

## DEPARTMENT OF NURSING EDUCATION AND HEALTH STUDIES

### COURSE OUTLINE – Fall 2023 & Winter 2024

NS2160A & NS2160B (YA2 YB2): Pathophysiology and Pharmacology II– 6 (3-0-0) 90 Hours for 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.

<b>INSTRUCTOR:</b>	Dr. Sean Irwin PhD (Pathophysiology)	<b>INSTRUCTOR:</b>	Dr. Deena Honan PhD, RN, CCNE (Pharmacology)
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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. Note: Available only to Nursing students.

#### PREREQUISITE(S): NS1160

#### 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

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:**

#### **UofA NURS216**

Please consult the Alberta Transfer Guide for more information.

You may check to ensure the transferability of this course at Alberta Transfer Guide main page

<http://www.transferalberta.alberta.ca>.

**\*\* 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.**

**\*\* 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	5%
Clinical Judgement Activity 2	5%
<u>Quizzes pathophysiology</u>	10%
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 (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 a one-week timed assignment. It will be released on a specific weekend date and then due the next Sunday at midnight. The assignment details are posted on the myClass course site.

## 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

## COURSE SCHEDULE/TENTATIVE TIMELINE:

\*subject to change

Week	Lecture Dates	Pathophysiology	Pharmacology
1 Sept 4	Sept 7/11	Ophthalmic & Ofic	Chapter 57 – Ophthalmic Drugs

		54 + 55	Chapter 58 – Otic Drugs
2 Sept 11	Sept 14/18	GI 37, 38, 39	Chapter 39 - Acid-Controlling Drugs Chapter 40 - Antidiarrheals and Laxatives
3 Sept 18	Sept 21/25		Chapter 41 - Antiemetic and Antinausea Drugs Chapter 42 - Nutritional Supplements
4 Sept 25	Sept 28 / Oct 2	Endocrine 41, 42	Chapter 33 – Antidiabetic Drugs
5 Oct 2	Oct 5 / 9		Thanksgiving no classes
6 Oct 9	Oct 12 / 16		Chapter 31 – Pituitary Drugs Chapter 32 – Thyroid and Antithyroid drugs Chapter 34 – Adrenal Drugs
7 Oct 17	Oct 19 / 23	Pathophysiology Exam	
8 Oct 23	Oct 26 / 30	Pharmacology Exam	
9 Oct 30	Nov 2 / 6	CNS 1 (Motor Function) 50	Chapter 21 - Cholinergic Drugs Chapter 22 - Cholinergic blocking Drugs Chapter 16 – Antiparkinsonian Drugs
10 Nov 6	Nov 9 / 20	CNS 2 (Brain Function) 51	Chapter 13 - CNS Depressants Chapter 14 - CNS Stimulants Chapter 18 - Substance Misuse
11 Nov 13	Fall Break November 13-17		
12 Nov 20	Nov 23/27	CNS 3 (Thought, Mood, & Memory) 53	Chapter 17 – Psychotherapeutics Chapter 15 - Antiepileptic Drugs
13 Nov 27	Nov 30 / Dec 4	CNS 4 (Sleep Disorders) 52	Chapter 12 General and Local Anesthetics CNS Review
14 Dec 4	Dec 7 / 11	Pharm Exam	
December	<b>Patho Exam in Exam Schedule</b>		
15 Jan 8	Jan 8/11	Renal 31, 32, 33, 34, 35	Chapter 30 - Fluid and Electrolytes Chapter 29 –Diuretics Intro to Lab Values Canadian Manual of DI and Lab tests will be the textbook we will reference for this week.
16 Jan 15	Jan 15 / 18		
17 Jan 22	Jan 22 / 25		
18 Jan 29	Jan 29 / Feb 1	Cardiac 22, 23, 24, 25, 26	Chapter 19 - Adrenergic Drugs Chapter 20 - Adrenergic Blocking Drugs Chapter 23 – Antihypertensives Chapter 24 - Antianginal Drugs Chapter 25 - Heart Failure Chapter 26 – Antidysrhythmic Chapter 27 - Coagulation Modifiers Chapter 28 - Antilipemic Drugs
19 Feb 5	Feb 5 / 8		
20 Feb 12	Feb 12 / 15	Review	Review
	<b>Reading Break</b>		
22 Feb 26	Feb 26 / 29	Pathophysiology Exam 3	
23 Mar 4	March 4 / 7	Pharmacology Exam 3	
24 Mar 11	Mar 11 / 14	Disorders of Male & Female Reproductive Systems 44 & 46  Pregnancy, Development and Congenital Disorders Chapters 2 & 7	Chapter 36 Men's Health Drugs Chapter 35 Women's Health Drugs
25 Mar 18	March 18 /21		
26 Mar 25	March 25 /28		
27 April 1	April 1 / 4	Cancer (Neoplasia) Chapter 8	Chapter 52 Antineoplastic Drugs Part 1 Chapter 53 Antineoplastic Drugs Part 2 Chapter 54 -Biological response anti-rheumatic Chapter 50- Immunosuppressants

28 April 8	April 8 / 11		
29			<b>Exam</b>

**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 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.