

**MORAVIAN COLLEGE**

**COURSE NO:** Biology 205

**COURSE TITLE:** Pathophysiology

**SEMESTER:** Fall, 2011

**INSTRUCTOR:** Kerry H. Cheever, PhD, RN, Professor  
Office: Collier Hall, Room 210A  
Office number 610-861-1607 or 1412  
E-Mail: [kerry.cheever@moravian.edu](mailto:kerry.cheever@moravian.edu) or [cheevek@slhn.org](mailto:cheevek@slhn.org)

**TEXTBOOKS:**Required:

Porth, C.M. (2007). *Essentials of pathophysiology: concepts of altered health states (2<sup>nd</sup> ed)*. Philadelphia, PA: Lippincott, Williams, & Wilkins.

**TECHNOLOGY:**Required:

iClicker™ v6.1 Student Response System (available for purchase at the Moravian College Bookstore register).

**PREREQUISITES:**

Biology 103 and 104

**COURSE DESCRIPTION:**

Mechanisms of disease in humans. Emphasis is on dysfunction at cellular, tissue, and organ levels. Chemical, physical, and genetic stress factors are examined to understand how they affect human systems.

**COURSE OBJECTIVES:**

By the conclusion of this course, the student will be able to:

1. Understand genetic, cellular, and tissue adaptive responses to stress and injury.
2. Recognize the etiology and pathogenesis of common diseases.
3. Discuss the natural history and clinical manifestation of common diseases.
4. Describe the relationship between pathophysiological processes and alterations in body structure and/or function.

**TEACHING METHODS:**

Lecture, discussion, select audiovisuals, case study analyses.

**EVALUATION:**

Course grades are based on the following numerical equivalencies:

A	=	93-100
A-	=	90-92.99
B+	=	87-89.99
B	=	83-86.99
B-	=	80-82.99
C+	=	77-79.99
C	=	73-76.99
C-	=	70-72.99
D+	=	67-69.99
D	=	63-69.99
D-	=	60-62.99
F	=	Below 60

**Examinations:**

All examinations will utilize items with four multiple choice responses. Only one response will be correct. This type of format will help to prepare the student to successfully take the nursing board examination (i.e., NCLEX-RN). Examinations include quizzes, a mid-term examination, and a final examination.

**Mid-Term and Final Examinations:**

The mid-term examination will test all course content covered from the beginning of the term, and the final examination will test all course content covered since the mid-term examination. Students will be allotted the entire class/testing period to take the mid-term and the final examinations.

**Quizzes:**

Quizzes will be given at the beginning of class, and will include 20 items. All students will be allotted 30 minutes to take the quizzes, beginning with the first minute of class. Lateness to class for ANY reason will not merit extra testing time. A total of seven quizzes will be administered, and the student may drop the lowest quiz grade. There will be no quiz makeups. Absence during a quiz for any reason, even verifiable illness or family emergency, will not merit a makeup.

**Class Participation:**

Each class day will begin promptly at 1:10 P.M. and end at 2:20 P.M. At any time during those class periods, students may be asked to respond to questions using their electronic Student Response Systems (i.e., iClickers™). The correct answers to these items will be discussed in class promptly after students have finished responding to them (and each item will be allotted up to one full minute to complete). Students may not share, borrow, or exchange iClickers with each other or risk paying the penalty for cheating (refer to a later discussion on “Academic Honesty” in this syllabus).

Students must register their iClickers before the second week of classes begins. They are also advised to complete the online training tutorial by the end of the first week of classes so that they are ready to begin to participate in class using this technology. Without completing these processes, they risk missing the opportunity to gain class participation points. Students must register their iClickers on the following website:

[www.iClicker.com](http://www.iClicker.com). Note that on the bottom of this homepage, there is a link to “Register Your iClicker.” Students should link onto this, follow the directions as specified on that page to register their iClickers, and then link to the iClicker tutorial that is on the next page and complete the tutorial.

Students will begin to earn class participation points after the first week of class. On some days, the class may begin promptly at 1:10 P.M. with one or two items derived from content learned during the previous class day and/or from assigned textbook readings for that day or the previous class. Students are responsible for bringing their iClickers to class with them on a daily basis and assuring that the batteries are fully charged. It is in students’ best interests to arrive to class promptly with iClickers that are turned on so that they are ready to respond. There will be no opportunities given for tardy students to makeup those items.

Students may also be required to respond to items in the midst of any given lecture. Students who leave class early will likewise not be given opportunities to makeup those items. These items will be derived from content learned during that lecture.

Those students who miss a class for a verifiable illness, emergency, educational trip, or varsity sport event will not be held liable for missed participation points on those days. Please note that these cases must be verified as appropriate. Whether or not the absence is considered excusable is left to the discretion of the course faculty.

Students will earn one point for each question answered and an additional point if the item is answered correctly. At the end of the semester, points earned (i.e., all item points that the student earned over the course of the semester) will be divided by the maximum possible points (i.e., number of items posted over the course of the semester multiplied by two points) to calculate the participation grade.

Course Grades:

Quizzes (highest six of seven)	30%
Mid-Term Examination	30%
Final Examination	30%
Class Participation	10%

**COURSE ATTENDANCE POLICY**

Students are expected to attend class. Students are expected to read assigned textbook readings prior to class, and review relevant concepts from Anatomy and Physiology prior to class lectures. Students who are experiencing course-related difficulty should consult the course faculty in a timely and constructive manner.

