Carol and Odis Peavy School of Nursing at the University of St. Thomas

COURSE INFO

Course Title: Pharmacology  
Course Number: BIOL 2355  
Fall 2015

Course Description:  
Systematic study of the use of drugs to diagnose, prevent or treat disease. Emphasis will be placed on developing an understanding of drug actions – therapeutic and adverse, rationale for selection of dosage, route and schedule for administration in individuals across the lifespan.

Prerequisite(s): Human Anatomy and Physiology I and II  
Nursing Program Requirement: A grade of B or higher in math and science courses.

Credit Hours: 3 credits

Course Schedule: Section B: T/Th/1410-1525/Malloy Hall 020

Course Withdrawal “W” Date: The last day to drop course with a “W” is November 20, 2015.

FACULTY INFORMATION

| Add all Instructors | Course Coordinator: Mark Winter  
|                     | Office: Nursing Success Center  
|                     | E-mail: winterml@stthom.edu  
|                     | Office Hours: 1100 to 1400 T/Th  
|                     |  
|                     | Faculty Academic Coach (FAC): Marilyn Haupt  
|                     | E-mail: hauptm@stthom.edu  

REQUIRED COURSE RESOURCES


Included with the textbook is access to the Evolve Website with Audio Drug Glossary, Clinical References, Drug Flashcards, and Drug References.

LEARNING OUTCOMES

Course Goals & Objectives
The goals of clinical nursing education are to enable the students to apply theoretical learning, develop communication skills, perform safe therapeutic intervention, exhibit caring behaviors, apply ethical perspectives and develop critical thinking skills. In the clinical setting the student will accomplish this by:

1. Describe principles of pharmacology including drug distribution, routes of administration, pharmacokinetics, and drug metabolism.
2. Identify drugs by therapeutic or toxic classifications.
3. Recognize the therapeutic applications, the toxic effects, the mode or mechanism of action of the class of drugs, and any distinctive properties of the class with regard to pharmacologic principles.
4. Develop a basic vocabulary of drug names using classic prototype drugs in each major classification.
5. Using clinical case examples, describe the relationship between basic pharmacology and practical clinical problems.
6. Provide the core pharmacologic knowledge, skills, attitudes and abilities necessary to perform excellently in the UST SON courses, clinical practice sites and on the National Council Licensure Examination (NCLEX).
PRINCIPAL UNITS OF THE COURSE (Topical Outline)

I. Introduction to Pharmacology: Drug absorption, drug distribution, drug receptor
II. Introduction to Autonomic Pharmacology: Adrenergic drugs, Adrenergic Blocking drugs
III. Neuromuscular drugs
IV. Cholinergic drugs
V. Renal Pharmacology.
VI. Drug Metabolism
VII. Hypertension, Antihypertensive Agents
VIII. Pharmacokinetics
IX. Anesthetic Agents: General Anesthesia, Local Anesthetics
X. Drugs use in anemia
XI. Anticoagulants & Coagulants
XII. Autocoids
XIII. CNS Introduction and Antiparkinson Drugs
XIV. Antischizophrenic Drugs
XV. Central stimulants
XVI. Sedatives/Hypnotic/Antianxiety Drugs
XVII. Narcotic Analgesics
XVIII. Antidepressants
XIX. Hallucinogens
XX. Tolerance/Physical Dependence
XXI. Antiepileptics
XXII. Asthma and Gout
XXIII. Non-narcotic Analgesics
XXIV. Immunopharmacology
XXV. Principles of Chemotherapy
XXVI. Anticancer Drugs
XXVII. Antifolates
XXVIII. Antiprotozoal drugs
XXIX. Chemotherapy of tuberculosis and leprosy
XXX. Antimicrobials: Inhibitors of Protein Synthesis, Inhibitors of cell wall and cell membrane synthesis
XXXI. Antiviral drugs
XXXII. Anthelminthic drugs
XXXIII. Antifungal agents
XXXIV. Cardiac Drugs: Positive Inotropic Agents, Drugs used in the treatment of angina & myocardial infarction
XXXV. Steroidal and Non-steroidal Anti-inflammatory agents
XXXVI. Endocrinology: Sex Hormones, Drugs acting on the Uterus, Thyroid Drugs, Agents regulating calcium homeostasis
XXXVII. Pharmacology of the pancreas
XXXVIII. GI Drugs
XXXIX. Dermatologic Drugs
XL. Treatment of rheumatic diseases
XLI. Toxic Alcohols
XLII. Toxic Metals
XLIII. Solvents and Pesticides
XLIV. Drug Overdose and Antidotes
METHOD OF ASSESSMENT

Methods of Instruction
Assigned readings are to be done from the required textbook that would lead to a combination of lecture and discussion. Supplemental resources may be found on-line via Blackboard.

Course Grading Rules
Students are responsible for monitoring their own grades in Bb under the My Grades tab. Any discrepancies must be reported to the Course Coordinator in a timely fashion. Grades are awarded based on the following scale:

<table>
<thead>
<tr>
<th>Grade</th>
<th>Percentage</th>
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<tbody>
<tr>
<td>A</td>
<td>95 - 100</td>
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<tr>
<td>A-</td>
<td>90 - 94</td>
</tr>
<tr>
<td>B+</td>
<td>87 - 89</td>
</tr>
<tr>
<td>B</td>
<td>84 - 86</td>
</tr>
<tr>
<td>B-</td>
<td>80 - 83</td>
</tr>
<tr>
<td>C+</td>
<td>77 - 79</td>
</tr>
<tr>
<td>C</td>
<td>74 - 76</td>
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<tr>
<td>C-</td>
<td>70 - 73</td>
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<tr>
<td>D+</td>
<td>67 - 69</td>
</tr>
<tr>
<td>D</td>
<td>64 - 66</td>
</tr>
<tr>
<td>F</td>
<td>&lt; 63</td>
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</tbody>
</table>

Students who receive a test grade below a “C” will be referred to the Faculty Academic Coach (FAC) and to the Director of the Nursing Success Center (NSC). The NSC director will initiate the student into the SON Academic Retention Program. Students may review their exams during a 2-week period following exams by scheduling an appointment with the Course Coordinator or Faculty Academic Coach (FAC).

Missed Assignments and Missed Exams
Missed Tests/Quizzes: Students who are not able to take a test when it is scheduled must notify the faculty member as soon as possible before the test period begins. The Course Coordinator will determine the make-up process, if any.

Incomplete Grades: The faculty may grant an incomplete if a student has not met all of the criteria for passing the course. Such situations may include students who have a documented emergency in the last few days of a semester.

Late Work: Assignments are due at the beginning of the class period unless otherwise indicated. All late papers/assignments will have five (5) points deducted per day, this includes weekend days. Due dates will be provided in the course calendar. Assignment guidelines and grading rubrics will be provided in Bb.

Testing Policies

Exam Regulations
1. UST-SON Classroom Exam Agreements:
   - All phones MUST be off or silenced.
• No bottles or food on desks at any time.
• Test items should never be copied/pasted/forwarded/photographed or reproduced in any form.
• Scrap paper will be provided by faculty.
• Scrap paper must be returned to faculty with the student’s name on it when the student completes the exam.
• Concerns about specific test questions should be written on scrap paper and personally handed to faculty at the end of the exam.
• Students cannot leave the classroom for any reason during the exam (except for exams lasting more than 2.5 hours and only one student may leave at a time).
• Students must exit the classroom quietly immediately after completing the exam.

1. Students must direct all questions and concerns to the exam facilitator by raising their hand. Failure to comply may lead to student being asked to leave the classroom.
2. Students will not be allowed into the classroom to take the exam after the scheduled start time. The Course Coordinator will determine the consequences of missing the exam(s).

METHODS OF BLENDED LEARNING

Blended learning is an educational approach that assesses and integrates the strengths of face-to-face, mobile, and online learning to address a course’s educational goals. The use of multiple interactive learning environments outside the classroom makes interaction inside the classroom more effective and productive. All SON courses are offered in a blended learning or completely online format. These formats incorporate teaching and learning activities using online and/or face-to-face methods of instruction. Blackboard (Bb), a web-based management system, houses the main components of the courses. Course content, assignments, due dates, and quizzes will be provided through Bb. Students must use UST email to respond to the course instructors and peers about assigned topics. Students must participate in all online (graded or ungraded) activities.

