

# Pharmacology I NURS 109 Course Syllabus Rev. 02 12 2021

Basic Course Information			
			Julie Kunath MS APRN AGPCNP-BC
Semester:	SPRING 2021	Instructor Name:	ACCNS-AG CCRN-CMC
Course Title &	Pharmacology I NURS		
#:	109	Email:	Julie.kunath@imperial.edu
CRN #:	20753	Webpage (optional):	CANVAS
Classroom:	ONL-ZM	Office #:	Available via Zoom & Pronto
	February 16 – June 7,		T 1000-1200, W 1100-1200, F 10:05-
Class Dates:	2021	Office Hours:	11:50a; also via appt
Class Days:	Mondays	Office Phone #:	n/a cell# (414) 380 - 3353
Class Times:	1300 - 1405	Emergency Contact:	Nursing Office (760) 355 - 6348
Units:	1	Class Format:	Synchronous online via Zoom

# **Course Description**

This course provides an introduction to the principles of pharmacology, including: pharmacokinetics, pharmacodynamics, medication interactions and potential adverse medication reactions. Emphasis will be placed on life span issues, gene therapy, medication errors, substance abuse, immunizations and OTC, herbal and dietary medications. Focus will be on nursing actions and rationale for the concepts and medications covered.

## Course Prerequisite(s) and/or Corequisite(s)

Prerequisite: Admission to the Associate Degree Nursing Program

Corequisite: NURS 107 Fundamentals

## **Student Learning Outcomes**

Upon course completion, the successful student will have acquired new skills, knowledge, and or attitudes as demonstrated by being able to:

1. Differentiate the principles of pharmacology, pharmacodynamic, pharmacokinetics, pharmacogenetics, therapeutics, legal, ethical, and cultural influences to medication utilization by passing the final with 78% or better. (ILO 1,2,4)

## **Course Objectives**

Upon satisfactory completion of the course, students will be able to:

1. Apply principles of pharmacology, pharmacokinetics, pharmacodynamics and drug administration including adverse drug effects and medication errors to medication therapy.



- 2. Understand the legal and ethical implications, with historical and current drug regulation, substance abuse and psychosocial, gender and cultural influences to medication utilization and administration.
- 3. Apply principles of pharmacotherapy in the dimensions of the pediatric, geriatric, pregnant and lactating patient.
- 4. Recognize the major classifications of medications, common medications within each classification, their side effects, and contraindications.
- 5. Discuss nursing implications and concepts of safety when performing medication administration.

#### **Textbooks & Other Resources or Links**

- Burchum, J. R., & Rosenthal, L. D. (2019). *Lehne's pharmacology for nursing care* (10<sup>th</sup> ed.). St. Louis. Elsevier ISBN: 978-0-323-51227-5. (Required)
- Burchum, J. R., Rosenthal, L. D., & Yeager, J. J. (2019). *Lehne's pharmacology for nursing care: Study guide* (10<sup>th</sup> ed.). St. Louis. Elsevier ISBN: 978-0-323-59544-5. (Recommended)
- RN Pharmacology for Nursing. ATI nursing education. (Content Mastery Series: Review Module)
- ATI: Pharmacology Made Easy (online within ATI package)

# **Course Requirements and Instructional Methods**

Online and Hybrid courses must demonstrate compliance with the IVC Regular and Effective Contact Policy for Distance Education. ]

Out of Class Assignments: The Department of Education policy states that one (1) credit hour is the amount of student work that reasonably approximates not less than one hour of class time and two (2) hours of out-of-class time per week over the span of a semester. WASC has adopted a similar requirement.

#### A. Hours

NURS109 is a 1.0 unit theory course. Synchronous sessions will be held once a week for one hour.

#### **B. Assignments:**

Reading, CD/video, Internet, and writing assignments are required. Students will be expected to read, understand, and critique information from college level textbooks, nursing journals, or equivalent. Additional reading assignments will be required to supplement textbook material. Writing assignments will reflect the objectives listed and may include, but not be limited to, short essays, posters, and/or professional papers. Outside assignments including but not limited to nursing lectures, independent exercises, and online learning activities may be assigned and are required.

Plagiarism and cheating policies noted in the student handbook and IVC policies will be strictly enforced. Students are expected to develop original work for this course. It is recommended that students visit the college library (online) to become acquainted with research tools available.

https://www.imperial.edu/courses-and-programs/divisions/arts-and-letters/library-department/

Schedule may change at the discretion of the instructor, taking into account the progress of students with the materials. Any change will be announced in class or via email through Canvas. **Students are held** 



# responsible for all materials covered in the syllabus and for any changes that are announced in class, sent by email or announced through Canvas.

It is recommended that if a grade falls below 82% that the student arrange to meet with the faculty member. Faculty can be reached in person (limited), by email, by Zoom appt or during office hours via Zoom to discuss grades or other classroom matters.

The student is responsible for withdrawing (W) from the class before the deadline as outlined on your registration forms. **Failure to pass this class will affect your ability to progress to the next semester.** Students failing or withdrawing must complete a Petition to Re-Enter.

## What if I need to borrow technology or access to WIFI?

- 1. To request a loaner laptop, MYFI device, or other electronic device, please submit your request here: <a href="https://imperial.edu/students/student-equity-and-achievement/">https://imperial.edu/students/student-equity-and-achievement/</a>
- 2. If you'd like access the WIFI at the IVC campus, you can park in parking lots "I & J". Students must log into the IVC student WIFI by using their IVC email and password. The parking lots will be open Monday through Friday from 8:00 a.m. to 7:00 p.m.

# **Guidelines for using parking WIFI:**

- -Park in every other space (empty space BETWEEN vehicles)
- -Must have facemask available
- -For best reception park near buildings
- -Only park at marked student spaces
- -Only owners of a valid disabled placard may use disabled parking spaces
- -Only members of the same household in each vehicle
- -Occupants **MUST** remain in vehicles
- -Restrooms and other on-campus services <u>not</u> available
- -College campus safety will monitor the parking lot
- -Student code of conduct and all other parking guidelines are in effect
- -Please do not leave any trash behind

## -No parking permit required

If you have any questions about using parking WIFI, please call Student Affairs at 760 - 355-6455.

# **Course Grading Based on Course Objectives**

Students must maintain a "C" average grade as determined by the scale below:

A = 93-100%

B = 85-92%

C = 78-84%

F = Below 78%

Grades will not be "rounded". To advance to the next semester, a "C" or better is required in this course and the co-requisite courses. The course grade will be computed as follows: 10% from homework/assignments, 10% from quizzes (in class, take-home, or online), 45% will come from



an average of the three exams prior to the final exam, and 35% of the course grade will come from the final exam.

Homework/assignments/ATI	10%
Quizzes	10%
Exam 1	<b>15%</b>
Exam 2	<b>15%</b>
Exam 3	<b>15%</b>
Final Exam	<b>35%</b>
Total	100%

All of the following must be attained to successfully pass this course:

- **A. Theory (exams) grade** must have a **total equivalent of 78% or greater**. This requirement must be met in order to progress to the Final Exam.
- **B. Final Theory Exam score** must be passed at a **78% or greater**.
- **C. Total grade calculation** must be passed at a **78% or greater**.
- **D. Attendance** requirements as noted below **must be met.**

Testing will include no more than 3 examinations in addition to written, demonstration, and oral assignments, and a final examination. Pop quizzes may be included. EXCEPT FOR UNDER EXTREME CIRCUMSTANCES, THERE WILL BE NO MAKE-UPS FOR TESTS OR QUIZZES MISSED DUE TO ABSENCE.

#### **Course Policies**

#### Attendance

- A student who fails to attend the first meeting of a class or does not complete the first mandatory activity of an online class will be dropped by the instructor as of the first official meeting of that class. Should readmission be desired, the student's status will be the same as that of any other student who desires to add a class. It is the student's responsibility to drop or officially withdraw from the class. See General Catalog for details.
- Regular attendance in all classes, including synchronous Zoom meetings, is expected of all students. A
  student whose continuous, unexcused absences exceed the number of hours the class is scheduled to
  meet per week may be dropped. For online courses, students who fail to complete required activities
  for two consecutive weeks may be considered to have excessive absences and may be dropped.
- Acceptance of absenteeism excuses is at the discretion of the faculty member and may result in failure
  of the class. A student who reaches the maximum allowable number of hours absent and is not
  allowed to continue in class and may file a petition to reenter the nursing program. The teaching team
  will meet with the student to discuss remediation and the possibility of reentry.
- Absences attributed to the representation of the college at officially approved events (conferences, contests, and field trips) will be counted as 'excused' absences.
- Students who are late for class three times will be considered absent for one day

## What does it mean to "attend" an online class?



Attendance is critical to student success and for IVC to use federal aid funds. Acceptable indications of attendance are:

- Student submission of an academic assignment
- Student submission of an exam
- Student participation in an instructor-led Zoom conference
- Documented student interaction with class postings, such as an interactive tutorial or computerassisted instruction via modules
- A posting by the student showing the student's participation in an assignment created by the instructor
- A posting by the student in a discussion forum showing the student's participation in an online discussion about academic matters
- An email from the student or other documentation showing that the student has initiated contact with a faculty member to ask a question about an academic subject studied in the course.

Logging onto Canvas alone is NOT adequate to demonstrate academic attendance by the student.

## **Classroom Etiquette**

During all classroom and clinical instruction time, every person will be respected within the group and it is expected that all interactions between students, faculty, and other staff will take place professionally and courteously. It is expected that students will come prepared for class by completing reading assignments, assigned videos or recordings, and other assigned material prior to synchronous sessions and by due dates.

- Electronic Devices: Cell phones and electronic devices must be turned off and put away during class, unless otherwise directed by the instructor.
- Food and Drink are prohibited in all classrooms. Water bottles with lids/caps are the only exception. Additional restrictions will apply in labs. Please comply as directed by the instructor.
- Disruptive Students: Students who disrupt or interfere with a class may be sent out of the room and told to meet with the Campus Disciplinary Officer before returning to continue with coursework. Disciplinary procedures will be followed as outlined in the General Catalog.
- Children in the classroom: Due to college rules and state laws, only students enrolled in the class may attend; children are not allowed.

## How do I act differently if I have an on-ground class during COVID?

- 1. DO NOT COME TO CAMPUS OR ATTEND AN OFF-CAMPUS CLASS IF YOU FEEL SICK, HAVE A FEVER, OR HAVE A COUGH
  - a. Even if your symptoms are mild, stay home.
  - b. Email your instructor to explain why you are missing class.
  - c. <u>If you are sick with COVID-19 or think you might have COVID-19</u>, provides CDC guidance.
  - d. If you have tested positive for COVID-19, you must self-quarantine for 14 days and then be without symptoms for at least 72 hours. Clearance is required prior to returning to any face-to-face interaction. It is recommended that you undergo a final COVID-19 test to confirm that you are no longer infected.



e. If you are exposed through direct contact with a person known to be COVID-19 positive, then you must submit negative COVID-19 test results prior to returning to any face-to-face interaction.

## 2. ARRIVE AT CAMPUS EARLY (at least 15 minutes early is advised).

a. All people entering the IVC campus will need to pass a screening process, which will occur at the gates as your drive onto campus. You will need to take a short questionnaire and get your temperature taken (the screening is completely touchless and will take place while you remain in your car).

## 3. BRING A MASK TO CLASS (and always wear it).

a. Be sure that your mask covers both your nose and mouth. If your mask is cloth, then wash it each day. If your mask is disposable, then use a new one each day.

#### 4. GO DIRECTLY TO YOUR CLASSROOM.

a. The IVC campus is mostly closed so you should not visit other areas or seek any face-to-face services. Services are available to students online and can be accessed through <a href="https://www.imperial.edu">www.imperial.edu</a>.

# 5. WASH YOUR HANDS FREQUENTLY (and use the provided sanitation supplies).

a. Your classroom is equipped with cleaning supplies. Use them as needed.

