Catalog Course Description: Clinical application of advanced pharmacology and pharmacotherapeutics for common disease conditions encountered in primary care settings. Principles of altered pharmacodynamics will be discussed relative to age, race, and ethnic groups. Cost/benefit aspects of pharmacological interventions.

Course Objectives: At the end of this course, students will:
1. Apply the principles of pharmacology relative to pharmacotherapeutics across age levels including the impact of race, ethnic group, and special populations on drug dosing and drug selection regimens.
2. Discuss the indications, rationale, efficacy, and risks for pharmacotherapeutics agents commonly prescribed in primary care settings.
3. Analyze the rationale for the selection of medications used to treat individuals with frequently encountered primary care conditions. Discuss factors such as pharmacokinetics, cost, efficacy, genetic characteristics, adherence, and quality of life issues.
4. Describe strategies for monitoring expected effects and potential adverse effects of medications including legal and ethical ramifications

Prerequisites: NUR 805

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


Faculty:

**Kara Schrader, MSN, RN, NP-C**
Assistant Professor, Health Programs
Office: A129 Life Sciences Building
Phone: 517-353-8679
E-mail: kara.schrader@hc.msu.edu
Office hours: Mondays 1:00 p.m. - 3:00 p.m., by appointment

**Anne Ottney, PharmD, BCPS**
Phone: 517-364-5790
Email: ottneya@msu.edu
Office hours by appointment

Note: Office hours can be arranged to accommodate student schedules.

Instruction:

**Required Texts:**

**The Prescriber's Letter:** A monthly update of pharmacology news as well as a password protected electronic resource with extensive pharmacological information. You will have weekly required readings from the website. Each student is expected to subscribe to the publication. You will need to subscribe by going to the website [http://www.prescribersletter.com](http://www.prescribersletter.com). You may be able to obtain a subscription as a student. You only need to subscribe to the Prescriber's Letter although the site has a variety of other publications available.

**Recommended:**

Electronic references will be used throughout the course to supplement text readings and course content.

Textbooks may be purchased online at: [http://www.spartanbook.com/](http://www.spartanbook.com/) Enter the semester, year, course number and section number for a list of textbooks for your course.

b. Required Resources, References, and Supplies:

**MSU Distance Learning Services**
Local: (517) 355-2345
Toll Free: (800) 500-1554
(North America and Hawaii)
MSU D2L Contact form: [https://contact.cl.msu.edu/contact.php?service=DLSD2L](https://contact.cl.msu.edu/contact.php?service=DLSD2L)

Always check with the MSU Distance Learning Services first for help with D2L
Library Resources

1. Library Services: [http://www.lib.msu.edu/services/](http://www.lib.msu.edu/services/)
2. MSU Library: [http://www.lib.msu.edu/](http://www.lib.msu.edu/)
3. Proxy server: To access MSU library resources from an off-campus site you must set up a proxy server. Directions to set up a proxy server are at: [http://techbase.msu.edu/viewpathfinder.asp?id=2507](http://techbase.msu.edu/viewpathfinder.asp?id=2507)

Disability Resources and Services

The full range of disability resources and services for students is located at: [http://www.msu.edu/current/index.html](http://www.msu.edu/current/index.html)

Instruction:

a. Methodology:

NUR 809 uses an online format which serves as a web-based classroom. The course content can be accessed by students when it is convenient to their individual schedules.

The course is designed to facilitate application of pharmacological concepts to primary care case situations. Content is divided into units. Discussion of cases is an important component of the course. New content for each module will be posted on the Saturday prior to the class date on the calendar.

As you look at the agenda for each module (found under lessons), you will find the readings, lecture content, cases and discussion areas. It is advised that you check in on the class daily since it is also a place where the instructors will be able to post announcements, add to discussions in the discussion forums and other news.

You can access the class by going to [http://D2L.msu.edu](http://D2L.msu.edu). **Once you are enrolled in the course and have activated your MSU email account**, you will be able to log on to the system. The University has a rule that students may not access the course until 12:01 am on the official first day of class. Click on the class and you will be taken to the course location. Make sure to spend some time orienting to the site. Again, check in frequently (at least twice per week). If you would like to have your MSU email forwarded to your preferred email account, you can do this by going to [http://mail.msu.edu](http://mail.msu.edu)

Technology Requirements

In order to fully participate in the online course experience, it is important that you have the appropriate technology available. Please go check the current requirements at [http://nursing.msu.edu/downloads/Hardwareandsoftwarereq2006_000.pdf](http://nursing.msu.edu/downloads/Hardwareandsoftwarereq2006_000.pdf)
**Grading**

A grade of 3.0 must be achieved in order to pass NUR 809 and progress in the MSU graduate nursing program. The MSU 4.0 grading system will be utilized to report final course grades. Below are the College of Nursing percentage requirements for each grade. Course points will be rounded to whole numbers using the 0.5 rule. Points at ≥ 0.5 will be rounded up while those < 0.5 will be rounded down to the nearest whole number.

<table>
<thead>
<tr>
<th>GRADE</th>
<th>POINTS</th>
</tr>
</thead>
<tbody>
<tr>
<td>94 – 100</td>
<td>4.0</td>
</tr>
<tr>
<td>93 - 87</td>
<td>3.5</td>
</tr>
<tr>
<td>86 – 80</td>
<td>3.0</td>
</tr>
<tr>
<td></td>
<td>(Minimum passing grade)</td>
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<tr>
<td>79 – 75</td>
<td>2.5</td>
</tr>
<tr>
<td>74 – 70</td>
<td>2.0</td>
</tr>
<tr>
<td>69 – 65</td>
<td>1.5</td>
</tr>
<tr>
<td>64– 60</td>
<td>1.0</td>
</tr>
<tr>
<td>Below 60</td>
<td>0.0</td>
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</tbody>
</table>

**Evaluations**

**Exams:** There are 5 quizzes throughout the semester. Each quiz covers one unit of content. Please see the lessons content for more information on the specific timing of each quiz. Quizzes will re-open within 72 hours for you to review and stay open for the semester.

The midterm exam is comprehensive from the first five modules. *This exam will be on March 2 from 8-noon in Exam Soft.* Exam Soft is proctoring software that you will be provided early in the semester. **Once you are in the exam you will have 60 minutes to complete the questions.** The exam will close at 12 (noon). Make sure you begin the exam with enough time to complete prior to the closing. The day for the exam cannot be altered so it is important that you have time scheduled for taking the midterm exam.

The final exam will be comprehensive. You will be allowed ninety minutes to complete the final exam. Once you log onto the exam, you must complete it. *The exam will be open on Wednesday May 4, 2016 8am to Noon in Exam Soft.* **Similar to the midterm exam, once you are in the exam you will have 90 minutes to complete the questions. The exam will close at 12 (noon). Make sure you begin the exam with enough time to complete prior to the closing.** The day for the exam cannot be altered so it is important that you have time scheduled for taking the final.

Times posted are Eastern Standard Time.

Unless there is an unexpected emergency, everyone is expected to take the exams during the scheduled day (a family vacation, work etc. does not constitute an unexpected emergency). You are highly encouraged to plan far in advance to be free from other work responsibilities for that time.

**Appealing of test questions:**

If you disagree with the answer of a test or quiz question, the test question appeal form is in D2L. This is the only process of appealing a question. Send it to Kara Schrader within 5 days of the review
examination and will be evaluated individually. Only quiz questions can be appealed. There is not a process for appealing a midterm or final exam question. Neither exam will be re-opened for review after completion.

Discussion

Discussion is a graded component of the course. There will be five graded discussions in this course. You will find the rubric for grading the discussion in CLASS DOCUMENTS in Desire 2 Learn (D2L). Postings must be completed by Sunday at 11:59 pm to be counted for the week. Grades for the graded discussions will be posted within two weeks following the discussion. The due dates are posted on the class calendar and listed in the weekly activities. There will also be opportunity for ungraded discussion in some of the modules – this is an excellent learning tool. Discussion is highly encouraged for those cases/questions that are not graded! Sharing of expertise, questions and critique is an important part of the process of applying concepts to clinical practice.

Discussion Forums:
In order for the discussion room to work effectively, a few “rules” have been developed:
1. Keep your discussion in the “right room”. In other words, it helps everyone if the discussion fits the conversation. For example, it is best to keep discussion of hypertension management in cardiovascular rather than in the discussion related to ethics of prescribing.
2. Check-in frequently since we will use the announcements, discussion boards and e-mails to inform you about readings, new web sites, changes in schedule etc.
3. Remember that the discussion forums are OPEN to many people in the course so your more private conversations with either faculty or other students should be done via email. If you present real clinical cases, please adhere to HIPAA guidelines and protect the anonymity of your patient.
4. If you find some new websites or articles that you think others would like to see, please post them, do this in D2L by typing the URL in (including the http://) .
5. It is expected that APA format will be used to cite resources used in the discussion. Discussion forums are part of the scholarly process so the information you post should be from articles or other scholarly references with appropriate citations.
6. Keep your assigned postings to the limit discussed in the rubric.

<table>
<thead>
<tr>
<th>DESCRIPTION</th>
<th>POINTS POSSIBLE</th>
</tr>
</thead>
<tbody>
<tr>
<td>Quizzes</td>
<td>50 points</td>
</tr>
<tr>
<td>Discussion Forums</td>
<td>40 points</td>
</tr>
<tr>
<td>Midterm Exam</td>
<td>25 points</td>
</tr>
<tr>
<td>Final Exam</td>
<td>50 points</td>
</tr>
<tr>
<td><strong>TOTAL</strong></td>
<td><strong>165 points</strong></td>
</tr>
</tbody>
</table>

End of semester grades and transcripts

MSU no longer sends grades to individuals. As soon as the final grades are submitted (usually the week following final's week), you will be able to access your grade report by going to the Student info site. [https://ntweb1.ais.msu.edu/StuInfo/](https://ntweb1.ais.msu.edu/StuInfo/)

