

I. COURSE DESCRIPTION:

This course will provide the learner with a general understanding of the structure and function of the human body. The learner will begin to examine body systems to obtain knowledge of how the structures and functions are related to maintain homeostasis.

II. LEARNING OUTCOMES AND ELEMENTS OF THE PERFORMANCE:

Upon successful completion of this course, the student will demonstrate the ability to:

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

Potential Elements of the Performance:

- a. Define anatomy and physiology
 - b. Name the following:
 - Levels of organization of the human body
 - Major organs for each body system
 - Common terms used for relative positions of the body
 - Major planes of the body
 - c. Define homeostasis
2. Examine the chemical composition and chemical interactions (life processes of the human body.

Potential Elements of the Performance:

- a. Define the terms matter and elements
 - b. List the four elements that compose 96% of body weight
 - c. List five reasons why water is essential to life
 - d. Define energy and describe the role of adenosine tri-phosphate (ATP) in energy transfer
3. Describe the location, structure and function of cells, tissues and organs of stated body systems.

Potential Elements of the Performance:

a. The Cell

- Describe the structure of a typical cell
- List the function of each part of a typical cell
- List the two processes of cell division: mitosis and meiosis
- Differentiate between mitosis and meiosis
- Label a diagram of the main parts of a typical cell
- Describe the active and passive movement of substances across a cell membrane: diffusion osmosis
- Define tonicity
- Compare isotonic, hypotonic and hypertonic solutions
- Explain cell division

- Define metabolism, anabolism and catabolism
- Differentiate between anaerobic and aerobic metabolism
- Describe the roles of DNA and RNA

b. Tissues and Membranes

- List the four basic types of tissues
- Describe the location and function of the four basic types of tissues
- Differentiate between endocrine and exocrine glands
- Differentiate between mucous and serous membranes

c. Systems**i. Integumentary System**

- Describe the basic structure of the skin and its layers
- List and describe the basic functions of the skin and its layers
- Describe how skin colour is determined
- Identify the basic accessory structures of the skin

ii. Skeletal System

- List the functions of the skeletal system
- Identify the composition of bone structure
- Explain the basic process of bone formation
- Name the two divisions of the skeleton
- Label selected important landmarks for bones on the skeleton
- Compare cervical, thoracic, lumbar and sacral vertebrae
- List the main types and functions of joints

iii. Muscle System

- Identify three types of muscle tissue
- Explain the basic concept of muscle contraction
- Explain the relationship between muscle origin, insertion and action
- Label a diagram of the major muscles of the body
- Describe action of the major muscles of the body

iv. Nervous System

- Name the anatomical divisions of the nervous system
- Name the functional divisions of the nervous system
- Compare neuroglia and neuron
- Explain the function of the myelin sheath
- Label a diagram of the four major areas of the brain and the four lobes of the cerebrum
- Describe the function of the four major areas of the brain
- Describe the anatomy of the spinal cord
- List the three functions of the spinal cord
- Explain how the central nervous system is protected from injury

v. Autonomic Nervous System

- Describe the function of the autonomic nervous system
- Identify the two divisions of the autonomic nervous system

vi. The Special Senses

- State the functions of the sensory system
- Define the five types of sensory receptors
- Describe the five general and special senses
- Label a diagram and describe the structure of the ear and eye
- Describe papillary changes
- Describe the functions of the parts of the ear and eye involved in hearing and sight
- Explain how the ear maintains body equilibrium

III. TOPICS:

1. Introduction to the Human Body
2. Basic Chemistry
3. The Cell
4. Cell Metabolism
5. Tissues and Membranes
6. Integumentary System
7. Skeletal System
8. Muscular System
9. Nervous System
10. Special Senses

IV. REQUIRED RESOURCES/TEXTS/MATERIALS:

Sorrentino, S. et al (2009). *Mosby's Canadian textbook for the personal support worker*. (2nd Canadian ed.). Elsevier Mosby.

Kelly, R. T., Sorrentino, S. et al (2009). *Workbook to accompany Mosby's Canadian textbook for the personal support worker*. (2nd Canadian ed.). Toronto: Elsevier Mosby.

Herlihy, B. & Maebius, N. K. (2007). *The human body in health and illness* (3rd ed.). Elsevier W. B. Saunders.

Herlihy, B. (2007). *Study guide for the human body in health and illness* (3rd ed.) Elsevier W.B. Saunders.

V. EVALUATION PROCESS/GRADING SYSTEM:

1. The pass mark for this course is 60%. It is composed of term tests, class attendance, class participation, and assignments.
2. Evaluation Methods:

Quizzes 5% each X 10	50%
Midterm Exam	25%
Final Exam	25%

A minimum of a “C” grade is required to be successful in all PSW coded courses.

The following semester grades will be assigned to students:

<u>Grade</u>	<u>Definition</u>	<u>Grade Point Equivalent</u>
A+	90 – 100%	4.00
A	80 – 89%	3.00
B	70 - 79%	2.00
C	60 - 69%	1.00
D	50 – 59%	0.00
F (Fail)	49% and below	
CR (Credit)	Credit for diploma requirements has been awarded.	
S	Satisfactory achievement in field /clinical placement or non-graded subject area.	
U	Unsatisfactory achievement in field/clinical placement or non-graded subject area.	
X	A temporary grade limited to situations with extenuating circumstances giving a student additional time to complete the requirements for a course.	
NR	Grade not reported to Registrar's office.	
W	Student has withdrawn from the course without academic penalty.	

NOTE: Mid Term grades are provided in theory classes and clinical/field placement experiences. Students are notified that the midterm grade is an interim grade and is subject to change.

VI. SPECIAL NOTES:

Course Outline Amendments:

The professor reserves the right to change the information contained in this course outline depending on the needs of the learner and the availability of resources.

Retention of Course Outlines:

It is the responsibility of the student to retain all course outlines for possible future use in acquiring advanced standing at other postsecondary institutions.

Prior Learning Assessment:

Students who wish to apply for advance credit transfer (advanced standing) should obtain an Application for Advance Credit from the program coordinator (or the course coordinator regarding a general education transfer request) or academic assistant. Students will be required to provide an unofficial transcript and course outline related to the course in question. Please refer to the Student Academic Calendar of Events for the deadline date by which application must be made for advance standing.

Credit for prior learning will also be given upon successful completion of a challenge exam or portfolio.

Substitute course information is available in the Registrar's office.

Disability Services:

If you are a student with a disability (e.g. physical limitations, visual impairments, hearing impairments, or learning disabilities), you are encouraged to discuss required accommodations with your professor and/or the Disability Services office. Visit Room E1101 or call Extension 2703 so that support services can be arranged for you.

Communication:

The College considers **WebCT/LMS** as the primary channel of communication for each course. Regularly checking this software platform is critical as it will keep you directly connected with faculty and current course information. Success in this course may be directly related to your willingness to take advantage of the **Learning Management System** communication tool.

Plagiarism:

Students should refer to the definition of “academic dishonesty” in *Student Code of Conduct*. A professor/instructor may assign a sanction as defined below, or make recommendations to the Academic Chair for disposition of the matter. The professor/instructor may:

- (i) issue a verbal reprimand,
- (ii) make an assignment of a lower grade with explanation,
- (iii) require additional academic assignments and issue a lower grade upon completion to the maximum grade “C”,
- (iv) make an automatic assignment of a failing grade,
- (v) recommend to the Chair dismissal from the course with the assignment of a failing grade.

In order to protect students from inadvertent plagiarism, to protect the copyright of the material referenced, and to credit the author of the material, it is the policy of the department to employ a documentation format for referencing source material.

Student Portal:

The Sault College portal allows you to view all your student information in one place. **mysaultcollege** gives you personalized access to online resources seven days a week from your home or school computer. Single log-in access allows you to see your personal and financial information, timetable, grades, records of achievement, unofficial transcript, and outstanding obligations. Announcements, news, the academic calendar of events, class cancellations, your learning management system (LMS), and much more are also accessible through the student portal. Go to <https://my.saultcollege.ca>.

Electronic Devices in the Classroom:

Students who wish to use electronic devices in the classroom will seek permission of the faculty member before proceeding to record instruction. With the exception of issues related to accommodations of disability, the decision to approve or refuse the request is the responsibility of the faculty member. Recorded classroom instruction will be used only for personal use and will not be used for any other purpose. Recorded classroom instruction will be destroyed at the end of the course. To ensure this, the student is required to return all copies of recorded material to the faculty member by the last day of class in the semester. Where the use of an electronic device has been approved, the student agrees that materials recorded are for his/her use only, are not for distribution, and are the sole property of the College.

Attendance:

Sault College is committed to student success. There is a direct correlation between academic performance and class attendance; therefore, for the benefit of all its constituents, all students are encouraged to attend all of their scheduled learning and evaluation sessions. This implies arriving on time and remaining for the duration of the scheduled session.