Texas A&M University—Corpus Christi  
College of Nursing and Health Sciences  
Graduate Programs

NURS 5322: Advanced Pharmacological Concepts  
Summer, 2015

Credits: Three semester hours (3:0)

Co-requisite: NURS 5326

Faculty: David A. Miller, MD, FCCP  
Associate Professor  
Island Hall 338  
Office Phone: 361/ 825-3616  
Cell Phone: 361/ 232-9351 (preferred)  
Office Hours: by phone, or face-to-face  
By appointment only; please request via course email.

Course Description: Study of pharmacotherapeutics across the life span with emphasis on clinical decision making. Laws governing nurse practitioners’ prescriptive privileges are included when appropriate. Discussion is based on current literature, research findings, and case studies.

Course Objectives (with examples of learning outcomes)

1. Evaluate pharmacodynamics and clinical pharmacokinetic principles for an advanced level of application and utilization.
   1.1 Compare and contrast application and utilization in selected special patient populations;  
   1.2 Examine drug reactions (including applied pharmacogenetics and pharmacogenomics), allergic-anaphylactic reactions, and clinical toxicology;  
   1.3 Summarize benefits of the clinical and toxicology laboratories.

2. Explain the appropriate pharmacotherapy for a specific client and that client’s pathophysiological problems.
   2.1 Integrate knowledge of drug interactions in safe prescribing and monitoring treatment outcomes;  
   2.2 Identify appropriate physiological parameters for specific drugs, including approved pharmacogenetic testing, as applicable;  
   2.3 Determine correct dosages of medications based on relevant individual client characteristics;  
   2.4 Describe essential client education for expected effects, potential adverse effects, proper administration, and cost (applied pharmacoэкономics), to achieve expected the outcome of the use of a medication.

3. Interpret literature and resources pertaining to pharmacotherapy.
   3.1 Appraise classic texts;  
   3.2 Criticize the current periodicals and symposia on drug therapy;  
   3.3 Explain appropriate utilization of various local and national drug information
sources, including hospital pharmacists, drug-information centers, poison control, drug toxicology labs, and internet-based pharmacological databases;

3.4 Describe ethical and legal ramifications of pharmacotherapeutics, including applied pharmacogenetic testing.

**Required Texts**


Hansten, P. D., & Horn, J. R. (2014). *Top 100 Drug Interactions: A Guide to Patient Management 2014 or 2015*. Freeland, WA: H&H Publications. ISBN for the 2014 edition: 9780981944050. At the time of writing this syllabus, the ISBN number for the 2015 edition was not available. Students can update this information by using Hansten & Horn’s website ([http://www.hanstenandhorn.com/book_top100.htm](http://www.hanstenandhorn.com/book_top100.htm)). The text will also be available from Amazon.com. (Note: This guide will not be used until the second week of the semester, and after. It may be ordered online, and is now available for portable devices as well.)

**Teaching and Learning Strategies:**

- Assigned readings
- Review of main course text PowerPoint presentations (use of these is at the discretion of the student)
- Modules on important topics in therapeutics, with online quizzes on content.
- Asynchronous discussions on weekly topics and posted study questions
- Synchronous Chat Sessions, before all scheduled tests and as needed by topic
- Two case studies, discussed in assigned groups
- Three tests (online at assigned times as listed on the course schedule)

**Course Requirements:**

Each student will:

1. maintain access to a reliable computer with internet connectability throughout the semester (Note: Portable tablets are not appropriate for most activities in this course);
2. read all course assignments (texts, case study solutions, and other posted materials, and the quizzes that accompany each supplemental module);
3. complete required tests;
4. participate in solving assigned group case studies and in completing the assigned weekly table completion; and
5. regularly participate in other course discussions.

**Grading:**

Grading is a process of measuring the outcome of learning against standards and assigning a symbol to the level of performance achieved. The quizzes that accompany each supplemental module (see course schedule) do not count toward the final course grade, although the material
from the modules will be covered on course tests. The final determination of the grade, therefore, rests with the instructor. Components for student course grades include the following:

<table>
<thead>
<tr>
<th>Course Tests:</th>
<th>70% (23.33% for each of 3 (three) tests)</th>
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<tbody>
<tr>
<td></td>
<td>Students must an average of 75% or higher on the course tests before the grades for the group case studies and for participation are counted.</td>
</tr>
<tr>
<td>Graded Group Case Studies:</td>
<td>20% (10% for each of 2 (two) case studies)</td>
</tr>
<tr>
<td>Participation online in discussions: (See Grading Rubric.)</td>
<td>10%</td>
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</tbody>
</table>

**Course Tests:** Each test will be made up of 50 multiple choice questions. These questions will be drawn from the course texts, case studies, and any other assigned readings, and posted discussions based upon these readings and other course work. **Students must achieve and average of 75% or higher on the course tests before the grades for the group case studies and for participation are counted.**

**PROCTORED TEST SITE POLICIES AND PROCEDURES:** All tests given within the graduate nursing programs are given through proctored test sites according to the Secure Testing Sites policies and procedures document (located under the INFORMATION link on the course menu panel to the left). No student may use notes, books, handouts, etc., during the tests. The Secure Testing Policy is considered a part of this syllabus, and may be found as a separate document under the same Information icon under which this syllabus and its accompanying course schedule is found.

