Course Directors: Ronald Hadsall Ph.D.  Donald Uden, PharmD  
Office:  7-159 WDH  Office:  7-159 WDH  
Phone:  612-624-2487  Phone:  612-624-9624  
Email:  hadsa001@umn.edu  Email:  udenx001@umn.edu  

Staff Support: Amanda Behnke  
Office:  3-160 WDH  
Phone:  -  
Email:  ambelnke@umn.edu  

Course Description: Students in the University of Minnesota College of Pharmacy Pharm.D. Program completing the curriculum implemented after fall 1995 are required to complete the Pharm.D. Paper. The College of Pharmacy faculty want this to be a challenging and rewarding experience for students. This will be a rigorous project and students are encouraged to work on it before the end of their 3rd year of the curriculum.

Objectives:  
• To integrate concepts acquired throughout the curriculum into a single body of work.  
• To develop an area of expertise through independent effort mentored by faculty advisors.  
• To understand and experience the process of answering a question, beginning with an idea and concluding with a written manuscript.

Resources:  
How to Write and Publish a Scientific Paper: 7th Edition (How to Write and Publish a Scientific Paper (Paperback) by Robert A. Day, Barbara Gastel  
$28.75 new or $20.00 used on Amazon.com Paperback: 230 pages  
Publisher: Greenwood Press; 7 edition (June 30, 2011)  

Prerequisites: Pharmacy student  

Course requirements: Completion of a written Pharm.D. paper approved by the student’s Pharm.D. paper content and administrative advisor.

Grading Policy: Grades will be based on the S/N system with 70% as passing. The Pharm.D. paper must meet with the satisfaction of the student’s Pharm.D. paper advisor(s). Sufficient time is scheduled between draft deadlines to allow for revisions of the paper, if necessary.

Honor Code: Each student is bound by the following specific provisions as part of the Code: Academic misconduct is any unauthorized act which may give a student an unfair advantage over other students, including but not limited to: falsification, plagiarism, misuse of test materials, receiving unauthorized assistance and giving unauthorized assistance. The paper is an individual student effort (along with chosen advisors) and not a collaborative student project.

Disability Accommodations: Any student with a documented disability (e.g., physical learning, psychiatric, vision, hearing, etc.) who needs to arrange reasonable accommodations must contact the Course Directors and Disability Services at the beginning of the semester. All discussions will remain confidential.

TC Disability Services Contact Information  
McNamara Alumni Center  
200 Oak St SE Suite 180  
Minneapolis, MN 55455  
612-626-1333 (V/TTY)  
612-626-9654 (Fax)  
ds@umn.edu  

UMD Disability Services Contact Information  
Kirby Student Center 1120 Kirby Drive Room 258  
Duluth, MN 55812-3085  
(218) 726-6130  
(218) 726-6706 (Fax)  
TTY (218) 726-7380 -- Nancy Diener  
TTY (218) 726-6575 -- Interpreters  

Attendance: There will be no formal class for students to attend. However, regularly scheduled meetings with your advisor(s) are essential.
Phar 6183 Class of 2015

Phar 6183 - Pharm.D. Paper (2cr)   Class of 2015   Fall 2014

Revised August 10, 2013

Pharm.D. PAPER COURSE DEADLINES:

<table>
<thead>
<tr>
<th>FALL 2013</th>
<th>Phar 6181: Pharm.D. Paper &amp; Seminar</th>
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<tbody>
<tr>
<td></td>
<td>Receive randomly assigned administrative advisor</td>
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<td>Required:</td>
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<tr>
<td></td>
<td>• content advisor</td>
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<td>• paper topic</td>
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<td>Turn in Project Agreement form signed by both advisors to Amanda Behnke in 3-160 WDH or Dr. Paul Ranelli in Duluth by <strong>December 27, 2013.</strong></td>
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<tr>
<th>SPRING 2014</th>
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<tr>
<th>SUMMER 2014</th>
<th>Rotations begin.</th>
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<tr>
<th>FALL 2014</th>
<th>Phar 6183: Paper You are responsible for meeting draft and final submission deadlines with your advisor. If we have not received a grade from both advisors an “N” will be submitted.</th>
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<tbody>
<tr>
<td></td>
<td>• October 3, 2014 first complete draft of Pharm.D. Paper. Returned to you in 2 weeks for revision. Deadline to schedule seminar with Amanda.</td>
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<td>• November 7, 2014 second complete draft with revisions: Returned to you in 2 weeks for revision.</td>
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<td>• December 5, 2014 Final Submission</td>
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<td>1. Final submission of paper and abstract to advisor via method of their choice.</td>
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<td></td>
<td>2. Electronic copy of paper and abstract* along with your bio (hometown, previous schools/degrees, awards/honors and pronunciation of your name for seminar presentation ) to Amanda at <a href="mailto:ambelnke@umn.edu">ambelnke@umn.edu</a></td>
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<td>*regardless of paper extensions</td>
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<tr>
<th>JANUARY 2015</th>
<th>Phar 6182: Seminar</th>
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<tr>
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<td>January 5, 2015 – Power Point of presentation due electronically to Amanda at <a href="mailto:ambelnke@umn.edu">ambelnke@umn.edu</a></td>
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<td>Tentative: January 13-15, 2015 Twin Cities</td>
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<td>Tentative: January 13, 14, 2015 Duluth</td>
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Faculty Advisors

Each student has at least one Pharm.D. paper advisor. Some students may have two advisors. Each student is assigned an **Administrative Advisor** and each student selects a **Content Advisor**. It is the student’s responsibility to notify the Course Director and the staff support person of any changes regarding the Administrative and Content Advisors. The following describes the roles and responsibilities of each.