## 6. BE SURE TO SOCIAL DISTANCE (stay at least 6 feet from other).

a. The number of students in a classroom at any one time is very limited so you have plenty of space to spread and ensure that you stay at least 6 feet from others.

#### 7. BRING YOUR OWN FOOD AND DRINKS.

a. There is no food service currently offered on campus.

## **Online Netiquette**

- What is netiquette? Netiquette is internet manners, online etiquette, and digital etiquette all rolled into one word. Basically, netiquette is a set of rules for behaving properly online.
- Students are to comply with the following rules of netiquette: (1) **identify yourself**, (2) include a subject line, (3) avoid sarcasm, (4) respect others' opinions and privacy, (5) acknowledge and return messages promptly, (6) copy with caution, (7) do not spam or junk mail, (8) be concise, (9) use appropriate language, (10) use appropriate emoticons (emotional icons) to help convey meaning, and (11) use appropriate intensifiers to help convey meaning [do not use ALL CAPS or multiple exclamation marks (!!!!)].

## How am I expected to act in an online "classroom" (especially Zoom)?

Attending a virtual meeting can be a challenge when there are many students on one conference call. Participating in such meetings may count as class attendance, but disruptive behavior may also result in you not being admitted to future meetings. Follow the tips below for best results:

#### 1) Be RESPECTFUL

a. Your written, verbal, and non-verbal communications should be respectful and focused on the learning topics of the class.

## 2) Find a QUIET LOCATION & SILENCE YOUR PHONE (if zooming)

**a.** People walking around and pets barking can be a distraction.

## 3) EAT AT A DIFFERENT TIME.

a. Crunching food or chugging drinks is distracting for others.



b. Synchronous zoom times are set in advance so reserve meals for outside class meetings.

## 4) ADJUST YOUR LIGHTING SO THAT OTHERS CAN SEE YOU

- a. It is hard to see you in dim lighting so find a location with light.
- b. If your back is to a bright window, you will be what is called "backlit" and not only is it hard on the eyes (glare) but you look like a silhouette.

# 5) POSITION THE CAMERA SO THAT YOUR FACE AND EYES ARE SHOWING

- a. If you are using the camera, show your face; it helps others see your non-verbal cues.
- b. You may be at home, but meeting in pajamas or shirtless is not appropriate so dress suitably. Comb your hair, clean your teeth, fix your clothes, etc. before your meeting time to show self-respect and respect for others.

## 6) Be READY TO LEARN AND PAY ATTENTION

- a. Catch up on other emails or other work later.
- b. If you are Zooming, silence your phone and put it away.
- c. If you are in a room with a TV turn it off.

# 7) USE YOUR MUTE BUTTON WHEN IN LOUD PLACES OR FOR DISTRACTIONS

Pets barking, children crying, sneezing, coughing, etc. can happen unexpectedly. It's best if
you conference in a private space, but if you can't find a quiet place, when noises arise
MUTE your laptop.

## 8) REMEMBER TO UNMUTE WHEN SPEAKING

- a. Follow your instructor's directions about using the "raise hand" icon or chat function to be recognized and to speak, but make sure you have unmuted your device.
- b. Do not speak when someone else is speaking.

## 9) REMAIN FOCUSED AND PARTICIPATE IN THE MEETING

- a. Especially when the camera is on YOU, we can all see your actions. Engage in the meeting. Look at the camera. Listen to instruction. Answer questions when asked.
- b. Do not use the Zoom meeting to meet with your peers or put on a "show" for them.

## 10) PAUSE YOUR VIDEO IF MOVING OR DOING SOMETHING DISTRACTING

a. Emergencies happen. If you need to leave the room or get up and move about, stop your video.

#### **Academic Honesty**

Academic honesty in the advancement of knowledge requires that all students and instructors respect the integrity of one another's work and recognize the important of acknowledging and safeguarding intellectual property.

There are many different forms of academic dishonesty. The following kinds of honesty violations and their definitions are not meant to be exhaustive. Rather, they are intended to serve as examples of unacceptable academic conduct.

