

Upper-division Writing Requirement Review Form (12/1/08)

I. General Education Review – Upper-division Writing Requirement			
Dept/Program Subject	Pharmacy Practice	Course # (i.e. ANTH 455) or sequence	<u>PHAR 550</u>
Course(s) Title	Drug Literature Evaluation		
Description of the requirement if it is not a single course			
II. Endorsement/Approvals Complete the form and obtain signatures before submitting to Faculty Senate Office.			
Please type / print name		Signature	Date
Instructor	<u>Sherrill Brown</u>		
Phone / Email	243-5299/ sherrill.brown@umontana.edu		
Program Chair	Mike Rivey		
III Overview of the Course Purpose/ Description			
This course requires pharmacy students to find, read, and interpret biomedical literature, and use such information to write technical medical information papers. The ability to find, interpret, and communicate biomedical information is an important skill for pharmacists who will be expected to answer complex medication questions and continue learning after graduation.			
IV Learning Outcomes: Explain how each of the following learning outcomes will be achieved.			
Student learning outcomes :			
Identify and pursue more sophisticated questions for academic inquiry	Students will take broad simple questions and use their information gathering and interpretation skills to provide focused and comprehensive answers.		
Find, evaluate, analyze, and synthesize information effectively from diverse sources (see http://www.lib.umt.edu/informationliteracy/)	Students will be required to conduct at least three separate literature searches using secondary literature such as PubMed/MEDLINE and International Pharmaceutical Abstracts. Students will be required to participate in small group journal article critiques and discussions to increase their understanding of research design and potential limitations.		
Manage multiple perspectives as appropriate	Students will receive assignments or reviews that are focused on various purposes (i.e., for different audiences) such as drug monographs and drug information questions.		
Recognize the purposes and needs of discipline-specific audiences and adopt the academic voice necessary for the chosen discipline	Students will be required to adopt the citation conventions of the discipline (AMA-like style), write at the professional level (12 th grade or higher), and use a formal writing style. (FYI – students prepare written information for the general public earlier in the curriculum in the PHAR 412 course).		

Use multiple drafts, revision, and editing in conducting inquiry and preparing written work	Students are required to submit an initial draft of their drug efficacy review (4-6 pages) and revise it at least once. Additional writing assignments do not require revision.
Follow the conventions of citation, documentation, and formal presentation appropriate to that discipline	The students are required to use an adaptation of the AMA-style, which is appropriate for this discipline.
Develop competence in information technology and digital literacy	Finding and interpreting information from written and electronic sources is a key skill for this course.
V. Writing Course Requirements Check list	
Is enrollment capped at 25 students? If not, list maximum course enrollment. Explain how outcomes will be adequately met for this number of students. Justify the request for variance.	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No The course has two sections with enrollment at 32-33 students per section. The primary instructor uses a second faculty member as grader to share the burden of reading papers and providing remarks to each individual student.
Are outcomes listed in the course syllabus? If not, how will students be informed of course expectations?	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No The syllabus lists learning objectives, which could be considered the course learning outcomes.
Are detailed requirements for all written assignments including criteria for evaluation in the course syllabus? If not how and when will students be informed of written assignments?	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No The detailed requirements for the major writing assignments are appended to the syllabus. Additional information is given at the time the assignment is made.
Briefly explain how students are provided with tools and strategies for effective writing and editing in the major.	Students are expected to have basic skills in composition, grammar, and paraphrasing. Lectures cover citation conventions, search strategies for finding information, study designs, and statistical analysis so students can find and critically evaluate articles. Small group discussions and in-class writing assignments allow students to practice these skills.
Will written assignments include an opportunity for revision? If not, then explain how students will receive and use feedback to improve their writing ability.	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No
Are expectations for Information Literacy listed in the course syllabus? If not, how will students be informed of course expectations?	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No The expectations for being able to formulate a search strategy, conduct it, and interpret research articles and other sources of information are in the syllabus although they are not actually labeled "information literacy."
VI. Writing Assignments: Please describe course assignments. Students should be required to individually compose at least 20 pages of writing for assessment. At least 50% of the course grade should be based on students' performance on writing assignments. Clear expression, quality, and accuracy of content are considered an integral part of the grade on any writing assignment.	
Formal Graded Assignments	25% Drug Information Consult paper (6-8 pages) 25% Drug Efficacy Review paper (4-6 pages)

	10% Article Summary paper (2-3 pages)
Informal Ungraded Assignments	Initial draft of Drug Efficacy Review paper (4-6 pages), in-class writing assignments including one-page descriptions of study design, statistical analysis, and interpretation of article results.
VII. Syllabus: Paste syllabus below or attach and send digital copy with form. ↓ The syllabus should clearly describe how the above criteria are satisfied. For assistance on syllabus preparation see: http://teaching.berkeley.edu/bgd/syllabus.html	

Paste syllabus here.

