



## COURSE OUTLINE: PNG111 - ANATOMY/PHYSIOLOGY I

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Approved: Rebecca Keown - Dean

<b>Course Code: Title</b>	PNG111: ANATOMY AND PHYSIOLOGY I
<b>Program Number: Name</b>	3022: OCCUP/PHYSIO/ASSIST 3024: PRACTICAL NURSING
<b>Department:</b>	PRACTICAL NURSING
<b>Academic Year:</b>	2025-2026
<b>Course Description:</b>	This foundational course provides students with a comprehensive understanding of human anatomy and physiology, emphasizing the interrelationship between body systems and how they work together to maintain health and support life. Students will explore the structure and function of the human body from the organizational level through to major organ systems.
<b>Total Credits:</b>	3
<b>Hours/Week:</b>	3
<b>Total Hours:</b>	42
<b>Prerequisites:</b>	There are no pre-requisites for this course.
<b>Corequisites:</b>	There are no co-requisites for this course.
<b>Substitutes:</b>	OEL1038
<b>This course is a pre-requisite for:</b>	FIT123, FIT124, FIT155, FIT156, OPA203, OPA204, PNG127, PNG131, PNG233, PNG234, PNG236, PNG238
<b>Vocational Learning Outcomes (VLO's) addressed in this course:</b>	<p><b>3022 - OCCUP/PHYSIO/ASSIST</b></p> <p>VLO 1 Communicate appropriately and effectively, through verbal, nonverbal, written and electronic means, with clients, their significant others, occupational therapists, physiotherapists, and members of the interdisciplinary health care team and others.</p> <p>VLO 4 Promote a safe environment that prevents or minimizes potential physical or mental harm to the client, therapist assistant and others.</p> <p>VLO 8 Perform the roles and responsibilities of the therapist assistant effectively through the application of relevant knowledge of health sciences, psychosocial sciences, health conditions, resource management, and clinical procedures.</p> <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 5 Evaluate the outcomes resulting from all interventions in the nurse-client interaction and modify the plan of care as required.</p> <p>VLO 7 Adapt to a variety of health care settings, using different leadership skills and styles as appropriate to each setting.</p> <p>VLO 8 Contribute to creating a healthy and safe work environment in a variety of health</p>

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



care settings.

**Essential Employability Skills (EES) addressed in this course:**

- 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 4 Apply a systematic approach to solve problems.
- EES 5 Use a variety of thinking skills to anticipate and solve problems.
- EES 6 Locate, select, organize, and document information using appropriate technology and information systems.
- EES 7 Analyze, evaluate, and apply relevant information from a variety of sources.
- EES 10 Manage the use of time and other resources to complete projects.
- EES 11 Take responsibility for ones own actions, decisions, and consequences.

**Course Evaluation:**

Passing Grade: 65%,

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

**Other Course Evaluation & Assessment Requirements:**

The passing grade for this course is dependent on the program in which the student is registered. For students in:  
OTA & PTA (3022) - A grade of 60% or higher is required to successfully complete the course  
Practical Nursing (3024) - A grade of 65% or higher is required to successfully complete the course

**Books and Required Resources:**

Anatomy and Physiology 2e by OpenStax  
ISBN: 978-1-711494-05-0

**Course Outcomes and Learning Objectives:**

Course Outcome 1	Learning Objectives for Course Outcome 1
1. Use the appropriate terminology related to the organization, structure and function of the human body.	1.1 Define anatomy and physiology. 1.2 Name the following : levels of organization of the human body, major organs for each body system, directional terms that describe the location of body parts major body regions planes used in making sections of the body or body parts, 2 major body cavities, their subdivisions and membranes, major organs located in each body cavity, 4 quadrants and 9 regions of the abdominopelvic region. 1.3 Review the selected key terms (vocabulary) for each specific area of study/system studied.
Course Outcome 2	Learning Objectives for Course Outcome 2
2. Examine the chemical composition and chemical interactions (life processes) of the human body.	2.1 Describe the basic structure of an atom. 2.2 Explain the meaning of a chemical formula. 2.3 Distinguish between organic and inorganic compounds. 2.4 Compare the 3 types of chemical bonds. 2.5 Identify the difference between acids, bases and salts. 2.6 Examine the concept of pH and its relationship to acids, bases and salts in the body.