 Plagiarism is taking and presenting as one's own the writings or ideas of others, without citing the source. You should understand the concept of plagiarism and keep it in mind when taking exams and preparing written materials. If you do not understand how to "cite a source" correctly, you must ask for help.



• Cheating is defined as fraud, deceit, or dishonesty in an academic assignment, or using or attempting to use materials, or assisting others in using materials that are prohibited or inappropriate in the context of the academic assignment in question.

Anyone caught cheating or plagiarizing will receive a zero (0) on the exam or assignment, and the instructor may report the incident to the Campus Disciplinary Officer, who may place related documentation in a file. Repeated acts of cheating may result in an F in the course and/or disciplinary action. Please refer to the General Catalog for more information on academic dishonesty or other misconduct. Acts of cheating include, but are not limited to, the following: (a) plagiarism; (b) copying or attempting to copy from others during an examination or on an assignment; (c) communicating test information with another person during an examination; (d) allowing others to do an assignment or portion of an assignment; (e) using a commercial term paper service.

## How do I show academic honesty and integrity in an online "classroom"?

#### KEEP YOUR PASSWORDS CONFIDENTIAL.

 You have a unique password to access online software like Canvas. Never allow someone else to log-in to your account.

## • COMPLETE YOUR OWN COURSEWORK.

 When you register for an online class and log-in to Canvas, you do so with the understanding that you will produce your own work, take your own exams, and <u>will do so</u> <u>without the assistance of others</u> (unless directed by the instructor).

# **Examples of Academic Dishonesty that can occur in an online environment:**

- Copying from others on a quiz, test, examination, or assignment;
- Allowing someone else to copy your answers on a quiz, test, exam, or assignment;
- Having someone else take an exam or quiz for you;
- Conferring with others during a test or quiz (if the instructor didn't explicitly say it was a group project, then he/she expects you to do the work without conferring with others);
- Buying or using a term paper or research paper from an internet source or other company or taking any work of another, even with permission, and presenting the work as your own;
- Excessive revising or editing by others that substantially alters your final work;
- Sharing information that allows other students an advantage on an exam (such as telling a peer what to expect on a make-up exam or prepping a student for a test in another section of the same class):
- Taking and using the words, work, or ideas of others and presenting any of these as your own work is plagiarism. This applies to all work generated by another, whether it be oral, written, or artistic work. Plagiarism may either be deliberate or unintentional.

#### **Other Course Information**



## **IVC Student Resources**

IVC wants you to be successful in all aspects of your education. For help, resources, services, and an explanation of policies, visit <a href="http://www.imperial.edu/studentresources">http://www.imperial.edu/studentresources</a> or click the heart icon in Canvas.

# **Anticipated Class Schedule/Calendar**

\*\*\*Tentative, subject to change without prior notice\*\*\*

Reading and assignments due before class are to be completed so that you may be an active participant in synchronous class sessions and class activities.

Date/ Week	Topics	Reading: Lehne's, (2019) unless otherwise specified	Assignments & Recommendations: Always check CANVAS for current assignments & due dates!
Week 1  No Class on  Monday this  week!	Basic Terms Properties of Ideal Drug Therapeutic Objective Nursing Responsibilities re: drugs Generic and Brand Names OTC Sources of Drug Information	Chapters 1, 2 & 3 Chapter 1: Orientation to Pharmacology Chapter 2: Application of Pharmacology to Clinical Practice Chapter 3: Drug Regulation Development, Names, and Information	Complete Canvas assignments as instructed. MedCom Videos
Week 2 02/22/2021	Introductions/Syllabus Tips to Succeed in Pharm Application of Pharmacokinetics	Chapter 4 Chapter 4: Pharmacokinetics	Complete Canvas assignments as instructed.  Review material from Chapters 1 – 4
Week 3 03/01/2021	Pharmacodynamics	Chapters 5 & 6 Chapter 5: Pharmacodynamics Chapter 6: Drug Interactions	Online Canvas Quiz  Watch Pharmacodynamics videos  Review Key Points
Week 4 03/08/2021	<b>EXAM 1:</b> Chapters 1, 2, 3, 4, 5, & 6 All content from weeks 1 - 3	Review all previous material	Exams will be in Canvas, during class while on Zoom – unless otherwise instructed.
Week 5 03/15/2021	Adverse Drug Reactions  • Medication Guides	Chapter 7 Chapter 7: Adverse Drug Reactions and Medication Errors	Group Assignment: ADR or Med Error Example



