



**DEPARTMENT OF ANIMAL HEALTH TECHNOLOGY**  
**COURSE OUTLINE – AH 247**  
**PATHOLOGY – 2014**

**INSTRUCTOR:** Dr. Chris Mizzi    **PHONE:** 780-835-6617  
DVM  
**OFFICE:** FAS 133                    **E-MAIL:** CMizzi@gprc.ab.ca

**OFFICE**  
**HOURS:** As posted.

**PREREQUISITE(S)/COREQUISITE:**

Students must complete and pass AH 241, and AH 172. 04/11

**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 and on campus.

**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, 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.

1. 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 metastatic 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.

1. 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:**

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

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

## **EXAMINATIONS:**

### **Mark Distribution**

<b>A. Lab Assignments</b>	<b>10%</b>
<b>B. Lab Attendance/Participation/Attitude</b>	<b>10%</b>
<b>C. Quizzes</b>	<b>40%</b>
<b>D. Final Exam</b>	<b>40%</b>
	<b>100%</b>

## **STUDENT RESPONSIBILITIES:**

A passing grade in this course is a minimum of 60%. Deductions are 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. Post-Mortem Techniques**
- D. Neoplasia**
- E. Response to Disease (Injury)**

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

Created by: Dr. Chris Mizzi

Date:

Signature:

Approved by:

Date:

Signature: