



Beni-Suef University  
Faculty of Veterinary Medicine  
Department of/ Forensic medicine and Toxicology

## **Course specification (2018-2019)**

### **1-Basic information**

<b>Course Code:</b>	<b>TFM:4254</b>
<b>Course title :</b>	Toxicology and forensic medicine (part 11)
<b>Academic year:</b>	4 <sup>th</sup> Year, 2 <sup>nd</sup> terms
<b>Program title:</b>	Bachelor degree of Veterinary Medical sciences
<b>Contact hours/ week</b>	4 hours/week, (2 Lect./week, 2 Practical/week)
<b>Approval Date</b>	

### **2-Professional information**

**Overall aims of course:**

**This course aims to:**

- The main purpose of this course is offering the academic information and practical experience about competencies of the undergraduate student to manage the community medico-legal and ethical problems.

### **3- Intended learning outcomes of course (ILOs)**

**a-Knowledge and understanding:**

**By the end of this course the student should be able to:**

- a1- Mention direct and indirect causes of death
- a2- Recognize the different signs and postmortem changes after death
- a3-. Describe the different types of weapons and explosion
- a4- Identify the different types of wounds and burns
- a5- Distinguish different types of asphyxia
- a6- state the basis of forensic chemistry.
- a 7- Enumerate different methods of forensic pathology .
- a 8- Organize the basis of forensic toxicology .

**b-Intellectual skills**

**By the end of this course the student should be able to:**

- b1- Formulate the basis of forensic chemistry.
- b2- Apply different methods of forensic pathology .
- b3- Organize the basis of forensic toxicology .
- b4- Distinguish the molecular basis and mechanisms of death.
- b5- Demonstrate the difference between natural and criminal death.



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- b6- Assess the socio-economic compensation in wounded and burned animals
- b7- analyze the cases of criminal abortion and sexual crimes by DNA typing
- b8- Contrast the real causes of asphyxia

#### **c-Professional and practical skills**

**By the end of this course the student should be able to:**

- c1- conduct methods for collection & preservation of diagnostic specimens.
- C2- Carry out clinical, post-mortem, toxicological examinations of samples
- C3- Perform methods of forensic pathology.
- C4- Contribute in solving criminals events.
- C5- conduct methods of sampling, labeling, transport and preservation of suspected samples Perform different method for blood and semen differentiation
- C6-Apply different method for blood and semen differentiation.
- C7- performs ideal crime scene investigation.
- C8- Diagnose criminal abortion and sexual crimes

#### **d-General and transferable skills**

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

- d1. Work effectively as part of a team, demonstrating decision making and time management.
- d2. Efficiently make use of library facilities and IT tools.
- d3. Explore appropriate computer / keyboard skills including word processing, spreadsheets, presentation packages and graph plotting.
- d4. Undertake written assignments and oral presentations.

### 4-Topics and contents

Course	Topic	Week	No. of hours	Lectures	Practical
For ensi c Me	Samples and sampling	1	2	-	2
	Identification	2,3	2	-	2



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	Death	1,2	4	4	-
	postmortem changes	3	3	2	1
	Determination of animals types and sex by examination of bones	4	2	1	1
	The basis of forensic toxicology	4	2	1	1
	Death from heat , cold ,starvation	5	2	1	1
	methods of forensic pathology	5	2	1	1
	Burns	6	4	2	-
	wounds	7,8	6	4	2
	Firearm wounds	9	2	1	1
	The basis of forensic chemistry	9	2	1	1
	Examination of blood and seminal stains	8	2	-	2
<b>Forensic Medicine</b> <b>(Lec. 2h./week, Pract. 2h./week)</b>	Asphyxia	10,11	4	4	-
	Differentiation between different types of animal hair	8,9	2	-	2
	Determination of animal types and age by examination of teeth	10	2	-	2
	Criminal abortion	11	1	-	1
	Animal Doping	12	2	2	-
	Animal euthanasia	13	2	2	-
	serology and DNA typing	10,11	2	-	2
	Medico legal report	11,12	1	-	1
	Student activities	13	1		1
				52	26

#### **5-Teaching and learning methods**

- 5.1- Lectures (brain storm, discussion) using board, data shows
- 5.2- Self learning by preparing essays and presentations (computer researches and faculty library)
- 5.3- Practical (models, samples of different antidote, pesticides, poisonous plants, scorpions and snakes).
- 5.4-Field visit for toxicology center, pesticides center, Forensic Medicine institute.
- 5.5-Participate in Assay writing and power point presentation

#### **6-Teaching and learning methods for the students with disabilities**

-Not applicable.