			D . W . D .
	<ul> <li>Black Box Warnings</li> </ul>		Review Key Points
	Medication Errors		
	• Types		
	<ul> <li>Causes</li> </ul>		
	<ul> <li>Ways to Reduce Errors</li> </ul>		
	How to Report Errors		
Week 6	Pharmacology of Drug Abuse	Chapters 37, 38, 39 & 40	Group Assignment:
03/22/2021	<ul> <li>Definitions</li> </ul>	<u>Chapter 37</u> : Substance Use	Darriana Van Daimta
	<ul> <li>Contributing Factors</li> </ul>	Disorders (SUD) I- Basic Considerations	Review Key Points
	<ul> <li>Neurobiology of SUD</li> </ul>	<u>Chapter 38:</u> SUD II- Alcohol	Review any Safety Alerts,
	<ul> <li>Principles of Treatment</li> </ul>	<u>Chapter 39</u> : SUD III- Nicotine and	Tables, and Pt-Centered
	<ul> <li>Controlled Substances</li> </ul>	Smoking	Care Across the Life
	(DEA Schedules)	<u>Chapter 40</u> : SUD IV- Major Drugs of	Span!
	Alcohol Effects on Body	Abuse Other Than Alcohol and	
	Systems	Nicotine	Recommend Flash Cards
	Pharmacokinetics		to study these chapters
	Tolerance vs Physical		
	Dependence		
	<ul> <li>Interactions</li> </ul>		
	<ul> <li>Overdose</li> </ul>		
	<ul> <li>Alcohol Use Disorder</li> </ul>		
	<ul> <li>Drugs and Treatment</li> </ul>		
	Nicotine and Smoking		
	<ul> <li>Mechanism of Action</li> </ul>		
	<ul> <li>Effects/Toxicity</li> </ul>		
	<ul> <li>Smoking Cessation</li> </ul>		
	<ul> <li>Nicotine Replacement</li> </ul>		
	Heroin, Oxycodone & other		
Maral- 7	Opioids - management	Chantage 0 0 40	Dandana Walata d
Week 7 03/29/2021	Basic Considerations During Pregnancy	Chapters 9 & 10 Chapter 9: Drug Therapy During	Review Tables in Chapters
03/49/4041	Placental transfer	Pregnancy and Breast-Feeding	Chapters
	<ul><li>Tracental transfer</li><li>Teratogenesis</li></ul>	<u>Chapter 10</u> : Drug Therapy in	Review Effects of
	FDA Preg Risk	Pediatric Patients	Teratogens at various
	Categories		stages of development of
	New Labeling Rules		fetus
	Lactation and Drugs		Review Key Points
	Pediatric Patients		Neview Key Fullits
	Pharmacokinetics:		
	Neonates& Infants		
	<ul> <li>Pharmacokinetics: 1</li> </ul>		
	year and older		
	year and bluer		



	Promoting adherence		
On Canvas 03/30/2021 or TBD	in children  EXAM 2	Week 5, 6, & 7 material will be majority of EXAM 2. There will be 5 – 10 questions from EXAM 1 material.	
Week 8 04/05/2021 Spring Break No Classes!			
Week 9 04/12/2021	Drug Therapy in Older Adults  Pharmacokinetic changes Pharmacodynamic changes Adverse Drug Reactions How to reduce ADRs Drug Interactions Adherence End of Life Considerations	Chapter 11 Chapter 11: Drug Therapy in Older Adults	Review Key Points  Review tables in chapter  Review physiological changes in older adults
Week 10 04/19/2021	Variation in Drug Responses  Body habitus, age Pathophysiology Tolerance Placebo Effect Absorption Variables Genetics Genetics Comorbidities Diet Complementary & Alternative Tx Regulation of Supplements Standardization of Herbals Commonly used Dietary Supplements Harmful Supplements to Avoid	Chapter 8: Individual Variation in Drug Responses Chapter 108: Complementary and Alternative Therapy	Group Assignment: Find examples of natural/herbal remedies used locally.  Review Key Points  Make Study Cards
Week 11 04/26/2021	In Class Debate: Vaccinations Natural vs Specific Acquired Cell-Mediated vs Ab-Mediated Cells of the Immune System	Chapters 67 & 68 Chapter 67: Review of Immune System Chapter 68: Childhood	Develop Immunization reference cards/Table for clinical use.



