

UNIVERSITY OF FLORIDA  
COLLEGE OF NURSING  
COURSE SYLLABUS  
Summer 2021

<u>COURSE NUMBER</u>	NGR 6172
<u>COURSE TITLE</u>	Pharmacotherapeutics for Advanced Nursing Practice
<u>CREDITS</u>	4
<u>PLACEMENT</u>	Variable
<u>PREREQUISITES</u>	NGR 6140    Physiology and Pathophysiology for Advanced Nursing Practice
<u>FACULTY</u>	Michael D. Bumbach, PhD, APRN, FNP-BC, MSN, RN Clinical Assistant Professor Office: HPNP 4201 Office Phone: (352) 273-6638 Office Hours: Monday 8 am – 10 am Email: <a href="mailto:mbumbach@ufl.edu">mbumbach@ufl.edu</a>

COURSE DESCRIPTION    This course provides the knowledge and skills to assess, diagnose, and pharmacologically manage a client's common health problems in a safe, high quality, cost-effective manner. Emphasis is on the development of therapeutic decision-making in drug selection for the client based on health problems, individual variations, and economic considerations. Focus is on prescriptive practice, client education and monitoring therapeutic response to pharmacological agents in diverse clients across the lifespan.

- COURSE OBJECTIVES    Upon completion of this course, the student will be able to:
1. Apply the principles of pharmacokinetics and pharmacodynamics in selecting drugs.
  2. Analyze the relationship between pharmacologic agents and physiologic/pathologic responses.
  3. Compare and contrast pharmacological agents with respect to treatment of individuals with specific acute and chronic health problems across the lifespan.
  4. Select pharmacologic agents for the management of client health problems based on client variations, the problem being managed and cost effectiveness.
  5. Identify actual and potential adverse drug reactions and significant drug interactions.
  6. Develop relevant client education strategies to facilitate client collaboration in treatment and to maximize therapeutic response.
  7. Evaluate the effects of single and multiple drug regimens on client health

- status and functioning.
8. Evaluate the interactions of nonprescription therapies with prescription therapies.

### COURSE SCHEDULE

<u>Faculty</u>	<u>Section</u>	<u>Day</u>	<u>Time</u>
Bumbach	7E59	Web-based	Asynchronous

This course will be delivered via instructional technology without face-to-face instruction. Any synchronous sessions may be audio visually recorded. Students who participate with their camera engaged or utilize a profile image are agreeing to have their video or image recorded. If you are unwilling to consent to have your profile or video image recorded, be sure to keep your camera off and do not use a profile image. Likewise, students who un-mute during class and participate orally are agreeing to have their voices recorded. If you are not willing to consent to have your voice recorded during class, you will need to keep your mute button activated and communicate exclusively using the "chat" feature, which allows students to type questions and comments live. The chat will not be recorded or shared. As in all courses, unauthorized recording and unauthorized sharing of recorded materials is prohibited.

E-Learning in Canvas is the course management system that you will use for this course. E-Learning in Canvas is accessed by using your Gatorlink account name and password at <http://elearning.ufl.edu/>. There are several tutorials and student help links on the E-Learning login site. If you have technical questions call the UF Computer Help Desk at 352-392-HELP or send email to [helpdesk@ufl.edu](mailto:helpdesk@ufl.edu).

It is important that you regularly check your Gatorlink account email for College and University wide information and the course E-Learning site for announcements and notifications. Course websites are made available on the Friday before the first day of classes.

### TOPICAL OUTLINE

1. Clinical pharmacokinetics and individualization of drug therapy including absorption, distribution, metabolism, and excretion for various client populations
2. Principles of half-life, effective concentration, peak plasma levels, therapeutic blood levels, and minimal and maximum effective levels.
3. Pharmacodynamics including alterations of cell environment and functions and drug receptor activity
4. Pharmacotherapeutic decision-making for common acute and chronic health problems across the lifespan including drug selection, intervention, and monitoring for
  - a. Immunological Alterations
  - b. Tissue Defense Alterations
  - c. Endocrine Alterations
  - d. Neurological Alterations
  - e. Hematological Alterations

- f. Dermatological Alterations
  - g. Cardiovascular Alterations
  - h. Respiratory Alterations
  - i. Gastrointestinal Alterations
  - j. Musculoskeletal Alterations
  - k. Genitourinary Alterations
  - l. Affective and Cognitive Alterations
5. Therapeutic response to pharmacological agents
  6. Adverse drug reactions and appropriate interventions.
  7. Drug interactions based on selected drug categories including drug-drug interactions, drug-food interactions, drug-ethanol/tobacco interactions and drug-environmental interactions
  8. Prescriptive practice and dispensing limitations for advanced practice nurses including writing prescriptions, legal authority and restrictions, ethics, and clinical standards.
  9. Alternative therapies
  10. Client education and adherence
  11. Economic implications of drug selection and management on client's lifestyle
  12. Implications of client's cultural health beliefs and practices on drug selection and monitoring
  13. Resource utilization

**TEACHING METHODS**

Online asynchronous lectures, textbook, written materials, case studies, selected reading, and electronic/online sources.

**LEARNING ACTIVITIES**

Readings, case study analysis, online resource, and self-reflection, presentations, quizzes, and examinations.

**EVALUATION METHODS/COURSE GRADE CALCULATION**

Examinations and written assignments are submitted electronically. No hard copy submissions are accepted.

Evaluation is based upon the following areas:

	Percentage of Grade
Examinations (3 Exams @ 17% each)	51%
Shadow Health Online Cases (6 Cases @ 4% each)	24%
Weekly Assignments (10 @ 2.4% each)	24%
Syllabus Quiz	1%
Total	100%

Students are expected to participate in the activities and discussion as listed in the course syllabus and on the course website. Timeframes for the posting and receiving of materials are listed in the course materials on Canvas.

## EVALUATION DETAILS

Exams: There are a total of three, non-cumulative exams during the semester. The exams are available in Canvas and will be proctored by Proctor U. Exams will be graded, and results posted within 72 hours.

Weekly Assignments: Weekly assignments consist of quizzes or online activities. Weekly assignments are available in the Canvas Course Site. Weekly assignments will not be re-opened after the due date. Students should contact faculty in advance if an emergency prevents completion of weekly activities within the assigned time (see Make Up Policy). Faculty will consider emergency situations on a case-by-case basis.

Shadow Health Case Studies: Case studies must be done individually. Case studies will have 5% per day deducted for late submissions. Case studies will be graded from the DCE (Digital Clinical Experience) score as generated by Shadow Health.

## CLASS ATTENDANCE

Students are responsible for meeting all academic objectives as defined by the instructor. Students may not attend classes unless they are registered officially or approved to audit with evidence of having paid audit fees. After the end of drop/add, the Office of the University Registrar provides official class rolls/addenda to instructors. Students who do not attend at least one of the first 2 class meetings of a course or laboratory in which they are registered and who have not contacted the academic unit to indicate their intent may be dropped from the course. **Students must not assume that they will automatically be dropped if they fail to attend the first few days of class.** The academic unit will notify students dropped from courses or laboratories by posting a notice in the academic unit office. Students may request reinstatement on a space-available basis if documented evidence is presented. The University recognizes the right of the individual professor to make attendance mandatory. After due warning, professors may prohibit further attendance and then assign a failing grade for excessive absences. Students who have registration changes, at any time during the semester, should verify their registrations before the last day of class of the term. Retroactive drop/add or other registration changes will not be permitted.

Requirements for class attendance and make-up exams, assignments, and other work in this course are consistent with university policies that can be found at:  
<https://catalog.ufl.edu/graduate/regulations/#text>

This is a challenging and time-consuming course with a strong clinical focus. You will need to devote several hours per week to reading, studying, reviewing all course materials, and listening to the lectures. Please plan carefully to ensure that you can complete the course successfully.

This is a completely asynchronous course. There is no required class attendance. The course is offered in an online format. Any change in these dates will be announced in advance. Your continued enrollment in this course acknowledges agreement with the schedule.

If you desire additional face to face time with the instructor, this can be arranged by emailing the professor. Office hours are posted and held weekly.

PLEASE NOTE: Students are expected to complete all assignments within the posted timeframe. If assignments are done early, answers and rationale will be reviewed after the completion date and time. If an illness or emergency is experienced that prevents the student from completing assignments in a timely manner, the student should notify the faculty member as soon as possible. Faculty will consider crisis situations on a case-by-case basis. For additional information about absences and testing, students should refer to attendance policies outlined in the [Student Handbook](#).

### TECHNOLOGY

The College of Nursing utilizes Proctor U, a live proctoring service, for major examinations in graduate web-based online courses to ensure a secure testing environment. See Canvas for more information on Proctor U and how to create an account.

- Each student's computer must follow Policy S1.04, *Student Computer Policy* and must contain a web cam, microphone, and speakers.
- CON IT Support Office will oversee this process and provide technical assistance

### MAKE UP POLICY

Students must schedule and be present at a computer for all scheduled exams. Early testing is not an option. Make-up exams are given only for exceptional circumstances. Students must discuss the absence circumstances with faculty prior to the scheduled exam and a missed exam must be made up within one week. There will be no make up for any of the other assignments.

- Late assignment submission will be deducted 10% each 24 hours after the submission due date, before grading.

### GRADING SCALE/QUALITY POINTS

A	95-100 (4.0)	C	74-79* (2.0)
A-	93-94 (3.67)	C-	72-73 (1.67)
B+	91- 92 (3.33)	D+	70-71 (1.33)
B	84-90 (3.0)	D	64-69 (1.0)
B-	82-83 (2.67)	D-	62-63 (0.67)
C+	80-81 (2.33)	E	61 or below (0.0)

\* 74 is the minimal passing grade

For more information on grades and grading policies, please refer to University's grading policies: <https://catalog.ufl.edu/graduate/regulations/>

### COURSE EVALUATION

Students are expected to provide professional and respectful feedback on the quality of instruction in this course by completing course evaluations online via GatorEvals.

Guidance on how to give feedback in a professional and respectful manner is available at

<https://gatorevals.aa.ufl.edu/students/>. Students will be notified when the evaluation period opens and can complete evaluations through the email they receive from GatorEvals, in their Canvas course menu under GatorEvals, or via <https://ufl.bluera.com/ufl/>. Summaries of course evaluation results are available to students at <https://gatorevals.aa.ufl.edu/public-results/>.

### ACCOMMODATIONS DUE TO DISABILITY

Students with disabilities requesting accommodations should first register with the Disability Resource Center (352-392-8565, <https://disability.ufl.edu/>) by providing appropriate documentation. Once registered, students will receive an accommodation letter which must be presented to the instructor when requesting accommodation. Students with disabilities should follow this procedure as early as possible in the semester.

### PROFESSIONAL BEHAVIOR

The College of Nursing expects all Nursing students to be professional in their interactions with patients, colleagues, faculty, and staff and to exhibit caring and compassionate attitudes. These and other qualities will be evaluated during patient contacts and in other relevant settings by both faculty and peers. Behavior of a Nursing student reflects on the student's individual's ability to become a competent professional Nurse. Attitudes or behaviors inconsistent with compassionate care; refusal by, or inability of, the student to participate constructively in learning or patient care; derogatory attitudes or inappropriate behaviors directed at patients, peers, faculty or staff; misuse of written or electronic patient records (e.g., accession of patient information without valid reason); substance abuse; failure to disclose pertinent information on a criminal background check; or other unprofessional conduct can be grounds for disciplinary measures including dismissal.

***As students in the health professions at UF Health, you are expected to promote safety and a culture of care and concern for each other and for patients. Across our academic health center's missions of research, teaching and patient care, nursing students must lead by example and take individual responsibility for modeling healthy habits and behaviors to minimize the spread of COVID-19. Failure to comply with the established public health measures, both on and off campus, is considered a serious breach of professional conduct.***

### UNIVERSITY POLICY ON ACADEMIC MISCONDUCT

Academic honesty and integrity are fundamental values of the University community. Students should be sure that they understand the UF Student Honor Code at <https://sccr.dso.ufl.edu/policies/student-honor-code-student-conduct-code/>. Students are required to provide their own privacy screen for all examination's administered to student laptops. No wireless keyboards or wireless mouse/tracking device will be permitted during examinations.

## UNIVERSITY AND COLLEGE OF NURSING POLICIES

Please see the College of Nursing website for student policies

(<http://students.nursing.ufl.edu/currently-enrolled/student-policies-and-handbooks/>) and a full explanation of each of the university policies –

(<http://students.nursing.ufl.edu/currently-enrolled/course-syllabi/course-policies>)

UF Grading Policy

Religious Holidays

Counseling and Mental Health Services

Student Handbook

Faculty Evaluations

Student Use of Social Media

## REQUIRED TEXTBOOKS

Rosenthal, L. D., & Burchum, J. R. (2021). *Lehne's pharmacotherapeutics for advanced practice providers, 2<sup>nd</sup> Edition*. St. Louis, MO: Elsevier. ISBN: 9780323554954

Shadow Health. (2021). *Digital Clinical Experience, Advanced Pharmacology DCE*. [Software]. ISBN: 978-0-98-978886-1. Available from <http://www.shadowhealth.com>

- Pin: **2195-4483-7110-3120**
- Student Account Setup: Students can create their accounts by visiting <http://app.shadowhealth.com/> and enrolling in your course with this course specific. More information is available on the Canvas page.

Required electronic source: Clinical Pharmacology online, accessed via the Health Science Center Website: <https://www.clinicalkey.com/pharmacology/>

Reading assignments also consist of web links and other supplemental materials. These are available on the course web site for each week. Be sure to study these materials in addition to your text and pharmacology database.

## RECOMMENDED TEXTBOOKS

The advanced health assessment text and pathophysiology text may be referenced if needed. Handheld pharmacology software is HIGHLY recommended as you will use this throughout your career. Epocrates, Lexi-Drugs, and the Clinical Pharmacology mobile app are examples. Choose the software you prefer and practice using it as you answer questions and look up medications throughout this course. Please remember, there is a lot of information online that is credible and non-credible, and it is our responsibility to be able to determine if this is the case with all the information taken from the web.

WEEKLY CLASS SCHEDULE

DATE	TOPIC/EVALUATION	READINGS	Program Outcomes
<p><b>Week 01</b> May 10-14</p>	<ul style="list-style-type: none"> <li>• Introduction to Pharmacology (I)</li> <li>• Basic principles of pharmacology (II)</li> <li>• Drug therapy across the lifespan (III)</li> <li>• Substance Use Disorders (VIII)</li> </ul> <p><b>Shadow Health:</b> Advanced Pharmacology Orientation; Conversation Concept Lab (Rachel Adler)</p> <p><b>Syllabus Quiz:</b> Due May 14, by 11:55pm (*Note: Assignment due dates are on Friday of their respective week, by 11:55pm)</p>	<p>Unit 1-3, 8</p>	<p>1, 2, 3, 4, 5, 9, 10, 11</p>
<p><b>Week 02</b> May 17-21</p>	<ul style="list-style-type: none"> <li>• Peripheral nervous system drugs (IV)</li> <li>• Central nervous system drugs (V)</li> <li>• Drugs for pain (VI)</li> <li>• Psychotherapeutic drugs (VII)</li> </ul> <p><b>Shadow Health Online Case 01:</b> Focused Exam: Pain Management (Tanner Bailey): Due May 21, by 11:55pm (Grade from DCE)</p> <p><b>Weekly Assignment: Quiz 1:</b> Due May 21, by 11:55pm</p>	<p>Unit 4-7</p>	<p>1, 2, 3, 4, 5, 9, 10, 11</p>
<p><b>Week 03</b> May 24-28</p>	<ul style="list-style-type: none"> <li>• Drugs that affect the heart, blood vessels, blood, and blood volume (IX)</li> </ul> <p><b>Shadow Health:</b> Antihypertensive Lab</p> <p><b>Weekly Assignment: Online Prescription Assignment:</b> Due May 28, by 11:55pm</p> <p><b>Weekly Assignment: Quiz 2:</b> Due May 28, by 11:55pm</p>	<p>Unit 9</p>	<p>1, 2, 3, 4, 5, 9, 10, 11</p>

<b>Week 04</b> June 1-4 Holiday: May 31	<b>Exam #1:</b> Due June 2, by 5:00pm <b>Content:</b> Weeks 1-3 <b>Test dates/times:</b> June 1, 8am – June 2, 5pm		
	<ul style="list-style-type: none"> <li>• Drugs for endocrine disorders (X)</li> </ul> <b>Shadow Health:</b> Antidiabetic Concept Lab  <b>Weekly Assignment: Quiz 3:</b> Due June 4, by 11:55pm	Unit 10	1, 2, 3, 4, 5, 9, 10, 11
<b>Week 05</b> June 7-11	<ul style="list-style-type: none"> <li>• Women’s Health (XI)</li> <li>• Men’s Health (XII)</li> </ul> <b>Shadow Health Online Case 02:</b> Focused Exam: Hypertension and Type 2 Diabetes (Arun Patel): Due June 11, by 11:55pm (Grade from DCE)  <b>Weekly Assignment: Quiz 4:</b> Due June 11, by 11:55pm	Unit 11-12	1, 2, 3, 4, 5, 9, 10, 11
<b>Week 06</b> June 14-18	<ul style="list-style-type: none"> <li>• Antiinflammatory, antiallergic, and immunologic drugs (XIII)</li> <li>• Drugs for bone and joint disorders (XIV)</li> </ul> <b>Weekly Assignment:</b> Online Cardiac Assignment Due June 18, by 11:55pm	Unit 13-14	1, 2, 3, 4, 5, 9, 10, 11
<b>June 21-25</b>	<b>Summer Break</b>		
<b>Week 07</b> June 28-July 2	<ul style="list-style-type: none"> <li>• Respiratory tract drugs (XV)</li> </ul> <b>Shadow Health:</b> Anti-Asthmatic Concept Lab  <b>Shadow Health Online Case 03:</b> Focused Exam: Community-Acquired Pneumonia (Anita Douglas): Due July 2, by 11:55pm (Grade from DCE)  <b>Weekly Assignment: Quiz 05:</b> Due July 2, by 11:55pm	Unit 15	1, 2, 3, 4, 5, 9, 10, 11

<b>Week 08</b> July 6-9 Holiday: July 5	<b>Exam #2:</b> Due July 7, by 5:00pm <b>Content:</b> Weeks 4-7 <b>Test dates/times:</b> July 6, 8am – July 7, 5pm		
	<ul style="list-style-type: none"> <li>Therapy of infectious and parasitic diseases (XVIII)</li> </ul> <b>Shadow Health:</b> Anti-infective Concept Lab  <b>Weekly Assignment:</b> Infectious Disease Presentation: Due July 9, by 11:55pm	Unit 18	1, 2, 3, 4, 5, 9, 10, 11
<b>Week 09</b> July 12-16	<ul style="list-style-type: none"> <li>Gastrointestinal drugs (XVI)</li> <li>Nutrition and complementary therapies (XVII)</li> </ul> <b>Shadow Health Online Case 04:</b> Focused Exam: UTI with Antibiotic Sensitivity (Makayla Henderson): Due July 16, by 11:55pm (Grade from DCE)  <b>Weekly Assignment: Quiz 06:</b> Due July 16, by 11:59pm	Unit 16-17	1, 2, 3, 4, 5, 9, 10, 11
<b>Week 10</b> July 19-23	<ul style="list-style-type: none"> <li>Drugs for eyes, ears, and skin (XX)</li> </ul> <b>Shadow Health Online Case 05:</b> Focused Exam: Pediatric GAS Pharyngitis (Sophia Haddad): Due July 23, by 11:55pm (Grade from DCE)  <b>Weekly Assignment: Quiz 07:</b> Due July 23, by 11:55pm	Unit 20	1, 2, 3, 4, 5, 9, 10, 11
<b>Week 11</b> July 26-30	<ul style="list-style-type: none"> <li>Drug therapy in acute care (XXI)</li> </ul> <b>Shadow Health Online Case 06:</b> Focused Exam: COPD (Debbie O'Connor): Due August 7, by 11:55pm (Grade from DCE)	Unit 21	1, 2, 3, 4, 5, 9, 10, 11
<b>Week 12</b> August 2-6	<b>Exam #3:</b> Due August 3, by 5:00pm <b>Content:</b> Weeks 8-11 <b>Test dates/times:</b> August 2, 8am – August 3, 5pm		

Approved: Academic Affairs Committee: 06/96; 04/01; 01/15  
Faculty: 08/96; 05/01; 01/15  
UF Curriculum: 10/96; 11/01; 02/15; 09/16