

**FLORIDA ATLANTIC UNIVERSITY
CHRISTINE E. LYNN COLLEGE OF
NURSING COURSE SYLLABUS
SUMMER2014**

COURSE NUMBER: NUR4125
COURSE TITLE: General Pathophysiology
COURSE FORMAT: Live
CREDIT HOURS: 3
COURSE SCHEDULE: Tuesdays,*****
PREREQUISITES: Prerequisite BSC 2085/2085L or equivalent, BSC 2086/2086L or equivalent
PRE/COREQUISITES: MCB 2004, CHM 2032, CHM 2032L
FACULTY: Name and credentials:
Title:
Office Location:
Phone:
E-mail
OFFICE HOURS: Wednesdays*****

COURSE DESCRIPTION:

Study of the pathophysiology of human illness within a systems framework. Emphasis is on understanding pathophysiology as an alteration of normal subsystem physiological functioning altering health of the individual. Course concepts provide the basis for interpretation and analysis of signs and symptoms within a framework of health and disease. Selected pathophysiological nursing situation exemplars are presented and the concepts to related conditions in diverse clients across the lifespan.

COURSE OBJECTIVES: Upon completion of this course, the student will be able to create caring nursing responses in:

Becoming competent

1. Discuss the etiology and pathophysiology of selected disease processes across the life course (cardiovascular disease, hypertension, diabetes, cancer, chronic lung disease, depression, and other selected conditions). (SLO I; Essential I).
2. Describe the pathophysiologic mechanisms of disease processes. (SLO 1; Essential I).
3. Integrate principles from the biological sciences to interpret pathophysiological processes as a foundation for clinical decision-making. (SLO 1, 2; Essential I).
4. Model relationships among pathophysiological processes, laboratory and diagnostic tests, and clinical manifestations of selected illnesses. (SLO 2, 3, 6; Essential I).
5. Analyze the influence of genetic factors on pathophysiological processes in diverse clients. (SLO 2, 7, 12; Essential I).

Becoming Compassionate

6. Distinguish between developmental processes in physiology and pathophysiological alterations. (SLO 2, 3, 12; Essential I, III).

Becoming confident

7. Predict a range of responses persons with illness may experience based on pathophysiological processes. (SLO Essential I, III, VI, VII).
8. Apply an understanding of pathophysiology to nursing situations. (SLO 8, 12; Essential III, VIII, IX).

Affirming commitment

9. Use best practices and clinical guidelines to examine the individual's physical presentation in selected nursing situations and define appropriate nursing responses. (SLO 5, 6; Essential IX).

TEACHING LEARNING STRATEGIES:

Lecture, interactive learning, analysis and discussion.

GRADING AND EVALUATION METHODS:

Weekly attendance	1 point per week for 15% of total grade
Quiz 1	100 points for 10% of total grade
Quiz2	100 points for 10% of total grade
Midterm	100 points for 25% of total grade
Final	100 points for 40% of total grade

GRADING SCALE: Grade below C is not passing in the Undergraduate Nursing program

- 93 - 100 = A
- 90 - 92 = A-
- 87 - 89 = B+
- 83 - 86 = B
- 80 - 82 = B-
- 77 - 79 = C+
- 73 - 76 = C
- 70 - 72 = C-
- 67 - 69 = D+
- 63 - 66 = D
- 60 - 62 = D-
- 0 - 59 = F

REQUIRED TEXTS:

McCance, S., & Huether, S. (2010). *The Biologic Basis for Disease in Adults and Children*. Mosby Elsevier.

Leek, V., & Wood, J. (2011). *Patho Ph/ash! Pathophysiology Flash Cards*. Davis.

RECOMMENDED TEXTS:

Evolve Portal for McCance and Huether textbook.

TOPICAL OUTLINE

1. Cell Structure & Function (receptors, metabolism, immunity, neoplasm) and the genetic basis of health
2. Altered fluid and electrolytes
3. Altered acid/base balance
4. Alterations in physiological systems
 - a. Alterations of Hematologic Function
 - b. Immune system: Infection
 - c. Cellular Proliferation and Differentiation
 - 1) Altered Cells and Tissues
 - 2) Alterations of Cell Biology
 - 3) Inflammation and tissue repair
 - 4) Cancer Biology
 - d. Alterations of Cardiovascular Function
 - 1) Clinical Concepts in Cardiovascular Physiology
 - 2) Alterations of Cardiovascular Function
 - 3) Altered Perfusion
 - e. Alterations of Pulmonary Function
 - f. Alterations of Gastrointestinal Function
 - g. Altered Elimination
 - h. Altered Nutrition
 - i. Alterations of Endocrine Function
 - J. Alterations of Renal Function
 - k. Reproductive systems including Physiology of Pregnancy
 - l. Musculoskeletal system
 - m. Integumentary system
5. Alterations in cognition, perception and affect
6. Altered Somatic and Special Sensory Function
7. Degenerative Changes in Aging

