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Nursing Syllabi Summer 2020

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2020

### 568 Advanced Clinical Pharmacology

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**Xavier University  
College of Nursing**

**Summer Semester 2020**

<b>Course Number &amp; Title:</b>	NURS 658: Advanced Clinical Pharmacology
<b>Number of Credits:</b>	3 credit hours
<b>Contact Hours:</b>	45 Theory Hours
<b>Pre-requisites:</b>	NURS 680: Advanced Pathophysiology for RNs NURS 756: Advanced Physical Health Assessment
<b>Co-requisites:</b>	NURS 756: Advanced Physical Health Assessment

**Course Description:**

This course builds upon a knowledge of basic pharmacology and focuses on advanced pharmacology and the role of a masters prepared nurse in pharmacotherapeutics. Advanced clinical application of drug therapy and concepts relating to the mechanisms of drug actions, interactions, adverse reactions, including immunologic-idiosyncratic-allergic drug responses, will be explored. Emphasis is placed upon assisting the advanced nurse clinician in developing the high-level clinical decision-making skills required to function in an advanced generalist role. Current pharmacotherapeutic research is also incorporated in the course.

**Course Objectives:**

**At the end of this course, the participant will:**

1. Discuss judicious use of schedule II controlled substances (C-II's) as well as indications, fiscal, and ethical implications of prescribing these products.
2. Discuss Ohio regulations related to Ohio APRN and the prescribing of C-II's.
3. Identify and discuss Ohio requirements related to prescription writing with a special focus on APRN prescription requirements.
4. Discuss pharmacokinetic and pharmacodynamic processes and their clinical implications.
5. Utilize appropriate drug information resources to answer drug-related questions.
6. Evaluate the physiological response to pharmacological interventions for select health problems.
7. Analyze the clinical indications, contraindications, adverse effects, and interactions of select medications.
8. Develop and implement safe and effective drug therapy regimens and monitoring plans for select acute and chronic health problems
9. Utilize patient education regarding pharmacotherapy to promote and maintain health.
10. Review underlying implications of prescriptive practice in relation to the advanced practice registered nurse.

**Faculty:**

Teresa Ash, PharmD, MHA, CDE, BCPS  
Director of Pharmacy & Outpatient Infusion  
Mercy Health – West Hospital  
Email: asht1@xavier.edu

Kyle Skidmore, PharmD, BCPS  
Clinical Pharmacist  
Mercy Health – West Hospital  
Email: skidmorek@xavier.edu

**Office hours:**

Virtual office hours will be available once weekly on Tuesdays for 30 minutes following class or by appointment when scheduling permits.

**Class Time & Location:**

Tuesdays 4:00 PM – 6:30 PM  
Zoom / CANVAS

**Course Format:**

Zoom / CANVAS

**AACN Essentials:**

- This course meets the following MSN Essentials:
- Essential I: Background for Practice from Sciences and Humanities
- Essential II: Organizational and Systems Leadership
- Essential III: Quality improvement and Safety
- Essential IV: Translating and Integrating Scholarship into Practice
- Essential IX: Master's-Level Nursing Practice

**Required textbook:**

Katzung, B. (2018). Basic and Clinical Pharmacology. 14th Ed. Lange, McGraw-Hill. ISBN-13: 978-1259641152

**Other Resources:**

Will be provided to you for additional readings on content that is required

**Teaching/Learning Strategies:**

Recordings, lectures, quizzes, exams, online self-study modules, and case studies to reinforce content.

