



## Pharmacology I: NURS 109: SPRING 2026: Course Schedule\_ version 02 19 2026

### Basic Course Information

Semester:	<b>SPRING 2026</b>	Instructor Name:	<b>Julie Kunath MS APRN CCRN-K CNE</b>
Course Title #:	<b>Pharmacology I NURS 109</b>	Email:	<b>julie.kunath@imperial.edu</b>
CRN #:	<b>20391am 21377pm</b>	Webpage:	<b>CANVAS, Pronto</b>
Classroom:	<b>Rm2110am / Rm2152pm</b>	Office #:	<b>2103</b>
Class Dates:	<b>02/17 – 06/12/2026</b>	Office Hours:	<b>Mondays 1045-1145 &amp; 1315-1415; Wednesdays 1300-1500</b>
Class Days:	<b>Mondays</b>	Office Phone:	<b>(760) 355 - 6422</b>
Class Times:	<b>20391am 1200 – 1305 21377pm 1600 - 1705</b>	Emergency Contact:	<b>Nursing Office (760) 355 - 6348</b>
Units:	<b>1</b>	Class Format:	<b>In-person</b>

**Last date to drop with a "W" is May 16<sup>th</sup>, 2026**

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

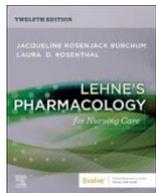
### Course Objectives

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

### REQUIRED



Burchum, J. R., & Rosenthal, L. D. (2024). *Lehne's pharmacology for nursing care* (12<sup>th</sup> ed.). Elsevier.  
ISBN-13 paperback: 978-044310708

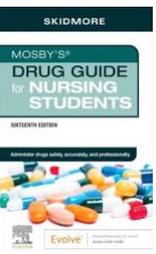
RN Pharm for Nursing. ATI nursing education. (Content Mastery Series: Review Module)

ATI: Pharmacology Made Easy (online within ATI package)

### RECOMMENDED



Burchum, J. R., & Rosenthal, L. D. (2024). Study guide for *Lehne's pharmacology for nursing care* (12<sup>th</sup> ed.). Elsevier.  
ISBN-13: 978-0443106194



Skidmore-Roth, L. (2024). *Mosby's drug guide for nursing students* (16<sup>th</sup> ed.). Elsevier, Inc.  
ISBN-13: 978-0443380693

## Course Requirements and Instructional Methods

### A. Hours

NURS 109 is a 1.0 unit theory course. Synchronous sessions will be held once a week for one hour. A minimum requirement of 2 – 3 hours of class preparation will be expected each week.

### B. Assignments:

Reading, videos, internet resources, 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.**

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 before and after class, 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.

### 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), 55% will come from an average of all exams prior to the final exam, and 25% of the course grade will come from the final exam.**

<b>Homework/assignments/ATI</b>	<b>10%</b>	
<b>Quizzes</b>	<b>10%</b>	
<b>Exams</b>	<b>55%</b>	
<b>Final Exam</b>	<b>25%</b>	
<b>Total</b>	<b>100%</b>	

**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. **Total grade calculation** must be passed at a **78% or greater.**
- c. **Attendance** requirements as noted below **must be met.**

Testing will include examinations in addition to written, demonstration, and oral assignments, and a final examination. Pop quizzes may be included. Assignments will have automatic daily decrease in percentage of total points via canvas. **EXCEPT FOR UNDER EXTREME CIRCUMSTANCES, THERE WILL BE NO MAKE-UPS FOR TESTS OR QUIZZES MISSED DUE TO ABSENCE.**



## Academic Honesty (Artificial Intelligence -AI)

IVC values critical thinking and communication skills and considers academic integrity essential to learning. Using AI tools as a replacement for your own thinking, writing, or quantitative reasoning goes against both our mission and academic honesty policy and will be considered academic dishonesty, or plagiarism unless you have been instructed to do so by your instructor. In case of any uncertainty regarding the ethical use of AI tools, students are encouraged to reach out to their instructors for clarification.

## Accessibility Statement

Imperial Valley College is committed to providing an accessible learning experience for all students, regardless of course modality. Every effort has been made to ensure that this course complies with all state and federal accessibility regulations, including Section 508 of the Rehabilitation Act, the Americans with Disabilities Act (ADA), and Title 5 of the California Code of Regulations. However, if you encounter any content that is not accessible, please contact your instructor or the area dean for assistance. If you have specific accommodations through **DSPS**, contact them for additional assistance.

We are here to support you and ensure that you have equal access to all course materials.

## Financial Aid

Your Grades Matter! In order to continue to receive financial aid, you must meet the Satisfactory Academic Progress (SAP) requirement. Making SAP means that you are maintaining a 2.0 GPA, you have successfully completed 67% of your coursework, and you will graduate on time. If you do not maintain SAP, you may lose your financial aid. If you have questions, please contact financial aid at [finaid@imperial.edu](mailto:finaid@imperial.edu).

## 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 <http://www.imperial.edu/studentresources> or click the heart icon in Canvas.



## Anticipated Class Schedule/Calendar

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

<b>SPRING 2026</b> <b>MON 1200-1305 / 1600-1705</b>	<b>Pre-Class Assignments:</b> Assigned Reading: Lehne's Pharm Text 12e
<b>Week/Date</b>	<i>Check Canvas for other assignments/quizzes/etc</i>
<b>Week 1</b> <b>FEBRUARY 23</b> Syllabus Review Review through Canvas set-up <b>DRUG CARDS TO TURN-IN VIA CANVAS &amp; BRING TO CLASS:</b> -acetaminophen -ibuprofen Review Textbook setup/Tips to Succeed Drug Card Format (ACETAMINOPHEN)  HOW TO UPLOAD HW TO CANVAS	<b>Chapters 1, 2 &amp; 3</b> <a href="#">Chapter 1: Orientation to Pharmacology</a>  <a href="#">Chapter 2: Application of Pharmacology to Clinical Practice</a>  <a href="#">Chapter 3: Drug Regulation Development, Names, and Information</a>  Review KeyPoints for each chapter. Practice Evolve questions and <b>review rationales</b> .
<b>Week 2</b> <b>MARCH 2</b> Application of Pharmacokinetics <b>DRUG CARDS TO TURN-IN VIA CANVAS &amp; BRING TO CLASS:</b> -warfarin -nitroglycerin	<b>Chapter 4</b> <a href="#">Chapter 4: Pharmacokinetics</a> <a href="#">Pharmacology Made Easy (ATI): Introduction Module</a>  Review KeyPoints for each chapter. Practice Evolve questions and <b>review rationales</b> .
<b>Week 3</b> <b>MARCH 9</b> <b>EXAM 1 (CHAPTERS 1-4)</b> <b>Pharmacodynamics</b> <ul style="list-style-type: none"> <li>• Dose-Response</li> <li>• Drug-Receptor interactions</li> <li>• Interpatient Variability</li> </ul> Drug-Drug / Drug-Food Interactions Drug-Supplement Interactions <b>Bring to class:</b> DRUG/FOOD CARDS: -Tyramine containing foods -Vitamin K containing foods -High Potassium containing foods	<b>Chapters 5 &amp; 6</b> <a href="#">Chapter 5: Pharmacodynamics</a>  <a href="#">Chapter 6: Drug Interactions</a>  Review KeyPoints for each chapter. Practice Evolve questions and <b>review rationales</b> .



<p><b>Week 4</b> <b>MARCH 16</b> <b>Adverse Drug Reactions</b></p> <ul style="list-style-type: none"><li>• Medication Guides</li><li>• Black Box Warnings</li></ul> <p><b>Medication Errors</b></p> <ul style="list-style-type: none"><li>• Types / Causes</li><li>• Reduction Methods / Reporting Errors</li></ul> <p><b>Bring to class:</b> Drug/Med Admin Cards: -Furosemide -Heparin -Rights of Medication Administration and the Three Checks</p>	<p><b>Chapter 7</b> <a href="#">Chapter 7: Adverse Drug Reactions and Medication Errors</a></p> <p>Review KeyPoints for each chapter. Practice Evolve questions and <b>review rationales</b>.</p>
<p><b>Week 5</b> <b>MARCH 23</b></p> <p><b>EXAM 2 (CHAPTERS 5-7)</b></p> <p><b>Pharmacology of Drug Abuse</b></p> <ul style="list-style-type: none"><li>• Definitions</li><li>• Contributing Factors</li><li>• Controlled Substances (DEA Schedules)</li></ul> <p><b>Alcohol Effects on Body Systems</b></p> <ul style="list-style-type: none"><li>• Pharmacokinetics</li><li>• Tolerance vs Physical Dependence</li></ul> <p><b>Nicotine and Smoking</b></p> <ul style="list-style-type: none"><li>• Smoking Cessation</li><li>• Nicotine Replacement</li></ul> <p><b>Heroin, Oxycodone &amp; other Opioids – management</b></p> <p><b>Bring to class:</b> Drug Cards: -oxycodone -flumazenil -morphine -naloxone</p>	<p><b>Chapters 40, 41, 42 &amp; 43</b> <a href="#">Chapter 40: Substance Use Disorders I- Basic Considerations</a></p> <p><a href="#">Chapter 41: SUD II- Alcohol</a></p> <p><a href="#">Chapter 42: SUD III- Nicotine</a></p> <p><a href="#">Chapter 43: SUD IV- Major Drugs of Abuse Other Than Alcohol and Nicotine</a></p> <p>Review KeyPoints for each chapter. Practice Evolve questions and <b>review rationales</b>.</p>



