



الجمهورية اليمنية
وزارة التعليم العالي والبحث العلمي
جامعة صنعاء
كلية الطب البيطري

Course Specification of Histology (2)

I. Course Identification and General Information:						
1	Course Title:	Histology (٢)				
2	Course Number & Code:	ANT234				
3	Credit hours:	C.H				Total
		Theoretical	Practical	Training	Seminar	
		2	1		3	
4	Study level/ semester at which this course is offered:	Second Year: Second Semester				
5	Pre –requisite (if any):	ANT233				
6	Co –requisite (if any):	None				
7	Program (s) in which the course is offered:	Second Year: Second Semester				
8	Language of teaching the course:	English				
9	Location of teaching the course:	Faculty Of Veterinary Medicine				
10	Prepared by:	Dr. Saleh Ahmed Mohammed Ali Alomaisi				
11	Date of approval:					

II. Course description:

رئيس عميد مركز التطوير وضمان الجودة عميد الكلية نائب العميد لشئون الجودة
أ.د. القاسم أ.د. هدى العماد د. عبدالرؤف الشوكاني د. عبدالرقيب الشامي
محمد عباس



الجمهورية اليمنية
وزارة التعليم العالي والبحث العلمي
جامعة صنعاء
كلية الطب البيطري

Histology course will acquire the scientific knowledge about how organized groups of cells (tissues) are arranged to form the organ systems of the body. To appreciate that while the emphasis in histology is on the structure of cells, tissues and organs, structure has very little meaning without understanding the function, much of which is also presented in the other components of the course. To be aware that one reason for studying histology (the normal structure) is so that you can better understand a pathological (abnormal) change and the consequences of that change. Understand that the tissues of an organ are formed of cells with different structure and function but all of them cooperate to perform the function allotted to the organ. Familiarize students with the basic information about the characteristics and functions of the nervous and muscular tissues as well as those of cardiovascular, immune, digestive, respiratory and urinary systems and compare between them.

III. Intended learning outcomes (ILOs) of the course:

(A) Knowledge and Understanding:

Alignment of Course Intended Learning Outcomes (CILOs) to Program Intended Learning Outcomes (PILOs) in: Knowledge and Understanding.

Program Intended Learning Outcomes (Sub- PILOs) in: Knowledge and Understanding		Course Intended Learning Outcomes (CILOs) in: Knowledge and Understanding	
After completing this program, students will be able to:		After completing this course, students will be able to:	
A1-	Demonstrate a sound knowledge and understanding of concepts and principles of general culture, basic science, and that support veterinary medicine.	a1-	Describe the normal microscopic and ultra structure and the molecular relationships in relation to function, growth, and differentiation of somatic and stem cells, death and inheritance of eukaryotic cells of the domestic animals body.
A4-	Clarifies basic concepts, principles, and theories related to animal production, animal health and nutrition, behavior management, breeding and care	a2-	Distinguish microscopic structure of respiratory, digestive, urinary endocrine, nervous, male & female genital systems in different animals.

رئيس عميد مركز التطوير وضمان الجودة عميد الكلية نائب العميد لشئون الجودة
أ.د. القاسم أ.د. هدى العماد د. عبدالرؤف الشوكاني د. عبدالرقيب الشامي محمد عباس



الجمهورية اليمنية
وزارة التعليم العالي والبحث العلمي
جامعة صنعاء
كلية الطب البيطري

that is related to animal ethical codes.			
Teaching And Assessment Methods For Achieving Learning Outcomes:			
Alignment of Learning Outcomes of Knowledge and Understanding to Teaching and Assessment Methods:			
Course Intended Learning Outcomes (CILOs) in Knowledge and Understanding		Teaching strategies/methods to be used	Methods of assessment
completing this course, students will be able to:			
a1-	Describe the normal microscopic and ultra structure and the molecular relationships in relation to function, growth, and differentiation of somatic and stem cells, death and inheritance of eukaryotic cells of the domestic animals body.	Lectures Practical application (Labs) Dialogue and discussion Scientific trips Simulation and demos Brainstorming ▪ Self education	The written test (Monthly, Midterm, Final) Short tests (Quizzes) Oral tests Practical tests (Lab Test) Projects Presentations
a2-	Distinguish microscopic structure of respiratory, digestive, urinary endocrine, nervous, male & female genital systems in different animals.		

