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PHAR 513.01: Pharmacoeconomics and Outcomes Research

Jean T. Carter

University of Montana - Missoula, jean.carter@umontana.edu

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PHAR 513

Pharmacoeconomics & Outcomes Research

Spring 2014

Lecturer/Course Coordinator:

Jean Carter, Pharm.D., Ph.D.

Office: SB 333a

Phone: 243-5780

Email: jean.carter@umontana.edu

Drop-In Office Hours: Mon and Thurs 1-3pm; other times by appointment

Course time/location: Wednesdays and Friday mornings from 8:10-9:30am in SB 117

Required Textbook / Readings:

Essentials of Pharmacoeconomics (2nd Ed) by Karen Rascati. Wolters Kluwer/Lippincott Williams & Wilkins (2009) ISBN-10: 0-7817-6544-7 (First edition is okay this year too.)

Pharmacotherapy: A Pathophysiologic Approach (8th Ed) Chapters 1 and 2 These two chapters are not in the textbook, but are available online at URL:

<http://www.accesspharmacy.com/resourceToc.aspx?resourceID=669>

Required articles and notes will be posted on Moodle, or available for use in the Drug Information Services Learning Support Service (DIS/LSS) depending on copyright constraints.

Moodle Course Supplement: Students are responsible for checking their university email accounts and Moodle for information and materials.

Course Requirements:

Quizzes	(10%)	7 of 10 quizzes (Will drop three with lowest scores)
Exams (including final exam)	(50%)	3 of 4 exams (Will drop one with lowest score)
Assignments	(30%)	8 assignments (Must turn all in for pass course)
In-class Participation	(10%)	attendance, participation in activities, on time arrival

Testing

Quizzes will cover assigned readings, prior lectures and glossary terms. The quizzes and lectures will incorporate the **i-clicker** audience response system so bring your device to each class. To receive credit for a quiz, you must use your i-clicker (*i.e.*, no paper answer sheets). Three exams during the semester will cover materials from lectures, assigned readings, and self-study assignments. Examinations will have multiple choice, calculations, and short essay answer formats. Simple calculations will be included on exams, so bring a **calculator** (no other electronic device will be allowed). Examinations will be administered in class during the allotted class time. Each quiz will be worth 10pts and each exam will be worth 100 pts; points for assignments will vary. *If you have over 80% on each of your first three exams, you may request an exemption from the final exam.*

Expectations for Academic Honesty at UM:

"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://www.umt.edu/SA/VPSA/index.cfm/page/1321>

Assignments

Students may consult one another when working on their assignments, but need to prepare their written responses independently to ensure better learning. Copied or similarly worded responses may result in a loss of credit for all students involved – this is at the discretion of the instructor. For assignments with a designated due date, late assignments will receive reduced or no credit. Once assignment grades are posted on Moodle, late assignments will no longer be accepted. Please keep a copy of your electronically submitted assignment until you see a grade posted on Moodle just in case something gets lost! Assignments will be designed to provide practice with concepts and calculations. Topics may include article critiques, decision analysis, gathering and analyzing health status data for various populations, and program evaluation. Moodle will be used for most assignments but there will be at least one paper-based assignment.

Grading Scale: Grades will be based on weighted mean percentages earned during the semester. A plus/minus grading scale will be used for this course. Final percentages will be rounded down if less than half a percentage point; rounded up if half or more of a percentage point. All assignments must be turned in to receive a passing grade for this course.

GRADE	Percentage Total (%)	GP value
A	≥94%	4.0
A-	90-93%	3.7
B+	87-89%	3.3
B	83-86%	3.0
B-	80-82%	2.7
C+	77-79%	2.3
C	73-76%	2.0
C-	70-72%	1.7
D+	67-69%	1.3
D	63-66%	1.0
D-	60-62%	0.7
F	<60%	0

Expectations for Student Behavior:

You will be expected to arrive for class on time, be prepared for classroom discussions, and respect your classmates and lecturers by not talking, texting or causing other disruptions during class. Children should not be brought to class. PLEASE turn-off all cell-phones prior to entering class! No laptop computers or other electronic devices during discussions and group work unless told to use them. Excessive or repeated behavior that disrupts the class may result in removal or dismissal of the student from the course.

On exam days, students will need pens or pencils and a calculator (sorry, no cell phones or other electronic devices). Students may not share resources during the exam; this includes calculators. No one can leave the room without turning in their exam; this includes bathroom breaks so limit beverage intake accordingly. No food allowed, but a beverage is okay.

Early exams will not be allowed for any reason. Work schedules and vacations are not legitimate excuses for missing an exam. This applies to assignment due dates and quizzes as well. If the illness or family emergency interferes with taking an exam, notify the instructor as soon as the situation allows you to do so. If your emergency situation will cause you to miss more than one class, contact the Assistant Dean for Student Affairs, Lori Morin, and she will let all instructors know you will be absent.

