

Department of Practical Nurse and Health Care Aide

COURSE OUTLINE – Winter 2025

NP1600 (VA3, VS1): Introduction to Pathophysiology – 3 (3-1-0) 60 Hours in 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: Kristie Bartlett **PHONE:** 780-835-6632

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OFFICE HOURS: By Appointment

CALENDAR DESCRIPTION:

This pathophysiology course delves into the abnormal physiological processes that underlie diseases, with a particular emphasis on prevalent disorders affecting different body systems. Various disorders associated with different body systems will be explored, covering their manifestations, causes, and potential complications.

Note: Available only to Practical Nursing Students

PREREQUISITE(S): NP1205, NP1250, NP1280, NP1500

COREQUISITE(S): NP1400, NP1410, NP1450, NP1480, NP1700

REQUIRED MATERIALS:

Huether, S. E., McCance, K. L., El-Hussein, M., Power-Kean, K., & Zettel, S. (2022).
Understanding pathophysiology (2nd ed.). Elsevier.

RECOMMENDED MATERIALS:

Huether, S. E., McCance, K. L., El-Hussein, M., Power-Kean, K., & Zettel, S. (2023).
Understanding pathophysiology: Canadian edition - Study guide (2nd ed.).
Elsevier.

DELIVERY MODE(S): Lecture and Seminar

LEARNING OUTCOMES:

Upon successful completion of NP1600, learners will be able to:

1. Apply concepts from anatomy and physiology to pathophysiological processes and pharmacotherapy.
2. Explore the etiology, pathophysiology, complications, and clinical manifestations of common acute and chronic alterations across the lifespan.
3. Understand pathophysiology's basic concepts and principles and its relevance to nursing practice.
4. Develop critical thinking skills to correlate pathophysiological concepts with patient assessments and nursing interventions.
5. Predict common trajectories in pathophysiological processes.
6. Examine major disease concepts from a holistic perspective, gaining a basic understanding of the underlying pathophysiological changes.

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:

Assignment	Weight	Date	Related Course Learning Outcome
Ticket to Class	10%	Weekly	1, 2, 3, 4, 5, 6
Concept Maps	20%	Week 6,8,9,11,12,13,14	1,2,5,6
Midterm Exam #1	20%	Week 5	1, 2, 3, 4, 5, 6
Midterm Exam #2	25%	Week 10	1, 2, 3, 4, 5, 6
Final Exam	25%	Week 15	1, 2, 3, 4, 5, 6

* All evaluation components must be completed to be successful in the course

Ticket to Class

Questions will be handed out at the start of one or two weekly lectures to assess required pre-reading knowledge. This exercise aims to encourage students to keep up with class readings, refresh student memory of subject matter, and prepare students to engage in class discussion, which is essential to the function of this course. Ticket to Class sheets will be submitted within the class after the allotted time, after which no further submissions will be allowed. Students must be in attendance each week to receive the sheet and grade. Please see the course myClass page for further information.

Concept Map

This assignment aims to deepen your understanding of a specific disease process by creating a comprehensive concept map. Construct a concept map that visually organizes the key concepts related to the chosen diagnosis. Begin with the central node representing the disease name and branch out to include major categories such as pathophysiology, clinical manifestations, potential complications, diagnostic evaluation, treatment options, and health promotion strategies. Use connecting lines and arrows to illustrate relationships between these concepts and demonstrate how different disease aspects interrelate. Please see the course myClass page for further information and rubric.

Midterm Exam #1

The first midterm exam will include all content covered up to and including Week 4. The question format includes a variety of styles, including multiple-choice, short answer, long answer, matching, and select all that apply.

Midterm Exams #2

The second midterm exam will include all content covered from Week 5 up to and including Week 9. The question format includes a variety of styles, including multiple-choice, short answer, long answer, matching, and select all that apply.

Final Exam

The final exam is not cumulative and will include content from Week 11 onward. The question format includes a variety of styles, including multiple-choice, short answer, long answer, matching, and select all that apply.

Scheduling of the final exam is set by the Registrar's Office.

GRADING CRITERIA

Please note that most institutions 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	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	Pathophysiology chapters
1	The Cell (Chapter 4)
2	Mechanisms of Self-Defence (Chapters 6, 7, 8)
3	Cellular Proliferation: Cancer (Chapters 10, 11, 12)
4	The Hematological System (Chapters 21, 22) Pulmonary System (Chapters 27,28)
5	Review Midterm Exam #1
6	Cardiovascular & Lymphatic Systems (Chapter 24)
7	Reading Break
8	Endocrine System (Chapters 18, 19)
9	Neurological Systems (Chapters 14, 15, 16)
10	Review Midterm Exam #2
11	Musculoskeletal System (Chapters 39, 40)
12	Renal and Urological Systems (Chapters 30, 31) Chapter 5 Fluid & Electrolytes Acids and Bases

13	Digestive System (Chapters 36, 37)
14	Reproductive Systems (Chapters 33, 34) Review
15	Final Exam Week

**** Tentative/Subject to change**

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, [PN Student Handbook](#)
- NWP Policies: <https://www.nwpolytech.ca/about/administration/policies/>

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 Northwestern Polytechnic Calendar at

<https://www.nwpolytech.ca/programs/calendar/> or the Student Rights and Responsibilities policy which can be found at <https://www.nwpolytech.ca/about/administration/policies/index.html>

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

ADDITIONAL INFORMATION

LATE ASSIGNMENT POLICY:

To obtain credit in the course ALL assignments, examinations, and quizzes 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.