

NURS 3317 01B Principles of Pharmacology and Pathophysiology II

COURSE SYLLABUS: SPRING 2019

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Preferred Form of Communication: email

Communication Response Time: Two business days

COURSE INFORMATION

Materials – Textbooks, Readings, Supplementary Readings

Textbooks Required

Lewis, S. L., Bucher, L., Heitkemper, M.M, Harding M.M., Kwang, J., Roberts, D. (2017). *Medical-surgical nursing: Assessment and management of clinical problems.* (10th Ed.). St. Louis, MO: Elsevier.

Kee, J., Hayes, E., & McCuistion, L. E. (2018) *Pharmacology: A nursing process approach.* (9th ed.). St. Louis, MO: Saunders Elsevier.

Previous nursing course textbooks

Optional Online resources and articles as directed

Course Description (3 credit hours)

This course combines two related nursing concepts, pathophysiology, and pharmacology. Pathophysiology relates manifestations of disease, risk factors for disease, and the principles of pathology underlying illness and injury to therapeutic

nursing interventions and outcomes. Pharmacology focuses on the basic drug classification, concepts, and principles of pharmacology with special consideration for the nursing role in developing a comprehensive approach to the clinical application of drug therapy using the nursing process. Nursing implications relative to the utilization of drug therapy are examined.

Student Learning Outcomes

By the end of the course, the student will be able to:

- 1. Define basic pharmacological terminology.
- 2. Apply general concepts of pharmacokinetic and pharmacodynamic processes and their application in drug therapy and the nursing process.
- 3. Recognize significant adverse drug reactions, drug-drug, and drug-nutrient interactions.
- 4. Describe major classifications of drugs used in current treatment of disease.
- 5. Provide patient teaching, regarding drug therapy that reflects rural access, developmental stage, age, culture, and spirituality.
- 6. Apply principles of normal anatomy and physiology of human body systems to the pathophysiologic processes of common health problems.
- 7. Identify concepts, principles, and responses related to pathophysiologic processes that result in disease.
- 8. Discuss clinical manifestations of selected disease processes and health problems.
- 9. Discuss the nurse's role and responsibility for assessment of individuals experiencing health problems that result in pathophysiologic alterations.

COURSE REQUIREMENTS

Minimal Technical Skills Needed

Using the learning management system, using Microsoft Word and PowerPoint.

Instructional Methods

This is a blended course without lecture requiring students to complete online activities and independent study to be successful. Course objectives may be met through individual study using suggested resources, active involvement in classroom activities, formal, and informal exchange of ideas with classmates and colleagues regarding specific topics as well as utilizing critical thinking skills. Teaching methods include seminar, discussion, small group work, independent study of texts and library resources, computer-assisted instruction, audio-visual aids, return demonstration, clinical assignments and supervision, post clinical conferences and check-off of appropriate skills and the assignments listed. While the professor will provide guidance and consultation, the student is responsible for identification of learning needs, self-direction, seeking consultation and demonstration of course objectives.

Student Responsibilities or Tips for Success in the Course

Logging into the course website daily during the week, checking emails at least daily, updated semester calendar, at least six hours of weekly study, attendance at all class meetings, and review of examinations.

GRADING

Final grades in this course will be based on the following scale:

A = 90-100

B = 80-89

C = 75-79

D = 67-74

F = 66 and Below

A minimum grade of 75 is required to pass the course.

Exams (7) (10% each)	70%
Patho/Pharm Teaching	18%
Plan/Tool (Appendix A)	
Prework (6 each, 2%)	12%
(Appendix B)	
Total	100%

Successful completion of the examinations and papers will enable the student to meet the student learning outcomes.

Students must achieve a minimum average of 75% on all exams in order to pass the course. Other graded assignments will not be added to the final grade unless exam grade average is 75% or higher.

Late Submissions

It is expected that you will submit all assignments on time. If you need an extension, it should be requested <u>before</u> the due date and may or may not be approved at the discretion of the course coordinator. Unexcused late assignments will be penalized 10% per day for each of the first two days overdue; on the 3rd day, the grade will be assigned as 0%. Communication on these matters is the student's responsibility.