<p><b>Week 6</b> <b>MARCH 30</b></p> <p><b>QUIZ (CHAPTERS 40-43) SUBSTANCE USE DISORDER, ALCOHOL, NICOTINE AND OTHER MAJOR DRUGS OF ABUSE</b></p> <p><b>Basic Considerations During Pregnancy</b></p> <ul style="list-style-type: none"><li>• Placental transfer</li><li>• Teratogenesis</li><li>• FDA Preg Risk Categories</li></ul> <p><b>Pediatric Patients</b></p> <ul style="list-style-type: none"><li>• Pharmacokinetics: Neonates &amp; Infants</li><li>• Pharmacokinetics: 1 year and older</li><li>• Promoting adherence in children</li></ul> <p><b>Drug Therapy in Older Adults</b></p> <ul style="list-style-type: none"><li>• Pharmacokinetic changes</li><li>• Pharmacodynamic changes</li><li>• Adverse Drug Reactions</li></ul>	<p><b>Chapters 11 &amp; 12</b> <a href="#">Chapter 11: Drug Therapy During Pregnancy and Breast-Feeding</a></p> <p><a href="#">Chapter 12: Drug Therapy in Pediatric Patients</a></p> <p><b>Chapter 13</b> <a href="#">Chapter 13: Drug Therapy in Older Adults</a></p> <p>Review KeyPoints for each chapter. Practice Evolve questions and <b>review rationales</b>.</p> <p><b>CARDS TO CREATE:</b></p> <ul style="list-style-type: none"><li>• Pregnancy/lactation pharm concerns</li><li>• Pediatrics pharm concerns</li><li>• Elderly pharm concerns</li></ul>
<p><b>Week 7</b> <b>APRIL 6 (IVC CLOSED FOR SPRING BREAK)</b></p>	<p><b>NO CLASSES</b></p>
<p><b>Week 8</b> <b>APRIL 13</b></p> <p><b>QUIZ (CHAPTERS 11-13) DRUG THERAPY ACROSS THE LIFE SPAN</b></p> <p><b>Variation in Drug Responses</b></p> <p><b>Complementary &amp; Alternative Tx</b></p> <ul style="list-style-type: none"><li>• Regulation of Supplements</li><li>• Standardization of Herbals</li><li>• Commonly used Dietary Supplement</li><li>• Harmful Supplements to Avoid</li></ul>	<p><b>Chapters 8 &amp; 87</b> <a href="#">Chapter 8: Individual Variation in Drug Responses</a></p> <p><a href="#">Chapter 87: Complementary and Alternative Therapy</a></p> <p>Review KeyPoints for each chapter. Practice Evolve questions and <b>review rationales</b>.</p>



