PPA 220B
"Applied Economic Analysis II"
California State University, Sacramento
Spring 2011

Dates and Location
Saturdays 8:30 to 12:30 and 1:30 to 4:30
January 29, February 19, March 5, April 2, April 16, April 30
1009 Academic Resource Center, classroom
2007 Mendocino Hall, computer lab

Instructor
William D. Leach, Ph.D.
(310) 270-
wdleach@csus.edu
Assistant Professor, Department of Public Policy and Administration
Research Director, Center for Collaborative Policy

Office Hours
3033 Tahoe Hall
Fridays, the day before class, 4 to 6 pm
Select Thursdays, 4 to 6 pm
Other days/times by appointment, in person or by phone, email, chat, video conference

Synopsis
This course provides classic training in both qualitative and quantitative techniques for
economic analysis of public policies, focusing on the technique of benefit-cost analysis. The
skills and concepts covered are applicable to both prospective analysis (predicting the
consequences of proposed policies) and evaluation (assessing the effectiveness of existing
policies). One goal of the course is to help every student develop basic proficiency using
quantitative methods to inform policy choices. While learning each quantitative technique, we
will contemplate its advantages and limitations as well as its proper role in the broader context
of policy analysis and administration. Building on PPA 220A, we will continue to explore the
economic consequences of governmental activities such as regulation, public investment,
taxation, and subsidies. In the capstone assignment, students have an opportunity to tie
together the concepts learned in the two-course sequence by writing a policy analysis white
paper, centered on a prospectus for conducting a full-fledged benefit-cost analysis.

Learning Objectives
1. Develop basic proficiency using quantitative spreadsheet models to inform policy questions.
2. Understand the basic theory and techniques for conducting a benefit-cost assessment.
3. Learn the limitations of benefit-cost analysis and economic efficiency and their proper role
   in a more comprehensive policy analysis.
4. Gain sufficient knowledge to critique an actual benefit-cost analysis, such as one issued by
   a government agency, think tank, or interest group.
5. Learn how to analyze, from an economic perspective, how different types of government
   intervention (e.g. subsidies, taxation, cap-and-trade, technology forcing) can be used to
   correct market failures such as externalities and monopoly.
Required Textbooks and Readings

1. *Cost-Benefit Analysis for Public Sector Decision Makers*. Diana Fuguitt and Shanton J. Wilcox. (hardcover), Quorum Books, Greenwood Publishing Group, 1999. (Available new at Hornet Bookstore $137.75, used at online resellers such as Amazon $100, or as an ebook for the Kindle $90 or Barnes and Noble NookStudy $103.

2. Lab manuals. Instructions for each lab session will be distributed one week before the lab.

3. Additional reading assignments will be distributed via SacCT throughout the course.

Required Software

1. Microsoft Excel

2. Decision Toolkit (TreePlan, SensIt, and RiskSim), distributed by the instructor before Lab 5.

Course Format

8:30 to 12:30 in the Classroom. Each of our six Saturday mornings will involve a combination of lecture and small-group discussions and exercises.

1:30 to 4:30 in the Computer Lab. The first five weeks of class include an afternoon lab exercise. Each lab introduces a quantitative technique for policy analysis that can be carried out using a spreadsheet or other readily available software. Because the value of each lab comes through learning by doing, each student will have his/her own terminal in the computer lab. However, to encourage a cooperative and supportive learning environment, we will build each computer model together as a class.

Main Assignments

1. Leading Discussion. Each week, four students will volunteer to prepare several discussion questions regarding an assigned reading, and will lead the discussion for a small group of six students. All students will have an opportunity to lead one discussion.

2. Short Essay Assignments. Each two-page essay will reflect on the day's lecture and discussion topics. Assignments will be handed out near the end of class, and will be due before the next class session. Each student may submit up to five of the available seven essay assignments. The best four grades will count toward the course grade.

3. Lab Assignments. Once we have completed building a policy analysis model together during the laboratory period, your homework assignment is to use the model to help address a number of simulated policy questions. Each lab assignment includes a combination of quantitative and short-essay questions that prod you to think about the policy implications of your calculations, and the strengths and limitations of each quantitative technique.

4. Exam. A comprehensive, closed-book, 2-hour exam will be given at the end of class April 30.

5. Benefit-cost-analysis prospectus. The capstone assignment is a prospectus for conducting a full-fledged benefit cost analysis. The report is due at the end of the final exam period for the course. Each student may choose their own topic with the instructor's approval.

Grading

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<thead>
<tr>
<th>Assignment</th>
<th>Weight</th>
<th>Description</th>
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<tbody>
<tr>
<td>Class participation</td>
<td>5%</td>
<td>Including leading discussion of one reading assignment</td>
</tr>
<tr>
<td>Lab assignments</td>
<td>25%</td>
<td>Five labs, each worth 5%</td>
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<tr>
<td>Short essays</td>
<td>20%</td>
<td>Submit up to five. Keep best 4 grades. Each 5%</td>
</tr>
<tr>
<td>Exam</td>
<td>25%</td>
<td>Closed-book, in-class, April 30</td>
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<tr>
<td>BCA prospectus paper</td>
<td>25%</td>
<td>Due May 14, 10 am.</td>
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All assignments will be graded on a 100-point scale. To determine the final course grade, I will calculate the weighted average of all assignments, according to the weights specified above. Letter grades for the course will generally be awarded according to the following table. In determining final course grades, I will look for breaks in the distribution of grades across all students in the class, and I may "round up" a grade to ensure that students with very similar point totals receive identical letter grades. In the past, the majority of students have earned an A- or B+.

