

**SAULT COLLEGE OF APPLIED ARTS AND TECHNOLOGY**

**SAULT STE. MARIE, ONTARIO**



**COURSE OUTLINE**

|                         |  |                                |             |
|-------------------------|--|--------------------------------|-------------|
| <b>COURSE TITLE:</b>    | Body Structure and Function II         |                                |             |
| <b>CODE NO. :</b>       | PSW118                                 | <b>SEMESTER:</b>               | 2           |
| <b>PROGRAM:</b>         | Personal Support Worker                |                                |             |
| <b>AUTHOR:</b>          | Gwen DiAngelo, Allan Kary              |                                |             |
| <b>DATE:</b>            | April 2010                             | <b>PREVIOUS OUTLINE DATED:</b> | Jan. 2010   |
| <b>APPROVED:</b>        | "Marilyn King"                         |                                | May, 2010   |
|                         | <hr/>                                  | <hr/>                          |             |
|                         | <b>CHAIR, HEALTH PROGRAMS</b>          |                                | <b>DATE</b> |
| <b>TOTAL CREDITS:</b>   | 3                                      |                                |             |
| <b>PREREQUISITE(S):</b> | PSW108 – Body Structure and Function I |                                |             |
| <b>HOURS/WEEK:</b>      | 3                                      |                                |             |

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*For additional information, please contact the Chair, Health Programs*  
*School of Health and Community Services*  
*(705) 759-2554, Ext. 2689*

**I. COURSE DESCRIPTION:**

This course is a continuation of Body Structure and Function I. Study of the remaining body systems will provide the learner with a general understanding of how the structures and functions are related to maintaining homeostasis.

**II. LEARNING OUTCOMES AND ELEMENTS OF THE PERFORMANCE:**

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

1. Describe the location, structure and function of cells, tissue and organs of stated body systems.

Potential Elements of the Performance:

Endocrine System

- List the functions of the endocrine system
- Define hormone
- Identify the major endocrine glands and their hormones

Cardiovascular System

Blood

- List three functions of blood
- Describe the composition of blood
- Describe the three types of blood cells and their function
- Explain the breakdown of red blood cells and the formation of bilirubin
- Identify the four blood types
- Explain the Rh factor

Heart

- Describe the location of the heart and its function
- Name the three layers and covering of the heart
- Identify the four chambers and four valves of the heart and their function
- Trace the flow of blood through the heart
- List the blood vessels that move blood to and from the heart
- Define pulse, blood pressure, systole and diastole

### Blood Vessels

- Describe the structure and function of arteries, capillaries and veins
- Describe the factors that determine blood pressure
- Describe edema formation

### Lymphatic and Immune System

- Differentiate between specific and nonspecific immunity
- Describe the process of phagocytosis
- Explain the causes of the signs of inflammation
- Explain the role of fever in fighting infection
- Differentiate between genetic immunity and acquired immunity
- Differentiate naturally and artificially acquired active and passive immunity
- Identify the steps in the development of anaphylaxis

### Respiratory System

- Describe the structure and function of the organs of the respiratory system
- Describe the mechanism of breathing
- Explain how breathing is controlled
- Trace the movement of air from the nostrils to the alveoli
- Describe the role of pulmonary surfactants
- List three conditions that make the alveoli well suited for the exchange of oxygen and carbon dioxide

### Digestive System and Metabolism

- Identify the structures and functions of the organs of the digestive tract
- Define digestion and absorption
- Compare mechanical and chemical digestion
- Describe the role of digestive enzymes
- Describe the structure and functions of the accessory organs of the digestive tract
- Describe the role of bile in the digestion of fats
- Describe five categories of nutrients

### Urinary System

- Identify the structure and function of each of the organs of the urinary system
- Label a diagram indicating the parts of the urinary system
- Identify the specific structures of the kidney and their basic functions
- Describe the blood supply of the kidney
- Explain the three processes involved in the formation of urine
- List the normal constituents of urine

Water, Electrolyte and Acid-Based Imbalance

- Describe the two main fluid compartments
- Define intake and output

Reproductive System

- Identify and describe the structure and function of the organs of the male reproductive system
- Identify and describe the structure and function of the organs of the female reproductive system
- Explain the hormonal control of reproduction in males and females
- Explain the three periods of prenatal development
- State two functions of the placenta
- Identify hormonal changes during pregnancy and labour
- Describe the stages of labour

Genetics/Inheritance

- Describe the process of fertilization
- Explain how the sex of a child is determined
- Explain the role of DNA, chromosomes and genes
- State the difference between congenital and hereditary diseases

**III. TOPICS:**

1. Endocrine System
2. Cardiovascular System
3. Lymphatic and Immune Systems
4. Respiratory System
5. Digestive System and Metabolism
6. Urinary System
7. Water, Electrolyte and Acid-Base Imbalance
8. Reproductive System
9. Genetics/Inheritance

**IV. REQUIRED RESOURCES/TEXTS/MATERIALS:**

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

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

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

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

**V. EVALUATION PROCESS/GRADING SYSTEM:**

|                          |     |
|--------------------------|-----|
| Quizzes 5% each X 8      | 40% |
| Assignments and Projects | 15% |
| Midterm Exam             | 25% |
| Final Exam               | 20% |

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

1. Students missing quizzes for any reason will **NOT** be able to write them at any other date; a grade of zero will result for that quiz.
2. Students missing the mid-term exam or final exam **because of illness or other serious reason** must contact and inform the professor via SCAAT, student email, phone or personal note, **before** the exam (759-2554 ext. 2468). Those students who have notified the professor of their absence, according to policy, will be eligible to arrange an opportunity as soon as possible to write the exam at another time. Those students who **do not notify the professor** will receive a zero grade for that exam. **It is the student's responsibility** on his/her first day back at school to contact the professor to arrange to write the exam. Failure to notify the professor at this time will result in a mark of "0".
3. Students receiving borderline marks (59, 69, 79, 89) **may**, at the professor's discretion, have their mark advanced to the next category **if they have attended at least 80% of the classes**.

**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%   | 3.00                          |
| C            | 60 - 69%   | 2.00                          |
| D            | 50 – 59%   | 1.00                          |
| F (Fail)     | 49% and below  | 0.00                          |
| 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. Any assignments