	Antibodies vs Antigens Immune Responses Immunizations	Immunization	Review Key Points  Vaccine Debate
	<ul> <li>Definitions</li> <li>Active vs Passive</li> <li>Records of immunizations</li> <li>Adverse Effects</li> <li>Immunization Schedule</li> <li>Target Diseases</li> <li>Specific Vaccines (AE/CI)</li> </ul>		Flash Cards for Vaccines
Week 12 05/03/2021	EXAM 3	EXAM 3: The majority of EXAM 3 content will be from weeks 9, 10, & 11. There will be 5 – 10 questions from previous material.	
Week 13 05/10/2021	<ul> <li>Neuropharmacology:         <ul> <li>Basic Mechanisms of Action</li> </ul> </li> <li>Synaptic Transmission Steps</li> <li>Effects of Drugs on the Steps of Synaptic Transmission</li> <li>Receptor Types &amp; Selectivity</li> <li>Autonomic Nervous System (ANS)</li> <li>Parasympathetic Nervous System</li> <li>Sympathetic Nervous System</li> <li>Feedback Regulation</li> <li>Peripheral Nervous System (PNS)</li> <li>Cholinergic &amp; Adrenergic Receptors</li> <li>Specificity</li> <li>Cholinergic Drugs: Muscarinic-Agonists &amp; Antagonists</li> <li>Cholinesterase Inhibitors</li> </ul>	Chapter 12: Basic Principles of Neuropharmacology Chapter 13: Physiology of the Peripheral Nervous System Chapter 14: Muscarinic Agonists and Antagonists Chapter 15: Cholinesterase Inhibitors and Their Use in Myasthenia Gravis  Last date to drop with a "W" May 15	Assignment: Create Diagram/Cheat Sheet incorporating receptors/drugs from Ch 12 - 19  ATI Pharm Made Easy: Review Key Points Review "Summary of Major Nursing Implications"  Drug Cards & Compare/ Contrast Drugs: See instructions on Canvas



Week 14 05/17/2021	Neuromuscular Blocking Agents Adrenergic Agonists Alpha-Adrenergic Antagonists Beta-Adrenergic Antagonists Centrally Acting Alpha2- Agonists	Chapter 16: Drugs That Block Nicotinic Cholinergic Transmission: Neuromuscular Blocking Agents Chapter 17: Adrenergic Agonists Chapter 18: Adrenergic Antagonists Chapter 19: Indirect-Acting Antiadrenergic Agents Chapter 30: Drugs for Headache	ATI Pharm Made Easy: Review Key Points Review "Summary of Major Nursing Implications" Drug Cards: See Canvas list
Week 15 05/24/2021	Headache Medications Opioid/Non-opioids Pain Management in CA Anesthetic and Anesthesia Malignant Hyperthermia Inhalation Anesthetics Intravenous Anesthetics	Chapters 28 & 29 Chapter 28: Opioid Analgesics, Opioid Antagonists, and Nonopioid Centrally Acting Analgesics Chapter 29: Pain Management in Patients with Cancer Chapters 26 & 27 Chapter 26: Local Anesthetics Chapter 27: General Anesthetics	ATI Pharm Made Easy: Review Key Points Review "Summary of Major Nursing Implications" Drug Cards: See Canvas list
Week 16 05/31/2021 Memorial Day No Classes! Week 17 06/07/2021	FINAL EXAM:	Majority of content will be from weeks 13, 14, & 15. Some content from previous Exams may be included. TBA	

<sup>\*\*\*</sup>Subject to change without prior notice\*\*\*