**Evaluation Methods:**

STRATEGY	PERCENT	DESCRIPTION
Syllabus quiz	1% (Pass/Fail)	Students must obtain 100%. Students will have multiple attempts until this is achieved.
Weekly Quizzes [Weeks 1-11]	20%	Weekly quizzes will cover content after it is presented in class. Quizzes will be posted weekly and will be online. Students will have two attempts and the highest score will count toward the final grade.
Exam #1 (Online)	12.5%	Exam will cover material from Weeks 1-3. Students will be given 90 seconds per question. Students will have one attempt on this exam.
Exam #2 (Online)	12.5%	Exam will cover material from Weeks 4-6. Students will be given 90 seconds per question. Students will have one attempt on this exam.
Exam #3 (Online)	12.5%	Exam will cover material from Weeks 7-9. Students will be given 90 seconds per question. Students will have one attempt on this exam.
Exam #4 (Online) (Partially Comprehensive)	20%	This exam is partially comprehensive. 35% of the questions will be from material from Weeks 1-9. 65% of the questions will be from material from Weeks 10-12. Students will be given 90 seconds per question. Students will have one attempt on this exam.
SAFE Opioid Modules	1.5% (Pass/Fail)	This is in addition to the 6 hours of legal and schedule II information within the course modules. Students must print <b>ALL</b> certificates and upload them in CANVAS to receive credit.
Case Studies (4)	20%	Completion of all case studies is required. Students will have two attempts for each case study.

### **Grading Scale: Graduate Level Courses**

100-94%	A
93-90%	A-
89-87%	B+
86-84%	B
83-80%	B-
79-77%	C+
76-74%	C
73-70%	C-
<60%	F

**Note: Please refer to your program's handbook for grading/passing policies. There is no rounding up of grades in this course. There is no extra credit in this course.**

### **Late or Missing Assignments Policy (Case Studies / SAFE Opioid Modules):**

All assignments are subject to loss of points in the case they are submitted beyond the assigned due date. Any late work will result in 5 percentage points per day being deducted from the original grade. After the third late day, a grade of zero will be issued. This policy refers to the case studies and SAFE Opioid Modules. **\*Students with extenuating circumstances need to contact the course faculty for assignment extensions BEFORE the due date. If this is not done BEFORE the due date, a score of zero will be issued to the student.**

### **Missed Quizzes Policy:**

Quizzes must be taken during the open time. ***A score of zero will be issued if a student does not take a quiz when it is open for any reason.*** Quizzes will generally open at 11:59 PM on Wednesday and close at 11:59 PM on Saturday. Refer to the Topic Outline for the exact dates and times quizzes will open and close.

Students will have two attempts to take each weekly quiz. The highest score achieved will be the score recorded in the student's gradebook. It is the student's responsibility to make sure your quiz grade is recorded. After you submit the quiz, please make sure your grade is displayed. We cannot award quiz grades when there are no attempts recorded in CANVAS!

### **Exam Policy:**

**Students must take their exams as outlined in the syllabus. If the student is unable to meet this requirement, it is the student's responsibility to notify the course faculty BEFORE hand to schedule other arrangements. If this is not done, a score of zero will be issued to the student.** There will be 1 attempt for each exam with 90 seconds to answer each question.

Exams will not be open for review due to incidences of copying exams. Try to remember the answers you chose as much best as possible. There will be a 10-minute review of the exam at the beginning of lecture the following week.

The schedule and procedures in this course are subject to change in the event of extenuating circumstances as well as class learning needs and desires, and guest speaker availability.

### **Assessment Policies and Procedures:**

Adhere to the following requirements to successfully complete all exam assessments during this course.

- No books, notes, or collaborating with students or others during exams is permitted
- The exams are NEVER to be copied, photographed, kept, or shared
- There is no rounding up of grades
- There is no extra credit in this graduate level course
- The questions will be multiple choice
- Any problem accessing or submitting a quiz/test contact the help desk. Please notify the course faculty as soon as possible in the event that any problems occur.
- Each exam has an allotted test time. 1.5 minutes per question. Five points will be deducted for every 1 minute exceeding the allotted test time. Students may find the exam automatically shuts off if you exceed the time limit.
- Use the latest version of the internet browser Mozilla Firefox or Chrome to ensure correct display of the CANVAS test. Make certain you are using high speed internet access during testing. Do NOT use Wi-Fi.
- A test not completed by the due date (without prior arrangement with faculty) will receive 0 points.

### **Case Studies**

Every student will be required to participate in 4 case studies. The student will be allowed two attempts for each case study, and will be assigned the highest score. It is the student's responsibility to alert the course instructor if your score is not captured in the grade book before the due date. The purpose of the case studies is to help you begin to think like a clinician and help prepare you for your exams in this class as well as for those of you taking boards.