(B) Intellectual Skills:

Alignment of Course Intended Learning Outcomes (CILOs) to Program Intended Learning Outcomes (PILOs) in: Intellectual Skills			
Program Intended Learning Outcomes (Sub-PILOs) in Intellectual skills		Course Intended Learning Outcomes (CILOs) in Intellectual Skills	
After completing this program, students will be able to:		After completing this course, students will be able to:	
B1-	Competently practices analytical and critical thinking skills in studying and assessing health problems and reading the results of animal medical examinations that is related to sciences.	b1-	Interpret a systematic approach to the identification of histological structure of the body organs.
B2-	Predicts an appropriate medical diagnosis for the most common disease states through	b2-	Choose the main differences of respiratory, digestive, urinary, endocrine, nervous

رئيس عميد مركز التطوير وضمان الجودة عميد الكلية نائب العميد لشئون الجودة
أ.د. القاسم أ.د. هدى العماد د. عبدالرؤف الشوكاني د. عبدالرقيب الشامي
محمد عباس



الجمهورية اليمنية
وزارة التعليم العالي والبحث العلمي
جامعة صنعاء
كلية الطب البيطري

	analysis of clinical story data and the results of medical examinations of a sick animal.		reproductive system histology in different animals. Emphasis to know comparable subjects and try to correlate structure and function.
Alignment of Learning Outcomes of Intellectual Skills to Teaching Methods and Assessment Methods:			
Course Intended Learning Outcomes (CILOs) in Intellectual Skills.		Teaching strategies/methods to be used	Methods of assessment
After completing this course, students will be able to:		Lectures Practical application (Labs) Dialogue and discussion Scientific trips Simulation and demos Brainstorming Self education Research costs and projects	The written test Oral tests Practical tests Note the performance Achievement file (Accomplishment) Evaluation of reports Evaluating student presentations
b1-	Interpret a systematic approach to the correct identification of histological structure of the different body organs.		
b2-	Choose the main differences of respiratory, digestive, urinary, endocrine, nervous and reproductive system histology in different animals. Emphasis to know comparable subjects and try to correlate structure and function.		

(C) Professional and Practical Skills:

Alignment of Course Intended Learning Outcomes (CILOs) to Program Intended Learning Outcomes (PILOs) in: Professional and Practical Skills			
Program Intended Learning Outcomes (Sub-PILOs) in Professional and Practical Skills		Course Intended Learning Outcomes (CILOs) in Professional and Practical Skills	
After completing this program, students will be able to:		After completing this course, students will be able to:	
C1-	Accurately records a comprehensive pathological story of a sick animal including information on healthy behavior and the necessary checks.	c1-	Identify the trachea, bronchi, terminal bronchioles, respiratory bronchioles, alveolar ducts and alveoli, gastrointestinal epithelium and their functions in digestion.
C2-	Practices practical, diagnostic, clinical and research skills, including the collection of samples in various fields of veterinary medicine and related sciences, in a safe and effective manner, taking into account the ethics of the profession.	c2-	Improve sections preparation of the blood, bone marrow, lymphatic, respiratory, digestive, urinary, endocrine, nervous, male & female genital systems system tissue in different species of animal.
Teaching And Assessment Methods For Achieving Learning Outcomes:			

رئيس عميد مركز التطوير وضمان الجودة عميد الكلية نائب العميد لشئون الجودة
أ.د. القاسم أ.د. هدى العماد د. عبدالرؤف الشوكاني د. عبدالرقيب الشامي
محمد عباس



الجمهورية اليمنية
وزارة التعليم العالي والبحث العلمي
جامعة صنعاء
كلية الطب البيطري

Alignment of Learning Outcomes of Professional and Practical Skills to Teaching and Assessment Methods:		
Course Intended Learning Outcomes (CILOs) in Professional and Practical Skills	Teaching strategies/methods to be used	Methods of assessment
After completing this course, students will be able to:		
c1- Identify the trachea, bronchi, terminal bronchioles, respiratory bronchioles, alveolar ducts and alveoli, gastrointestinal epithelium and their functions in digestion.	<ul style="list-style-type: none"> - Practical application (Labs) - Problem Solving - Cooperative learning and working groups - Scientific trips - Case Study - Field and clinical training - Simulation and practical presentations - Research costs and projects 	<ul style="list-style-type: none"> - Practical tests - Note the performance - The written test - Oral tests - Achievement file - Evaluation of reports - Evaluating student presentations
c2- Improve sections preparation of the blood, bone marrow, lymphatic, respiratory, digestive, urinary, endocrine, nervous, male & female genital systems system tissue in different species of animal.		