Pharmacy 550 Drug Literature Evaluation

Course Syllabus

MWF 9:10-10:30
SB114 and SB336
Fall 2008 3 credits

Course Coordinator: Sherrill Brown SB217 243-5299
sherrill.brown@umontana.edu Office Hours by Appointment

Lecturers/Facilitators: Jean Carter SB 333A 243-5780
Curtis Noonan SB 173D 243-4957

Class Days and Times: 9:10 to 10:30 am on Mondays, Wednesdays, and Fridays as noted on topic schedule.

Required Readings: Distributed in class or available on Blackboard.

Course Policies

"Drug Literature Evaluation" is a course designed to allow the student to think creatively and to accept responsibility for his/her own learning. Students are expected to complete all required readings and assignments **before** the lecture is delivered. In addition, students are expected to **actively participate** in group discussions and to lead discussions when appropriate.

Participation in assigned discussions will be evaluated based on the following:

The student provides insightful comments.

The student demonstrates knowledge acquired through assignments, etc.

The student builds on thought processes from previous discussions and does not simply agree or disagree with previous statements.

The student leads group discussions when appropriate.

Not everything that is important will necessarily be covered in class; therefore, material from the required readings may appear on quizzes even though it was not explicitly covered in class. The instructor in this course welcomes and encourages class participation. Please feel free to ask pertinent questions in class. Also, be prepared to answer questions or otherwise comment in class and to lead group discussions when called upon by the instructor. Short in-class assignments may occasionally be utilized to further develop your thinking skills and to elicit your feedback about the class.

Assignments are due on the date designated, at the beginning of class. **If any assignment is turned in after the due date, the student may be penalized 10% of the point value for the assignment for each day that the assignment is late. In other words, assignments turned in after 10:30am on the due date are considered late and are subject to a 10% penalty.** References must be turned in with all papers, except as noted.

Please contact the instructor prior to the due date if extenuating circumstances will prevent you from turning in an assignment on time! If extenuating circumstances arise, especially if it means you will not be in class for a quiz or discussion or are unable to turn in an assignment on time, contact the instructor **BEFORE** the due date. While each case will be handled on an individual basis, in general, if you do not take responsibility for the situation, you will not be allowed to make up the assignment or quiz.

If any assignment contains information that is false or unsubstantiated, you **WILL** fail the assignment, and you may fail the course. As a health care professional, if you disseminate information that is wrong you could gravely impact the care that a patient receives.

All students must practice academic honesty. Academic misconduct is subject to an academic penalty by the course instructor and/or a disciplinary sanction by the University. All students need to be familiar with the Student Conduct Code. The Code is available for review online at <http://ordway.umt.edu/SA/VP/SA/index.cfm/name/StudentConductCode>.

Plagiarism is a form of academic dishonesty. This is using anyone else's work as your own. This includes another student's, another author's, etc. If you plagiarize anyone else's work this class, you **WILL** fail the assignment, and you may fail the course.

What is plagiarism? While everyone has their own concept of this, the guide that will be used for this class is either copying more than six consecutive words verbatim or using more than two sentences in an assignment that reflect the original author's phrasing, sentence structure, and meaning rather than the student's own thoughts, with or without proper citation.

Grading Policies

Grades for the course are based on the following percentage scale:

90-100%	A
80-89%	B
70-79%	C
65-69%	D
< 65%	F

Your grade will be based on 2 major papers, 1 minor paper, 1 assignment, 6 quizzes, participation in journal club discussions, in-class assignments, and 1 presentation. The relative percentage weight is as follows:

DI Consult (paper #3)	25%
Drug Efficacy Review (paper #2)	25%
In-Class Assignments/Participation	15%

Consult Presentation	10%
Article Summary (paper #1)	10%
Quizzes (6)	10%
Resource Assignment	5%

You must achieve a 70% score on each major paper assignment (Drug Information Consult and Drug Efficacy Review) in order to pass this course.

All grades will be posted on Blackboard.

