

**University of Florida**  
**College of Public Health & Health Professions Syllabus**  
**HSA6436: Health Economics (3 credit hours)**  
Spring: 2018  
Delivery Format: On-Campus

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**Instructor Name: Ashish A. Deshmukh, PhD, MPH**  
**Course Hours and Location: Tuesday 9:35-11:30 & Thursday 10:40-11:30 in G210**  
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**Office Hours: By appointment**  
**Teaching Assistant: Young-Rock Hong, MPH**  
**Preferred Course Communications (e.g. email, office phone): email**

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### **Prerequisites**

None

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## **PURPOSE AND OUTCOME**

### **Course Overview**

This course is intended to give you an understanding of and appreciation for the traditional issues in health economics. The topics to be covered are: the role of prices, the production of health, the demand for health care, health insurance theory, the demand for health insurance, production and cost of health care in hospitals and nursing homes, , cost effectiveness analysis, equity and efficiency, role of government in the health economy. Note that this course is designed to provide you with the knowledge of fundamental principles of economic concepts and evaluation methods. This knowledge is intended to be applied in future coursework.

The course is an introduction to health economics and does not require a previous knowledge of economics. You will not be expected to know calculus.

### *Textbooks*

1. *Applied Methods of Cost-effectiveness Analysis in Health Care*. Alastair M. Gray, Philip M. Clarke, Jane L. Wolstenholme, Sarah Wordsworth; Oxford University Press
2. Santerre RE and Neun SP, *Health Economics: Theories, Insights, and Industry Studies* (6<sup>th</sup> Ed.) Thomson South-Western, 2012.

Course reading distributed by instructor

## **Relation to Program Outcomes**

### **Course Objectives and/or Goals**

Upon completion of the course, students should complete the following objectives:

1. Understand current health economics issues, their historical origins, and their development.
2. Analyze health economics problems using rudimentary tools and show examples of how these tools are used by economists to analyze specific issues.
3. Appreciate the trade-offs inherent in almost all policy solutions.
4. Recognize the shortcomings and criticisms of the various models used to analyze the key health economics issues.

### Instructional Methods

Lecture with class discussion

## DESCRIPTION OF COURSE CONTENT

### Topical Outline/Course Schedule

Week	Date(s)	Topic(s)	Readings
1	1/09	Class Begin – Welcome and introduction to the class	--
1 2 2 3	1/11 1/16 1/18 1/23	Economic Evaluation in Health Care: Overview  Methods for economic evaluation, the cost-effectiveness plane, thinking incremental not average, dominance and extended dominance, net monetary benefits, maximum acceptable incremental cost-effectiveness ratio (willingness-to-pay threshold), whose perspective (individual, healthcare payer, or societal)? Cost benefit analysis, cost, minimization analysis	Karlsson, G. and M. Johannesson (1996). "The decision rules of cost-effectiveness analysis." <i>Pharmacoeconomics</i> 9(2): 113-120.  Black, W. C. (1990). "The CE plane: a graphic representation of cost-effectiveness." <i>Med Decis Making</i> 10(3): 212-214.  Neumann PJ, Cohen JT, Weinstein MC. Updating cost-effectiveness--the curious resilience of the \$50,000-per-QALY threshold. <i>The New England journal of medicine</i> . Aug 28 2014;371(9):796-797.  O'Brien B (1995). Principles of Economic Evaluation for Health Care Programs. <i>J Rheumatol</i> 22:1399-1402  Grosse, S.D., Teutsch, S.M., & Haddix, A.C. (2007). "Lessons from Cost-Effectiveness Research for United States Public Health Policy," <i>Annual Review Public Health</i> 28:365-391.

