

NURS 504

Pharmacology for Advanced Nursing Practice 3 Units

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In modern pharmacology, it's so clear that even if you have a fixed dose of a drug, the individuals respond very differently to one and the same dose.

—Arvid Carlsson, Nobel Prize in Physiology of Medicine 2000

I. Course Prerequisites or Corequisites

Recent (within 5 years), satisfactory completion of undergraduate courses that include Biochemistry, Microbiology, Anatomy and Physiology, and Pharmacology. It is expected that enrolled students have reviewed their undergraduate coursework in Pharmacology and possess a working knowledge of cell biology, biochemistry, microbiology, and human genetics at the undergraduate level.

II. Catalogue Description

This is a course in advanced pharmacology including pharmacodynamics, pharmacokinetics, and pharmacotherapeutics of all broad categories of agents.

III. Course Descriptions

This course is a comprehensive review of pharmacological concepts and principles. The course builds on the pharmacology knowledge base acquired in the baccalaureate nursing program. It focuses on use of pharmacotherapeutics in health promotion and the treatment of disease. The interrelationships of nursing and drug therapy will be explored through study of pharmacodynamics, dynamics of patient response to medical and nursing therapeutic regimens, and patient teaching as well as the psychosocial, economic, cultural, ethical, and legal factors affecting drug therapy, patient responses, and nursing practice.

IV. Course Objectives

At completion of this course students will be able to:

Objective Number	Objectives
1	Demonstrate knowledge of advanced pharmacologic principles commensurate for independent practice.
2	Discuss therapeutics of the drug classes covered in this course with consideration of their mechanisms of action, cautions, contraindications, and rationale for use across the lifespan.
3	Articulate concepts of pharmacogenomics and apply these to understand the variation in drug responses in specific patient groups, for example, those differing by age, sex, race, geographic origin.
4	Identify appropriate pharmacotherapy approaches to common conditions encountered in the primary care setting with an emphasis on safety and appropriate patient and family education.
5	Demonstrate advanced knowledge of specific adverse drug effects and prioritization of approaches to ADE management.
6	Apply knowledge of pharmacodynamics and pharmacokinetics relevant to polypharmacy and drug- drug interactions.
7	Demonstrate use of professional technological resources on drug therapy consistent with an ongoing commitment to lifelong learning to support advanced practice.

V. Course Format/Instructional Methods

The format of the course will be online, using both asynchronous and synchronous approaches. Weekly topics listed in the course outline will be covered using before-class online review of major drug classes relevant to the topic, online lectures, textbook and other readings, “thought” questions, online discussions, audio visual materials, case studies, and course handouts. Weekly problem-solving sets will be assigned to assist students in learning the material and its clinical applications.

VI. Student Learning Outcomes

Student learning for this course relates to one or more of the following nine nursing core competencies:

Nursing Core Competencies		NURS 504	Course Objective
1	Scientific Foundation Competencies	*	1, 2, 3, 4
2	Leadership		
3	Quality	*	2, 3, 4, 5
4	Practice Inquiry		
5	Technology and Information Literacy	*	2, 3
6	Policy	*	1
7	Health Delivery System	*	1
8	Ethics	*	3, 6
9	Independent Practice		

*Highlighted in this course

The following table explains the highlighted competencies for this course, the related student learning outcomes, and the method of assessment.

SCIENTIFIC FOUNDATION COMPETENCIES		
Competencies/Knowledge, Values, Skills	Student Learning Outcomes	Method of Assessment
<p>Family Nurse Practitioner competent in Scientific Foundation Competencies:</p> <p>Integrates scientific findings from nursing, biopsychosocial fields, genetics, public health, quality improvement, and organizational sciences for the continual improvement of nursing care across diverse settings.</p>	Critically analyzes data and evidence for improving advanced nursing practice.	<ul style="list-style-type: none"> • Participation in synchronous sessions and LMS posting • Homework • Exam
	Integrates knowledge from the humanities and sciences within the context of nursing science.	
	Translates research and other forms of knowledge to improve practice processes and outcomes.	
	Develops new practice approaches based on the integration of research, theory, and practice knowledge.	
QUALITY COMPETENCIES		
Competencies/Knowledge, Values, and Skills	Student Learning Outcomes	Method of Assessment
<p>Family Nurse Practitioner competent in Quality Competencies:</p> <p>Discusses methods, tools, performance measures, and standards related to quality, and applies quality principles within an organization.</p>	Uses best available evidence to continuously improve quality of clinical practice.	<ul style="list-style-type: none"> • Participation in synchronous sessions and LMS posting • Homework • Exam
	Evaluates the relationships among access, cost, quality, and safety and their influence on health care.	
	Evaluates how organizational structure, care processes, financing, marketing and policy decisions impact the quality of health care.	
	Applies skills in peer review to promote a culture of excellence.	
	Anticipates variations in practice and is proactive in implementing interventions to ensure quality.	

TECHNOLOGY AND INFORMATION LITERACY COMPETENCIES

Competencies/Knowledge, Values, and Skills	Student Learning Outcomes	Method of Assessment
<p>Family Nurse Practitioner competent in Technology and Information Literacy Competencies:</p> <p>Integrates and incorporates advances in technology within the practice setting, resolves practice problems, works as a change agent, and disseminates results.</p>	<p>Integrates appropriate technologies for knowledge management to improve health care.</p>	<ul style="list-style-type: none"> • Participation in synchronous sessions and LMS posting • Homework • Exam
	<p>Translates technical and scientific health information appropriate for various users' needs.</p> <ul style="list-style-type: none"> • Assesses the patient's and caregiver's educational needs to provide effective, personalized health care. • Coaches the patient and caregiver for positive behavioral change. 	
	<p>Demonstrates information literacy skills in complex decision making.</p>	
	<p>Contributes to the design of clinical information systems that promote safe, quality and cost effective care.</p>	
	<p>Uses technology systems that capture data on variables for the evaluation of nursing care.</p>	

POLICY COMPETENCIES

Competencies/Knowledge, Values, and Skills	Student Learning Outcomes	Method of Assessment
<p>Family Nurse Practitioner competent in Policy Competencies:</p> <p>Defends the ability of the advanced practice nurse to intervene at the system level through the policy development process and to employ advocacy strategies to influence health and health care.</p>	<p>Recognize and manage personal values in a way that allows professional values to guide practice.</p>	<ul style="list-style-type: none"> • Participation in synchronous sessions and LMS posting • Homework • Exam
	<p>Advocates for ethical policies that promote access, equity, quality, and cost.</p>	
	<p>Analyzes ethical, legal, and social factors influencing policy development.</p>	
	<p>Contributes in the development of health policy.</p>	
	<p>Analyzes the implications of health policy across disciplines.</p>	
	<p>Evaluates the impact of globalization on health care policy development.</p>	

HEALTH DELIVERY SYSTEM COMPETENCIES

Competencies/Knowledge, Values, and Skills	Student Learning Outcomes	Method of Assessment
<p>Family Nurse Practitioners competent in Health Delivery System Competencies:</p> <p>Explains how the advanced practice nurse applies and integrates broad, organizational, client centered, and culturally appropriate concepts in the planning, delivery, management, and evaluation of evidence-based clinical prevention and population care and services to individuals, families, and aggregates/identified populations. As a member and leader of interprofessional health care system, the advanced practice nurse communicates, collaborates, and consults with other health professionals to manage and coordinate care.</p>	<p>Applies knowledge of organizational practices and complex systems to improve health care delivery.</p>	<ul style="list-style-type: none"> • Participation in synchronous sessions and LMS posting • Homework • Exam
	<p>Effects health care change using broad based skills including negotiating, consensus building, and partnering.</p>	
	<p>Minimizes risk to patients and providers at the individual and systems level.</p>	
	<p>Facilitates the development of health care systems that address the needs of culturally diverse populations, providers, and other stakeholders.</p>	
	<p>Evaluates the impact of health care delivery on patients, providers, other stakeholders, and the environment.</p>	
<p>Analyzes organizational structure, functions and resources to improve the delivery of care.</p>		

ETHICS COMPETENCIES

Competencies/Knowledge, Values, Skills	Student Learning Outcomes	Method of Assessment
<p>Family Nurse Practitioner competent in Ethics Competencies:</p> <ul style="list-style-type: none"> • Includes matters involving moral principles and social policy including professional guidelines for advanced practice nursing when providing care. 	<p>Integrates ethical principles in decision making.</p>	<ul style="list-style-type: none"> • Participation in synchronous sessions and LMS posting • Homework • Exam
	<p>Evaluates the ethical consequences of decisions.</p>	
	<p>Applies ethically sound solutions to complex issues related to individuals, populations and systems of care.</p>	

VII. Course Assignments and Grading

Assignment	Due Date	% of Final Grade
Exam 1	TBA	14%
Exam 2	TBA	14%
Exam 3	TBA	14%
Exam 4	TBA	14%
Exam 5	TBA	14%
Homework	Weekly	20%
Class Participation	Ongoing	10%
Total		100%

Each of the major assignments is described below.

Assignment: Exams (70% of course grade)

Students will be given five online, objective closed-book exams. These exams are intended to evaluate student performance in the course. Five noncumulative tests of equal weight will be given.

Exam 1 will be based on content material from Module 1 through 4; Exam 2 from Module 5-7; Exam 3 from Module 8-9; Exam 4 from Module 10-11, and Exam 5 from Module 12-14.

Exam Policies: Students are expected to take all examinations as scheduled in the Content Outline. Students will have 72 hours to complete the exam, which must be completed the first time it is opened. Requests to take an exam on a day different from the stated date will only be granted for serious situations and must be approved by the instructor.

All exams in this course will require students to deploy a proctoring software. This is a software system that automatically proctors student exams, verifies student identities throughout the exam, and provides instructors with brief video clips and screenshots if potential testing violations occur. The proctoring software is fully integrated with the Learning Management System. If students experience issues or have questions with the proctoring system in general, students should contact student support for help in advance of taking the exam.

To ensure a successful testing environment, students should:

- Choose a private location with no distractions
- Have nothing around that could make noise
- Set up proper lighting and ensure his/her face is clearly visible
- Not have food or drink
- Close all browser tabs and other programs
- Have only one keyboard, mouse, and monitor connected
- Not leave testing area/camera view during the exam
- Not take or use notes (unless specifically allowed by instructor)
- Not use or have nearby additional technology (phones, tablets, television, etc.)
- Not have other people in the room
- Have a hardwire connection

- Not write or take notes during the exam
- If disruption in the examination occurs for any reasons student must call tech support to report concern and notify the section instructor.

This assignment relates to Student Learning Outcomes 1, 3, 5, 6, 7, and 8.

Assignment: Homework (20% of course grade)

Assigned homework must be completed and uploaded *before* the start of synchronous session each week, *beginning with Week 2*. Students are expected to complete and upload their document within the timeframe set by the section instructor (refer to assignment section on the LMS for specific homework instructions and timelines). Homework is to be edited for correct grammar and spelling; **any references should be cited using APA format**, and direct quotations must be indicated in appropriate APA format. It is expected that students will watch ALL asynchronous materials, and complete ALL online questions from the module before attempting the homework. Instructions for homework are posted in the Assignment Resources Section.

Homework grades will be based on:

1. Use of correct terminology
2. Quality of writing
3. Factual accuracy
4. Evidence of careful engagement with asynchronous materials, the recommended textbook, and current clinical guidelines.
5. Accurate prescription for the selected disease

Due: Weekly (prior to Live Session)

This assignment relates to Student Outcomes 1, 3, 5, 6, 7, and 8.

Assignment: Class participation (10% of course grade)

Class participation will recognize student asynchronous preparation for live session, evidence of comprehension of the material, and the ability to communicate knowledge with peers. Class participation is evidenced by completion of asynchronous exercise questions, verbal and chat pod contributions during synchronous sessions AND in the weekly question wall post and response.

Grading for class participation is based on the rubric for preparation and participation (posted in Course Tools). Posting a weekly wall question 24 hours prior to asynchronous class and responding to a fellow student's question is included in the participation component of this course.

Due: Weekly (prior to live session)

This assignment relates to Student Learning Outcomes 1, 3, 5, 6, 7, and 8.

Note: Faculty reserve the right to modify content and/or date for assignments and/or exams. In some cases, depending on national and University holidays, live session days and times may be adjusted. Notice of such changes will be given at the start of the semester to permit students to arrange their work schedules accordingly.

Class grades will be based on the following:

Class Grades		Final Grade	
3.85–4.00	A	93–100	A
3.60–3.84	A-	90–92	A-
3.25–3.59	B+	87–89	B+
2.90–3.24	B	83–86	B
2.60–2.89	B-	80–82	B-
2.25–2.59	C+	77–79	C+
1.90–2.24	C	73–76	C
		70–72	C-

Within the School of Social Work, grades are determined in each class based on the following standards, which have been established by the faculty of the School: (1) Grades of A or A- are reserved for student work which not only demonstrates very good mastery of content but which also shows that the student has undertaken a complex task, has applied critical- thinking skills to the assignment, and/or has demonstrated creativity in her or his approach to the assignment. The difference between these two grades would be determined by the degree to which these skills have been demonstrated by the student. (2) A grade of B+ will be given to work which is judged to be very good. This grade denotes that a student has demonstrated a more-than-competent understanding of the material being tested in the assignment. (3) A grade of B will be given to student work which meets the basic requirements of the assignment. It denotes that the student has done adequate work on the assignment and meets basic course expectations. (4) A grade of B- will denote that a student’s performance was less than adequate on an assignment, reflecting only moderate grasp of content and/or expectations. (5) A grade of C would reflect a minimal grasp of the assignments, poor organization of ideas and/or several significant areas requiring improvement. (6) Grades between C- and F will be applied to denote a failure to meet minimum standards, reflecting serious deficiencies in all aspects of a student’s performance on the assignment.

VIII. Required and Supplementary Instructional Materials and Resources

Required Textbook:

Arcangelo, V.A., Peterson, A.M., Wilbur, V., & Reinhold, J.A. (Eds.). (2017). *Pharmacotherapeutics for advanced practice: A practical approach* (4th ed.). Wolters Kluwer.

Textbook readings will be supplemented by additional resources as appropriate.

Recommended Guidebook for APA Formatting:

American Psychological Association. (2020). *Publication manual of the American Psychological Association* (7th ed.). American Psychological Association.

Recommended Textbooks/Websites:

Whalen, K. (2015). *Lippincott illustrated reviews: Pharmacology* (6th ed.). Wolters Kluwer.

Woo, T.M. & Wynne, A.L. (2011). *Pharmacotherapeutics for nurse practitioner prescribers* (3rd ed.). FA Davis Co.

Note: The instructor may assign additional required and recommended readings throughout the course.

Week	Content	Assignment
1	Module 1: Introduction to Pharmacology <ul style="list-style-type: none"> This module covers an introduction to the course including course expectations. This module reviews aspects of pharmacodynamics, pharmacokinetics, pharmacogenomics, and the major principles of pharmacology across the lifespan. 	
2	Module 2: Advanced Principles of Pharmacology <ul style="list-style-type: none"> This module provides a foundation for prescriptive practice and focuses on the art and science of prescribing, prescribing considerations, and a review of drug safety 	
3	Module 3: Central Nervous System Drugs, Part 1 <ul style="list-style-type: none"> This module provides an overview of neurotransmission. There is a review of drugs used for ADHD, dementia, epilepsy, and Parkinson's disease. Exemplar medications provided for these topics include donepezil, amphetamines, phenytoin, carbamazepine, topiramate, pramipexole, ropinirole, carbidopa/levodopa, and valproic acid 	Homework (Practice Assignment)
4	Module 4: Central Nervous System Drugs, Part 2 <ul style="list-style-type: none"> This module provides a review of mood-stabilizing drugs, anti-anxiety drugs, antipsychotic drugs and drugs for smoking cessation. Exemplar medications provided for these topics include fluoxetine, citalopram, nortriptyline, duloxetine, bupropion, mirtazapine, disulfiram, alprazolam, ramelteon, and zolpidem. 	Homework <div style="background-color: #c00000; color: white; text-align: center; padding: 2px;">Exam 1 (M1 – M4)</div>
5	Module 5: Management of Pain and Inflammation <ul style="list-style-type: none"> This module provides an overview of the concept of pain physiology. The module includes a review of opioid peptides, opiate drugs, anti-inflammatory drugs. Medications used for gout, management of headaches/migraines, atypical pain syndromes will be reviewed. Exemplar medications provided for these topics include oxycodone, tramadol, prednisone, naltrexone, sumatriptan buprenorphine/naloxone, cyclobenzaprine, allopurinol, colchicine, hydrocodone/acetaminophen, any prescriptive NSAIDs (IM or oral), gabapentin, and pregabalin. 	Homework
6	Module 6: Anti-infective Agents, Part 1 <ul style="list-style-type: none"> This module provides an overview of the principles of antibacterial therapy. Agents that target the cell wall and agents that target bacterial protein synthesis will be discussed. A review of other antibacterial drugs will be included. Systemic vs. local administration will be discussed. Exemplar medications provided for these topics include penicillin, amoxicillin, amoxicillin/clavulanate, ceftriaxone, cephalexin, doxycycline, azithromycin, clindamycin, nitrofurantoin, trimethoprim/sulfamethoxazole ciprofloxacin, and metronidazole. 	Homework

Week	Content	Assignment
7	<p>Module 7: Anti-infective Agents, Part 2</p> <ul style="list-style-type: none"> This module provides a review of medications used in the treatment of mycobacteria, fungi, viruses and parasites. Patterns of infection and mechanisms of drug therapies will be reviewed. Exemplar medications provided for these topics include isoniazid, rifampin, clotrimazole (Oral), terbinafine, griseofulvin, acyclovir, raltegravir, emtricitabine/tenofovir, nevirapine, efavirenz, and oseltamivir. 	Homework <div style="background-color: #c00000; color: white; text-align: center; padding: 2px;">Exam 2 (M5 – M7)</div>
8	<p>Module 8: Cardiovascular Drugs, Part 1</p> <ul style="list-style-type: none"> This module provides a review of the drugs used in the treatment of hypertension, heart failure, including diuretics. Exemplar medication provided for these topics include: atenolol, propranolol, carvedilol, lisinopril, benazepril, losartan, amlodipine, verapamil, digoxin, spironolactone, hydrochlorothiazide, methyldopa, and furosemide. 	Homework
9	<p>Module 9: Cardiovascular Drugs, Part 2</p> <ul style="list-style-type: none"> This module provides a review of drugs used in the treatment of angina, drugs used in the treatment of arrhythmias, and drugs used for anticoagulant and antiplatelet therapy. Exemplar medications provided for these topics include nitroglycerin, isosorbide dinitrate, diltiazem, warfarin, heparin, apixaban, rivaroxaban, atorvastatin, rosuvastatin, fenofibrate, gemfibrozil, icosapent ethyl, omega-3-acidethyl esters. 	Homework <div style="background-color: #c00000; color: white; text-align: center; padding: 2px;">Exam 3 (M8 and M9)</div>
10	<p>Module 10: Respiratory System Drugs</p> <ul style="list-style-type: none"> This module provides a review of decongestant, antihistamines, and antitussives. Inhaled corticosteroids, sympathomimetic bronchodilators, parasympatholytic bronchodilators, and leukotriene antagonists are discussed in depth. Exemplar medications—benzonatate, fluticasone, budesonide, albuterol, salmeterol, bedsonide/fomoterol inhaled, fluticasone propionate/salmeterol inhaled, ipratropium bromide, zafirlukast, tiotropium, and montelukast. 	Homework
11	<p>Module 11: Drugs for Gastrointestinal and Genitourinary Disorders</p> <ul style="list-style-type: none"> This module provides a review of drugs used as blockers of gastric acid secretion, drugs used in the management of H. pylori, and inflammatory bowel disease. A review of laxatives and antidiarrheal drugs will be discussed. Exemplar medications provided for these topics include scopolamine, hydroxyzine, diazepam, misoprostol, sucralfate, famotidine, omeprazole, dicyclomine, sulfasalazine, infliximab, magnesium oxide, sodium phosphate, docusate, loperamide, sildenafil, doxazosin, and oxybutynin. 	Homework <div style="background-color: #c00000; color: white; text-align: center; padding: 2px;">Exam 4 (M10 – M11)</div>
12	<p>Module 12: Endocrine Drugs, Part 1</p> <ul style="list-style-type: none"> This module provides an introduction to endocrine concepts, thyroid disease, and reproductive pharmacology. Review of gonadotropin- releasing hormone agonists is provided. Hormone replacement therapy and drugs affecting fertility/reproduction is discussed. Osteoporosis management 	Homework

Week	Content	Assignment
	<p>and drugs used for breast cancer are reviewed.</p> <ul style="list-style-type: none"> Exemplar medications provided for these topics include levothyroxine, methimazole, medroxyprogesterone, estrogen [oral & topical], oral contraceptives [all formulations], HRT, and bisphosphonates. 	
13	<p>Module 13: Endocrine Drugs, Part 2</p> <ul style="list-style-type: none"> This module reviews the management principles for diabetes, prediabetes, and metabolic syndrome. Hyperlipidemia and weight management therapies are discussed. Exemplar medications—insulin (all types), metformin, repaglinide, glipizide, pioglitazone, exenatide, sitagliptin, dapagliflozin, canagliflozin, acarbose, semaglutide [SQ & PO], phentermine hydrochloride/topiramate, and phentermine hydrochloride. 	Homework
14	<p>Module 14: Topical Drugs and Immunization</p> <ul style="list-style-type: none"> This module reviews the use of topical dermatologic medications. The module also focuses on medications specific for the eye, ear, and/or throat/mouth. An overview of immunizations is reviewed. Exemplar agents <ul style="list-style-type: none"> Ophthalmic agents: ciprofloxacin, sulfacetamide, olopatadine, naphazoline/glycerin, Otic: neomycin/polymyxin B/hydrocortisone, ciprofloxacin/hydrocortisone Topicals: <ul style="list-style-type: none"> clotrimazole, econazole, nystatin/triamcinolone, triamcinolone, clobetasol, penciclovir mupirocin, benzoyl peroxide, erythromycin, clindamycin, metronidazole lidocaine topical patch permethrin, lindane Oral: nystatin 	Homework
		Exam 5 (M12 – M14)

Course Schedule—Detailed Description

Module 1: Introduction to Pharmacology	
Topics	
<ul style="list-style-type: none">• Review of major principles of pharmacology• Review of major principles of pharmacogenomics• Review of major principles lifespan consideration	

This module relates to Course Objectives 1, 3 and 4.

Required Readings:

Arcangelo, V.A., Peterson, A.M., Wilbur, V., & Reinhold, J.A. (Eds.). (2017). *Pharmacotherapeutics for advanced practice: A practical approach* (4th ed.). Wolters Kluwer.

- 1) Chapter 2 - Pharmacokinetic Basis of Therapeutics and Pharmacodynamic Principles, pp 17-31
- 2) Chapter 4 - Principles of Pharmacotherapy in Pediatrics, pp 53-64
- 3) Chapter 5 - Principles of Pharmacotherapy in Pregnancy and Lactation, pp 65-71
- 4) Chapter 6 - Pharmacotherapy in Older Adults, pp 73-91
- 5) Chapter 10 - Pharmacogenomics, pp 145-152

Module 2: Advanced Principles of Pharmacology	
Topics	
<ul style="list-style-type: none">• Foundation of prescriptive practice, state license, DEA, NPI, Nurse Practice Act• Review of the art and science of prescribing• Review of drug safety• Prescribing considerations	

This module relates to Course Objectives 1, 4, and 7.

Required Readings:

Arcangelo, V.A., Peterson, A.M., Wilbur, V., & Reinhold, J.A. (Eds.). (2017). *Pharmacotherapeutics for advanced practice: A practical approach* (4th ed.). Wolters Kluwer.

- 1) Chapter 1 - Issues for the Practitioner in Drug Therapy, pp 3-15
- 2) Chapter 3 - Impact of Drug Interactions and Adverse Events on Therapeutics, pp 33-52
- 3) Chapter 9 - Complementary and Alternative Medications, pp 135-144

Module 3: Central Nervous System Drugs, Part 1

Topics

- Overview of neurotransmission
- Review of drugs used for ADHD, dementia
- Review of drugs used for epilepsy
- Review of drugs used for Parkinson's disease
- Exemplar medications—amphetamines, donepezil, phenytoin, pramipexole, ropinirole, carbamazepine, valproic acid, topiramate, and carbidopa/levodopa

This module relates to Course Objectives 1, 2, 3, 4, 5, and 6.

Required Readings:

Arcangelo, V.A., Peterson, A.M., Wilbur, V., & Reinhold, J.A. (Eds.). (2017). *Pharmacotherapeutics for advanced practice: A practical approach* (4th ed.). Wolters Kluwer.

- 1) Chapter 39 - Seizure Disorders, pp 655-680
- 2) Chapter 43 - Attention Deficit Hyperactivity Disorder, pp 743-755
- 3) Chapter 44 - Alzheimer Disease, pp 757-765
- 4) Chapter 45 - Parkinson Disease, pp 767-781

Module 4: Central Nervous System Drugs, Part 2

Topics

- Review of mood-stabilizing drugs
- Review of antianxiety drugs
- Review of antipsychotic drugs
- Review of nicotine cessation drugs
- Exemplar medications provided for these topics include fluoxetine, citalopram, nortriptyline, duloxetine, bupropion, mirtazapine, disulfiram, alprazolam, ramelteon, and zolpidem.

This module relates to Course Objectives 1, 2, 3, 4, 5, and 6.

Required Readings:

Arcangelo, V.A., Peterson, A.M., Wilbur, V., & Reinhold, J.A. (Eds.). (2017). *Pharmacotherapeutics for advanced practice: A practical approach* (4th ed.). Wolters Kluwer.

- 1) Chapter 40 - Major Depressive Disorder, pp 701-719
- 2) Chapter 41 - Anxiety Disorders, pp 701-719
- 3) Chapter 42 - Sleep Disorders, pp 721-742
- 4) Chapter 53 - Smoking Cessation, pp 927-944

Module 5: Management of Pain and Inflammation

Topics

- Overview of the concepts of pain physiology
- Review of opioid peptides, opiate drugs, anti-inflammatory drugs
- Review of medications used for gout, management of headaches/migraines, atypical pain syndromes
- Exemplar medications provided for these topics include oxycodone, tramadol, prednisone, hydrocodone/acetaminophen, prescriptive NSAIDs (IM, oral or topical), naltrexone, buprenorphine/naloxone, cyclobenzaprine, allopurinol, colchicine, gabapentin, pregabalin, and sumatriptan.

This module relates to Course Objectives 1, 2, 3, 4, 5, and 6.

Required Readings:

Arcangelo, V.A., Peterson, A.M., Wilbur, V., & Reinhold, J.A. (Eds.). (2017). *Pharmacotherapeutics for advanced practice: A practical approach* (4th ed.). Wolters Kluwer.

- 1) Chapter 7 - Principles of Pharmacology in Pain Management, pp 93-108
- 2) Chapter 36 - Osteoarthritis and Gout, pp 591-610
- 3) Chapter 37 - Rheumatoid Arthritis, pp 611-626
- 4) Chapter 38 - Headaches, pp 629-654
- 5) Chapter 57 - Osteoporosis, pp 985-993

Module 6: Anti-infective Agents, Part 1

Topics

- Overview of the principles of antibacterial therapy
- Review agents that target the cell wall and agents that target bacterial protein synthesis
- Review other antibacterial drugs
- Discuss systemic vs. local administration
- Exemplar medications—penicillin, amoxicillin/clavulanate, ceftriaxone, cephalexin, doxycycline, azithromycin, clindamycin, trimethoprim/sulfamethoxazole, nitrofurantoin, ciprofloxacin, metronidazole

This module relates to Course Objectives 1, 2, 3, 4, 5, and 6.

Required Readings:

Arcangelo, V.A., Peterson, A.M., Wilbur, V., & Reinhold, J.A. (Eds.). (2017). *Pharmacotherapeutics for advanced practice: A practical approach* (4th ed.). Wolters Kluwer.

- 1) Chapter 8 - Principles of Antimicrobial Therapy, pp 111-134

Module 7: Anti-infective Agents, Part 2

Topics

- Review of medications used in the treatment of mycobacteria, fungi, viruses and parasites
- Review of patterns of infection
- Review of mechanisms of drug therapies
- Exemplar medications provided for these topics include isoniazid, rifampin, clotrimazole, terbinafine, griseofulvin, acyclovir, raltegravir, emtricitabine/tenofovir, nevirapine, efavirenz, and oseltamivir.

This module relates to Course Objectives 1, 2, 3, 4, 5, and 6.

Required Readings:

Arcangelo, V.A., Peterson, A.M., Wilbur, V., & Reinhold, J.A. (Eds.). (2017). *Pharmacotherapeutics for advanced practice: A practical approach* (4th ed.). Wolters Kluwer.

- 1) Chapter 12 - Fungal Infections of the Skin, pp 163-180
- 2) Chapter 13 - Viral Infections of the Skin, pp 181-197
- 3) Chapter 49 - Human Immunodeficiency Virus, pp 843-859

Module 8: Cardiovascular Drugs, Part 1

Topics

- Review of drugs used in the treatment of hypertension, heart failure, and diuretics
- Exemplar medication—atenolol, propranolol, carvedilol, lisinopril, benazepril, losartan, amlodipine, verapamil, digoxin, spironolactone, hydrochlorothiazide, methyldopa, and furosemide

This module relates to Course Objectives 1, 2, 3, 4, 5, and 6.

Required Readings:

Arcangelo, V.A., Peterson, A.M., Wilbur, V., & Reinhold, J.A. (Eds.). (2017). *Pharmacotherapeutics for advanced practice: A practical approach* (4th ed.). Wolters Kluwer.

- 1) Chapter 19 - Hypertension, pp 257-274
- 2) Chapter 22 - Heart Failure, pp 305-324

Module 9: Cardiovascular Drugs, Part 2

Topics

- Review of drugs used in the treatment of angina
- Review of drugs used in the treatment of arrhythmias
- Review of anticoagulant and antiplatelet drugs
- Exemplar medications provided for these topics include nitroglycerin, isosorbide dinitrate, diltiazem, warfarin, heparin, apixaban, rivaroxaban, atorvastatin, rosuvastatin, fenofibrate, gemfibrozil, icosapent ethyl, omega-3-acidethyl esters, and aspirin.

This module relates to Course Objectives 1, 2, 3, 4, 5, and 6.

Required Readings:

Arcangelo, V.A., Peterson, A.M., Wilbur, V., & Reinhold, J.A. (Eds.). (2017). *Pharmacotherapeutics for advanced practice: A practical approach* (4th ed.). Wolters Kluwer.

- 1) Chapter 20 - Hyperlipidemia, pp 275-288
- 2) Chapter 21 - Chronic Stable Angina, pp 289-304
- 3) Chapter 23 - Arrhythmias, pp 325-358
- 4) Chapter 50 - Pharmacotherapy for Venous Thromboembolism Prevention and Treatment, Stroke Prevention and Atrial Fibrillation, and Thromboembolism Prevention with Mechanical Heart Valves, pp 863-890

Module 10: Respiratory System Drugs

Topics

- Review of decongestant, antihistamines, and antitussives
- Review of inhaled corticosteroids, sympathomimetic bronchodilators, parasympatholytic bronchodilators, and leukotriene antagonists
- Exemplar medications—benzonatate, fluticasone, budesonide, albuterol, salmeterol, budesonide/fomoterol inhaled, fluticasone propionate/salmeterol inhaled, ipratropium bromide, zafirlukast, tiotropium, montelukast.

This module relates to Course Objectives 1, 2, 3, 4, 5, and 6.

Required Readings:

Arcangelo, V.A., Peterson, A.M., Wilbur, V., & Reinhold, J.A. (Eds.). (2017). *Pharmacotherapeutics for advanced practice: A practical approach* (4th ed.). Wolters Kluwer.

- 1) Chapter 24 - Upper Respiratory Infections, pp 359-376
- 2) Chapter 25 - Asthma, pp 377-394
- 3) Chapter 26 - Chronic Obstructive Pulmonary Disease, pp 395-406
- 4) Chapter 27 - Bronchitis and Pneumonia, pp 407-427

Module 11: Drugs for Gastrointestinal and Genitourinary Disorders

Topics

- Review of drugs used as blockers of gastric acid secretion
- Drugs used in the management of H. pylori and inflammatory bowel disease
- Review of laxatives and antidiarrheal drugs
- Exemplar medications provided for these topics include scopolamine, hydroxyzine, diazepam, misoprostol, sucralfate, famotidine, omeprazole, dicyclomine, sulfasalazine, infliximab, magnesium oxide, sodium phosphate, docusate, loperamide, sildenafil, doxazosin, and oxybutynin.

This module relates to Course Objectives 1, 2, 3, 4, 5, and 6.

Required Readings:

Arcangelo, V.A., Peterson, A.M., Wilbur, V., & Reinhold, J.A. (Eds.). (2017). *Pharmacotherapeutics for advanced practice: A practical approach* (4th ed.). Wolters Kluwer.

- 1) Chapter 28 - Nausea and Vomiting, pp 429-446
- 2) Chapter 29 - Gastroesophageal Reflux Disease and Peptic Ulcer Disease, pp 447-465
- 3) Chapter 30 - Constipation, Diarrhea, and Irritable Bowel Syndrome, pp 465-498
- 4) Chapter 31 - Inflammatory Bowel Disease, pp 497-518
- 5) Chapter 33 - Prostatic Disorders and Erectile Dysfunction, pp 527-544
- 6) Chapter 34 - Overactive Bladder, pp 545-564

Module 12: Endocrine Drugs, Part 1

Topics

- Introduction to endocrine concepts, thyroid disease, and reproductive pharmacology
- Review of gonadotropin-releasing hormone agonists
- Review of hormone replacement therapy and drugs affecting fertility/reproduction
- Review of osteoporosis management
- Review of drugs used for breast cancer
- Exemplar medications- levothyroxine, methimazole, medroxyprogesterone, estrogen [oral & cream], oral contraceptives [oral formulations], and bisphosphonates.

This module relates to Course Objectives 1, 2, 3, 4, 5, and 6.

Required Readings:

Arcangelo, V.A., Peterson, A.M., Wilbur, V., & Reinhold, J.A. (Eds.). (2017). *Pharmacotherapeutics for advanced practice: A practical approach* (4th ed.). Wolters Kluwer.

- 1) Chapter 47 - Thyroid Disorders, pp 809-826
- 2) Chapter 55 - Contraception, pp 959-970
- 3) Chapter 56 - Menopause, pp 971-984
- 4) Chapter 57 - Osteoporosis, pp 985-994
- 5) Chapter 58 - Vaginitis, pp 995-1008

Module 13: Endocrine Drugs, Part 2

Topics

- Review of management principles for diabetes, prediabetes, and metabolic syndrome
- Review of hyperlipidemia
- Review of weight management
- Exemplar medications—insulin (all types), metformin, repaglinide, glipizide, pioglitazone, exenatide, sitagliptin, dapagliflozin, canagliflozin, acarbose, semaglutide [SQ & PO], insulin glargine/lixisenatide, phentermine hydrochloride/topiramate, and phentermine hydrochloride.

This module relates to Course Objectives 1, 2, 3, 4, 5, and 6.

Required Readings

Arcangelo, V.A., Peterson, A.M., Wilbur, V., & Reinhold, J.A. (Eds.). (2017). *Pharmacotherapeutics for advanced practice: A practical approach* (4th ed.). Wolters Kluwer.

- 1) Chapter 46 - Diabetes Mellitus, pp 785-808
- 2) Chapter 54 - Weight Loss, pp 945-958

Module 14: Topical Drugs and Immunization

Topics

- Review of topical dermatologic medications
- Review of eye, ear, throat/mouth medications
- Overview of immunizations
- Exemplar agents—
 - Ophthalmic agents: ciprofloxacin, sulfacetamide, olopatadine, naphazoline/glycerin,
 - Otic: neomycin/polymyxin B/hydrocortisone, ciprofloxacin/hydrocortisone
 - Topicals:
 - clotrimazole, econazole, nystatin/triamcinolone, triamcinolone, clobetasol,
 - penciclovir
 - mupirocin, benzoyl peroxide, erythromycin, clindamycin, metronidazole
 - lidocaine topical patch
 - permethrin, lindane
 - Oral: nystatin

This module relates to Course Objectives 1, 2, 3, 4, 5, and 6.

Required Readings:

Arcangelo, V.A., Peterson, A.M., Wilbur, V., & Reinhold, J.A. (Eds.). (2017). *Pharmacotherapeutics for advanced practice: A practical approach* (4th ed.). Wolters Kluwer.

- 1) Chapter 11 - Contact Dermatitis, pp 155-162
- 2) Chapter 15 - Psoriasis, pp 197-206
- 3) Chapter 16 - Acne Vulgaris and Rosacea, pp 207-220
- 4) Chapter 17 - Ophthalmic Disorders, pp 221-242
- 5) Chapter 18 - Otitis Media and Otitis Externa, pp 243-256
- 6) Chapter 52 - Immunizations, pp 909-926

University Policies and Guidelines

IX. ATTENDANCE POLICY

Students are expected to attend every class and to remain in class for the duration of the unit. Failure to attend class or arriving late may impact your ability to achieve course objectives which could affect your course grade. Students are expected to notify the instructor by email of any anticipated absence or reason for tardiness.

University of Southern California policy permits students to be excused from class for the observance of religious holy days. This policy also covers scheduled final examinations which conflict with students' observance of a holy day. Students must make arrangements *in advance* to complete class work which will be missed, or to reschedule an examination, due to holy days observance.

Please refer to Scampus and to the USC School of Social Work Student Handbook for additional information on attendance policies.

X. Statement on Academic Conduct and Support Systems

Academic Conduct:

Plagiarism – presenting someone else's ideas as your own, either verbatim or recast in your own words – is a serious academic offense with serious consequences. Please familiarize yourself with the discussion of plagiarism in SCampus in Part B, Section 11, "Behavior Violating University Standards" policy.usc.edu/scampus-part-b. Other forms of academic dishonesty are equally unacceptable. See additional information in SCampus and university policies on scientific misconduct, policy.usc.edu/scientific-misconduct.

Support Systems:

Counseling and Mental Health - (213) 740-9355 – 24/7 on call
studenthealth.usc.edu/counseling

Free and confidential mental health treatment for students, including short-term psychotherapy, group counseling, stress fitness workshops, and crisis intervention.

National Suicide Prevention Lifeline - 1 (800) 273-8255 – 24/7 on call
suicidepreventionlifeline.org

Free and confidential emotional support to people in suicidal crisis or emotional distress 24 hours a day, 7 days a week.

Relationship and Sexual Violence Prevention Services (RSVP) - (213) 740-9355(WELL), press "0" after hours – 24/7 on call
studenthealth.usc.edu/sexual-assault

Free and confidential therapy services, workshops, and training for situations related to gender-based harm.

Office of Equity and Diversity (OED) - (213) 740-5086 | Title IX – (213) 821-8298
equity.usc.edu, titleix.usc.edu

Information about how to get help or help someone affected by harassment or discrimination, rights of protected classes, reporting options, and additional resources for students, faculty, staff, visitors, and applicants.

Reporting Incidents of Bias or Harassment - (213) 740-5086 or (213) 821-8298

usc-advocate.symplicity.com/care_report

Avenue to report incidents of bias, hate crimes, and microaggressions to the Office of Equity and Diversity |Title IX for appropriate investigation, supportive measures, and response.

The Office of Disability Services and Programs - (213) 740-0776

dsp.usc.edu

Support and accommodations for students with disabilities. Services include assistance in providing readers/notetakers/interpreters, special accommodations for test taking needs, assistance with architectural barriers, assistive technology, and support for individual needs.

USC Campus Support and Intervention - (213) 821-4710

campussupport.usc.edu

Assists students and families in resolving complex personal, financial, and academic issues adversely affecting their success as a student.

Diversity at USC - (213) 740-2101

diversity.usc.edu

Information on events, programs and training, the Provost's Diversity and Inclusion Council, Diversity Liaisons for each academic school, chronology, participation, and various resources for students.

USC Emergency - UPC: (213) 740-4321, HSC: (323) 442-1000 – 24/7 on call

dps.usc.edu, emergency.usc.edu

Emergency assistance and avenue to report a crime. Latest updates regarding safety, including ways in which instruction will be continued if an officially declared emergency makes travel to campus infeasible.

USC Department of Public Safety - UPC: (213) 740-6000, HSC: (323) 442-1200 – 24/7 on call

dps.usc.edu

Non-emergency assistance or information.

XI. STATEMENT ABOUT INCOMPLETES

The Grade of Incomplete (IN) can be assigned only if there is work not completed because of a documented illness or some other emergency occurring after the 12th week of the semester. Students must NOT assume that the instructor will agree to the grade of IN. Removal of the grade of IN must be instituted by the student and agreed to be the instructor and reported on the official "Incomplete Completion Form."

XII. POLICY ON LATE OR MAKE-UP WORK

Papers are due on the day and time specified. Extensions will be granted only for extenuating circumstances. If the paper is late without permission, the grade will be affected.

XIII. POLICY ON CHANGES TO THE SYLLABUS AND/OR COURSE REQUIREMENTS

It may be necessary to make some adjustments in the syllabus during the semester in order to respond to unforeseen or extenuating circumstances. Adjustments that are made will be communicated to students both verbally and in writing.

XIV. CODE OF ETHICS OF THE NATIONAL ASSOCIATION OF SOCIAL WORKERS (OPTIONAL)

Approved by the 1996 NASW Delegate Assembly and revised by the 2017 NASW Delegate Assembly

<https://www.socialworkers.org/About/Ethics/Code-of-Ethics/Code-of-Ethics-English>

Preamble

The primary mission of the social work profession is to enhance human well-being and help meet the basic

human needs of all people, with particular attention to the needs and empowerment of people who are vulnerable, oppressed, and living in poverty. A historic and defining feature of social work is the profession's focus on individual well-being in a social context and the well-being of society. Fundamental to social work is attention to the environmental forces that create, contribute to, and address problems in living.

Social workers promote social justice and social change with and on behalf of clients. "Clients" is used inclusively to refer to individuals, families, groups, organizations, and communities. Social workers are sensitive to cultural and ethnic diversity and strive to end discrimination, oppression, poverty, and other forms of social injustice. These activities may be in the form of direct practice, community organizing, supervision, consultation, administration, advocacy, social and political action, policy development and implementation, education, and research and evaluation. Social workers seek to enhance the capacity of people to address their own needs. Social workers also seek to promote the responsiveness of organizations, communities, and other social institutions to individuals' needs and social problems.

The mission of the social work profession is rooted in a set of core values. These core values, embraced by social workers throughout the profession's history, are the foundation of social work's unique purpose and perspective:

- Service
- Social justice
- Dignity and worth of the person
- Importance of human relationships
- Integrity
- Competence

This constellation of core values reflects what is unique to the social work profession. Core values, and the principles that flow from them, must be balanced within the context and complexity of the human experience.

Code of Ethics for Nurses

Ethics is an integral part of the foundation of nursing. Nursing has a distinguished history of concern for the welfare of the sick, injured, and vulnerable and for social justice. This concern is embodied in the provision of nursing care to individuals and the community. Nursing encompasses the prevention of illness, the alleviation of suffering, and the protection, promotion, and restoration of health in the care of individuals, families, groups, and communities. Nurses act to change those aspects of social structures that detract from health and well-being. Individuals who become nurses are expected not only to adhere to the ideals and moral norms of the profession but also to embrace them as a part of what it means to be a nurse. The ethical tradition of nursing is self-reflective, enduring, and distinctive. A code of ethics makes explicit the primary goals, values, and obligations of the profession.

The Code of Ethics for Nurses serves the following purposes:

- It is a succinct statement of the ethical obligations and duties of every individual who enters the nursing profession.
- It is the profession's nonnegotiable ethical standard.
- It is an expression of nursing's own understanding of its commitment to society.

There are numerous approaches for addressing ethics; these include adopting or subscribing to ethical theories, including humanist, feminist, and social ethics, adhering to ethical principles, and cultivating virtues. The Code of Ethics for Nurses reflects all of these approaches. The words *ethical* and *moral* are used throughout the Code of Ethics. "Ethical" is used to refer to reasons for decisions about how one ought to act, using the abovementioned approaches. In general, the word *moral* overlaps with *ethical* but is more

aligned with personal belief and cultural values. Statements that describe activities and attributes of nurses in this Code of Ethics are to be understood as normative or prescriptive statements expressing expectations of ethical behavior.

The Code of Ethics for Nurses uses the term *patient* to refer to recipients of nursing care. The derivation of this word refers to “one who suffers,” reflecting a universal aspect of human existence. Nonetheless, it is recognized that nurses also provide services to those seeking health as well as those responding to illness, to students and to staff, in health care facilities as well as in communities. Similarly, the term *practice* refers to the actions of the nurse in whatever role the nurse fulfills, including direct patient care provider, educator, administrator, researcher, policy developer, or other. Thus, the values and obligations expressed in this Code of Ethics apply to nurses in all roles and settings.

The Code of Ethics for Nurses is a dynamic document. As nursing and its social context change, changes to the Code of Ethics are also necessary. The Code of Ethics consists of two components: the provisions and the accompanying interpretive statements. There are nine provisions. The first three describe the most fundamental values and commitments of the nurse; the next three address boundaries of duty and loyalty, and the last three address aspects of duties beyond individual patient encounters. For each provision, there are interpretive statements that provide greater specificity for practice and are responsive to the contemporary context of nursing. Consequently, the interpretive statements are subject to more frequent revision than are the provisions.

Additional ethical guidance and detail can be found in ANA or constituent member association position statements that address clinical, research, administrative, educational, or public policy issues.

Code of Ethics for Nurses with Interpretive Statements provides a framework for nurses to use in ethical analysis and decision-making. The Code of Ethics establishes the ethical standard for the profession. It is not negotiable in any setting nor is it subject to revision or amendment except by formal process of the House of Delegates of the ANA. The Code of Ethics for Nurses is a reflection of the proud ethical heritage of nursing, a guide for nurses now and in the future.

XV. ACADEMIC DISHONESTY SANCTION GUIDELINES

Some lecture slides, notes, or exercises used in this course may be the property of the textbook publisher or other third parties. All other course material, including but not limited to slides developed by the instructor(s), the syllabus, assignments, course notes, course recordings (whether audio or video) and examinations or quizzes are the property of the University or of the individual instructor who developed them. Students are free to use this material for study and learning, and for discussion with others, including those who may not be in this class, unless the instructor imposes more stringent requirements. Republishing or redistributing this material, including uploading it to web sites or linking to it through services like iTunes, violates the rights of the copyright holder and is prohibited. There are civil and criminal penalties for copyright violation. Publishing or redistributing this material in a way that might give others an unfair advantage in this or future courses may subject you to penalties for academic misconduct.

XVI. COMPLAINTS

If you have a complaint or concern about the course or the instructor, please discuss it first with the instructor. If you feel cannot discuss it with the instructor, contact the chair of the [xxx]. If you do not receive a satisfactory response or solution, contact your advisor and/or Associate Dean and MSW Chair Dr. Leslie Wind for further guidance.

XVII. Tips for Maximizing Your Learning Experience in this Course (Optional)

- ✓ Be mindful of getting proper nutrition, exercise, rest and sleep!
- ✓ Come to class.
- ✓ Complete Required Readings: and assignments BEFORE coming to class.

- ✓ BEFORE coming to class, review the materials from the previous Unit AND the current Unit, AND scan the topics to be covered in the next Unit.
- ✓ Come to class prepared to ask any questions you might have.
- ✓ Participate in class discussions.
- ✓ AFTER you leave class, review the materials assigned for that Unit again, along with your notes from that Unit.
- ✓ If you don't understand something, ask questions! Ask questions in class, during office hours, and/or through email!
- ✓ Keep up with the assigned readings.

Don't procrastinate or postpone working on assignments.