

DEPARTMENT OF SCIENCE
COURSE OUTLINE – Winter 2025

PS2110 (A2): Human Physiology II – 3 (3-0-0) 45 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.

INSTRUCTOR: Dr. Jessie Zgurski, PhD **PHONE:** 780-539-2863
OFFICE: J221 **E-MAIL:** JZgurski@nwpolytech.ca
OFFICE HOURS: Tuesday and Thursday, 1:00 – 5:00 PM, or by appointment, or walk-in.

CALENDAR DESCRIPTION: Introductory course in human physiology, part II. Students will study the function and regulation of the human body and the complexities and interactions of cells, tissues, major organs and systems. Part II covers: hormonal control mechanisms and the physiology of the gastrointestinal, respiratory, reproductive, immune, and urinary systems.

PREREQUISITE(S)/COREQUISITE:

BI1070 and 6 credits in university-level Chemistry

This course may not be taken for credit if credit has been obtained in ZO2410 and/or 2420.

REQUIRED TEXT/RESOURCE MATERIALS: Eric P. Widmaier, Hershel Raff, and Kevin T. Strang. 2023. Vander's Human Physiology: The Mechanisms of Body Function, Sixteenth Edition. McGraw Hill, New York, NY.

DELIVERY MODE(S): Lectures, Monday 1:00 – 2:20 PM and Friday 11:30 AM – 12:50 PM, in J201.

LEARNING OUTCOMES: By the end of the course students should be able to...

1. Describe the physiology of the lungs and airways and explain how they allow for ventilation and gas exchange.
2. Describe the anatomy and physiology of the structures that make up the digestive system and explain the chemical processes of digestion, absorption, and elimination.

3. Explain the structure and function of the kidneys and urinary system.
4. Describe the hormones and organs of the endocrine system, explain how they function, and explain how endocrine disorders arise.
5. Explain the physiology of the male and female reproductive systems and explain how sex is determined in humans.
6. Think critically about human physiology and apply their knowledge to solve novel problems.

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>.

**** Grades 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:	Assignments	30%
	Quizzes	10%
	Midterm (February 28)	30%
	Final Exam	30%

Instructions and due dates for the assignments and quizzes will be announced in class. The final exam will take place during the scheduled exam period. Failure to write a quiz or exam will result in a grade of zero unless the exam was missed for a compelling reason (such as an illness). In such a case, the exam will be deferred.

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	90-100	C+	2.3	67-69
A	4.0	85-89	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:

Topics

1. Immune System (Chapter 18)
2. Endocrinology (Chapter 11)
3. Gastrointestinal System and Regulation of Metabolism (Chapters 15 and 16)

Topics Cont'd

4. Respiratory Physiology (Chapter 13)
5. Renal Physiology (Chapter 14)
6. Reproductive Physiology (Chapter 17)

STUDENT RESPONSIBILITIES: Students are expected to attend classes and complete all assignments. Refer to the College Policy on Student Rights and Responsibilities at https://www.nwpolytech.ca/about/administration/policies/#academic_policies

Typically, late assignments and quizzes will be docked 10%. However, if you have a compelling reason for requiring an extension (such as an illness), please contact the instructor and the late penalty may be waived.

STATEMENT ON PLAGIARISM AND CHEATING:

Cheating and plagiarism will not be tolerated and there will be penalties. For a more precise definition of plagiarism and its consequences, refer to the Student Conduct section of the College Calendar at <https://www.nwpolytech.ca/programs/calendar/> or the College Policy on Student Misconduct: Plagiarism and Cheating at <https://www.nwpolytech.ca/about/administration/policies/>

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

ADDITIONAL INFORMATION: Students are expected to frequently check the course website and their college E-mail accounts for announcements regarding the class. Other learning resources, including practice exam questions and supplemental articles to read, will be added to the page during the semester.