



“...For dust you are and to dust you will return.”—Genesis 3:19
A cheerful heart is good medicine, but a crushed spirit dries up the bones.—Proverbs 17:22

Course Number and Title: NUR 3013– Pathophysiology & Pharmacology I
Credit Hours: 3 Semester Hours
Placement: Sophomore Year
Spring 2009

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Course Description:

Part I of a comprehensive study of human pathophysiology and pharmacology appropriate to the professional nurse role. Application of pathophysiologic and pharmacologic processes to the care and promotion of health and wellness across the lifespan are discussed. Major drug classes and prototypical drugs are presented with specific application to nursing care within the nursing process.
Co/Prerequisite: BIO 2284 or BIO 2294; BIO 3504; NUR 3002;
Admission to Upper-Division Nursing Program

Course Learning Outcomes:

Upon satisfactory completion of this course, the student will have met the following outcomes:

1. Articulated basic mechanisms of disease process.
2. Identified the six rights of drug administration.
3. Described basic principles of pharmacokinetics, pharmacodynamics, and pharmacotherapy.
4. Identified major types of adverse drug reactions and drugs commonly associated with them.
5. Recalled pharmacology of major drug classes and prototypical drugs within those classes.
6. Determined developmentally appropriate nursing interventions relating to pharmacotherapy.
7. Examined professional values (legal and ethical) and the Christian worldview in relation to foundational skills.
8. Related pharmacotherapy to the nursing process.
9. Applied professional practice responsibility and accountability standards in pharmacologic intervention
10. Explained possible relationships of human pathology and pharmacology among the Neuman Systems Model physiological, psychological, sociocultural, developmental, and spiritual variables.

Textbooks/Learning Materials:

Required:

Lehne. (2010). *Pharmacology for Nursing Care* (7th ed). Saint Louis, MO: Saunders.

Nursing Central Software (To sign up, go to nursing.unboundmedicine.com and create an account from a PBA computer. See Nursing Student Handbook for more information.)

TurningPoint ResponseCard RF, RF LCD, or XR

Medscape.com

Optional

Hargrove-Huttel. ().*Pharmacology Success: A Course Review Applying Critical Thinking to Test Taking*. Philadelphia: FA Davis.

Hogan, Gingrich, Ricci, & Overby. (2006). *Reviews & Rationales: Pathophysiology*. Saddle River, NJ, Prentice Hall.

Hogan, Gingrich, Ricci, & Overby. (2006). *Reviews & Rationales: Fluids Electrolytes, & Acid-Base Balance*. Saddle River, NJ, Prentice Hall

Additional Laboratory and Technological Resource

- Visible Human Dissector
- ProCalc
- Software for Nurses: Electrolytes and Acid-Base Balance

Teaching/Learning Methods:

1. Lecture and discussion
2. Computer exercises
3. Case Studies

Course Requirements:

1. Read assigned material and listen to podcasts prior to class.
2. Attend scheduled classes.
3. Be prepared and participate in the class discussion.
4. Take exams and Clicker quizzes.
5. Complete all assignments.

Methods of Evaluation:

- | | |
|-------------------------|--------------|
| 1. Online Exercises | 5% |
| 2. In class quizzes | 5% |
| 3. 4 tests @ 15% each | 60% |
| 4. Final examination | 30% |
| 5. E-college discussion | Extra Credit |

Attendance:

Attendance is required. All excused absences from class must be reported. Participation performance will not be penalized for excused absences. Tests will only be made up for excused absences and must be made up within one week. Refer to student handbook.

Grading Scale:

The following grading scale will be used for all School of Nursing courses. Students must achieve a minimum of a C in each nursing course. This course will require a minimum of a 75% average for all examinations to receive a final grade of “C” in the course.

See table on next page.

