Specification for Histology and cell biology course

2019/2020

A-Affiliation

1.	**Relevant program**	Bachelor of Veterinary Medical Sciences (BVMSC)
2.	**Department offering the course**	Histology

Date of specification approval: ministerial decree No. 1727 on 26/4/2017
(Approved in this template by the department council on 1/10/2019**)**

B-Basic information

1.	**Course title**	Histology and cell biology
2.	**Course code**	105(A) I
3.	**Level**	1st year
4.	**Semester**	First semester
5.	**Total hours**	3
6.	**Lecture hours**	1
7.	**Practical hours**	2

C-Professional Information

1- Course learning objectives

The course is providing the structure of different types of microscope and acquiring the basic biological information about the cells, understanding mechanism of action of the different organelles Identification and differentiation between the different tissue parts**.**

2- Intended learning outcomes of the course (ILOs):

a- Knowledge and understanding

After successful completion of the course the students should be able to:

a1- Identify the basic knowledge about cytology and general histology
a2- Define the basic knowledge about cytogenetic and cytochemistry
a3- Identify the basic information about different body tissues
a4- List the different types of the microscope

b- Intellectual skills

After successful completion of the course the students should be able to:

b1- Distinguish different type of cells
b2- Choose the suitable techniques for identification of different cells
b3- Judge the tissue identifications
b4- Determinate the difference between types of microscope

c- Professional and practical skills

After successful completion of the course the students should be able to:
c1- Prepare tissue for staining
c2- Stain tissues with different stains
c.3- Examine different cell types
c.4- Identify different class of cells

d- General and transferable skills

After successful completion of the course the students should have the following skills
d1- Team working skill
d2- Research skill
d3- Decision making skill

3- Course contribution in the program ILOs:

Course ILOS		Program ILOS
A	**Knowledge and understanding**	a^{3}
B	**Intellectual skills**	b^{1}
C	**Professional and practical skills**	c^{1}
D	**General and transferable skills**	$d^{1,6}$

3.1- Course contents:

Topic	**Lecture hours**	**Practical hours**
Cytology	4	6
Cytochemistry	1	6
Epithelium Tissue	4	6
Connective Tissue	6	12
Total hours	**15**	**30**

The midterm and practical exams are included during the semester

3.2- ILOs matrix:

Topic	A) Knowledge and understanding	B) Intellectual skills	C) Professional and practical skills	D) General and transferable skills
Cytology	a1, a2, a4	b1, b3, b4	c1, c2, c3, c4	d1 to d3
Cytochemistry	a2, a3	b2, b4	c2, c3,c4	d1 to d3
Epithelium Tissue	a1, a4	b1, b2,b3	c1, c3, c4	d1 to d3
C.T	a1, a2, a3, a4	b2, b3, b4	c1,c2,c3, c4	d1 to d3

4- Teaching and learning and assessment methods:

ILOs		Teaching and Learning method						assessment method				
		L	P&M	D&S	P	Ps	Bs	semester	midterm	oral	practical	written
and understandir	a1	x	x	x	x	0	x	x	x	x	**0**	x
	a2	x	x	x	x	0	x	x	x	x	**0**	x
	a3	x	x	x	x	0	x	x	x	x	**0**	x
	a4	x	x	x	x	x	x	x	0	x	**0**	x
Intellectua skills	b1	x	x	x	x	x	x	x	x	x	**0**	x
	b2	x	x	x	x	x	x	x	x	x	**0**	x
	b3	x	x	x	x	x	x	x	0	x	**0**	x
	b4	x	x	x	x	x	x	x	0	x	**0**	x
al and practical	c1	**0**	x	0	x	x	0	x	0	x	x	**0**
	c2	**0**	x	0	x	x	0	x	0	x	x	**0**
	c3	**0**	x	0	x	x	0	x	0	x	x	**0**
	c4	**0**	x	0	x	x	0	x	0	x	x	**0**
Genera skills	d1	x	x	0	x	x	0	x	0	x	**0**	**0**
	d2	**0**	x	x	**0**	0	x	x	0	x	0	x
	d3	x	0	x	x	x	x	x	0	x	x	0

L **:Lecture,** P&M**: Presentations & Movies,** D&S: **Discussions & Seminars P: Practical** Ps: **Problem solving,** Bs: **Brain storming**

5- Assessment timing and grading:

Assessment method	timing	grade
Mid-term exam	6th week	15
Practical exam	14th week	20
oral exam	End of semester	15
Written exam	End of semester	50
total		100

6- List of references

6.1- Course notes:

Fundamental veterinary histology, Edited by Staff members

Essential Laboratory Histology, Edit by Staff members

6.2- Essential books (text books)

- **J. Dunn (2014)** Manual of diagnostic cytology of the dog and cat
- **D. F. Paulsen (2010)** histology and cell biology
- **D. A. Samuelson (2007)** Veterinary Histology
- ***Eroschenko, V. P. (2005):*** difiore's Atlas of histology. 10th Ed. Philadelphia Baltimore New York London Buenos Aires Hong Kong Sydney Tokyo
- ***Junqueira, L. C. and Carneiro J. (2003):*** Basic histology. Tenth Edition. McGraw-Hill. New York Chicago San Francisco Lisbon London Madrid Mexico city New Delhi San Juan Seoul Singapore Sydney Toronto

6.3- Recommended books

- Course note.

- **J. Dunn (2014)** Manual of diagnostic cytology of the dog and cat.
- **D. A. Samuelson (2007)** Veterinary Histology
- ***Drury R. A. B. and Wallington E. A. (1980):-*** Carleton's Histological technique. 4th ED., Oxford Unvi., Press. London, New York, Toronto.

6.4- Periodicals, Web sites, . . . etc

- Journal of Anatomy.
- Journal of Cell Ultrastructure
- Cell tissue Research
- Anatomia Histologia Embryologia
- www.ekb.eg
- *http://www.drihab1.com*
- *http://www.vt.com*

7- Facilities required for teaching and learning

1. Data show
2. White board
3. Laboratory.
4. Tissue processing & staining

Course coordinator: Prof. Dr. Ihab Mahmoud Abd El-Aal EL-Zoghby

Head of department Prof. Dr. Ihab Mahmoud Abd El-Aal EL-Zoghby

Signature ……

Date 1/10/2019