Paper submissions

All documents submitted online are to be in .docx, .rtf, or .pdf format. No other formats will be accepted (JPEG, GIF, etc.). Assignments need to be submitted in a maximum of one document per assignment. Failure to follow these guidelines will result in a grade of "0" on the assignment.

TECHNOLOGY REQUIREMENTS

Browser support

D2L is committed to performing key application testing when new browser versions are released. New and updated functionality is also tested against the latest version of supported browsers. However, due to the frequency of some browser releases, D2L cannot guarantee that each browser version will perform as expected. If you encounter any issues with any of the browser versions listed in the tables below, contact D2L Support, who will determine the best course of action for resolution. Reported issues are prioritized by supported browsers and then maintenance browsers.

Supported browsers are the latest or most recent browser versions that are tested against new versions of D2L products. Customers can report problems and receive support for issues. For an optimal experience, D2L recommends using supported browsers with D2L products.

Maintenance browsers are older browser versions that are not tested extensively against new versions of D2L products. Customers can still report problems and receive support for critical issues; however, D2L does not guarantee all issues will be addressed. A maintenance browser becomes officially unsupported after one year.

Note the following:

- Ensure that your browser has JavaScript and Cookies enabled.
- For desktop systems, you must have Adobe Flash Player 10.1 or greater.
- The Brightspace Support features are now optimized for production environments when using the Google Chrome browser, Apple Safari browser, Microsoft Edge browser, Microsoft Internet Explorer browser, and Mozilla Firefox browsers.

Desktop Support

Browser	Supported Browse	Maintenance Browser
Microsoft® Edge	Latest	N/A
Microsoft® Internet Explorer®	N/A	11
Mozilla® Firefox®	Latest, ESR	N/A
Google® Chrome™	Latest	N/A
Apple® Safari®	Latest	N/A

Tablet and Mobile Support

Device	Operating System	Broswer	Supported Browser Version(s)
Android™	Android 4.4+	Chrome	Latest
Apple	iOS®	Safari, Chrome	The current major version of iOS (the latest minor or point release of that major version) and the previous major version of iOS (the latest minor or point release of that major version)
Windows	Windows 10	Edge, Chrome, Firefox	Latest of all browsers, and Firefox ESR

The current major version of iOS (the latest minor or **point** release of that major version) and the previous major version of iOS (the latest minor or **point** release of that major version). For example, as of June 7, 2017, D2Lsupports iOS 10.3.2 and iOS 9.3.5, but not iOS 10.2.1, 9.0.2, or any other version.

Chrome: Latest version for the iOS browser.

- You will need regular access to a computer with a broadband Internet connection.
 The minimum computer requirements are:
 - o 512 MB of RAM, 1 GB or more preferred
 - Broadband connection required courses are heavily video intensive
 - Video display capable of high-color 16-bit display 1024 x 768 or higher resolution
- You must have a:
 - Sound card, which is usually integrated into your desktop or laptop computer
 - Speakers or headphones.
 - *For courses utilizing video-conferencing tools and/or an online proctoring solution, a webcam and microphone are required.
- Both versions of Java (32 bit and 64 bit) must be installed and up to date on your machine. At a minimum Java 7, update 51, is required to support the learning management system. The most current version of Java can be downloaded at: JAVA web site http://www.java.com/en/download/manual.jsp
- Current anti-virus software must be installed and kept up to date.

Running the browser check will ensure your internet browser is supported.

Pop-ups are allowed.

JavaScript is enabled.

Cookies are enabled.

- You will need some additional free software (plug-ins) for enhanced web browsing.
 Ensure that you download the free versions of the following software:
 - Adobe Reader https://get.adobe.com/reader/
 - Adobe Flash Player (version 17 or later) https://get.adobe.com/flashplayer/
 - o Adobe Shockwave Player https://get.adobe.com/shockwave/
 - Apple Quick Time http://www.apple.com/quicktime/download/
- At a minimum, you must have Microsoft Office 2013, 2010, 2007 or Open Office. Microsoft Office is the standard office productivity software utilized by faculty, students, and staff. Microsoft Word is the standard word processing software, Microsoft Excel is the standard spreadsheet software, and Microsoft PowerPoint is the standard presentation software. Copying and pasting, along with attaching/uploading documents for assignment submission, will also be required. If you do not have Microsoft Office, you can check with the bookstore to see if they have any student copies.