This course has content/activities delivered from multiple directions and multiple dimensions both synchronous and asynchronous. This course has three main components:

- The *Syllabus* which has key information for the course along with course guidelines and expectations.
- *Grading Rubrics* which communicates grading guidelines. It can also provide the student with a basis for self-evaluation, reflection, and peer review.
- *Course Content Outline /Calendar* which communicates class date, time, and location; assignments and exams that are due in both environments, in and out of class; and clinical rotation times, depending on type of course.
Some Helpful Information

- **Access to internet** – You must have daily access to the internet and use Bb site regularly between classes to keep up with announcements and to complete assigned activities.

- **Learning is not a spectator sport** – You are expected to take responsibility to actively use the online materials and manage your time so that you complete assigned readings and online activities in between face-to-face sessions.

- **Use of new technologies** – Online tutorials on the use of Bb tools are located at [http://www.stthom.edu/Offices_and_Services/Information_Technology/Services/Training/Student_Tutorials.aqf?Page_ID=5512](http://www.stthom.edu/Offices_and_Services/Information_Technology/Services/Training/Student_Tutorials.aqf?Page_ID=5512). Training on how to use other required technologies will be provided to students by the faculty as needed.

- **Student resources:** Students are encouraged to access the UST library as well as other appropriate internet sources as needed.

- **Library Link** – Nursing Section

- **Student computing services** – **Call the UST Help Desk at 713-525-6900** or email Ithelp@stthom.edu. Available services are detailed on their website.

- **Nursing Success Center (NSC)** – Provides academic advising, peer mentoring, state board licensing preparation, study skills tutorials, and time management tutorials for nursing and pre-nursing students.
COURSE POLICIES

Attendance /Punctuality/Participation

Attendance: Class attendance is required and the student is responsible for all material covered. If the student is not able to attend class, the student is to notify the instructor before the missed session. Failure to notify the instructor could constitute an unexcused absence as determined by the Course Coordinator.

Absence and Tardy Policies: Absences and tardiness are recorded beginning from the first class session after the student has enrolled in the course. Course Coordinators are not obligated to allow students to make up work they miss due to unexcused absences. Students who have excessive absences will be at risk for failing the course, might not be allowed to take the final exam, or might receive an incomplete. Course Coordinators may apply additional attendance policies as deemed appropriate to individual courses. Refer to the SON Student Handbook.

Dropping a Class: YOU MUST OFFICIALLY DROP OR WITHDRAW FROM A COURSE. Once a student registers for a course, the student will receive a grade for the course unless the drop or withdrawal process is completed through the Registrar’s Office. This includes students who may have never actually attended class or who may never have completed payment of tuition and fees for each course.

Computer Use Policy: Students may use their own personal electronic devices to take notes or refer to class materials in class but NOT during quizzes or exams. Students will be told to turn off electronic devices if they are being used in ways that are not permitted in the classroom and during exams/quizzes.

Mobile Electronic Devices: All personal electronic mobile devices will be kept on vibrate or silent mode. No texting or talking on phones is permitted during class time. Any personal recording during class requires the instructor’s permission. All emergency situations must be handled outside of the classroom environment.

Netiquette: Refers to the generally accepted rules of behavior for communicating in an online environment.

Please follow these guidelines in all your online responses and discussion groups.

RESPECT. We would like to suggest respectful exchanges as a basic ground rule. We feel that informational errors should be pointed out respectfully (even if stated strongly). Disagreements that honor the viewpoints of the various contributors are productive and can lead to new learning and understanding. If you use abusive or offensive language, you will be blocked from the discussion area and potentially removed from this course. If that is the case, you will not receive a refund of your tuition or fees.
PRIVACY. Keep in mind not only your own privacy rights but others’ as well. Do not reveal any information that you deem private.

BE CONSIDERATE of grammatical/spelling errors.

REMEMBER that humor and satire are often misinterpreted online. Communication is more than words. So be prepared for some misunderstanding and requests for clarification.

BE SUPPORTIVE. We are all still learning. Our job is not to judge or condemn or even praise, although genuine encouragement is a necessary ingredient. We are here to provide information, to address topics in a discussion forum, and to provide assistance in helping each participant use her/his own unique learning style. Reflection generally precedes growth. So reflect upon what is said, provide sincere comments, and hopefully, we will all grow.

One good way to avoid problems is to reread your postings before sending them. Something written in haste may be misread.

**Integrity of Student Work**

**Academic Integrity:** UST students should demonstrate integrity in all of their activities, both personal and professional. Any unprofessional behavior or failure to adhere to the honor system is a serious violation of integrity and may result in failure of the course. The *UST Student Handbook and Planner* is located in Bb under My Organizations, then SON Student Resources.

The *SON Student Handbook* contains detailed information on plagiarism and related policies. The *SON Student Handbook* is located in Bb under My Organizations, then SON Student Resources. Students are held accountable for knowing and adhering to these policies. *Turn It In* software may be used routinely to help address insufficient documentation; this software detects plagiarism.

**Policy on Written Assignments**

The *Publication Manual of the American Psychological Association* (most current edition) is the required style manual that must be used in writing papers in the UST School of Nursing.

**Academic Policies and Procedures**

**ADA Student Accommodations:** In accordance with Section 504 of the Federal Rehabilitation Act of 1973 and the Americans with Disabilities Act of 1990, the instructor will make all possible and reasonable adjustments in policies, practices, services, and facilities to ensure equal and optimal educational programs and activities for students who need special accommodations. Students must contact personnel in the Office of Counseling and Disability Services (2nd floor of Crooker Center). This office is open Monday through Friday, 8 am – 5 pm. The compliance officer will ask for proof of disability and specific accommodations that are needed by students.
Academic Accommodations must be applied for in writing EACH semester. Students with special needs should inform the instructor within the first two weeks of class EVERY semester. Students should be aware of and take into consideration if their accommodations conflict with the AACN (2001) Nursing Essential Functions as identified in the SON Student Handbook.

If academic accommodations are approved, the student provides the Letter of Accommodations to the Course Coordinator. Students should contact the instructor immediately if new needs arise. Students can see the instructor before or after class or request another time to discuss such matters. All information will be kept confidential.

**Course and Instructor Evaluations:** There is an end of semester evaluation for this course and the Course Coordinator. This evaluation is confidential. Students are strongly encouraged to complete the evaluations because input is very valuable. Instructions on how to access evaluations will be provided two to three weeks before the end of each semester.
### CLASS SCHEDULE:

<table>
<thead>
<tr>
<th>Week</th>
<th>Dates</th>
<th>Module/Unit</th>
<th>Topic</th>
<th>Reading Assignments</th>
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</thead>
<tbody>
<tr>
<td>Week 01</td>
<td>8/25</td>
<td>1</td>
<td>Introduction to Pharmacology</td>
<td>Chapters 1-3</td>
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<td></td>
<td>8/27</td>
<td>2</td>
<td>Pharmacokinetics</td>
<td>Chapters 4-8</td>
</tr>
<tr>
<td>Week 02</td>
<td>9/1</td>
<td>1</td>
<td>Autonomic Pharmacology</td>
<td>Chapters 12, 17-19</td>
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<td></td>
<td>9/3</td>
<td>2</td>
<td>Cholinergic Drugs</td>
<td>Chapters 13-16</td>
</tr>
<tr>
<td>Week 03</td>
<td>9/8</td>
<td>1</td>
<td>CNS Drugs</td>
<td>Chapters 20-23</td>
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<tr>
<td></td>
<td>9/10</td>
<td>2</td>
<td>Neurologic Drugs</td>
<td>Chapters 24,25 &amp; 36</td>
</tr>
<tr>
<td>Week 04</td>
<td>9/15</td>
<td>1</td>
<td>Psychotherapeutic Drugs</td>
<td>Chapters 31-35</td>
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<tr>
<td></td>
<td>9/17</td>
<td>2</td>
<td>Exam I</td>
<td>20%</td>
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<tr>
<td>Week 05</td>
<td>9/22</td>
<td>1</td>
<td>Hypertension</td>
<td>Chapters 41-44</td>
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<td></td>
<td>9/24</td>
<td>2</td>
<td>Antihypertensive Drugs</td>
<td>Chapters 45-47</td>
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<tr>
<td>Week 06</td>
<td>9/29</td>
<td>1</td>
<td>Cardiac Drugs</td>
<td>Chapters 48-51, 53</td>
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<tr>
<td></td>
<td>10/1</td>
<td>2</td>
<td>Drugs Affecting Hematopoietic System</td>
<td>Chapters 52, 54-56</td>
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<tr>
<td>Week 07</td>
<td>10/6</td>
<td>1</td>
<td>Anesthesia, Pain &amp; Pain Management</td>
<td>Chapter 71 and 26-30</td>
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<tr>
<td></td>
<td>10/8</td>
<td>2</td>
<td>Exam II</td>
<td>20%</td>
</tr>
<tr>
<td>Week  08</td>
<td>Date</td>
<td>Week</td>
<td>Title</td>
<td>Chapters</td>
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<tr>
<td></td>
<td>10/13</td>
<td>1</td>
<td>Fall Break</td>
<td></td>
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<tr>
<td></td>
<td>10/15</td>
<td>2</td>
<td>Respiratory &amp; GI Tract Drugs</td>
<td>76-80</td>
</tr>
<tr>
<td>Week 09</td>
<td>10/20</td>
<td>1</td>
<td>Anti-inflammatory, Anti-allergic and Immunologic Drugs</td>
<td>67-72</td>
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<tr>
<td></td>
<td>10/22</td>
<td>2</td>
<td>Infectious Disease Drugs I</td>
<td>83-88</td>
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<tr>
<td>Week 10</td>
<td>10/27</td>
<td>1</td>
<td>Infectious Disease Drugs II</td>
<td>89-93</td>
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<tr>
<td></td>
<td>10/29</td>
<td>2</td>
<td>Infectious Disease Drugs III</td>
<td>94-100</td>
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<tr>
<td>Week 11</td>
<td>11/3</td>
<td>1</td>
<td>Principles of Chemotherapy</td>
<td>101-103</td>
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<td>11/5</td>
<td></td>
<td>Exam III</td>
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<tr>
<td>Week 12</td>
<td>11/10</td>
<td>1</td>
<td>Endocrinology I: Drugs for Endocrine Disorders</td>
<td>57-60</td>
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<tr>
<td></td>
<td>11/12</td>
<td>2</td>
<td>Endocrinology II: Women’s &amp; Men’s Health</td>
<td>61-66</td>
</tr>
<tr>
<td>Week 13</td>
<td>11/17</td>
<td>1</td>
<td>Eye, Skin, &amp; Ear Medications</td>
<td>104-107</td>
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<tr>
<td></td>
<td>11/19</td>
<td>2</td>
<td>Alternative Therapies</td>
<td>81 &amp; 108</td>
</tr>
<tr>
<td>Week 14</td>
<td>11/24</td>
<td>1</td>
<td>Drugs for Bone &amp; Joint Disorders</td>
<td>73-75</td>
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<td></td>
<td>11/25-29</td>
<td>2</td>
<td>Thanksgiving Holiday</td>
<td></td>
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<tr>
<td>Week 15</td>
<td>12/1</td>
<td>1</td>
<td>Nicotine, Alcohol, and Drug Abuse</td>
<td>37-40</td>
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<tr>
<td></td>
<td>12/3</td>
<td>2</td>
<td>Toxicology</td>
<td>109-110</td>
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<tr>
<td>Week 16</td>
<td>12/9</td>
<td></td>
<td>Final Review</td>
<td></td>
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<tr>
<td></td>
<td>12/15</td>
<td></td>
<td>Final Exam</td>
<td>30%</td>
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<tr>
<td></td>
<td>12/21</td>
<td></td>
<td>Grades Due</td>
<td></td>
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</tbody>
</table>
Homework assignments will constitute 5% of the final grade. On-line quizzes will constitute 5% of the final grade.

The above schedule may be subject to change in the event of circumstances beyond the instructor's control. Students will be advised of the changes in a timely fashion.

**Academic integrity**

UST Students should demonstrate integrity in all of their activities, both personal and professional. Any unprofessional behavior or failure to adhere to the honor system is a serious violation of integrity and may result in failure of the course.

**Plagiarism** involves taking credit for another person’s work. Students must cite sources in APA style any time source material (e.g., books, journal articles, internet material, etc.) has been used, paraphrased, or quoted. Quoted material must be placed in quotation marks and referenced appropriately. Please note that copying information directly from a source without giving credit, using friends’ work, buying papers online, re-using one’s own work from previous classes, etc., all constitute plagiarism.

Any instance of plagiarism will result in failure of the course and may result in dismissal from UST. Ignorance is no excuse; if a student remains uncertain about the guidelines for using and citing source material after these issues are addressed in class, the student should seek input from the instructor.

Please note that Turn It In software will be used routinely to help address insufficient documentation; this software can detect plagiarism.