AEDE 5330 -- Benefit-Cost Analysis-- Fall 2012
Tuesday and Thursday 12:45 – 2:05 in An Sci 210

Professor Contact
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AED Economics
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TA Contact
Feng Zhou
Office: 312 Ag Admin
Email: zhou.289@osu.edu
Hours: Thursday 2:30 to 4:30

Office Hours: Tuesdays: 10am to 12pm or by appointment.
The best way to reach me is via email. I am also available outside of posted office hours on an appointment basis. Please email me to set up additional meeting times as needed.

Course Description
This course covers the principles and methods used to apply cost-benefit analysis to real world problems. Basic theory underpinning cost-benefit analysis is presented and used to analyze real-world case studies and carry-out analysis. At the end of this course, students should be able to:

- Explain differences in benefit-cost principles and approaches
- Demonstrate the role of economics in informing policymakers and decision making
- Analyze problems using economic foundations to identify costs and benefits
- Carry out simple benefit-cost calculations and analysis

All students are expected to participate in class discussions and be prepared to engage in discussions of real-world problems.

Prerequisites
All students are expected to have taken at least one course in calculus and/or be willing to learn as we go. In addition, at least an intermediate level understanding of Microeconomics is required. Official prerequisites are: 4310 (531), 4001 (500), or Econ 4001 (501).

Required Textbook
Nick Hanley and Edward Barbier, Pricing Nature: Cost-Benefit Analysis and Environmental Policy, Edward Elgar, 2009. (Denoted as HB on reading list)
Reference Textbooks (not required and excerpts available on Carmen)

Grading
Grading will consist of 4 homework assignments (4x10% = 40%), a team project (20%) and two in-class exams (2x20% = 40%). There will be no final exam. The grading scale is:

<table>
<thead>
<tr>
<th>Grade</th>
<th>Score Range</th>
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<tbody>
<tr>
<td>A</td>
<td>93.0-100</td>
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<tr>
<td>A-</td>
<td>90.0-92.9</td>
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<tr>
<td>B+</td>
<td>86.7-89.9</td>
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<tr>
<td>B</td>
<td>83.3-86.6</td>
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<tr>
<td>B-</td>
<td>80.0-83.2</td>
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<tr>
<td>C+</td>
<td>76.7-79.9</td>
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<tr>
<td>C</td>
<td>73.3-76.6</td>
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<tr>
<td>C-</td>
<td>70.0-73.2</td>
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<tr>
<td>D+</td>
<td>66.7-69.9</td>
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<tr>
<td>D</td>
<td>60.0-66.6</td>
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<td>F</td>
<td>&lt;60.0</td>
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All homework must be your own work. However, I fully expect students to work together in discussing problems so long as answers are not copied between students. More details on the team project will be provided in early October.

To help students who may not be familiar with programming required for several assignments, significant portions of the in-class lecture period will be devoted to helping develop and refine intuition and programming abilities throughout the semester.

Academic Misconduct
Copying any part of someone else's work (homework, quizzes, tests, exams, etc) and handing it in as your own work is academic misconduct and has serious consequences at this university. Collaboration (getting together with other students to discuss HOW to solve problems) is encouraged. You MUST do the work on your own and formulate your own responses.
It is the responsibility of the Committee on Academic Misconduct to investigate or establish procedures for the investigation of all reported cases of student academic misconduct. The term "academic misconduct" includes all forms of student academic misconduct wherever committed illustrated by, but not limited to, cases of plagiarism dishonest practices in connection with examinations. Instructors shall report all instances of alleged academic misconduct to the committee (Faculty Rule 3335-5-487). For additional information, see the Code of Student Conduct.

Disability

Any student who feels s/he may need an accommodation based on a disability should contact the instructor during the first week of class to discuss specific needs.

Students with disabilities that have been certified by the Office for Disability Services will be appropriately accommodated, and should inform the instructor as soon as possible of their needs. The Office of Disability Services is located in 150 Pomerene Hall, 1760 Neil Avenue; telephone 292-3307, TDD 292-0901; http://www.ods.ohio-state.edu/.

