

SUMMER SESSION SYLLABUS

NU 312: Pathophysiology

S1: 2009



Saint Joseph's College of Maine

**DIVISION OF GRADUATE &
PROFESSIONAL STUDIES**

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www.sjcme.edu/gps/summerprograms.htm

Welcome to:
NU 312
Pathophysiology

Summer Session # 1
June 22 to 26, 2009

COURSE DESCRIPTION

This course is designed to examine alterations in functions affecting individuals across the lifespan. The student will explore pathophysiological concepts utilizing biology, microbiology, and physiological sciences as a basis for the student approach. The scientific approach will provide a further understanding of the mechanisms of disease, and students will incorporate critical thinking skills with practical application. The course provides a comprehensive nursing approach to common alterations in body systems.

Prerequisite: Completion of an undergraduate biology course or challenge

IMPORTANT RESOURCES

If you have any questions regarding your course materials, please contact your academic advisor (1-800-343-5498) and/or our book vendor EdMap. You can reach EdMap by phone or email:

1-(800)-274-9104

<http://www.shop-edmap.biz/sjs/>

All Saint Joseph's College students must have a library card for the Wellehan Library prior to arriving on campus. To obtain your card, if you do not already have one, please call the library or visit their Website:

1-(800) 343-5498 ext. 7725

<http://www.sjcme.edu/library/index.htm>

REQUIRED RESOURCES AND MATERIALS

McCance, K. L., & Huether, S. E. (2006). Pathophysiology: The Biologic Basis for Disease in Adults and Children. (5th ed.) St. Louis, MO: Elsevier/Mosby Co.
ISBN -13: 978-0-3230-3507-1
ISBN -10: 0-323-03507-8

OPTIONAL MATERIALS

McCance, K. L., & Huether, S. E. (2006). Study Guide and Workbook: Pathophysiology: The Biologic Basis for Disease in Adults and Children. (5th ed.) St. Louis, MO: Elsevier/Mosby Co.
ISBN -13: 978-0-323-03623-8
ISBN -10: 0-323-03623-6

Various resources noted in course assignments

INTERNET RESOURCES

Various resources noted in course assignments

Your Instructor



Name: Patsy Thompson
Leavitt, MS, NP
Email: pleavitt@sjcme.edu
Phone: (207) 893-7967

Welcome to NU 312, Pathophysiology. I am a nurse practitioner with over 30 years experience as a nurse. I have had the privilege to work in many fields as a nurse, and in the past 15 years as a nurse practitioner and educator. I am currently a faculty member of the St. Joseph's College School of Nursing, and also serve as the Executive Director and NP provider for Leavitt's Mill Free Health Center, a free clinic located in nearby Buxton, Maine.

I firmly believe that a course such as this one should be based on our mutual experience and nursing knowledge, adding features of sound theory and current research findings. Most of all, however, I think this course can be fun and exciting as we explore together the intricacies of the human body and relate all we learn to our practice.

I look forward to the privilege of working with you in this intensive course. If at any time you need to

discuss course materials or assignments, please contact me via email or phone. I am looking forward to a great week!

Student Resources



COURSE POLICIES AND PROCEDURES

Current information regarding College policies affecting your course can be found on the Student Resources section of our website at <http://www.sjcme.edu/gps/beginning>.

On this page, you will find vital information, including the following:

- Current Student Handbook, outlining course-specific policies
 - *Includes grading rubric*
- Access to support resources, including advising and online tutorial services
- Student Success Guides

SUBMITTING ASSIGNMENTS

For instructions on how to submit your assignments, please consult your ANGEL course site.

Course Overview



COURSE INTRODUCTION

This course is designed to examine alterations in functions affecting individuals across the lifespan. The student will explore pathophysiological concepts utilizing biology, microbiology, and physiological sciences as a basis for the student approach. The scientific approach will provide a further understanding of the mechanisms of disease, and students will incorporate critical thinking skills with practical application.

The course provides a comprehensive nursing approach to common alterations in body systems.

COURSE OBJECTIVES

Upon completion of this course, you should be able to do the following:

1. Define the terminology and the pathological processes throughout the course.
2. Describe the normal structure and function of cell, tissue, organ, and body systems.
3. Correlate normal body functioning to physiologic changes that occur as a result of disease processes.
4. Apply the sciences of pathophysiology to common system disorders across the lifespan.
5. Utilize the nursing process, critical thinking skills, experience, and basic concepts of pathophysiology to case studies/activities.

COURSE FORMAT

1. This is an intensive one week course which will require the student to prepare readings and assignments in advance of each day's session.
2. No formal pre-residency assignment is posted, but students are expected to complete Lesson 1 assignments prior to arrival on Monday.
3. In-class time will focus on the application of concepts and principles of pathophysiology to clinical scenarios. A variety of interactive techniques will be used to engage students and instructor in a mutual learning experience.
4. Course materials, assignments, and communication tools will be located on ANGEL

COURSE GUIDELINES

1. Attendance at all five sessions for the entire day is mandatory for course completion.
2. Late assignments will incur a 10 point penalty for each late day.
3. Assignments will be graded and returned to the student within 24 hours.

There is a lot of information pertaining to the various diseases and disorders that will be covered in this intensive course. Prior to reading your assignments, look over the study notes and the discussion questions and case studies to help you prioritize your focus.