<p><b>Week 9</b> <b>APRIL 20</b> Natural vs Specific Acquired Cell-Mediated vs Ab-Mediated Antibodies vs Antigens Immunizations</p> <ul style="list-style-type: none"><li>• Active vs Passive</li><li>• Adverse Effects</li><li>• Immunization Schedule</li><li>• Target Diseases</li></ul> <p>Specific Vaccines (AE/CI) Immunosuppressants Overview</p>	<p><b>Chapters 71, 72 &amp; 73</b> <a href="#">Chapter 71: Review of Immune System</a>  <a href="#">Chapter 72: Childhood Immunization</a>  <a href="#">Chapter 73: Immunosuppressants (cyclosporine, sirolimus, methotrexate groups only)</a></p> <p>Review KeyPoints for each chapter. Practice Evolve questions and <b>review rationales</b>.</p> <p>Review Immune System Anatomy &amp; Physiology as needed.</p>
<p><b>Week 10</b> <b>APRIL 27</b></p> <p><b>EXAM 3 (CH 8, 71-73, &amp; 87)</b></p> <p><b>Neuropharmacology:</b></p> <ul style="list-style-type: none"><li>• Basic Mechanisms of Action</li><li>• Synaptic Transmission Steps &amp; Drug Effects</li></ul> <p><b>Autonomic Nervous System (ANS)</b></p> <ul style="list-style-type: none"><li>• Parasympathetic Nervous System</li><li>• Sympathetic Nervous System</li><li>• Feedback Regulation</li><li>•</li></ul>	<p><b>Chapters 14 &amp; 15</b> <a href="#">Chapter 14: Basic Principles of Neuropharmacology</a>  <a href="#">Chapter 15: Physiology of the Peripheral Nervous System</a></p> <p><b>Review Neurological System Anatomy &amp; Physiology as needed.</b></p>
<p><b>Week 11</b> <b>MAY 4</b></p> <p><b>QUIZ (CHAPTERS 14 &amp; 15)</b></p> <p><b>Peripheral Nervous System (PNS)</b></p> <ul style="list-style-type: none"><li>• Cholinergic Receptors</li><li>• Cholinergic Drugs: Muscarinic-Agonists &amp; Antagonists</li><li>• Cholinesterase Inhibitors</li><li>• Neuromuscular Blocking Agents</li></ul>	<p><b>Chapters 16, 17, 18, &amp; 19</b> <a href="#">Chapter 16: Muscarinic Agonists</a>  <a href="#">Chapter 17: Muscarinic Antagonists</a>  <a href="#">Chapter 18: Cholinesterase Inhibitors and Their Use in Myasthenia Gravis</a>  <a href="#">Chapter 19: Drugs That Block Nicotinic Cholinergic Transmission: Neuromuscular Blocking Agents</a></p> <p>Review KeyPoints for each chapter. Practice Evolve questions and <b>review rationales</b>.</p>



<p><b>Week 12</b> <b>MAY 11</b></p> <p><b>QUIZ (CH 14 – 19)</b></p> <p><b>Peripheral Nervous System (PNS)</b></p> <ul style="list-style-type: none"><li>• Adrenergic Receptors</li><li>• Adrenergic Agonists (alpha &amp; beta)</li><li>• Adrenergic Antagonists (alpha &amp; beta)</li><li>• Centrally Acting Alpha2-Agonists</li></ul> <p><b>MAY 16<sup>TH</sup> : LAST DAY TO DROP with a "W"</b></p>	<p><b>Chapters 20, 21, &amp; 22</b></p> <p><a href="#">Chapter 20: Adrenergic Agonists</a></p> <p><a href="#">Chapter 21: Adrenergic Antagonists</a></p> <p><a href="#">Chapter 22: Indirect-Acting Antiadrenergic Agents</a></p> <p>Review KeyPoints for each chapter. Practice Evolve questions and <b>review rationales</b>.</p>
<p><b>WEEK 13</b> <b>MAY 18</b></p> <p><b>EXAM 4 (CH 14 – 22)</b></p> <ul style="list-style-type: none"><li>• Headache Medications</li><li>• Opioid/Non-opioids</li><li>• Pain Management in CA</li></ul>	<p><b>Chapters 23</b></p> <p><a href="#">Chapter 33: Drugs for Headache</a></p> <p><b>Chapters 31 &amp; 32</b></p> <p><a href="#">Chapter 31: Opioid Analgesics, Opioid Antagonists, and Nonopioid Centrally Acting Analgesics</a></p> <p><a href="#">Chapter 32: Pain Management in Patients with Cancer</a></p> <p>Review KeyPoints for each chapter. Practice Evolve questions and <b>review rationales</b>.</p>
<p><b>Week 14</b> <b>MAY 25 (IVC CLOSED – MEMORIAL DAY)</b></p>	<p><b>NO CLASSES</b></p>
<p><b>Week 15</b> <b>JUNE 1</b></p> <p><b>QUIZ (CH 31-33)</b></p> <p>Anesthetic and Anesthesia Malignant Hyperthermia Inhalation Anesthetics Intravenous Anesthetics</p>	<p><b>Chapters 29 &amp; 30</b></p> <p><a href="#">Chapter 29: Local Anesthetics</a></p> <p><a href="#">Chapter 30: General Anesthetics</a></p> <p>Review KeyPoints for each chapter. Practice Evolve questions and <b>review rationales</b>.</p>
<p><b>Week 16</b> <b>FINAL EXAM WEEK (JUNE 8 – 12, 2026)</b> <b>JUNE 8<sup>TH</sup> 1200 – 1330 / 1600 – 1730</b></p>	<p><b>CUMULATIVE FINAL EXAM</b></p>

\*\*\*Subject to change without prior notice\*\*\*