### **Online Opioid Prescribing Modules:**

You are required to complete the assigned online SAFE Opioid Prescribing modules. These modules are to be completed in addition to the 6 hours of legal and schedule II information within the course modules. After you complete the modules you will be required to print all certificates along with the certificate of completion and upload this for assignment credit. Completion of these modules is mandatory to pass this class.

You may also need the certificate when you apply for prescriptive authority in your state, or your practice may require this education. You must sign up for a free Pri-Med account in order to complete the modules.

- [http://www.pri-med.com/SAFE-Opioid\\_Prescribing/ACP](http://www.pri-med.com/SAFE-Opioid_Prescribing/ACP)
- After completion you will be able to download a certificate that verifies you have completed all *three modules*. There are certificates at the end of each module to be downloaded as well. You will submit these on the assignment link.
- Note: these modules can be completed at any time during the term up until the due date listed on the course schedule. Do not wait until the last week to complete this mandatory assignment!

**Academic Honesty:**

Please refer to the Xavier University catalog (on line) and the Department of Nursing Student Handbook. Plagiarism will not be tolerated and is subject to disciplinary action.

<http://www.xavier.edu/nursing-school/Current-Students.cfm>

**Civility:**

Civility and respect are expected in all correspondence (verbal and written) with professor, preceptors, and peers. Incivility or disrespect to preceptor, professor or peers will not be tolerated and will be subject to disciplinary action.

**Cell Phones, Laptops, iPads, Notebooks:**

Are to be turned off during clinical unless being used for pharmacology/disease look-up or documentation with approval of preceptor. **No social media sites may be accessed during practicum or class.**

**Social Media Policy:**

Social media and the internet provide an important medium for sharing information and offers easily accessible methods for mass communication. Nursing students must be aware of the risks and consequences associated with social networking. On-line social networking (e.g., Facebook, My Space, Twitter, blogs, etc.) must be considered public information and postings containing certain information are illegal. Online content and behavior could enhance or undermine not only an individual, but also Xavier University, and the profession of nursing. Violations may expose the offender to criminal and civil liability. It is important to avoid disclosing any HIPAA or academic protected information regarding patients, clinical sites, or peers. Any student found to have violated this policy will be subject to disciplinary action as set forth in school of nursing student handbook. For example, infractions may result in utilization of the Professional Conduct Policy. The following are taken from the American Nurses Association Social Networking Recommendations and modified to serve as a guide to students to avoid potential problems.

1. Standards of professionalism are the same online as in any other circumstance.
2. Never post photographs or any information gained in a nurse-patient relationship.
3. Maintain professional boundaries in the use of electronic media. Online contact with patients blurs these boundaries.
4. Do not post inflammatory or unflattering information about peers, patients, clinical sites and/or their employees on any social media site. Make every effort to present yourself as mature, responsible, and professional.
5. Do not take photos or recordings of a patient in your clinical setting or peers in their clinical or classroom learning environment without obtaining special permission utilizing the appropriate forms.
6. Promptly report any breach of confidentiality or privacy to your faculty member.
7. Do not share any protected health information. (HIPAA)

<http://www.nursingworld.org/functionalmenucategories/aboutana/social-media/social-networking-principles-toolkit>

Please refer also to Xavier University Student Handbook:

- Respect for Others 13.3, page 19;
- Harassment Policy 19.18 page 53 & 54;
- Online Communities 20.3, page 70

<http://www.xavier.edu/deanofstudents/documents/studenthandbook.pdf>

For potential consequences of inappropriate use of social and electronic media and common myths and misunderstandings refer to the below site:

[http://www.ncsbn.org/Social\\_media-guidelines.pdf](http://www.ncsbn.org/Social_media-guidelines.pdf)

More information can be found at American Nurses Association Social Media /Social Networking

Principles Toolkit: <http://www.nursingworld.org/functionalmenucategories/aboutana/social-media/social-networking-principles-toolkit>

**Dress Code:**

Business casual or professional dress is expected when giving a presentation in class.