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### 7-Student assessment

#### 7.1. Assessments methods:

Method	Matrix alignment of the measured ILOs/ Assessments methods			
	K&U	I.S	P&P.S	G.S
Written exam	a1-a8	b1-b9	-	-
Practical exam	-	B7	c1-c8	d1-d4
Oral exam	a1-a8	-	-	-

#### 7.2. Assessment schedules/semester:

Method	Week(s)
Practical exam	14 <sup>th</sup> week
Written exam	During 15 <sup>th</sup> -18 <sup>th</sup> week
Oral exam	During 15 <sup>th</sup> -18 <sup>th</sup> week
Student activity	Along the semester

#### 7.3. Weight of assessments:

Assessment	Weight of assessment
Practical exam	20%
Written exam	50%
Students activity	10%
Oral exam	20%
Total	100%

### 8- List of references

#### 8.1. Notes and books

Not applicable.

#### 8.2. Essential books:

1- Veterinary Jurisprudence.(1981). S.N. Sharma. 3<sup>rd</sup> Ed. Oxford of IBH Publishing Co. Put. LTD.

This book is found in the library of faculty of veterinary medicine , Beni-suef Univ.

#### 8.3. Recommended texts

1- Forensic Taphonomy. (1997). The postmortem fate of Human remains. William D. Haglund Marcella H. Sorg. Boca Raton New york. London Tokyo.

This book is found in the library of faculty of veterinary medicine , Beni-suef Univ.



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### **8.4. Journals, Websites .....etc**

#### **Journals:**

- Toxicology & applied pharmacology.
- Toxicology letters.
- American journal of clinical nutrition.
- Animal feed science & technology.
- journal of forensic medicine
- journal of forensic toxicology
- journal of eco toxicology

#### **Websites:**

- [Chtt:// www.toxicology.net/](http://www.toxicology.net/)
- [Chtt://www.ncbi.nlm.nih.gov](http://www.ncbi.nlm.nih.gov)
- [C http://www.Google.com](http://www.Google.com)
- [Chttp://intl.clinchem.org/](http://intl.clinchem.org/)
- [www. Journal. of Toxicology and applied pharmacology.](http://www.Journal.of.Toxicology.and.applied.pharmacology.)
- [www.ivis.com](http://www.ivis.com)
- www. Egyptian society of natural toxin
- www. Egyptian society of environmental toxin

#### **Course Coordinators**

Dr. Walaa A. Moselhy

#### **Head of Department**

Prof. Khaled Abdou



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Topic	Week	Intended learning outcomes of course (ILOs)			
		K&U (a)	I.S (b)	P.P.S (c)	G.T.S (d)
Samples and sampling	1	-	-	C1,c5	-
Identification	2,3	-	-	-	-
Death	1,2	A1-A2	-	C2	-
postmortem changes	3	A2	-	C2	-
Determination of animals types and sex by examination of bones	4	-	-	-	-
The basis of forensic toxicology	4	A9	-	-	-
Death from heat , cold ,starvation	5	A1	-	-	-
Methods of forensic pathology	5	A8	B2	C3	-
Burns	6	A4	B6	6	-
Wounds	7,8	A4	B6	6,4,3	-
Firearm wounds	9	a3- a4	-	6, 4,3	-
The basis of forensic chemistry	9	A7	B1	4,3	-
Examination of blood and seminal stains	8	-	-	C5,c6	-
Asphyxia	10,11	A6	B8	-	-
Differentiation between different types of animal hair	8,9	-	-	C1	-
Determination of animal types and age by examination of teeth	10	-	-	-	-
criminal abortion	11	A5	B5,b7	C4, c8	-
Animal Doping	12	-	-	C1	-
Animal euthanasia	13	-	-	-	-
serology and DNA typing	10,11	-	B7	C5	-
Medico legal report	12,11	-	-	-	-
Student activities	13	-	-	-	D1-d4



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