

DEPARTMENT OF NURSING EDUCATION AND HEALTH STUDIES

COURSE OUTLINE – Fall 2024 & Winter 2025

NS2160A & NS2160B (YA2 YB2): Pathophysiology and Pharmacology II– 6 (3-0-0) 90 Hours/30
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. Sean Irwin PhD (Pathophysiology)	INSTRUCTOR:	Eleni Hansen, MN, RN (Pharmacology)
OFFICE:	J224/HEC365	OFFICE:	3 rd level HEC
OFFICE HOURS:	By Appointment	OFFICE HOURS:	By Appointment
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CALENDAR DESCRIPTION:

The course explores selected episodic and chronic health alterations and the related pharmacological concepts. The focus is on applying foundational knowledge of pathophysiology and pharmacology to evidence-informed nursing practice. Available only to nursing students in the Collaborative Nursing Program.

PREREQUISITE(S): NS1160

COREQUISITE: None

REQUIRED TEXT/RESOURCE MATERIALS:

Lilley, L.L., Rainforth-Collins, S., Snyder, J.S. & Swart, B. (2021). *Pharmacology for Canadian health care practices* (4th Canadian ed.). Elsevier. ISBN 978-0-323-08789-6

Hannon, R.A. and Porth, C.M. (2017). *Porth Pathophysiology: Concepts of altered health states* (2nd Canadian ed.). Wolters Kluwer. ISBN 97845119896

Elsevier Adaptive Quizzing (EAQ) 4th edition Next Generation is available for purchase through the NWP Polytechnic bookstore. This is a required online NCLEX prep resource. The EAQ will assist students with preparing to write the NCLEX-RN registration exam. This resource will provide students with a 36-month online review/prep course to use as they progress through the BScN program.

Understanding Alberta's Drug Schedules:

<https://pharmacists.ab.ca/nPharmacistResources/ABDrugSchedules.aspx>

Any current drug handbook or drug handbook software for a PDA or the electronic "Compendium of Pharmaceuticals and Specialties (e-CPS): (available at through the library).

<https://www.etherapeutics.ca/home.whatsnew.action>

DELIVERY MODE(S):

Lecture

LEARNING OUTCOMES:

1. Link knowledge of anatomy and physiology to pathophysiological and pharmacotherapeutic concepts.
2. Demonstrate theoretical understanding of pharmacokinetic and pharmacodynamic principles.
3. Demonstrate theoretical understanding of altered physiology as it relates to changes in health status.
4. Describe the pharmacodynamic classification, nature, properties, and effects of drugs as they relate to altered physiology.
5. Explain the relationship between pathophysiological concepts and pharmacotherapeutic concepts at a novice level.
6. Identify the nursing implications in relation to pharmacotherapeutics and pathophysiology at a novice level.
7. Apply principles of pharmacotherapeutics and pathophysiology to focused non-complex clinical examples at a novice level.
8. Predict common trajectories in pathophysiological processes at a novice level.
9. Prospectively predict common side effects of major drug classes at a novice level.

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:

Exam I	20%
Exam II	20%
Exam III	20%
Final Exam	20%
Clinical Judgement Activity 1 (Pharm)	5%
Clinical Judgement Activity 2 (Pharm)	5%
Clinical Judgement Activity 3 (Pharm)	5%
<u>Quizzes pathophysiology</u>	<u>5%</u>
Total	100%

See myClass for examination dates.

In class activities are to be completed and submitted in class time on the day that they are administered.

Absences without prior notice will result in a zero (0). There will be no makeup in class activities available.

1. Clinical Judgement Activity 1, 2 & 3 (5% each)

The purpose of this assignment is for students to demonstrate critical thinking through application of the nursing process through a pharmacology / pathophysiology scenario.

The students will have to assess, diagnose, plan, implement, and evaluate their plan of care.

The clinical judgement activity is an inclass activity.

