

# DEPARTMENT OF ANIMAL HEALTH TECHNOLOGY COURSE OUTLINE – AH 247 PATHOLOGY – 2011

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OFFICE			
HOURS:	As posted.		

### **PREREQUISITE(S)/COREQUISITE:**

Students must complete and pass AH 141,AH 241, AH 172 and AH 174.

#### **REQUIRED TEXT/RESOURCE MATERIALS:**

No textbooks but equipment and supplies required are: 3 ring note binder coveralls (gloves, disposable plastic boots and masks will be supplied)

**CALENDAR DESCRIPTION:** Basic principles and terminology of pathology will be taught. The inflammatory process and tissue response to disease or injury will be covered briefly. Students will receive hands-on instruction in necropsy procedures for small and large animal species. Proper collection, handling and submission of

samples and transportation of dangerous goods is discussed or demonstrated.

### **CREDIT/CONTACT HOURS:**

Course Code: AH247

Course Title: Pathology

**Hours:** 32

**Credits:** 2

### **DELIVERY MODE(S):**

Lectures and note handouts. Labs at the Regional Veterinary Diagnostic Pathology lab.

#### **OBJECTIVES**

#### **Learning Outcome Guides**

#### A. Information Section

Upon successful completion of this Learning Outcome Guide, you will be able to use proper pathological terminology.

- 1. define disease.
- 2. list and explain the causes of disease.
- 3. define the following terms: pathology, pathologist, syndrome, symptoms, clinical signs, lesions, prognosis.
- 4. use terms provided in the pathology glossary.
- 5. list the categories used to describe lesions.
- 6. define the terms used to describe lesions.

#### **B. Inflammation**

Upon successful completion of this Learning Outcome Guide, you

will be able to explain the inflammatory process.

- 1. define inflammation.
- 2. list the signs of inflammation.
- 3. discuss the purpose and causes of inflammation.
- 4. describe the components of the inflammatory response.
- 5. define Chemotaxis, Phagocytosis, Suppuration, Pyogens, Empyema, and Cellulitis.
- 6. discuss the role of the components of the granulocytic and monocytic series.
- 7. explain and classify exudates, and list an example for each type of exudate.

# C. Response to Disease (Injury)

Upon successful completion of this Learning Outcome Guide, you will be able to explain tissue response to disease and injury.

- define the following terms: contusion, laceration, wound, concussion, abrasion, erosion, ulcer, slough, necrosis, apoptosis, pneumoconiosis, anthracosis, melanosis, amelanotic, autolysis, rigor mortis, algor mortis, livor mortis.
- 2. describe degenerative lesions.
- 3. describe pathological pigmentation.
- 4. list and describe circulatory disturbances.
- 5. list five factors which affect the rate of autolysis.
- 6. compare and contrast a) dystrophic and meastatic calcification. b) wet and dry gangrene. c) petechial and ecchymotic hemorrhages. d) purpura, and disseminated intravascular coagulation.
- 7. list and describe the 4 types of hypersensitivity reactions.

# D. Neoplasia

Upon successful completion of this Learning Outcome Guide, you will be able to explain common types of neoplasia

- 1. define the following: neoplasia, anaplasia, metaplasia, oncology, oncogenic, blastoma, cachexia, mucositis, metastasis, infiltration, "sarcoma", "carcinoma", "oma".
- 2. list 6 characteristics of neoplasia.
- 3. describe 3 methods of metastasis of neoplasia.
- 4. compare and contrast benign and malignant tumors.
- 5. list the most common tumor of horses, cattle and cats.
- 6. list the 3 types of testicular tumors of dogs and discuss the clinical signs of each type.

# **E. Post-Mortem Techniques**

Upon successful completion of this Learning Outcome Guide, you will be able to explain post-mortem techniques.

- describe the position for placing the following animal groups for post-mortem examination: a) non-ruminants b) large ruminants c) small laboratory animals, small fur bearing animals and avian species.
- 2. define the following terms: "pluck", "in-situ", "Ampulla of Vater", Psittacine birds, imbibition, ante-mortem, autopsy, necropsy.
- 3. compare the advantages and disadvantages of common fixatives used for preservation of pathological specimens.
- 4. describe and demonstrate correct packaging of pathological samples to conform with safety legal and preservation requirements.
- 5. outline special procedures performed in a) the necropsy of a fetus and b) avian necropsy.

### TRANSFERABILITY:

\*\* Grade of D or D+ may not be acceptable for transfer to other post-secondary institutions. Students are cautioned that it is their responsibility to contact the receiving institutions to ensure transferability

**GRADING CRITERIA:** 

GRANDE PRAIRIE REGIONAL COLLEGE				
GRADING CONVERSION CHART				
Alp ha Gra	4-point Equival	age	Designation	
de	ent	nes		
<b>A</b> <sup>+</sup>	4.0	90 - 100	EXCELLENT	
Α	4.0	85 - 89		
<b>A</b> <sup>-</sup>	3.7	80 - 84	FIRST CLASS STANDING	
<b>B</b> <sup>+</sup>	3.3	77 – 79		
В В <sup>-</sup>	3.0 2.7	73 – 76 70 – 72	GOOD	
<b>C</b> <sup>+</sup>	2.3	67 - 69	SATISFACTORY	
С	2.0	63 - 66	SATISTACTORT	
<b>C</b> <sup>-</sup>	1.7	60 - 62	MINIMAL PASS*	
F	1.3 1.0 0.0	55 - 59 50 - 54 0 - 49	FAIL	
WF	0.0	0	FAIL, withdrawal after the deadline	

\*overall grade average has to be 2.0 or higher to be successful in the program.

#### **EXAMINATIONS:**

### **Mark Distribution**

- A. Lab Assignments 10%
- B. Lab Attendance 10%
- C. Quizzes 40%

**D. Final Exam** 

40% 100%

### **STUDENT RESPONSIBILITIES:**

A passing grade in this course is a minimum of 60%. Deductions at the discretion of the instructor. The instructor may give pop quizzes. There is a supplemental examination available only for the final exam. Students must have a mark of 50% or greater to be allowed to write a supplemental exam. No supplemental quizzes allowed. If a student misses a quiz without prior notification and without a valid reason, a mark of zero will be assigned for that quiz.

#### STATEMENT ON PLAGIARISM AND CHEATING:

Please refer to pages 49-50 of the College calendar regarding plagiarism, cheating and the resultant penalties. These are serious issues and will be dealt with severely.

# COURSE SCHEDULE/TENTATIVE TIMELINE:

### **Major Topics**

- A. Information Section
- **B.** Inflammation
- C. Response to Disease (Injury)
- D. Neoplasia
- E. Post-Mortem Techniques

\*overall gradepoint average has to be 2.0 or higher to be successful in the AHT program.

Created by: <Instructor Name> Date: Signature:

Approved by: Trisha Holubowich Date: Signature: