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TEXTBOOKS:

Required:

Porth, C. M. (2011). *Essentials of pathophysiology (3rd ed)*. Philadelphia, PA: Lippincott, Williams, & Wilkins.

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. (Prerequisites: Biology 103 and 104)

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.

EVALUATION:

Course grades are based on the following numerical equivalencies:

A = 93-100	C = 73-76.99
A = 90-92.99	C- = 70-72.99
B + = 87 - 89.99	D+ = 67-69.99
B = 83-86.99	D = 64-66.99
B- = 80-82.99	D- = 60-63.99
C + = 77-79.99	F = Below 60

Examinations:

Examinations include quizzes, a mid-term examination, and a final examination. 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 will be given at the beginning of class as indicated on the topical outline. ALL students will be allotted 35 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 five quizzes will be administered, and the student may drop the lowest quiz grade. There will be no quiz make-ups. Absence during a quiz for any reason, even verifiable illness or family emergency, will not merit a make-up.

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 TM). 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: <u>www.iClicker.com</u>. If an iClicker is registered for NUR212, it should also work for BIO205 and vice-versa.

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 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.

Those students who miss a class for a verifiable serious illness, emergency, educational trip, or varsity sporting event may 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.

Course Grades:	
Quizzes (highest four of five)	25%
Mid-Term Examination	25%
Final Examination	25%
Class Participation/iClicker questions	25%

COURSE ATTENDANCE POLICY:

Students are expected to attend class but will not merit extra points for class attendance, nor have points deducted for lack of attendance. 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.

ACADEMIC HONESTY:

Academic honesty in all course-related assignments is an expectation of the course faculty. Students who cheat on iClicker responses, quizzes or other examinations will receive a zero for that day's activities/assignments. It will be assumed that students who text or use smart/cell phones during exams are cheating. For this reason, students will place all of their personal belongings, including cell phones, against the outer walls of the classroom and away from the testing seats during quizzes/exams. Students found using technology during exams will receive a grade of zero on the quiz or examination. In addition, students who cheat will be prosecuted in accordance with policies outlined in the *Moravian College Student Handbook*.

LEARNING DISABILITIES:

Students who wish to request accommodations in this class for a disability should contact Elaine Mara, assistant director of learning services for academic and disability support at 1307 Main Street, or by calling 610-861-1510. Accommodations cannot be provided until authorization is received from the Academic Support Center.

It is within the instructor's purview to apply qualitative judgment in determining grades for an assignment or for the course.

The syllabus is subject to change at the discretion of the instructor.

COURSE OUTLINE: **Complete all reading assignments prior to class**

Date:	Lecture Content and Student Assignments
August 26	Overview of Course Introduction to iClickers TM Introduction of Key Terms Cellular Responses to Stress, Injury and Aging
	<u>Readings</u> : Porth, Introduction Section (xix-xxiv) and Chapter 2
August 28	Inflammatory Response Cell Proliferation and Tissue Regeneration and Repair
	<u>Readings</u> : Porth, Chapters 3 and 4
September 2	NO CLASS – Labor Day Holiday
September 4	ICLICKER PARTICIPATION POINTS BEGIN ON THIS DATE
	Genetic Control of Cellular Function and Inheritance Genetic Disorders
	Assignment: Register iClickers and complete tutorial prior to class
	<u>Readings</u> : Porth, Chapters 5 and 6
September 9	Neoplasia
	<u>Readings:</u> Porth, Chapter 7
September 11	Quiz #1 (Chapters Intro/2, 3/4, 5/6 and 7) White Blood Cell and Lymphoid Tissue Disorders
	<u>Readings</u> : Porth, Chapter 11
September 16	Disorders of Hemostasis
	<u>Readings</u> : Porth, Chapter 12

Date:	Lecture Content and Student Assignments
September 18	Red Blood Cell Disorders
	<u>Readings</u> : Porth, Chapter 13
September 23	Mechanisms of Infectious Disease
	<u>Readings</u> : Porth, Chapter 14
September 25	Immunity and Immune Response Disorders
	<u>Readings</u> : Porth, Chapters 15 and 16
September 30	Quiz #2 (Chapters 11, 12, 13, 14 and 15/16) Cardiovascular Function
	<u>Readings</u> : Porth, Chapters 17
October 2	Disorders of Blood Flow and Blood Pressure
	<u>Readings</u> : Porth, Chapters 18
October 7	Disorders of Cardiac Function
	Readings: Porth, Chapter 19 (no pages 474-483)
October 9	Mid-Term Examination (Content covered 8/26-10/2)
October 14	NO CLASS – Fall Break
October 16	Heart failure and Circulatory Shock
	<u>Readings</u> : Porth, Chapter 20

Date:	Lecture Content and Student Assignments
October 21	Quiz #3 (Chapters 17, 18, 19 and 20) Respiratory Function and Respiratory Tract Infections
	<u>Readings</u> : Porth, Chapters 21 and 22 (no pages 554-563)
October 23	Obstructive Airway Disorders
	<u>Readings</u> : Porth, Chapter 23 (only pages 573-586)
	Assignment: Attendance at evening Sipple Lecture mandatory
October 28	Kidney Function Acute Renal Failure and Chronic Kidney Disease
	<u>Readings</u> : Porth, Chapters 24, 25 (only pages 620-627) and 26
October 30	Gastrointestinal Function and Disorders
	Readings: Porth, Chapters 28 and 29
November 4	Quiz #4 (Chapters 21/22, 23, 24/25/26 and 28/29) Hepatobiliary Function
	<u>Readings</u> : Porth, Chapter 30 (no pages 752-757)
November 6	Endocrine Control and Disorders Diabetes Mellitus and Metabolic Syndrome
	<u>Readings</u> : Porth, Chapters 31, 32 and 33
November 11	Neural Function and Somatosensory Function/Pain
	<u>Readings:</u> Porth, Chapters 34 (no pages 837-845) and 35 (no pages 883-888)

Date:	Lecture Content and Student Assignments
November 13	Neuromuscular Function Disorders Brain Function Disorders
	Readings: Porth, Chapters 36 and 37 (no pages 951-955; no pages 959-963)
November 18	Quiz #5 (Chapters 30, 31/32/33, 34/35 and 36/37) Disorders of the Male Genitourinary System^^
	Readings: Porth, Chapter 39
November 20*	<u>Guest Lecturer:</u> Dr. Lori Hoffman, Associate Professor Disorders of the Female Genitourinary System ^{^^}
	Readings: Porth, Chapter 40
November 25	NO CLASS – Thanksgiving Break
November 27	NO CLASS – Thanksgiving Break
December 2	Skeletal System Function and Disorders^^
	<u>Readings</u> : Porth, Chapters 42 and 43 (no pages 1113-1127)
December 4	Metabolic and Rheumatic Disorders^^
	<u>Readings</u> : Porth, Chapter 44

Monday, December 9^{h} at 130pm: **Final Examination** (**Content covered 10/7-12/4**) ^^ = Content tested only on Final Examination (not on quizzes)