



COURSE OUTLINE

PNG111

Prepared: Allan Kary Approved: Bob Chapman

Course Code: Title	PNG111: ANATOMY AND PHYSIOLOGY I
Program Number: Name	3024: PRACTICAL NURSING
Department:	PRACTICAL NURSING
Semester/Term:	17F
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:	45
Substitutes:	OEL1038
This course is a pre-requisite for:	FIT150, FIT155, FIT156, PNG233, PNG234, PNG238
Vocational Learning Outcomes (VLO's): Please refer to program web page for a complete listing of program outcomes where applicable.	<p>#1. Communicate therapeutically with clients and members of the health care team. #2. Assess clients across the life span, in a systematic and holistic manner. #5. Evaluate the outcomes resulting from all interventions in the nurse-client interaction and modify the plan of care as required. #7. Adapt to a variety of health care settings, using different leadership skills and styles as appropriate to each setting. #8. Contribute to creating a healthy and safe work environment in a variety of health care settings.</p>
Essential Employability Skills (EES):	<p>#1. Communicate clearly, concisely and correctly in the written, spoken, and visual form that fulfills the purpose and meets the needs of the audience. #2. Respond to written, spoken, or visual messages in a manner that ensures effective communication. #4. Apply a systematic approach to solve problems. #5. Use a variety of thinking skills to anticipate and solve problems. #6. Locate, select, organize, and document information using appropriate technology and information systems.</p>



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#7. Analyze, evaluate, and apply relevant information from a variety of sources.
#10. Manage the use of time and other resources to complete projects.
#11. Take responsibility for ones own actions, decisions, and consequences.

Course Evaluation:

Passing Grade: 60%, C

Evaluation Process and Grading System:

Evaluation Type	Evaluation Weight
Chapter Review and Questions	10%
Test	25%
Tests	65%

Books and Required Resources:

Anatomy and Physiology by Marieb, E. N, Hoehn K.
Publisher: Benjamin Cummings Edition: 5th
ISBN: 13:978-0-8036-1824-4

Course Outcomes and Learning Objectives:

Course Outcome 1.

Use the appropriate terminology related to the organization, structure and function of the human body.

Learning Objectives 1.

Define anatomy and physiology
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
Review the selected key terms (vocabulary) for each specific area of study/system studied

Course Outcome 2.



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Examine the chemical composition and chemical interactions (life processes) of the human body.

Learning Objectives 2.

Describe the basic structure of an atom
Explain the meaning of a chemical formula
Distinguish between organic and inorganic compounds
Compare the 3 types of chemical bonds
Identify the difference between acids, bases and salts
Examine the concept of pH and its relationship to acids, bases and salts in the body
List the 4 major groups of organic substances in the body and give examples and functions of specific types in each group
Explain the role of enzymes
Describe the composition and role of ATP.
Explain the relationship between elements, compounds, atoms and molecules
Explain the properties that make water such an important inorganic molecule in living organisms
Explain why knowledge of basic chemistry is important in the study of life processes.

Course Outcome 3.

Describe the relationship between the structure and function of the human body.

Learning Objectives 3.

Define homeostasis and explain its relationship to normal body functions
List the five basic needs essential to human life

Course Outcome 4.

Describe the location, development, structure and function of cells, tissues and organs of stated body systems

Learning Objectives 4.



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THE CELL

Describe the structure of a typical cell

List the function of each part of a typical cell

Identify the 2 processes that allow substances to enter and leave cells

Explain the role of DNA and RNA

List the 2 processes of cell division

Differentiate the phases of mitosis and meiosis

TISSUES AND MEMBRANES

Describe the distinguishing characteristics of each type of tissue and membrane

Identify the common location and function of each type of tissue and membrane

INTEGUMENTARY SYSTEM

Describe the basic structure of the skin and its layers

Describe the basic functions of the skin and its layers

Describe how skin colour is determined

Identify and describe the basic functions of the accessory structures of the skin formed by the epidermis

SKELETAL SYSTEM

Identify the major functions of the skeletal system

Identify the composition of bone structure

Explain the basic process of bone formation

Name the 2 divisions of the skeleton

Identify the bones of the axial and appendicular skeleton

Compare cervical, thoracic, lumbar, and sacral vertebrae

Compare immovable, slightly movable and freely movable joints

MUSCLE SYSTEM

Compare the structure and function of the 3 types of muscle tissue

Explain the basic concept of muscle contraction

Explain the relationship between muscle origin, insertion and action

Identify the major muscles of the body

Describe the location and action of the major muscles of the body

NERVOUS SYSTEM

Name the anatomical divisions of the nervous system, their components and functions

Name the functional divisions of the nervous system, their components and functions.

Identify the 2 types of cells that make-up nerve tissue

Describe the formation and conduction of a nerve impulse

Describe how impulses are transmitted across a synapse

Date:

Wednesday, August 30, 2017

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



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