Course Outline (subject to change)

<table>
<thead>
<tr>
<th>Week</th>
<th>Dates</th>
<th>Main Topic</th>
<th>HW Assigned</th>
<th>HW Due</th>
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<tbody>
<tr>
<td>1</td>
<td>23-Aug</td>
<td>Introduction and Syllabus</td>
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<td>2</td>
<td>28-Aug 30-Aug</td>
<td>Overview of Benefit-Cost</td>
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<td>3</td>
<td>4-Sep 6-Sep</td>
<td>Consumer and Producer Theory</td>
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<td>4</td>
<td>11-Sep 13-Sep</td>
<td>Pareto Principles and Kaldor Hicks</td>
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<td>5</td>
<td>18-Sep 20-Sep</td>
<td>CV/EV/CS</td>
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<td>6</td>
<td>25-Sep 27-Sep</td>
<td>Discounting and CBA; Climate Change</td>
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<td>7</td>
<td>2-Oct 4-Oct</td>
<td>Review (10/2) and Exam 1 (10/4)</td>
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<td>10</td>
<td>23-Oct 25-Oct</td>
<td>Empirical Applications and Implementation</td>
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<tr>
<td>11</td>
<td>30-Oct</td>
<td>1-Nov Stated Preference and Yellowstone Access</td>
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<tr>
<td>12</td>
<td>6-Nov 8-Nov</td>
<td>Case Study: Water Quality and Water Access</td>
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<td>13</td>
<td>13-Nov 15-Nov</td>
<td>Case Study: Habitat Protection; Exam 2 Review</td>
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<td>14</td>
<td>20-Nov</td>
<td>Thanksgiv Exam 2 (11/20)</td>
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<td>15</td>
<td>27-Nov 29-Nov</td>
<td>Student Presentations</td>
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<td>16</td>
<td>4-Nov</td>
<td>Student Presentations</td>
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Course Readings (subject to additions)
(* denotes a required reading with potential for class discussion)

Week 1: 8/23 -- Introduction and Syllabus

Week 2: 8/28 and 8/30 -- Overview of Benefit-Cost
*Benefit-Cost Analysis in Environmental, Health, and Safety Regulation
*HB Chapter 1
BGVW Chapter 1

Week 3: 9/4 and 9/6 -- Consumer and Producer Theory
*BGVW Chapters 3, 4, 5
Silberberg Chapters 4, 10

Week 4: 9/11 and 9/13 -- Pareto Principles and Kaldor Hicks
*HB Chapter 2
*BGVW Chapter 2
*Silberberg Chapter 19
JHS Chapter 2, 3

Week 5: 9/18 and 9/20 --- CV/EV/CS
*BGVW Appendix 3A
JHS Chapter 5.1, 5.2, 6
Silberberg 11.5

Week 6: 9/25 and 9/27 -- Discounting and CBA; Application to Climate Change
*HB Chapter 7
*BGVW Chapter 6

Week 7: 10/2 and 10/4 -- Review and Exam 1
Review is 10/2
Exam is 10/4
Week 8: 10/9 and 10/11 -- Revealed Preference: RUM Models and Zebra Mussels
*HB Chapter 4
*Zebra Mussel Articles

Week 9: 10/16 and 10/18 -- Revealed Preference: Hedonics and Superfund
*HB Chapter 5
*Papers on valuing superfund

Week 10: 10/23 and 10/25 -- Additional Discussion and Empirical Applications
*Train Chapter 3
*Palmquist Handbook Chapter

Week 11: 10/30 and 11/1 -- Stated Preference and Yellowstone Access
*HB Chapter 3
*Yellowstone paper

Week 12: 11/6 and 11/8 -- Case Study: Water Quality and Water Access
*HB Chapter 10
*Tombstone Documents
http://goldwaterinstitute.org/article/tombstone-v-united-states

Week 13: 11/13 and 11/15 -- Case Study: Habitat Protection; Exam 2 Review
*HB Chapter 11

Week 14: 11/20 -- Exam 2
Week 15: 11/27 and 11/29 -- Presentations
Week 16: 12/4 -- Presentations