



DEPARTMENT OF ANIMAL SCIENCE

COURSE OUTLINE – WINTER 2017

AH 443 THERIOGENOLOGY – 3 (5-0-0) 60 HOURS

12Weeks

INSTRUCTOR:	Christy Barlund, DVM	PHONE:	780 835 6701 (office)
OFFICE:	FAS 136	E-MAIL:	cbarlund@gprc.ab.ca
OFFICE HOURS:	1-2pm Tuesdays and Thursdays 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:

- Must be registered in the GPRC Animal Health Technology Program
- AH172, AH241 and AH247

REQUIRED TEXT/RESOURCE MATERIALS:

Student Handouts will be provided

DELIVERY MODE(S):

Lecture

COURSE OBJECTIVES/LEARNING OUTCOMES:

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

TRANSFERABILITY: (if applicable)

A list of institutions to which this course transfers (For example: UA, UC, UL, AU, GMU, CU, CUC, KUC. Please note that this is a sample and it must be replaced by your specific course transfer)

*Warning: Although we strive to make the transferability information in this document up-to-date and accurate, the student has the final responsibility for ensuring the transferability of this course to Alberta

Colleges and Universities. Please consult the Alberta Transfer Guide for more information. You may check to ensure the transferability of this course at Alberta Transfer Guide main page <http://www.transferalberta.ca> or, if you do not want to navigate through few links, at <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-**.

EVALUATIONS:

GRADING CRITERIA:
GRADING CONVERSION CHART for ANIMAL HEALTH TECHNOLOGY
OVERALL GRADE POINT AVERAGE HAS TO BE 2.0 OR HIGHER TO BE SUCCESSFUL IN THE AHT PROGRAM.

Alpha Grade	4-point Equivalent	Percentage Guidelines	Alpha Grade	4-point Equivalent	Percentage Guidelines
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	FAIL	1.3	55-59
B	3.0	73-76	FAIL	1.0	50-54
B-	2.7	70-72	WF	0.0	00-49

EXAMINATIONS	
	Mark Distribution
A. Quizzes	20%
B. Assignments	15%
C. Midterm Exam	30%
D. Final Exam	35%
	100%

*A minimum of 60% must be obtained in order to successfully pass AH443.

COURSE SCHEDULE/TENTATIVE TIMELINE:

As posted

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 <http://www.gprc.ab.ca/about/administration/policies/>

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

YEAR: 2017

