Agricultural Economics 604  
PSAA 663  
Natural Resource Economics  
Spring 2019

Instructor  
Dr. Jim Mjelde  
Room 212 C AGLS  
845-1492  
e-mail: j-mjelde@tamu.edu  
Class Web Page: http://agecon2.tamu.edu/people/faculty/mjelde-james/AGECO604/

Office Hours  
Open Door Policy and by Appointment

Class Times  
Monday / Wednesday 4:10-5:25 AGLS 110

Class Objectives  
Natural resource and environmental problems facing society today are complex. Improper problem conceptualization often leads to increasing conflict between affected individuals. The general objective of this course is to challenge the student to address natural resource and environmental problems in a systematic and defendable framework. One such framework is the economic approach to natural resource and environmental problems. Specific objective is to provide the student with the economic framework used to address natural resource and environmental problems, along with the economic interpretation of the framework. An important aspect of the economic framework is the necessity for other disciplines to provide information into the decision making process.

Class Prerequisites  
The only prerequisite for AGEC 604 is ECON 323 (junior level microeconomics) or its equivalent. Depending on the demand and need, time will be taken during the course (class or outside time) to review the necessary economic concepts. As such, students without the prerequisite, but willing to work should have no trouble with AGEC 604.

Assignments  
Reading assignments come from the required textbook.  
You can also purchase an etextbook from Course Smart. Students in the past have used etextbook and shared the password to reduce costs. http://www.coursesmart.com/
You will also be responsible to view one video tape. This tape is available from the Evan’s Library (Education Media Services). The required videotape is:

“A Wilderness Idea: John Muir, Gifford Pinchot and the First Great Battle for the Wilderness.” Call Number QH 76.W56 1989. This tape examines the battle between multi use and preservationists in a historical context. Video viewing is located at Media and Reserves, 4th floor, Library Annex, Evans Library. Also available through Mediamatrix http://mediamatrix.tamu.edu - log on with your NET ID and password and view on your computer.

See also http://www.environmentaldefense.org/page.cfm?tagID=152

The Evans’ Library has several other interesting videos addressing various environmental/resource topics. Notable among these is the 10-part, Race to Save the Plant. Available from the instructor are several other videos on issues concerning forests, recycling, private property issues, and fisheries, please feel free to check out and view.

**Course Grade and Requirements**

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<tr>
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<th>Total Possible Points</th>
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<tr>
<td>Mid-term examination</td>
<td>100</td>
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<tr>
<td>Final examination</td>
<td>100</td>
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<tr>
<td>Project</td>
<td>100</td>
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<td>Homeworks</td>
<td>80</td>
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<td>Course Participation</td>
<td>10</td>
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<tr>
<td><strong>Total</strong></td>
<td><strong>390</strong></td>
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1) Two examinations will be given. The final will be comprehensive (100 points), but will stress the material since the mid-term exam (100 points).

2) Each student will be required to complete a project concerning a natural resource or environmental issue. Both content and presentation style will be evaluated. Students will be given a choice as to the type of projects they are going to undertake.

3) Several short homeworks will be required during the semesters. These homeworks will reinforce the concepts discussed in the class. You must do the homeworks alone, **NO COLLABORATION** unless otherwise stated. Homework points will be adjusted to account for 80 of the possible 390 points.

4) The final 10 points of your grade is based on your participation in the class (in and/or out of class). By nature, this part or your grade is subjective and up to the instructor’s prerogative.

Addition information concerning the projects, readings, and the examinations will be given in class.
Course Structure

The course involves an explanation of the main concepts in each chapter covered along with the outside readings. Economic interpretation and use of the major concepts will be reinforced through the use of case studies. These case studies involve current or historical perspectives of the use of economic principles in defining natural resource/environmental issues. The course web page will be used to disseminate class material. External links are provided on the page to other web pages which relate to the case studies. Several guest speakers may give presentations to the class throughout the semester.

Scholastic Dishonesty

As commonly defined, academic dishonesty/plagiarism consists of presenting as one’s own ideas, words, writings, etc. material that belongs to another. In accordance with this definition, you are committing plagiarism if you copy the work of another person and turn it in as your own, even if you have the permission of the person. It does not matter from where the material is borrowed - a book, an article, material off the web, another student’s paper, etc. - all constitute plagiarism unless the source of the work is fully identified and credited. Identifying a paper or other material as one’s own that has actually been written or prepared by someone else is always a case of academic dishonesty. Quotation or borrowing certain material and including a small component of one’s own original work is appropriate if proper credit is given. It is important when using a phrase, a distinctive idea or concept, or a sentence from another source to credit explicitly that source either in the text, a footnote, or end note. Plagiarism is a violation of academic and personal integrity and carries extremely serious consequences at Texas A&M University. Scholastic dishonesty (including cheating and plagiarism) will not be tolerated. The full consequences of scholastic dishonesty will be pursued consistent with University policy. If you have any questions, please consult the latest issue of the Texas A&M University Student Rules, under the section “Scholastic Dishonesty.” Be especially careful with your written assignments to make certain that any and all sources are explicitly acknowledged in writing. The instructor will make clear which course assignments are collaborative exercises in which it is appropriate for team-members to work together and share their ideas and writing, but not that of those outside their own team.