The course is divided into units that will cover the diseases and disorders of two to three body systems. Unit 1 covers the basic concepts of pathophysiology which are the cell, cell and tissue biology, and fluid, electrolyte, and acid-base balance. We start out with "cells and tissues" since these are the central components in understanding pathophysiology.

Unit 2 will cover genetics, mechanisms of self-defense, and cancer. The readings are based on how these affect the physiology of cells and tissues – you will see how "normal" turns to a "pathological" state.

Unit 3 will begin to identify diseases and disorders of specific body systems, which include the Nervous, Endocrine, and Integumentary systems. There are a number of PowerPoint presentations along with the endocrine study notes and reading assignments that hopefully you will find helpful.

Unit 4 covers the diseases and disorders of the Hematologic, Cardiovascular, and Respiratory Systems.

The course concludes with Unit 5 which covers the Digestive, Renal, and Musculoskeletal Systems.

The course will include readings from the textbook as well as website readings. Also, please include any additional websites or books that you have utilized that may enhance learning.

Clinical experiences in all areas should be shared in our discussions to provide the application of the information we learn. I firmly believe we do our best learning when we can relate to our nursing wisdom and life experience. I look forward to learning much in this intensive week!

EVALUATION

- Pre-residency Requirement (preparation for first day class).....10%
- Daily preparatory homework assignments..... 30%
- Classroom Participation30%
- Post-Residency Requirement30%

Class Schedule

Day	Topics Covered	Required Reading	Assignments
1	Cellular Biology	<p>Lesson 1</p> <p>McCance & Huether (2006), Chapters 1-3</p>	<p>Lesson 1</p> <p>Please see Study Notes, Web based exercises, Discussion questions and Case study and follow instructions - posted in ANGEL</p> <p>*Please complete all Lesson 1 readings and assignments prior to attendance on Monday. Assignments may be emailed prior to class or printed and hand delivered*</p>
2	Genetics, Self Defense, and Cancer	<p>Lesson 2.1</p> <p>McCance & Huether text (2006), Chapters 4 and 5</p> <p>Lesson 2.2</p> <p>McCance & Huether text (2006), Chapters 6, 7 and 8</p> <p>Lesson 2.3</p> <p>McCance & Huether text (2006), Chapters 11, 12 and 13.</p>	<p>All Lessons:</p> <p>Please see Study Notes, Web based exercises, Discussion questions and Case study and follow instructions - posted in ANGEL</p>

Day	Topics Covered	Required Reading	Assignments
3	Nervous Endocrine Integumentary Systems	<p>Lesson 3.1</p> <p>McCance & Huether text (2006), Chapters 17, 18 and 19</p> <p>Lesson 3.2</p> <p>McCance & Huether (2006), Chapters 20 and 21</p> <p>Lesson 3.3</p> <p>McCance & Huether (2006), Chapters 44 and 45</p>	<p>All Lessons:</p> <p>Please see Study Notes, Web based exercises, Discussion questions and Case study and follow instructions - posted in ANGEL</p>
4	Hematologic, Cardiovascular, And Respiratory Systems	<p>Lesson 4.1</p> <p>McCance & Huether (2006), Chapters 26, 27 and 28</p> <p>Lesson 4.2</p> <p>McCance & Huether (2006), Chapters 30 and 31</p> <p>Lesson 4.3</p> <p>McCance & Huether (2006), Chapters 33 and 34</p>	<p>All Lessons:</p> <p>Please see Study Notes, Web based exercises, Discussion questions and Case study and follow instructions - posted in ANGEL</p>
5	Digestive, Renal and Musculoskeletal Systems	<p>Lesson 5.1</p> <p>McCance & Huether (2006), Chapters 39 and 40</p> <p>Lesson 5.2</p> <p>McCance & Huether (2006),</p>	<p>All Lessons:</p> <p>Please see Study Notes, Web based exercises, Discussion questions and Case study and follow instructions - posted in ANGEL</p>

Day	Topics Covered	Required Reading	Assignments
		Chapters 36 and 37 Lesson 5.3 McCance & Huether (2006), Chapters 42 and 43	

Post-Residency Assignment



Select a disease/disorder to research. This paper will be 10-12 pages in length. A comprehensive paper will include the following components:

- Definition of the disease/disorder and the related epidemiology.
- Description of the normal physiology of the system involved.
- Explanation of the pathophysiology of the disease/disorder.
- Description of the clinical manifestations.
- Identification of the diagnostic testings for the disease/disorder.
- Explanation of the clinical management and the effect on the pathophysiology of the disease.
- Annotated bibliography in APA format (using the most current APA textbook).

Due Date: July 31, 2009

This course was designed by Susan Deane, RN, MSN; adapted by Patsy Thompson Leavitt, MS, NP for the exclusive use of students enrolled in the College's Division of Graduate and Professional Studies.

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ANGEL Information

This course has an online ANGEL component. Please review the checklist below. Before your course begins you will receive a letter from the College with instructions on how to access your account, which will include your log on and password.

If you need technical support, please contact the 24-hour Collegis HelpDesk:
1-(877) 725-4357 or email: <https://hdo.collegis.com>

Checklist for Online Learners

In order to complete this course, you will need the following:

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- ANGEL account (Will be assigned by Saint Joseph's College)
- Basic computer skills
- Computer with speakers or headphones
- Internet access
- Required materials