

Specification for Histology B

2025/2026

1-Basic information

Course title	Histology B							
Course code	HIS.124							
Department/s participating in delivery of the course	Histology							
Number of units/credit hours	Theoretical	1	Practical	1(2)	Other	0	Total	2(3)
Course Type	√ Obligatory				Elective			
Academic level at which the course is taught	1 st year							
Semester	Spring semester							
Academic program	Bachelor of Veterinary Medicine (BVM)							
Faculty	Veterinary medicine							
University	Benha University							
Name of course coordinator	Prof. Dr. Ihab Mahmoud Abd El-Aal EL-Zoghby							
Course Specification Approval Date	Faculty council 27-8-2025							
Course Specification Approval (Attach the decision/minutes of the department /committee/council)	Department council 8/7/2025							

2-Course overview

- Course contents written in the program bylaw:
- General histology, tissues, epithelium, muscular system, connective tissues, blood and cardiovascular system. Nervous tissues and system and digestive system.

3- Course Learning Outcomes CLOs

(NARS) outcomes			Course outcomes	
	Code	Text	Code	Text
Knowledge and understanding	2.3	Normal macro and microstructure of body tissues, organs and systems of animals, birds and fish.	a1	Identify the basic knowledge about histology of muscular tissue.
			a2	Identify the basic knowledge about histology of nervous tissue and system.
			a3	Identify the basic information about histology of lymphatic tissue.
			a4	Describe histological structure of different organs of digestive system of mammals.
			a5	Describe the histology of cardiovascular system of mammals, epithelial tissue and connective tissue.
Intellectual skills	4.1	Foster critical thinking and scientific curiosity.	b1	Distinguish the histology of muscular tissue.
			b2	Distinguish the histology of nervous tissue and system.
			b3	Distinguish the histology of lymphatic tissue.
			b4	Differentiate between different organs of digestive system of mammals.
			b5	Differentiate between different organs of cardiovascular system of mammals, epithelial tissue and connective tissue .
Professional and practical skills	3.1	Employ all the gained knowledge and understanding in clinical practice in a skillful pattern.	c1	Prepare tissue for staining
			c2	Stain tissues with different stains
			c3	Examine different cell types
			c4	Determine different types of

				cells
General and transferable skills	5.1	Work under pressure and / or contradictory conditions.	d1	Work under pressure during histological lab session
	5.2	Function in a multidisciplinary team.	d2	Self-learning during histology lecture
	5.5	Search for new information and technology as well as adopting life-long self-learning.	d3	Search for new information and technology about histology of different systems.
	5.6	Utilize computer and internet skills.	d4	Utilize computer and internet skills, read paper via internet about tissue and systems histology.

4- Teaching and learning methods					
Lectures	√	Discussion & seminar	√	Practical	√
Presentation & movies	√	Problem solving	√	Brain storming	√
Others					

- Course Schedule:

Number of the Week	Scientific content of the course (Course Topics)	Total Weekly Hours	Expected number of the Learning Hours			
			Theoretical teaching (lectures /discussion groups/)	Training (Practical/Clinical/)	Self-learning (Tasks/ Assignments/ Projects/ ...)	Other (to be determined)
W1	Muscular tissue, smooth, skeletal muscles	2(3)	1	1(2)		0
W2	Muscular tissue cardiac muscles	2(3)	1	1(2)		0

W3	Nervous tissue(nerve cells)	2(3)	1	1(2)	Formative quiz	0
W4	Nervous tissue (nerve fibers, supporting cells)	2(3)	1	1(2)		0
W5	Nervous tissue (synapse, ganglia)	2(3)	1	1(2)		0
W6	Nervous system, PNS and CNS	3(5)	1	2(4)	Formative quiz	0
W7	Semester work (one hour exam)	-----				
W8	Lymphatic tissue	2(3)	1	1(2)		0
W9	Lymphatic system	2(3)	2	1(2)		0
W10	Digestive system of mammals, lips, tongue, palate, esophagus	2(3)	1	1(2)	Formative quiz	0
W11	Digestive system of mammals, stomach	2(3)	1	1(2)		0
W12	Digestive system of mammals, intestine	2(3)	1	1(2)		0
W13	Digestive system of mammals, accessory glands	2(3)	1	1(2)	Formative quiz	0
W14	Cardiovascular system of mammals.	2(3)	1	1		0
	epithelial tissue and connective tissue		-----	1		0
W15	Practical exam	----- -				

