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

NURS 5322: Advanced Pharmacological Concepts  
Fall, 2012  

Credits:  
Three semester hours (3:0)  

Co-requisite:  
NURS 5326  

Faculty:  
David A. Miller, MD, FCCP  
Associate Professor  
Island Hall 336C  
Office Phone: 361/ 825-3616  
Cell Phone: 361/ 232-9351 (preferred)  
Office Hours: 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 pharmacoeconomics), 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


Recommended Text


Teaching and Learning Strategies:

- Assigned readings
- Review of main course text PowerPoint presentations
- 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
- Case studies, discussed in assigned groups
- Tests (online at assigned times as listed on the course schedule)

Course Requirements:

Each student will:

1. maintain access to a reliable internet connection throughout the semester;
2. read all course assignments (texts, case study solutions, and other posted materials;
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 final determination of the grade, therefore, rests with the instructor. Components for student course grades include the following:

<table>
<thead>
<tr>
<th>Component</th>
<th>Percentage</th>
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<tbody>
<tr>
<td>Course Tests:</td>
<td>60% (20% for each of 3 (three) tests</td>
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<tr>
<td>Graded Group Case Studies:</td>
<td>30% (15% for each of 2 (two) case studies</td>
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<tr>
<td>Participation online in discussions, assigned group table completion, and quizzes.</td>
<td>10%</td>
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Course Tests. Each test will be made up of 50 multiple choice questions. These questions will be drawn from the course texts, the case studies, and any other assigned readings, and posted discussions based upon these readings and other course work. Each test will be available online on Thursday of the week of the test, from 5pm until 11pm, and must be completed online during that time. Tests will be completed on a computer of the student’s choice; the use of proctored sites will not be required in this course this semester. Students will have two hours to complete each test. The time available for each test will be determined from the total number of questions on that test, and will be posted to the course discussions approximately one week prior to the scheduled test. Students are expected to take each test independently and without the assistance of other students. Students are to avoid discussing test questions and topics with other students prior to the closure of the test on the day that all students complete the test. Students are NOT prohibited from using course notes, texts, or other material during the tests, but are cautioned against relying on the availability of such material due to the limitation on the amount of time for each test. Possession of prior NURS 5322 test materials is considered cheating and will be treated as such according to university rules regarding academic dishonesty, as described later in this syllabus.

Make-up tests will NOT be 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 (now in Corpus Christi Hall) at the beginning of the semester. Additional information on this requirement is provided toward the end of this syllabus.
Assigned Group Completion of Assigned Tables of Diseases and Disorders. Beginning this semester, students in their assigned discussion groups will complete table entries for selected diseases and disorders. The assignments will be made weekly by the instructor. Information about completing the tables, beginning at week 3, will be available under the INFORMATION icon to the left of each page of the course online. Further discussions about the table construction will be provided online during or before week 3.

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 include 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 as 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 strongly suggested 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! All references are to be cited in the text of the summary and in a reference list at the end. APA reference style should be used for these citations, and should match the in-text reference citations used in the submission.

3. **Group assignments.** 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. Collaboration in practice is needed, and is no different during nurse practitioner education. Case study group discussion postings will be monitored. 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 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.

**Non-Case Study Discussions Participation.** Each student is expected to regularly participate in the activities of this course. The instructor will post, to the general discussion postings for the class, important points to learn, other internet resources, including evidence-based practice guidelines, and other hopefully useful information. 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 the Web CT 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. Past psychometrics on student online posting have repeatedly shown that a greater level of meaningful discussion participation has led to higher grades throughout the course. 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 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 as a basis for learning. The quizzes will be graded, however will not count toward the final course grade, other than to show participation in learning
opportunities. 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.

**Grading Scale for the Student’s Final Course Grade.**

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<tr>
<th>Percentage Range</th>
<th>Grade</th>
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<tr>
<td>90 – 100%</td>
<td>A</td>
</tr>
<tr>
<td>83 – 89%</td>
<td>B</td>
</tr>
<tr>
<td>75 – 82%</td>
<td>C</td>
</tr>
<tr>
<td>67 – 74%</td>
<td>D</td>
</tr>
<tr>
<td>0 – 66%</td>
<td>F</td>
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**Extra-credit work.** No extra-credit work will be accepted.

**OTHER INFORMATION**

**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, and the Graduate Academic Advisor, Mr. Barton Bailey, can be reached at 361-825-5893, Suite 322. Mr. Bailey’s email address is barton.bailey@tamucc.edu.

**Academic 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.
Grade Appeal Process:

As stated in the College of Nursing and Health Sciences (CONHS) Handbook under section VII Policies and Procedures, a student that 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. See the handbook for the process. As stated in University Rule 13.02.99.C2, Student Grade Appeals, 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 complete details, including the responsibilities of the parties involved in the process and the number of days allowed for completing the steps in the process, see University Rule 13.02.99.C2, Student Grade Appeals, and University Procedure 13.02.99.C2.01, Student Grade Appeal Procedures. These documents are accessible through the University Rules Web site at http://studentaffairs.tamucc.edu/assets/student_grade_appeal_procedure.pdf. For assistance and/or guidance in the grade appeal process, students may contact the Office of Student Affairs.

Syllabus
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