BIBLIOGRAPHY:

- Bunn, H., & Aster, J. (2011). Pathophysiology of Blood Disorders. Boston: McGraw Hill. Kusumoto, F. (1999). Cardiovascular Pathophysiology. Raleigh: Hays Barton Press.
- Rose, B. (1987). Pathophysiology of Renal Disease. Boston: McGraw Hill.

COURSE POLICIES AND GUIDELINES

1. *Attendance:* Attendance/class activities points will be awarded each week. In order to earn the full amount of points, the student must be on-time, stay for the entire class, and fully participate in all in-class activities. Points are awarded at the discretion of the instructor. If you are unable to attend class, please notify the instructor. A student who misses a class is responsible for content presented during an absence.

2. *Assignments:* Written assignments are due by midnight on the date specified on the course schedule. Three points per day for one week will be deducted from all work that is submitted after the announced due date. No assignments will be accepted after one week from due date. If the student is unable to submit work on the designated date, arrangements must be made with the course instructor BEFORE the due date to avoid the late penalty.

All assignments must be created originally for this course. Papers developed in other courses will not be accepted. Students who present a "recycled" assignment as an original work will receive a grade of zero on the assignment and be charged with violation of Academic Integrity, Policy 4.001.

3. *Use of Electronic and Personal Communication Devices in the classroom.* In order to enhance and maintain a productive atmosphere for education personal communication devices such as pagers, beepers and cellular telephones are to be disabled in class sessions. Students who are in violation of this may be asked to leave the class and not earn the points for that day.

4. *Email:* FAU email is recognized as the only email system that may be used for course correspondence. It is the responsibility of each student to periodically check their FAU email as important class information may be sent via this route.

In addition to being a portal for assignments, Blackboard will be utilized as a form of communication. Course announcements will be posted on Blackboard rather than through email. It is the student's responsibility to periodically check the board for class updates/clarifications. If the faculty needs to contact an individual student concerning a course issue, an email may be sent via the FAU email system; otherwise, communication will occur through Blackboard.

All course requirements and objectives must be met in order to earn a passing grade.

COLLEGE OF NURSING POLICIES

Policies below may be found in:

- a). The faculty reserves the right to make changes in course content and requirements.
- b). The Christine E. Lynn College of Nursing Undergraduate Handbook located at:
<http://nursing.fau.edu/index.php?main=3&nav=526>
- c). Florida Atlantic University's Academic Policies and Regulations
<http://www.fau.edu/academic/registrar/catalogRevs/academics.php> and <http://www.fau.edu/regulations>

CODE OF ACADEMIC INTEGRITY:

The University policy regarding academic integrity is enforced in this course. Students at Florida Atlantic University are expected to maintain the highest ethical standards. Dishonesty is considered a serious breach of these ethical standards, because it interferes with the University mission to provide a high quality education in which no student enjoys an unfair advantage over any other. Dishonesty is also destructive of the University community, which is grounded in a system of mutual trust and places high value on personal integrity and individual responsibility. Harsh penalties are associated with academic dishonesty. For more information, see: http://www.fau.edu/regulations/chapter4/4.001_Code_of_Academic_Integrity.pdf

The College of Nursing regards adherence to the Code of Academic Integrity as a professional competency and an expectation of all students. ANY act of dishonesty that violates the code of academic integrity and misrepresents your efforts or ability is grounds for immediate failure of the course.

DISABILITY STATEMENT:

In compliance with the Americans with Disabilities Act (ADA), students who require special accommodations due to a disability to properly execute coursework must register with the Office for Students with Disabilities (OSD) located in Boca Raton-SU 133 (561-297-3880), in Davie-MOD 1 (954-236-1222), in Jupiter-SR 117 (561-799-8585) or at the Treasure Coast-CO 128 (772-873-3305), and follow all OSD procedures.

INCOMPLETE POLICY:

The Incomplete Grade Policy is enforced. A student who registers for a course but fails to complete the course requirements, without dropping the course, will normally receive a grade of "F" from the course instructor. A student who is passing a course but has not completed all the required work because of exceptional circumstances may, with the approval of the instructor, temporarily receive a grade of "I" (incomplete). This must be changed to a grade other than "I" within a specified time frame, not to exceed one calendar year from the end of the semester during which the course was taken.

