

**Imperial Valley College**  
**Division of Nursing Education and Health Technologies**  
**Pharmacology for Nurses (RN)**  
**Nursing 123 CRN 10793**  
**Class Schedule Fall 2014 (1.5 credits)**

**Time: 8:35 am-10:00 am    Instructor: Rick Fitzsimmons RN, FNP-BC, MSN,**

**Day: Monday:    Classroom: 2150**

**Deadline to drop WITH "W": Nov 3, 2014 (12<sup>th</sup> week)**

**Office: 2129**

**Phone: 355-6421**

**Email: rick.fitzsimmons@imperial.edu**

**PHARMACOLOGY II**

**Term Hours: 24 Lec, 0 Lab**

**Letter Grade only**

**Prerequisites: Nurs 120.**

**Corequisites: NURS 121, NURS 125.**

**Course Description:**

The course addresses the principles of medication therapy for acute and complex conditions including the effects, actions, algorithms and recommended use of drugs in the treatment of complex patient problems. Safe administration practices and reduction of medication errors will be covered. The student will learn to manage complex medication administration through various routes including intravenous routes. Nursing actions and rationale for nursing actions are explored. Clinical application is integrated into the clinical nursing courses.

**Student Learning Outcomes**

1. Identify the mechanism of action, use, side effects and nursing interventions of medications for the autonomic nervous system, pain control, anesthesia, allergic rhinitis, cold & flu, asthma & pulmonary disorders, bone & joint diseases, seizures, anxiety/mood disorders & CNS stimulants, Psychoses, CNS Diseases, neuromuscular disorders, shock, CHF, Angina/MI, Dysrhythmias, hematopoietic disorders, immune system modulation antiviral/antibiotics, drugs for neoplasia, reproductive health meds and endocrine by passing the final with a 75 percent or better.
2. The student will be able to apply pharmacological principles in the care of patients by passing the ATI Pharmacology test in the 3<sup>rd</sup> semester and the pharmacology aspect of the ATI predictor with a raw score of 70% or better on both tests.

**Course Objectives:**

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

1. Describe the anatomy and physiology of the CNS cardiovascular, pulmonary immune, reproductive and endocrine systems.
2. Discuss the rationale and benefits of the major classifications of medications by the system they affect and considering oral versus infusion therapy.
3. Discuss the mechanism of action, use, side effects, and nursing intervention of medications for the CNS, cardiovascular, pulmonary, immune, reproductive, and endocrine systems.
4. Explain legal implication related to medication administration by the major classifications of medications covered; i.e., CNS, cardiovascular, pulmonary, immune, reproductive and endocrine systems.
5. Describe the major classifications of medications as they relate to specific body systems for patients of all ages with acute and complex conditions.
6. Demonstrate understanding of cultural-psycho social aspects of client care related to patient teaching compliance in administration of the major classifications of medication.

Books for Nursing 123

**REQUIRED**

Author	ISBN	Title	Edition	Year	Publisher
Lilley, Collins, Harrington & Snyder	978-0-323-08789-6	Pharmacology and the Nursing Process	7th	2013	Elsevier

**Course Requirements:**

**A. Hours**

NS123 is a 1.5 unit theory course. Lectures are held 1.5 hours per week.

**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. The reading list will include texts used in prior nursing courses and those required of this course (see text book list). 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 learning center activities may be assigned and are required.

**C. Methods of Evaluation:**

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

RN Nursing Grading Scale

A = 92 –100%

B = 83 – 91 %

C = 75 – 82 %

D = 68 – 74 %

F = Below 68%

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 65% will come from an average of all assignments prior to the final exam and 35% of the course grade will come from the final exam. Drug cards and assignments will compose 30% and test 70% of 65% of grade.**

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

**A. Final Theory Exam score must be passed at a 70%.**

B. Theory (exams) grade must total equivalent of 75% or greater.

C. Attendance requirements as noted below must be met.

Testing will include no more than 6 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.

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 Blackboard. **Students are held responsible for all materials covered in the syllabus and for any changes that are announced in class or by email.**

It is recommended that if a grade falls below 78% that the student will arrange to meet with the faculty member. Faculty can be reached in person, by email, or during office hours 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.