**Office of Academic Support:**

The Office of Academic Support offers tutoring, Supplemental Instruction (SI), and study groups. For information about these services, contact Stephanie Daniels at 745-3214 [ordanielss3@xavier.edu](mailto:ordanielss3@xavier.edu). The OAS is located on the fifth floor of the Conaton Learning Commons, Suite 514.

**Students with Disabilities:**

Any student who feels he/she may need an accommodation based on the impact of a documented disability should notify the course instructor and contact Cassandra Jones in the Office of Disability Services at 745-3280 or e-mail [jonesc20@xavier.edu](mailto:jonesc20@xavier.edu) to coordinate reasonable accommodations.

**Caveat:**

The schedule and procedures in this course are subject to change in the event of extenuating circumstances as well as student learning needs and faculty availability.

# **NURS 658 – Advanced Pharmacology – Topic Outline**

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## **WEEK 1: Tuesday May 19 [ASH]**

### **Topics:**

The Nature of Drugs and Drug Development  
Drug Receptors and Pharmacodynamics  
Pharmacokinetics  
Biotransformation  
Pharmacogenomics

### **Required Readings:**

Katzung 1, 2, 3, 4, 5

### **Assignments:**

**Syllabus Quiz** – Complete by WED 05/20 at 11:59 p.m.

**Weekly Quiz #1** [Covers week 1 material]

Opens WED 05/20 at 11:59 p.m. and closes SAT 05/23 at 11:59 p.m.

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## **WEEK 2: Tuesday May 26 [ASH]**

### **Topics:**

Pediatric and Geriatric Pharmacology  
Medication Implications in Pregnancy and Lactation  
Vaccines  
Covid-19

### **Required Readings:**

Katzung 59, 60

Appendix (following chapter 66)

### **Assignments:**

**Weekly Quiz #2** [Covers week 2 material]

Opens WED 05/27 at 11:59 p.m. and closes SAT 05/30 at 11:59 p.m.

## **WEEK 3: Tuesday June 2 [ASH]**

### **Topics:**

Dermatologic Pharmacology  
Drugs Used in the Treatment of Gastrointestinal Disorders  
Ocular and Otic Medications  
Over-the-Counter Medications

### **Required Readings:**

Katzung 61, 62, 63, 64  
Supplemental readings [Ocular / Otic Medications]

### **Assignments:**

**Weekly Quiz #3** [Covers week 3 material]  
Opens WED 06/03 at 11:59 p.m. and closes SAT 06/06 at 11:59 p.m.

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## **WEEK 4: Tuesday June 9 [SKIDMORE]**

### **Topics:**

Antihypertensive Agents  
Vasodilators and Treatment of Angina  
Drugs used in Heart Failure

### **Required Readings:**

Katzung 11, 12, 13

### **Assignments:**

**Weekly Quiz #4** [Covers week 4 material]  
Opens WED 06/10 at 11:59 p.m. and closes SAT 06/13 at 11:59 p.m.  
**Case Study #1** – First submission due by SAT 06/13 at 11:59 p.m.  
**Examination #1** [Covers material from week 1 to week 3]  
Opens FRI 06/12 at 11:59 p.m. and closes MON 06/15 at 11:59 p.m.  
50 multiple choice questions with one correct answer

## **WEEK 5: Tuesday June 16**

### **[SKIDMORE]**

#### **Topics:**

Agents Used in Cardiac Arrhythmias  
Diuretic Agents  
Drugs Used in Disorders of Coagulation

#### **Required Readings:**

Katzung 14, 15, 34

#### **Assignments:**

**Weekly Quiz # 5** [Covers week 5 material]

Opens WED 06/17 at 11:59 p.m. and closes SAT 06/20 at 11:59 p.m.

**Case Study #2** – First submission due by SAT 06/20 at 11:59 p.m.

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## **WEEK 6: Tuesday June 23**

### **[ASH]**

#### **Topics:**

Respiratory Medications  
Agents Used in Dyslipidemia  
Antidepressant Agents

#### **Required Readings:**

Katzung 20, 21, 30, 35

#### **Assignments:**

**Weekly Quiz #6** [Covers week 6 material]

Opens WED 06/24 at 11:59 p.m. and closes SAT 06/27 at 11:59 p.m.