ATTENDANCE POLICY:

Students are expected to attend all of their scheduled University classes and to satisfy all academic objectives as outlined by the instructor. The effect of absences upon grades is determined by the instructor, and the University reserves the right to deal at any time with individual cases of nonattendance. Students are responsible for arranging to make up work missed because of legitimate class absence, such as illness, family emergencies, military obligation, court-imposed legal obligations, or participation in University-approved activities. Examples of University approved reasons for absences include participating on an athletic or scholastic team, musical and theatrical performances, and debate activities. It is the student's responsibility to give the instructor notice prior to any anticipated absence and within a reasonable amount of time after an unanticipated absence, ordinarily by the next scheduled class meeting. Instructors must allow each student who is absent for a University-approved reason the opportunity to make up work missed without any reduction in the final course grade as a direct result of such absence.

RELIGIOUS ACCOMMODATION:

In accordance with rules of the Florida Board of Education and Florida law, students have the right to reasonable accommodations from the University in order to observe religious practices and beliefs with regard to admissions, registration, class attendance, and the scheduling of examinations and work assignments. Students who wish to be excused from coursework, class activities, or examinations must notify the instructor in advance of their intention to participate in religious observation and request an excused absence. The instructor will provide a reasonable opportunity to make up such excused absences. Any student who feels aggrieved regarding religious accommodations may present a grievance to the director of Equal Opportunity Programs. Any such grievances will follow Florida Atlantic University's established grievance procedure regarding alleged discrimination. USE OF STUDENT COURSE MATERIAL The Christine E. Lynn College of Nursing may use students' course-related materials for legitimate institutional purposes, such as accreditation, university review process, or state board of nursing review process, etc. In such cases, materials will be used within the college and university.

COURSE SCHEDULE

NUR 4125:General Pathophysiology

SUMMER 1.013 Coors& Calendar

	Course
	<p>Unit 1: The Cell</p> <p>Chapters: 1: Cellular Biology</p> <p>2: Genes and Genetics</p> <p>3: Cellular Injury and Death</p> <p>Unit 3: Cellular Proliferation: Cancer</p> <p>(Chapters: 9: Biology, Clinical Manifestations, and Treatment of Cancer</p> <p>10: Cancer Epidemiology</p> <p>Pathophysiology Reviews and Rationales: Chapter 16</p>
<p>Week 1</p>	<p><i>EARNING OBJECTIVES:</i> Blackboard LUL<</p>
<p>10/14/13</p>	<p><i>POWERPOINTS:</i> Blackboard LUL<</p>
	<p><i>ARTICLE{1.</i></p>
	<p>Mitochondria: -The Heart of the Cell</p>
	<p>Basic-Genetics- and Gen(J)ns: A Primer for N u s</p>
	<p>A Perspective on Nutritional Gmmics</p>
	<p><u>WEBSITES:</u></p>
	<p>WORLD HEALTH ORGANIZATION: http://www.who.int/en/</p>
	<p>SCIENCE DAILY: http://www.sciencedaily.com/ (altit& Medicine)</p>
	<p>GLOBAL HEALTH COUNCIL: http://www.R[oba]health.org/</p>
	<p>Genetics is Relevant Now: http://www.bmibgsd_eclun.org/S.lgronwebd18/index.html</p>
	<p>Primer on Molecular_Genetics: http://www.onigov/scitechresources/Human_Genome/plblicattprimer2001/index.html</p>
	<p><u>ADDITIONAL RESOURCES:</u></p>
	<p>POWERPOINT: Understanding cancer genomics</p>
	<p>Unit 1: The Cell</p>
	<p>Chapter: 4: Fluids and Electrolytes, Acids and Bases</p>
	<p>Unit 2: Mechanisms of Self-Defense</p>
	<p>Chapters: 5: Innate Immunity, Inflammation and Wound Healing</p>
	<p>6: Adaptive Immunity</p>

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Pathophysiology Reviews and Rationales: Chapter 12

EARNING OBJECTIVES: Blackboard Link

POWERPOINTS: Blackboard Link

ARTICLES:

Restoring Electrolytes

WEBSITES: Fluid and Electrolytes 1.2.3

http://www.youtube.com/watch?v=HBWcQQf&pl=YI*!<=l&list=PLF392A1DE7B1BD445&feature=results_main

http://www.youtube.com/watch?v=G710P6vgGBE&playlist=PLF392A2DE7B2BD445&feature=results_video

http://www.youtube.com/watch?v=FmIEyP_KDi-w&playlist=PLF392A1DE7B2BD445&feature=results_video

ADDITIONAL RESOURCES:

POWERPOINT: Acid-Base Balance

Unit 2: Mechanisms of Self Defense

Chapters: 7: Infection and Defects in Mechanism of Defense

8: Stress and Disease

Pathophysiology Reviews and Rationales: Chapter 13

EARNING OBJECTIVES: Blackboard Link

POWERPOINTS: Blackboard Link

Week 3

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ARTICLES:

World Wide Stress

Stress Management

Emerging and re-Emerging Infections, Disease: A Pandemic Threat

05/28111

WEBSITES:

GLOBAL DISEASE ALERT MAP: <http://www.who.int/csr/don>

Immune Response <http://www.youtube.com/watch?v=rp7F4HbIM>

Immunity <http://www.youtube.com/watch?v=ZNXvFlonl-U>

Dengue Fever <http://www.niaid.nih.gov/topics/denguefever/pages/default.aspx>

Chapter: 39: Structure, Function, and Disorders of the Integument

Unit 4: The Neurologic System

Chapter: 13 Pathophysiology of Sleep and Sensory Function

Veelt 4

6/04113

Unit 8: The Pulmonary System

Chapters: 25 Structure and Function of the Pulmonary System

Pathophysiology Reviews and Rationales: Chapter 6 & 14

LEARNING OBJECTIVES: Blackboard Link

POWERPOINTS: Blackboard Link

ARTICLES:

- Assessment and management of premenstrual ulcers

WEBSITES:

- Hearing Disorders: http://www.aasha.org/public/hearing/disorders/c.mises_adults.htm
- Vision Research: <http://www.fighthouse.org/>

Week 5

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Unit 8: The Pulmonary System

Chapters: 26 Alterations of Pulmonary Function

Unit 7: The Cardiovascular and Lymphatic Systems

Chapter 23: Structure and Function of the Cardiovascular and Lymphatic Systems

23: Alterations of Cardiovascular Function (Not on Exam 2)

Pathophysiology Reviews and Rationales: Chapter 1

LEARNING OBJECTIVES: Blackboard Link

POWERPOINTS: Blackboard Link

ARTICLES:

- Overview of COPD
- Cystic Fibrosis

WEBSITES:

- COPD: http://www.youtube.com/watch?v=1YV_2Rfdd8

ADDITIONAL RESOURCES

POWERPOINTS: Pleural effusion, Unit 7, The Cardiovascular and Lymphatic Systems

Chapter 23: Alterations of Cardiovascular Function

Pathophysiology Reviews and Rationales: Chapter 2 & 3

LEARNING OBJECTIVES: Blackboard Link

POWERPOINTS: Blackboard Link

ARTICLES:

- Hypertension Treatment Update

Veelt 6

Froid Management Strategies in Heart Failure

Recognizing and Responding to Acute Myocardial Infarction

Psychosocial Factors and Outcome in Acute MI

WEBSITE6

Hypertension <http://www.youtube.com/watch?v=xnvfElxkBI>

Hypertension <http://www.youtube.com/watch?v=;<VIRiSYlmeO>

Heart Disease <http://www.youtube.com/watch?v=wrg2WRPjFI>

Heart Attack <http://www.youtube.com/watch?v=EQV8dRfSIUGU>

ADDITIONAL RESOURCES:

Handout: JNC 7 Reference Card

Unit 6: The Hematologic System

Chapters: 19: Structure and Function of the Hematologic System

20: Alterations in Hematologic Function

Unit 9: The Renal and Urologic System

Chapters: 8: Structure and Function of the Renal and Urologic Systems

Pathophysiology Reviews and Updates: Chapter 15

Week 7

EARNING OBJECTIVES: Blackboard Link

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POWERPOINTS: Blackboard Link

ARTICLES:

Hematology Pharmacology

WEBSITES:

Anemia 1 <http://www.youtube.com/watch?v=Dh9ptiJi71S>

Anemia 2 <http://www.youtube.com/watch?v=?H.C.FT.vZ.ag>

Sickle Cell <http://www.youtube.com/watch?v=9UpwVltdxcs>

ADDITIONAL RESOURCES:

