



**I. COURSE DESCRIPTION:**

The focus of this course is the 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 the 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 judgment.

**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. (2012). *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* (5<sup>th</sup> ed.).

### 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. **Group presentation of case study** **25%**

*Learners will be assigned a case study three weeks prior to the due date, the student will receive a case study for a topic being discussed on the due date.*

2. **Midterm Test** **30%**

3. **Final Exam** **45%**

**100%**

- Attendance at scheduled classes, tests, quizzes, and presentations is mandatory for all students.
- Missed quizzes (online and in class), assignments, presentations, examinations will be graded "0".
- Students must complete their presentations, midterm exam, and final exam 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	

CR (Credit) Credit for diploma requirements has been awarded.

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Course Name

Code #

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.

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.*

**VII. COURSE OUTLINE ADDENDUM:**

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