



Course specification

=1-Basic information

Course Code:	
Course title :	General and systemic pathology
Academic year:	3 rd .year, 2016/2017
Program title:	B. Sc. Veterinary Medicine
Contact hours/ week	Lecture : 3 hours/week - practical: 4 Practical/week (2 semesters)
Approval Date	5/9/2010

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.
- 5- Work in group and exhibiting the sense of beauty and neatness.

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- Define the different types pathological lesions.
- a4-Outline the types and classification of different tissue/organ changes.
- a5-Describe 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.

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-classify good selection of tissue specimens for pathological diagnosis on print-finger bases..
- b4-Integrate and predict the prognosis and sequllae of diseases..



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c-Professional and practical skills

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

- c1- Collect the experience in gross examination, sampling and reporting.
- c2- Perform good management in microscopy and description of different changes in different tissues.
- c3-Utilize the pathology as a diagnostic tool.
- c4- 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- Exhibits the sense of beauty and neatness.
- d3- Demonstrate the ability of problem definition and increase
- d4-Increase the ability of problem solving
- d5-Utilizethe computer, microscope and internetso, will.

4-Topics and contents

First semester				
Course	Topic	No. of hours	Lectures	Practical
First semester (Lec. 3h./week, Pract. 2h./week)	Course description	4	2	2
	- Introduction to general pathology			
	-Disturbances in cell metabolism Disturbances of cell protein Lipid, carbohydrates metabolism	5	3	2
	-Disturbances in cell metabolism Dist. Of minerals and pigment metabolism	5	3	2
	- Necrosis and apoptosis – gangrene	5	3	2
	-Disturbances in circulation: (congestion-edema-shock-hemorrhage)	5	3	2
	-Disturbances in circulation (thrombosis-embolism-infarction)	5	3	2
	-Inflammation: (changes of tissue in inflammation-chemical mediators)	5	3	2
	-Inflammation (types of inflammation (inflammatory exudate, duration, squalae, & degeneration)	5	3	2
	- Healing and repair Hypersensitivity and immunodeficiency	5	3	2



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	Assignments : Students activities - Collect pathology, specimens. - Writing assays. Pathology rounds	12	3	3
Second semester				
Second semester (Lec. 3h./week, Pract. 2h./week)	-Tumors (Nomenclature, causes, classification -Benign and malignant epithelial and non-epithelial tumors)	5	3	2
	-Pathology of Digestive system (Oral cavity-Salivary glands)	5	3	2
	-Pathology of Digestive system (Esophagus- Fore stomach- -Stomach- Intestine -Liver –Protenium)	5	3	
	-Pathology of Respiratory system (Upper respiratory tract)	5	3	2
	-Pathology of Respiratory system (Lower respiratory tract)	5	3	2
	-Pathology of Cardiovascular system	5	3	2
	-Pathology of Nervous system	5	3	2
	-Pathology of Urinary system	5	3	2
	Assignments : Students activities - Collect pathology specimens. - Writing assays. - Pathology rounds	12	3	3

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
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	K&U	IS	P&P.S	G.S
Final Exam	1-7	1-4		
Mid-Term Exam	1-7	1-4		
Practical Exam			1-4	
Semester work				1, 2

7.2. Assessment schedules/semester

Method	Week(s)
Mid-term exam	7
Practical exams	14-15
Final exams	managed by administrations
Student activity	8-15

7.3. Weight of assessments /semester

Assessment	Weight of assessment
Mid-term exam	--
Practical exams	15
Oral exams	10
Final exams	25
Student activity (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-Nahas, S., and Taha, Kh. (2014) Text book of general pathology, BeniSuef University.
- Deeb, S.; Samy, M.; El-Begawey, M.; Shalaby, A.; El-Nesr, Kh.;Mahdy, E.; El-Nahas, 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-Nahas, 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-Nahas, S., and Taha, Kh. (2014) Practical systemic pathology, BeniSuef University.

8.2. Essential books:

- Jubb,K.V., P.C.Kennedy and N.Palmer (2008) veterinary pathology 4th ed. San Diego, New york
- Jones, T.C., Hunt, R.D. and King, N.W (2008)Veterinary pathology. 6th ed. Williams and wilkinsAwaverlycompany.



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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	Course description - Introduction to general pathology	1	1, 2, 3,5,7	1,3	1,4	1,6
	-Disturbances in cell metabolism Disturbances of cell protein Lipid, carbohydrates metabolism	2 &3	1, 2, 3,4,5,7	1, 3, 4	1, 2	1
	-Disturbances in cell metabolism Dist. of minerals and pigment metabolism	4	1, 2, 3,5,6,7	1, , 3, 4	1, 2	1,2
	- Necrosis and apoptosis – gangrene	5	1, 2, 3,5,7	1, 3, 4	1, 2	1
	-Disturbances in circulation: (congestion-edema-shock-hemorrhage)	6	1, 2, 3,4,5,7	1, 3, 4	1, 2	1,2
	Assignments (midterm exam – student activities)	7	1, 2, 3,5,7			
	-Disturbances in circulation (thrombosis-embolism-infarction)	8	1, 2, 3,5,7	1, 3, 4	1, 2	1, 2
	-Inflammation: (changes of tissue in inflammation-chemical mediators)	9	1, 2, 3,5,6,7	1, 3, 4	1, 2	1
	-Inflammation (types of inflammation (inflammatory exudate, duration, squalae, & degeneration)	10	1, 2, 3,5,6,7	1, 3, 4	1, 2	1
	- Healing and repair- Hypersensitivity and immunodeficiency	11	1, 2, 3,4,,5,7	1, 3, 4	1, 2	1
	- Revision and discussion	12	1, 2, 3,4,,5,7	1, 3, 4	1, 2	1
	Assignments (student activities)	13	1, 2, 3,4,,5,7	1, 3, 4	1, 2	1



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Second semester	Tumors (Nomenclature, causes, classification -Benign and malignant epithelial and non-epithelial tumors)	1&2	1, 2, 3	1, 3, 4	1, 2	1
	Pathology of Digestive system (Oral cavity-Salivary glands)	3	1-3	1,2,3,4	1,2,3,4	1
	Pathology of Digestive system (Esophagus- Fore stomach- -Stomach- Intestine -Liver – Protenium)	4&5	1,2, 5, 6	1,2,3,4	1,2,3,4	1
	-Pathology of Respiratory system (Upper respiratory tract)	6	2, 5, 6,7	1,2,3,4	1,2,3,4	1
	-Pathology of Respiratory system (Lower respiratory tract)	7	2, 5, 6,7	1,2,3,4	1,2,3,4	1
	Midterm exam – student activities	9	1,2, 5, 6	1,2,3,4	1,2,3,4	
	Pathology of Cardiovascular system	9	2, 5, 6	1,2,3,4	1,2,3,4	1
	-Pathology of Nervous system	10	2, 5, 6	1,2,3,4	1,2,3,4	1
	Pathology of Urinary system	11&12	2, 5, 6	1,2,3,4	1,2,3,4	1
	Assignments : Students activities Collect pathology specimens. Writing assays. Pathology	13	2, 5, 6	1,2,3,4	1,2,3,4	1