

DEPARTMENT OF ANIMAL SCIENCE

COURSE OUTLINE – Fall 2023

AH 141 ANATOMY & PHYSIOLOGY I – 4.5 (5.5-0-0.5) 96 HOURS

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.

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|----------------------|--------------------|----------------|--|
| INSTRUCTOR: | Kristy Honing, RVT | PHONE: | (780) 835-6779 or CELL: (780)835-1355 |
| OFFICE: | AS 142 | E-MAIL: | khoning@nwpolytech.ca |
| OFFICE HOURS: | As posted | | |

CALENDAR DESCRIPTION:

Students will develop proper anatomical and physiological terminology. Instruction of cellular biology and physiology will progress into an understanding of organization of cell into tissues, organs and body systems. A working knowledge of body systems will include basic components and functions, gross anatomical features, common abnormalities, interactions with other systems, surgical and diagnostic imaging considerations and location and/or palpation in live animals or cadavers. The student will learn the names, location and function of important anatomical structures in common domestic animal species with an emphasis on the application of practical anatomical knowledge required for mastery of subsequent courses in medical and surgical nursing, x-ray technology, etc.

PREREQUISITE(S)/COREQUISITE:

- Must be registered in the NWP Animal Health Technology Program



REQUIRED TEXT/RESOURCE MATERIALS:

- Colville & Bassert, *Clinical Anatomy and Physiology for Veterinary Technicians*, 4th edition
- Bowden, *Introduction to Veterinary Anatomy & Physiology Workbook*, Elsevier, 2nd ed.
- Singh, *Saunders Veterinary Anatomy Coloring Book*, Elsevier, 2nd ed.

DELIVERY MODE(S):

Lecture & Lab

LEARNING OUTCOMES:

NOTE: Not all of these units will be covered in AH141. The course content continues in AH240.

A. Introduction to Anatomy & Physiology

Upon successful completion of this unit, you will be able to define and identify anatomy and physiology, and terms of direction and planes of reference as they refer to animal anatomy

B. Cells & Tissues

Upon successful completion of this unit, you will be able to define and discuss cellular physiology and the organization of cells into tissues.

C. Skeletal System

Upon successful completion of this unit, you will be able to identify the components of the skeletal systems of common domestic animals, and discuss the composition and function of bones.

D. Muscular System

Upon successful completion of this unit, you will be able to identify some of the muscles and muscle groups of common domestic animals, and discuss the composition and function of muscles.

E. Integumentary System

Upon successful completion of this unit, you will be able to define integument and identify its components, and discuss the functions of the integumentary system.

F. Cardiovascular System

Upon successful completion of this unit, you will be able to identify the components of the cardiovascular system and discuss their functions.

G. Respiratory System

Upon successful completion of this unit, you will be able to identify the components of the respiratory system and discuss their functions.

H. Nervous System

Upon successful completion of this unit, you will be able to identify the components of the nervous system and discuss their functions.

I. Special Senses

Upon successful completion of this unit, you will be able to identify the main anatomical features of the ear, eye, and nasal cavity, and discuss the functions of each of the special senses.

J. Digestive System

Upon successful completion of this unit, you will be able to identify the components of the digestive system and discuss their functions.

K. Urinary System

Upon successful completion of this unit, you will be able to identify the components of the urinary system and discuss their functions.

L. Endocrine & Immune Systems

Upon successful completion of this unit, you will be able to identify the components of the immune and endocrine systems, and discuss their functions.

M. Reproductive System

Upon successful completion of this unit, you will be able to identify the components of the reproductive systems of the male and female, and discuss their functions.

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:

EXAMINATIONS & ATTENDANCE

Please review NWP's Examination and Grading policies.

Attendance will not be assigned a mark in this class; however, attendance will be taken, and unexplained or unexcused absences will result in mark deductions. A student who is not present for a lecture period in which a quiz or exam occurs, scheduled or not, will not be given a chance to make up that quiz and will be awarded a mark of zero for that quiz/exam. Assignments **MUST** be submitted by the scheduled due date and time: a mark of zero will be awarded for any late assignment.

Situations which may also result in mark deductions (at the instructor's discretion):

- Unexplained or unexcused absence (at the instructor's discretion)
- Coming late to class, especially if this is a regular occurrence
- Use of cell phone in class
- Use of computer or other electronics in class, unless approved beforehand by instructor. If use is approved, students using laptops or tablets must sit at the back of the class, without headphones or earbuds, so as not to distract other students. If students are using these devices for reasons other than what is required for class, deductions may occur
- Spelling errors in assignments and exams will **ALWAYS** result in deductions
- Any handwritten material submitted to an instructor must be in blue or black pen, no white out, medical corrections only
- Use of any unapproved electronics during quizzes or exams will be considered cheating

A personal laptop computer will be required for some exams and quizzes, but plug-in availability is limited so charge your computer ahead of time.

A supplemental exam **will not** be available for this course.

| | Mark Distribution |
|-------------------------------------|-------------------|
| A. Quizzes & Assignments & Projects | 40% |
| B. Midterm Exam | 20% |
| C. Final Written Exam | 30% |
| D. Final Practical Exam | 10% |
| TOTAL | 100% |

A minimum of 60% must be obtained in order to successfully pass AH141.

GRADING CRITERIA

| 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 |

Grades for this course will be assigned as a percentage.

COURSE SCHEDULE/TENTATIVE TIMELINE:

See course timetable

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.

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.

Additional Information:

ADDITIONAL INFORMATION:

Students may be required to print off their own notes packages, available on D2L BrightSpace under the appropriate course heading.

Mixed or High-Flex Delivery: this course will largely be delivered onsite with the possibility of occasional remote lectures via ZOOM. Students must have a computer with a webcam and reliable internet connection. Exams will occur onsite/in-person as well but may require a personal computer to complete. Technological support is available through helpdesk@nwpolytech.ca