



COLLEGE OF ARTS AND SCIENCES
LAMAR UNIVERSITY
JoAnne Gay Dishman School of Nursing

BACCALAUREATE DEGREE NURSING PROGRAM

NURS 2373-02
BASIC PATHOPHYSIOLOGY
Fall 2017

A Spirit of Caring - A Vision of Excellence

FACULTY

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Office Hours: Mondays 2 pm – 5 pm, Wednesdays 4 pm – 5 pm, and by appointment

CREDIT HOUR ALLOTMENT

3 Semester Credit Hours
3 Lecture
48 Clock hours

PLACEMENT IN CURRICULUM

Prerequisite

CATALOG COURSE DESCRIPTION

Study of basic pathophysiology with emphasis on mechanisms of disease processes. Focus is on basic understanding of alterations in health related to selected disease process across the lifespan.

PREREQUISITES, CO REQUISITES, & COMPANION COURSE

Prerequisites: *BIOL 2401, 2402

Co requisites: BIOL 2420

Companions: None

*Students must have completed BIOL 2401 and 2402 with a “C” or better prior to enrolling in this course. Concurrent enrollment or prior completion of BIOL 2420 with a “C” or better is also required. Students who do not meet these requirements will be dropped from the course.

STUDENT LEARNING OUTCOMES

	DEC KNOWLEDGE*	END OF PROGRAM STUDENT LEARNING OUTCOMES*	COURSE MEASURABLE STUDENT LEARNING OUTCOMES
1.	PCC B4, 7, E1ab	2	Discuss the relationship of a person's adaptive mechanisms to pathology and disease across the life span.
2.	PCC B4, 7 E1ab	2	Determine the mechanisms an individual utilizes in alterations in health.
3.	PCC B4, 7, E1ab	2	Explain the consequences of failure of adaptive mechanisms.
4.	PCC B4, 7, E1ab	2	Discuss principles from basic pathophysiology to provide rationale for assessed deviations from wellness.
5.	PCC B4, 7, E1ab	2	Assess a given hypothetical situation to predict the mechanisms by which an individual will attempt to adapt to a changing health event.
6	PCC B4, 7, E1ab	2	Determine the etiology and manifestations of pathophysiological events which will take place in various parts of the human body during illness.

COURSE CONTENT OUTLINE

- I. Cellular Injury and Adaptation
 - A. Overview of Cell
 - B. Cell Tissues and Characteristics
 - C. Changes in Cell Structure and Function
 - D. Types of Cellular Injury
 - E. Causes of Cellular Injury
 - F. Mechanisms of Cellular Injury
 - G. Inflammatory Response
 - H. Aging and Cell Function and Growth
- II. Tissue Repair and Wound Healing
 - A. Regeneration
 - B. Connective Tissue Repair
 - C. Factors that Affect Wound Healing
 - D. Alterations in Cell Differentiation: Neoplasia
- III. Alterations in Integument
 - A. Skin Cancer
 - B. Burns

- C. Pressure Ulcers
- IV. Cell Proliferation and Growth
 - A. Benign Neoplasms
 - B. Malignant Neoplasms
- V. Alterations in Fluid and Electrolyte Balance
 - A. Major compartments of Body Fluids and Distribution
 - B. Distribution of Body Fluids
 - C. Controlling Body Water Levels
 - D. Electrolyte Balance
 - E. Age Related Changes
- VI. Alterations in Renal Function
 - A. Obstructive Disorders
 - B. Infectious Disorders
 - C. Disorders of Glomerular Function
 - D. Tubular Disorders
 - E. Neoplasms
 - F. Renal Failure
 - G. Age Related Changes
- VII. Alterations in Immune System
 - A. Immune System
 - B. Immune Response
 - C. Age Related Changes
 - D. Immunodeficiency Disease
 - E. Allergic Disorders
 - F. Hypersensitivity Disorders
 - G. Autoimmune Disease
 - H. Acquired Immunodeficiency Syndrome
- VIII. Alterations in Hematologic Function
 - A. Review of Blood Cells
 - B. Mechanisms of Hemostasis
 - C. Hypercoagulability States
 - D. Bleeding Disorders
 - E. Disorders of the Red Blood Cell
 - F. Disorders of the White Blood Cell
 - G. Age Related Changes
- IX. Alterations in Cardiovascular System
 - A. Circulatory System
 - B. Disorders of Arterial Circulation
 - C. Disorders of Venous Circulation
 - D. Disorders of Blood Pressure
 - E. Disorders of the Pericardium
 - F. Coronary Heart Disease
 - G. Myocardial Disease
 - H. Infectious and Immunologic Disorders
 - I. Valvular Heart Disease
 - J. Age Related Changes

- K. Disorders of Cardiac Conduction and Rhythm
- L. Heart Failure
- M. Circulatory Shock
- X. Alterations in Respiratory System/Oxygenation
 - A. Control of Respiratory Function
 - B. Respiratory Tract Infections
 - C. Respiratory Tract Cancers
 - D. Disorders of Lung Inflation
 - E. Obstructive Airway Disorders
 - F. Interstitial Lung Diseases
 - G. Pulmonary Vascular Disorders
 - H. Respiratory Failure
 - I. Age Related Changes
- XI. Alterations in Arterial Blood Gases
 - A. Mechanisms of Acid Base
 - B. Laboratory Tests
 - C. Metabolic Disorders
 - D. Respiratory Disorders
 - E. Compensatory Mechanisms
 - F. Age Related Changes
- XII. Alterations in Endocrine System
 - A. Hormonal Mechanisms and Function
 - B. Thyroid Disorders
 - C. Adrenal Cortical Disorders
 - D. Diabetes Mellitus
 - E. Age Related Changes
- XIII. Alterations in Neurological System
 - A. Somatosensory Function
 - B. Pain
 - C. Motor Function
 - D. Skeletal Muscle Disorders
 - E. Peripheral Nerve Disorders
 - F. Disorders of Basal Ganglia
 - G. Disorders of Cerebellum
 - H. Upper Motor Neuron Disorders
 - I. Disorders of Brain Function
 - J. Cerebrovascular Disease
 - K. Trauma
 - L. Infections
 - M. Neoplasms
 - N. Seizure Disorders
 - O. Dementias
 - P. Age Related Changes
- XIV. Alterations in Gastrointestinal System
 - A. Physiologic Mechanisms
 - B. Disorders of the Esophagus

- C. Disorders of the Stomach
 - D. Disorders of the Small and Large Intestine
 - E. Disorders of the Liver
 - F. Disorders of the Hepatobiliary System
 - G. Disorders of the Gallbladder
 - H. Age Related Changes
- XV. Alterations in Musculoskeletal System
- A. Trauma
 - B. Infection
 - C. Necrosis
 - D. Metabolic Bone Disease
 - E. Neoplasms
 - F. Rheumatic Disorders
 - G. Age Related Changes

TEACHING STRATEGIES

Assigned Readings
 Audio-visuals
 Lectures
 Selected Websites
 Unit Assignments

TEACHING LEARNING THEORIES

Bloom Theory of Learning
 Adult Learning Theories

EVALUATION METHODS & GRADING

Grade Scale

- A = 100-90
- B = 89-80
- C = 79-75
- D = 74-60
- F = 59- 0

Grade distribution will be as follows:

Exam I-	22%	
Exam II-	22%	
Exam III-	22%	
Final Exam-	24%	
*Unit Assignments	<u>10%</u>	(Calculated after the 75% weighted rule is met)
	100%	

All nursing exams have specified time limits. Sixty (60) seconds will be allowed for each multiple choice exam item in this course.

To be successful in this course, all course requirements must be completed, and a satisfactory level of performance must be attained, as specified in the syllabus.

Exam scores must average at least 75% to receive a grade of a C. A grade of a C or better in the course is required for admission to the nursing program. Successful completion of this course **does not guarantee** admission to the nursing program nor does it serve as an application to the nursing program.

Grading Policy: The 75% Weighted Grade Rule

Students must achieve a minimum of 75% average on all exams before any other assignments are included in the grade calculation. Failure to achieve the 75% will result in course failure irrespective of grades achieved on other assignments.

Make-Up Exams: There are NO make-up exams. In the event an exam is missed, the student may request in writing, **within two (2) days** of the missed exam that the final count twice. If a second exam is missed a grade of zero will be recorded for that exam.

OTHER COURSE REQUIREMENTS

Unit Assignments

Unit Assignments are developed to reinforce didactic content. Students are required to complete the Unit Assignments on Blackboard by the due dates listed in the course calendar. Students who do not complete Unit Assignment on time will receive a zero for the incomplete Unit Assignment. The Unit Assignments will count as 10% of the final grade as long as the 75% Weighted Exam Average rule has been met.

REQUIRED TEXTS

Grossman, S. C. & Porth, C.M. (2014). *Porth's Pathophysiology: Concepts of altered health states.* (9th ed). Philadelphia: Lippincott. ISBN: 978-1-4511-4600-4

RECOMMENDED TEXTS

Mosby's dictionary of medical, nursing, & health professional (2014). (9th ed.).

St. Louis: Mosby.

ISBN: 978-0-32307-4032

Porth, C. M (2014) *Study guide for Porth's pathophysiology: Concepts concepts of altered health states.* (9th ed.) Philadelphia: Lippincott. ISBN: 978-1-4511-8272-9

Professional guide to pathophysiology (3rd ed.). (2011). Philadelphia: Lippincott

ISBN: 978-1-60547-766-4

COURSE MANAGEMENT POLICIES

ATTENDANCE/TARDY POLICY STATEMENT

1. Class, practicum, and laboratory attendance is required for success in the nursing program. If absences are interfering with the successful completion of course outcomes, the student will be counseled by faculty about the consequences on the course grade.

2. No children are allowed in class since this interferes with the learning process of fellow students.
3. Students are responsible for all course material missed while absent.
4. Arrival to class after the starting time presents a problem. Students are expected to arrive on time. Students who arrive late to class are to enter by the back door and will be seated in the last two rows only. The instructor reserves the right to lock the classroom door and allow admittance at the next break time.
5. Students whose late entry for either class or practicum is excessive will be counseled and a plan or corrective action determined.
6. Students should make every attempt to be on time for exams. If an emergency situation arises, the student should notify the course leader and the program office at (409) 880-8831.
7. Students arriving late for an exam must turn in their exam at the original announced finish time. These students will be placed at a table in the front of the room to minimize distraction to the other students. A counseling note will be placed in the student's file. No additional time to finish the examination will be given.

*For the complete Attendance/Tardy Policy, see the *JoAnne Gay Dishman School of Nursing Undergraduate Nursing Studies Student Handbook*.

PERMISSION TO RECORD LECTURE PRESENTATIONS

Students who wish to record faculty lecture presentations must acquire written permission from the faculty using the Recording Agreement Form

ACADEMIC HONESTY

The JoAnne Gay Dishman School of Nursing complies with the University Academic Policy as published in the Lamar University Student Handbook. "Students are expected to maintain complete honesty and integrity in the academic experiences both in and out of the classroom. Any student found guilty of dishonesty in any phase of academic work will be subject to disciplinary action." (See the Lamar University Student Handbook). The Lamar University JoAnne Gay Dishman School of Nursing further defines cheating, plagiarism, collusion, and abuse of research materials and other unacceptable behaviors. The JoAnne Gay Dishman School of Nursing also defines the potential actions / consequences that may be taken if a student engages in dishonest practices including course failure (see Potential Actions, JoAnne Gay Dishman School of Nursing Undergraduate Nursing Studies Student Handbook).

For the complete Academic Honesty Policy, see the *JoAnne Gay Dishman School of Nursing Undergraduate Nursing Studies Student Handbook*.

UNIVERSITY DROP/ADD

Students are responsible to be officially enrolled in the course. It is also the student's responsibility to officially drop the course. Any student who stops attending class and does not officially drop the course will be given an "F" as the semester grade.

Census Date/12th class day: September 13, 2017. Students may drop or withdraw without consulting their Instructor, School of Nursing Chair or the Records Office. The Six Drop Rule does not apply to drop before 5:00p.m. on this date.

Last date to drop or withdraw without penalty: September 29, 2017 The Six Drop Rule applies. Student should consult with the Instructor and the Records Office to initiate a drop before the Last day to drop with or without academic penalty date.

Last day to drop or withdraw with academic penalty: November 3, 2017. The Six Drop Rule Applies. Student must be passing the course at the time of the requested drop in order to receive a Q. The drop form, including all required signatures, must arrive in the Records Office by no later than 5:00p.m. on the specified date.

Any student seeking to drop after the Last day to drop or with draw by academic penalty date, must submit a fairly thorough written explanation, including supporting documents if applicable, of the extenuating circumstances for with the action is being requested. The explanation must be shared with and approved by the Instructor, the School of Nursing Chair, and the Dean of the college before the drop form will be sent to the Senior Associate Provost for a final review and decision. See the Academic calendar for all relevant dates at <http://events.lamar.edu/academic-calendar-listing.html>.

THE DISABILITY RESOURCE CENTER

If you have a need for a disability-related accommodation, please contact the Disability Resource Center, Room 105 in the Communication Building, 880-8347; or write: DRC, P O Box 10087, Beaumont, Texas 77710.

Lamar University is committed to providing equitable access to learning opportunities for all students. The Disability Resource Center (DRC) is located in the Communications building room 105. Office staff collaborate with students who have disabilities to provide and/or arrange reasonable accommodations.

For students:

- If you have, or think you may have, a disability (e.g., mental health, attentional, learning, chronic health, sensory, or physical), please contact the DRC at [409-880-8347](tel:409-880-8347) or drc@lamar.edu to arrange a confidential appointment with the Director of the DRC to explore possible options regarding equitable access and reasonable accommodations.
- If you are registered with DRC and have a current letter requesting reasonable accommodations, we encourage you to contact your instructor early in the semester to review how the accommodations will be applied in the course.
- To facilitate the arrangements necessary to make accommodations, students enrolled in nursing courses must submit official documentation from the Disability Resource Center to the course faculty.

COURSE EVALUATIONS

Lamar University encourages students to evaluate online the courses they take and the instruction they receive via a contract with a national company,

OnlineCourseEvaluations.com. The evaluation instruments themselves were developed by LU faculty and administrators. Evaluation windows for fall and spring courses open two weeks before the final examination period and close at the end of the last class day. The student is notified of the specific dates at his/her LU Connect e-mail address. If course evaluations are given during summers, mini semesters, and other compressed terms, evaluation windows are extended past the last class meeting. Evaluations are completely anonymous, and neither LU faculty nor LU administrators have the ability to determine the name of the student who completed a specific evaluation form. The primary purpose of course evaluation is the improvement of instruction. That is, after the semester has ended and grades have been awarded, faculty are able to access the results of student course evaluations, to include all student comments. Faculty analyze the data and read the comments, and often use student observations and suggestions to make changes in course content and delivery. The results of course evaluations are also used by chairs and deans as one factor in decisions involving merit pay, tenure, and promotion. Both the administration and faculty take student input via course evaluations very seriously, and faculty encourage students to participate in this process. Any questions or comments students have about the process should be addressed to Dr. Tom Matthews, University Assessment Coordinator, at 409-880-2385 or tom.matthews@lamar.edu.

EMERGENCY PROCEDURES

Many types of emergencies can occur on campus; instructions for severe weather or violence/active shooter, fire, or chemical release can be found at: <http://www.lamar.edu/about-lu/administration/risk-management/index.html>. Following are procedures for the first two:

Severe Weather:

- Follow the directions of the instructor or emergency personnel.
- Seek shelter in an interior room or hallway on the lowest floor, putting as many walls as possible between you and the outside.
- If you are in a multi-story building, and you cannot get to the lowest floor, pick a hallway in the center of the building.
- Stay in the center of the room, away from exterior walls, windows, and doors.

Violence/Active Shooter (CADD):

- **CALL** - 8-3-1-1 from a campus phone (880-8311 from a cell phone). Note: Calling 9-1-1 from either a campus phone or cell phone will contact Beaumont City Police Dispatch rather than University Police.
- **AVOID**- If possible, self-evacuate to a safe area outside the building. Follow directions of police officers.
- **DENY**- Barricade the door with desks, chairs, bookcases or any other items. Move to a place inside the room where you are not visible. Turn off the lights and remain quiet. Remain there until told by police it is safe.
- **DEFEND**- Use chairs, desks, cell phones or whatever is immediately available to distract and/or defend yourself and others from attack.

Many types of emergencies can occur on campus. Instructions for severe weather or violence/active shooter, fire, or chemical release can be found at: <http://www.lamar.edu/about-lu/administration/risk-management/index.html>.

CAMPUS CLOSURE

In the event of an announced campus closure in excess of four days due to a hurricane or other disaster, students are expected to login to Lamar University's website's homepage (www.lamar.edu) for instructions about continuing courses remotely.

LAMAR UNIVERSITY
COLLEGE OF ARTS AND SCIENCES
JOANNE GAY DISHMAN SCHOOL OF NURSING
NURS 2373-02 BASIC PATHOPHYSIOLOGY
Exam Blueprint*

EXAM #	TOPIC	Number of Questions
I	Cell Injury & Adaptation	8
	Inflammation	10
	Tissue Repair & Wound Healing	5
	Cell Proliferation & Growth	4
	Alterations in Skin Function & Integrity	8
	Alterations in Fluid & Electrolyte Balance	15
	Alterations in Renal Function	15
	Total	65
II	Alterations in Immune System	13
	Alterations in Hematologic Function	12
	Alterations in Cardiovascular System	40
	Total	65
III	Alterations in Respiratory System / Oxygenation	20
	Arterial Blood Gases	5
	Alterations in Endocrine System	20
	Alterations in Gastrointestinal	20
	Total	65
FINAL	Alterations in Neurological System	20
	Alterations in Musculoskeletal System	10
	Cell Injury & Adaptation	2
	Inflammation	4
	Tissue Repair & Wound Healing	2
	Cell Proliferation & Growth	2
	Alterations in Skin Function & Integrity	4
	Alterations in Fluid & Electrolyte Balance	6
	Alterations in Renal Function	5
	Alterations in Immune System	4
	Alterations in Hematologic Function	4
	Alterations in Cardiovascular System	15
	Alterations in Respiratory System / Oxygenation	8
	Arterial Blood Gases	2
	Alterations in Endocrine System	8

	Alterations in Gastrointestinal	4
	Total	100

*Subject to change

LAMAR UNIVERSITY
COLLEGE OF ARTS AND SCIENCES
JOANNE GAY DISHMAN SCHOOL OF NURSING

ACADEMIC HONESTY

The JoAnne Gay Dishman School of Nursing complies with the University Academic Policy as published in the Lamar University Student Handbook.

Academic Honesty

The university expects all students to engage in all academic pursuits in a manner that is above reproach. Students are expected to maintain complete honesty and integrity in the academic experiences both in and out of the classroom. Any student found guilty of academic dishonesty in any phase of academic work will be subject to disciplinary action.

Defining Terms for Academic Dishonesty

"**Cheating**" includes:

1. Copying from another student's test paper, laboratory report, other report, or computer files, data listing, and/or programs.
2. Using, during a test, materials not authorized by the person giving the test.
3. Collaborating, without authorization, with another person during an examination or in preparing academic work.
4. Knowingly, and without authorization, using, buying, selling, stealing, transporting, soliciting, copying, or possessing, in whole, or part, the contents of an un-administered test.
5. Substituting for another student; permitting any other person; or otherwise assisting any other person to substitute for oneself or for another student in the taking of an examination or test or the preparation of academic work to be submitted for academic credit.
6. Bribing another person to obtain an un-administered test or information about an un-administered test.
7. Purchasing, or otherwise acquiring and submitting as one's own work any research paper or other writing prepared by an individual or firm. This section does not apply to the typing of the rough and/or final versions of an assignment by a professional typist.
8. The JoAnne Gay Dishman Department of Nursing believes:
 - a. Unauthorized Multiple Submission - using any work previously submitted for credit without prior permission of instructor is a form of academic dishonesty.
 - b. Fabrication/Falsification/Alteration- Intentional misrepresentation, invention, exaggeration or alteration of information or data, whether written, verbalized or demonstrated is a form of academic dishonesty.

Plagiarism which means the appropriation of another's work or idea and the unacknowledged incorporation of that work or idea into one's own work offered for credit.

- "Researchers do not claim the words and ideas of another as their own; they give credit where credit is due. Quotation marks should be used to indicate the exact words of another. Each time you paraphrase another author (i.e.: summarize a passage or rearrange the order of a sentence and change some words) you need to credit the source in the text" (American Psychological Association [APA], 2010, p. 15).
- "Whether paraphrasing, quoting an author directly, or describing an idea that influenced your work, you must credit the source. To avoid charges of plagiarism, take careful notes as you research to keep track of your sources and cite those sources according to the guidelines presented in this chapter" APA, 2010, p 170).
- Please refer to an APA Publication Manual (61h edition) for detailed guidance.

Collusion which means the unauthorized collaboration with another person in preparing work offered for credit.

Abuse of research materials which means the mutilation, destruction, concealment, theft or alteration of materials provided to assist students in the mastery of course materials.

Academic work which means the preparation of an essay, dissertation, thesis, report, problem, assignment, or other project that the student submits as a course requirement or for a grade.

Procedures

The faculty member shall conduct a complete, thorough, and impartial investigation of the charge of academic dishonesty and determine whether or not the student was responsible for the violation. If the faculty member determines that the student was responsible for the violation, the faculty member may assess an appropriate and reasonable sanction.

Refer to Lamar University Student Handbook for further Information and JoAnne Gay Dishman Department of Nursing policy for Grievances.

Students are referred to the Texas State University System (TSUS) Rules and Regulations 5.36 Disciplinary Procedures for Academic Dishonesty and Lamar University Student Handbook.

Revised Faculty Association 6/1/05

Revised Faculty Association 12/11/08, 4/14/14