

# SULTAN QABOOS UNIVERSITY COURSE OUTLINE PROGRAM: ANIMAL SCIENCE

1. Course Code	ANVS4110					
2. Course Title	Veterinary Pathology and Necropsy Techniques					
3. Credits	3 CH, 12 CP, 6 ECTS					
4. Pre-requisite Course(s)	ANVS3104 "Anatomy and Histology	,"				
5. Co-requisite Course(s)						
6. Equivalent Course(s)						
7. Incompatible Course(s)						
8. Course Category	University Requirement	University Elective				
	College Requirement	College Elective				
	Department Requirement	Department Elective				
	Specialization Requirement	Specialization Elective				
	Other (specify):					
9. Course Owner	College: CAMS	Department: AVS				
10. Course Type	Lecture	Lecture/Lab				
	Lecture/Seminar	Lecture/Studio				
	Lecture/Tutorial	Lecture/Lab/Tutorial or Seminar				
	Tutorial	Laboratory (Practical)				
	🔀 Field or Work Placement	Studio				
	Seminar Seminar	Internship				
	🗌 Workshop	Project				
<b>11. Language of Instruction</b> English						
12. Course Description						
This course is designed to introc	luce and orient students to the cause	development and consequences of diseases. It also				
includes, the systemic approach t	o perform necropsy for mammalian a	nd avian species, to get the adequate information of				
determining the cause of death.	The course will also cover the proper of histopathological techniques inclu	er procedures for collection and preservation of the				
discussed and practiced. The gr	oss and microscopic examination of	diseased organs and tissues will be discussed in				
details. The course includes the fo	ollowing main topics:	5				
a- Cell injury, degeneration, nec	rosis, programmed cell death.					
D- Cellular responses.						
d- Inflammation, repair, wound healing, regeneration						
e- Disturbances of growth.						
f- Neoplasia.						
g- inecropsy technique. The laboratory serves to illustrate and clarify material presented in lectures						
13. Teaching/Learning Strategies						
Lectures and practical.						
14. Assessment Components and Weight [%]						
🛛 Quizzes 10	Practical 10	Other (specify): Histopathological slides 10				
$\square$ Homework assignments 0	Project					
In-term examination(s) 30	☐ In-term examination(s) 30					

98

15. Grading Method

A-F Scale Pass/Not passed

#### 16. Textbook(s) and Supplemental Material

Introduction to Veterinary Pathology (Third Edition), Norman Cheville, Blackwell Publishing, 2006. Color Atlas of Veterinary Pathology, Second Edition.J.E. Van Dijk, E. Gruys and J. M. V. M. Mouwen, 2008

## 17. Matching Course Objectives with Program Outcomes and SQU Graduate Attributes

	SQU Graduate Attributes					
A.	SQU graduates should be able to:	В.	SQU graduates possess	С.	SQU graduates should	
1.	apply the knowledge and skills relevant to the specialization	1.	interpersonal communication skills and alignment with culture of international		relish good citizenship qualities, be conscious	
2.	communicate effectively and use		labour market to assist them in practical		of their national identity	
	information and communication		life and in living successfully		and be socially	
	technologies	2.	skills and motivation for independent		responsible, engage in	
3.	critically analyze complex		learning and engagement in lifelong		community affairs and	
	information and present it in simple		learning and research		be mindful of	
	clear manner	3.	work ethics and positive values, and		contemporary issues.	
			intellectual independence and autonomy			
		4.	teamwork skills and display potential			
			leadership qualities			
				1		

#	Intended Student Learning Outcome	Relevant Program Outcome(s)	Applicable
	/Course Learning Objective		Attribute(s)
1.	Apply diffirent histopathological techniques including tissue processor, microtome and sampling tools.	B-Demonstrate knowledge of animal health and disease control.	A1, B3
2.	Define the terms lesion, etiology, prognosis, and fate of the diseases	B-Demonstrate knowledge of animal health and disease control.	A1, B3
3.	Distinguish between the normal tissues, postmortem changes and lesions that are relevant to clinical disease.	B-Demonstrate knowledge of animal health and disease control.	A1, B3
4.	Define the terms edema, transudate, and exudate	B-Demonstrate knowledge of animal health and disease control.	A1, B3
5.	Apply hematoxylin and eosin staining technique	B-Demonstrate knowledge of animal health and disease control.	A1, B3
6.	Describe the sequence of vascular changes in acute inflammation	B-Demonstrate knowledge of animal health and disease control.	A1, B3
7.	Compare and contrast acute vs chronic inflammation	B-Demonstrate knowledge of animal health and disease control.	A1, B3
8.	Define the terms necrosis, apoptosis and degenration.	B-Demonstrate knowledge of animal health and disease control.	A1, B3
9.	List the different types of necrosis.	B-Demonstrate knowledge of animal health and disease control.	A1, B3
10.	List the types of thrombi, causes and sites of formation.	B-Demonstrate knowledge of animal health and disease control.	A1, B3
11.	Identify embolism, its types, causes and fate.	B-Demonstrate knowledge of animal health and disease control.	A1, B3
12.	Define the terms ischemia and infarction	B-Demonstrate knowledge of animal health and disease control.	A1, B3
13.	Apply different necropsy techniques for different species	B-Demonstrate knowledge of animal health and disease control.	A1, B3
14.			
15.			
16.			
17.			
18.			
19.			

20.		

#### 16. Student Responsibilities

It is the student's responsibility to know and comply with all University Academic Regulations relevant to participation in this course. These regulations specifically include attendance requirement and students` academic code of conduct.

For attendance, it is the student's responsibility to be punctual and to attend all classes.

Students are expected to perform their work with honesty and avoid any academic misconduct, which is defined as the use of any dishonest or deceitful means to gain some academic advantage or benefit. This can take many forms, including but not limited to, the following: copying, plagiarism, collusion and forging documents. For full details, please refer to the Undergraduate Academic Regulations and to the Student Academic Misconduct Policy.

Additionally, this course requires that you:

COURSE INFORMATION					
Course Code	ourse Code ANVS4110 Course Title Veterinary Pathology and Necropsy Techniques				
Semester/ Year	Fall Section(s)				
Day, Time, and Place	Day, Time, and Place				
Course Coordinator Haytham Ali					
Office Location		<b>Office Hours</b>			
Office Tel. Ext.		Email	h.ali@squ.edu.om		

Tentative Schedule					
Week	Lecture #	Topic/Material to be covered	Assessment		
1	1	Intoduction, terminology and definitions			
2	2	Histopathological techniques			
3	3	Cellular Injury and Death			
4	4	Cellular Injury and Death			
5	5	Vascular Disorders and Thrombosis			
6	6	Vascular Disorders and Thrombosis			
7		==First Midterm Exam==			
8	7	Inflammation and Healing			
9	8	Inflammation and Healing			
10	9	Mechanisms of Microbial Infections			
11	10	Neoplasia			
12	11	Neoplasia Types, Progression, Metastasis, Carcinogenesis			
13		==Second Midterm Exam==			
14	12	Necropsy technique			
15	13	Necropsy technique			
16					
17					

APPENDIX A: INSTRUCTORS OF MULTIPLE SECTIONS						
Section	Instructor	Day, Time, and Place	Office Location and Extension	Email	Office Hours	
-						

## APPENDIX B: ADDITIONAL INFORMATION