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<thead>
<tr>
<th>Course grade</th>
<th>Weighted average point score</th>
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<tbody>
<tr>
<td>A</td>
<td>93-100</td>
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<tr>
<td>A-</td>
<td>90-92</td>
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<tr>
<td>B+</td>
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<td>B</td>
<td>83-87</td>
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<tr>
<td>B-</td>
<td>80-82</td>
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<td>C</td>
<td>&lt; 80</td>
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**Course Policies**

Exceptions will be granted only in extreme circumstances.

**Missed classes.** Please notify me in advance if you will miss a class. To pass the class, your attendance is required at a minimum of 5 of the 6 class sections.

**Missed Deadlines.** Assignments turned in late will be docked 5 points per day. The penalty will be waived if approved in advance, typically for extreme circumstances such as a family emergency or severe illness.

**Academic honesty.** When writing for this class, or any class at Sacramento State, you should understand what plagiarism is, and how plagiarism can become grounds for dismissal from the university. Details are available at the University Policy Manual: [www.csus.edu/umanual/student/UMA00150.htm](http://www.csus.edu/umanual/student/UMA00150.htm)

**Calendar**

**Week 1, January 29**

**Topics**
Use of difference equations for quantitative modeling of policy options using spreadsheets.

**Reading Assignments**
F&W, Ch. 1, "CBA History"
F&W, Ch. 2, "CBA Analysts & Decision Makers"
F&W, Ch. 3, "Advocates & Adversaries"
F&W, Ch. 4, "Economics and BCA"

Lecture notes on difference equations
Difference equation excerpt from Stokey and Zeckhauser 1978 (8 pages).
Excel primer: [http://www.palgrave.com/business/swift/students/docs/Excel%20Primer.doc](http://www.palgrave.com/business/swift/students/docs/Excel%20Primer.doc)

**Computer Lab Assignment**
Lab 1. Introduction to spreadsheet models, difference equations, and simple investment problems. "Who wants to be a millionaire?" (Lab manual to be distributed by Jan 22).

**Essay Assignment (due Feb 19)**
Week 2, February 19

Reading Assignments
F&W, Ch. 5, "Valuing Individual Preferences"
F&W, Ch. 6, "Who is Society?"
F&W, Ch. 7, "With and Without Analysis"
F&W, Ch. 8, "Aggregate Benefits & Costs"

Computer Lab Assignment
Lab 2. Benefit-Cost Analysis, Part One, Introduction
Essay Assignment (due March 5)
Essay 2b. "Investment, consumption, and sustainability."

Week 3, March 5

Reading Assignments
F&W, Ch. 9, "Present Value"
F&W, Ch. 10, "Decision Criteria"
F&W, Ch. 11, "Discount Rate"
F&W, Ch. 12, "Inflation"
F&W, Ch. 13, "Time Horizon"
F&W, Ch. 14, "Uncertainty and Risk"
F&W, Ch. 15, "Principles of BCA"
F&W, Ch. 16, "Identifying Benefits & Costs"
Sears, Brad and M.V. Lee Badgett (2008) "Impact of Extending Marriage to Same-Sex Couples on the California Budget." The Williams Institute, UCLA School of Law.

Computer Lab Assignment
Lab 3. Benefit-Cost Analysis, Part Two, "Discounting and inter-generational equity"
Essay Assignment (due April 2)
Essay 3a. "Discounting, present value, and inflation."
Essay 3b. "Identifying benefits and costs."

Week 4, April 2

Reading Assignments
F&W, Ch. 17, "Market Valuation"
F&W, Ch. 18, "Contingent Valuation"
F&W, Ch. 19, "Travel Cost Method"
F&W, Ch. 20, "Hedonic Pricing Method"
Gilmore, Nathaniel (2009) *A Cost Benefit Analysis of the Nimbus Fish Passage Project*, MPPA thesis, California State University, Sacramento

Computer Lab Assignment
Lab 4. Optimization through linear programming with technical and financial constraints.
"Choosing an optimal technology mix."

Essay Assignment (due April 16)
Essay 4. "Estimating economic value when markets don't exist."
Week 5, April 16

Reading Assignments
F&W, Ch. 21, "Valuing Human Life"
F&W, Ch. 22, "Cost Effectiveness Analysis"
F&W, Ch. 23, "Principles for Identifying and Valuing Benefits and Costs"

Computer Lab Assignment

Essay Assignment (due April 30)

Week 6, April 30

Topics
To be determined.

Reading Assignments
To be determined.

Course Evaluation (2:15 – 2:30 pm)
Exam (2:30 – 4:30 pm)

Comprehensive, closed-book exam on material through Week 6.

Final Paper, due 10:00 am May 14.

Early submissions welcome. Email to: wdleach@csus.edu  File name: “LastName_BCAPaper.doc”