

Department of Practical Nurse & Health Care Aide

COURSE OUTLINE – Winter 2026

NP1500 (A3) Anatomy & Physiology – 6 (6-0-0) 6 hours for 15 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.

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INSTRUCTOR:	Tia Hudson	PHONE:	780 539 2056
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CALENDAR DESCRIPTION: Introduction to the structure, organization, and functions of the human body.

PREREQUISITE(S): Biology 30 or equivalent

COREQUISITE(S): NP1205, NP1250 and NP1280

REQUIRED MATERIALS:

Patton, K. T., & Thibodeau, G. A. (2024). *Structure & Function of the Body*. (17th ed.).

Betts, J. G., Young, K. A., Wise, J. A., Johnson, E., Poe, B., Kruse, D. H., Korol, O., Johnson, J. E., Womble, M., & DeSaix, P. (2023). *Anatomy and physiology* (2nd ed.). OpenStax, Rice University. <https://openstax.org/books/anatomy-and-physiology-2e>



DELIVERY MODE(S): In person

LEARNING OUTCOMES:

1. Explain the structures and physiological processes of the human body, including key systems and their functions.
2. Apply critical thinking skills to analyze concepts in anatomy, physiology, and microbiology, and demonstrate their interconnections.
3. Identify and define medical terminology related to anatomy, physiology, and microbiology, and apply it correctly in context.
4. Apply knowledge of anatomy and physiology to support clinical decision-making and enhance patient care in future healthcare practice.

TRANSFERABILITY:

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

**** For courses with alpha (letter) grading, a 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:

The final grade is based on the following assessments, and there are no additional assignments or marks provided in the course. All evaluation components must be completed to pass the course. All exams are to be completed individually, without the use of external technology or resources, and will assess comprehension, application, and critical thinking rather than rote memorization.

Assignment	Weight	Due Date
Clinical Integration Assignments	(20% total)	
Part A	4%	January 28, 2026
Part B	4%	February 11, 2026
Part C	4%	March 4, 2026
Part D	4%	March 18, 2026
Part E	4%	April 1, 2026

Exam 1	25%	February 2, 2026
Exam 2	25%	March 9, 2026
Final Exam	30%	Scheduled by Registrar's Office

1. Clinical Integration Assignment

This series of five individual assignments is designed to reinforce your understanding of anatomy and physiology while connecting these concepts to real-world nursing practice. Each assignment will include:

- A detailed labeling diagram to assess your ability to identify key anatomical structures.
- Application-based question that integrates physiological principles with clinical scenarios, encouraging you to think critically about patient care.

Assignments will progressively build on your knowledge, moving from foundational concepts to complex scenarios that reflect real-world patient care. The complexity of questions will increase, fostering critical thinking, clinical reasoning, and the ability to connect theory to patient care. These assignments are designed to help you apply classroom knowledge in a way that mirrors professional nursing practice. Rubric posted on D2L.

2. Exam 1: Foundations of Anatomy and Physiology (Weeks 1–4)

The first exam evaluates foundational knowledge from Weeks 1–4, covering the chemistry of life, homeostasis, cellular structure and function, tissue organization, and the integumentary systems. Students will demonstrate understanding of how structure supports function and how body systems maintain homeostasis at the cellular and tissue levels.

The exam will include multiple-choice, multiple-select, labelling/diagram interpretation, and short-answer questions, designed to assess comprehension and application.

3. Exam 2 – Midterm Examination: Control and Circulation (Weeks 5–9)

The midterm exam evaluates content from Weeks 5–9, focusing on the skeletal, muscular, nervous, endocrine, lymphatic and immune systems.

Students will demonstrate understanding of system regulation, communication, and

The exam will include multiple-choice, multiple-select, labelling/diagram interpretation, and short-answer questions, designed to assess comprehension and application.

4. Final Examination – Comprehensive Systems Integration (Weeks 10–15)

The final examination is cumulative, with greater emphasis on Weeks 10–15, including the cardiovascular, blood, respiratory, urinary, digestive, reproductive, and developmental systems, as well as fluid, electrolyte, and acid–base balance. Students will integrate anatomical and physiological knowledge across multiple systems and apply this understanding to realistic health and clinical scenarios.

The exam will include multiple-choice, multiple-select, labelling, and written-response questions, assessing: System interrelationships and homeostatic regulation, physiological adaptations and disruptions and application of scientific reasoning to patient and health contexts.

GRADING CRITERIA:

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

Grading Chart for courses with Alpha Grading:

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

COURSE SCHEDULE/TENTATIVE TIMELINE:

Week 1	• Ch. 1 Introduction to the body
Week 2	• Ch. 2 Chemistry of Life • Ch. 3 Cells
Week 3	• Ch. 4 Tissues • Ch. 17 Nutrition & Metabolism
Week 4	• Ch. 5 Organ Systems • Ch. 6 Integumentary
Week 5	Exam 1 • Ch. 7 Skeletal
Week 6	• Ch. 8 Muscular
Week 7	Winter Break
Week 8	• Ch. 9 Nervous System • Ch. 10 Sense Organs
Week 9	• Ch. 11 The Endocrine System • Ch. 14 The Lymphatic and Immune System
Week 10	Exam 2 • Ch. 13 Cardiovascular System
Week 11	• Ch. 12 Blood • Ch. 15 The Respiratory System
Week 12	• Ch. 18 The Urinary System • Ch. 16 The Digestive System
Week 13	• Ch. 19 Fluid & Electrolyte balance • Ch. 20 Acid-base balance
Week 14	• Ch. 21 The Reproductive Systems • Ch. 22 Growth, Development & Aging
Week 15	• Review for final exam

STUDENT RESPONSIBILITIES:

As a student at NWP, you have rights and responsibilities. It is your responsibility to be familiar with the information contained in this Course Outline and the PN student handbook and to clarify any areas of concern with the instructor. It is also your responsibility to be familiar with NWP policies. Please take the time to familiarize yourself with the policies that might impact you while you are here:

- [NWP Department of Practical Nurse & Health Care Aide: Practical Nurse Handbook](#)

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 <https://www.nwpolytech.ca/about/polytechnic-leadership/policies-directory>.

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

Additional Information:

LATE ASSIGNMENT POLICY:

To obtain credit in the course ALL evaluations methods must be completed. Students are expected to make every effort to complete assignments on time. Assignment submissions are expected on the date determined by faculty. If extensions are necessary, they may be requested up to 48 hours prior to the assignment due date and should be submitted in writing to the faculty member involved. Not all extensions will be granted. In exceptional situations, extension requests within the 48-hour period may be considered. Late assignments will have 5% of total marks (or one letter grade) for the assignment deducted for each day/ partial day (including weekend days) beyond the due time.

For example, a paper marked at B+ would receive an adjusted grade of B if handed in one day late. After 5 days, a grade of 0 will be awarded to the assignment. If the late penalty places the grade below the necessary pass grade, students will be unsuccessful in the course. When submitting assignments electronically, it is the student's responsibility to ensure the assignment has been received. Papers/ assignments may not be rewritten for a higher grade. Concerns regarding grading are to be discussed with the faculty member involved.

TURNITIN DISCLOSURE:

As part of NWP's commitment to academic integrity, all written assignments submitted by students will be reviewed using Turnitin software, an online plagiarism detection tool, to verify originality and ensure academic integrity. Turnitin compares student work to a vast database of academic sources, publications and previously submitted assignments to identify potential instances of plagiarism or improper citation(s). By enrolling in this course, students acknowledge and consent to the use of Turnitin for assignment submissions.