COURSE OUTLINE: PNG111 - ANATOMY/PHYSIOLOGY I

Prepared: Allan Kary
Approved: Bob Chapman, Dean, Health

Course Code: Title	PNG111: ANATOMY AND PHYSIOLOGY I
Program Number: Name	3024: PRACTICAL NURSING
Department:	PRACTICAL NURSING
Academic Year:	2024-2025
Course Description:	This course introduces the learner to the normal development, structures and functions of the human body. The learner will examine the physiological components of the human body, in order to obtain knowledge and understanding about how the structures and functions of the body are related.
Total Credits:	3
Hours/Week:	3
Total Hours:	42
Prerequisites:	There are no pre-requisites for this course.
Corequisites:	PNG116
Substitutes:	OEL1038
This course is a pre-requisite for:	FIT123, FIT124, FIT155, FIT156, PNG127, PNG131, PNG233, PNG234, PNG236, PNG238
Vocational Learning Outcomes (VLO's) addressed in this course: **Please refer to program web page for a complete listing of program outcomes where applicable.**	**3024 - PRACTICAL NURSING** VLO 1 Communicate therapeutically with clients and members of the health care team. VLO 2 Assess clients across the life span, in a systematic and holistic manner. VLO 5 Evaluate the outcomes resulting from all interventions in the nurse-client interaction and modify the plan of care as required. VLO 7 Adapt to a variety of health care settings, using different leadership skills and styles as appropriate to each setting. VLO 8 Contribute to creating a healthy and safe work environment in a variety of health 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.
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:	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. 2.7 List the 4 major groups of organic substances in the body and give examples and functions of specific types in each group. 2.8 Explain the role of enzymes. 2.9 Describe the composition and role of ATP. 2.10 Explain the relationship between elements, compounds, atoms and molecules. 2.11 Explain the properties that make water such an important inorganic molecule in living organisms. 2.12 Explain why knowledge of basic chemistry is important in the study of life processes.
Course Outcome 3	**Learning Objectives for Course Outcome 3**
3. Describe the relationship between the structure and function of the human body.	3.1 Define homeostasis and explain its relationship to normal body functions. 3.2 List the five basic needs essential to human life.

Course Outcome 4	Learning Objectives for Course Outcome 4
4. The Cell.	4.1 Describe the structure of a typical cell. 4.2 List the function of each part of a typical cell. 4.3 Identify the 2 processes that allow substances to enter and leave cells. 4.4 Explain the role of DNA and RNA. 4.5 List the 2 processes of cell division. 4.6 Differentiate the phases of mitosis and meiosis.
Course Outcome 5	**Learning Objectives for Course Outcome 5**
5. Tissues and Membranes.	5.1 Describe the distinguishing characteristics of each type of tissue and membrane Identify the common location and function of each type of tissue and membrane.
Course Outcome 6	**Learning Objectives for Course Outcome 6**
6. Integumentary System.	6.1 Describe the basic structure of the skin and its layers. 6.2 Describe the basic functions of the skin and its layers. 6.3 Describe how skin colour is determined. 6.4 Identify and describe the basic functions of the accessory structures of the skin formed by the epidermis.
Course Outcome 7	**Learning Objectives for Course Outcome 7**
7. Skeletal System.	7.1 Identify the major functions of the skeletal system. 7.2 Identify the composition of bone structure. 7.3 Explain the basic process of bone formation. 7.4 Name the 2 divisions of the skeleton. 7.5 Identify the bones of the axial and appendicular skeleton. 7.6 Compare cervical, thoracic, lumbar, and sacral vertebrae. 7.7 Compare immovable, slightly movable and freely movable joints.
Course Outcome 8	**Learning Objectives for Course Outcome 8**
8. Muscular System.	8.1 Compare the structure and function of the 3 types of muscle tissue. 8.2 Explain the basic concept of muscle contraction. 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.
Course Outcome 9	**Learning Objectives for Course Outcome 9**
9.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.

Evaluation Process and

Evaluation Type	Evaluation Weight

Grading System:	

Final Exam	30%
Midterm Exam #1	25%
Midterm Exam #2	25%
Weekly Online Quizzes	20%

Date:	August 15, 2024
Addendum:	Please refer to the course outline addendum on the Learning Management System for further information.