Interpreting CBC: Effects of decreased oxygen

Unit 9: The Renal and Urinary System

Chapter: 29: Alterations in Renal and Urinary Tract Function

Unit 11: The Digestive System

Chapters 33: Structure and Function of the Digestive System

34: Alterations of Digestive Function

Pathophysiology Reviews and Rationales: Chapters 7 & 8 & 10

Week 8
07/10/13

EARNING OBJECTIVES: Blackboard Link

POWERPOINTS: Blackboard Link

ARTICLES:

- Management of Diabetic Kidney Disease
- Pancreatitis
- Duodenal Ulcers
- Peptic Ulcer Disease

WEBSITES:

Calculating GFR: <http://www.kidney.org/professionals/kidgij/-calculator.cfm>

GFR: ERD <http://www.abou> :4

ADDITIONAL RESOURCES: *Handout* Peritonitis

Unit 11: **Musculoskeletal System**

Chapters: 36: Structure and Function of the Musculoskeletal System

37: Alterations of Musculoskeletal Function

Week 9
07/09/13

Pathophysiology Reviews and Rationales: Chapter 5

EARNING OBJECTIVE & Blackboard Link

POWERPOINTS: Blackboard Link

EXAM 3

ARTICLES:

- Knee Injuries
- Rheumatoid Arthritis
- Nursing Back Injuries

Unit 12: **Neurologic System**

Chapters: 12: Structure and Function of Neurologic System

14: Alterations in Cognitive Systems: Cerebral Hemodynamics and Motor Function

15: Disorders of the Central and Peripheral Nervous Systems

Week 10
07/16/13

Pathophysiology Reviews and Rationales: Chapter 4

EARNING OBJECTIVES: Blackboard Link

POWERPOINTS: Blackboard Link

ARTICLES: Facing Cnual Nerve ARsessmdlt

WEBSITES:

- Stroke Care
- Traumatic Brain Injury
- ;Honnonal Control and the Endocrine System
- Strbke A.ssoiationhttp://www.strokWsociat.ion.ont/STROKEORGIProfessionalsiProfe.ssionals UCM 308581 SubHomePage.isv.

Unit 5: The Endocrine Syst

Chapter: IS: Alterations_of Homtonal Regulation

Unit 10: The Reproductive System.

Ch;lpers: 31: Sbtitllr< and Function of the Reproductive Syst_ems

32: Akerntions of the Reprodn\$ 1e Systems, laclu<ling Sexnally Transmitted Infections

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Pathophysiology Reviews and Ration;iles: Chapter 9 & 11

EARNING OJLJECTIVES: Blackboard Link

OWERPOINIS: Blackboard Link

IRTJCLES:

- .Hormonal Conbol and the EndOcrine Syst!@l

WEBSJTES:

- Endocrine Diseases: <http://www.nlm.nih.gov/medlineplus/endocrine-diseases.html>

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FINAL EXAM



CHRISTINE E. LYNN COLLEGE OF NURSING

STATEMENT OF PHILOSOPHY

Nursing is a discipline of knowledge and professional practice grounded in caring. Nursing makes a unique contribution to society by nurturing the wholeness of persons and environment in caring. Caring in nursing is an intentional mutual human process in which the nurse artistically responds with authentic presence to calls from persons to enhance well-being. Nursing occurs in nursing situations: co-created lived experiences in which the caring between nurses and persons enhance well-being. Nursing is both science and art. Nursing science is the evolving body of distinctive nursing knowledge developed through systematic inquiry and research. The art of nursing is the creative use of nursing knowledge in practice. Knowledge development and practice in nursing require the complex integration of multiple patterns of knowing. Nurses collaborate and lead interprofessional research and practice to support the health and well-being of persons inextricably connected within a diverse global society.

Persons as participant in the co-created nursing situation, refers to individual, families or communities. Person is unique and irreducible, dynamically interconnected with others and the environment in caring relationships. The nature of being human is to be caring. Humans choose values that give meaning to living and enhance well-being. Well-being is creating and living the meaning of life. Persons are nurtured in their wholeness and well-being through caring relationships.

Beliefs about learning and environments that foster learning are grounded in our view of person, the nature of nursing and nursing knowledge and the mission of the University. Learning involves the lifelong creation of understanding through the integration of knowledge within a context of value and meaning. A supportive environment for learning is a caring environment. A caring environment is one in which all aspects of the person are respected, nurtured and celebrated. The learning environment supports faculty-student relationships that honor and value the contributions of all and the shared learning and growth.

The above fundamental beliefs concerning Nursing, Person and Learning express our values and guides the actions of Faculty as they pursue the missions of teaching, research/scholarship and service shared by the Christine E. Lynn College of Nursing and Florida Atlantic University.

'revised April, 2012.'