ACCESS AND NAVIGATION

You will need your campus-wide ID (CWID) and password to log into the course. If you do not know your CWID or have forgotten your password, contact the Center for IT Excellence (CITE) at 903.468.6000 or helpdesk@tamuc.edu.

Note: Personal computer and internet connection problems do not excuse the requirement to complete all course work in a timely and satisfactory manner. Each student needs to have a backup method to deal with these inevitable problems. These methods might include the availability of a backup PC at home or work, the temporary use of a computer at a friend's home, the local library, office service companies, Starbucks, a TAMUC campus open computer lab, etc.

COMMUNICATION AND SUPPORT

Brightspace Support

Need Help?

Student Support

If you have any questions or are having difficulties with the course material, please contact your Instructor.

Technical Support

If you are having technical difficulty with any part of Brightspace, please contact Brightspace Technical Support at 1-877-325-7778 or click on the **Live Chat** or click on the words "click here" to submit an issue via email.



System Maintenance

Please note that on the 4th Sunday of each month there will be System Maintenance which means the system will not be available 12 pm-6 am CST.

Interaction with Instructor Statement

Communication between faculty and students is important and taken seriously. Preferred communication methods are through individualized faculty office hours or email. If a phone call is not answered, please leave a message and send an email using the direct email link on the course home page. You will be treated with collegial respect and you are expected to communicate likewise in a professional manner.

Course Specific Procedures/Policies

Students must adhere to standards of professional and academic conduct Academic misconduct involves any activity that tends to compromise the academic integrity of the University, or subvert the educational process, including, but not limited to, cheating, plagiarism, falsifying academic records, misrepresenting facts and any act designed to give unfair academic advantage to the student or the attempt to commit such an act. Students are responsible for their own academic honesty and for reporting violations of academic honesty by others. (Nursing Student Conduct Code-See the BSN Student Guide)

CLASS

- 1. Class Cancellation: In the event that a class is canceled, the student is expected to do the readings and complete the objectives for that day. The content will still be included on examinations. The material in this syllabus and dates identified in the Course Calendar are subject to change.
- 2. Class attendance is expected. Students should notify course faculty in advance of any absence. It is the student's responsibility to obtain information covered in class/lab.
- Exam dates are listed in each course syllabus, and the student is expected to be present for exams. In the event that the student will be absent, the course instructor must be notified in advance.
- 4. As an adult learner and responsible professional, the student is responsible for reading and completing assignments prior to class and for being prepared to

participate in discussions over the assigned material. It should not be expected that all material will be covered in class. Students are expected to come to class prepared.

Classroom Behavior

Students must refrain from classroom distractions (e.g. talking to each other, eating, texting, using phones, entering late or moving excessively during class). Children are not allowed in the classroom at any time. Students causing distractions will be asked to leave the classroom and may be subject to disciplinary action. Cell phones must be placed on vibrate or turned off.

Use of Electronic Devices

The use of electronic devices, including laptops and voice recorders, must be approved by the course faculty prior to class. Laptops not being used to take notes should be closed. The use of any unapproved electronic devices during a test/quiz or test/quiz review will result in the student receiving a zero for that test/quiz.

Student Dress

Refer to Student Guide for additional information. While in the lab, students will be expected to dress in the prescribed BSN program uniform at the appointed time. Prior to that time, students should be dressed appropriately without body piercings, tattoos covered, no nail polish, and attired in nothing suggestive. Hair must be up and off the collar. Gum chewing is never allowed in the lab.

Syllabus Change Policy

The syllabus is a guide. Circumstances and events, such as student progress, may make it necessary for the instructor to modify the syllabus during the semester. Any changes made to the syllabus will be announced in advance.

University Specific Procedures

Student Conduct

All students enrolled at the University shall follow the tenets of common decency and acceptable behavior conducive to a positive learning environment. The Code of Student Conduct is described in detail in the Student Guidebook.

