

SCHOOL OF APPLIED SCIENCE AND TECHNOLOGY
ANIMAL HEALTH TECHNOLOGY

COURSE OUTLINE – Winter 2024

AH 601 Introduction to Artificial Insemination Large Animal– 1 (1-0-1.5) 36 Hours for 16
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, DVM	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:

This course will discuss and practice techniques of artificial insemination in large animals using cattle as the species of predominant interest. Basic anatomy and procedures will be covered. Intended for private use.

PREREQUISITE(S)/COREQUISITE:

Must be registered in the NWP Animal Health Technology Diploma Program.
Participants must be accustomed to cattle handling



REQUIRED TEXT/RESOURCE MATERIALS:

- Handouts provided on myClass or the S:drive
- The *Alberta Breeders Service A.I. Management Manual* (hardcopy or digital)
- Registrants are expected to bring their own protective clothing (coveralls, rubber boots).

DELIVERY MODE(S):

Lab & Lecture

LEARNING OUTCOMES:

Learn about cow reproductive tracts, the estrous cycle

Heat Detection, Heat Detection Aides, Synchronization

- For successful completion of the course, a student should be able to identify and describe the normal anatomy and explain the physiology of the reproductive tract of the cow including the hormonal changes, ovarian changes and uterine changes that occur at each stage.
- For successful completion of the course, a student should be able to identify and explain breeding behaviour of cattle.
- For successful completion of the course, a student should be able to explain the manipulation of the estrous cycles of cattle in order to improve reproductive performance.
- For successful completion of the course, a student should be able to explain and demonstrate AI technique as a means to increase fertility.
- For successful completion of the course, a student should be able to explain basic genetic improvement of livestock sire and dam selection.
- For successful completion of the course, a student should be able to explain basic disease control mechanisms.

Nutrition and its effect on Reproduction

Introduction to Semen Tank

Discuss options to decrease breeding expense and factors that affect AI success

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:

	Mark Distribution
A. PARTICIPATION	40%
B. INSTRUCTOR EVALUATION OF A. I. TECHNIQUE	30%
C. FINAL EXAM	30%
	100%

GRADING CRITERIA:

Alpha Grade	4-Point Equivalence	Percentage Conversion (unless otherwise specified in the Course Outline)	Descriptor
CR	N/A	50-100	Credit
NC	N/A	0-49	No Credit
GRADING CRITERIA: Credit (CR)/No Credit (NC)			
A minimum of 60% must be achieved on the final exam for successful completion of the course.			

COURSE SCHEDULE/TENTATIVE TIMELINE:

See course objectives for tentative timeline.

Course schedules based on AHT class schedule (see separate schedule).

- Lecture:
 - January 9th – March 5th Tuesdays 3 – 3:50pm FAS 145
 - March 12th – Thursdays 3 – 3:50pm FAS 145
 - April 1st – April 25th Thursdays 4 – 4:50pm FAS 145
 - Thursdays 4 – 4:50pm March 28th – April 22nd
- Laboratory: April 1st – April 22nd Mondays 3:30pm until lab clean up complete FAS 144
- may have some additional time concurrent with AG003 in FAS 151 and FAS 144
- FINAL EXAM (online) as posted with AHT exam schedule (date TBA)

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 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 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/administration/policies/index.html>.

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