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

NURS 5322: Advanced Pharmacological Concepts
Spring, 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**


**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
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>Weight</th>
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<tbody>
<tr>
<td>Course Tests</td>
<td>60% (20% for each of 3 (three) tests)</td>
</tr>
<tr>
<td>Graded Group Case Studies</td>
<td>30% (10% for each of 3 (three) case studies)</td>
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<tr>
<td>Participation online in discussions and quizzes</td>
<td>10% NOT related to Graded Group Case Studies</td>
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**Course Tests.** Each test will be made up of between 35 and 65 multiple choice questions. These questions will be drawn from the Edmunds & Mayhew text, the case studies, and any other assigned readings and discussions based upon these readings. 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. Students will have two minutes per question 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 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.

Beginning this semester, all online tests must be taken in a proctored environment, approved by the College of Nursing and Health Science Graduate Department. Information on this policy will be made via communication from the Graduate Department and questions will be answered at the beginning of the course. All students are expected to adhere to this requirement. The schedule for the course tests is posted on the course schedule. Faculty in Advanced Pathophysiology and Advanced Pharmacology will coordinate the timing of these tests.

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 Case Studies for Grading**

**Group Case Studies for Grading.** In addition, three 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. 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 advanced pathophysiology texts and other reliable online resources, not the pathophysiology summarized in the pharmacology course texts.

2. The outline of issues to be addressed in the group’s case study submission includes all of the following, in order of writing

3. Each group’s solution should be succinct, and in general do not need to be in APA format. It is strongly suggested that the answers to the questions for the graded group case studies be limited to a total of eight (8) pages or less. 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.

4. **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. Instructor assignments are final and not subject to individual requests; please refrain from requesting a certain group member.

5. **Group participation.** Participation of all student members within the case study group is expected and required. 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.

6. **Dividing group work.** If the study group decides to divided 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.

The Grading Rubric for the case studies appears as a separation document under the
Information icon on the course web page. Please refer to it now, and as the case
studies begin.

**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 (as 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.

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. Personal 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</th>
<th>Grade</th>
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<tbody>
<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. 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 322, and the Graduate Academic Advisor, Mr. Barton Bailey, can be reached at 361-825-5893. 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:
http://falcon.tamucc.edu/~students/JAffairs/jacodeofconductarticle3.htm.

**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://www.tamucc.edu/provost/universityrules/index.html. For assistance and/or guidance in the grade appeal process, students may contact the Office of Student Affairs.