Make-up tests are not permitted. Tests will only be given during the scheduled date and time periods. In the event that a student has a valid reason for missing a test, as determined by University policy and upon notification of the instructor of that reason **early in the semester and certainly** prior to the completion of the test's availability online, the instructor will follow the established guidelines of the University and College of Nursing and Health Sciences.

Students who require additional time for tests must provide the instructor with a copy of the certification document provided by the Student Disability office at the beginning of the semester. Additional information on this requirement is provided toward the end of this syllabus.

**Group Work.** Group work is a common characteristic of professionals in health care delivery systems, and will be used in this course to facilitate cooperation and collegiality among group members in completing group case studies.

**Group Case Studies for Grading.** In addition, two case studies will be done in assigned study groups throughout the semester. These will be available online at least two weeks prior to the due-date for online submission of the group’s solution to the instructor via course email. Study group members will use the group’s discussion room to communicate among themselves in solving the case studies, and will not post their work to the other course discussion pages.

The solution to each case study to be submitted will incorporate the following:

1. **Content for the case study** will be based upon the grading rubric for the case studies, which can be found under the INFORMATION link from the menu to the
left. The pathophysiology of the underlying condition is to be determined from the case study’s information database and explained adequately to justify the pharmacological and non-pharmacological therapy derived in the solution. References should include evidence-based resources, not just pathophysiology summarized in the pharmacology course texts.

2. **Length of the paper.** It is **required** that the answers to the issues/questions (see the grading rubric) for the graded group case studies be **limited to a total of eight (8) pages or less**—excluding the cover page (which should include group number and names of students who have contributed to the case study), and excluding the reference citations. Please adhere to this page limit! No abstract is required. All references are to be cited in the text of the summary and in a reference list at the end. APA Manual for Publications (6th edition) reference style should be used for these citations, and should match the in-text reference citations used in the submission.

3. **Group assignments for the Case Studies.** The instructor will make the assignment to groups **during the second week of the course.** Group assignments will appear under the Information icon on the course home page. The group assignments are final and not subject to individual requests; please refrain from making such requests.

4. **Group participation.** Participation of all student members within the case study group is expected and required. Timely collaboration in practice is needed, and is no different during nurse practitioner education irrespective of any student’s level of leadership experience. While current employment could create obstacles to regular and full participation in group work, students must coordinate their personal work schedules to participate in group activities. Case study group discussion postings will be monitored. Students will sign in to group discussion assignments at least every other day. Any student not felt to be fully participating will be notified by course email, and will potentially have his or her case study grade reduced accordingly, while other group members will retain their earned group score. If you have questions regarding this policy, email the instructor privately at the beginning of the semester or at the beginning of the assigned case study. It is suggested that, at the beginning of each new case study, a group leader who will submit the final draft of the completed case study solution, be chosen from group members. Each group leader should serve only once.

5. **Dividing group work.** If the study group decides to divide the work up by assigning a student to answer one or more areas of the case study, while other students complete other parts of the case study, on subsequent studies each student will answer another point within the grading rubric.

6. **Case Studies will be submitted to the instructor using the Blackboard mail within the course.**
**Non-Case Study Discussions Participation.** Each student is expected to regularly participate in the activities of this course. The instructor will post each week important information regarding the course and other internet resources, including unit discussion questions and assignment of these questions. These will be found

- Under the UNITS menu, and/or
- Messages from Dr. Miller (under the DISCUSSIONS menu).

Students should review this information and be prepared to discuss online various aspects from these resources. The instructor will monitor each student’s use of Blackboard for the course, using the Student Tracking option available to the instructor. The instructor will email any student not felt to regularly participate in course discussions. In general, students are expected to post, on average, three times per week **(at a minimum)** to the course discussions, **excluding emails and discussions within their assigned discussion groups for the graded case studies.** Discussion postings must either answer a study/discussion question posted by the instructor, or a discussion posting on the week’s topics originated by the student, or a response to another student’s post. Irrespective of how the posting originates, the student will provide at least one current (less than three years old) reference supporting the information posted. Any posting that fails to include referencing will not count toward the course participation grade. Students with questions regarding this policy will contact the instructor within the first two weeks of the beginning of the semester. **Past psychometrics on an individual student’s online posting have repeatedly shown that a greater level of meaningful discussion participation has led to higher grades throughout the course.**

Students are expected to observe standard online posting etiquette. A summary of expected etiquette can be found under the course INFORMATION link.

Discussion postings determine the participation component of the final course grade, which is determined at the end of the course. A rubric to be used in assessing the student’s participation is available under the course Information icon. The instructor will assess participation episodically, without notifying students; assessments will be included in the midterm grading, and will be made available to each student.

Please avoid using a “copy and paste” posting of material; this is a violation of copyright and does constitute a form of plagiarism, especially when quotation is not indicated and cited appropriately (APA format) and referenced. During open discussions on this Web CT course, please avoid unnecessary duplication of material already presented. (For example, posting “Great post,” ”Thanks!,” and “I wholeheartedly agree with Jane’s post,” requires each student to open the posting and review it, all without contribution of new information. Experience is valuable if it contributes to the discussion thread in ways that have not been cited before.)

In addition, please avoid simply posting the URL of a web site which in your opinion is of value to other students. Please precede the URL with a concise summary about what is contained on the site and why you find the information valuable. Similarly, do not use the “copy and paste” capabilities of your computer. This practice constitutes plagiarism unless you have the written permission of the author/owner of the material to do so.
Online, “Practice,” Quizzes. During the first several weeks of the course, supplemental reading materials (also called “modules”), as noted on the course schedule, will be posted. There will be online quizzes covering these supplemental readings, which are solely intended to familiarize students with test question format and to facilitate each student’s personal understanding of pharmacological concepts presented during the course using the supplemental readings in the modules as a basis for learning. The quizzes will be graded, but will not count toward the final course grade, other than to show participation in learning opportunities. You will have two attempts for each quiz. Students will be allowed to post their questions on the quiz material to the discussion postings, and are encouraged to do so. The instructor will include questions from these supplemental readings on the three course tests. In addition quizzes will be posted, again for practice only, in preparation for tests 2 and 3. These will be graded, but will not count toward the final course grade.

Grading Scale for the Student’s Final Course Grade.

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<thead>
<tr>
<th>Grade</th>
<th>Percentage Range</th>
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<tbody>
<tr>
<td>A</td>
<td>90 – 100%</td>
</tr>
<tr>
<td>B</td>
<td>83 – 89%</td>
</tr>
<tr>
<td>C</td>
<td>75 – 82%</td>
</tr>
<tr>
<td>D</td>
<td>67 – 74%</td>
</tr>
<tr>
<td>F</td>
<td>0 – 66%</td>
</tr>
</tbody>
</table>

Extra-credit work. No extra-credit work will be accepted.

OTHER INFORMATION

Expectations for Student Behavior:

1. Evidence of preparation for class discussion is determined by participation. Because every student’s discussion grade will be based in part on the ability to engage classmates in discussion, it is imperative that a student prepare for the course according to the course schedule.
2. Students are expected to have access to a computer that can support BlackBoard applications. Portable tablets and “smart phones” are not generally reliable in this method of course delivery.
3. Students must review the course introduction to learn how communication will occur and how assignments will be managed during the course. Please do not use “texting” as a method of communication with the instructor. Emergencies should be communicated by phone to the instructor (cell phone; see page 1).
4. Students will respect the time of other students in their group work by cooperating with other group members, agreed-upon schedules, etc.
5. All email communication should occur through the BlackBoard structure and should be conducted in a respectful and professional manner. Students should review course email at least every 48 hours. Students are also advised to review their Islander (University) email accounts on a regular basis as well.
6. All assignments are due on the scheduled date indicated in the course schedule unless other arrangements have been made with the course instructor ahead of the due date. Students should review the syllabus and schedule throughout the semester to insure that class assignments are completed correctly and by the due date. Print a copy of the syllabus and schedule as a reference.
7. All information disclosed through course discussions is confidential and should not be shared with others outside the context of this course. Passwords should not be shared with anyone including classmates or family members.

8. Students should notify the faculty and their discussion group if they withdraw from the course and should not attempt to access course materials once they have withdrawn.

9. The nature of the content of this course often promotes extensive debate during course discussions. Since students are assumed to be prepared for the discussions, everyone’s contributions will be considered a knowledgeable contribution. Contributions should be made in a respectful manner and the discussion should be an orderly sharing of ideas. No disrespect to classmates will be tolerated.

10. Students are expected to check their Islander email accounts regularly for information from the CONHS.

11. Students will comply with disaster planning requests, to assure the instructor can contact them in the event that university services are interrupted for more than a brief period of time. An emergency contact list will be maintained by the instructor for this purpose, but will not be shared with others.

**Expectations for Course Faculty Behavior:**

1. The course faculty will monitor BlackBoard email and discussion comments regularly and will communicate in a respectful and professional manner. Students can expect a response to email messages or to students’ discussion questions within 48 hours of the posting unless messages are sent late at night. The instructor will check for new messages periodically during weekends.

2. Students will receive feedback on assignments within 10 days of assignment due dates unless notified by the course faculty.

3. The course faculty is available for meetings with individual students through email, telephone, or face-to-face encounters. Students are requested to make appointments for these meetings.

**Students with Disabilities:**

The Americans with Disabilities Act (ADA) is a federal anti-discrimination statute that provides comprehensive civil rights protection for persons with disabilities. Among other things, this legislation requires that all students with disabilities be guaranteed a learning environment that provides for reasonable accommodation of their disabilities. If you believe you have a disability requiring an accommodation, please contact the Disability Services Office at 361.825.5816 or visit the office in Corpus Christi Hall Suite 116. The email address is disability.services@tamucc.edu. Please do this well in advance of the first course test.

**Academic Advising:**

The College of Nursing and Health Sciences requires that students consult with an Academic Advisor regarding their degree plan and/or changes to their degree plan. The Academic Advisor will set up a degree plan and indicate plan is active by signing the plan. Once the plan is completed it will be filed in the student’s record. The College’s Academic Advising Center is located in Island Hall. The Graduate Advisor is Ashley Beaudoin, room 322. Shannon can be reached via email at ashley.beaudoin@tamucc.edu, or via phone at 361.825.2799.
**Academic Integrity/Honesty:**

University students are expected to conduct themselves in accordance with the highest standards of academic honesty. Academic misconduct for which a student is subject to a penalty includes all forms of cheating, such as illicit possession of examinations or examination materials, forgery, or plagiarism. (Plagiarism is the presentation of the work of another as one's own work.) Students are directed to the following site for additional information at [http://academicaffairs.tamucc.edu/Rules_Procedures/PDF/130299C301.pdf](http://academicaffairs.tamucc.edu/Rules_Procedures/PDF/130299C301.pdf). Plagiarism on case study papers could result in a grade of zero (0) for the paper. Students who need assistance in assuring their written work in this course may contact the Writing Center in the Center for Academic Student Achievement (CASA) at 361.825.5933. The Writing Center’s home page is [http://casa.tamucc.edu/wc.php](http://casa.tamucc.edu/wc.php).

**Grade Appeal Process:**

A student who believes he or she has an academic grade appeal is encouraged to go through the CONHS academic review process prior to pursuing University Grade Appeal. Please refer to University Rule 13.02.99.C2.01, Student Grade Appeal Procedure ([http://academicaffairs.tamucc.edu/Rules_Procedures/PDF/13.02.99.C2.01%20Student%20Grade%20Appeal%20Procedure%202013.pdf](http://academicaffairs.tamucc.edu/Rules_Procedures/PDF/13.02.99.C2.01%20Student%20Grade%20Appeal%20Procedure%202013.pdf)). A student who believes that he or she has not been held to appropriate academic standards as outline in the course syllabus, equitable evaluation procedures, or appropriate grading, may appeal the final grade given in the course. The burden of proof is upon the student to demonstrate the appropriateness of the appeal. A student with a complaint about a grade is encouraged to first discuss the matter with the instructor. For additional assistance and/or guidance in the grade appeal process, students may contact the Office of Student Engagement and Success.

### Important Dates from the University Calendar for Spring Semester, 2015

<table>
<thead>
<tr>
<th>Date</th>
<th>Event</th>
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<tbody>
<tr>
<td>January 21, Wednesday</td>
<td>Classes begin</td>
</tr>
<tr>
<td>January 28, Wednesday</td>
<td>Last day to register or add a class</td>
</tr>
<tr>
<td>April 10, Friday</td>
<td>Last day to drop a class</td>
</tr>
<tr>
<td>May 4, Monday</td>
<td>Last day to withdraw from the University</td>
</tr>
<tr>
<td>May 5, Tuesday</td>
<td>Last day of classes</td>
</tr>
<tr>
<td>May 6, Wednesday</td>
<td>Reading day</td>
</tr>
<tr>
<td>May 7 - 8, Thursday-Friday;</td>
<td>Final examinations</td>
</tr>
<tr>
<td>May 11 - 13, Monday-Wednesday</td>
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</tbody>
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**Syllabus Disclaimer:** While the provisions of this syllabus are as accurate and complete as possible, the faculty reserves the right to change non-critical aspects of the course to accommodate emergencies, unexpected technical problems, or any unforeseen circumstances. Such changes will be announced as soon as feasible and will be communicated by course email or announcements via Blackboard.

5322.Syllabus  
Spring, 2015  
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