Learning Objectives:

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

1. Compare and contrast online resources to printed resources.
2. Differentiate between primary, secondary and tertiary literature.
3. Given a drug information request:
 - a. Classify the request for the purposes of obtaining a better history and identifying useful references.
 - b. Outline a search strategy.
 - c. Using appropriate references collect the necessary information.
 - d. Evaluate the information obtained.
 - e. Formulate and communicate a response, both verbally and in writing.
4. Given an article from the primary literature:
 - a. Describe the type of study design used.
 - b. Describe the advantages and disadvantages of this type of study.
 - c. Identify flaws in the study design.
 - d. Define the statistical terms used in the study.
 - e. Assess if the conclusions of the study are appropriate based on the information presented in the study.
5. Discuss and prepare a questionnaire and database.
7. Describe evidence-based medicine.
8. Summarize a clinical study.
9. Research, prepare and present a formal drug information consult.
10. Research and prepare an efficacy review of a drug.

TOPIC SCHEDULE:

Date	Topic	Room	Instructor	Quizzes, Assignment Due Dates
M 8-25	Course Overview, Plagiarism and Paraphrasing	SB 336	Brown	---
W 8-27	Course Overview, Plagiarism and Paraphrasing	SB 336	Brown	---
F 8-29	Drug Information Questions and Resources	SB 114	Brown	---
M 9-1	LABOR DAY HOLIDAY– NO CLASS	---	---	---
W 9-3	No Class	---	---	---
F 9-5	Study Methodology, Validity, and Bias	SB 114	Brown	Drug & Consult Subject Selection Due
M 9-8	Writing scientific papers	SB 336		---
W 9-10	Writing scientific papers	SB 336		---
F 9-12	Study Design and Introduction to Statistics Quiz #1	SB 114		Quiz #1 Resource Assignment Due
M 9-15	Study Design	SB 336	Brown	
W 9-17	Study Design	SB 336	Brown	---
F 9-19	Statistics	SB 114	Noonan	Paper #1 Due
M 9-22	Statistics	SB 336	Noonan	---
W 9-24	Statistics	SB 336	Noonan	---
F 9-26	Risk and Epidemiology Quiz #2	SB 114	Brown	Quiz #2
M 9-29	Risk/NNT	SB 336	Brown	---
W 10-1	Risk/NNT	SB 336	Brown	---

Date	Topic	Room	Instructor	Quizzes, Assignment Due Dates
F 10-3	Evaluating Journal Articles	SB 114	Brown	---
M 10-6	Journal Club	SB 336	Brown	---
W 10-8	Journal Club	SB 336	Brown	---
F 10-10	Meta-Analyses, Reviews, and Non-Experimental Studies Quiz #3	SB 114	Brown	Paper #2 Due
M 10-13	Journal Club	SB 336	Brown	---
W 10-15	Journal Club	SB 336	Brown	---
F 10-17	Survey Methods	SB 114	Carter	Paper #2 Handed Back
M 10-20	Survey Methods	SB 214	Carter	---
W 10-22	Survey Methods	SB 214	Carter	---
F 10-24	Survey Methods Quiz #4	SB 114	Carter	Quiz #4 Paper #2 Revisions Due
M 10-27	Survey Methods	SB 214	Carter	---
W 10-29	Survey Methods	SB 214	Carter	---
F 10-31	Evidence-Based Medicine	SB 114	Brown	
M 11-3	Journal Club	SB 336	Brown	---
W 11-5	Journal Club	SB 336	Brown	---
F 11-7	Clinical Guidelines/Formularies Quiz #5	SB 114	Brown	Quiz #5
M 11-10	Guidelines	SB 336	Brown	---
W 11-12	Guidelines	SB 336	Brown	---
F 11-14	Peer Review	SB 114	Brown	Paper #3 Due

Date	Topic	Room	Instructor	Quizzes, Assignment Due Dates
M 11-17	Consult Presentations	SB 336	Brown	---
W 11-19	Consult Presentations	SB 336	Brown	---
F 11-21	Consult Presentations Quiz #6	SB 114	Brown	Quiz #6
M 11-24	No Class	---	---	---
W 11-26	THANKSGIVING HOLIDAY – NO CLASS	---	---	---
F 11-28	THANKSGIVING HOLIDAY – NO CLASS	---	---	---
M 12-1	Consult Presentations	SB 336	Brown	---
W 12-3	Consult Presentations	SB 336	Brown	---
F 12-5	Consult Presentations	SB 114	Brown	---
12-9	FINAL EXAM PERIOD: 10:10 AM-12:10 PM Consult Presentations	SB 114	Brown	---

Instructions for Paper #1
or
How to Summarize a Research Article

Objective: Practice reading and summarizing research articles

This assignment is a one to two page summary of a research article. It must include an introduction of the topic and research question, a summary of the study, and a conclusion of the information presented in the article. An article summary is **NOT** a rephrasing of the abstract! Please see the attached example.

