

SAULT COLLEGE OF APPLIED ARTS AND TECHNOLOGY

SAULT STE. MARIE, ONTARIO



COURSE OUTLINE

COURSE TITLE:	Pathophysiology II		
CODE NO. :	PNG251	SEMESTER:	4
PROGRAM:	Practical Nursing		
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DATE:	Jan/11	PREVIOUS OUTLINE DATED:	Jan/10
APPROVED:	"Marilyn King"		Jan/11
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	CHAIR, HEALTH PROGRAMS		DATE
TOTAL CREDITS:	3		
PREREQUISITE(S):	PNG236		
HOURS/WEEK:	4		

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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:

The learner will develop an understanding of chronic health challenges by examining how the body adapts to or compensates to maintain its optimal state. The study of the basic principles of microbiology will be continued.

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 how normal physiological processes are altered by chronic health challenges (disease).
2. Explain the basic pathophysiological concepts of a chronic health challenge.
3. Describe how the human body compensates for a chronic health challenge.
4. Examine common chronic health challenges and their effect on the human body.
5. Examine diagnostic testing for common chronic health challenges.

Review the selected key terms (vocabulary) for each specific concept/system.

The requirements of the learning outcomes will be met by the following elements of performance:

CONCEPTS OF DISEASE

1. Introduction to chronic disease

- Discuss the concept of chronicity

3. Neoplasms

- Define neoplasia
- List the warning signs of cancer
- List the common carcinogens to humans
- Differentiate between benign and malignant neoplasms (tumors)
- Discuss tumor staging and grading
- Describe local and systemic adverse effects of tumors on the host (breast, prostate, lymphoma, skin, lung, colon brain)

CHRONIC ALTERATIONS IN SYSTEMS FUNCTIONING

1. Integument

- Describe common acute skin infections/infestations caused by bacteria, viruses, fungi and parasites
- Discuss the pathophysiology of a thermal injury (burn)
- Describe the local and systemic effects and common complications of a major burn injury
- Discuss diagnostic tests used to diagnose and monitor acute disorders of the skin, including burns
- Identify the etiology, contributing factors, signs and symptoms and complications of common chronic skin disorders (contact/ectopic dermatitis, psoriasis, eczema, candidiasis, herpes simplex/zoster)
- Examine diagnostic tests used to diagnose and monitor common chronic skin disorders

2. Respiratory

- Identify the etiology, contributing factors, signs and symptoms and complications of common chronic respiratory disorders (COPD – emphysema, bronchitis, TB, cystic fibrosis, Adult Respiratory Distress Syndrome)
- Compare and contrast emphysema, asthma and bronchitis
- Examine diagnostic tests used to diagnose and monitor common chronic respiratory disorders

4. Gastrointestinal

- Identify the etiology, contributing factors, signs and symptoms and complications of common chronic gastrointestinal disorders (periodontal disease, gingivitis, periodontitis, dysphagia, hiatal hernia, peptic/duodenal ulcer, Crohn's disease, ulcerative colitis, gastroenteritis, celiac disease, cirrhosis etc)
- Examine diagnostic tests used to diagnose and monitor chronic gastrointestinal disorders

5. Genitourinary

- Identify the etiology, contributing factors, signs and symptoms and complications of common chronic genitourinary disorders (incontinence, BPH, nephrosclerosis, renal failure, endometriosis)
- Compare functional, stress, reflex and urge incontinence
- Identify the etiology, contributing factors, signs and symptoms and complications of common STD's
- Examine diagnostic tests used to diagnose and monitor common chronic genitourinary disorders

6. Musculoskeletal

- Identify the etiology, contributing factors, signs and symptoms and complications of common acute and chronic musculoskeletal disorders (sprains, fractures, osteoporosis, osteoarthritis, rheumatoid arthritis, muscular dystrophy, gout)
- Examine diagnostic tests used to diagnose and monitor chronic musculoskeletal disorders

7. Neurological

- Identify the etiology, contributing factors, signs and symptoms and complications of common chronic neurologic alterations (seizures, cerebral palsy, multiple sclerosis, Parkinson's disease, amyotrophic lateral sclerosis)
- Compare and contrast the various types of seizure disorders
- Examine the diagnostic tests used to diagnose and monitor common chronic neurologic alterations

8. Endocrine

- Identify the etiology, contributing factors, signs and symptoms and complications of common chronic endocrine disorders (diabetes mellitus, hypo/hyper thyroidism, Cushing's disease, Addison's disease)
- Compare Type 1 and Type 2 diabetes
- Compare and contrast hyperglycemia and ketoacidosis
- Compare hyper and hypo thyroidism
- Define gigantism and dwarfism
- Compare the effects of an excess and deficit of growth hormone in a child and adult
- Examine the diagnostic tests used to diagnose and monitor chronic endocrine disorders

9. Sensory – Eyes

- Identify the contributing factors, signs and symptoms and complications of common acute & chronic eye disorders (cataracts, glaucoma, blindness)
- Define myopia, hyperopia and presbyopia
- Discuss the difference between open and narrow angle glaucoma
- Examine the diagnostic tests used to diagnose and monitor acute & chronic eye disorders

10. Sensory – Ears

- Identify the etiology, contributing factors, signs and symptoms and complications of common acute & chronic ear disorders (otitis media, otitis externa, Meniere's, deafness)
- Examine diagnostic tests used to diagnose and monitor acute & chronic ear disorders

III. TOPICS:

1. Introduction to Chronic Disease
2. Neoplasms
3. Integument Disorders
4. Respiratory Disorders
5. Cardiovascular Disorders
6. Gastrointestinal Disorders
7. Genitourinary Disorders
8. Musculoskeletal Disorders
9. Neurological Disorders
10. Endocrine Disorders
11. Eye Disorders (acute and chronic)
12. Ear Disorders (acute and chronic)

IV. REQUIRED RESOURCES/TEXTS/MATERIALS:

Marieb, E. N. (2009). *Essentials of human anatomy and physiology* (9th ed.). Toronto, ON: Benjamin Cummings.

Marieb, E. N. (2009). *Revised anatomy physiology colouring workbook: A complete study guide* (9th ed.). Toronto, ON: Benjamin Cummings.

Gould, B. E., (2006). *Pathophysiology for the health professions* (3rd ed.). Elsevier W. B. Saunders.

USEFUL:

Pathophysiology made Incredibly Easy (2nd ed.) (2002) Lippincott, William and Wilkins.

V. EVALUATION PROCESS/GRADING SYSTEM:

1. **The pass mark for this course is 60%.**

2. Evaluation Methods:

4 Tests (lowest 10.5%, others 16.5%) 60%

Online quizzes 10%

Final Exam (multiple choice) 30%

TOTAL 100%

Bonus:

Case Study 5%

3. Online quizzes: Two attempts for each quiz, the highest mark will count.

Case Study – (optional for bonus marks): Case studies should be completed in groups of 2. If there are identical versions (90% similarity); the case study grade will be divided equally between the groups. (ie if there are 3 identical case studies; one will be marked and that grade will be divided by 3). **Case studies must be written in your own words; copying from texts will NOT be accepted.**

Final exam will consist of material covering the entire course.

4. Students missing the tests or final exam because of illness or other serious reason must phone the professor **before** the exam to inform her/him (759-2554, Ext. 2635). Those students who have notified the professor of their absence, according to policy, will be eligible to arrange an opportunity to write the exam at another time. Students must contact the teacher on their first day back at school or clinical following a missed test or exam. Those students who **do not follow the above procedures** will receive a zero for that test or exam.

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%	
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.	

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:

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 may 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. www.mysaultcollege.ca