(D) General / Transferable Skills:

Alignment of Course Intended Learning Outcomes (CILOs) to Program Intended Learning Outcomes (PILOs) in: **General / Transferable skills**

Program Intended Learning Outcomes (PILOs) in General / Transferable skills		Course Intended Learning Outcomes (CILOs) in General / Transferable skills	
After completing this program, students will be able to:		After completing this course, students will be able to:	
D1-	Communicates effectively with other fellow professions and animal owners and expresses his ideas clearly and objectively.	d1-	Communicates effectively with other fellow professions and animal owners and expresses his ideas clearly and objectively.
D3-	Develops his scientific, professional, research capabilities on his own, and follows what is emerging in his field of specialization, including computer applications and information and communication technology.	d2-	Appreciate the importance of lifelong learning and show a strong commitment to continuous learning and communicate with his colleagues.

Teaching And Assessment Methods For Achieving Learning Outcomes

Alignment of Learning Outcomes of General and Transferable skills to Teaching and Assessment Methods:		
Course Intended Learning Outcomes (CILOs) in General and Transferable Skills	Teaching strategies/methods to be used	Methods of assessment

رئيس عميد مركز التطوير وضمان الجودة عميد الكلية نائب العميد لشئون الجودة
أ.د. القاسم أ.د. هدى العماد د. عبدالرؤف الشوكاني د. عبدالرقيب الشامي محمد عباس



الجمهورية اليمنية
وزارة التعليم العالي والبحث العلمي
جامعة صنعاء
كلية الطب البيطري

After completing this course, students will be able to:		Dialogue and discussion Cooperative learning and working groups Scientific trips Research costs and projects Self education Demo and practical presentations Problem Solving	Achievement Evaluation Evaluating presentation Note the performance Practical test (Test)
d1-	Communicates effectively with other fellow professions and animal owners and expresses his ideas clearly and objectively.		
d2-	Appreciate the importance of lifelong learning, show a strong commitment to it, and communicate with his colleagues.		

IV. Course Content:					
1 – Course Topics/Items:					
a – Theoretical Aspect					
Order	Topic List / Units	CILOs (symbols)	Sub-topic List	Number of weeks	Contact hours
1	Respiratory system	a1- a2- b1- b2- c1- c2- d1- d2		2	4
2	digestive system	a1- a2- b1- b2- c1- c2- d1- d2		3	6
3	Urinary system	a1- a2- b1- b2- c1- c2- d1- d2		2	4
4	Male genital system	a1- a2- b1- b2- c1- c2- d1- d2		1	2
5	Female genital system	a1- a2- b1- b2- c1- c2- d1- d2		1	2
6	Endocrine and Nervous systems	a1- a2- b1- b2- c1- c2- d1- d2		3	6
7	Histology of Skin and hoof	a1- a2- b1- b2- c1- c2- d1- d2		2	4
Number of Weeks /and Units Per Semester				14	28

رئيس عميد الكلية نائب العميد لشئون الجودة
أ.د. القاسم أ.د. هدى العماد د. عبدالرؤف الشوكاني د. عبدالرقيب الشامي
محمد عباس



الجمهورية اليمنية
وزارة التعليم العالي والبحث العلمي
جامعة صنعاء
كلية الطب البيطري

b- Training Aspect:				
Order	Training Tasks	CILOs (symbols)	Number of weeks	Contact hours
1	Respiratory system	a1- a2- b1- b2-c1- c2- d1- d2	2	4
2	Comparative digestive system	a1- a2- b1- b2-c1- c2- d1- d2	2	4
3	Urinary system	a1- a2- b1- b2-c1- c2- d1- d2	2	4
4	Male reproductive system	a1- a2- b1- b2-c1- c2- d1- d2	2	4
5	Female reproductive system	a1- a2- b1- b2-c1- c2- d1- d2	2	4
6	Endocrine and Nervous system	a1- a2- b1- b2-c1- c2- d1- d2	2	4
7	Skin& its appendages	a1- a2- b1- b2-c1- c2- d1- d2	2	4
Number of Weeks /and Units Per Semester			14	28

