



COURSE SPECIFICATION

(2016 / 2017)

1 - Basic Information:

Code number.....

Course title: Cytology and general Histology & Special histology (A).

Academic Year: first year of B. V. Sc. Programme

Total teaching hours: 120 hrs

- Lectures: 60 hrs

- Practical: 60 hrs

2 - OVERALL AIMS OF THE COURSE:

To provide student with basic knowledge and skills concerning normal structure of the cells and tissues, as well as microscopic structure of different organs of lymphatic, cardiovascular, nervous, respiratory and urinary systems in different animals ,birds and fish.

3 - INTENDED LEARNING OUTCOMES (I. L. Os.):

3-A: KNOWLEDGE and UNDERSTANDING:

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

A1- knowing the different histological techniques used in different tissues and orga

A2- Defined normal structure of cells and its contents of organelles and nucleus

A3- Identify the normal histological and histochemical structure of different tissues.

A4- Describe the normal microscopic structure of blood cells and lymphatic tissue and organ.

A5- Describe the normal structure and histochemistry of cardiovascular system .

A6- Identify the normal structure and histochemistry of respiratory and urinary systems.

A7- Defined the normal microscopic structure of nervous tissue and system.

3-B: INTELLECTUAL SKILLS:

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

B1- Create the ability to make correlation between the microscopic structure and function.

B2- Discover the different cells of different tissues and organs of the body.





- B3- differentiate between normal histological structure of different cells, tissues and organs .
- **B4-** Construct the general histological structure of different tissues in animals, birds and fish.
- **B5-** Follow the learning of anatomy, physiology, biochemistry, genetics and pathology

<u>3- C: PRACTICAL AND PROFESSIONAL SKILLS:</u>

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

- C1- Examine stained tissue slides under light microscope
- **C2-** Compare between the structure of the same organ in different species including birds and fish under microscope.
- C3- Investigate the normal microscopic structure of different tissues . .
- C4- Draw any cells or tissues.
- C5- Investigate the ultrastructure of different cells in EM Photos

<u>3- D: GENERAL SKILLS:</u>

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

- Dl- Coach and work in groups.
- **D2-** Classify different duties
- **D3-** Utilize computer and internet skills.
- **D4-** Develop the ethical behaviors between students and staff members as well as among the students themselves.

4 - COURSE CONTENTS:

4.A:- First semester topics (cytology and histology A):-

ΤΟΡΙϹ	Total hours (Semester)	Hours for lecture	Hours for practical
Histological technique	4		4
cytology	16	10	6
Epithelial tissue	15	7	8
Connective tissue	9	5	4
Cartilage and bone	8	4	4
Muscular tissue	8	4	4
Total	60	30	30





ΤΟΡΙϹ	Total hours (Semester)	Hours for lecture	Hours for practical
Blood and bone marrow	12	6	6
Lymphatic system	8	4	4
Nervous tissue and system	12	6	6
Cardiovascular system	11	5	6
Respiratory system	9	5	4
Urinary system	8	4	4
Total	60	30	30

4.B:- Second semester topics (cytology and histology B):-

5- TEACHING & LEARNING METHODS:

*Lectures

• The department council assigns one of the teaching stuff to teach a special chapter in the course syllabus. The entire student will attend one class 2h/week. The teacher will use all the available teaching tools including data show and overhead projectors. The lectures usually take the form of open discussion

* Practical training.

• The students will take the practical course 2hours/week under supervision of one of the department member 2 assistants. During the lab the student will do all practical syllabs

* Self learning

- Computer researches and faculty library visits to prepare essays and presentations.
 - Library researches.
 - Internet researches.
 - Discussion in the researches.
 - Preparation of posters
 - Preparation of scientific reports.

* Audiovisual

• Television circle in the practical laboratory

6. METHODS FOR STUDENTS With limited capabilities:-

- Activation of office hours.
- Discussion with them during practical session.





7. STUDENT ASSESSMENT:-

7.a Used methods	Written examination	Oral examination	Practical examination	Activities
<u>7.b time</u>	At the end of each semister	At the end of each semister	At the last week of practical course	 1-Presentation in the second semester 2- mid term exam 3- Attendance in the practical room and drawing
7.c grads	50	20	20	10

Examination	Discreptions	time
Written	2-hours written paper/ semester composed of	16 th week
	-short notes questions	
	-choose the correct answers- correct the following	
	statments	
	-drawings	
	-Compare between	
	Microscopy:	
	9 microscopic spots: The student will be allowed 10	
Practical	minutes to identify it and one question on the	14 th wook
	histological techniques in the 1 st semester.	14 Week
	6 microscopic spots , one on the monitor and one	
	drawings in the 2 nd semester	
Oral	One oral examination station	16 th week
	One exam or more through the term according to time	
	(5 th to 13 th week). And also in the second term	
Activities	Student activity and researches (one for semester	5 th to 13 th
	according to time).	week
	Students attendance in the practical class	
	Practical book drawings.	





