

**Jordan University of Science and Technology**  
**Faculty of Veterinary Medicine**  
**Department of Basic Medical Veterinary Sciences**  
**Second Semester**

<b>Course Information</b>	
<b>Course Title</b>	General Histology Practical
<b>Course Number</b>	VM 114
<b>Prerequisites</b>	
<b>Course Website</b>	JUST ELearning
<b>Instructor</b>	Dr. Mohammad Borhan Al-Zghoul
<b>Office Location</b>	G1-L3
<b>Office Phone</b>	22010
<b>Office Hours</b>	Sunday: 10:30-11:30 Monday: 10:30-11:30 Tuesday: 10:30-11:30 Thursday: 10:30-11:30 or by appointment
<b>E-mail</b>	<a href="mailto:alzghoul@just.edu.jo">alzghoul@just.edu.jo</a>
<b>Teaching Assistant</b>	
<b>Course Description</b>	
<p>VM 114 is an introductory course designed to provide a basic background in the normal histological structure of cells, tissues and organs of the animal body. Because there is an inseparable relationship between structure and function, emphasis is placed on structural-functional correlates at both the light and electron microscopic levels. This course is intended to give you enough experience with the material so that at the end of it students would be able to identify normal tissues and organs prepared by standard methods for light microscopy.</p> <ul style="list-style-type: none"> <li>✓ The first part of the course deals with basic tissues (a collection of similar cells and the extracellular matrices surrounding them): epithelium; connective tissues, including blood, bone and cartilage; muscles; and nerves.</li> <li>✓ The second part of the course deals with organs, systemic arrangement of tissues performing a specific function, as of respiration, digestion, etc.</li> </ul>	

<b>Text Book</b>	
<b>Text Book</b>	
<b>Title</b>	Wheater's Functional Histology: A text and colour Atlas
<b>Author(s)</b>	Young and Woodford
<b>Publisher</b>	W.B. Saunders Company
<b>Year</b>	2013
<b>Edition</b>	6 <sup>th</sup> Edition
<b>Book Website</b>	
<b>References</b>	

<b>Assessment Policy</b>
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Assessment Type	Expected Due Date	Weight
Quizzes	Week 2, 4, 6, 10 and 12	20
Midterm exam	Week 8-10	40%
Final Exam	Week 15-16	40%

Course Objectives	Weights
1. to develop a visual and mental understanding of the four basic tissues of the body such that students will be able to successfully identify these tissues now and in the future.	20%
2. to develop a visual and mental understanding of how the four basic tissues of the body interrelate to construct the various organs and organ systems of the animal body such that students will be able to successfully identify these tissues now and in the future.	30%
3. to develop a comprehensive understanding of histological terminology such that it will assist students in the correct identification of the specimen in question now and in the future.	20%
4. to develop a mental picture of all of the specimens studied in the laboratory so that students will be able to give a minimum of three good histological reasons for your correct identification of the specimen in question.	30%

Teaching & Learning Methods
Power Point lectures Virtual microscope websites Laboratory sessions include a combination of demonstration and hands on exercises

Learning Outcomes:
Upon successful completion of this course, the student will be able to: <ul style="list-style-type: none"> <li>• Identify the organelles within a eukaryotic cell and list the basic function of each</li> <li>• Outline what makes each epithelial, connective, nervous, and muscle tissue unique, where each is found within the body, and how each interacts with other tissue types</li> <li>• Point out circulatory system features, including intercalated disks and valves, as well as the differences among different vessel types</li> <li>• Define how the tissues and anatomical features that make up the circulatory system and come together structurally to support the function of these organ systems</li> </ul>

Useful Resources
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<http://vmserver.vetmed.vt.edu/NDPServe.dll>

<http://www.histologyguide.com/slidebox/slidebox.html>

<http://www.path.uiowa.edu/virtualslidebox/>

<https://histology.medicine.umich.edu/full-slide-list>

<b>Course Content</b>		
<b>Week</b>	<b>Topics</b>	<b>Chapter in Text (handouts)</b>
1	Introduction	1
2	Cell structures and Modification	1
3	Cell structures and modification EM	1
4	Epithelium	2
5	Epithelium	2
6	Connective Tissues Proper & Special I	3
7	Connective Tissues Proper & Special II	3
8	Cartilage	3
9	Bone	3
10	Bone Histogenesis	3
11	Muscle System I	5
12	Muscle System II	5
13	Nervous Tissue I	6
14	Nervous Tissue II	6
15	Cardiovascular System I	7
16	Final Exam	