

## PHRD 525 Pharmacoeconomics and Outcomes

### I. Contact Information

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### II. Course Prerequisites

Prerequisite: Successful completion of PHRD 477 Health Care Systems and PHRD 506 Professional Pharmacy Management

### III. Course Description

Introduction to the principles and tools of pharmacoeconomics and outcomes assessment that are commonly used to study the impact of pharmaceutical care services on the health and health care of a patient or community

### IV. Curricular Objectives and Outcomes

Upon completion of this course, the student should be able to:

***Outcome: Appropriately Manage and Use Resources of the Health Care System.***

**Competency: A. Plan, organize, direct, and control pharmaceutical care systems and human, material, and financial resources utilizing management theories and practices**

**Objectives:**

- Discuss methods to identify, evaluate, correct, and prevent errors in the distribution systems

**Competency: B. Apply patient and population specific data, quality assurance strategies, and research processes to assure that medication use systems minimize drug misadventures and optimize patient outcomes**

**Objectives:**

- Describe methods to evaluate patient outcomes
- Describe different surveillance systems for drug misadventures
- Compare various quality assurance strategies and choose the most appropriate for evaluating the system
- Distinguish between patient and population specific data
- Collect, analyze, and interpret patient and population specific data
- Make appropriate recommendations based on data interpretation

**Competency: C. Apply patient and population specific data, quality assurance strategies, and research processes to develop drug use and health policy to manage pharmacy benefits**

**Objectives:**

- Describe the health care system and its relationship to delivery of pharmaceutical care
- Identify the role or potential role of the pharmacist in health care policy development
- Describe the role of the pharmacy and therapeutics committee
- Describe the process of formulary development and management
- Apply pharmacoeconomic principles/theory to drug selection/formulary inclusion

**Competency: D. Ensure efficient, cost-effective utilization of human, physical, medical, informational, and technological resources in patient care**

**Objectives:**

- Evaluate and determine the cost/benefit ratio of new technology

**Competency: E: Identify, Interpret, and Evaluate Pharmacoeconomic Literature Needed for the Provision of Drug Information and Pharmaceutical Care**

Objectives:

- a. Define the question that needs to be answered
- b. Distinguish among lay, professional, and scientific literature
- c. Identify appropriate literature search engines for lay, professional, and scientific literature
- d. Explain the method to construct an appropriate search strategy for various literature types
- e. Evaluate literature source validity
- f. Explain methods for systematically evaluating literature
- g. Evaluate the appropriateness of research methodologies and statistical methods
- h. Draw appropriate conclusions from research results
- i. Assess the potential impact and implication of published information on current practices

**V. Course Specific Objectives and Outcomes**

1. Identify and define terminology and basic components of health economics, outcomes research, and pharmacoeconomics.
2. Classify costs into direct, indirect, intangible, incremental, and opportunity based on the perspective taken.
3. Discuss the identification and measurement of appropriate outcomes in health economics research.
4. Distinguish between population-based and individual level measures of health.
5. Understand the basic concepts underlying the measurement of health-related quality of life.
6. Discuss uses of health status assessments with other health care professionals.
7. Be proficient in the evaluation of pharmacoeconomic literature including appropriate identification of study weaknesses and potential biases.

**VI. Course Topics**

Economic, Clinical, Humanistic Outcomes (ECHO) model, Donabedian model, basic concepts in pharmacoeconomics (determination of costs, consequences, perspectives, terminology), cost of illness, cost-minimization analysis (CMA), cost-benefit analysis (CBA), cost-effectiveness analysis (CEA), cost-utility analysis (CUA), techniques for analysis (discounting, sensitivity analysis, decision analysis, incremental cost analysis), applied pharmacoeconomics (formulary management, drug use policies, efficient use of available technologies), humanistic outcomes, quality of life (general and disease-specific), psychometric theory and considerations, patient-reported health status, patient satisfaction, pharmacoepidemiology and pharmacovigilance

**VII. Instructional Methods and Activities**

Instructional methods may include, but are not limited to: traditional lectures, distance learning, in-class discussion, small group discussion, problem-based learning, group projects/presentations, individual projects/presentations, lectures/presentations posted on Moodle, independent study, assignments/exercises completed in or out of class, wiki page development, and chat room participation.

Active participation in class and group activities is required. For this course, students are expected to shed the traditional role of passive receptor of knowledge being doled out by the instructor and the textbook. Instead, the student should attempt to obtain knowledge, develop skills and then use them meaningfully.

