



Course specification

1-Basic information

Course Code:	S3-PATH
Course title :	General and systemic pathology
Academic year:	3 rd .year, 2017/2018
Program title:	B. Sc. Veterinary Medicine
Contact hours/ week	Lecture : 3 hours/week - practical: 2 Practical/week (2 semesters)
Approval Date	September 2017

2-Professional information

Overall aims of course:

This course aims to:

- 1- Define, describe, classify and identify the difference between the normal (or healthy) gross and microscopic anatomy and the abnormal (diseased) gross and microscopic anatomy.
- 2- Identify the mechanisms, by which the disease developed, progressed and squealed by identifying different macroscopic & microscopic changes revealed in the tissue during diseases by good preparation and manipulation of good representative samples of the diseases.
- 3- Describe the distribution of pathological lesions in the different organs and tissues.
- 4- Represent the pathological changes diagrammatically.

3- Intended learning outcomes of course (ILOs)

a-Knowledge and understanding:

By the end of this course the student should be able to:

- a1- List the general pathological changes in the tissues and organs.
- a2- Define the relationship between causes and tissue/organ.
- a3- Recognize the different types of pathological lesions.
- a4- Outline the types and classification of different tissue/organ changes.
- a5- Define the mechanisms of pathological alterations.
- a6- Illustrate the molecular and cellular response of the living body when exposed to injurious agent.
- a7- Outline the different pathological terms in different tissues.

b-Intellectual skills

By the end of this course the student should be able to:

- b1- Classify the pathological changes occurred in the tissue /organs on the general pathology bases
- b2- Differentiate between tissue/organ appearance in health and diseased animal.
- b3- Select tissue specimens for pathological diagnosis on print-finger bases..
- b4- Integrate and predict the prognosis and sequelae of different pathological lesions.
- b5- Interpret the macroscopic and microscopic alterations in different tissues and organs.

c-Professional and practical skills



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By the end of this course the student should be able to:

- c1- Practice the criteria of gross and microscopic examination.
- c2- Perform good management in microscopy and description of different changes in different tissues and organs.
- c3- Examine the pathological changes as a diagnostic base by the aid of light microscopy in examination of tissue samples.
- c4- Identify microscopically the different pathological lesions.
- c5- Prepare the graduate to get the ability of decision making.

d-General and transferable skills

By the end of studying the course, the student should be able to:

- d1- Work in a group and manage time.
- d2- Produce reports.
- d3- Demonstrate the ability of problem definition.
- d4- Increase the ability of problem solving
- d5- Utilize the computer, microscope and internet..

4-Topics and contents

First semester				
Course	Topic	No. of hours	Week(s)	Practical HOURS
First semester (Lec. 3h./week, Pract. 2h./week)	Course description - Introduction to general pathology	2	1 st	-
	-Disturbances in cell metabolism Disturbances of cell protein Lipid, carbohydrates metabolism	4	1 st 2 nd	4
	-Disturbances in cell metabolism Dist. Of minerals and pigment metabolism	4	3 rd 4 th	2
	- Necrosis and apoptosis – gangrene	2	4 th	2
	-Disturbances in circulation: (congestion-edema-shock-hemorrhage)	3	5 th	2
	-Disturbances in circulation (thrombosis-embolism-infarction)	3	6 th	2
	-Inflammation: (Patho-mechanism)	3	7 th	2



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	-Inflammation (Types)	3	8 th	2
	- Healing and repair Hypersensitivity and immunodeficiency	3	9 th	2
	-Adaptation and disturbance in cell growth	3	10th	2
	-Tumors (Nomenclature, causes, classification -Benign and malignant epithelial and non- epithelial tumors	6	11th 12th	4
	Assignments : Students activities - Collect pathology, specimens. - Writing assays. Pathology rounds	3	13 th	-
Total		39	13	24
Second semester				
Second semester (Lec. 3h./week, Pract. 2h./week)	-Pathology of Digestive system (Oral cavity-Salivary glands)	3	1 st	2
	-Pathology of Digestive system (Esophagus- Fore stomach- -Stomach- Intestine -Liver –Protenium)	3	2 nd	2
	-Pathology of Respiratory system (Upper respiratory tract)	3	3 rd	2
	-Pathology of Respiratory system (Lower respiratory tract)	3	4 th	2
	-Pathology of Cardiovascular system	3	5 th	2
	-Pathology of Nervous system	3	6 th	2
	-Pathology of Urinary system	6	7 th 8 th	4
	Pathology of female genital system	6	9th 10th	4
	Pathology of male genital system	5	11th 12th	4
	Assignments : Students activities - Collect pathology specimens. - Writing assays. - Pathology rounds	4	13 th	-



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Total		39		24
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5-Teaching and learning methods

- 5.1- Lectures (brain storm, discussion) using board, data shows and multimedia
- 5.2- Self learning by preparing essays and presentations (computer researches and faculty library), sample collections and preparation, and histopathology and Gross pathology rounds.
- 5.3- Practical (gross and microscopic examination and electronic slides).

6-Teaching and learning methods for the students with disabilities

Office hours and special meeting.

