



## COURSE OUTLINE: PSW108 - BODY STRUCTURE I

Prepared: Julie Freestone

Approved: Bob Chapman, Chair, Health

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| <b>Course Code: Title</b>  | PSW108: BODY STRUCTURE AND FUNCTION I  |
| <b>Program Number: Name</b>  | 3027: PERSONAL SUPPORT WKR   |
| <b>Department:</b>   | PERSONAL SUPPORT WORKER  |
| <b>Semesters/Terms:</b>  | 19S, 19F, 20W  |
| <b>Course Description:</b>   | This course will provide the learner with a basic understanding of the human body. The learner will identify the basic structures and functions of cells, tissues, membranes, the integumentary system, the musculoskeletal system, the nervous system, and the senses. The learner will also examine how these systems maintain homeostasis and identify some age related changes.  |
| <b>Total Credits:</b>  | 3  |
| <b>Hours/Week:</b>   | 3  |
| <b>Total Hours:</b>  | 45   |
| <b>Prerequisites:</b>  | There are no pre-requisites for this course.   |
| <b>Corequisites:</b>   | There are no co-requisites for this course.  |
| <b>This course is a pre-requisite for:</b>   | PSW118, PSW133   |
| <b>Vocational Learning Outcomes (VLO's) addressed in this course:</b>  | <b>3027 - PERSONAL SUPPORT WKR</b><br>VLO 8 Assist clients across the lifespan with routine activities of daily living by applying basic knowledge of growth and development, common alterations in functioning, disease prevention, health promotion and maintenance, rehabilitation and restorative care.  |
| <small>Please refer to program web page for a complete listing of program outcomes where applicable.</small> |  |
| <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.<br>EES 6 Locate, select, organize, and document information using appropriate technology and information systems.<br>EES 7 Analyze, evaluate, and apply relevant information from a variety of sources.<br>EES 11 Take responsibility for ones own actions, decisions, and consequences. |
| <b>General Education Themes:</b>   | Science and Technology   |
| <b>Course Evaluation:</b>  | Passing Grade: 60%,  |
| <b>Books and Required Resources:</b>   | D2L by Sault College Learning Management System<br><br>The Human Body in Health and Illness (w/ bind-in access) by Herlihy<br>Publisher: Elsevier - Health Sciences Division Edition: 6th<br>ISBN: 9780323498449<br><br>Human Body in Health and Illness (SG) by Herlihy   |



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**Course Outcomes and Learning Objectives:**

| <b>Course Outcome 1</b>   | <b>Learning Objectives for Course Outcome 1</b>  |
|---|--|
| 1. Use the appropriate terminology related to the organization, structure, and function of the human body.                                    | 1.1 Define anatomy and physiology.<br>1.2 Name the following:<br>a. Levels of organization of the human body.<br>b. Major organs for each body system.<br>c. Common terms used for relative positions of the body.<br>d. Regions of the body.<br>e. Body cavities and the major organs found in them.<br>f. Major planes of the body.<br>1.3 Define homeostasis.   |
| <b>Course Outcome 2</b>   | <b>Learning Objectives for Course Outcome 2</b>  |
| 2. Examine the chemical composition of the human body.  | 2.1 List biologically significant elements, molecules, and compounds.<br>2.2 Explain why these elements, molecules, and compounds are essential for the proper functioning of the human body.<br>2.3 Define energy and describe the role of adenosine tri-phosphate (ATP) in energy transfer.  |
| <b>Course Outcome 3</b>   | <b>Learning Objectives for Course Outcome 3</b>  |
| 3. Describe and identify the basic structure and function of cells, tissues, and membranes.   | 3.1 The Cell.<br>a. Describe the structure of a typical cell and label a diagram.<br>b. List the function of each part of a typical cell.<br>c. Describe two types of cell division: mitosis and meiosis.<br>d. Describe cell death.<br>e. Describe the active and passive movement of substances across a cell membrane.<br>f. Compare isotonic, hypotonic and hypertonic solutions.<br>g. Define cellular metabolism.<br>h. Describe the basic breakdown of glucose by cells and differentiate between anaerobic and aerobic metabolism.<br><br>3.2 Tissues and Membranes.<br>a. List the four basic types of tissues and describe their locations and functions.<br>b. State the locations and functions of epithelial and connective tissue membranes.<br>c. Differentiate between endocrine and exocrine glands.<br>d. Differentiate between mucous and serous membranes. |
| <b>Course Outcome 4</b>   | <b>Learning Objectives for Course Outcome 4</b>  |
| 4. Identify the basic structure, function, and age related changes of the human integumentary, musculoskeletal, nervous, and sensory systems. | 4.1 Integumentary System.<br>a. Identify the basic structures of skin and its layers and describe their functions.<br>b. Identify the basic accessory structures of the skin and describe their functions.<br>c. Describe age related changes of the integumentary system.<br><br>4.2 Skeletal System.<br>a. List the functions of the skeletal system.<br>b. Describe the basic composition of bone.  |



- c. Explain the basic process of bone formation and resorption.
- d. Name the two divisions of the skeleton.
- e. Identify, locate, and label major bones and joints.
- f. Describe age related changes of the skeletal system.

4.3 Muscular System.

- a. Identify three types of muscle tissue.
- b. Explain the basic concept of muscle contraction.
- c. Explain the relationship between muscle origin, insertion and action.
- d. Identify, locate, and label the major superficial muscles of the body and describe their actions.
- e. Describe age related changes of the muscular system.

4.4 Nervous System.

- a. Name and describe the divisions of the nervous system.
- b. Compare neuroglia and neurons.
- c. Explain the function of the myelin sheath.
- d. Identify, locate, and label the four major areas of the brain and the four lobes of the cerebrum.
- e. Describe the function of each area of the brain.
- f. Describe the anatomy of the spinal cord.
- g. List the functions of the spinal cord.
- h. Explain how the central nervous system is protected.
- i. List major spinal and cranial nerves and their functions.
- j. Describe the functions of the autonomic nervous system.
- k. Identify the two divisions of the autonomic nervous system.
- l. Describe age related changes of the nervous system.

4.5 The Senses.

- a. State the functions of the sensory system.
- b. State the five types of sensory receptors.
- c. State the five general and special senses.
- d. Identify, locate, and label structures of the sense organs and describe their functions.
- e. Describe pupillary changes.
- f. Explain how the ear maintains body equilibrium.
- g. Describe age related changes to body senses.

**Evaluation Process and Grading System:**

| Evaluation Type     | Evaluation Weight | Course Outcome Assessed |
|---------------------|-------------------|-------------------------|
| Quizzes/Assignments | 20%               |                         |
| Written Tests       | 80%               |                         |

**Date:**

April 2, 2019

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

