Seminar in Critical Care  
PHAR 6968H

CREDITS: 1

COURSE DESCRIPTION: This seminar course will provide a forum for interdisciplinary discussion on a broad range of critical care topics ranging from state of the art therapeutics and research opportunities to ethical dilemmas. Analysis and discussion of current, controversial and classic publications will be a significant component of this course. The course format will be:

1) Expert faculty from the Center for Excellence in Critical Care will present an introduction to a critical care topic. This presentation may be research-focused, a state of the art lecture or a discussion of a controversial aspect of critical care.
2) Students will present a relevant scientific publication (selected by faculty) to the group and lead a discussion on the studies’ strengths and weaknesses.
3) The interdisciplinary group will discuss the application of the study(s) findings to current clinical practice and potential research opportunities.
4) The final class will be a review and discussion of rationale for correct (and incorrect) responses to the on-line final exam.

CORE FACULTY:  
Course Director: Debra J. Skaar, PharmD, FCCM  
Duluth Faculty: Dawn Carlson, PharmD  
Teaching Assistant: Nick Goeden, PharmD, Critical Care PGY-2, UMMC

OBJECTIVES: At the conclusion of this course, students will be able to:

1) Identify current and emerging issues related to the care of critically ill patients.
2) Analyze and critique research conducted in critically ill patients.
3) Identify challenges in conducting clinical research in the critically ill and applying results to patient care.
4) Discuss the role of clinical practice and research in identifying and resolving problems in the care of critically ill patients.
5) Develop a better understanding of interdisciplinary concerns and issues in caring for critically ill patients.

CLASS TIME: Tuesdays, 1:25-3:20, Rooms WDH 7-193 (TC) & 302 Heller Hall (Duluth)

STUDENTS WITH DISABILITIES: It is University policy to provide on a flexible and individual basis, reasonable accommodations to students who have disabilities that may affect their ability to participate in course activities or to meet course requirements. Students with disabilities are encouraged to contact the Course Directors and the Director of Student Services as soon as possible to discuss their individual needs. All discussions will remain confidential.

GRADING: A, A-, B+, B, B-, C+, C, C-, D+, D, D- or F

METHODS OF EVALUATION:
1. Participation in weekly Seminar Discussions: 20%
2. Oral presentations (literature critique and effectiveness as a discussion leader): 30% (please email your slides to the course director and TA for posting on Moodle by 8 am on the Tuesday of your presentation).
3. Multiple choice questions from assigned papers/presentations: 10% for submitting your question with highlighted correct answer (10 total short multiple choice questions) to the TA (Nick Goeden) by Wednesday noon following class. Please list class week # in the subject line (e.g., Jeopardy Week 1 or 2 or #).
4. The final 30% of your grade will be your performance on an on-line “exam” the final week of class worth 30%. Please bring a copy of your on-line exam to class on April 10th; we will review and discuss the final exam with a focus on the best answer rationale. The final class period discussion and participation is worth 10% of your grade.
5. Because of the seminar format of this course, oral presentations cannot be made-up. If a student is sick or must miss for personal reasons, he/she should try to trade presentation dates with another student. In the event of an
emergency, the course director may offer an evaluation for 50% of the available credit only.

COURSE ATTENDENCE IS REQUIRED. All materials (papers to read and handouts) will be posted on Moodle. Handouts for faculty presentations will be provided in class.

CLASSROOM ETIQUETTE
Please be professional and on time. For guest speakers, please refrain from using laptop computers during their presentations. Papers should be read before class, not during class while a faculty or students are presenting.

OFFICE HOURS:
Please make appointments to discuss your paper or ask questions in advance by email or in class.

TC: Debra Skaar, PharmD, FCCM
WDH 7-109, Office hours by appointment
Phone: 612-626-3005; email: skaar006@umn.edu

Duluth: Dawn Carlson, PharmD
Office hours by appointment
Phone: 218-245-1088; email: carls126@umn.edu

