



**DEPARTMENT OF ANIMAL SCIENCE**

**COURSE OUTLINE – WINTER 2016**

**AH 443 THERIOGENOLOGY – 3.5/60**

**INSTRUCTOR:** Christy Barlund DVM      **PHONE:** 780-835-6701  
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**OFFICE HOURS:** 9:00AM-4:30PM or as posted

**CALENDAR DESCRIPTION:**

Principles of cell division and inheritance are discussed. A review of anatomical and hormonal components of male and female reproduction systems prepares students to learn about breeding behaviors and common diseases or conditions of the reproductive system in various animals. Techniques used to assess or manipulate reproduction in veterinary medicine will be discussed and/or demonstrated. Instruction on gestation and parturition will be the main focus.

**PREREQUISITE(S)/COREQUISITE:**

Students must complete and pass AH 241, AH 172, and AH247. 04/1

**REQUIRED TEXT/RESOURCE MATERIALS:**

Student Handouts will be provided.

**DELIVERY MODE(S):**

Lecture

**COURSE OBJECTIVES:**

**LEARNING OUTCOMES:**

**TRANSFERABILITY: (if applicable)**

Please consult the Alberta Transfer Guide for more information  
(<http://alis.alberta.ca/ps/tsp/ta/tbi/onlineSearch.html?SearchMode=S&step=2>)

**\*\* 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**

**(The following criteria may be changed to suite the particular course/instructor)**

Please note that most universities will not accept your course for transfer credit **IF** your grade is **less than C-**. This means **DO NOT GET LESS THAN “C-” IF YOU ARE PLANNING TO TRANSFER TO A UNIVERSITY.**

<b>Alpha Grade</b>	<b>4-point Equivalent</b>	<b>Percentage Guidelines</b>		<b>Alpha Grade</b>	<b>4-point Equivalent</b>	<b>Percentage Guidelines</b>
A+	4.0	90-100		C+	2.3	67-69
A	4.0	85-89		C	2.0	63-66
A-	3.7	80-84		C-	1.7	60-62
B+	3.3	77-79		D+	1.3	55-59
B	3.0	73-76		D	1.0	50-54
B-	2.7	70-72		F	0.0	00-49

**EVALUATIONS:**

\*Animal Health Technology – A minimum of 60% must be obtained in order to successfully pass.

If a student misses a quiz without a validated reason, a mark of zero will be given and the student will not be allowed to rewrite that particular quiz.

*Mark Distribution*

Quizzes	20%
Assignments	15%
Mid Term	30%
Final Exam	35%

**GRADING CRITERIA:**

**GRANDE PRAIRIE REGIONAL COLLEGE**

**GRADING CONVERSION CHART for  
ANIMAL HEALTH PROGRAM**

<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 point average has to be 2.0 or higher to be successful in the AHT program.

**COURSE SCHEDULE/TENTATIVE TIMELINE:**

**Unit I Principles of Cytogenetics**

Upon successful completion of this Learning Outcome Guide, you will be able to describe knowledge of cell division (meiosis, mitosis) and describe asexual reproduction.

**Unit II Basic Genetic Principles**

Upon successful completion of this Learning Outcome Guide, you will be able to

describe and explain:

Mendelian Genetics

Principles of dominance/recessive

Punnett's square and predict patterns of inheritance

Briefly discuss genetic engineering

Briefly discuss principles of recombinant DNA

Briefly discuss cloning and embryo splitting

### Unit III **Reproduction in Domestic Animals**

Upon successful completion of this Learning Outcome Guide, you will be able to:

Review the components and functions of the male reproductive system

Review the components of the female reproductive system

Discuss comparative reproductive anatomy of the major domestic species

Describe the influences of hormones on reproduction

Discuss breeding behaviours and estrous cycles

Discuss common diseases/conditions of the reproductive system

### Unit IV **Common techniques used to assess or manipulate reproduction**

Upon successful completion of this Learning Outcome Guide, you will be able to

describe knowledge of:

Breeding soundness evaluations

Semen collection

Artificial insemination

Methods of estrus control

Principles of embryo transfer

### Unit V **Pregnancy and Parturition**

Upon successful completion of this Learning Outcome Guide, you will be able to

describe and explain knowledge of:

Fertilization, implantation and types of placentation

Normal periods of gestation in domestic animals  
Methods of pregnancy diagnosis and their applications  
Normal signs and stages of parturition  
Common diseases of pregnancy  
Dystocia and its management  
Explain methods of fetal extraction  
Care of obstetrical instruments

**STUDENT RESPONSIBILITIES:**

Enrolment at GPRC assumes that the student will become a responsible citizen of the College. 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:**

Cheating and plagiarism will not be tolerated and there will be penalties. For a more precise definition of plagiarism and its consequences, refer to the Student Conduct section of the College Admission Guide at <http://www.gprc.ab.ca/programs/calendar/> or the College Policy on Student Misconduct: Plagiarism and Cheating at [www.gprc.ab.ca/about/administration/policies/\\*\\*](http://www.gprc.ab.ca/about/administration/policies/**)

\*\*Note: all Academic and Administrative policies are available on the same page.

**ADDITIONAL INFORMATION (OPTIONAL):**

YEAR: 2016
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