

#### **COURSE SYLLABUS**

ECON 7711-001 - Applied Health Care Economics ECON 8711-001 - Applied Health Care Economics

7.10pm-10.10pm T, FCBE Classroom 381 Spring Semester, 2016 3.0 Credit Hours

Instructor: Albert A. Okunade, Ph.D.

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Office Hours: 4.00am-5.30pm **T&R**; Other times by appointment

Communicate also, via *e-mail* and other electronic media to cut 'transaction costs'.

## **Graduate Teaching Assistants:**

Dr. Toluwalope Ayangbayi, tyngbayi@memphis.edu, Rm. 417 FEXC, Hours: tel.: 678-4210 Ms. Xiaohui (Helen) YOU, xyou@memphis.edu, Rm. 417 FEXC, Office Hours: tel.: 678-4210

## **Course Overview:**

#### **Course Description and Objectives:**

This course centers broadly yet specifically on the use of standard (and extended) economic theories and related methodologies to illuminate an array of health and health care issues. The course evaluates theoretical and empirical problems in the economics of health and medical care. It covers the structure, conduct, and performance of markets for physicians, hospitals, pharmaceuticals, and long-term care, as well as the health and health care policies of the US (local, state, federal) and select other countries.

The course exposes graduate Master's and Ph.D. students to the economics of health and health care with inferences and their implications for policy. The underlying theories generally come from standard economics at the 1<sup>st</sup> year graduate (or equivalent, or instructor's permission) level. Therefore, the listed (see listing below) additional recommended readings cover economic theories and relevant statistical/ econometric estimation methods at the Micro- and Macro- levels. Health and health care economics broadly draw from economics sub-fields including public finance, labor, nonprofit, finance & insurance, industrial organization, risks and uncertainty, and other related areas within and outside of economics. Additional relevant theories from adjuvant disciplines, from Medicine to Psychology, Demography, Epidemiology, and others, will be brought in at the margin to complement those of economics. That is,

the Applied Health Care Economics course derives in the main from sound economic theories modified for application to the health care systems of the US and other countries (OECD, EU, other, etc).

<u>Ph.D.</u> (<u>Economics Program</u>) <u>Students</u> interested in the <u>Applied Micro</u> track (or a mixture of this track and another such as International, for example) are advised to be innovative at the outset to consider using the required term research paper (see grading components on syllabus page 2) as one of the essays set to later comprise a Dissertation. <u>Master's students</u> and other graduate students in other areas might also consider developing their papers with the goal of a Thesis or Project paper in mind. Contributions of course students employed in health care (MDs, Pharmacists, etc) are important to illustrate practical applications, current regulations, and public policy debates. **Doctoral and Masters' students are assessed differently for grading purposes.** 

US health care system reform is here (since 2010)! Therefore, this very timely and exciting course introduces students to the fundamental economics of the U.S. health care sector, its regulations and its guiding policies. These are all evolving. The US health care sector currently absorbs 18% of the annual GDP. The 2010 U.S. Affordable Care Act is the largest and most sweeping reform of the U S health care system in several decades. Health care is an engine of growth! The system reform aspects permeate the entire economy (e.g., incomes, employments, workplace benefits, individual and public health status, retirement decisions, Medicare, Medicaid and private health insurance coverage designs, physician payments, health care manpower training and skills mix, electronic records keeping, quality of care and longevity of life, disability, hospitals and nursing homes, outpatient care, prescription drugs and medical devices, medical technology innovations, etc).

The <u>University of Memphis Graduate Catalog</u> describes this course as using "... economic theories and related methodologies to illuminate an array of health and health care issues. Evaluates theoretical and empirical problems in health and medical care. Covers the structure, conduct, and performance of markets for physicians, hospitals, pharmaceuticals, and long-term care. Covers health and health care policies of the US (local, state, federal) and select other countries. PREREQUISITE: ECON 7710 or permission of instructor.

### **Required Texts:**

- Pedro Pita Barros, and Xavier Martinez-Giralt, <u>Health Economics. An Industrial Organization Perspective</u>. London, UK and New York: Routledge. Taylor & Francis Group. ISBN: 978-0-415-55989-8 (paperback). ©2012
- 2. Frank A. Sloan, and Chee-Ruey Hsieh, *Health Economics*. Cambridge, MA: The MIT Press. ISBN: 978-0-262-01676-6 (hardcover). ©2012

<u>Some Helpful Additional Resources</u>: Most of these Classic and Contemporary materials available at the University Library or through the library's 'Interlibrary Loans System'

- 3. David Romer, Advanced Macroeconomics, McGraw-Hill Irwin, 3<sup>rd</sup> or later Edition.
- 4. Hal Varian, Microeconomic Analysis, Norton Publishers, 3<sup>rd</sup> or later Edition
- 5. Walter Anders, Applied Econometric Time Series, 2<sup>nd</sup> Edition (2004) or later edition
- 6. N.R. Draper and H. Smith, <u>Applied Regression Analysis</u>, John Wiley & Sons (Wiley Series in Probability and Mathematical Statistics), 2<sup>nd</sup> or later edition
- 7. A. Colin Cameron and P. K. Trivedi, <u>Microeconometrics Methods and Applications</u>, Cambridge University Press, 2005 or later edition

- 8. Frank R. Hampbel, Elvezio M. Ronchetti, Peter J. Rosseeuw, and Werner A. Stahel, <u>Robust Statistics</u>: The Approach Based on Influence Functions, John Wiley & Sons (Wiley Series in Probability and Mathematical Statistics), 1986 or later edition
- 9. Victor R. Fuchs, <u>The Future of Health Policy</u>, Cambridge, MA: Harvard University Press. 1993 or later edition.
- 10. Henri Theil and Kenneth W. Clements, <u>Applied Demand Analysis</u>. <u>Results from system-Wide Approaches</u>, Vol. 7 of Series on Econometrics and Management Sciences, Cambridge, MA: Ballinger Publishing Company, 1987 or later edition
- 11. Virendra K. Srivastava and David E. A. Giles, <u>Seemingly Unrelated Regression Equations Models</u>, <u>Estimation and Inference</u>, Vol. 80 Statistics: Textbooks and Monographs Series,
- 12. Peter Diamond and Michael Rothschild (Eds.), <u>Uncertainty in Economics</u>. Readings and Exercises (a Volume in Economic Theory, Econometrics, and Mathematical Economics), New York: Academic Press, 1978 or later edition
- 13. J.F. Lawless, <u>Statistical Models and Methods for Lifetime Data</u> (John Wiley Series in Probability and mathematical Statistics), New York: Wiley & Sons, 1982 or later edition
- 14. Shirley Johnson-Lans, <u>A Health Economics Primer</u>, Boston, MA: Pearson Addison Wesley Publishers, 2006 or later edition
- 15. William Jack, <u>Principles of Health Economics for Developing Countries</u> (World bank Institute Development Studies), Washington DC: The World Bank, 1999 or later edition
- 16. Marshall W. Raffel and Norma K. Raffel, <u>The US Health Care System. Origins and Functions</u> 4<sup>th</sup> Edition, New York: Delmar Publishers, , 1994 or later edition
- 17. The-Wei Hu and Chee-Ruey Hsieh (Editors), <u>The Economics of Health Care in Asia-Pacific</u> Countries (Academia Studies in Asian Economies), Cheltenham, UK: Edward Elgar, 2002 or later.
- 18. Rexford E. Santerre and Stephen P. Neun, <u>Health Economics: Theory, Insights, and Industry</u> Studies, **6** ed., ISBN 13:978-1-111-82272-9. Southwestern Cengage Learning, 2013.

## **Course Objectives:**

By successfully completing this course, students will be able to:

- 1. Accurately understand the economic theories that guide health care sector resource allocation decisions, health care system design components, regulations, and public policies;
- 2. Analyze health care problems (e.g., should the supply of auxiliary medical care personnel be expanded?) using the methodology of economics;
- 3. Understand the roles that public economics and finance (taxation, externalities) play in health care sector consumption, investment, distribution/access, etc;
- 4. Undertake intellectually constructive dialogues, at the graduate level, on current or emerging aspects of the evolving US health care sector;
- 5. Read and understand the economic and public policy implications of published healthcare articles in leading and high quality academic (*Ph. D. students*) and practitioner (*Masters' students*) journals.

## Fogelman College: Learning Outcomes for Your Degree

This course is designed to help you to meet the overall learning objectives for the Masters degree (ECON 7711) and Ph.D. (ECON 8711) programs in the FCBE. You should take the time to become familiar with the overall learning objectives as a student in your respective degree program.

## **Course Methodology**

Lecture format. Regular class attendance is highly important.

## **Professor's Expectations of Students:**

In general, you should assist the instructor in creating a positive, supportive environment for learning by staying engaged in the course and actively participating in class discussions of current topics related to course contents.

## Student's Expectations of the Professor:

As your teacher, you can expect from me: well-organized and engaging learning experience, timely response to emails, and timely feedback on tests and quizzes. I will grade students fairly and afford them reasonable opportunities to ask questions and get clear responses. Make frequent use of my office hours and those of my Graduate Assistants (see, P. 1 of this syllabus).