A	93-100
A-	90-92
B+	87-89
B	84-86
B-	82-83
C+	79-81
C	75-78
D	65-74
F	64-Below

Additional Policies:

1. Attendance is required. Two percentage points will be deducted from the final grade for each unexcused absence. Text messaging and using laptops for social purposes in class will result in being dismissed from class and four points deducted from the final grade.
2. Check email and access E-college every day.
3. Students are expected to have completed the required reading and projects in the study guide. In addition, it is expected that students will review, as needed, content from previous courses that has application to the current nursing topics (e.g. anatomy/physiology, pathophysiology, pharmacology, human growth and development, etc.).
4. Students who miss class on the same day of an exam in another course but show up to take the exam will lose all class attendance and participation points.
5. Students found text messaging during classes will be required to leave their phones with the professor during class time for the duration of the semester.
6. The following policies are to be followed according to the current edition of the Navigator:
 - a. Computer Usage Policy
 - b. Dress Code: Standards of Dress and Personal Appearance
 - c. Academic Standards of Conduct: for the Community Value System and the Five Core Values of the PBA Community as well as descriptions of infractions of the standards and the discipline process.
7. The following policies are to be followed according to the current edition of the PBA School of Nursing Handbook
 - a. Scholarship and Integrity
 - b. Professional Behavior and the Care of others
 - c. Theory, Laboratory, Practicum Attendance and Assignment Submission
 - d. Students with Disability

Course Outline:

Unit		Content	Reading
1	Tues	Introduction, Mechanisms of Disease Principles of Pharmacology	Lehne, 1 - 84
2	Thur	Intro to Peripheral Nervous System	Lehne, 99 – 120
3	Tues	Cholinergic Drugs Adrenergic Drugs	Lehne, 121 – 180
4	Thur	Test 1: Intro, Peripheral Nervous System	
5	Tues	Inflammation, Wound Healing, Immunity Immunosuppressants Steroids	A&P of Immune System (from Website) Lehne, 795 – 836
6	Thur	Pain and Pain Medications	Lehne, 242 - 248, 258 – 280
7	Tues	Test 2: Inflammation, Immunity, Pain	
8	Thur	Fluids, Electrolyte, and Acid-Base Imbalance	Lehne, 449 – 453
9	Tues	Oxygenation: Big picture A&P of Respiratory Manifestations of Respiratory Disease	Lehne, 866 – 890
10	Thur	COPD, Pneumonia Respiratory Pharmacology	Lehne, 866 – 890
11	Tues	Test 3 : Electrolytes and Respiratory	
12	Thur	Anemia	Lehne, 623 – 645
13	Tues	Anticoagulants, Antiplatelets, Thrombolytics	Lehne, 585 – 608
14	Thur	Cancer	
15	Tues	Test 4: Anemia & Anticoagulants	
16	Thur	Final: Comprehensive	

Assignments:**Online Review Exercises**

There are eight online review exercises worth a total of 5% of the final grade. They are open book and may be completed as many times as you like. Cooperation is allowed. The grade in each review the day of the final will be recorded grade for the review.

ResponseCard (Clicker) Quizzes

Each week, knowledge of the reading and podcast will be assessed in class using the ResponseCards.

Tests and Final:

Each test is cumulative. The final is comprehensive.

Extra Credit:

Up to 5% extra credit may be earned by thoughtful and meaningful participation in bulletin board discussions on www.patheyman.com/forum. Posts should discuss current Medscape articles that relate to issues from class. Length does not necessarily correlate with quality. In order to obtain all five points, students must consistently participate from the beginning of the semester. The extra credit points may raise your grade by one partial grade (B to B+, etc.) but will not raise a failing grade to a passing grade.

How to Successfully Pass Pathophysiology and Pharmacology

Pathophysiology and Pharmacology I & II are very difficult courses. They require a combination of memorization and understanding of the material. Without memorization, you will have nothing in your head to understand. Without understanding, your memorized material will quickly slip away.

Making your task more difficult is that not only do you need to understand the material, you will also need to apply it to clinical situations. Pathophysiology and Pharmacology I & II are a progression. If you fail to master the material in the first course, you will not be able to pass the second course. With that in mind, here are some tips for success:

1. Read the assigned text before you get to class. Believe it or not, the textbooks in this course are some of the best and most understandable textbooks you will ever have. Read them.
2. Listen to the podcast lectures
3. Come to class, pay attention, take notes.
4. The notes you take should not be a verbatim transcript of class. They should go through your head, be processed, and then write down the processed summary.
5. Keep a list of the items that you did not fully understand in class. As soon as possible afterward, review the list with your professor.
6. Review your notes often. I recommend a quick review of the notes on a weekly basis. There is so much material in the course that if you wait until the midterm and final, you will find yourself relearning the material.
7. Study with other people. It is the tendency of students to study with others of like ability, but it is in your best interest to study with students of diverse talents.