



## DEPARTMENT OF ANIMAL HEALTH TECHNOLOGY

### COURSE OUTLINE – LABORATORY PROCEDURES II

**INSTRUCTOR:** Dr. S. Klassen/Dr. Udenberg      **PHONE:** 780-835-6703  
**OFFICE:** 149a      **E-MAIL:** sklassen@gprc.ab.ca  
**OFFICE HOURS:** 9:00-4:00

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

**Prerequisites:** AH 141/241 Anatomy & Physiology I & II; AH 142 Laboratory Procedures I; AH 220 Clinical Microbiology; AH 221 Clinical Hematology

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

##### **Required Texts and Resources**

- Hendrix, *Laboratory Procedures for Veterinary Technicians*, Mosby, 2002 , 4 Edition

##### **References**

- Jao/Padleckas/Swerdlow, *Atlas of Urinary Sediment*, ., .

#### **CALENDAR DESCRIPTION:**

Students will develop knowledge and skills covered in previous lab courses, as well as learning to collect and prepare and evaluate samples for clinical chemistry and cytology.

#### **Major Topics**

- A.** Hematology Review
- B.** Sample Collection
- C.** Urinary Tract & Urinalysis
- D.** Enzymology & Enzyme Assays
- E.** Liver & Kidney Function Tests

- F.** Blood Glucose & Pancreas Function
- G.** Skeletal Muscle & Brain Function
- H.** Adrenal, Thyroid, & Parathyroid Gland Function
- I.** Vaginal Cytology
- J.** Semen Evaluation
- K.** Basic Cytology

**CREDIT/CONTACT HOURS:**

Credits = 6   Hours = 96

**DELIVERY MODE(S):**

Lectures and labs

**OBJECTIVES (Optional):**

**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:**

To pass this course, students must achieve a minimum grade of 50% on the final written exam (applies to the supplemental, as well) and a minimum overall grade of 60% in the entire course. Attendance will not be assigned a mark in this class, but if a student misses a class or a lab (including quizzes and exams), any assignments and/or quizzes and/or exams and/or handouts, whether scheduled or not, that occur or are distributed in the class or lab that was missed, will not be provided to the student or made up in any way. The student will be assigned a mark of zero for those assignments/exams/ etc. missed. IF the student contacts the instructor PRIOR to missing a class/lab/exam/etc., and if the student has an acceptable excuse (the validity of the excuse is at the discretion of the instructor and will require documentation such as a note from a doctor), the student may be excused without penalty and may be given access to the missed material. Overall excessive absence, coming to class late, or leaving during class, may result in mark deductions at the instructor's discretion. For further clarification on the attendance policy, see the AHT Program guidelines in the orientation booklet.

If the requirements to pass the course have not been met, a supplemental exam is available for the final written exam only, and only if the overall grade for the course is above 50%.

Absence from a laboratory will result in a mark of zero for any assignments or reports assigned in that lab, and also in a deduction of 5% off the final mark for the course for each lab missed unless the student contacts the instructor PRIOR to the lab and the instructor deems the absence as valid (see the attendance policy). Labs will not be made up later. Students must attend the labs AS SCHEDULED unless PRIOR arrangements have been made with the instructor. Students changing labs without approval by the instructor will be marked as absent.

Marks will be deducted for inadequate clean-up and inappropriate dress (including no lab coat) in labs.

Supplemental exams are NOT available for the lab exams (lecture final exam ONLY).

#### **Mark Distribution**

<b>A.</b> Quizzes	15%
<b>B.</b> Midterm Exam	20%
<b>C.</b> Final Lecture Exam	30%
<b>D.</b> Lab Assignments & Reports	20%
<b>E.</b> Final Lab Exam	15%
	<b>100%</b>

#### **STUDENT RESPONSIBILITIES:**

Students MUST wear a clean, preferably white, lab coat to every and all labs, and open-toed shoes and dangling jewelry are considered safety hazards and are not allowed in labs.

Enrolment at GPRC assumes that the student will become a responsible citizen of the Institute. As such, each student will display a positive work ethic, take pride in and assist in the maintenance and preservation of Institute property, and assume responsibility for his/her education by researching academic requirements and policies; demonstrating courtesy and respect toward others; and respecting instructor expectations concerning attendance, assignments, deadlines, and appointments.

#### **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:**

##### **A. Hematology Review**

Upon successful completion of this Learning Outcome Guide, you will be able to review and apply clinical

hematology principles and tests.

**B. Sample Collection**

Upon successful completion of this Learning Outcome Guide, you will be able to discuss and demonstrate safe and effective biological sample collection and storage methods.

**C. Urinary Tract & Urinalysis**

Upon successful completion of this Learning Outcome Guide, you will be able to discuss the function of the urinary tract and evaluate the function using urinalysis.

**D. Enzymology & Enzyme Assays**

Upon successful completion of this Learning Outcome Guide, you will be able to define and apply enzymology and enzyme assays.

**E. Liver & Kidney Function Tests**

Upon successful completion of this Learning Outcome Guide, you will be able to discuss the functions of the liver and kidneys, and describe and apply the tests used to evaluate these functions.

**F. Blood Glucose & Pancreas Function**

Upon successful completion of this Learning Outcome Guide, you will be able to evaluate and discuss the functions of the pancreas and blood glucose.

**G. Skeletal Muscle & Brain Function**

Upon successful completion of this Learning Outcome Guide, you will be able to evaluate and discuss damage to the skeletal muscle and brain.

**H. Adrenal, Thyroid, & Parathyroid Gland Function**

Upon successful completion of this Learning Outcome Guide, you will be able to evaluate and discuss the functions of the adrenal, thyroid, and parathyroid glands.

**I. Vaginal Cytology**

Upon successful completion of this Learning Outcome Guide, you will be able to evaluate and discuss vaginal cytology in the dog.

**J. Semen Evaluation**

Upon successful completion of this Learning Outcome Guide, you will be able to evaluate and discuss the quality of animal semen.

**K. Basic Cytology**

Upon successful completion of this Learning Outcome Guide, you will be able to identify the basic characteristics of normal and abnormal cytology of various samples.

Created by: Dr. Udenberg      Date: September 9/10      Signature:

Approved by: Dr. S. Klassen      Date: September 9, 2010      Signature: