Course Purpose:
The goal of this course is to facilitate integration knowledge of basic sciences, pharmacotherapy, pharmacy practice management, pharmaceutical care, written communication, literature evaluation, drug information retrieval, law and ethics, and pharmacoeconomics to manage patients with multiple medical conditions. This course is where students are required to perform and demonstrate knowledge during curricular assessments.
Faculty and students will meet on in-class discussion dates and as otherwise indicated. See the Course Schedule for details.

This course meets its objectives using several evaluated methods: Written pharmacotherapy patient cases, in-class discussions, drug information questions, a book club, the PCOA (Pharmacy Curriculum Outcomes Assessment), an objective standardized clinical exam (OSCE), and a calculations exam.

Patient Case SOAP notes
Cases will be posted on the course website per the schedule at the end of the syllabus. All cases will address multiple medical conditions. Recommended readings and online resources will also be listed, as appropriate.
Each student is responsible for “completing the SOAP note” and submitting it online by the designated date. ALL NOTES ARE DUE ON TUESDAYS BY 1 PM. All notes will be graded prior to the case discussion date so faculty can tailor the in-class discussion to maximize learning. Students are also responsible for bringing a copy of their note to class to help facilitate the discussion.
Each student is responsible for working-up and understanding each case.

Students may work with each other; however, each student must submit his/her own work (see honor code). Case content will not be limited to only conditions and medications covered in the formal curriculum as it is highly likely students will encounter future patients with unfamiliar conditions and medications.

In-class discussions
Prior to discussion, complete the assignment(s) posted in moodle.
In-class activities will vary. The pre discussion assignments will prepare the group for the in-class discussion which may include a follow-up case for the patient or additional clinical questions/issues. In-class time will focus on prioritization of the patients problems and a further dissection of the case.
Each student is responsible for bringing a copy of their note to the in-class discussion. Each team needs to bring to class a laptop or electronic device suitable for submitting notes into the SOAP note system.
In-class discussions may also address pharmacy practice management issues, pharmaceutical care process, written communication skills, literature evaluation, drug information retrieval, law and ethics, public health and pharmacoeconomics.

Drug Information Questions/Short Clinical Consult Notes
Every other week (when not working on a case), each student is responsible for answering 2 drug information questions. DI answers are due on Tuesdays at 1 pm. To expedite grading, students must provide references (or cut and copy pertinent text) to their answer in the reference field. Each answer you submit will require 3 fields of information: Your answer, your rationale, and your references. The questions will range from the simple (does this medication need to be taken with food) to the complex (can a patient be started on X medication when
they take 14 other medications OR requiring you to make a recommendation for the given scenario). Each student is expected to provide a clear, direct answer that another provider or patient could use to take action. If you are giving a dosing recommendation, make sure it is a recommendation and not a dosing range. For example: “The usual dose ranges between 10 mg and 40 mg given by mouth daily. I recommend starting at 10 mg by mouth daily, increasing by 10 mg per day per week until adequate response is seen.”

BE CAREFUL, you may need to reconcile multiple references to formulate your answer.

Book Club
We will be reading “How we do harm” by Otis Webb Brawley, MD. The book is divided into four sections and you will be asked to respond to a prompting question with a minimum of a 200 word response as part of the pre-discussion assignment and we will allocate some time to discuss the portion of the book during our in class discussion. The detailed timeline is available in the moodle course site.

PD3 Knowledge and Performance Exams
The College successfully underwent reaccreditation in the fall of 2009 (and 2015). ACPE standard 15.1 states that “the college or school's evaluation of student learning should incorporate periodic, psychometrically sound, comprehensive, knowledge-based, and performance-based formative and summative assessments, including nationally standardized assessments (in addition to graduates performance on licensure examinations) that allow comparisons and benchmarks with all accredited and peer institutions.”

Knowledge Exam
The College will be administering the PCOA (Pharmacy Curriculum Outcomes Assessment) as mandated by the 2016 ACPE accreditation requirements. The logistics are currently being determined. There will be a testing window between April 11 and May 13. Due to the timing of our semester we will likely be setting up 4 hour testing slots on Mondays April 11, 18, and 25 and Tuesday April 12, 19,26. It will be up to each student to select a slot that does not conflict with electives, required courses and other work responsibilities. If you do not take the exam, you will be assigned a U and your grade will drop a full letter grade.

Objective Structured Clinical Exam (OSCE)
The college is continuing to provide an OSCE exam as a performance-based assessment (as outlined above in Standard 15.1). This will be held on Monday Feb 1 for TC students and Friday Feb 5 for Duluth students. Required courses are cancelled on both of these days. Students will be scheduled around electives if possible. It will be held at the interprofessional education resource center (IERC) on the Twin Cities campus and at the Robert F. Pierce Speech–Language–Hearing Clinic in Duluth. A pass score will be set during the exam construction process. Students who score at or above the pass score will receive an S. Students scoring below the pass score will receive an S-. Exceptional performance will receive an S+. If you do not take the exam, you will be assigned a U and your grade will drop a full letter grade.
Calculation exam
Students are responsible for completing an online calculations assessment with a score of 100%. The exam will have 13 items which will review the concepts covered in Phar 6728: Pharmaceutical Calculations. The assessment will be delivered online and will open early in the semester. Students are allowed as many attempts on the exam as they need to pass. Twenty-four hours must pass between attempts. Students must pass the exam by Tuesday April 26 at 1 pm; failure to pass the exam by that date and time will result in a U grade. The exam must be retaken and passed prior to the end of the semester in order to pass the course. This course will end on the last day of instruction-Friday May 6, 2016.

Course Goals & Objectives
After completion of this course, students will be better able to:

List course goal and/or learning objective
Applicable domain & competency
* refer to College of Pharmacy Competency Domains.

Scientific Foundation
1) Communicate drug therapy recommendations appropriately (verbal and written)  
   1.0, 1.1, 1.2, 1.3, 1.4, 1.5, 1.7, 1.8, 2.2, 3.4, 6.0
   5.8, 6.1, 6.4
2) Interpret medical literature and apply new knowledge to clinical situations  
   1.0, 1.1, 1.2, 1.5, 6.0, 6.1, 6.3
   6.4, 6.8
3) Retrieve and provide reliable drug information  
   1.0, 1.1, 1.2, 1.4, 6.0, 6.1, 6.3
   5.8, 6.4, 6.6, 6.8
4) Assess medication appropriateness, identify, and propose solutions for drug-related problems  
   1.0, 1.1, 1.2, 1.5, 6.0, 6.3
   6.1, 6.4
5) Integrate clinical, humanistic and economic data to develop a drug therapy plan  
   1.0, 1.1, 1.2, 1.8, 2.2, 6.0, 6.1, 6.3
   6.4, 6.8
6) Determine therapeutic endpoints and monitor medication regimens  
   1.0, 1.1, 1.2, 1.3, 1.4, 1.5, 6.0, 6.3
   6.4, 6.9

Other skills that may be reviewed include conducting a patient-specific medical and medication history, understanding different pharmacy practice models, recognizing the importance of pharmacy law and ethics in decision making, evaluating outcomes of clinical interventions, and applying public health knowledge.

Domains below provided for reference.
Link to full competency domain document.
Competency Domains
Domain 1: Patient-Centered Care
As a provider of care, the pharmacist is ethical, benevolent, empathetic, competent, open-minded, prudent in making judgments, and devoted to serving others. The pharmacist applies knowledge, experience, and skills to protect the welfare of humanity. The pharmacist willingly and respectfully cares for patients to assure optimal therapeutic outcomes.

Domain 2: Population Health & Vulnerable Communities
As a promoter of public health, the pharmacist uses his/her expertise to partner with others to improve care for vulnerable communities or at risk populations. The pharmacist recognizes the differences between populations of individuals and seeks to alleviate disparities that exist.

Domain 3: Health Systems Management
As a manager of health system resources, the pharmacist examines critical issues, assumptions, and limitations to produce and validate ways to deliver medications safely, effectively, and in a timely manner. The pharmacist demonstrates imagination, inventiveness, and courage by undertaking new endeavors to produce improved quality, productivity, efficiency, effectiveness, and innovation.

Domain 4: Leadership & Engagement
In leading, the pharmacist demonstrates integrity and is habitually resolute, focused on excellence, knowledgeable about the “big picture,” strategic, focused, persuasive, open to feedback, decisive, visionary, empowering, and service-oriented.

Domain 5: Professional & Interprofessional Development
When collaborating, the pharmacist demonstrates critical thinking, excellent communication and leadership, and is goal-oriented, cooperative, assertive, respectful, enthusiastic, and reliable. The pharmacist consistently and consciously demonstrates high ethical and moral standards by considering how and when to act, acting in a manner that is clearly consistent with those standards and exercising accountability for those actions.

Domain 6: Knowledge, Scientific Inquiry, and Scholarly Thinking
In making use of scientific knowledge, the pharmacist explains with thoroughly researched, evidence based accounts of facts and data, and provides interpretations based on analysis of the importance, meaning, and significance. The pharmacist applies knowledge fluently, flexibly, and efficiently in diverse contexts.

* refer to College of Pharmacy Competency Domains for Section descriptions. Link to full competency domain document.

Prerequisites

As an Outcomes course, this course will build on all previous Pharm.D. coursework.
Year 1 curriculum: 6700, 6702, 6704, 6706, 6708, 6710, 7310, 6716, 6718, 6720, 6722, 6724, 6726, 7325
Year 2 curriculum: 6732, 6734, 6736, 6738, 6740, 6742, 7330, 6748, 6750, 6752, 6754, 6756, 6758, 7340, 7345
Year 3 curriculum: lab 5, neuropsych, infectious disease, neuro/psych med chem pharmacology

Course Materials
Required
Book club book: How We Do Harm by Otis Webb Brawley, MD

Optional
Any references necessary to successfully complete the cases or drug information scenarios.

Computer/Technology Requirements

Moodle: This course will use Moodle to distribute learning materials and host activities. See an introduction to Moodle at http://uttc.umn.edu/training/tutorials/moodle/orientation/moodle-introduction/index.htm
E-Mail: Course instructors will communicate through email about course administrative issues. You should check your U of M email daily.
Student-response systems: Discussions may use TurningPoint software. You may need a TurningPoint clicker or app.

Course Policies

Attendance Policy
Students are expected to attend every class for which they are registered. Students are expected to attend classes on the campus where they are enrolled. If a student is absent for in-class discussions and examinations (the absence is not excused and does not meet the University definition of an excused absence) they will be assigned an S- rating. Students who complete the pre-discussion assignments before class discussion earn an S+ rating for the in-class discussion. Students who attend class but do not complete the pre-discussion assignments will be assigned an S rating. There will be a sign-in sheet sent around each campus for attendance for each in-class discussion. Each student must sign their own name. Failure to do so will result in a breach of the honor code and will be reported to the honor council.

Classroom Etiquette Statement
Your professional community starts here at the College of Pharmacy with your peers, faculty, preceptors, staff and administration. It is our expectation that you will exhibit professional behavior towards other students and to faculty in the classroom at all times.

Statement on Penalties for Late Work
“U” grade will be given if the assigned activity is not handed in within 24 hours after its due date and time.

Grading Information
The first 3 SOAP notes will be graded in their entirety, but only the structure ratings will count towards a grade. The last 3 notes will be graded in their entirety and both the structure and clinical content ratings will count towards a grade.

All grading in this course is done by pharmacists or pharmacy students. All determinations of ratings will be made by
1) the teaching assistants with the guidance and supervision of the Course Director or 2) the course faculty.

In addition to the requirements put forth by the rubrics, the following criteria will be applied to student work.

"S": To be considered satisfactorily completed and receive an "S" rating, activities must meet the following criteria:
1) Be completed and handed in at their due date/time.
2) Show appropriate effort for thoroughness and accuracy in meeting the learning objectives and providing patient care.
3) Be completed in accordance with the Honor Code.

"S+": To receive a rating of "S+", the activity must meet the criteria for an "S" rating and not meet any criteria for an "S-" rating. In addition, the student's method of completing the activity and the activity's result must provide optimal patient care in every detail (within the limitations of the activity itself).

"S-": The purpose of the "S-" rating is to help the student identify components of their work that would hinder the appropriate provision of Pharmaceutical Care or any pharmacy services to patients.
A rating of "S-" will be given if a component of the rated activity is completed in a fashion:
1) That would provide less than satisfactory care to the patient or result in harm to the patient.
2) That is clearly not consistent with applicable evidence-based literature.
3) That is clearly not consistent with applicable practice laws.

Furthermore, an "S-" rating will be given if a student:
1) The activity is not handed in at its due date and time but is handed in within 24 hours of due date and time.
2) Has completed an activity with an amount of effort that is less than that necessary to meet the learning objectives but that does not meet the criteria to receive a rating of "U".

Upon receipt of an "S-" rating, the student may be asked to revise some specified component of the activity at the discretion of the Course Director. This revision must be completed in the time and manner specified by the Course Director or the "S-" rating will become an unsatisfactory, receive a "U", and result in a grade reduction.

"U": Activities that meet the following criteria will be deemed unsatisfactorily completed and will receive a “U”. For each unsatisfactory rating a student receives, their final grade will drop one full letter grade as described in the course contract. 1) The activity is not handed in within 24 hours after its due date and time.
2) The activity is handed in on time but is completed with extremely poor effort that clearly does not meet the majority of the learning objectives and could not provide appropriate patient care (i.e. Markedly lacking detail rating).
3) The activity is not completed in accordance with the Honor Code.
4) The activity originally received an "S-" rating AND a revision was called for by the Course Director but the revision was not completed in the time and/or manner specified by the Course Director.

Distribution of ratings:
Activity

Case documentation: notes 1, 2, 3
1 rating/note
3 ratings
Case documentation: notes 4, 5, 6
2 ratings/note
6 ratings
Participation in case discussion
1 rating/class discussion
6 ratings
Book Club Postings
1 rating/online assignment
4 ratings
12 drug info questions
1 rating/question
12 ratings
Skill assessment (OSCE)

1 rating

Total ratings= 32 ratings

*S+ ratings may be used to elevate a B to a B+ and C to a C+. Students must earn at least the classes’ median number of S+’s to elevate their grade. Grading Clarification and Re-grade Requests: If students have questions or concerns with grades, they are asked to please contact your evaluator first. The course director has final say in the grade if the student and evaluator disagree. All formal requests for re-grades must be initiated within one week from when the evaluation is released.
Course Letter Grades;
The following table shows how the "S+/S/S-" system will be applied to the final course grade.

<table>
<thead>
<tr>
<th>Number of S- ratings received</th>
<th>Grade</th>
</tr>
</thead>
<tbody>
<tr>
<td>4 or fewer</td>
<td>A</td>
</tr>
<tr>
<td>5</td>
<td>A-</td>
</tr>
<tr>
<td>6-7</td>
<td>B*</td>
</tr>
<tr>
<td>8-9</td>
<td>C*</td>
</tr>
<tr>
<td>10</td>
<td>D</td>
</tr>
<tr>
<td>11 or more</td>
<td>F</td>
</tr>
</tbody>
</table>

*S+ ratings may be used to elevate a B to a B+ and C to a C+. Students must earn at least the classes’ median number of S+’s to elevate their grade. Grading Clarification and Re-grade Requests: If you have questions or concerns with grades, please contact your evaluator first. The course director has final say in the grade if the student and evaluator disagree. All formal requests for re-grades must be initiated within one week from when the evaluation is released.

Minimum Passing Level
Per University and College Policy, students who receive a grade below D in this course must successfully repeat the course before advancing to courses which require this course as a prerequisite.

Faculty and students will meet on “case discussion” dates or otherwise indicated.

2016 Schedule
Course Schedule
Week
Date
Assignment
Topics/class schedule
Faculty
2
Tues 1/19
Introduction- Duluth
Overview of course Duluth
Conway/Schneiderhan

Wed 1/20
Introduction- TC
Case 1 posted
Overview of course-TC

Tues 1/26
Case 1 due @ 1 pm
no class

Wed 1/27
DI 1 and 2 posted
no class

3
Mon 2/1
OSCE in TC

Tues 2/2
DI 1 and 2 due
@ 1 pm
Class meets to discuss case 1 in Duluth
Undeberg, Philbrick, Marchese

Wed 2/3
Case 2 posted
Class meets to discuss case 1 in TC

Fri 2/5
OSCE in Duluth
4
Tues 2/9
Case 2 due @ 10:10 am
No class

Wed 2/10
DI 3 and 4 posted
No class

5
Tues 2/16
DI 3 and 4 due
@ 1 pm
Class meets to discuss case 2 in Duluth
Conway, Schneiderhan

Wed 2/17
Case 3 posted
Class meets to discuss case 2 in TC

6
Tues 2/23
Case 3 due @ 1 pm
No class

Wed 2/24
Drug info 5 and 6 posted
No class

7
Tues 3/1
Drug info 5 and 6 due @ 1 pm
Class meets to discuss case 3 in Duluth
Atwood, Schullo, Nixon

Wed 3/2
Case 4 posted
Class meets to discuss case 3 in TC
8
Tues 3/8
Case 4 due @ 1 pm
No class

Wed 3/9
Drug info 7 and 8 posted
No class

9
3/14-3/18
No class spring break

10
Tues 3/22
Drug info 7 and 8 due @ 1 pm
Class meets to discuss case 4 in Duluth
Pereira, Westberg, Swanoski

Wed 3/23
Case 5 posted
Class meets to discuss case 4 in TC

11
Tues 3/29
Case 5 due @ 1 pm
no class

Wed 3/30
Drug info 9 and 10 posted
no class

12
Tues 4/5
Drug info 9 and 10 due @ 1 pm
Class meets to discuss case 5 in Duluth
Anderson-Haag, Duluth
Wed 4/6
Case 6 posted
Class meets to discuss case 5 in TC

13
Tues 4/12
Case 6 due @ 1 pm
no class

Wed 4/13
Drug info 11 and 12 posted
no class

14
Tues 4/19
Drug info 11 and 12 due @ 1 pm
Class meets to discuss case 6 in Duluth
Chapman, Duluth

Wed 4/20

Class meets to discuss case 6 in TC

15
Tues 4/26
Calculation exam deadline
no class

Wed 4/27

no class

16
Mon 5/2

Tues 5/3
Educational research may be conducted on this course design, including any assignments and comments on course evaluations. Any research conducted will occur only after the course has concluded and final grades have been submitted. Any course materials used in the evaluation of educational strategies will first be stripped of any identifying information by a research assistant unrelated to the course. Any materials used for the evaluation of this course will not be able to be linked to any individual student.

Dates to avoid:
MSHP April 14 and 15
CPNP April 17-20
Apha March 7-

* Subject to change at course instructor’s discretion.

University of Minnesota and College of Pharmacy Policy Reference (Centralized Syllabus)
[This page includes all required UMN and CoP policies, e.g., Academic Freedom; Copyright; Course Evaluations; Disability Accommodations; FERPA, etc.]