	<p>2.7 List the 4 major groups of organic substances in the body and give examples and functions of specific types in each group.</p> <p>2.8 Explain the role of enzymes.</p> <p>2.9 Describe the composition and role of ATP.</p> <p>2.10 Explain the relationship between elements, compounds, atoms and molecules.</p> <p>2.11 Explain the properties that make water such an important inorganic molecule in living organisms.</p> <p>2.12 Explain why knowledge of basic chemistry is important in the study of life processes.</p>
<b>Course Outcome 3</b>	<b>Learning Objectives for Course Outcome 3</b>
3. Describe the relationship between the structure and function of the human body.	<p>3.1 Define homeostasis and explain its relationship to normal body functions.</p> <p>3.2 List the five basic needs essential to human life.</p>
<b>Course Outcome 4</b>	<b>Learning Objectives for Course Outcome 4</b>
4. Describe and identify the basic structure and function of cells.	<p>4.1 Describe the structure of a typical cell.</p> <p>4.2 List the function of each part of a typical cell.</p> <p>4.3 Identify the 2 processes that allow substances to enter and leave cells.</p> <p>4.4 Explain the role of DNA and RNA.</p> <p>4.5 List the 2 processes of cell division.</p> <p>4.6 Differentiate the phases of mitosis and meiosis.</p>
<b>Course Outcome 5</b>	<b>Learning Objectives for Course Outcome 5</b>
5. Describe and identify the basic structure and function of tissues and membranes.	<p>5.1 Describe the distinguishing characteristics of each type of tissue and membrane</p> <p>Identify the common location and function of each type of tissue and membrane.</p>
<b>Course Outcome 6</b>	<b>Learning Objectives for Course Outcome 6</b>
6. Describe and identify the basic structure and function of the integumentary system.	<p>6.1 Describe the basic structure of the skin and its layers.</p> <p>6.2 Describe the basic functions of the skin and its layers.</p> <p>6.3 Describe how skin colour is determined.</p> <p>6.4 Identify and describe the basic functions of the accessory structures of the skin formed by the epidermis.</p>
<b>Course Outcome 7</b>	<b>Learning Objectives for Course Outcome 7</b>
7. Describe and identify the basic structure and function of the skeletal system.	<p>7.1 Identify the major functions of the skeletal system.</p> <p>7.2 Identify the composition of bone structure.</p> <p>7.3 Explain the basic process of bone formation.</p> <p>7.4 Name the 2 divisions of the skeleton.</p> <p>7.5 Identify the bones of the axial and appendicular skeleton.</p> <p>7.6 Compare cervical, thoracic, lumbar, and sacral vertebrae.</p> <p>7.7 Compare immovable, slightly movable and freely movable joints.</p>
<b>Course Outcome 8</b>	<b>Learning Objectives for Course Outcome 8</b>
8. Describe and identify the basic structure and function of the muscular system.	<p>8.1 Compare the structure and function of the 3 types of muscle tissue.</p> <p>8.2 Explain the basic concept of muscle contraction.</p>



	8.3 Explain the relationship between muscle origin, insertion and action. 8.4 Identify the major muscles of the body. 8.5 Describe the location and action of the major muscles of the body.
<b>Course Outcome 9</b>	<b>Learning Objectives for Course Outcome 9</b>
9. Describe and identify the basic structure and function of the nervous system.	9.1 Name the anatomical divisions of the nervous system, their components and functions. 9.2 Name the functional divisions of the nervous system, their components and functions. 9.3 Identify the 2 types of cells that make-up nerve tissue. 9.4 Describe the formation and conduction of a nerve impulse. 9.5 Describe how impulses are transmitted across a synapse.
<b>Course Outcome 10</b>	<b>Learning Objectives for Course Outcome 10</b>
10. Describe and identify the basic structure and function of the sensory system and special senses.	10.1 Describe the general organization and function of the sensory system 10.2 Differentiate between general and special senses 10.3 Identify and describe the structure and function of the various sensory receptors 10.4 Describe the anatomy and physiology of each special sense organ (vision, hearing, equilibrium, taste, and smell)

**Evaluation Process and Grading System:**

Evaluation Type	Evaluation Weight
Tests/Exam	80%
Weekly Online Quizzes	20%

**Date:**

August 13, 2025

**Addendum:**

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

