



## COURSE OUTLINE: PATH2050 - PATHOPHYSIOLOGY I

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Approved: Rebecca Keown - Dean

<b>Course Code: Title</b>	PATH2050: PATHOPHYSIOLOGY I
<b>Program Number: Name</b>	3401: HONOURS BSCN
<b>Department:</b>	BSCN - NURSING
<b>Academic Year:</b>	2025-2026
<b>Course Description:</b>	This course introduces the student to the study of pathophysiology. An integrated and system-based approach will be taken to provide the student with the background concepts to understand pathophysiology. Students will examine how various disease states challenge homeostasis and how this impacts structure and function of the various organ systems and the human body. It is expected that the student will bring to this course a competent background in human anatomy and physiology.
<b>Total Credits:</b>	2
<b>Hours/Week:</b>	2
<b>Total Hours:</b>	24
<b>Prerequisites:</b>	BIOL1150, BSCN1110
<b>Corequisites:</b>	BSCN2000, BSCN2010, BSCN2011
<b>This course is a pre-requisite for:</b>	BSCN2100, BSCN2102, BSCN2110, PATH2150, PATH2160
<b>Vocational Learning Outcomes (VLO's) addressed in this course:</b>	<b>3401 - HONOURS BSCN</b> VLO 1 Meet professional practice requirements as identified in the current Entry-to-Practice Competencies and Professional Standards of the College of Nurses of Ontario. VLO 5 Utilize critical thinking and reasoning to make evidence-informed clinical judgements. VLO 8 Manage the care of people across the lifespan who have stable and unstable outcomes.
<b>Please refer to program web page for a complete listing of program outcomes where applicable.</b>	
<b>Essential Employability Skills (EES) addressed in this course:</b>	EES 1 Communicate clearly, concisely and correctly in the written, spoken, and visual form that fulfills the purpose and meets the needs of the audience. EES 2 Respond to written, spoken, or visual messages in a manner that ensures effective communication. EES 5 Use a variety of thinking skills to anticipate and solve problems. EES 7 Analyze, evaluate, and apply relevant information from a variety of sources. EES 8 Show respect for the diverse opinions, values, belief systems, and contributions of others. EES 9 Interact with others in groups or teams that contribute to effective working relationships and the achievement of goals. EES 10 Manage the use of time and other resources to complete projects.



EES 11 Take responsibility for ones own actions, decisions, and consequences.

**General Education Themes:** Science and Technology

**Course Evaluation:** Passing Grade: 65%, C

A minimum program GPA of 2.0 or higher where program specific standards exist is required for graduation.

**Course Outcomes and Learning Objectives:**

<b>Course Outcome 1</b>	<b>Learning Objectives for Course Outcome 1</b>
1. Introduction to Pathophysiology, Stress, and Pain	1.1 Explain the role of pathophysiology in the diagnosis and treatment of disease. 1.2 Discuss the stress response and its relationship to disease. 1.3 Identify and describe the causes, signs and symptoms of pain. 1.4 Describe the pain pathway.
<b>Course Outcome 2</b>	<b>Learning Objectives for Course Outcome 2</b>
2. Altered Cellular and Tissue Biology	2.1 Identify and describe the various types of cellular injury, adaptation and death. 2.2 Identify and describe the most common causes of cell injury, adaptation and death.
<b>Course Outcome 3</b>	<b>Learning Objectives for Course Outcome 3</b>
3. Fluid and electrolyte balance, Acid /base imbalance.	3.1 Identify and describe functions and regulatory mechanisms that maintain fluid and electrolyte balance. 3.2 Identify and describe the common causes signs and symptoms and complications of fluid volume excess and deficit. 3.3 Identify and describe the common causes, signs and symptoms and complications of the more common electrolyte imbalances. 3.4 Identify and describe the common causes, signs and symptoms and complications of acidosis and alkalosis (metabolic and respiratory). 3.5 Discuss diagnostic tests used to diagnose and monitor fluid, electrolyte and acid/base imbalances.
<b>Course Outcome 4</b>	<b>Learning Objectives for Course Outcome 4</b>
4. Inflammation, Healing & Immunity	4.1 Review normal defences of the body. 4.2 Explain the inflammatory process. 4.3 Describe the signs and symptoms of inflammation (local and systemic effects). 4.4 Discuss diagnostic tests used to diagnose and monitor inflammation. 4.5 Explain the healing process and identify and describe factors that affect healing
<b>Course Outcome 5</b>	<b>Learning Objectives for Course Outcome 5</b>
5. Immunological and Hematological Diseases	5.1 Identify the etiology, contributing factors, signs and symptoms, and complications of immune disorders. 5.2 Examine diagnostic tests used to diagnose and monitor immune disorders.



	5.3 Identify the etiology, contributing factors, signs & symptoms of various blood disorders (anemias, clotting). 5.4 Examine diagnostic tests used to diagnose and monitor blood disorders.
<b>Course Outcome 6</b>	<b>Learning Objectives for Course Outcome 6</b>
6. Cardiovascular Diseases.	6.1 Identify and describe the etiology, contributing factors, pathophysiology, signs and symptoms of various cardiovascular and peripheral vascular disorders. 6.2 Identify and describe the common causes, signs and symptoms and complications of the various stages of shock. 6.3 Examine the diagnostic tests used to diagnose and monitor cardiovascular & peripheral vascular disorders.
<b>Course Outcome 7</b>	<b>Learning Objectives for Course Outcome 7</b>
Neoplasia	7.1 Identify and describe the etiology, contributing factors, and pathophysiology of benign and malignant neoplasias 7.2 Compare and contrast the processes involved in initiation, progression, and proliferation in relation to cancer cells

**Evaluation Process and Grading System:**

Evaluation Type	Evaluation Weight
5 Unit Quizzes	15%
Final	30%
In class work/Case Studies	10%
Midterm	30%
Sherpath	15%

**Date:** August 19, 2025

**Addendum:** Please refer to the course outline addendum on the Learning Management System for further information.