If you require a transcript of the grade sent to another University, you may also do that online by going to [http://www.reg.msu.edu/StuForms/TranscriptRequest/Transcript.asp](http://www.reg.msu.edu/StuForms/TranscriptRequest/Transcript.asp). Again, this can only be done after the final grades have been submitted to the registrar and grades recorded by the University (generally completed on the Wednesday following final’s week).
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 MSN Student Handbook: [http://nursing.msu.edu/MSN%20Programs/Handbooks/default.htm](http://nursing.msu.edu/MSN%20Programs/Handbooks/default.htm)
- Information for MSU Students: [http://www.msu.edu/current/index.html](http://www.msu.edu/current/index.html)
- Academic Programs: [http://www.reg.msu.edu/AcademicPrograms](http://www.reg.msu.edu/AcademicPrograms)
- Code of Teaching Responsibility and Student Assessments and Final Grades: [http://www.reg.msu.edu/AcademicPrograms/Print.asp?Section=514](http://www.reg.msu.edu/AcademicPrograms/Print.asp?Section=514)
- Integrity of Scholarship and Grades: [http://www.reg.msu.edu/AcademicPrograms/Print.asp?Section=534](http://www.reg.msu.edu/AcademicPrograms/Print.asp?Section=534)

University Policies:

**Academic integrity:** Article 2.3.3 of the Academic Freedom Report states that "The student shares with the faculty the responsibility for maintaining the integrity of scholarship, grades, and professional standards." In addition, the College adheres to the policies on academic honesty as specified in General Student Regulations 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 [http://splife.studentlife.msu.edu/](http://splife.studentlife.msu.edu/) and/or the MSU Web site: [www.msu.edu](http://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](http://www.allmsu.com) Web site to complete any course work in NUR 809. 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. Contact your instructor if you are unsure about the appropriateness of your course work.

(See also [https://www.msu.edu/unit/ombud/academic-integrity/index.html#regulations](https://www.msu.edu/unit/ombud/academic-integrity/index.html#regulations)

**Accommodations for students with disabilities:** Students with disabilities should contact the Resource Center for Persons with Disabilities to establish reasonable accommodations. For an appointment with a disability specialist, call 353-9642 (voice), 355-1293 (TTY), or visit [MyProfile.rcpd.msu.edu](http://MyProfile.rcpd.msu.edu).

**Disruptive behavior:** Article 2.3.5 of the Academic Freedom Report (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 civility." General Student Regulation 5.02 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.

<table>
<thead>
<tr>
<th>Module</th>
<th>Unit</th>
<th>Topics</th>
<th>Assessments</th>
</tr>
</thead>
<tbody>
<tr>
<td>#1 January 11 - 17th</td>
<td>Principles Review</td>
<td>Pharmacokinetics and Pharmacodynamics Drug safety and AED</td>
<td>Quiz</td>
</tr>
<tr>
<td>#2 January 18- Juanry 31</td>
<td>CNS agents and Psychotropic agents</td>
<td>Mood Disorders, Anxiety Disorders</td>
<td>Discussion Questions</td>
</tr>
<tr>
<td>#3 February 1– February 7</td>
<td>Drugs for Inflammatory processes and chronic pain issues</td>
<td>Analgesics Drug Scheduling</td>
<td>Discussion Questions</td>
</tr>
<tr>
<td>#4 February 8-February 21th</td>
<td>Cardiovascular</td>
<td>HTN, Hyperlipidemia, Heart failure</td>
<td>Quiz</td>
</tr>
<tr>
<td>#5 February 22th – February 28</td>
<td>Respiratory</td>
<td>Asthma, COPD</td>
<td>Discussion Questions</td>
</tr>
<tr>
<td>Midterm Exam Week February 29-March 6</td>
<td></td>
<td></td>
<td>Midterm Exam Wednesday, March 2: 8-12 in Exam Soft Cumulative of first 5 modules.</td>
</tr>
<tr>
<td>Spring Break week March 7th – 11th</td>
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<tr>
<td>#6 March 14- March 20</td>
<td>Drugs used in treating infectious disease</td>
<td>Antibiotics, antivirals and antifungals</td>
<td>Quiz</td>
</tr>
<tr>
<td>#7 March 21th – April 3</td>
<td>Endocrine</td>
<td>Type 1 DM, Type 2 DM Thyroid Disorders</td>
<td>Discussion Questions</td>
</tr>
<tr>
<td>#8 April 4-April 17</td>
<td>Gastrointestinal</td>
<td>GERD, Peptic Ulcers, Constipation and Diarrhea</td>
<td>Quiz</td>
</tr>
<tr>
<td>#9 April 18-May 1</td>
<td>Gender specific medications</td>
<td>Contraception Menopause hormone therapy Osteoporosis Male hormone therapy</td>
<td>Quiz</td>
</tr>
<tr>
<td>Final exam week May 2-6</td>
<td></td>
<td>No new content</td>
<td>Final Exam: Wednesday May 4: 8-12 Noon in Exam Soft Cumulative with more emphasis on last 4 modules.</td>
</tr>
</tbody>
</table>

*Cost and ethics of prescribing, adherence and prescription writing will be ongoing themes. Over the counter medications as well as vitamin supplements and herbal medicine will be integrated throughout the modules as appropriate.*