Americans with Disability Act (ADA)

ADA is a federal anti-discrimination statute that provides comprehensive civil rights protection for persons with disabilities. Among other things, this legislation requires that all students with disabilities be guaranteed a learning environment that provides for reasonable accommodation of their disabilities. If you believe you have a disability requiring accommodation, please advise the instructor and contact the Office of Support Services for Students with Disabilities.

Copyright Statement

Please note that all handouts and supplements used in this course are copyrighted. This includes all materials generated for this class, including but not limited to syllabi, exams, in-class
materials, review sheets, and lecture outlines. Materials may be downloaded or photocopied for personal use only, and may not be given or sold to other individuals.

**Lectures and Reading Assignments**

Below is a tentative list of the lectures and reading assignments (subject to change to accommodate the guest speakers’ schedules and class involvement.) You need to be going through the A&M system to properly use the links provided. The following chapters are based on 8th edition, modify to your edition. Links work as of 1/10/2019.

- **Class Introduction**

  **Readings** – Chapters 1, 2, 4 Tietenberg

- **Characterization of Resource Issues/BWCA - Case Study**

  **Boundary Waters Canoe Area** – website – background for the lecture
  Links that are especially relevant are
  - Planning your trip (http://www.canoecountry.com/plan/index.html)
  - Introduction - http://www.canoecountry.com/about/intro.htm
  - History - http://www.canoecountry.com/about/history/index.htm

  **Readings**

  [http://www.springerlink.com/(cwcwdb5ablp0brf5fks1ji)/app/home/main.asp?referrer=default](http://www.springerlink.com/(cwcwdb5ablp0brf5fks1ji)/app/home/main.asp?referrer=default)
  Search for Article Titled - The Politics of Science: Examining the Snowmobile Controversy in Yellowstone National Park - in search for box – cut and paste in this title.

- **Environment as an Asset**

  **Readings**

  *Ecological Applications* 8(1998):342-349. Chp. 3 readings
  [https://esajournals.onlinelibrary.wiley.com/doi/10.1890/1051-0761.281998.29008.5B0342.3AEAAESC%5D2.0.CO%3B2](https://esajournals.onlinelibrary.wiley.com/doi/10.1890/1051-0761.281998.29008.5B0342.3AEAAESC%5D2.0.CO%3B2)

- **Property Rights** – Chapter 4 Tietenberg
Readings – Chapters 2, 5 - Tietenberg

Market Failures

Readings – Chapter 4 Tietenberg

Correction to Market Failures

Readings – Chapter 4 Tietenberg

Cost Benefit Analysis

Readings Chapter 3 – Tietenberg


Valuation of Resources

*Hell’s Canyon National Recreation Area* – website – background for the lecture

Readings Chapter 3 – Tietenberg

Web site – pay particular attention to Framework and Technique activity pages [http://agecon2.tamu.edu/people/faculty/mjelde%2Djames/valuation%20test/](http://agecon2.tamu.edu/people/faculty/mjelde%2Djames/valuation%20test/)


Read - Executive Summary which is a free downloads on above web site.

Endangered Species
**Whooping Crane** – website – background for the lecture.

Aransas Wildlife Refuge -
https://www.fws.gov/refuge/Aransas/wildlife/whooping_cranes.html

Readings


- **Allocation of Depletable Resources**

  Readings – Chapter 7 Tietenberg

- **Energy**

  Readings – Chapter 8 Tietenberg


- **Solid Waste Management**

  Readings – Chapter 9 Tietenberg

- **Water Issues**

  Readings – Chapter 10 Tietenberg


  or
  http://www.annualreviews.org/eprint/zGHgTpjWiSBNQFmjEefD/full/10.1146/annurev-resource-110811-114517

Forestry

Readings – Chapter 13 Tietenberg

Fisheries

Readings – Chapter 14

Pollution

Readings – Chapter 15 Tietenberg


**NOTE:** All four articles are part of the Jenson piece.


Air Pollution

Readings – Chapters 16, 17, 18 Tietenberg


Water Pollution

Readings – Chapter 19 Tietenberg


Enforcement
Readings – Chapter 21 Tietenberg


Diesel

Readings


Potpourri

Concluding Remarks

Readings – Chapter 24


Other Readings

This is a list of optional readings. Some of the lectures come from this material. This material is also provided to provide other view points. Use as you deem appropriate.

Externalities

**Coase Theorem**

**Yellowstone Park**
Bozeman Daily Chronicle [http://bozemandailychronicle.com](http://bozemandailychronicle.com) Search articles from 2000 to present on snowmobiles and snowcoaches – other articles also.

**Nonrenewable Energy**


**Water**


**Air Pollution**

**Citizen Suits**

**Enforcement**
Contingent Valuation – issues and alternatives


Endangered Species


Valuation / Endangered Species