 $\underline{http://www.tamuc.edu/Admissions/oneStopShop/undergraduateAdmissions/studentGuidebook.as}\\ \underline{px}$

Students should also consult the Rules of Netiquette for more information regarding how to interact with students in an online forum: Netiquette
Netiquette
Netiquette

TAMUC Attendance

For more information about the attendance policy please visit the <u>Attendance</u> webpage and <u>Procedure 13.99.99.R0.01</u>.

http://www.tamuc.edu/admissions/registrar/generalInformation/attendance.aspx

http://www.tamuc.edu/aboutUs/policiesProceduresStandardsStatements/rulesProcedures/13students/academic/13.99.99.R0.01.pdf

Academic Integrity

Students at Texas A&M University-Commerce are expected to maintain high standards of integrity and honesty in all of their scholastic work. For more details and the definition of academic dishonesty see the following procedures:

Undergraduate Academic Dishonesty 13.99.99.R0.03

http://www.tamuc.edu/aboutUs/policiesProceduresStandardsStatements/rulesProcedures/13students/undergraduates/13.99.99.R0.03UndergraduateAcademicDishonesty.pdf

Graduate Student Academic Dishonesty 13.99.99.R0.10

http://www.tamuc.edu/aboutUs/policiesProceduresStandardsStatements/rulesProcedures/13students/graduate/13.99.99.R0.10GraduateStudentAcademicDishonesty.pdf

ADA Statement

Students with Disabilities

The Americans with Disabilities Act (ADA) is a federal anti-discrimination statute that provides comprehensive civil rights protection for persons with disabilities. Among other things, this legislation requires that all students with disabilities be guaranteed a learning environment that provides for reasonable accommodation of their disabilities. If you have a disability requiring an accommodation, please contact:

Office of Student Disability Resources and Services

Texas A&M University-Commerce Gee Library- Room 162 Phone (903) 886-5150 or (903) 886-5835

Fax (903) 468-8148

Email: studentdisabilityservices@tamuc.edu

Website: Office of Student Disability Resources and Services

http://www.tamuc.edu/campusLife/campusServices/studentDisabilityResourcesAndServ

ices/

Nondiscrimination Notice

Texas A&M University-Commerce will comply in the classroom, and in online courses, with all federal and state laws prohibiting discrimination and related retaliation on the basis of race, color, religion, sex, national origin, disability, age, genetic information or veteran status. Further, an environment free from discrimination on the basis of sexual orientation, gender identity, or gender expression will be maintained.

Campus Concealed Carry Statement

Texas Senate Bill - 11 (Government Code 411.2031, et al.) authorizes the carrying of a concealed handgun in Texas A&M University-Commerce buildings only by persons who have been issued and are in possession of a Texas License to Carry a Handgun. Qualified law enforcement officers or those who are otherwise authorized to carry a concealed handgun in the State of Texas are also permitted to do so. Pursuant to Penal Code (PC) 46.035 and A&M-Commerce Rule 34.06.02.R1, license holders may not carry a concealed handgun in restricted locations.

For a list of locations, please refer to the <u>Carrying Concealed Handguns On Campus</u> document and/or consult your event organizer.

Web url:

http://www.tamuc.edu/aboutUs/policiesProceduresStandardsStatements/rulesProcedures/34SafetyOfEmployeesAndStudents/34.06.02.R1.pdf

Pursuant to PC 46.035, the open carrying of handguns is prohibited on all A&M-Commerce campuses. Report violations to the University Police Department at 903-886-5868 or 9-1-1.