**Administrative Advisors**

Administrative faculty advisors are College of Pharmacy faculty and are randomly assigned to students. The Administrative Advisor is responsible for helping the student identify a topic or topic area and providing guidance in the selection of a Content Advisor. The Administrative Advisor must participate in both the paper and seminar evaluation process and submit grades for both.
Content Advisors
Each student will select a Content Advisor for the paper/seminar. The Content Advisor is someone who serves as the “content expert” for the paper and gives specific guidance in the paper/seminar process. The content faculty advisor may be a full-time College of Pharmacy faculty member, a part-time faculty member, a clinical or adjunct faculty member, or a health care professional. Family members cannot be advisors. In the event that there is a need to change your content advisor you must notify your administrative advisor and Amanda Behnke of the change. The Content Advisor may be recommended by the Administrative Advisor or identified by the student. The Administrative Advisor must participate in both the paper and seminar evaluation process and submit grades for both.

If the student chooses a Content Advisor who is on the Administrative Advisor list the Content Advisor may serve as both administrative and content advisor for that student, and the assigned Administrative Advisor will no longer have advisory responsibilities for that student. The student will then have one advisor, and that advisor will assume the responsibilities of the Administrative Advisor and the Content Advisor, as listed below. The student must notify the Assigned Administrative Advisor, the Course Director and the staff support person of the change in Administrative Advisor.

If the student chooses a Content Advisor who is not on the Administrative Advisor list, the student will have two advisors: an Administrative Advisor and a Content Advisor. PLEASE NOTE: This policy is in no way designed to limit the selection options of a student; the policy is designed to insure uniformity in the evaluation and administrative processes. Students should feel free to select any appropriate practitioner/faculty as a content expert.

Responsibilities of Administrative Advisors:
- Assist student in identifying a content advisor who may act as the content expert for the paper.
- Monitor student progress to insure timely completion of paper. Monitor due dates and return the drafts within 2 weeks.
- Take a principle role in evaluating the paper per standard evaluation form and determining acceptance of work.
- Evaluate and submit final paper grade. Final paper is due to advisor on Dec 6, 2013.
- Participate in evaluation of Pharm.D. Seminar and submit a grade.

Responsibilities of Content Advisors:
- Serve as content expert for Pharm.D. paper.
- Meet regularly with student to insure progress.
- Monitor student progress to insure timely completion of paper. Monitor due dates and return the drafts within 2 weeks.
- Take active role in evaluating the paper per standard evaluation form.
- Evaluate and submit final paper grade.
- Final paper is due to advisor on Dec 6, 2013.
- Participate in evaluation of Pharm.D. Seminar and submit a grade.

Responsibilities of Student:
- Remind advisors of draft deadlines and final deadline you must meet.
- Provide advisors with evaluation forms for draft and final paper.
- If you have any questions or problems contact Drs. Hadsall or Uden.

PAPER TOPIC: The Pharm.D. paper will be the written component of a single topic chosen by the student in conjunction with his/her content advisor. A wide range of topics would be appropriate for the paper/seminar: clinical or laboratory research of a drug-related problem; review of a drug class with treatment options and recommendations; an extensive report to a Pharmacy & Therapeutics Committee; a comprehensive drug review; a critical literature review and analysis; etc. The paper is intended to be hypothesis driven (a scientific question needs to be
formed) and to be written in a publishable form (suitable for peer review). The content advisor will guide the student in the paper preparation process so that these goals can be attained. The paper will be reviewed and graded by the content/administrative advisor or the content advisor AND the administrative advisor, depending on the advising situation of each student. It is in the best interest of the student to communicate with advisors periodically throughout the development of the paper. A close relationship with the content advisor should be a natural occurrence since students will need the guidance of the content advisors in order to develop their paper.

**HOW TO CHOOSE A TOPIC:** Administrative advisors are to aid the student in this process if a student is having trouble choosing a paper topic and/or identifying a content advisor.

**USE OF HUMAN SUBJECTS:** Some topics may require the use of human subjects by University of Minnesota Institutional Review Board (IRB) as indicated on your Phar 6181 - PharmD Paper/Seminar Project Agreement Form. For further information refer to the website and links at http://www.research.umn.edu/irb/about/

- Applying to the IRB
- IRB Forms
- Guidance for Research
- IRB Process and Reporting
- Consent Process and Forms
- Training and Education

**PAPER FORMAT**: 

**Title Page:** designate course number, advisor names, date, and copyright permission

**Table of Contents**

**Table of Figures & Tables**

**Abstract**: maximum 1 page. Margins 1 inch all sides and a 12 pt font, Times. **Example to be sent during Fall of 2014**

**Acknowledgments**

**Introduction:** Statement of problem including its significance to pharmacy

**Methodology:** Study design, description of database or population, exclusion/exclusion criteria, study site, instrumentation, analytical methods utilized

**Results**

**Discussion:** Description of how findings confirm/depart from those of others, strengths and weaknesses of study

**References**

**Figures/Tables**

**Legends**

**Appendices**

**There is no required number of pages. Papers are usually 15-20 pages in length (including references). There is no maximum page limit.**