



## COURSE OUTLINE: PNG233 - PATHOPHYSIOLOGY I

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<b>Course Code: Title</b>	PNG233: PATHOPHYSIOLOGY I
<b>Program Number: Name</b>	3024: PRACTICAL NURSING
<b>Department:</b>	PRACTICAL NURSING
<b>Academic Year:</b>	2025-2026
<b>Course Description:</b>	This course provides the learner with a general understanding and working knowledge of the structure and function of various body systems experiencing both acute and chronic health challenges. 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. Included in this course is the study of the basic principles of microbiology.
<b>Total Credits:</b>	4
<b>Hours/Week:</b>	4
<b>Total Hours:</b>	56
<b>Prerequisites:</b>	PNG111, PNG121, PNG127, PNG130, PNG131
<b>Corequisites:</b>	PNG234, PNG236, PNG238
<b>This course is a pre-requisite for:</b>	PNG250, PNG251, PNG252, PNG253
<b>Vocational Learning Outcomes (VLO's) addressed in this course:</b>	<p><b>3024 - PRACTICAL NURSING</b></p> <p>VLO 1 Communicate therapeutically with clients and members of the health care team.</p> <p>VLO 2 Assess clients across the life span, in a systematic and holistic manner.</p> <p>VLO 3 Plan safe and competent nursing care, based upon a thorough analysis of available data and evidence-informed practice guidelines.</p> <p>VLO 4 Select and perform nursing interventions using clinical judgment, in collaboration with the client and, where appropriate, the health care team, that promote health and well-being, prevent disease and injury, maintain and/or restore health, promote rehabilitation, and/or provide palliation.</p>
<b>Essential Employability Skills (EES) addressed in this course:</b>	<p>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.</p> <p>EES 2 Respond to written, spoken, or visual messages in a manner that ensures effective communication.</p> <p>EES 4 Apply a systematic approach to solve problems.</p> <p>EES 5 Use a variety of thinking skills to anticipate and solve problems.</p> <p>EES 6 Locate, select, organize, and document information using appropriate technology and information systems.</p> <p>EES 7 Analyze, evaluate, and apply relevant information from a variety of sources.</p>

Please refer to program web page for a complete listing of program outcomes where applicable.



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: 60%, C

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

**Books and Required Resources:** Gould's Pathophysiology for Health Professionals (ONLINE) by Hubert and VanMeter  
 Publisher: Elsevier HlthSciences Division Edition: 7th  
 ISBN: 9780323792882

Pathophysiology Online for Gould's Pathophysiology for the Health Professions EBOOK by VanMeter & Hubert  
 Publisher: Elsevier Edition: 7  
 ISBN: 9780323792981

**Course Outcomes and Learning Objectives:**

<b>Course Outcome 1</b>	<b>Learning Objectives for Course Outcome 1</b>
1. Introduction to Pathophysiology.	1.1 Explain the role of pathophysiology in the diagnosis and treatment of disease. 1.2 Review normal defences of the body. 1.3 Identify and describe specific and non-specific defences. 1.4 Discuss the stress response and its relationship to disease. 1.5 Identify and describe the various types of cellular injury, adaptation and death. 1.6 Identify and describe the most common causes of cell injury, adaptation and death.
<b>Course Outcome 2</b>	<b>Learning Objectives for Course Outcome 2</b>
2. Inflammation & Healing.	2.1 Explain the inflammatory process. 2.2 Describe the signs and symptoms of inflammation (local and systemic effects). 2.3 Describe the characteristics of exudates. 2.4 Discuss diagnostic tests used to diagnose and monitor inflammation. 2.5 Explain the healing process. 2.6 Identify and describe factors that affect healing.
<b>Course Outcome 3</b>	<b>Learning Objectives for Course Outcome 3</b>
3. Pain.	3.1 Identify and describe the causes, signs and symptoms of pain. 3.2 Describe the pain pathway. 3.3 Discuss factors that may alter perception of pain. 3.4 Compare acute and chronic pain.
<b>Course Outcome 4</b>	<b>Learning Objectives for Course Outcome 4</b>
4. Fluid and electrolyte balance, Acid /base imbalance.	4.1 Identify and describe functions and regulatory mechanisms that maintain fluid and electrolyte balance. 4.2 Identfv and describe the common causes signs and



	<p>symptoms and complications of fluid volume excess and deficit.</p> <p>4.3 Identify and describe the common causes, signs and symptoms and complications of the more common electrolyte imbalances.</p> <p>4.4 Identify and describe the common causes, signs and symptoms and complications of acidosis and alkalosis (metabolic and respiratory).</p> <p>4.5 Discuss diagnostic tests used to diagnose and monitor fluid, electrolyte and acid/base imbalances.</p>
<b>Course Outcome 5</b>	<b>Learning Objectives for Course Outcome 5</b>
5. Immunological Diseases.	<p>5.1 Identify the etiology, contributing factors, signs and symptoms, complications of immune disorders.</p> <p>5.2 Examine diagnostic tests used to diagnose and monitor immune disorders.</p>
<b>Course Outcome 6</b>	<b>Learning Objectives for Course Outcome 6</b>
6. Infection.	<p>6.1 Describe the typical characteristics of a bacteria, virus, fungus, parasite.</p> <p>6.2 Examine the transmission of infectious agents.</p> <p>6.3 Describe the chain of infection.</p> <p>6.4 Discuss interventions to prevent spread of infection (Guidelines for standard and transmission based precautions).</p> <p>6.5 Describe the progression of infection.</p> <p>6.6 Identify and describe common nosocomial infections.</p> <p>6.7 Discuss diagnostic tests used to diagnose and monitor infection.</p>
<b>Course Outcome 7</b>	<b>Learning Objectives for Course Outcome 7</b>
7. Hematological Diseases.	<p>7.1 Identify the etiology, contributing factors, signs &amp; symptoms of various blood disorders (anemias, clotting).</p> <p>7.2 Examine diagnostic tests used to diagnose and monitor blood disorders.</p>
<b>Course Outcome 8</b>	<b>Learning Objectives for Course Outcome 8</b>
8. Cardiovascular Diseases.	<p>8.1 Identify and describe the etiology, contributing factors, pathophysiology, signs and symptoms of various cardiovascular and peripheral vascular disorders.</p> <p>8.2 Identify and describe the common causes, signs and symptoms and complications of the various stages of shock.</p> <p>8.3 Examine the diagnostic tests used to diagnose and monitor cardiovascular &amp; peripheral vascular disorders.</p>
<b>Course Outcome 9</b>	<b>Learning Objectives for Course Outcome 9</b>
9. Respiratory Diseases.	<p>9.1 Explain the progressive airway response to a stimulus.</p> <p>9.2 Identify and describe the etiology, contributing factors, pathophysiology, signs and symptoms of various respiratory disorders.</p> <p>9.3 Compare and contrast emphysema, asthma and bronchitis.</p> <p>9.4 Discuss diagnostic tests used to diagnose and monitor respiratory disorders.</p>



	<b>Course Outcome 10</b>	<b>Learning Objectives for Course Outcome 10</b>
	10. Neoplasia	10.1. Identify and describe the etiology, contributing factors, pathophysiology, signs and symptoms of cancer. 10.2. Differentiate between benign and malignant neoplasms (tumors). 10.3. Discuss tumor staging and grading.

**Evaluation Process and Grading System:**

<b>Evaluation Type</b>	<b>Evaluation Weight</b>
Final Exam	30%
Online activities	15%
Online Quizzes	10%
Term Test 1	22%
Term Test 2	23%

**Date:**

August 19, 2025

**Addendum:**

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