COURSE OUTLINE / CALENDAR

Week	Content	Reading Assignments	Class Meetings/
Monday			Class Assignments/Exams
Date			
Week 1	Orientation to		Class 1/14 1000-1200
1/14	Course		
Week 2	Patho-Sensory	Lewis Chapter 20: 350-	Class 1/22 1500-1700
1/21	& Neurologic	352; 361-362;	
		Chapter 21: 367-368; 370-	
		374; 376-380; 382-388	
		Chapter 55: 1294-1301	
		Chapter 56: 1314-1318;	
		1326-1229; 1333-1335;	
		1338-1342 Chapter 57: 1345-1352	
		Chapter 57: 1345-1352 Chapter 58: 1368-1371;	
		1374-1376; 1382-1385;	
		1387-1389; 1393-1396	
		Chapter 59: 1399-1404	
		Chapter 60: 1419-1424;	
		1436-1443	
Week 3	Pharm-	Kee Chapters 19, 20, 44	1/29 Exam # 1 900-1000
1/28	Neurologic &		(Covers week 2)
	Eye/Ear Agents		
			1/29 Class 1500-1700
Week 4	Patho-	Lewis Chapter 62: 1462-	2/4 Patho Prework #1 Due
2/4	Musculoskeletal	1470; 1480-1487	0/5 01 4500 4500
		Chapter 64: 1517-1518;	2/5 Class 1500-1700
		1525-1527; 1532-1533;	
		1534-1538; 1542; 1544;	
Week 5	Pharm-	1546 Kee Chapter 21	2/11 Pharm Prework #1 Due
2/11	Neuromuscular	Nee Onaplei Zi	Zillinamiriework#i Due
	140dioindodidi		2/12 Exam # 2 900-1000
			(Covers weeks 3 & 4)
			2/12 Class 1500-1700
	I	l	1

The syllabus/schedule are subject to change.

Week 6	Patho-Renal,	Lewis Chapter 45: 1033-	2/20 Patho Prework #2 Due
2/18	Urinary, & F&E	1034; 1038; 1039-1045; 1049-1053; 1055-1060	2/21 CHANGE TO CLASS
		Chapter 16	DAY/TIME Class 1300-1500
Week 7	Pharm-F&E	Kee Chapters 4, 12	2/25 Pharm Prework #2 Due
2/25	and Herbal	Ree Chapters 4, 12	2/23 Friami Frework #2 Due
2/25	and ricibal		2/26 Exam # 3 900-1000
			2/26 Class 1500-1700
Week 8	Patho-	Lewis Chapter 23: 410-419	3/5 Class 1500-1700
3/4	Integumentary		
Week 9	Pharm-Skin	Kee Chapter 45	3/12 Exam # 4 900-1000
3/11	Agents		
			3/12 Class 1500-1700
Week 10 3/18	Spring Break		
Week 11	Patho-	Lewis Chapter 30	3/26 Class 1500-1700
3/25	Hematologic		
Week 12 4/1	Pharm-Nutrition	Kee Chapters 13, 14	4/1 Pharm Prework #3 Due
			4/2 Exam # 5 900-1000
			4/2 Class 1500-1700
Week 13 4/8	Patho-Cancer	Lewis Chapter 15	4/8 Patho Prework # 3 Due
			4/9 Class 1500-1700
Week 14 4/15	Pharm- Antineoplastic	Kee Chapters 32-34	4/16 Exam # 6 900-1000
	Agents		4/16 Class 1500-1700
Week 15	Patho-	Lewis Chapter 53 and 54	4/21 Teaching Plan Due
4/22	Reproductive		
			4/23 Class 1500-1700
Week 16	Pharm-	Kee Chapters 52, 53, 54	4/30 Class 1500-1700
4/29	Reproductive &		
	Gender-Related		
	Agents		
Week 17	Finals Week		5/7 Exam # 7 930-1030
5/6	No class		CHANGE TO EXAM TIME

Important Dates

1/29/19	Exam # 1	9:00 am – 10:00 am
2/04/29	Patho Prework #1	Due by 2359
2/11/19	Pharm Prework #1	Due by 2359
2/12/19	Exam # 2	9:00 am – 10:00 am
2/20/19	Patho Prework #2	Due by 2359
2/21/18	CHANGE TO CLASS DAY	//TIME
2/25/19	Pharm Prework #2	Due by 2359
2/26/19	Exam # 3	9:00 am – 10:00 am
3/12/19	Exam # 4	9:00 am – 10:00 am
4/01/19	Pharm Prework # 3	Due by 2359
4/02/19	Exam # 5	9:00 am – 10:00 am
4/08/19	Patho Prework # 3	Due by 2359
4/16/19	Exam # 6	9:00 am – 10:00 am
4/21/19	Teaching Plan	Due by 2359
5/07/19	Exam # 7	9:30 am – 10:30 am (Different start time that normal!)