V. Teaching strategies of the course:
<ul style="list-style-type: none"> • In class lectures using PowerPoint presentation • In class/lab quiz • Written exams will take place during the semester • Practical session on histopathological slides and or tissue • Student will be encouraged to work together in groups • Oral Exam
3-Assessment Methods:
<ol style="list-style-type: none"> 1.Quizzes should take place for lectures/labs at least once a week with a total of 20 quizzes through the semester (100 points) 2.Three written exams through the semester (100 points each) 3. Practical exam on histopathological slides or tissue specimens (100 points)
Grading Scale: Grades are awarded on a scale from A to F, where A is the best grade(90-100) and F is a fail

رئيس عميد مركز التطوير وضمان الجودة عميد الكلية نائب العميد لشئون الجودة
أ.د. القاسم أ.د. هدى العماد د. عبدالرؤف الشوكاني د. عبدالرقيب الشامي
محمد عباس



الجمهورية اليمنية
وزارة التعليم العالي والبحث العلمي
جامعة صنعاء
كلية الطب البيطري

(<50).

VI. Schedule of Assessment Tasks for Students During the Semester:

No.	Assessment Method	Week Due	Mark	Proportion of Final Assessment	Aligned Course Learning Outcomes (CILOs symbols)
1	Participation quizzes and assignments	1-12	10	10%	a1- a2- b1- b2- c1- c2- d1- d2
2	Mid-semester exam	7	10	10%	a1- a2- b1- b2- c1- c2- d1- d2
3	Practice exam	13	20	20%	a1- a2- b1- b2- c1- c2- d1- d2
5	Oral exam	13	5	5%	a1- a2- b1- b2- c1- c2- d1- d2
	Final Exam	16	55	55%	a1- a2- b1- b2- c1- c2- d1- d2
	Total		100	100%	

VII. Students' Support:-

Office Hours/week	Other Procedures (if any)
Saturday-Wednesday from 8:00 a.m.-9:00 a.m.	Student can contact me via email

VIII. Learning Resource (MLA style or APA style)S:

1- Required Textbook(s) (maximum two)

[Course Notes](#)

رئيس عميد مركز التطوير وضمان الجودة عميد الكلية نائب العميد لشئون الجودة
أ.د. القاسم أ.د. هدى العماد د. عبدالرؤف الشوكاني د. عبدالرقيب الشامي
محمد عباس



الجمهورية اليمنية
وزارة التعليم العالي والبحث العلمي
جامعة صنعاء
كلية الطب البيطري

	<p>Lecture notes (printed): Basic Veterinary Histology Notes on histology and Colored Atlas of Histology by staff members of histology Department</p>
2- Recommended Readings and Reference Materials	
	<p>Bloom, W. and D. W. Fawcett (1994): Textbook of Histology; 12th Ed. W. B. Saunders C., Philadelphia.</p> <p>Cheville, N.F. and Stasko, J. (2014): Techniques in Electron Microscopy of Animal Tissue. Veterinary Pathology, 51(1):28-41.</p> <p>Cormack, H.D. (1987): A text book of Histology, 9th edition, Lippincott, J.B. Company.</p> <p>Drury, R.A.B. and Wallington, E.A. (1980): Carleton's histological technique. Fifth Ed. Oxford University. USA.</p> <p>Eurell, J.A. and Frappier, B.L. (2006): Dellmann's textbook of veterinary histology Sixth edition. Blackwell, USA. Pp (156-158)(337-338).</p> <p>Fawcett (1994): A Text Book of Histology, 12th ed. Chapman and Hall, New York, London.</p> <p>Pears, A.G.E. (1985): Histochemistry theoretical and applied, 4th ed. Churchill Livingstone, Melbourne and New York.</p> <p>Junqueira, Carneiro and Kelly (1995): Basic Histology, 7th ed. Librairrie du liban and lang buruit, London, New York.</p> <p>Nomina Histologica Veterinaria (2017): International committee on veterinary Histological Nomenclature (ICVHN). General assemble of the world association of</p>

رئيس عميد مركز التطوير وضمان الجودة عميد الكلية نائب العميد لشئون الجودة
أ.د. القاسم أ.د. هدى العماد د. عبدالرؤف الشوكاني د. عبدالرقيب الشامي
محمد عباس



الجمهورية اليمنية
وزارة التعليم العالي والبحث العلمي
جامعة صنعاء
كلية الطب البيطري

	<p>veterinary anatomists, 2018 by the General Assembly of the WAVA. 1stEd., Hannover (Germany), Columbia, MO (U.S.A.), Ghent (Belgium), Sapporo (Japan).</p> <p>Suvarna, S.K., Layton, c. and Bancroft, J.D. (2019): Bancroft's theory and practical of histological techniques. Eighth ed. Elsevier. China, ISBN: 978-0-7020-6864-5.</p>
3- Essential References	
	<p>Bloom, W .and Fawcett, W. (1997): Concise Histology, Chapman and Hall, New York and London.</p> <p>Cormack, D.H. (1997): Essential Histology, Lippincott-Raven, Philadelphia and New York.</p> <p>Dellmann, H.D. and Brown, E.M. (1998): Textbook of Veterinary Histology, 5th Edition, Williams and Wilkins, Philadelphia and London.</p> <p>Junqueira Histology Textstack, Eighth Edition, by Junqueira, Carneiro and Kelley.</p> <p>Leslie, P.G., James, L.H. and Judy, M.S. (1993): Cell Biology and Histology, 2nd Edition, Williams and Wilkins, Philadelphia and London.</p>
4- Electronic Materials and Web Sites etc.	
	<p>Periodicals and Web Sites of histology, http://www.med-edonline.org/ http://www.histology.to/links.html www.pubmed.com Science direct</p> <p>Students are free to search online for any available course materials related to the course subjects and taught lectures in the class.</p>
5- Other Learning Material:	
	-
X. Course Policies:	
1	Class Attendance: Mandatory to attend all course lectures and labs
2	Tardiness: Not allowed at all. Students must be in class or in the practical session 10 minutes prior to the beginning of lectures or practical session.

رئيس عميد مركز التطوير وضمان الجودة عميد الكلية نائب العميد لشئون الجودة
أ.د. القاسم أ.د. هدى العماد د. عبدالرؤف الشوكاني د. عبدالرقيب الشامي محمد عباس



الجمهورية اليمنية
وزارة التعليم العالي والبحث العلمي
جامعة صنعاء
كلية الطب البيطري

3	Exam Attendance/Punctuality: Attendance is mandatory; absence is accepted with valid excuse.
4	Assignments & Projects: All assignments and projects are to be submitted on their due date. Any assignment turned in after the due date will not be accepted without valid and reasonable excuse.
5	Cheating: Not tolerated and may lead to EXPELLING the student from the program
6	Plagiarism: Not tolerated AT ALL and may lead to EXPELLING the student from the program
7	Other policies: <ol style="list-style-type: none">1. All devices must be on silent or at least on vibration during lectures/labs.2. Before any exam (written, practical, oral) we must check student's identity (student's card, ID, passport). Without any of these documents, the student will not be allowed in the exam room.3. Any of type/ form of cheating is not allowed no matter what.4. Maintain silence during lectures/exams and disturbance is not allowed. For any questions students should raise their hand and wait for permission to talk.

Course Plan of General Histology (2)

رئيس عميد مركز التطوير وضمان الجودة عميد الكلية نائب العميد لشئون الجودة
أ.د. القاسم أ.د. هدى العماد د. عبدالرؤف الشوكاني د. عبدالرقيب الشامي
محمد عباس



الجمهورية اليمنية
وزارة التعليم العالي والبحث العلمي
جامعة صنعاء
كلية الطب البيطري

I. - Information about Faculty Member Responsible for the Course:

Name of Faculty Member	Dr. Saleh Ahmed Mohammed Ali Alomaisi	Office Hours					
Location & Telephone No.	Sana'a , Thamar Governorate 776017635	SAT	SUN	MON	TUE	WED	THU
E-mail	alomisy78@gmail.com alomisy78@yahoo.com	8am 9am	8am 9am	8am 9am	8am 9am	8am 9am	

I. Course Identification and General Information:

1	Course Title:	Histology (Y)				
2	Course Number & Code:	ANT234				
3	Credit hours:	C.H				Total
		Theoretical	Practical	Training	Seminar	
		2	1			3
4	Study level/ semester at which this course is offered:	Second Year: Second Semester				
5	Pre –requisite (if any):	ANT233				
6	Co –requisite (if any):	None				
7	Program (s) in which the course is offered:	Second Year: Second Semester				
8	Language of teaching the course:	English				
9	System of Study:	Regular / Semesters				

رئيس عميد مركز التطوير وضمان الجودة عميد الكلية نائب العميد لشئون الجودة
أ.د. القاسم أ.د. هدى العماد د. عبدالرؤف الشوكاني د. عبدالرقيب الشامي
محمد عباس



الجمهورية اليمنية
وزارة التعليم العالي والبحث العلمي
جامعة صنعاء
كلية الطب البيطري

10	Mode of delivery:	Lectures and Practical
11	Location of teaching the course:	Faculty Of Veterinary Medicine

II. Course Description:

Histology course will acquire the scientific knowledge about how organized groups of cells (tissues) are arranged to form the organ systems of the body.

To appreciate that while the emphasis in histology is on the structure of cells, tissues and organs, structure has very little meaning without understanding the function, much of which is also presented in the other components of the course.

To be aware that one reason for studying histology (the normal structure) is so that you can better understand a pathological (abnormal) change and the consequences of that change.

Understand that the tissues of an organ are formed of cells with different structure and function but all of them cooperate to perform the function allotted to the organ.

Familiarize students with the basic information about the characteristics and functions of the

nervous and muscular tissues as well as those of cardiovascular, immune, digestive, respiratory

and urinary systems and compare between them.

II. Intended learning outcomes (ILOs) of the course:

رئيس عميد مركز التطوير وضمان الجودة عميد الكلية نائب العميد لشئون الجودة
أ.د. القاسم أ.د. هدى العماد د. عبدالرؤف الشوكاني د. عبدالرقيب الشامي
محمد عباس



الجمهورية اليمنية
وزارة التعليم العالي والبحث العلمي
جامعة صنعاء
كلية الطب البيطري

After completing this course, students will be able to:

- a1. Describe the normal microscopic and ultra structure and the molecular relationships in relation to function, growth, and differentiation of somatic and stem cells, death and inheritance of eukaryotic cells of the domestic animals body.
- a2. Distinguish microscopic structure of respiratory, digestive, urinary endocrine, nervous, male & female genital systems in different animals.
- b1. Interpret a systematic approach to the correct identification of histological structure of the different body organs.
- b2. Choose the main differences of respiratory, digestive, urinary, endocrine, nervous and reproductive system histology in different animals. Emphasis to know comparable subjects at try correlate structure and function .
- c1. Identify the trachea, bronchi, terminal bronchioles, respiratory bronchioles, alveolar ducts and alveoli, gastrointestinal epithelium and their functions in digestion.
- c2. Improve sections preparation of the blood, bone marrow, lymphatic, respiratory, digestive, urinary, endocrine, nervous, male & female genital systems system tissue in different species of animal.
- d1. Communicates effectively with other fellow professions and animal owners and expresses his ideas clearly and objectively.
- d2. Appreciate the importance of lifelong learning, show a strong commitment to it, and communicate with his colleagues.

X. Course Content:

A – Theoretical Aspect:

Order	Topics List	Week Due	Contact Hours
1	Respiratory system	1-2	4
2	digestive system	3-5	6
3	Urinary system	6-7	4
4	Mid-Term Exam	8	2
5	Male genital system	9-10	4

رئيس عميد مركز التطوير وضمان الجودة عميد الكلية نائب العميد لشئون الجودة
أ.د. القاسم أ.د. هدى العماد د. عبدالرؤف الشوكاني د. عبدالرقيب الشامي
محمد عباس



الجمهورية اليمنية
وزارة التعليم العالي والبحث العلمي
جامعة صنعاء
كلية الطب البيطري

6	Female genital system	11-12	4
7	Endocrine and Nervous systems	13-14	4
8	Histology of Skin and hoof	15	2
9	Final Exam	16	2
Number of Weeks /and Units Per Semester		16	32

b- Training Aspect:			
Order	Training Tasks	Week Due	Contact hours
1	Respiratory system	1-2	4
2	Comparative digestive system	3-5	6
3	Urinary system	6-7	4
4	Mid-Term Exam	8	2
5	Male reproductive system	9-10	4
6	Female reproductive system	11-12	4
7	Endocrine and Nervous system	13-14	4
8	Skin & its appendages	15	2
9	Final Exam	16	2
Number of Weeks /and Units Per Semester		16	32

رئيس عميد مركز التطوير وضمان الجودة عميد الكلية نائب العميد لشئون الجودة
أ.د. القاسم أ.د. هدى العماد د. عبدالرؤف الشوكاني د. عبدالرقيب الشامي
محمد عباس



الجمهورية اليمنية
وزارة التعليم العالي والبحث العلمي
جامعة صنعاء
كلية الطب البيطري

II. Teaching strategies of the course:

- Lectures using board, data shows and multimedia aids.
- Self-learning by preparing essay and presentations (computer and faculty library)
- Brainstorm
- Discussion
- Cooperative learning
- Practical training (Clinical demonstrations, practice of skills, and discussions).
 - (a) Field visits (farms and villages)
 - (b) General experimental animal teaching
 - (c) Clinical and small group sessions
 - (d) Outpatient clinic
- Tutorial classes (small group teaching)

II. Assessment Methods:

- Written exam
- Practical exam
- Oral exam
- Quizzes
- Report assignments
- Discussion.

No.	Type of Assessment Tasks	Week Due	Mark	Proportion of Final Assessment
1	Participation, quizzes and assignments	2-14	10	10%
2	Mid-Term Exam	8	10	10%
3	Mid-Term Practical Exam	8	10	10%
4	Final Practical Exam	13	10	10%
5	Oral Exam	13	5	5%
6	Final Exam	16	55	55%
Total			100	100%

رئيس عميد مركز التطوير وضمان الجودة عميد الكلية نائب العميد لشئون الجودة
أ.د. القاسم أ.د. هدى العماد د. عبدالرؤف الشوكاني د. عبدالرقيب الشامي
محمد عباس



الجمهورية اليمنية
وزارة التعليم العالي والبحث العلمي
جامعة صنعاء
كلية الطب البيطري

II. Learning Resource (MLA style or APA style)S:	
1- Required Textbook(s) (maximum two)	
	<p>Course Notes Lecture notes (printed): Basic Veterinary Histology Notes on histology and Colored Atlas of Histology by staff members of histology Department</p>
2- Recommended Readings and Reference Materials	
	<p>Bloom, W. and D. W. Fawcett (1994): Textbook of Histology; 12th Ed. W. B. Saunders C., Philadelphia.</p> <p>Cheville, N.F. and Stasko, J. (2014): Techniques in Electron Microscopy of Animal Tissue. Veterinary Pathology, 51(1):28-41.</p> <p>Cormack,H.D.(1987): A text book of Histology,9th edition, Lippincott,J.B. Company.</p> <p>Drury, R.A.B. and Wallington, E.A. (1980): Carleton's histological technique. Fifth Ed. Oxford University. USA.</p> <p>Eurell, J.A. and Frappier, B.L. (2006): Dellmann's textbook of veterinary histology Sixth edition. Blackwell, USA. Pp (156-158)(337-338).</p> <p>Fawcett(1994):A Text Book of Histology,12th ed.Chapman and Hall,New York,London.</p> <p>Pears,A.G.E.(1985): Histochemistry theoretical and applied,4th ed.Churchill Livingstone,Melbourne and New York.</p>

رئيس عميد مركز التطوير وضمان الجودة عميد الكلية نائب العميد لشئون الجودة
أ.د. القاسم أ.د. هدى العماد د. عبدالرؤف الشوكاني د. عبدالرقيب الشامي
محمد عباس