The first one or two sentences should summarize the information on the disease and the treatment from the introduction/background section of the article. The main body of the paper will summarize the study methods and results. The study conclusion and any limitations noted will be included in the Summary section at the end of the paper.

Please see the handout Evaluation Points for Summarizing Drug Studies for a list of the information to include in the study summary and for instructions on the organization of the summary.

The citation for the article must be included at the end of the paper and follow the CHPBS Basic Referencing Format for 2008-2009 (available in your student handbook, on the DIS website at <http://www.health.umt.edu/DIS/>, and on Blackboard).

Reminder: All papers MUST follow the PHAR 550 Style Guide (available on Blackboard).

DUE DATE: FRIDAY, SEPTEMBER 19

**Instructions for Paper #2
or
How to Write the Efficacy Section of a Drug Monograph**

Objective: Summarize drug efficacy information from multiple sources

This assignment is a 4-6 page paper presenting efficacy information on a new drug. The format is similar to Paper #1 except multiple articles (MINIMUM OF 2 CLINICAL TRIALS) will be summarized. This paper will include an introduction of the topic, a summary of each study, a conclusion, and a reference list. Because you will be using multiple sources, you **MUST** cite your sources for this paper.

You must sign up for a drug on the list posted on my office door (Skaggs 217 inside the DIS/LSS) by Friday, September 5. Please note the indication listed with each drug. Your paper MUST be on that indication!

The introduction should include a summary of the information on the disease and the treatment from the introduction/background sections of the articles.

Please see the handout Evaluation Points for Summarizing Drug Studies for a list of the information to include in the study summary and for instructions on the organization of the summary. Each study should be described separately.

The conclusion should compare the studies to previous research and mention any limitations addressed by the authors or that you have identified.

The citations for each article must be listed at the end of the paper in the order that they are cited in the text and follow the CHPBS Basic Referencing Format for 2008-2009 (available in your student handbook, on the DIS website at <http://www.health.umt.edu/DIS/>, and on Blackboard).

Reminder: All papers MUST follow the PHAR 550 Style Guide (available on Blackboard).

Grading Policy for Paper #2: Paper #2 will be graded and returned within one week of the due date. Students will have the option to revise the paper for a higher grade. If the paper is revised, the final grade will be the average of the grade for the original paper and the grade for the revised paper. For example, if the paper originally received a 72% and the revised paper receives a 95%, the final grade for the paper will be 83.5%.

DUE DATE: FRIDAY, OCTOBER 10
HANDED BACK: FRIDAY, OCTOBER 17
REVISED PAPERS DUE: FRIDAY, OCTOBER 24

Instructions for Paper #3
or
How to Respond to a Drug Information Consult

Objective: Write a formal response to a drug information question utilizing multiple sources

This assignment is a 6-8 page paper responding to a drug information question. This paper will include background on the topic, a summary of primary sources (MINIMUM 2 PRIMARY SOURCES), a conclusion, and a reference list. **You must sign up for a question on the list posted on my office door (Skaggs 217 inside the DIS/LSS) by Friday, September 5.**

Use the memo format below, addressing the response to me and using the assignment due date for the date. Summarize the study data as you have for your other papers, following the handout Evaluation Points for Summarizing Drug Studies. The citations for each article **MUST** be listed at the end of the paper in the order that they are cited in the text and follow the CHPBS Basic Referencing Format for 2008-2009 (available in your student handbook, on the DIS website at <http://www.health.umt.edu/DIS/>, and on Blackboard).

Reminder: All papers **MUST** follow the PHAR 550 Style Guide (available on Blackboard).

DUE DATE: FRIDAY, NOVEMBER 14

Memorandum
THE UNIVERSITY OF MONTANA
COLLEGE OF HEALTH PROFESSIONS AND BIOMEDICAL SCIENCES
DRUG INFORMATION SERVICE

TO: Requestor's name, title (e.g., Sherrill Brown, Pharmacist)
FROM: Your name and title (e.g., Jane Doe, Pharmacy Student)
DATE: Use due date of the assignment

QUESTION: A clear statement of the request in your own words

BACKGROUND INFORMATION/INTRODUCTION Provide necessary pertinent background information.

CLINICAL DATA Cite primary literature to support your conclusions; books and review articles may be cited for general information, but all data should be referenced to the original articles when appropriate. Data should be in the following order: animal data then human data, in order from oldest to newest.

CONCLUSION or RESPONSE Answer the question directly and consistently with the information presented in the section (s) above. A clear concise statement of your response must be provided, together with specific recommendations based on the results of the literature search.

REFERENCES Reference your data in order of use and according to the standard referencing format provided for this course.