



Ernest Mario School  
of Pharmacy

## Principles of Pharmaceutical Economics

30:725:340

Spring 2015

### A. Time and Location

Monday and Wednesday 3:20-4:40  
Hill Center, Room 114

### B. Instructor

Michael Toscani, Pharm.D.  
Research Professor of Pharmacy  
Fellowship Director  
Rutgers Institute of Pharmaceutical Fellowships  
160 Frelinghuysen Road  
Piscataway, NJ 08854-8020  
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President, Clinical Solutionz  
[Mt1057@aol.com](mailto:Mt1057@aol.com)

See Appendix A- List of Lecturers

\*\*Other Guest Lecturers from the Healthcare Industry may be invited \*\*

### C. Office Hours

By appointment – please email Janet Lupo at [lupo@pharmacy.rutgers.edu](mailto:lupo@pharmacy.rutgers.edu)

### F. Course Description

Provides an overview of the delivery and funding of healthcare in the United States with focus on pharmaceuticals, introduces concepts relevant to the design, conduct, and context of pharmaco-economic analyses as a tool for informing healthcare decision-making and value assessment.

### G. Course Objectives

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

1. List the stakeholders who influence the delivery of healthcare at the national, state, and local levels in the US
2. Understand the financing and delivery of healthcare, in the US through public and private programs, with focus on pharmaceuticals

3. Demonstrate an understanding of the drug development process and the different types of pharmacoeconomic analysis such as: cost of illness, cost effectiveness, cost benefit, and cost utility
4. Understand the relevance of perspective in conducting pharmacoeconomic analyses
5. Identify circumstances in which a pharmacoeconomic analysis would inform value based decision making regarding drug products

## **H. Student Evaluation**

### **1. Midterm and Final Examinations**

The Midterm and Final Examinations will consist of multiple choice, true/false, and matching questions. Exams will be focused on the interpretation of concepts discussed in class. The final exam is cumulative. The Instructor may conduct a short review in class, approximately one week before each exam.

### **2. Quizzes**

There will be two 10-20 question quizzes as noted on the class schedule. The quizzes will consist of multiple choice, true/false, and matching questions

## **I. Handouts**

Lecture handouts may be provided at the beginning of each class or will be posted on sakai.

## **J. Class Attendance Policy**

Attendance will not be taken but is very important to grasping course concepts and participating in discussions and simulations.

\*\*\* Tentative\*\*\* Attendance may be taken randomly for extra credit throughout the course

## **K. Grading**

Midterm examination	40 %
Quizzes (2 at 10% each)	20 %
Final examination	40 %

Final grades will be issued based on the distribution of scores at the end of the class.

\*\*\*\*If students should require additional help throughout the semester, they may contact the Pharmacy Practice and Administration Tutoring service by emailing RUPharmTutor@gmail.com. Students will be given access to the Tutoring Sakai website in order to arrange sessions with Tutors.\*\*\*\*

**L. Recommended Text**

Pizzi LT and Lofland JL (eds). Economic Evaluation in U.S. Healthcare: Principles and Applications. Sudbury, MA: Jones and Bartlett, 2006.

**M. Additional Course Policies**

1. Make-up work policies

In cases of illness or personal crises, the Instructor may grant permission to make up missed tests or quizzes and/or request that the student complete a unique make-up assignment. This will be determined on a case-by-case basis upon consultation with the Instructor.

2. Extra credit

Extra credit assignments will not be allowed for this course.

**N. Compliance with University Policies**

1. This course will adhere to the Code of Conduct and Academic Policies and Procedures (Grading System, Academic Integrity, Confidentiality of Student Records, Disability Accommodations, Add/Drop/Withdrawal, Grade Appeal Protocol, Registration, etc.) as contained in the Rutgers University 2009-2010 Student Handbook
2. Registration Status: Students are responsible for the status of their registration at all times. The Instructor will advise that a change in status has occurred when so informed by the College/University. Only students who are properly registered and who appear on the official class roster can remain in this course and earn credit and receive a grade.
2. Class cancellations: Cancellations due to weather or other emergency will be announced on [sakai.rutgers.edu](http://sakai.rutgers.edu)

**O. Lecture Schedule (\*Schedule and topics are subject to change based on availability of Instructors and guest lecturers\*)**

<u>DAY/DATE</u>		<u>TOPIC</u>	<u>LECTURER</u>
Wed	1/21	Course overview and Intro to pharmacoeconomics	Michael Toscani
Mon	1/26	Overview of Drug development and delivery	Michael Toscani
Wed	1/28	Medical care delivery and flow of funds	Laura Pizzi
Mon	2/2	Pharmacy delivery and flow of funds	Michael Toscani
Wed	2/4	Healthcare Reform and costing methods	Michael Toscani
Mon	2/9	Cost of illness studies I	Michael Toscani
Wed	2/11	<b>QUIZ 1</b> Burden of illness studies	Michael Toscani
Mon	2/16	QOL I	Michael Toscani
Wed	2/18	QOL II	Michael Toscani
Mon	2/23	Cost effectiveness studies I	Michael Toscani
Wed	2/25	Cost effectiveness studies II	Laura Pizzi
Mon	3/2	Utility measurement I	Kathleen Foley
Wed	3/4	Utility measurement II	
Mon	3/9	Economic modeling I	Laura Pizzi
<b>Wed</b>	<b>3/11</b>	<b>MIDTERM EXAM</b>	
Mon	3/16	SPRING BREAK	
Wed	3/18	SPRING BREAK	
Mon	3/23	Economic Modeling II (Economics of Healthcare)	Michael Toscani
Wed	3/25	Application of economic evaluation to non-drug treatments	Michael Toscani
Mon	3/30	Health-Related Productivity	
Wed	4/1	Sensitivity analyses	Kathleen Foley
Mon	4/6	Using real-world data in PE analyses	Concetta Crivera
Wed	4/8	Conducting PE studies within clinical trials	Laura Pizzi
Mon	4/13	<b>QUIZ 2</b> PE applications to Oncology drugs	Kathleen Foley
Wed	4/15	PE applications to aging interventions	Laura Pizzi
Mon	4/20	Sociopolitical context of PE	Kathleen Foley
Wed	4/22	Applications of PE by health insurers	Joe Couto
Mon	4/27	PE: International Perspective	Vittorio Maio (TBD)
Wed	4/29	Course wrap up	Michael Toscani
Mon	5/4	<b>Final Exam</b>	<b>Michael Toscani</b>

## **Appendix A**

### **Lecturers**

Laura T. Pizzi, PharmD, MPH  
Associate Professor and Director, Doris N. Grandon Center for Health Economics and Outcomes Research  
Jefferson School of Population Health  
1015 Walnut Street – Suite 319  
Philadelphia, PA 19107  
Direct phone: (215) 955-1159  
Email: [laura.pizzi@jefferson.edu](mailto:laura.pizzi@jefferson.edu)

Kathleen Foley, PhD  
Project Director  
Doris N. Grandon Center for Health Economics and Outcomes Research  
Jefferson School of Population Health  
1015 Walnut Street – Suite 319  
Philadelphia, PA 19107  
Direct phone: (215) 503-6781  
Email: [kathleen.foley@thomsonreuters.com](mailto:kathleen.foley@thomsonreuters.com)

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