

DEPARTMENT OF ANIMAL SCIENCE

COURSE OUTLINE – Fall 2025

AH 342: LABORATORY PROCEDURES II – 3.5 (3-0-3) 96 Hours for 16 Weeks

Northwestern Polytechnic 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:	Karlee Worobetz, RVT Christy Barlund, DVM	PHONE:	(780) 835-1704 (780) 835-6701
OFFICE:	AS 140 AS 136	E-MAIL:	kworobetz@nwpolytech.ca cbarlund@nwpolytech.ca
OFFICE HOURS:	See posted schedule for each instructor		

CALENDAR DESCRIPTION:

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

PREREQUISITE(S)/COREQUISITE:

- Must be registered in the NWP Veterinary Technology Program
- Have active status as an ABVMA Student Member in good standing
- AH141, AH174, AH240, AH242, AH249

REQUIRED TEXT/RESOURCE MATERIALS:



- Sink & Feldman, *Laboratory Urinalysis and Hematology*, Teton NewMedia
- Kristin J. Holtgrew-Bohling, *Mosby's Veterinary PDQ*, Elsevier, 4th Edition.

DELIVERY MODE(S): Hyflex. This course is delivered face-to-face/onsite or remotely via Zoom. Mid-term and final exams will be in person. Students must have a computer with a webcam and reliable internet connection. Technological support is available through helpdesk@nwpolytech.ca.

LEARNING OUTCOMES:

Hematology Review

Upon successful completion of this unit, you will have reviewed and be able to apply clinical hematology principles and tests.

Sample Collection

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

Urinary Tract & Urinalysis

Upon successful completion of this unit, you will be able to discuss the function of the urinary tract and evaluate the function using urinalysis and other diagnostic tests.

Enzymology & Enzyme Assays

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

Liver & Kidney Function Tests

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

Blood Glucose & Pancreas Function

Upon successful completion of this unit, you will be able to evaluate and discuss the functions of the pancreas and importance of blood glucose levels.

Skeletal Muscle & Brain Function

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



Adrenal, Thyroid, & Parathyroid Gland Function

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

Vaginal Cytology

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

Semen Evaluation

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

Basic Cytology

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

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.alberta.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:

Absence from a scheduled lab class will result in a mark of zero for any assignments or reports assigned in that lab. A deduction of 5% off the final mark for the course occurs 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 are deducted for inadequate clean up and inappropriate dress (including no lab coat) in labs. Students **MUST** wear a clean lab coat to all labs; scrubs alone are not adequate. Open-toed shoes and dangling jewelry are safety hazards and are not allowed in labs. Supplemental final exam is **NOT** available for the lab exam.

	Mark Distribution
A. Quizzes & Assignments	50%
B. Final Theory Exam	30%
C. Final Lab Exam	20%
	100%

*A minimum of 60% must be obtained in order to successfully pass AH 342.

Missed quizzes, exams and assignments will not be rescheduled in the event that the student does not have a valid absence. 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 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 Student Competency Checklist Manual and the NWP Policies and Procedures [NWP Policies | Northwestern Polytechnic \(nwpolytech.ca\)](https://www.nwpolytech.ca). Please review NWP's Examination and Grading policies.

GRADING CRITERIA:

Please note that most universities will not accept your course for transfer credit **IF** your grade is **less than C-**. **Grades for this course will be assigned as a percentage.**

COURSE SCHEDULE/TENTATIVE TIMELINE:

See posted schedule for timetable.

STUDENT RESPONSIBILITIES:

Enrolment at NWP 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.

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.