Purpose of the Course:

The purpose of this course is to provide the pharmacy student with an opportunity to learn the basic concepts, assumptions, terminology, and methods associated with pharmacoeconomics and health-related outcomes research. Students completing this course should be able to identify different types of pharmacoeconomic evaluations, critically analyze pharmacoeconomic and outcomes research articles or reports, and apply the knowledge to commonly occurring health care problems and policy from the perspective of a medical decision maker. Emphasis is placed on the use of knowledge in a variety of practice environments.

Course Learning Objectives:

Upon completing this course, students should be able to do the following:

1. Given an article or report containing pharmacoeconomic or health-related outcomes information, explain the meaning of pharmacoeconomic and health-related outcomes terms used by the author(s).
2. Given a specific pharmacy service or disease state, identify the important characteristics that should be considered when conducting a pharmacoeconomic analysis for the service or medication within the disease state.
3. Given an article or report containing pharmacoeconomic information:
 - a. Identify the type of analysis used by identifying the presence or absence of essential characteristics of a study design.
 - b. Identify the study assumptions and the implications of those assumptions.
 - c. Evaluate the appropriateness of the study design for answering the research question.
 - d. Compare and contrast the study or report to other related studies.
 - e. Evaluate the applicability of the study results to a specific clinical practice and practice site.
4. Given the results of an analysis, interpret the information and prepare an appropriate conclusion.
5. Identify and use proper HRQOL instruments to evaluate patients and clinical services.
6. Given data for cost or outcomes data, conduct basic analyses and prepare recommendations based on findings.

For current information about how this program contributes to stated program outcomes for students go to the School's website: <http://pharmacy.health.umt.edu/documents-and-links>

Schedule of Lectures, Quizzes, Exams, and Assignments

Date	Lecture Topic	Readings & Activities	Rascati Chapter	i-clicker Quizzes	Assignment Due Dates
Jan 29 W	Introduction to the Course Topic overview	Syllabus review			
Jan 31 F	Key Economic Concepts	Schafermeyer (2000a, 2000b) What_is_Health_econ (2009)		i-clicker check quiz	
Feb 5 W	Insurance Theory and Models of Care	Fenter (2008)		QUIZ 1 A-B	
Feb 7 F	Pharmacoeconomics & Outcomes Overview	DiPiro Chap 1 Neuhauser & Lewicki (1975)	Chap 1		
Feb 12 W	Defining & Measuring Costs		Chap 2	QUIZ 2 C	
Feb 14 F	Cost-of Illness Critiquing research articles	Johnson & Bootman (1995) Drummond checklist	Chap 3		1. Costs
Feb 19 W	Exam 1 (100pts) – covers material through Feb 14 lecture				
Feb 21 F	Cost Minimization Analysis Cost-Effectiveness Analysis	Lee Chapter (opt)	Chap 4&5		2. Critique
Feb 26 W	Incremental analysis			QUIZ 3 D	
Feb 28 F	Cost Utility Analysis	Pathak Chapter (opt)	Chap 6		3. CEA
Mar 5 W	CEA / CUA article critique	Phillips (2000) Finckh (2009)		QUIZ 4 E-H	
Mar 7 F	Cost Benefit Analysis	Cox Chapter (opt)	Chap 7		4. CUA
Mar 12 W	CBA article critique	Simeon (2009)		QUIZ 5 I-L	
Mar 14 F	Full Analysis methods	In-class activity			5. CBA
Mar 19 W	Exam 2 (100pts) – comprehensive through Mar 14 lecture				
Mar 21 F	SRQOL	IPPE assignment time			Begin HRQOL IPPE Assignment
Mar 26 W	Defining Outcomes (QALYs / HRQOL)	DiPiro Chap 2	Chap 8	QUIZ 6 M-O	
Mar 28 F	Multi-attribute systems	In-class activity			6. HRQOL Assignment I
Apr 2 / 4	SPRING BREAK WEEK				
Apr 9 W	Decision analysis	Basskin (1997) (opt)	Chap 9	QUIZ 7 P-S	
Apr 11 F	Decision Analysis Sensitivity Analysis	Vogenberg Chapter			
Apr 16 W	Markov Modeling	Greving (2010)	Chap 10	QUIZ 8 T-Z	7. Decision Analysis
Apr 18 F	Retrospective databases and Prospective measures		Chap 11		
Apr 23 W	Exam 3 (100pts) – comprehensive through April 18				
Apr 25 F	Applied Informatics	Guest Speaker: Logan Tinson			
Apr 30 W	Justifying a pharmacy service	Chisholm (2010)	Chap 12	QUIZ 9 A-Z	
May 2 F	International perspective	PHARMAC (2007) (opt)	Chap 13		8. HRQOL Forms and analysis due
May 7 W	Comparative Effectiveness Research & Quality Initiatives	Evaluations	Chap 14	QUIZ 10	
May 9 F	Final Review				
May 14 W	FINAL EXAM 10:10-12noon (SB 117) - comprehensive				