



## DEPARTMENT OF NURSING EDUCATION AND HEALTH STUDIES

### COURSE OUTLINE – FALL 2021 & WINTER 2022

**NS2160A & NS2160B (YA2 YB2): Pathophysiology and Pharmacology II– 6 (3-0-0) 90 Hours/30 Weeks**

<b>COURSE LEADER:</b>	Eleni Hansen MN, RN, IBCLC	
<b>INSTRUCTORS:</b>	Dr. Sean Irwin PhD. (Pathophysiology)	Eleni Hansen MN, RN, IBCLC (Pharmacology)
<b>PHONE:</b>	780-539-2860 (office)	780-539-2045 (office)
<b>OFFICE:</b>	J224	H229
<b>OFFICE HOURS:</b>	T/R 1-2:20	By appointment
<b>EMAIL:</b>	<a href="mailto:sirwin@gprc.ab.ca">sirwin@gprc.ab.ca</a>	<a href="mailto:ehansen@gprc.ab.ca">ehansen@gprc.ab.ca</a>

Grande Prairie Regional College respectfully acknowledges that we are located on Treaty 8 territory, the traditional homeland and gathering place for many diverse Indigenous peoples. We are honoured to be on the ancestral lands of the Cree, Dene/Beaver and Métis, whose histories, languages, and cultures continue to influence our vibrant community. We are grateful to have the opportunity to work, learn, and live on this land.

#### 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.

#### DELIVERY:

High flex – This type of course give students the option of attending sessions in the classroom, participating remotely, or doing both. Please note that some course components require onsite attendance.

**PREREQUISITE(S):** NS1160

**COREQUISITE:** NS2200, NS2200

## REQUIRED TEXT/RESOURCE MATERIALS:

Lilley, L.L., Rainforth-Collins, S., Snyder, J.S. & Swart, B. (2021). *Pharmacology for Canadian health care practices* (4<sup>th</sup> 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>

## 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

**\*Warning:** Although we strive to make the transferability information in this document up-to-date and accurate, **the student has the final responsibility for ensuring the transferability of this course to Alberta Colleges and Universities.** 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.ca> or, if you do not want to navigate through few links, at <http://alis.alberta.ca/ps/tsp/ta/tbi/onlineSearch.html?SearchMode=S&step=2>

**\*\* 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.**

**EVALUATIONS:**

Exam I	20%
Exam II	25%
Exam III	20%
Final Exam	25%
<u>Quizzes</u>	10%
<b>Total</b>	<b>100%</b>

<b>NS 2160 Exam Schedule</b>	<b>Pathophysiology</b>	<b>Pharmacology</b>
Exam I	In class time during week 8 and 9	In class time during week 8 and 9
Exam II	TBD - during the final exam period	
Exam III	In class time during week 23 and 24	In class time during week 23 and 24
Final Exam	TBD - during the final exam period	

**GRADING CRITERIA:**

<b>Alpha Grade</b>	<b>4-point Equivalent</b>	<b>Percentage Guidelines</b>		<b>Alpha Grade</b>	<b>4-point Equivalent</b>	<b>Percentage Guidelines</b>
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/TENTATIVE TIMELINE: see myClass for schedule**

Week	Lecture Dates	Pathophysiology	Pharmacology
1 Sept 1		No Class	No Class
2 Sept 6	Sept 10/13	Ophthalmic & Otic 54 + 55	Chapter 57 – Ophthalmic Drugs Chapter 58 – Otic Drugs
3 Sept 13	Sept 17/20	GI 37, 38, 39	Chapter 39 - Acid-Controlling Drugs Chapter 40 - Antidiarrheals and Laxatives
4 Sept 20	Sept 24/27		Chapter 41 - Antiemetic and Antinausea Drugs Chapter 42 - Nutritional Supplements
5 Sept 27	Oct 1 / 4	Endocrine 41, 42	Chapter 33 – Antidiabetic Drugs
6 Oct 4	Oct 8 / 18 <sup>th</sup>		Chapter 31 – Pituitary Drugs Chapter 32 – Thyroid and Antithyroid drugs Chapter 34 – Adrenal Drugs
7 Oct 11	<b>Reading Week</b>		
8 Oct 18	Oct 22/25	<b>Pathophysiology Exam</b>	
9 Oct 25	Oct 29/Nov 1	<b>Pharmacology Exam</b>	
10 Nov 1	Nov 5/8	CNS 1 (Motor Function) 50	Chapter 21 - Cholinergic Drugs Chapter 22 - Cholinergic blocking Drugs Chapter 16 – Antiparkinsonian Drugs
11 Nov 8	Nov 12/15	CNS 2 (Brain Function) 51	Chapter 15 - Antiepileptic Drugs Chapter 18 - Substance Misuse
12 Nov 15	Nov 19/22	CNS 3 (Thought, Mood, & Memory) 53	Chapter 17 - Psychotherapeutics
13 Nov 22	Nov 26/29	CNS 4 (Sleep Disorders) 52	Chapter 13 - CNS Depressants Chapter 14 - CNS Stimulants
14 Nov 29	Dec 3/6	Musculoskeletal 57-59	Chapter 9 – Vitamins and Minerals Ch. 35- p.672-675 – Osteoporosis
December	<b>Exam during Final Exam Period</b>		
15 Jan 5	Jan 7/10	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 10	Jan 14/17		
17 Jan 18	Jan 21/ 24		
18 Jan 24	Jan 28/31	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 Jan 31	Feb 4/7		
20 Feb 7	Feb 11/ 14		
21 Feb 14	Feb 18/28	Review	Review
22 Feb 21	<b>Reading Break</b>		
23 Feb 28	Mar 4 / 7	<b>Pathophysiology Exam 1</b>	
24 Mar 7	Mar 11 / 14	<b>Pharmacology Exam 2</b>	
25 Mar 14	Mar 18 / 21	Disorders of Male & Female Reproductive Systems 44 & 46  Pregnancy, Development and Congenital Disorders	Chapter 36 Men's Health Drugs Chapter 35 Women's Health Drugs Chapter 12 General and Local Anesthetics Chapter 51 Immunizing drugs and pandemic preparedness
26 Mar 21	Mar 25/28		
27 Mar 28	April 1 / 4		

		Chapters 2 & 7	
28 April 4	April 8 /11	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
29	<b>Exam during Final Exam Period</b>		

\*subject to change

**STUDENT RESPONSIBILITIES:**

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

[www.gprc.ab.ca/d/STUDENTRESPONSIBILITIES](http://www.gprc.ab.ca/d/STUDENTRESPONSIBILITIES)

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

**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 <http://www.gprc.ab.ca/programs/calendar/> or the College Policy on Student Misconduct: Plagiarism and Cheating at <https://www.gprc.ab.ca/about/administration/policies>

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