

**DEPARTMENT OF ANIMAL SCIENCE  
VETERINARY TECHNOLOGY**

**COURSE OUTLINE – Winter 2026**

**Theriogenology – 3 (5-0-0) 60 Hours for 12 Weeks**

Northwestern Polytechnic (NWP) acknowledges that our campuses are located on Treaty 8 territory, the ancestral and present-day home to many diverse First Nations, Metis, and Inuit people. We are grateful to work, live and learn on the traditional territory of Duncan's First Nation, Horse Lake First Nation and Sturgeon Lake Cree Nation, who are the original caretakers of this land.

We acknowledge the history of this land and we are thankful for the opportunity to walk together in friendship, where we will encourage and promote positive change for present and future generations.

**INSTRUCTOR:** Christy Barlund                      **PHONE:** 780 835 6701 (office)  
**OFFICE:** FAS 136                                      **E-MAIL:** cbarlund@nwpolytech.ca

**OFFICE HOURS:** by appointment Monday – Friday; noon – 1pm 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 NWP Veterinary Technology Program
- AH172, AH241 and AH247

**REQUIRED TEXT/RESOURCE MATERIALS:**

Student Handouts will be provided online via myClass

Lecture

**LEARNING OUTCOMES:**

**Principles of Cytogenetics**

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

**Basic Genetic Principles**

Upon successful completion of this unit, you will be able to describe and explain:

- Mendelian inheritance
- Principles of dominance/recessive
- Punnett's square to predict patterns of inheritance
- Briefly discuss genetic engineering
- Briefly discuss principles of recombinant DNA
- Briefly discuss cloning and embryo splitting

**Comparative reproductive anatomy and physiology in Domestic Animals**

Upon successful completion of this unit, 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 behaviour and estrous cycles
- Discuss common diseases/conditions of the reproductive system

**Common techniques used to assess or manipulate reproduction**

Upon successful completion of this unit, you will be able to discuss:

- Breeding soundness evaluations
- Semen collection
- Artificial insemination
- Methods of estrus control
- Principles of embryo transfer



## Pregnancy and Parturition

Upon successful completion of this unit, you will be able to describe and explain:

- 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:

Please consult the Alberta Transfer Guide for more information. You may check to ensure the transferability of this course at the Alberta Transfer Guide main page <http://www.transferalberta.ca>.

**\*\* 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**

### EVALUATIONS:

EXAMINATIONS	Mark Distribution
A. Quizzes & Assignments	40%
B. Midterm Exam	25%
C. Final Exam	35%
	<b>100%</b>

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

## GRADING CRITERIA:

Please note that most universities will not accept your course for transfer credit **IF** your grade is **less than C-**.

Alpha Grade	4-point Equivalent	Percentage Guidelines	Alpha Grade	4-point Equivalent	Percentage Guidelines
A+	4.0	95-100	C+	2.3	67-69
A	4.0	85-94	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

**OVERALL GRADE POINT AVERAGE HAS TO BE 2.0 OR HIGHER TO BE SUCCESSFUL IN THE VT PROGRAM.**

## COURSE SCHEDULE/TENTATIVE TIMELINE:

See course objectives posted on myClass for tentative timeline.

## STUDENT RESPONSIBILITIES:

Enrolment at NWP 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 their education by researching academic requirements and policies; demonstrating courtesy and respect toward others; and respecting instructor expectations concerning attendance, assignments, deadlines, and appointments.

### Veterinary Technology Program Attendance & Conduct Summary

- **Zero Tolerance for Impairment:** Attending labs, exams/quizzes, lectures, or guest speaker events under the influence of alcohol or impairing substances (including certain medications) is strictly prohibited. Violations result in unexcused absences and a mark of zero.
- **Mandatory Attendance:** Attendance is required for all exams, guest speakers and labs. Arriving late to labs, lectures, quizzes/exams will be considered an unexcused absence. Unexcused absences (at the instructor's discretion) result in:
  - **5% deduction** from the final course grade (labs/guest speakers)
- **Absence Approval:** Absences must be approved in advance or as soon as possible afterward with valid written documentation (e.g., doctor's note). Employment conflicts are not considered valid excuses.
- **Make-Up Policy:** Labs, lectures, and guest speakers cannot be made up. Missed assessments due to unexcused absences receive a grade of zero. Excused absences do not exempt students from required work or deadlines.

- **Exam Conduct:** No electronic devices (phones, smartwatches, headphones, tablets etc) are permitted during exams or evaluations. Having one present will result in immediate dismissal and a grade of 0%.
- **Further Guidelines:**
  - Spelling errors in exams/quizzes, assignments and medical records will result in a 0.5% deduction for each occurrence.
  - All handwritten materials that are submitted to the instructor must be using blue or black pen, no white out and using appropriate medical corrections.

## INFORMATION TECHNOLOGY

NWP servers may be monitored. Student accounts are visible via ABTutor and student activity on NWP networks may be monitored during supervised exams and/or anytime students are on NWP networks. The collection of and access to the personal information listed above as permitted by the *Freedom of Information and Protection of Privacy Act*.

## STATEMENT ON ACADEMIC MISCONDUCT:

Academic Misconduct will not be tolerated. For a more precise definition of academic misconduct and its consequences, refer to the Student Rights and Responsibilities policy available at <https://www.nwpolytech.ca/about/polytechnic-leadership/policies-directory>

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