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	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

**** Please note that a grade less than C+ is not accepted for transfer to the U of A for NURS 216. A minimum grade of C+ is required to receive credit in NS2160.**

COURSE SCHEDULE/TENTATIVE TIMELINE:

*subject to change

Week	Lecture Dates	Pathophysiology	Pharmacology
1 Sept 4	Sept 3/5	GI 37, 38, 39	Chapter 39 - Acid-Controlling Drugs Chapter 40 - Antidiarrheals and Laxatives
2 Sept 11	Sept 10/12		Chapter 41 - Antiemetic and Antinausea Drugs Chapter 42 - Nutritional Supplements
3 Sept 18	Sept 17/19	Endocrine 41, 42	Chapter 33 – Antidiabetic Drugs
4 Sept 25	Sept 24/26		In class CJA
5 Oct 2	Oct 1/3	Endocrine 41, 42	Chapter 31 – Pituitary Drugs Chapter 32 – Thyroid and Antithyroid drugs Chapter 34 – Adrenal Drugs
6 Oct 9	Oct 8/10	Pathophysiology Exam	
7 Oct 17	Oct 15/17	Pharmacology Exam	
8 Oct 23	Oct 22/24	CNS 1 (Motor Function) 50	Chapter 21 - Cholinergic Drugs Chapter 22 - Cholinergic blocking Drugs
9 Oct 30	Oct 29/31	CNS 2 (Disorders of the Musculoskeletal System) 57-59	Chapter 16 – Antiparkinsonian Drugs Chapter 18 - Substance Misuse
10 Nov 6	Nov 5/7	CNS 2 (Brain Function) 51	Chapter 15 - Antiepileptic Drugs Chapter 12 - General and Local Anesthetics
11 Nov 13	Fall Break November 12-15		
12 Nov 20	Nov 19/21	CNS 3 (Thought, Mood, & Memory) 53	Chapter 13 - CNS Depressants Chapter 14 - CNS Stimulants
13 Nov 27	Nov 26/28	CNS 4 (Sleep Disorders) 52	Chapter 17 – Psychotherapeutics
14 Dec 4	Dec 3/5	Pharmacology Exam	
<i>Dec 10 No class</i>			
December	Patho Exam in Final Exam Schedule		
15 Jan 8	Jan 6/8	Renal 31, 32, 33, 34, 35	No pharm class
16 Jan 15	Jan 13/15		Chapter 30 - Fluid and Electrolytes Chapter 29 –Diuretics
17 Jan 22	Jan 20/22		Chapter 19 - Adrenergic Drugs
18 Jan 29	Jan 27/29	Cardiac 22, 23, 24, 25, 26	Chapter 20 - Adrenergic Blocking Drugs
19 Feb 5	Feb 3/5		Chapter 23 – Antihypertensives
20 Feb 12	Feb 10/12		Chapter 24 - Antianginal Drugs
			Chapter 25 - Heart Failure Chapter 26 – Antidysrhythmic Chapter 27 - Coagulation Modifiers Chapter 28 - Antilipemic Drugs <i>In Class CJA (Date TBD)</i>
21 Feb 19	Reading Break		
22 Feb 26	Feb 24/26	Pathophysiology Exam 3	
23 Mar 4	March 3/5	Pharmacology Exam 3	
24 Mar 11	March 10/12		Chapter 36 Men's Health Drugs

25 Mar 18	March 17/19	Disorders of Male & Female Reproductive Systems 44 & 46 Pregnancy, Development and Congenital Disorders Chapters 2 & 7	Chapter 35 Women's Health Drugs
26 Mar 25	March 24/26		In class CIA Guest Presenter
27 April 1	March 31 / April 2	Cancer (Neoplasia) Chapter 8	Chapter 52 Antineoplastic Drugs Part 1 Chapter 53 Antineoplastic Drugs Part 2
28 April 8	April 7/9		Chapter 54 -Biological response anti-rheumatic Chapter 50- Immunosuppressants
29	Exam		

STUDENT RESPONSIBILITIES:

Refer to the College Policy on Student Rights and Responsibilities at:

<https://www.nwpolytech.ca/about/administration/policies/fetch.php?ID=69>

For policies related to clinical absences, immunizations, uniforms, and other clinical requirements, please see the NWP Department of Nursing Education & Health Studies Student Handbook on myClass.

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.

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/index.html>

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