Appendix A

Teaching Care Plan

Students will be assigned a disease process and a medication. Students are to develop a teaching care plan for a fictitious adult or geriatric patient who has been diagnosed with the assigned disease and will be prescribed the assigned medication. The teaching plan shall consist of two parts:

- a) Teaching Care plan— (outline on D2L)
- b) Handout/visual aid— Must be student's original work. Creativity encouraged.

All written work will be done using APA format and the teaching plan/handout must be supported by at least three (3) scholarly references. The teaching plan and handout are due to Activities > Assignment by 2359, April 21.

The rubric for the assignment is below.

Teaching Care Plan Grading Rubric

Tonic:			

Student:

Topic:		Possible Points	Points Earned
Content			
1.	Nursing Diagnosis is appropriate and is correctly stated	10	
2.	Goals/Outcomes address the 3 domains of learning (cognitive,	15	
	affective, psychomotor-5 points each)		
3.	Goals/Outcomes are specific, realistic, and measurable (5	15	
	points each)		
4.	Teaching topics are appropriate for the goals (3 points each)	15	
5.	Teaching topics are supported by rationale (3 points each)	15	
6.	Handout is appropriate for disease process and medication	10	
7.	Handout demonstrates creativity	10	
8.	In-text references and reference page are in APA format (all or	10	
	nothing)		
Total I	Points:	100	

Appendix B

Patho and Pharm Prework Assignments

Six (6) worth 2% each for a total of 12% of final grade

Below find the six (6) prework assignments due throughout the semester (see calendar for dates). These assignments are due to appropriate Activities > Assignment folder by 2359 the night BEFORE class. Your name must be on the assignment and the full assignment must be completed for credit. Links to each of these assignments can also be found in D2L in the content for the week in which they are due.

Patho Prework #1

Name: _____

ype of Fracture	Definition	Causes

Pharm Prework #1

Submit in the appropriate Activities > Assignment folder in D2L by 2359, February 11.

Fill out the table below on 2 common medication classes used for neuromuscular

Name: _____

disorders:			
Medication Class	Pharmacokinetics	Side effects/adverse reactions	Nursing implications/patient teaching
Acetylcholinesterase inhibitors			
Skeletal muscle relaxants			

Below list the stages of Multiple Sclerosis and treatment options during each stage

Patho Prework #2

Complete a pathophysiology concept map (with in-text reference at bottom of page) for one of the following conditions. **Put your name at the top of the page**. Submit in the appropriate Activities > Assignment folder in D2L **by 2359**, **February 20**.

Glomerulonephritis
Pyelonephritis-Acute
Pyelonephritis-Chronic
Nephrotic Syndrome
Nephritic Syndrome

Pharm Prework #2

Name:
Submit in the appropriate Activities > Assignment folder in D2L by 2359, February 25.
Pick 2 common herbal supplements and discuss the following: Pharmacokinetics drug/food interactions side effects/adverse reactions (including overdose) nursing implications/patient teaching
In the table below fill in the boxes related to the most common IV fluids used:

IV FLUID	WHAT IS IN IT? (how much	IS IT HYPOTONIC,
	sodium, dextrose,	HYPERTONIC or
	electrolytes, etc)	ISOTONIC?
Lactated Ringers (LR)		
0.9% Normal Saline (NS)		
5% Dextrose in Water (D5W)		
D5 ½ NS		

Pharm Prework #3

Name:
Submit in the appropriate Activities > Assignment folder in D2L by 2359, April 1.
Name one food that is a major source of each of the following vitamins/minerals:
Vitamins
Vitamin A:
Vitamin B:
Folic Acid:
Niacin:
Vitamin C:
Vitamin D:
Vitamin E:
Vitamin K:
Minerals
Iron:
Copper:
Zinc:
Chromium:
Selenium:

Below, discuss the following: what is total parenteral nutrition (TPN), what is in it? How do we administer it? What are the nursing implications/patient teaching for patients receiving TPN?

Patho Prework #3

Name: _____

Melanoma

Cervical

Ovarian

Activities > Assignment folder in D2L by 2359, April 8.			
Cancer	Causes (different from risk factors)	Risk Factors (at least two)	
Colon			
Lung			
Breast			
Prostate			