**Case Study #1** – Final submission due by SAT 06/27 at 11:59 p.m.

## **WEEK 7: Tuesday June 30**

### **[SKIDMORE]**

#### **Topics:**

Drugs That Act in the Central Nervous System:  
Sedatives, Hypnotics, Antiepileptics, Antipsychotics, and Medications Used in the Treatment of Movement Disorders

#### **Required Readings:**

Katzung 21, 22, 24, 28, 29

#### **Assignments:**

**Weekly Quiz #7** [Covers week 7 material]

Opens WED 07/01 at 11:59 p.m. and closes SUN 07/05 at 11:59 p.m.

**Examination #2** [Covers material from Week 4 to Week 6]

Opens THUR 07/02 at 11:59 p.m. and closes MON 07/06 at 11:59 p.m.

75 multiple choice questions with one correct answer

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## **WEEK 8: Tuesday July 7**

### **[SKIDMORE]**

#### **Topics:**

Antimicrobial Agents

#### **Required Readings:**

Katzung 43, 44, 45, 46, 47, 48, 49, 50, 51, 52, 53

#### **Assignments:**

**Weekly Quiz #8** [Covers week 8 material]

Opens WED 07/08 at 11:59 p.m. and closes SAT 7/11 at 11:59 p.m.

**Case Study #2** – Final submission due by SAT 7/11 at 11:59 p.m.

**Case Study #3** – First submission due by SAT 7/11 at 11:59 p.m.

## **WEEK 9: Tuesday July 14**

### **[ASH]**

#### **Topics:**

Endocrine Drugs

#### **Required Readings:**

Katzung 37, 38, 39, 40, 41, 42

#### **Assignments:**

**Weekly Quiz #9** [Covers week 9 material]

Opens WED 07/15 at 11:59 p.m. and closes SAT 07/18 at 11:59 p.m.

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## **WEEK 10: Tuesday July 21**

### **[ASH]**

#### **Topics:**

Non-steroidal Anti-Inflammatory Drugs  
Disease-Modifying Antirheumatic Drugs  
Non-Opioid Medications  
Drugs Used in Gout  
Skeletal Muscle Relaxants

#### **Required Readings:**

Katzung 27, 36

#### **Assignments:**

**Weekly Quiz #10** [Covers week 10 material]

Opens WED 07/22 at 11:59 p.m. and closes SAT 07/25 at 11:59 p.m.

**Case Study #3** – Final submission due by SAT 07/25 at 11:59 p.m.

**Case Study #4** – First submission due by SAT 07/25 at 11:59 p.m.

**Examination #3** [Covers material from Week 7 to Week 9]

Opens FRI 07/24 at 11:59 p.m. and closes MON 07/27 at 11:59 p.m.

75 multiple choice questions with one correct answer

## **WEEK 11: Tuesday July 28 [SKIDMORE]**

### **Topics:**

Alcohols and Drugs of Abuse  
Opioid Agonists and Antagonists  
Management of the Poisoned Patient

### **Required Readings:**

Katzung 23, 31, 32, 56, 57, 58

### **Assignments:**

**Weekly Quiz #11** [Covers week 11 material]

Opens WED 07/29 at 11:59 p.m. and closes SAT 08/01 at 11:59 p.m.

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## **WEEK 12: Tuesday August 4 [ASH]**

### **Topics:**

Rational Prescribing and Prescription Writing  
DEA / Federal Regulations  
Legal Issues in Prescribing  
Ohio Law / OARRS  
Schedule II Prescribing  
CDC Opioid Guidelines  
Stimulants / ADHD Medications

### **Required Readings:**

Katzung 65, Supplemental Readings

### **Assignments:**

**SAFE Opioid Prescribing Modules** [Complete by SAT 08/08 at 11:59 p.m.]

**Case Study #4** – Final submission due by SAT 08/08 at 11:59 p.m.

**Examination #4 [Partially Comprehensive]**

Opens THUR 08/06 at 11:59 p.m. and closes MON 08/10 at 11:59 p.m.

100 multiple choice questions with one correct answer

65% of Questions will be pulled from week 10 to week 12 material

35% of Questions will be pulled from week 1 to week 9 material