## **Grading and Evaluation Criteria**

This professor is highly committed to teaching excellence and will grade you fairly. In turn, you are expected to: learn by studying (before and after each lecture), ask questions on time when not clear (there are no silly questions as long as they are related to text materials and course contents), form study groups (or "course buddies" from whom to seek notes if you missed class), attend classes regularly, actively participate in class discussions, and take the required tests plus submit projects when due. Have fun learning economics! This professor reserves the professional right to alter the course syllabus in order to achieve course mastery for students.

I believe in the 'honor code'; so, any student caught cheating or plagiarizing will earn an 'F' grade for that test/quiz/paper. Semester research (Ph.D. students) or project (Masters' students) will be run through "Turn It In" program.

#### Grading

- 1. Individual effort Mid-term **Test** (take-home) ..... 25%
- 2. Term (Research) Paper (meet with me first on your research idea ..... 40%
- 3. •Ph.D. Student's 'Individual' Journal Article Critique (a recently published health-economics paper must be selected from one of the following leading general or top specialized economics journals: The QJE, The American Economic Review (excluding the annual Proceedings issue published in May), American Economic Journal (any of the 4), The Economic Journal, The Review of Economics & Statistics, Journal of Business & Economic Statistics, Journal of Applied Economics, RAND Journal of Economics, Journal of Health Economics, Journal of Industrial Economics, Economics & Human Biology, Journal of The Royal Statistical Society, Applied Statistics, European Journal of Health Economics, and Journal of Risk & Uncertainty.
  - •MBA, MA, and MS, etc degree Program Student's 'Individual' Journal article critique may come from their respective interest area's leading journals (e.g., American Journal of Health System Pharmacy, Journal of Medical Marketing, and other peer-review journals including but not limited to those listed under 'Health Policy', 'Health Services Research', 'Epidemiology', etc, ... subject

	headings (Refer to Journals list in 2015 Journal Citation Reports,	Social Sciences or	Sciences,
	published by The ISI <sup>©</sup> , online at the U of M Libraries)	•••••	10%
4.	Class Attendance & Participation in Discussions	•••••	05%
5.	Final Examination ('in-class', covers materials since 3/15)	••••	20%
			100%

University policy <u>requires</u> students to sit for the final even if s/he already earned an "A" up to the last day of classes in the semester. See: <u>Registrar's academic calendar website</u>.

### **Final Course Grades**

Final course grades (earned points/450 total) are earned according to the following table:

% Range of points	<b>Assigned Grade</b>
90-100%	A
80-89%	В
70-79%	С
60-69%	D
Under 60 %	F

## **Course Topics: Syllabus Coverage Materials**

<u>Note</u>: SH refers to the Sloan & Hsieh (2012) textbook; BM-G refers to the Barros & Martinez-Giralt (2012) book. <u>AJR</u> **stands for** related *Journal* Articles (to be selected in advance of class treatment by the Professor from among the latest published on innovative research, in leading journals, under each topical area.). Course teaching is Seminar type (allows for fluid interactive discussions and learning).

### 1/19; 1/26; 2/2; 2/9

PART I (SH) DEMAND FOR HEALTH, HEALTH CARE, AND INSURANCE. Pgs. 37-168

- Ch. 1 Introduction and Overview
- Ch. 2 Health & Health Behaviors
- Ch. 3 Demand for Health Care Services
- Ch. 4. Demand for Private Health Care Insurance

**BM-G**: Ch. 8 (Essential Concepts in Health Economics); Ch. 2 (Demand); Ch. 9 (Demand for Health and Health Care); Ch. 10 (Insurance).

AJR#1		

#### 2/16; 2/23; 3/01; 3/15

PART II (SH) SUPPLY OF HEALTH CARE SRVICES AND INSURANCE. Pgs. 169-466

- Ch. 5 The Market for Physicians' Services
- Ch. 6 Hospitals

- Ch. 7 Quality of Care and Medical Malpractice
- Ch. 8 Nurses in Hospitals and Long-term Care Service
- Ch. 9 Pharmaceutical Manufacturers
- Ch. 10 The Supply of Private Health Insurance

**BM-G**: Ch. 3 (Supply); Ch. 5 (Regulation); Ch. 6 (Mergers and Acquisitions); Ch. 11 (Contracts and Asymmetric Information); Ch. 16 (Referrals, Gate-keeping, and Levels of Care); Ch. 17 (Pharmaceuticals).

AJR#2
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#### (Skip March 7-13 Spring Break); 3/22; 3/29; 4/05

PART III (SH) MARKET STRUCTURE IN THE HEALTH CARE SECTOR, Pgs. 467-614

- Ch. 11 Private Financing of Health Care Services
- Ch. 12 Government Financing and Private Supply
- Ch. 13 Public Supply and Financing

**BM-G**: Ch. 4 (Markets); Ch. 7 (For-profit and nonprofit organizations); Ch. 12 (Competition in Health Care Markets); Ch. 13 (Public and Private Provisions).

AJR#	3				

#### 04/12; 4/19; 4/26

**PART IV** (*SH*) PERFORMANCE OF THE HEALTH CARE SECTOR: POSITIVE AND NORMATIVE ASPECTS, **Pgs. 615-752** 

- Ch. 14 Cost and Cost-Effectiveness Analysis
- Ch. 15 Measuring Cost and Cost-Benefit Analysis
- Ch. 16 The Contribution of Personal Health Services to Longevity, Population Health, and Economic Growth
- Ch. 17 Frontiers of Health Economics

  AJR#4

## **Course Policies**

#### E-MAIL:

All students are **required** to maintain and access their OFFICIAL University of Memphis (@memphis.edu) e-mail account. They will receive all official course correspondence at this email account. Any inability to receive incoming mail in a timely fashion (e.g., not regularly checking your email, having a "full mailbox" condition, etc.) is the student's responsibility.

#### Attendance:

You are expected to stay active and engaged throughout the academic term and keep up with the schedule of activities. Your full engagement in the class begins on the first day of the semester and should be maintained until the last assignment is submitted. For students receiving federal student loans, any lack of engagement in the course may be treated as non-attendance and potentially impact access to student loans in the future.

## Adding / Dropping:

If you have questions about adding or dropping classes, please refer to this page on the Registrar's website.

## **Academic Integrity:**

The University of Memphis has clear codes regarding cheating and classroom misconduct. If interested, you may refer to the Student Handbook section on academic misconduct for a discussion of these codes. Note that using a "Solutions Manual" is considered cheating. Should your professor have evidence that using a "Solutions Manual" has occurred, he/she may take steps as described on the campus' Office of Student Conduct website. If you have any questions about academic integrity or plagiarism, you are strongly encouraged to review the Fogelman College's Website on Academic Integrity.

## **Participation:**

To be successful in this course as a student, you must stay active and involved throughout the entire semester. You should also regularly communicate with the instructor as part of your overall learning experience.

### **Classroom Behavior:**

All participants in the course should be considerate of the other course participants and treat them (as well as their opinions) with respect. The class will operate under the assumption that any and all feedback offered is positive in nature and that the intentions of the person(s) providing feedback are strictly honorable. Insensitivity in this area will not be tolerated. If you have any questions about online communication, you should review the Fogelman College's Netiquette website.

## **Late Assignments:**

Assignments and projects may be submitted anytime up to and including the date due. Please review all information in this syllabus and related "Course Activity Summary / Schedule" for all due dates for formally assessed work. If your work is not submitted on time, the instructor reserves the option to deduct up to 20% of the grade value for tardiness depending upon the circumstances and appropriate communication between the student and the instructor.

#### **Extra Credit:**

There is no extra credit offered in this course.

#### **Reporting Illness or Absence:**

Due dates and deadlines have been established for each graded assignment. In this course, deadlines are taken very seriously. Please do not wait until the last day to submit assignments or to take quizzes and exams. If an emergency should arise, it is the student's responsibility to contact the instructor prior to the deadline to discuss the matter. A deadline extension will be considered only if <u>all</u> of the following conditions are met: (1) Extreme emergency and (2) Instructor contacted prior to the due date.

#### **Inclement Weather:**

In the event that inclement weather requires the cancellation of classes at The University of Memphis, local radio and television media will be immediately notified. Additionally, The University of Memphis has established an Inclement Weather Hotline at 678-0888 as well as <a href="TigerText">TigerText</a>, an emergency alert text messaging service to students, faculty and staff. This optional service is used in the event of an on-campus emergency, an unscheduled university closing, or a delay or cancellation of classes due to, for instance, inclement weather. Click <a href="Here">Here</a> for information on TigerText.

## **Syllabus Changes:**

The instructor reserves the right to make changes as necessary to this syllabus. If changes are necessitated during the term of the course, the instructor will immediately notify students of such changes both by individual email communication and posting both notification and nature of change(s) on the course bulletin board.

## **Student Services**

Please access the <u>FCBE Student Services</u> page for information about:

- Students with Disabilities. Click www.memphis.edu/drs
- Tutoring and other Academic Assistance
- Advising Services for Fogelman Students
- Technical Assistance

# **Important Dates**

- Mid-term (take-home), covering materials up to 3/15/2016, due for handling in 3/22
- Written critique and in-class presentation of a published research paper, due for handling in 4/12
- Term paper (I will go over the structure), due for handling in 4/26
- Final (in-class), covers materials since 3/15, will be taken in class on 5/03, at 7.30pm

1st day of this class (*Jan. 19*); Spring Break (*March 7-13*; Last day of classes (*April 27, W*); Study Day (*Apr. 28, R*); Final Exams Week (*April 29-May 5*). Final Exam Day, this course: **T, MAY 3, 7.30pm**