5- Methods of students' assessment

a- Assessment methods (summative and formative)

1. **Formative assessment:** including (weekly quizzes, homework assignments and surveys).
2. **Summative assessment** including (quizzes, class activities, one hour exam, practical exam, oral exams and final written exams).

b- Assessment schedule and weight

Assessment method	Assessment Timing (Week Number)	Marks/ Scores	Percent Percentage of total course Marks
Semester work including one hour exam	7 th week	10	10%
Formative assessment	-----	-----	-----
Practical exam	15 th week	30	30%
oral exam	End of semester	10	10%
Written exam	End of semester	50	50%
Assignments / Project /Portfolio/ Logbook	-----	-----	-----
Field training	-----	-----	-----
Other (Mention)	-----	-----	-----
Total		100	100%

6- Learning resources and supportive facilities:

Learning resources	Main reference	Student handbook: Fundamental veterinary histology, Edited by Staff members. Essential Laboratory Histology, Edit by Staff members
	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. 10 th Ed. Philadelphia Baltimore New York London Buenos

		<p>Aires Hong Kong Sydney Tokyo</p> <p>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</p> <p>D. A. Samuelson (2007) Veterinary Histology</p> <p>Drury R. A. B. and Wallington E. A. (1980):- Carleton's Histological technique. 4th ED., Oxford Unvi., Press. London, New York, Toronto.</p>
	Periodicals, Web sites, . . . etc	<ul style="list-style-type: none"> • Journal of Anatomy. • Journal of Cell Ultrastructure • Cell tissue Research • Anatomia Histologia Embryologia • www.ekb.eg • http://www.drihab1.com • http://www.vt.com
	Learning platform	Thinqi
supportive facilities		<ol style="list-style-type: none"> 1. Data show 2. White board 3. Laboratory. 4. Tissue processing & staining
	Devices & instruments	Devices

		<input type="checkbox"/> Microscope <input type="checkbox"/> Microtome <input type="checkbox"/> Automatic stainer <input type="checkbox"/> water bath <input type="checkbox"/> Incubator instruments <input type="checkbox"/> Jars <input type="checkbox"/> Pipette <input type="checkbox"/> Cylinder <input type="checkbox"/> beaker <input type="checkbox"/> Analytical balance
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Matrices:

A- Content and ILOs matrix:

Topic	A) Knowledge and understanding	B) Intellectual skills	C) Professional and practical skills	D) General and transferable skills
Muscular Tissue	a1	b1	c1, c2, c3	d1, d2,d3,d4
Nervous Tissue	a2	b2	c1, c3, c4	d1, d2,d3,d4
Nervous System	a2	b2	c1, c4	d1, d2,d3,d4
Lymphatic tissue	a3	b3	C3, c4	d1, d2,d3,d4
Digestive system of mammals	a4	b4	c1,c3, c4	d1, d2,d3,d4
Cardiovascular System of mammals, epithelial tissue and connective tissue	a5	b5	c1,c3, c4	d1, d2,d3,d4

B- Teaching and learning methods and ILOs matrix:

ILOs	Teaching and
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		Learning method					
		L	P&M	D&S	P	Ps	Bs
Knowledge and understanding	a1	√		√			
	a2	√		√			
	a3	√		√			
	a4	√		√			
	a5	√					
Intellectual skills	b1	√		√			
	b2	√		√		√	
	b3	√		√		√	
	b4	√		√		√	√
	b5						
Practical skills	c1	√		√		√	√
	c2	√		√		√	√
	c3			√	√		
	c4			√	√		
General skills	d1	√		√	√		
	d2	√		√	√		
	d3	√		√			√
	d4	√		√			√

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

C- Assessment methods and ILOs matrix:

ILOs		assessment method				
		Formative assessment	Semester work (1 hr exam)	Oral	practical	written
Knowledge and understanding	a1		√	√		√
	a2		√	√		√
	a3		√	√		√
	a4		√	√		√
	a5		√			
Intellectual skills	b1	√	√	√		√
	b2	√	√	√		√
	b3	√	√	√		√
	b4	√	√	√		√
	b5	√	√			
	c1		√	√		√

Professional and practical skills	c2		√	√		√
	c3				√	
	c4				√	
General skills	d1	√	√	√	√	
	d2	√	√	√	√	
	d3		√			
	d4		√			

-Course coordinator:

Prof. Dr. Ihab Mahmoud Abd El-Aal EL-Zoghby

-Program coordinator: Prof. Dr. Mahmoud Abouelroos