الجمهورية اليمنية
وزارة التعليم العالي والبحث العلمي
جامعة صنعاء
كلية الطب البيطري

	<p>Junqueira, Carneino and Kelly (1995): Basic Histology, 7th ed. Librairie du liban and lang buruit, London, New York.</p> <p>Nomina Histologica Veterinaria (2017): International committee on veterinary Histological Nomenclature (ICVHN). General assemble of the world association of veterinary anatomists, 2018 by the General Assembly of the WAVA. 1stEd., Hannover (Germany), Columbia, MO (U.S.A.), Ghent (Belgium), Sapporo (Japan).</p> <p>Suvarna, S.K., Layton, c. and Bancroft, J.D. (2019): Bancroft's theory and practical of histological techniques. Eighth ed. Elsevier. China, ISBN: 978-0-7020-6864-5.</p>
	<p>3- <u>Essential References</u></p>
	<p>Bloom, W .and Fawcett, W. (1997): Concise Histology, Chapman and Hall, New York and London.</p> <p>Cormack, D.H. (1997): Essential Histology, Lippincott-Raven, Philadelphia and New York.</p> <p>Dellmann, H.D. and Brown, E.M. (1998): Textbook of Veterinary Histology, 5th Edition, Williams and Wilkins, Philadelphia and London.</p> <p>Junqueira Histology Textstack, Eighth Edition, by Junqueira, Carneiro and Kelley.</p> <p>Leslie, P.G., James, L.H. and Judy, M.S. (1993): Cell Biology and Histology, 2nd Edition, Williams and Wilkins, Philadelphia and London.</p>
	<p>4- <u>Electronic Materials and Web Sites etc.</u></p>
	<p>Periodicals and Web Sites of histology, http://www.med-edonline.org/ http://www.histology.to/links.html www.pubmed.com Science direct</p> <p>Students are free to search online for any available course materials related to the course subjects and taught lectures in the class.</p>
	<p>5- Other Learning Material:</p>
	<p>-</p>

رئيس عميد مركز التطوير وضمان الجودة عميد الكلية نائب العميد لشئون الجودة
أ.د. القاسم أ.د. هدى العماد د. عبدالرؤف الشوكاني د. عبدالرقيب الشامي
محمد عباس



الجمهورية اليمنية
وزارة التعليم العالي والبحث العلمي
جامعة صنعاء
كلية الطب البيطري

1. Course Policies:	
1	Class Attendance: Mandatory to attend all course lectures and labs
2	Tardy: Not allowed at all. Students must be in class or in the practical session 10 minutes prior to the beginning of lectures or practical session.
3	Exam Attendance/Punctuality: Attendance is mandatory; absence is accepted with valid excuse.
4	Assignments & Projects: All assignments and projects are to be submitted on their due date. Any assignment turned in after the due date will not be accepted without valid and reasonable excuse.
5	Cheating: Not tolerated and may lead to EXPELLING the student from the program
6	Plagiarism: Not tolerated AT ALL and may lead to EXPELLING the student from the program
7	Other policies: <ol style="list-style-type: none">1. All devices must be on silent or at least on vibration during lectures/labs.2. Before any exam (written, practical, oral) student's identity will be checked (student's card, ID, passport). Without any of these documents, the student will not be allowed in the exam room.3. Any of type/ form of cheating is not allowed no matter what.4. Maintain silence during lectures and disturbance is not allowed. For any questions students should raise their hand and wait for permission to talk.

رئيس عميد مركز التطوير وضمان الجودة عميد الكلية نائب العميد لشئون الجودة
أ.د. القاسم أ.د. هدى العماد د. عبدالرؤف الشوكاني د. عبدالرقيب الشامي
محمد عباس



الجمهورية اليمنية
وزارة التعليم العالي والبحث العلمي
جامعة صنعاء
كلية الطب البيطري

رئيس	عميد مركز التطوير وضمان الجودة	عميد الكلية	نائب العميد لشئون الجودة
أ.د. القاسم	أ.د. هدى العماد	د. عبدالرؤف الشوكاتي	د. عبدالرقيب الشامي
			محمد عباس