Week	Date(s)	Topic(s)	Readings
3 4	1/25 1/30 2/1	Introduction to applications of (simple methods) of cost-effectiveness analysis  <i>Use of flat tree Methodological approach of developing decision-analytic models; decision analytic models—tree structure, order of events, estimating transition probabilities, payoffs, analyzing a decision tree, model evaluation, estimation of expected values In-class exercise on</i>	Cantor SB, Deshmukh AA, Luca NS, Nogueras-Gonzalez GM, Rajan T, Prokhorov AV. Cost-effectiveness analysis of smoking-cessation counseling training for physicians and pharmacists. <i>Addictive behaviors</i> . Jun 2015;45:79-86.  Chen A, Deshmukh AA, Richards-Kortum R, Molyneaux E, Kawaza K, Cantor SB. Cost-effectiveness of a neonatal bubble CPAP device in Malawi. 2014. <i>BMC Pediatrics</i> .  O'Brien, B. J., S. J. Connolly, et al. (2001). "Cost-effectiveness of the implantable cardioverter-defibrillator: results from the Canadian Implantable Defibrillator Study (CIDS)." <i>Circulation</i> 103(10): 1416-1421
4	2/6	Economic Evaluation in Health Care	<b>In class assignment</b>
4 5	2/8 2/13	Defining, measuring, and valuing, costs  <i>Costing in economic evaluation, costing perspectives, constructing a cost dataset, adjustments to cost data, presenting cost results</i>	Lairson DR, Wu CF, Chan W, Dahlstrom KR, Tam S, Sturgis EM. Medical Care Cost of Oropharyngeal Cancer among Texas Patients. <i>Cancer epidemiology, biomarkers &amp; prevention : a publication of the American Association for Cancer Research, cosponsored by the American Society of Preventive Oncology</i> . Sep 2017;26(9):1443-1449.  Deshmukh AA, Cantor SB, Crosby MA, et al. Cost of contralateral prophylactic mastectomy. <i>Annals of surgical oncology</i> . Sep 2014;21(9):2823-2830.  Smith BD, Jiang J, Shih YC, et al. Cost and Complications of Local Therapies for Early-Stage Breast Cancer. <i>J Natl Cancer Inst</i> . Jan 2017;109(1).
5 6	2/15 2/20	Measuring, valuing, and analyzing health outcomes  <i>Non-preference-based measures of health status; quality-adjusted life years (QALYs)—theoretical foundation; utilities and methods to estimate utilities (the rating scale (RS) method, the standard gamble (SG) method, time trade-off (TTO) method, whose preference?; multi-attribute utility system; alternatives: disability-adjusted life years (DALYs)</i>	Nyman J., et al. (2007). Quality of Life Weights for the U.S. Population: Self Reported Health Status and Priority Health Conditions, by Demographic Characteristics. <i>Medical Care</i> 45(7) 618-628.  Green, C., Brazier, J. & Deverill, M. (2000). Valuing Health-Related Quality of Life: A Review of Health State Valuation Techniques. <i>Pharmacoeconomics</i> 17(2)151-165.  Fryback DG, Dasbach EJ, Klein R, et al. The Beaver Dam Health Outcomes Study: initial catalog of health-state quality factors. <i>Medical decision making : an international journal of the Society for Medical Decision Making</i> . Apr-Jun 1993;13(2):89-102.

Week	Date(s)	Topic(s)	Readings
6 7	2/22 2/27	Advanced methods for economic evaluation	<p>Buxton, M.J., Drummond, M.F. et al. (1997). Modelling in Economic Evaluation: An Unavoidable Fact of Life. <i>Health Economics</i>, 6:217-227.</p> <p>Deshmukh AA, Shirvani SM, Lal L, et al. Cost-effectiveness Analysis Comparing Conventional, Hypofractionated, and Intraoperative Radiotherapy for Early-Stage Breast Cancer. <i>J Natl Cancer Inst</i>. Nov 01 2017;109(11).</p>
7	2/27	Budget impact analysis	<p>Fortney JC, Maciejewski ML, Tripathi SP, Deen TL, Pyne JM. A budget impact analysis of telemedicine-based collaborative care for depression. <i>Medical care</i>. Sep 2011;49(9):872-880.</p> <p>Sullivan SD, Mauskopf JA, Augustovski F, et al. Budget impact analysis-principles of good practice: report of the ISPOR 2012 Budget Impact Analysis Good Practice II Task Force. <i>Value in health : the journal of the International Society for Pharmacoeconomics and Outcomes Research</i>. Jan-Feb 2014;17(1):5-14.</p>
7	3/1	No Class – UAB Case competition	
8	3/6 3/8	Spring break	
9	3/13	Demand for Medical Care	<p>Santerre and Neun, Ch. 5.</p> <p>Wells DA, Ross JS, Detsky AS. "What is Different About the Market for Health Care?", <i>JAMA</i> vol. 298, no. 23, December 19, 2007, pp. 2785-2787.</p> <p>Hartman M, Martin AB, Lassman D, Catlin A, and the National Health Expenditure Accounts Team. "National Health Spending in 2013: Growth Slows, Remains in Step with the Overall Economy", <i>Health Affairs</i> vol. 34, no. 1, January 2015, pp. 1-11.</p> <p>Manning, Willard G., et al. "Health Insurance and the Demand for Medical Care: Evidence from a Randomized Experiment," <i>American Economic Review</i> vol. 77, no. 3, June 1987, pp. 251-277.</p>
9	3/15	Conventional Insurance Theory	<p>Santerre and Neun, Ch. 6, pp. 155-167.</p> <p>Friedman, Milton and L. J. Savage. "The Utility Analysis of Choices Involving Risk," <i>Journal of Political Economy</i> vol. 56, no. 4, August 1948, pp. 279-304.</p> <p>Pauly, Mark. "The Economics of Moral Hazard: Comment," <i>American Economic Review</i> vol. 58, June 1968, 531-537.</p>

Week	Date(s)	Topic(s)	Readings
10	3/20	New Insurance Theory	Santerre and Neun, Ch. 6, pp. 167-174.  Miller, Wilhelmine, Elizabeth Richardson Vigdor, Willard G. Manning. "Covering the Uninsured: What Is It Worth?" <i>Health Affairs</i> Web Exclusive, 31 March, 2004, pp. W4157-W4167.  Muennig, Peter, Peter Franks, Marthe Gold. "The Cost Effectiveness of Health Insurance," <i>American Journal of Preventive Medicine</i> vol.28 no. 1, January 2005, pp. 59-64.
10	3/22	Role of the Government	Buerhaus, Peter I., Douglas O. Staiger, David I. Auerbach. "Is the Current Shortage of Hospital Nurses Ending?" <i>Health Affairs</i> vol. 22, no. 6, 2003, pp. 191-198.  Vladeck B, Rice T. "Market Failure and the Failure of Discourse: Facing up to the Power of Sellers," <i>Health Affairs</i> , Vol. 28, no. 5, Sept/Oct 2009, pp. 1305-1315.  Bator, Francis M. "The Anatomy of Market Failure," <i>Quarterly Journal of Economics</i> , August 1958, pp. 351-379.
11	3/27 3/29	No Class – ACHE Congress on Health Care	
12	4/3	Pharmaceuticals	Santerre and Neun, Ch. 14.  Anderson GM, Juurlink D, Detsky AS. Newly Approved Does Not Always Mean New and Improved. <i>JAMA</i> 2008;299;13
12 & 13	4/5 & 4/10	Student Presentations	
13	4/12	Student Presentations	
14	4/17	Student Presentations	
14	4/19	Student Presentations	
15	4/24	Student Presentations	
15	4/26		<b>No class</b>
16	5/2		<b>Final Paper Due</b>

### Course Materials and Technology

#### Required Textbook

Santerre RE and Neun SP, *Health Economics: Theories, Insights, and Industry Studies* (6<sup>th</sup> Ed.) Thomson South-Western, 2012.

*Applied Methods of Cost-effectiveness Analysis in Health Care.* Alastair M. Gray, Philip M. Clarke, Jane L. Wolstenholme, Sarah Wordworth; Oxford University Press

#### Required Readings

Assigned journal articles and lecture notes are available on CANVAS. All listed readings are required unless otherwise noted. Students are expected to have read all required readings prior to each lecture and should understand the issues covered in each article.

For technical support for this class, please contact the UF Help Desk at:

- [Learning-support@ufl.edu](mailto:Learning-support@ufl.edu)
- (352) 392-HELP - select option 2
- <https://lss.at.ufl.edu/help.shtml>

## ACADEMIC REQUIREMENTS AND GRADING

### Assignments

Your grade will be based on your performance on quizzes (40%), an in-class exercise (5%), a project proposal (10%), a presentation of your project (10%), and a final paper (35%). There will be five quizzes during the semester and quizzes will take place at the beginning of the class period. The lowest quiz score will be dropped when calculating the final grade. If a student missed a quiz, then scores from the remaining four quizzes will be counted with no possibility of dropping the lowest score.

### Grading

Requirement	Due date	Points or % of final grade (% must sum to 100%)
Journal article presentation	Varies	10%
In-class assignment	2/06	10%
Quizzes (3 out of 4)	Varies	30%
Project Proposal	2/21	10%
Final presentation	varies	10%
Final Paper	5/02	30%

The main outcome of this course is the final paper. The final paper is a project on a topic to be selected by students and related to the material of the course. The purpose is for student to examine a health care issue from an economic perspective. It should include a review of the literature as well as a critical analysis.

The project proposal which is due on **February 21** is meant to present the topic of the final paper. The project proposal should be a maximum of 2 double space pages and include the following:

Point system used (i.e., how do course points translate into letter grades).

<b>Points earned</b>	93-100	90-92	87-89	83-86	80-82	75-79	70-74	65-69	-	-	-	<65
<b>Letter Grade</b>	A	A-	B+	B	B-	C+	C	C-	D+	D	D-	E

Please be aware that a C- is not an acceptable grade for graduate students. In addition, a grade of C counts toward a graduate degree only if an equal number of credits in courses numbered 5000 or higher have been earned with an A.

You must include the letter grade to grade point conversion table below. Letter grade to grade point conversions are fixed by UF and cannot be changed.

<b>Letter Grade</b>	<b>A</b>	<b>A-</b>	<b>B+</b>	<b>B</b>	<b>B-</b>	<b>C+</b>	<b>C</b>	<b>C-</b>	<b>D+</b>	<b>D</b>	<b>D-</b>	<b>E</b>	<b>WF</b>	<b>I</b>	<b>NG</b>	<b>S-U</b>
<b>Grade Points</b>	4.0	3.67	3.33	3.0	2.67	2.33	2.0	1.67	1.33	1.0	0.67	0.0	0.0	0.0	0.0	0.0

For greater detail on the meaning of letter grades and university policies related to them, see the Registrar's Grade Policy regulations at:

<http://catalog.ufl.edu/ugrad/current/regulations/info/grades.aspx>

### **Exam Policy**

All exams will take place in-class during the scheduled class times as indicated on the syllabus.

### **Policy Related to Make up Exams or Other Work**

There will be **no** makeup quizzes except for extreme circumstances (e.g. admitted to hospital) with valid evidence of the extreme circumstance.

### **Policy Related to Required Class Attendance**

Students are expected to attend and participate in all class sessions and be in attendance prior to the beginning of the class period. Students should inform the instructor if they will miss a class. Personal issues with respect to class attendance or fulfillment of course requirements will be handled on an individual basis.

All faculty are bound by the UF policy for excused absences. For information regarding the UF Attendance Policy see the Registrar website for additional details:

<https://catalog.ufl.edu/ugrad/current/regulations/info/attendance.aspx>

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## **STUDENT EXPECTATIONS, ROLES, AND OPPORTUNITIES FOR INPUT**

### **Expectations Regarding Course Behavior**

Students are expected to have read all required readings prior to each lecture and should understand the issues covered in each article.

### **Communication Guidelines**

Students are expected to participate in class discussions. Cellphones must be turned off and put away during class time. Laptops are allowed for taking notes only.

### **Academic Integrity**

Students are expected to act in accordance with the University of Florida policy on academic integrity. As a student at the University of Florida, you have committed yourself to uphold the Honor Code, which includes the following pledge:

**“We, the members of the University of Florida community, pledge to hold ourselves and our peers to the highest standards of honesty and integrity.”**

You are expected to exhibit behavior consistent with this commitment to the UF academic community, and on all work submitted for credit at the University of Florida, the following pledge is either required or implied:

**“On my honor, I have neither given nor received unauthorized aid in doing this assignment.”**

It is your individual responsibility to know and comply with all university policies and procedures regarding academic integrity and the Student Honor Code. Violations of the Honor Code at the University of Florida will not be tolerated. Violations will be reported to the Dean of Students Office for consideration of disciplinary action. For additional information regarding Academic Integrity, please see Student Conduct and Honor Code or the Graduate Student Website for additional details:

<https://www.dso.ufl.edu/sccr/process/student-conduct-honor-code/>

<http://gradschool.ufl.edu/students/introduction.html>

Please remember cheating, lying, misrepresentation, or plagiarism in any form is unacceptable and inexcusable behavior.

### **Online Faculty Course Evaluation Process**

Students are expected to provide feedback on the quality of instruction in this course by completing online evaluations at <https://evaluations.ufl.edu>. Evaluations are typically open during the last two or three weeks of the semester, but students will be given specific times

when they are open. Summary results of these assessments are available to students at <https://evaluations.ufl.edu/results/>.

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## SUPPORT SERVICES

### Accommodations for Students with Disabilities

If you require classroom accommodation because of a disability, you must register with the Dean of Students Office <http://www.dso.ufl.edu> within the first week of class. The Dean of Students Office will provide documentation of accommodations to you, which you then give to me as the instructor of the course to receive accommodations. Please make sure you provide this letter to me by the end of the second week of the course. The College is committed to providing reasonable accommodations to assist students in their coursework.

### Counseling and Student Health

Students sometimes experience stress from academic expectations and/or personal and interpersonal issues that may interfere with their academic performance. If you find yourself facing issues that have the potential to or are already negatively affecting your coursework, you are encouraged to talk with an instructor and/or seek help through University resources available to you.

- The Counseling and Wellness Center 352-392-1575 offers a variety of support services such as psychological assessment and intervention and assistance for math and test anxiety. Visit their web site for more information: <http://www.counseling.ufl.edu>. On line and in person assistance is available.
- You Matter We Care website: <http://www.umatter.ufl.edu/>. If you are feeling overwhelmed or stressed, you can reach out for help through the You Matter We Care website, which is staffed by Dean of Students and Counseling Center personnel.
- The Student Health Care Center at Shands is a satellite clinic of the main Student Health Care Center located on Fletcher Drive on campus. Student Health at Shands offers a variety of clinical services. The clinic is located on the second floor of the Dental Tower in the Health Science Center. For more information, contact the clinic at 392-0627 or check out the web site at: <https://shcc.ufl.edu/>
- Crisis intervention is always available 24/7 from:  
Alachua County Crisis Center  
(352) 264-6789  
<http://www.alachuacounty.us/DEPTS/CSS/CRISISCENTER/Pages/CrisisCenter.aspx>

Do not wait until you reach a crisis to come in and talk with us. We have helped many students through stressful situations impacting their academic performance. You are not alone so do not be afraid to ask for assistance.

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