# SAULT COLLEGE OF APPLIED ARTS AND TECHNOLOGY

# **SAULT STE. MARIE, ONTARIO**



# **COURSE OUTLINE**

**COURSE TITLE:** PATHOPHYSIOLOGY – A NURSING PERSPECTIVE

CODE NO.: NURS 2107 SEMESTER: 4

**PROGRAM:** Collaborative BScN

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APPROVED: "Marilyn King" Dec/09

CHAIR, HEALTH PROGRAMS DATE

TOTAL CREDITS: 3

PREREQUISITE(S): BIOL2105, BIOL2111, NURS1194, NURS2184

COREQUISITE(S): NURS2144

HOURS/WEEK: 3

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### 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.

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#### 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.

Course Name Code #

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### 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. (2008). *Understanding pathophysiology* (4<sup>th</sup> ed.). St. Louis, MO: Mosby.
- Huether, S. E..& McCance, K. L. (2008). *Study guide and workbook for Understanding pathophysiolog* (4<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 WebCT 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, Monday February 22, 2010)

# 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".

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• 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:

		Grade Point
<u>Grade</u>	<u>Definition</u>	<u>Equivalent</u>
A+ A	90 – 100% 80 – 89%	4.00
В	70 - 79%	3.00
С	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.	
Χ	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:

# **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.

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# 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.

# 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 <a href="https://my.saultcollege.ca">https://my.saultcollege.ca</a>.

## <u>Plagiarism</u>:

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:

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- (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.

# 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.