#### D. 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 the 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.

It is the responsibility of each student to attend all classes and to contact the faculty person before the start of class if there is a need to be excused from class. Students are expected to attend all classes.

**Absences are limited to 1.5 hours of theory throughout the semester (equivalent to number of hours class meets in one week).** A student who reaches the maximum allowable hours of absenteeism or tardiness may be dropped by the instructor.

Acceptance of absenteeism excuses is at the discretion of the faculty member and may result in failure of the class. Absences attributed to the representation of the college at officially approved events (conferences, contests, and fieldtrips) will be counted as "excused" absences. 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.

Students who are late for class three times will be considered absent for one day.

#### Methods of Instruction

The methods of instruction will be determined by each instructor and may include, but not be limited to the following: small group discussions, student presentations, demonstration, simulations, classroom lecture, CD or online assisted instruction, audiovisuals, textbooks, handouts, and required reading and writing assignments.

#### 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 and skills practice on their own time.

- **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 lid/caps are the only exception additional restrictions will apply in labs. Please comply as directed.
- **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, no one who is not enrolled in the class may attend, including children.

#### Academic Honesty

- **Plagiarism** is to take and present 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 correctly "cite a source" 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 material, or assisting others in using

material, which are prohibited or inappropriate in the context of the academic assignment in question.

Anyone caught cheating 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 School 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) use of a commercial term paper service.

### Additional Help

- Material and testing will be done on Blackboard and you should learn the Blackboard System. Go into Blackboard and use the help for any assistance.
- Learning Center: There is the Nursing Learning center on campus to assist you through the use of computer, tutors or a combination. You will need to take the initiative to set up time with the tutors.
- Library Services: There is more to our library than just books. You have access to tutors in the learning center, study rooms for small groups and online access to a wealth of resources.

### Disabilities

Any student with a documented disability who may need educational accommodations should notify the instructor or the Disabled Student Programs and Services (DSP&S) office as soon as possible. If you feel you need to be evaluated for educational accommodations, the DSP&S office is located in Building 2100, telephone 760-355-6313.

### Student Counseling and Health Services

Students have counseling and health services available, provided by the pre-paid Student health Fee. We now also have a fulltime mental health counselor. For information see <http://www.imperial.edu/students/student-health-center/>. The IVC Student Health Center is located in the Health Science building in Room 2109, telephone 760-355-6310.

### Student Rights and Responsibilities

Students have the right to experience a positive learning environment and due process. For further information regarding student rights and responsibilities please refer to the IVC General Catalog available online at <http://www.edu/index.php?option=com-docman&task=doc-download&gid=4516&Itemid=762>

### Information Literacy

Imperial Valley College is dedicated to help students skillfully discover, evaluate, and use information from all sources. Students can access tutorials at <http://www.imperial.edu/courses-and-programs/divisin/arts-and-letters/library-department/info-lit-tutorials/>

**Pharmacology II**  
**Nursing 123**

Date	Description	Reading is to be done prior to class so that you may be an active participant in Lecture and class activities.
8-18-2014	<b>Introduction:</b> <b>Autonomic Nervous System</b>	Read syllabus. <b>Lilley Ch. 18,19,20,21 ATI Pharm made easy</b> Drug cards: Compare/Contrast (C/C)Adrenergic agent; <b>Norepinephrine</b> (Levophed) <i>Adrenergic blocking agent;</i> <i>Alpha blockers: Prazosin</i> (Minipress) <i>Beta blockers: Metoprolol</i> (Lopressor, Toprol XL) <i>C/C Cholinergic Agent (Direct acting parasympathomimetic);</i> <b>Bethanechol</b> (Urecholine) <i>Cholinergic blocking agent; Atropine</i> (Atropair) <i>C/C Acetylcholinesterase Inhibitor; Donepezil</i> (Aricept), <b>Memantine</b> (Namenda) ( <b>Group together for dementia</b> )
8-25-2014	<b>Local and General Anesthesia</b>	<b>Lilley Ch: 11.</b> Drug Cards: Local Anesthetic Amide; <b>Lidocaine</b> (Xylocaine) <b>Compare/Contrast (C/C)</b> General Anesthetic Gas; <b>Nitrous Oxide</b> Volatile Anesthetic; <b>Halothane</b> (Fluothane) IV Anesthetic; <b>Thiopental</b> (Pentothal) Neuromuscular Blocker; <b>Succinylcholine</b> (Anectine)
9-8-2014	<b>EXAM I</b>  <b>Allergic Rhinitis and Cold&amp; Flu preparations</b>         <b>Asthma&amp; Pulmonary Disorders</b>	<b>Lilley Ch. 36. ATI Pharm made easy: Respiratory</b> Drug Cards: <b>C/C: H1-receptor Antagonist (First-gen); Diphenhydramine</b> (Benadryl), <b>H1- Blocker (Second Gen); Fexofenadine</b> (Allegra) <b>Leukotriene Receptor Antagonist: Montelukast</b> (Singulair)  <b>C/C Decongestant/Sympathomimetic; Oxymetazoline</b> (Afrin) <b>Expectorant; Guaifensin</b> (Robitussin, Mucinex)  <b>Lilley Ch. 37.</b> Drug Cards: <b>C/C: AsthmaBronchodilator/Beta2 adrenergic Agonist;</b> <b>Albuterol</b> (Proventil, Ventilin, ProAir) <b>Bronchodilator/Anticholinergic; Ipratropium Bromide</b> (Atrovent) <b>Xanthine Derivatives: Theophylline</b> (Theo-Dur) <b>Inhaled/nasal Glucocorticoid; Fluticasone</b> (Flovent)
9-15-2014	<b>Bone and Joint Disorders</b>	<b>Lilley Ch. 44, 47, pp.770-781. ATI Pharm: Musculoskeletal</b> Drug cards: <b>C/C: NSAID's Salicylate; Aspirin</b> (Acetylsalicylic Acid) <i>Acetic Acid Derivatives: Diclofenac</i> (Voltaren) <i>Cyclooxygenase 2 inhibitors: Celecoxib</i> (Celebrex) <i>Propionic acid derivatives: Ibuprofen</i> (motrin) ( <b>Group all NSAIDs together in one card</b> )  <b>C/C: Uric Acid inhibitor (Colchicine)Allopurinol</b> (Zyloprim) <b>(Group together as Gout drugs)</b>  <b>C/C:Miscellaneous immunomodulating:</b> <b>Etanercept</b> (Enbrel) <b>Disease modifying antirheumatic Drug;</b> <b>Hydroxychloroquine Sulfate</b> (Plaquenil)

9-22-2014	<p><b>Exam 2</b></p> <p><b>Seizures/Epileptic</b></p> <p><b>Anxiety/ Mood Disorders&amp; CNS stimulants</b></p>	<p><b>Lilley Ch. 14 ATI Pharm Made Easy: Neurological</b>  <i>C/C: Barbiturate; Phenobarbital (Luminal)</i>  <i>Hydantion; Phenytoin (Dilantin)</i>  <i>Iminostilbenes: Carbamazepine (Tegratol)</i>  <i>Miscellaneous antiepileptic: Levetiracetam(Keppra)</i></p> <p><b>Lilley Ch. 12, 16,</b>  <i>C/C: Benzodiazepine; Lorazepam (Ativan)</i>  <b>Miscellaneous: Buspirone(Buspar)</b></p> <p><i>C/C: Drug cards: Selective Serotonin Reuptake inhibitor (SSRI); Escitalopram(Lexapro)/ Tricyclic Antidepressant; Imipramine (Tofranil) Tetracyclics: Mirtazapine (Remeron)</i>  <i>Atypical Antidepressant: Bupropion (Wellbutrin)</i>  <i>Serotonin-norepinephrine reuptake inhibitor (SNRI): Duloxetine (Cymbalta)</i></p> <p><i>Monoamine Oxidase Inhibitor; Phenelzine(Nardil)</i></p> <p><i>Drug for Bipolar Disorder (Mood Stabilizers); Lithium (Lithobid);</i></p> <p><i>C/C : CNS stimulant; Compare Methylphenidate (Ritalin) with Amphetamine aspartate (Adderall)</i></p>
9-29-2014	<p><b>Drugs for Psychoses</b></p> <p><b>Drugs for CNS disease</b></p> <p><b>Neuromuscular Disorders</b></p>	<p><b>Lilley Ch. 16. ATI Pharm Made Easy: Neurological</b>  Drug Cards  <i>C/C: Phenylbutylpiperidines: Haloperidol (Haldol)</i>  <i>Atypical Antipsychotic; Dibenzodiazepines: Quetiapine (Seroquel): Quinolinone: Aripiprazole(Abilify) (Group all 3 together in one card)</i></p> <p><b>Lilley Ch.: 13, 15,</b>  <i>Antimigraine Agent, Triptan; Sumatriptan (Imitrex)</i>  <i>Anorexiants: Phentermine (Adepix)</i>  <i>C/C: Dopaminergic Agent; Levodopa (Larodopa)</i>  <i>Cholinergic Blocker; Benzotropine (Cogentin)</i>  <i>COMT inhibitors: Tolcapone (Tasmar)</i>  <i>MAO-B inhibitors: Selegiline (eldepryl)</i>  <i>Nondoamine dopamine receptor agonists: Pramipexole (Mirapex) (Group all Parkinson drugs together)</i></p> <p><b>Lilley Ch. 12</b>  Drug cards: <i>C/C: {Centrally acting Muscle relaxant; Cyclobenzaprine (Flexeril); Direct-acting Antispasmodic; Dantrolene Sodium (Dantrium);</i></p> <p><i>C/C: [Sedative-Hypnotic Benzodiazepines: Long acting; Flurazepam (Dalmane) Short acting: Temazepam (Restoril); Nonbenzodiazepine CNS depressant; Zolpidem(Ambien)]</i></p>

10-6-2014	<p><b>Exam 3</b></p> <p><b>Drugs for Shock</b></p> <p><b>IV therapy, IV, IVP, Infusions</b></p>	<p><b>Lilley Ch. 18 &amp; Ch 29, pp.474-480 ATI Pharm Made Easy: Cardiovascular</b>  Drug cards: Colloid &amp; blood  <b>Albumin</b>(Albuminar)  <i>C/C: Catecholamines: Norepinephrine (Levophed)</i>  <b>Dobutamine (Dobutrex) Dopamine (Intropin)(Group these 3 together)</b>  <b>Epinephrine (Adrenalin)</b></p>
10-13-2014	<p><b>CHF</b></p> <p><b>Angina/MI</b></p>	<p><b>Lilley Ch. 24 ATI Pharm Made easy: Cardiovascular</b>  Drug Cards:  <i>Cardiac Glycoside; Digoxin(Lanoxin)</i>  <i>C/C: B-type natriuretic peptide: Nesiritide (Natreor)</i>  <i>Phosphodiesterase Inhibitor; Milrinone (Primaacor)</i></p> <p><b>Lilley Ch. 23</b>  Drugs Cards:  <i>Nitrate; Nitroglycerin, (Nitrostat)</i>  <i>Calcium Channel Blocker; Dihydropyridenes: Amlodipine (Norvasc);</i></p>
10-20-2014	<p><b>Dysrhythmias /Shock</b></p> <p><b>Hematopoietic Disorders</b></p>	<p><b>Lilley Ch. 25 ATI Pharm made easy: Cardiovascular</b>  Drug Cards: <i>C/C: [Sodium Channel Blocker/Class 1A; Procainamide; Class 1b: Lidocaine; Class 1c: Propafenone (Rythmol)(Group these 3 together)]</i>  <i>C/C: Beta-adrenergic Antagonist/Class II ; esmolol (Brevibloc)Potassium Channel Blocker/Class III;</i>  <i>Amiodarone (Cordarone)Calcium Channel Blocker/Class IV; Verapamil (Calan)</i>  <i>Unclassified: Adenosine (Adenocard)</i></p> <p><b>Lilley Ch. 47 pp 764-768, Ch 54</b>  Drug cards:  <i>C/C: Hematopoietic Growth Factor; Epoetin (Epogen)</i>  <i>Colony-stimulating Factor; Filgrastim (Neupogen)(Group these 2 together)</i>  <i>Iron supplement; Ferrous Sulfate</i></p>
10-27-2014	<p><b>Exam 4</b></p> <p><b>Immune system modulation</b></p> <p><b>Antifungal/antitubercular</b></p>	<p><b>Lilley Ch.48 ATI Pharm made easy: Immune</b>  Drug Card  <i>C/C:Immunosuppressant; Cyclosporine(Sandimmune, Neoral)</i>  <b>Azathioprine (Imuran)</b></p> <p><b>Lilley Ch. 41, 42,43</b>  Drug Card: <i>C/C: Antitubercular: isoniazid (INH); ethambutol(myambutol), rifampin(Rifadin)(Group TB together)</i>  <i>C/C:Antifungal: Amphotericin B, Fluconazole (Diflucan), terbinafine (Lamisil),</i>  <i>C/C: Helminthic: mebendazole (Vermox); albendazole (Albenza)</i></p>

11-3-2014	<b>Drugs for Neoplasia</b>	<b>Lilley Ch. 45,46 ATI Pharm</b> <i>C/C:Antineoplastic/ Alkylating Agent; Cyclophosphamide (Cytoxan) Antineoplastic/Antimetabolite; Methotrexate (Folex) Antitumor Antibiotic; Doxorubicin (Adriamycin) Vinca Alkaloid; Vincristine (Oncovin) Antineoplastic/Antiestrogen; Tamoxifen (Nolvadex)</i>
11-10-2014	<b>Exam 5</b> <b>Endocrine:</b>	<b>Lilley, 30, 31, 33 ATI Pharm made easy: Endocrine</b> Pituitary: <b>Vasopressin</b> (Pitressin) Thyroid: <b>levothyroxine</b> (Synthroid); <b>Propylthiouracil</b> (PTU) Adrenal: Glucocorticoids, <b>Prednisone</b> Lilley: <b>Ch.34, 35</b>
11-17-2014	<b>Endocrine: Diabetic</b>	<b>Lilley, Ch. 32 ATI Pharm made easy: Endocrine</b> Drug cards: Oral:Glinides: <b>Repaglinide</b> (Prandin) Alpha-glucosidase inhibitors: <b>Acarbose</b> (Precose)
12-1-2014	<b>Reproductive Health Meds</b>	Drug cards: <b>Oral contraceptives: C/C Compare and contrast oral, injectable, transdermal and intravaginal contraceptives</b> <b>C/C:Bisphosphonate; alendronate</b> (Fosamax) <b>Selective Estrogen Receptor Modulator; aloxifene</b> (Evista) <b>Finasterie</b> (Proscar)
12-8-2014	<b><u>Final Exam</u></b>	

## Pharmacologic Drug Card Guidelines

The purpose of these drug cards is to have all students research drug classifications, outline them and then create a learning product. When these steps are taken your learning is enhanced. **Compare and contrast means to look at similarities of drugs and classes of drugs compared to how they are individual (different).** Any short cuts that you may take will be revealed in your clinical practice and didactic tests. **Tip : do not copy and paste to the point that you do not read or understand the material.**

All drug cards will follow the following format, or your grade will be severely impacted.

All papers will be **typed with roman or courier, no underlining, bold, or italics will be accepted.** No pictures or designer graphics that add only looks with no informational content. Large and small case lettering must be used as with all APA format. **Topic headers must be used to assist in organizing the material.**

All papers will have **headers on each page with title (drug class) and each group members name (last name).** Pages shall be **numbered** in proper sequence in **bottom right hand corner** (see page).

All papers will be in Paragraph form, no listing or outlining, unless used with appropriate APA indications.

All classifications need to be **described fully** in regards to 1) **how the class of drugs work**, 2) **use and effects and half-life of the class of drugs**, 3) **side effects, adverse reactions, contraindications, & drug interactions** and 4) you need to evaluate the above to determine the **nurses monitoring or teaching priorities.**

Remember, you only need to explore the drug classification. Individual drugs need not be explored in this format, unless specifically requested. Many of the classifications are explained by using a drug prototype. You may also use this drug in your explanation (Beta Blockers = Inderal).