8. LEARNING AND REFERENCE MATERIALS:

8-1: BASIC MATERIALS:

- Department notes: available for students to purchase from bookshops in front of the faculty.
- Overhead projections, Microscopes, TV closed center, slides and computer presentations used during teaching.

8-2: Recmonded books:

- Eurell J. A., Frappier B. L. (2007):Dellmann's Textbook of Veterinary Histology (6th Edition) .Blackwell publishing
- Banks, W.J.(1993): Applied Veterinary Histology, 3rd.Ed. Mosby Year
 Book.ST .Louis ,Baltimore , Boston ,Chicago ,London ,Philadelphia , Sydney ,.

8-3: SUGGESTED books:

- Stevens, A, Lowe, J. S. and Young, B. (2002): Wheaters Basic Histology, A colour Atlas and Text. 4th Ed. Churchill Livingstone. Edinburgh, London, New York, Philadelphia, St. Louis, Sydney, Toronto.
- Young, B. and Heath, J.W. (2000): Weaters Functional of Histology. A text and Colour Atlas. 4th Ed. Churchill Livingstone. Edinburgh, London, New York, Oxford, Philadelphia, St Louis, Sydney, Toronto.

8.4: web sites and jouranlsand so on

- WWW.PubMed.com
- Intrnational of veterinary information services (IVIS)
- www.Vet.net.com
- journal of molecular histology
- Anatomia histologia embryologia journal
- Journal of veterinary anatomy.





<u>Course content ILUS Matrex:</u>						
ΤΟΡΙϹ	K.U (a)	I.S (b)	P.P.S (c)	G.T.S (d)		
<u>1st Semister</u>						
Histological technique	A1	B3 , B4	C1-C5	D1-D2-D4		
cytology	A2-A2-A3-A7	B1-B2-B3-B5	C2-C3-C4-c5	D1-D2-D3-D4		
Epithelial tissue	A2-A3-A4-A7	B1-B2-B3-B4- B5	C1-C2-C3-C4	D1-D2-D3-D4		
Connective tissue	A2-A3-A5-A6-	B1-B2-B3-B4- B5	C1-C2-C3-C4	D1-D2-D3-D4		
Cartilage and bone	A2-A3-A5-A6	B1-B2-B3-B4- B5	C1-C2-C3-C4	D1-D2-D3-D4		
	2	and Semister	I			
Muscular tissue	A2-A3-A5-A6- A7	B1-B2-B3-B4- B5	C1-C2-C3-C4	D1-D2-D3-D4		
Blood and bone marrow	A2-A3-A4	B1-B2-B3-B4	C1-C2-C3-C4- C5	D1-D2-D3-D4		
Lymphatic system	A2-A3-A4	B1-B2-B3-B4	C1-C2-C3-C4	D1-D2-D3-D4		
Nervous tissue and system	A2-A3-A7	B1-B2-B3-B4- B5	C1-C2-C3-C4- C5	D1-D2-D3-D4		
Cardiovascular system	A2-A3-A5	B1-B2-B3-B4- B5	C1-C2-C3-C4- C5	D1-D2-D3-D4		
Respiratory system	A2-A3-A6	B1-B2-B3-B4- B5	C1-C2-C3-C4- C5	D1-D2-D3-D4		

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TOPIC	K.U (a)	I.S (b)	P.P.S (c)	G.T.S (d)
Urinary system	A2-A3-A6	B1-B2-B3-B4- B5	C1-C2-C3-C4- C5	D1-D2-D3-D4

Assessment ILOs Matrix:

Mathada		Marks			
Methous	Knowledge	Intellectual	Practical	general	allocated
Written examination	.A2.A3.A4. A5.A6.A7	B1.B2.B5			50
Oral examination	.A2.A3.A4. A5.A6.A7	B1.B2.B3. B4.B5		D4	20
Practical examination	A1	B2.B3.B4. B5	C1.C2.C3. C4.C5		20
Activities		B2.B4		D1.D2.D3. D4	10

Course Coordinator

Head of Department

Prof.dr.farouk A Mohdy

Prof dr.M Kassab