For group in-class assignments, the student is expected to follow the FSLC format:

- *Formulate an answer*

- Share your answer
- Listen carefully to others' answers
- Create a new answer that is superior to your individual answers

### VIII. Evaluation and Grade Assignment

- In general, *memorization and regurgitation of information will NOT be emphasized*. Rather, evaluation will largely be based on assessing your understanding of concepts and principles, your ability to apply this understanding in intelligent and reasonable ways, and higher order abilities: analysis, evaluation, and synthesis.
- Quizzes may be given, announced or unannounced, as deemed necessary by each faculty member. Quizzes will be added to the total points available for the course.
- Exam dates are scheduled in the course syllabus and will only be changed in the event of University closure.
- Exams may be multiple choice, fill in the blank, short-answer, case or scenario based discussion, essay, or any other format deemed necessary by the lecturers and course coordinator. Exams may be either a pencil and paper format or an online format through Moodle.
- Information acquired from previous lectures in the course and from other courses in the professional pharmacy curriculum may be needed in preparing for examinations.
- Students wishing to review their exams with the course coordinator must do so *within 2 weeks* of the date the test is taken.

#### Grading Scale:

90 – 100%	A
80 – 89%	B
70 - 79%	C
60 – 69%	D
<60%	F

#### Semester Points:

In-class assignments (4 @ 50 pts)	200 points
Exam I	100 points
Exam II	100 points
Final exam	<u>100 points</u> 500 points

*Undergraduate mid-term grades will be posted on-line for students to view via Arrow. Mid-term grades indicate a student's status at mid-semester only and do not indicate the final performance outcome of a student.*

### IX. Class Policies and Procedures

At a minimum, all policies stated in the current ULM *Student Policy Manual & Organizational Handbook* should be followed (see <http://www.ulm.edu/studentpolicy/>). Additional class policies include:

#### A. Textbook(s) and Materials:

1. No required textbook.
2. Reading material may be posted on Moodle by course faculty or the student may be instructed to use the Internet to search for information.

**B. Attendance Policy:**

Class attendance is mandatory in all pharmacy courses; therefore, attendance will be taken for all class meetings. Students reported for accumulating more than three **unexcused** absences in a course during an academic semester will be administratively dropped from the course with a “W” grade. In accordance with College of Pharmacy policy and procedure, a grade of “W” will be counted as an “F” grade with respect to academic standards.

Any student who is not present for at least 75% of the scheduled class sessions (excused or unexcused) in any course may receive a grade of W if this condition occurs prior to the last day to drop a course or a grade of F after that date.

Any University-related activity requiring an absence from class will count as an absence when determining if a student has attended 75% of class meetings.

In addition, no student should enter class after the lecture has begun. Students unable to attend class on time will be considered absent for that day.

**C. Make-up Policy:**

Each student is expected to attend each exam at the date and time specified. If a student cannot attend an exam due to valid University excuse, he/she must speak directly with the course coordinator, as soon as possible. The course coordinator must be notified prior to the examination if a student misses the exam, if possible. Failure to attend a scheduled make-up exam will result in a zero (0) grade for that exam. Make-up exams will be prepared at the same or higher level than the original exam. The format of the make-up exam may be written or oral. Students missing an exam due to a University approved excuse will take the make-up exam during the week of finals, or as determined by the course coordinator.

**D. Academic Integrity:**

Faculty and students must observe the ULM published policy on Academic Dishonesty (see Page 4 in ULM *Student Policy Manual* - <http://www.ulm.edu/studentpolicy/>).

Students are expected to work independently on examinations and assignments unless it is specifically described by the instructors as a group assignment. Any use of resources other than your own recollection and reasoning ability on an examination is cheating. Inappropriate use of electronic or wireless technology (i.e., cell phones, PDAs, or pagers) during an examination is considered academic misconduct. Having in your possession or the use of any examination question previously used in this course is considered cheating. Any attempt to reconstruct an examination after it is taken with the intent to share with other students is considered cheating. Sharing information about an examination with any other student who has not taken the exam is considered cheating. Any student suspected of dishonesty will receive a zero (no credit) for that assignment or examination, and will be reported to the College of Pharmacy Dean’s Office with subsequent actions as per University regulations and policy.

**E. Course Evaluation Policy:**

The Dean of Assessment or a representative from her office will conduct an in-class assessment of the course and the instructors. Additionally, there will be an opportunity to provide anonymous, specific comments regarding the course at the end of the semester. No faculty members will be given access to the results until after final grades for the course are due.

**F. Student Services:**

Information concerning student services in the College of Pharmacy can be found in the College of Pharmacy Student Handbook. In particular, pay special attention to the College's technical standards and policies concerning students with special needs.

Information about ULM student services, such as Student Success Center (<http://ulm.edu/cass/>), Counseling Center (<http://ulm.edu/counselingcenter/>), Special Needs (<http://ulm.edu/counselingcenter/special.htm>) and Student Health Services, is available at the following Student Services web site <http://ulm.edu/studentaffairs/>.

**G. Emergency Procedures:**

Please review the emergency escape plan in the classrooms and hallways of the Bienville building. Move quickly and orderly to the appropriate stairwell and exit the building. The meeting place for this class will be the far end of the north parking lot between Bienville and Broadmoor Blvd. Under no circumstances is the elevator to be used for emergency evacuation. Any student needing assistance should notify the professor immediately.

**H. Discipline/Course Specific Policies:**

Not Applicable

**X. Tentative Course Schedule**

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