Nick Goeden, PharmD, Critical Care PGY-2, UMMC
Email: ngoeden1@fairview.org

Seminar Schedule

<table>
<thead>
<tr>
<th>Week</th>
<th>Topic/Presenter</th>
<th>Faculty/Student Presenter/Required &amp; Supplemental readings</th>
</tr>
</thead>
<tbody>
<tr>
<td>Week 1 Jan 30, 2017</td>
<td>Introduction of Course Stress Ulcer Prophylaxis – Who needs it in 2018? Debra Skaar, PharmD, FCCM, Associate Professor of ECP</td>
<td>Course introduction and faculty presentation with modeling of scientific paper presentation. Assessment is attendance and 1 multiple choice question with answer submission by noon Feb 1 for final exam. <strong>Required studies to read:</strong> Efficacy and safety of proton pump inhibitors for stress ulcer prophylaxis in critically ill patients: a systematic review and meta-analysis of randomized trials. Crit Care 2016; 20:120.</td>
</tr>
</tbody>
</table>
| Week 2 | February 6 | “Early” Goal-Directed Therapy? Cardiovascular Support in Sepsis, Fluids and Vasopressors | Jon Jancik, PharmD, HCMC  
*Clinical Pharmacy Manager*  
*Clinical Pharmacy Specialist - Critical Care Residency Director PGY-2 Critical Care, HCMC*  
*Student: Duluth, TC,*  
| --- | --- | --- | --- |
| Week 3 | Feb 13 | Hypertensive Emergencies | Tim Fromm, PharmD  
*HCMC Clinical Pharmacy Specialist – Critical Care*  
*Student: Duluth; TC*  
| Week 4 | February 20 | Steroids in Sepsis: Who, When & What Dose? | Debra Skaar, PharmD, FCCM  
*Student: Duluth; TC*  
*Faculty presentation followed by student led scientific paper analysis and review. Assessment is attendance and 1 multiple choice question with answer submission by noon Feb 22 for final exam.* |
<table>
<thead>
<tr>
<th>Week 5</th>
<th>New Anticoagulants in the ICU and Their Reversal?</th>
</tr>
</thead>
<tbody>
<tr>
<td>February 27</td>
<td>Sarah Walden, PharmD, ICU/Cardiology Clinical Pharmacist, UMMC, Fairview</td>
</tr>
</tbody>
</table>

**Student: Duluth; TC**

<table>
<thead>
<tr>
<th>Week 6</th>
<th>Nursing Research in the ICU: Focus on Complementary Therapies</th>
</tr>
</thead>
<tbody>
<tr>
<td>March 6</td>
<td>Mary Fran Tracy, PhD, RN Associate Professor, University of Minnesota School of Nursing and Clinical Nurse Scientist, M Health</td>
</tr>
</tbody>
</table>

**Student: Duluth; TC**
Faculty presentation followed by student led scientific paper analysis and review. Assessment is attendance and 1 multiple choice question with answer submission by noon March 8 for final exam. Required: Effects of patient-directed music intervention on anxiety and sedative exposure in critically ill patients receiving mechanical-ventilatory support: a randomized clinical trial. JAMA. May 20, 2013 online.
| Week 7 | March 20 | Does it make a difference? The Role of rTPA in Stroke | Student: Duluth; TC  
Faculty presentation followed by student led scientific paper analysis and review. Assessment is attendance and 1 multiple choice question with answer submission by noon March 22 for final exam.  
|---|---|---|---|
| Week 8 | March 27 | ICU Systems for Critical Care | Student: Duluth; TC  
Student led scientific paper analysis followed by faculty presentation. Students read Dr. Beilman and UMMC colleagues paper on tele-ICU care. Assessment is attendance and 1 multiple choice question with answer submission by noon March 29 for final exam.  
| Week 9 | April 3 | Outcomes of Critical Care/ Chronic Critical Illness | Student: Duluth, TC,  
Faculty presentation followed by student led scientific paper analysis and review. Assessment is attendance and 1 multiple choice question with answer submission by noon April 5 for final exam.  
| Week 10 | **Final Exam (on-line) and in-class discussion/review** | Final exam is on-line at least 72 hours between April 5-10; in-class discussion of rationale for correct answers will be on April 10 at 1:25. Final exam is worth 30% of the final grade and rationale for answers shared in-class discussion worth 10% of the final grade. |

RELEVANT POLICY STATEMENTS

University of Minnesota Policy Statements applicable to this course include, but not limited to:

- Grade definitions from the Administrative Policy: Grading and Transcripts
- Scholastic Dishonesty
- Teaching and Learning: Instructor and Unit Responsibilities
- Makeup Work for Legitimate Absences (Administrative Policy)
- Use of Personal Electronic Devices in the Classroom (Administrative Policy)
- Appropriate Student Use of Class Notes and Course Materials (Administrative Policy)
- Student Conduct Code
- Board of Regents Sexual Harassment Policy
- Academic Freedom and Responsibility Statement

Additional College of Pharmacy-specific Requirements include, but not limited to:

- Attendance Policy
- ITV Recording of Required Courses
- Participation and Communication Between Campuses via ITV
- Grading Information
- Student Honor Code