Pharmacology for Anesthesia Practice II
NUR 888 Section 001
Tuesday; 10:00 am – 1:00 pm; A107 Life Sciences
3 Credits
Spring 2012

Catalog Course Description: Pharmacologic principles of drug pharmacokinetics and pharmacodynamics. Factors modifying anesthetic management of patients.

Additional Course Description: This course is designed to provide the student with a thorough understanding of the basic science of pharmacology. The primary focus will be on those topics which are an integral part of modern anesthesia practice. These include pharmacodynamics, pharmacokinetics, pharmacotherapeutics, pharmacogenetics, pharmacy and toxicology.

Course Objectives: At the end of this course, students will:
1. Assess the Central Nervous System signs and symptoms in monitoring the adverse effect of anesthetic agents.
2. Explain the role of spinal cord stimulation in the treatment of neuropathic pain.
3. Integrate knowledge of long-term infusions of some agents on adrenocortical suppression associated mortality in the anesthetic management of critically ill patients.
4. Assess the effects of prolonged exposure to anesthetics on megaloblastic and pernicious anemia.

Additional Course Objectives: At the end of this course, students will:
1. To facilitate the student's ability to learn the subject matter presented.
2. To provide a rational approach to pharmacology which the student can use throughout their career when evaluating new drugs and the current literature in pharmacology and anesthesia.

The student will be responsible for the following parameters for all classes of drugs presented:
1. classification
2. history
3. structure activity relationships
4. pharmacokinetics
5. preparations and dosages
6. pharmacology (to include)
   a) mechanism of action
   b) dose-effect relationships
7. The effects of the drug on the following physiologic compartments:
   a) central and autonomic nervous system
   b) cardiovascular
   c) respiratory
   d) renal
   e) gastro-intestinal
   f) endocrine, biochemistry and genetics
8. Obstetric and pediatric uses
9. Toxicity (to include):
   a) acute side effects
   b) chronic side effects
   c) contraindications
   d) drug-drug interactions
10. Treatment of adverse reactions.
11. Clinical experience and current anesthetic uses
Prerequisites: NUR 887, Acceptance into the Nurse Anesthesia Program

Professional Standards & Guidelines: The curriculum is guided by the following documents:

Standards Documents: The curriculum is guided by the following documents:
2. The American Nurses Association Code of Ethics (http://www.nursingworld.org)
3. Scope and Standards for Nurse Anesthesia Practice
4. Code of Ethics for the Certified Registered Nurse Anesthetist

Faculty Contact Information:

**Henry C. Talley V, PhD, MSN, MS, CRNA**
Office: 517-355-8305
A-119 Life Sciences Building
henry.talley@hc.msu.edu

Office Hours: Variable – Appointments arranges usually; however, available as needed by students in the Nurse Anesthesia Program to accommodate student schedules.

Instruction:

a. Methodology: Independent study, classroom activities, lectures, assignments, exams, internet assignments, self-evaluation, computer-aided instruction and student/faculty conference.

b. Required Texts:


c. Optional Texts:


d. Required Resources, References, Supplies:
Evaluation:

a. Learning Assessments and Grading:

b. Course Grade Requirements

Student progress will be evaluated by examinations. Exams are multiple choice and will be administered during the normal class period at the beginning of class on the day of examination. Mid-term and Final exams are cumulative.

The following grading scale will be used in this class:

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<tr>
<th>%</th>
<th>GRADE</th>
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<tbody>
<tr>
<td>94 – 100</td>
<td>4.0</td>
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<tr>
<td>87 – 93</td>
<td>3.5</td>
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<td>80 – 86</td>
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<td>75 – 79</td>
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<td>70 – 74</td>
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<tr>
<td>65 – 69</td>
<td>1.5</td>
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<tr>
<td>60 – 64</td>
<td>1.0</td>
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<td>Below 60</td>
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University & College Policies:
The College of Nursing expects that students will demonstrate professional behavior in all situations. Specific expectations for clinical and other professional venues can be found in the appropriate handbook. You are responsible for reviewing and acting in accordance with the policies and procedures found in the following sources, including the following topics: Professionalism, Academic Integrity, Accommodations for Students with Disabilities, Disruptive Behavior, Attendance, Compliance, and Progression.

- CON Student handbook http://nursing.msu.edu/handbooks.asp
- Information for Current Students—including Rights, Responsibilities and Regulations for Students http://www.msu.edu/current/index.html
- Academic Programs http://www.reg.msu.edu/UCC/AcademicPrograms.asp

Academic Integrity:
Academic Honesty: Article 2.3.3 of the Academic Freedom Report states: “The student shares with the faculty the responsibility for maintaining the integrity of scholarship, grades, and professional standards.” In addition, the College of Nursing adheres to the policies on academic honesty specified in General Student Regulation 1.0, Protection of Scholarship and Grades; the all-University Policy on Integrity of Scholarship and Grades; and Ordinance 17.00, Examinations. (See Spartan Life: Student Handbook and Resource Guide and/or the MSU Web site www.msu.edu.)
Therefore, unless authorized by your instructor, you are expected to complete all course assignments, including homework, lab work, quizzes, tests and exams, without assistance from any source. You are expected to develop original work for this course; therefore, you may not submit course work you completed for another course to satisfy the requirements for this course. Also, you are not authorized to use the www.allmsu.com Web site to complete any course work in this course. Students who violate MSU rules may receive a penalty grade, including but not limited to a failing grade on the assignment or in the course.

Please read each part of the following site to fully understand your responsibilities and the position of the University regarding:

- cheating,
- plagiarism,
- MSU regulations, ordinances and policies regarding academic honesty and integrity
- Academic integrity links [http://www.msu.edu/unit/ombud/honestylinks.html](http://www.msu.edu/unit/ombud/honestylinks.html)

Academic dishonesty in any form will not be tolerated in the College of Nursing. Any student involved in academic dishonesty will be reported to the Office of Academic Affairs and the Office of Student Services in the College of Nursing and a grade of 0.0 may be issued for the course.

Lectures, quizzes and examinations must remain the property of the College of Nursing and must not be copied from the Internet for use with others. **Any quiz or exam should not be printed. Printing an exam or quiz will be considered academic dishonesty.** According to university policy, consequences for academic dishonesty may include failure of the course, expulsion from the major, or expulsion from the university. You are advised to complete and submit your own work. The exams are NOT group projects and must not be shared with other students in any way.

Online discussions and other course activities are confidential and should not be shared or discussed with others who are not enrolled in the class. The course provides an opportunity for each course participant to express his/her ideas and all are expected to do so. All ideas need to be respected in discussions and exercises. Any “group projects” (that are required) still require individual work as a minimal expectation, and individual work will be graded.

For further information you can access any of the following sites:

- International Studies and Programs [http://www.msu.edu/international/index.html](http://www.msu.edu/international/index.html)

**Disruptive Behavior:** Article 2.3.5 of the [Academic Freedom Report](http://www.msu.edu/unit/ombud/freedomreport.html) (AFR) for students at Michigan State University states: "The student's behavior in the classroom shall be conducive to the teaching and learning process for all concerned." Article 2.3.10 of the AFR states that "The student has a right to scholarly relationships with faculty based on mutual trust and civilization." [General Student Regulation 5.02](http://www.msu.edu/unit/facultyregulations/reg502.html) states: "No student shall . . . interfere with the functions and services of the University (for example, but not limited to, classes . . .) such that the function or service is obstructed or disrupted. Students whose conduct adversely affects the learning environment in this classroom may be subject to disciplinary action through the Student Faculty Judiciary process.

**Attendance:** Students whose names do not appear on the official class list for this course may not attend this class. Students who fail to attend the first four class sessions or class by the fifth day of the semester, whichever occurs first, may be dropped from the course. See the Ombudsman’s web site for a discussion of student observance of major religious holidays, student-athlete participation in athletic competition, student participation in university-approved field trips, medical excuses and a dean's drop for students who fail to attend class sessions at the beginning of the semester.

**College of Nursing Policies:** Professional Development Guidelines are found in the CON MSN Student Handbook at the CON website. Students are responsible for the information found in the CON MSN Student Handbook.
Appeal of Test Question

All inquiries/appeals concerning a disputed answer on an examination must be made on this form. No appeal will be accepted unless received within five (5) days of the examination. All appeals will be evaluated individually.

Student Name: _______________________________________________________

Exam Number: _______ Date of Exam: _______ Date Submitted: _______

Submitted to: _________________________________________________________

1. Write the test number and question as it was written on the exam.

_____________________________________________________________________

2. What was the correct answer according to the test key? ____________________

3. What answer did you select? __________________________________________

4. What concern do you have regarding the question and answer?

_________________________________________________________________________________
_________________________________________________________________________________
_________________________________________________________________________________

_________________________________

5. Cite Three References that support your rationale for the answer you selected over the answer on the answer key. References cannot be cited from the internet.

a. ___________________________________________________________________

b. ___________________________________________________________________

c. ___________________________________________________________________

Additional comments may be attached to this form.

Faculty Response to Appeal: Accept ________ Reject _________

Rationale:

_________________________________________________________________________________
_________________________________________________________________________________
_________________________________________________________________________________

Faculty Signature: _______________________________ Date: _________________
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<thead>
<tr>
<th>Date</th>
<th>Topic</th>
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<tr>
<td>January 10</td>
<td>Neuromuscular Blocking Drugs</td>
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<td>January 17</td>
<td>Neuromuscular Blocking Drugs</td>
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<td>January 24</td>
<td>Neuromuscular Blocking Drugs</td>
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<td>January 31</td>
<td>Exam 1 NO VIDEOCONFERENCE</td>
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<tr>
<td>February 7</td>
<td>Local Anesthetics</td>
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<td>February 14</td>
<td>Local Anesthetics</td>
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<tr>
<td>February 21</td>
<td>Introduction to Autonomic Pharmacology</td>
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<td>February 28</td>
<td>Autonomic Pharmacology Asthma Pharmacotherapy</td>
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<td>March 5-9</td>
<td>Spring Break NO VIDEOCONFERENCE</td>
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<tr>
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<td>April 17</td>
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<tr>
<td>TBA*</td>
<td>Final Exam NO VIDEOCONFERENCE</td>
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FINAL EXAMS MAY 4–6, 2012