



**I. COURSE DESCRIPTION:**

The focus of this course is on the study of functional changes in cells, tissues and organs altered by disease and/or injury. Using a case study approach the learner will explore how pathophysiology bridges basic sciences and clinical nursing practice. Emphasis will be placed on how understanding pathophysiology processes can explain clinical manifestations, guide client care, and inform nursing judgement.

**II. LEARNING OUTCOMES AND ELEMENTS OF THE PERFORMANCE:****Ends-in-view**

Upon completion of the course, the learner will be able to:

- Describe and explain basic principles, concepts and processes of pathophysiology that include: cellular communication; forms of cell injury; fluid and electrolyte and acid-base imbalance; immunity and inflammation; mechanisms of infection; and tumor biology.
- Demonstrate knowledge of the pathophysiology of common diseases and injury by describing functional alterations within body systems.
- Use pathophysiology terminology to communicate clients' health status.
- Describe the pathophysiology underlying client conditions and the associated clinical manifestations.
- Describe how the pathophysiology underlying client conditions guides client care and informs nursing judgment.

**Process**

Learning will be facilitated through the use of on-line resources and classroom presentations and discussion. Learners will be provided with opportunities to apply content gained from on-line learning activities and preparatory readings through classroom learning activities that include presentations, case studies and the sharing of experiential learning. Integration of content from NURS 2107 and previous and current nursing and science courses will demonstrate how nurses use knowledge of pathophysiology to understand clinical manifestations, guide client care and inform nursing judgment. Learning activities provide opportunities to become increasingly self-directed.

**III. TOPICS:**

## Week

- 1 Introduction & Alterations in Cells and Tissues
- 2 Immunity/Inflammation/Infection
- 3 Fluid, Electrolytes and Acid-Base Balance & Alterations of the Endocrine System
- 4 Alterations of Cardiovascular Function
- 5 Alterations of Pulmonary Function
- 6 Alterations of the Hematologic System
- 7 Study Week
- 8 Midterm
- 9 Alterations of Renal and Urinary Tract Function
- 10 Alterations of Neurologic Function
- 11 Alterations of Musculoskeletal Function and Disorders of the Integument
- 12 Alterations of Digestive Function
- 13 Cancer

- Sequencing of topics/assignments subject to change based on teaching/learning needs.

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

Huether, S. E. & McCance, K. L. (2013). *Understanding pathophysiology* (5<sup>th</sup> ed.). St. Louis, MO: Mosby.

Huether, S. E. & McCance, K. L. (2012). *Study guide and workbook for Understanding pathophysiology* (5<sup>th</sup> ed.). St. Louis, MO: Mosby.

User Guide, Access Code for on-line resources for Huether & McCance *Understanding pathophysiology* (4<sup>th</sup> ed.).

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### Recommended Resources/ Additional Resources

Selected case studies will be provided with selected learning activities. Other resources include:

- A medical/surgical nursing textbook
- A pharmacology textbook
- A physical examination and health assessment textbook
- A maternal/child textbook
- A medical/nursing dictionary
- A manual of laboratory and diagnostic tests
- An anatomy and physiology textbook

### V. EVALUATION PROCESS/GRADING SYSTEM:

**1. Weekly quizzes** 20%

*On a weekly basis, all learners are required to complete the on-line preparatory learning activities and assigned readings. Weekly quizzes will be administered in class to assess learning and understanding of readings and preparatory work. A total of 10 quizzes will be administered over the semester. Marks from 8 quizzes will be used to calculate the learner's grade.*

**2. Group presentation of case study** 10%

*Learners will be assigned to a learning group. Each week one or two groups will be responsible for presenting a case study as well as posting 2 key questions on the LMS Bulletin Board prior to their presentation. All learners in the course will be responsible for reviewing the weekly case studies and preparing answers to the questions posted by the learning groups.*

**3. Midterm Test** 30%  
(administered in class on Week 8)

**4. Final Exam** 40%  
(scheduled by the Registrar's Office during the final Exam Period)

**100%**

- Please note that the School of Nursing guidelines regarding attendance policy will be followed. Punctual and regular attendance at the various academic exercises is required of all students. If there are extenuating circumstances bearing upon a student's absence, the professor should be notified prior to the start of class. Absences in excess of 20% may jeopardize receipt of credit for the course. **Attendance is essential to be successful in this course.**
- A passing grade of 60% is required for this course and all nursing courses

- Attendance at scheduled classes, tests, quizzes, and presentations is mandatory for all students.
- Missed quizzes, assignments, presentations, examinations will be graded "0".
- Students must complete all course requirements (presentations, quizzes, tests, and exams) to be eligible for a final grade in NURS 2107.

**Please Note:** This course requires independent reading, completion of on-line modules, preparation and class participation.

**The following semester grades will be assigned to students in post-secondary courses:**

<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	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.

It is also important to note, that the minimum overall GPA required in order to graduate from a Sault College program remains 2.0.

All NURS courses require 60% for a passing grade.

**VI. SPECIAL NOTES:**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. *It is the departmental policy that once the classroom door has been closed, the learning process has begun. Late arrivers will not be granted admission to the room.*

**VII. COURSE OUTLINE ADDENDUM:**

The provisions contained in the addendum located on the portal form part of this course outline.