7-Student assessment

7.1. Assessments methods:

Method	Matrix alignment of the measured ILOs/ Assessments methods			
	K&U	I.S	P&P.S	G.S
Final Exam	1-7	1-5	-	1-5
Practical Exam			1-5	
Oral exam	1-7	1-5	1-5	1-5

7.2. Assessment schedules/semester

Method	Week(s)
Practical exams	14 th semester
Final exams	15 th semester
Oral exam	15 th semester
Student activity	During semester

7.3. Weight of assessments /semester

Assessment	Weight of assessment
Mid-term exam	--
Practical exams	(15) 30%
Oral exams	(10) 20%
Final exams	(25) 50%
Student activities (Essay)	--
Total	(50) 100%

8- List of references

8.1. Notes and books

Departmental notes on: -

- Deeb, S.; Samy, M.; El-Begawey, M.; Shalaby, A.; El-Nesr, Kh.;Mahdy, E.; El-Nahass, S., and Taha, Kh. (2014) Text book of general pathology, BeniSuef University.



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- Deeb, S.; Samy, M.; El-Begawey, M.; Shalaby, A.; El-Nesr, Kh.;Mahdy, E.; El-Nahass, S., and Taha, Kh. (2014) Text book of systemic pathology, BeniSuef University.
- Deeb, S.; Samy, M.; El-Begawey, M.; Shalaby, A.; El-Nesr, Kh.;Mahdy, E.; El-Nahass, S., and Taha, Kh. (2014) Practical general pathology, BeniSuef University.
- Deeb, S.; Samy, M.; El-Begawey, M.; Shalaby, A.; El-Nesr, Kh.; Mahdy, E.; El-Nahass, S., and Taha, Kh. (2014) Practical systemic pathology, BeniSuef University.

8.2. Essential books:

- Jubb, K.V., P.C. Kennedy and N. Palmer (2007): Veterinary pathology 4th ed. San Diego, New york
- Jones, T.C., Hunt, R.D. and King, N.W (1996): Veterinary pathology. 6th ed. Williams and wilkins Awaverly company.

8.3. Recommended texts

8.4. Journals, Websitesetc

Journals:

- Egyptian Journal of Comparative Pathology and Clinical Pathology
- PathologiaVeterinaria
- American Journal of Pathology
- Journal of Pathology and Bacteriology
- Archive of Pathology
- Veterinary Record
- Journal of Comparative Pathology
- Canadian Journal of comparative Medicine
- American Journal of veterinary research
- Research on veterinary Science

Websites:

www.neclc.edu.eg

www.asvp.asn.au.com

www.genengnews.com

www.altcancer.com

Course Coordinators

Head of Department

Dr. EL-Shaymaa N. EL-Nahass

Prof. Dr. Khalid A. El-Nesr



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	Topic	Week	Intended learning outcomes of course (ILOs)			
			K&U(a)	I.S(b)	P.P.S (c)	G.T.S (d)
First semester	1st term					
	- Introduction to general pathology	1	1, 2, 3,5,7	1,3	-	1-5
	-Disturbances in cell metabolism Disturbances of cell protein Lipid, carbohydrates metabolism	2 &3	1, 2, 3,4,5,7	1, 2,3,4,5	1-5	1-5
	-Disturbances in cell metabolism Dist. Of minerals and pigment metabolism	4	1, 2, 3,5,6,7	1, 2,3,4,5	1-5	1-5
	- Necrosis and apoptosis – gangrene	5	1, 2, 3,5,7	1, 2,3,4,5	1-5	1-5
	-Disturbances in circulation: (congestion-edema-shock-hemorrhage)	6	1, 2, 3,4,5,7	1, 2,3,4,5	1-5	1-5
	-Disturbances in circulation (thrombosis-embolism-infarction)	8	1, 2, 3,5,7	1, 2,3,4,5	1-5	1-5
	-Inflammation: (Patho-mechanism)	9	1, 2, 3,5,6,7	1, 2,3,4,5	1-5	1-5
	-Inflammation (Types)	10	1, 2, 3,5,6,7	1, 2,3,4,5	1-5	1-5
	- Healing and repair Hypersensitivity and immunodeficiency	11	1, 2, 3,4,5,7	1, 2,3,4,5	1-5	1-5
	-Adaptation and disturbance in cell growth	11 12	1&2	1, 2,3,4,5	1-5	1-5
	-Tumors (Nomenclature, causes, classification) -Benign and malignant epithelial and non-epithelial tumors	13	1&2	1, 2,3,4,5	1-5	1-5



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Assignments (student activities)	13	1, 2, 3,4,,5,7	1, 3, 4	1, 2	1-5
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2nd term

Pathology of Digestive system (Oral cavity-Salivary glands)	1	1-3	1, 2,3,4,5	1-5	1-5
Pathology of Digestive system (Esophagus- Fore stomach- -Stomach- Intestine -Liver – Protenium)	2	1-7	1, 2,3,4,5	1-5	1-5
-Pathology of Respiratory system (Upper respiratory tract)	3	1-7	1, 2,3,4,5	1-5	1-5
-Pathology of Respiratory system (Lower respiratory tract)	4	1-7	1, 2,3,4,5	1-5	1-5
Midterm exam – student activities	5	1-7	1, 2,3,4,5	1-5	1-5
Pathology of Cardiovascular system	6	1-7	1, 2,3,4,5	1-5	1-5
-Pathology of Nervous system	7	1-7	1, 2,3,4,5	1-5	1-5
Pathology of Urinary system	8	1-7	1, 2,3,4,5	1-5	1-5
Pathology of male genital system	9&10	1-7	1, 2,3,4,5	1-5	1-5
Pathology of female genital system	11&12	1-7	1, 2,3,4,5	1-5	1-5
Assignments : Students activities Collect pathology specimens. Writing assays. Pathology	13	2, 6, 7	1,2,3,4	1-5	1-5



BeniSuef University
Faculty of veterinary medicine

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