**DISABILITY ACCOMODATIONS**

Students who wish to request accommodations for a disability must contact the Moravian College Learning Services for Disability Support (ext. 1510). Accommodations will not be provided until authorization is received from this office. Accommodations for special needs that might include special testing will not be given retroactively (e.g., after a student has already taken a test or completed an assignment without special provisions).

**ACADEMIC HONESTY**

Academic honesty in all course-related assignments is an expectation of this course faculty. Students who cheat on iClicker responses, quizzes or other examinations will receive a zero for that day's activities/assignment. Students may not receive nor send text messages or email messages during class. Likewise, students may not use their cellular phones during class. It will be assumed that students who use this type of technology during class are cheating. Students found using this technology will receive grades of zero for any participation points and on quizzes or examinations given during that entire class period. In addition, students who cheat will be prosecuted in accordance with policies outlined in the *Moravian College Student Handbook*.

**This syllabus is subject to change at the discretion of the course professor.**

## COURSE OUTLINE

**NOTE THAT ALL READING ASSIGNMENTS MUST BE COMPLETED PRIOR TO CLASS**

<u><b>Date:</b></u>	<u><b>Lecture Content and Student Assignments</b></u>
August 29	Overview of Course Introduction to iClickers™ Introduction of Key Terms Cellular adaptation, injury, & healing  <u>Readings:</u> Porth, Introduction Section (xix-xxiv) & Chapter 2
August 31	Genes, gene-environment interaction, genetic anomalies  <u>Readings:</u> Porth, Chapters 5 & 6
September 5	No class – Labor Day Holiday
September 7	PARTICIPATION POINTS USING ICLICKERS BEGIN ON THIS DATE Oncogenesis, cancer clinical manifestations & treatment  <u>Assignment:</u> Have iClickers registered and complete tutorial prior to class on this date  <u>Readings:</u> Porth, Chapter 7
September 12	Quiz #1 Hematopoiesis Hemostasis Coagulopathies  <u>Readings:</u> Porth, p. 243-248; Chapter 12
September 14	Anemias  <u>Readings:</u> Porth, Chapter 13

<b><u>Date:</u></b>	<b><u>Lecture Content and Student Assignments</u></b>
September 19	Leukocytic and lymphoid disorders  <u>Readings:</u> Porth, Chapter 11
September 21	Quiz #2 Immune responses and immune disorders  <u>Readings:</u> Porth, Chapters 15 & 16
September 26	Inflammatory responses  <u>Readings:</u> Porth, Chapter 3
September 28	Infectious diseases  <u>Readings:</u> Porth, Chapter 14
October 3	Cardiovascular disorders Hypertension  <u>Readings:</u> Porth, Chapters 17 & 18
October 5	Quiz #3 Coronary artery disease  <u>Readings:</u> Porth, p. 450-460
October 10	No class –Fall Recess
October 12	Heart failure  <u>Readings:</u> Porth, Chapter 20
October 17	Mid-Term Examination

<u>Date:</u>	<u>Lecture Content and Student Assignments</u>
October 19	Pulmonary disorders Ventilation-perfusion mismatch Restrictive pulmonary diseases  <u>Readings:</u> Porth, Chapter 21; p. 566-573
October 24	Obstructive pulmonary diseases  <u>Readings:</u> Porth, p. 573-600
October 26	<i>Guest Lecturer: Dr. Lori Hoffman, Associate Professor</i> Female reproductive disorders Menstrual disorders Breast disorders  <u>Assignments:</u> Attendance at evening Sipple Lecture mandatory  <u>Readings:</u> Porth, Chapter 40
October 31	Quiz #4 Male reproductive disorders Testicular and prostatic disorders  <u>Readings:</u> Porth, Chapter 39
November 2	Renal disorders Acid-base, fluid & electrolyte regulation  <u>Readings:</u> Porth, Chapters 8, 24, & 25
November 7	Acute and chronic renal failure  <u>Readings:</u> Porth, Chapter 26

<b><u>Date:</u></b>	<b><u>Lecture Content and Student Assignments</u></b>
November 9	Quiz #5 Gastrointestinal disorders Peptic ulcer disease Inflammatory bowel diseases  <u>Readings:</u> Porth, Chapters 28 & 29
November 14	Hepatobiliary and exocrine pancreatic disorders Hepatitis & cirrhosis  <u>Readings:</u> Porth, Chapter 30
November 16	Musculoskeletal disorders Bone fractures  <u>Readings:</u> Porth, Chapters 42 & 43
November 21	Quiz #6 Rheumatic diseases  <u>Readings:</u> Porth, Chapter 44
November 23	No class – Thanksgiving Break
November 28	Neurological disorders Somatosensory disorders Nociception  <u>Readings:</u> Porth, Chapters 34 & 35
November 30	Motor function disorders Brain function disorders Disruption in thought and mood  <u>Readings:</u> Porth, Chapter 36 & 37



**Date:**                      **Lecture Content and Student Assignments**

December 5                      Quiz #7  
Endocrine disorders  
Thyroid disorders  
Adrenal disorders

Readings:  
Porth, Chapters 31 & 32

December 7                      Diabetes mellitus

Readings:  
Porth, Chapter 33

**Final Examination:** will be administered on Friday, December 12 at 1:30 P.M.