidal anti-inflammatory drug toxicity	4	2	2
Toxicity of muscle relaxants	4	2	2
Toxicity of vitamins	4	2	2
Toxicity of heavy metals and inorganic agents	4	2	2
Pesticides poisoning	4	2	2
Inhalation poisoning, volatiles and solvents	4	2	2
Corrosives : acids and alkali injury, bleach, soap and detergents	4	2	2
Cosmetics , toilet articles, baby powder, and camphor	4	2	2
Total hours	120	60	60
Credit	6	4	2

Serology module:

Topic	No. of hours	Lecture	Practical
type and characteristics of blood	17	9	8
Examination the scene of death	11	3	8
blood testing, bloodstain examination,	9	3	6
difference between animal and human blood	17	9	8
how to identify sex, age, and race from blood	11	3	8
semen analysis	9	3	6
saliva and other body fluids analysis	17	9	8
DNA typing.	14	6	8
Total hours	105	45	60
Credit	5	3	2

Forensic Medicine module:

Topic	No. of hours	Lecture	Practical
Types of autopsy and procedure for forensic autopsy	8	4	4
Examination the scene of death	8	4	4
Post mortem artifact	4	2	2
The pathophysiology of death,	4	2	2
The pathology of sudden death	4	2	2
The obscure death	4	2	2
The medicolegal aspects of personal identification	4	2	2
The pathology of wounds, chest and abdominal injuries, self inflicted injury, head and spinal injuries and how to write a medicolegal report	8	4	4
The medicolegal aspects of firearm injuries and explosion deaths	4	2	2
The systemic effect of trauma	4	2	2
Transportation injuries	4	2	2
Abuse of human rights: deaths in custody	4	2	2
Burn and scold	4	2	2
Electrical fatalities	8	2	6
The medicolegal aspects of suffocation and asphyxia	4	2	2
Fatal pressure on the neck	4	2	2
Immersion deaths	4	2	2
The medicolegal aspects of neglect, starvation and hypothermia	4	2	2
The medicolegal aspects of pregnancy, delivery	24	2	22
The medicolegal aspects of abortion	4	2	2
Infanticide and sudden death in infancy	4	2	2
The medicolegal aspect of sexual crimes	4	2	2
The medicolegal aspect of child abuse	4	2	2
The medicolegal aspect of deaths associated with surgical procedures	4	2	2
Forensic serology including: examination	4	2	2

of blood, semen, saliva and other body fluids			
The medicolegal aspect of dysbarism and barotrauma	4	2	2
Forensic Psychiatry	4	2	2
Total hours	120	60	60
Credit	6	4	2

4. Teaching and Learning Methods:

- 4.1- Lectures
- 4.2- practical lessons
- 4.3- Assignment
- 4.4- attending and participating in scientific conferences work shops and discussion to acquire the general and transferable skills.
- 4.5- Training in Ministry of justice.

5. Student Assessment Methods

Method of assessment	The assessed ILOs
5.1- Observation of attendance and absenteeism.	- General transferable skills, intellectual skills
5.2- Written Exam: - Short essay: 40% - structured questions: 25% - MCQs: 20% - Commentary, Problem solving: 15%	- Knowledge - Knowledge - Knowledge, intellectual skills - Intellectual skills, General transferable skills,
5.3- Structured Oral Exam	- Knowledge, Intellectual skills, General transferable skills
5.4- OSPE	- Practical skills, intellectual skills
5.5- OSPE	- Practical skills, intellectual skill
5.6 assignments	- General transferable skills, intellectual skills

Assessment Schedule

- Assessment 1: Log book** week (80)
- Assessment 2 : ...Final Written exam...** week (96)
- Assessment 3 : ...Final OSPE ...** week (96 -100)
- Assessment 4 : ...Final Structured Oral Exam ...** week (96 -100)

Weighting of Assessments

Review	week 28-30= pass
Final Written exam	50%
Final Structured Oral Exam	30%
OSCE	20%

Total **100%**

Formative only assessment: simple research assessment, Log book, attendance and absenteeism

6. List of References

Injuries & infirmities module:

6.1- Essential Books:

- Simpson's Forensic Medicine by Knight, B(1996)
- Medical ethics. by Jones & Barlett

6.2 -Recommended Books:

6.3 Periodicals and websites:

Forensic Science International, Egyptian Journals of Forensic Medicine and Clinical Toxicology, International Journals of Forensic Medicine and Clinical Toxicology

www.sciencedirect.com

Forensic chemistry module:

6.1-Essential Books:

- Principles of Clinical Toxicology by Gossel, T., and Bricker
- Toxicologies emergencies. by Gold frank
- Clinical managements of poisoning and drug overdose. By Hddad

6. 2-Recommended Books:

General & Applied Toxicology by Macmillan

6.3 Periodicals and websites:

Forensic Science International, Egyptian Journals of Forensic Medicine and Clinical Toxicology, International Journals of Forensic Medicine and Clinical Toxicology

www.sciencedirect.c

Clinical Toxicology Medicine module:

6.1- Course notes : Lectures notes prepared by the staff members of the department

6.2-Essential Books:

- Principles of Clinical Toxicology by Gossel, T., and Bricker
- Toxicologies emergencies. by Gold frank
- Clinical managements of poisoning and drug overdose. By Hddad

6.3-Recommended Books:

General & Applied Toxicology by Macmillan

6.4- Periodicals and websites:

Forensic Science International, Egyptian Journals of Forensic Medicine and Clinical Toxicology, International Journals of Forensic Medicine and Clinical

Toxicology www.sciencedirect.c

Serology module:

6.1-Course notes : Lectures notes prepared by the staff members of the department

6.2-Essential Books:

- Simpson's Forensic Medicine by Knight, B (1996)
- Medical ethics. by Jones & Barlett

6.3-Recommended Books:

6.4- Periodicals and websites:

Forensic Science International, Egyptian Journals of Forensic Medicine and Clinical Toxicology, International Journals of Forensic Medicine and Clinical Toxicology
www.sciencedirect.com

Forensic Medicine module:

6.1-Course notes :

Lectures notes prepared by the staff members of the department

6.2-Essential Books:

- Simpson's Forensic Medicine by Knight, B (1996)
- Medical ethics. by Jones & Barlett

6.3-Recommended Books:

6.4-Periodicals and websites:

Forensic Science International, Egyptian Journals of Forensic Medicine and Clinical Toxicology, International Journals of Forensic Medicine and Clinical Toxicology www.sciencedirect.com

7. Facilities Required for Teaching and Learning

1-ADEQUATE INFRASTRUCTURE: including teaching places (teaching class, teaching halls, teaching laboratory), comfortable desks, good source of aeration, bathrooms, good illumination, and safety & security tools.

2- TEACHING TOOLS: including screens, computers including cd (rw), data shows, projectors, flip charts, white boards, video player, digital video camera, scanner, copier, colour and laser printers.

3- COMPUTER PROGRAM: for designing and evaluating MCQs

Course Coordinator: Dr. Soheir Ali Mohamed

Head of Department: Dr. Maha Abdel Hameed Hilal

Date: 18/12/2011, **Revised:**1/9/2012, **Revised:**1/12/2013