INTRODUCTION TO ENVIRONMENTAL ECONOMICS

AGEC 3413 (H) and ENSC 3413 (H)
Spring 2016
MWF 12:55-1:45 pm Lecture Plant Science 9

Welcome –We're Glad You’re Here!
This syllabus may seem long but please read thoroughly!
The information included will help you succeed in this class.

This syllabus can be downloaded from Blackboard under the Syllabus folder.

Instructor Information:
Dr. Jennie (Dr. J) Popp   Agri.  Building Room 223A   479-575-2279   jhpopp@uark.edu
Mr. Matthew Coale   Agri. Annex  206   479-575-3762   mjcoale@uark.edu

Description in Course Catalog:
An issues-oriented course in the economics of the environment. What is involved in society making decisions about environmental quality will be studied. Environmental issues important to the state of Arkansas and the United States will be emphasized. The syllabus is subject to change.

Prerequisite: Agec1103 or Econ 2023. Students are responsible to know all prerequisite materials.

Course Objectives:
Each student who successfully completes this course will have developed the skills to apply microeconomic tools and concepts to sustainable resource use, management, and policy. Students will apply the tools learned to case studies during the semester. Each student who successfully completes this course will be able to:
• calculate present values of benefits and costs
• understand concepts of willingness to pay
• define and explain market and social equilibriums
• understand market & non-market valuation techniques
• explain why optimal pollution levels are usually not zero
• explain concepts of standards and market means for pollution control and know when to apply each
• apply environmental economic theory to issues related to land, water, air, agriculture and sustainable development
• explain the important connections between environmental policy and the economy

Honors Section:
This is a great way to get honors credit! Please consider enrolling in honors even if you are not an honors student. Honors students will be given additional coursework (and will meet occasionally outside of class) in order to qualify for honors credit. Talk to Dr. J to make sure you are enrolled for Honors credit. Stay tuned for more info on your exciting project!

Office Hours:
Office hours for Dr. J are scheduled for Monday and Wednesday from 11:00am-12:30pm. Office hours for Mr. Coale will be announced in class. You can call or email to schedule an appointment for another time. For both of us, email is the better means for contact. Please do visit during office hours. This time has been set aside specifically for you!

Contacting Dr. J and Mr. Coale
Speaking of email, we try really hard to be reasonable people! Dr. J and Mr. Coale will attempt to answer calls/emails within 24-48 hours if they are received Monday 8:00am to Friday 4:00 pm. Email is not regularly reviewed over the weekends. When emailing Dr. J and Mr. Coale, please make the subject title of the email AGEC 3413 if you want it to be seen in a timely manner. Please send ALL emails to BOTH instructors. This will help ensure we see your email quickly and it provides proof (if we both receive it) that you indeed sent the message, in the event that one of us can’t locate it. Do not send email through Blackboard. It goes down a black hole never to be retrieved again.

Do Check Your Email Daily:
Email is the official primary form of communication for this course, outside of what is said in class. Be sure to check your email daily for any announcements regarding course assignments, potential quizzes, etc. This will help ensure you do the very best possible in class!
Course Home Page and Blackboard:
A lot of economics focuses on efficiency so we try hard to be efficient in this class too. Course material, including syllabus, assignments, class notes, test reviews and links to reading materials are on Blackboard at https://learn.uark.edu/. Once enrolled in AGEC/ENSC 3413/H, you can click on “my courses” to gain access to all of our materials for 3413. Please let Dr. J. know if you find any errors in this page or have any suggestions to make it more useful. We want to optimize this resource for you. Remember, Blackboard can go down without warning so check it regularly and download early!

Textbooks:
Our primary textbook will be Environmental Economics and Management: Theory, Policy and Applications by Scott Callan and Janet Thomas. Southwestern Cengage Learning. This book is available from the bookstore. However, I have placed multiple copies of older editions of the text in Mullins library. This will work for most assignments. These copies are available for short-term check out. These older copies were also found online used for under $10 a copy.


Students may want to use the following free documents as references and for some assignments:
- “Sustainability and the US EPA” also available by free download at http://www.nap.edu/catalog.php?record_id=13152.

Grading:
Grades are assigned as follows: A (90+) B (80-89) C (70-79) D (60-69) F (<60)
Where do the points come from?
- Exams 1, 2 & 3 (75% total)
- Assignments and Final Exam (15% total)
- Daily Quiz (10% total)

How many grades can you drop throughout the semester?
None. In other words: zero, zilch, nada, rein, null. You get the picture!

Calculating Your Grades:
Students are responsible for keeping track of their grades throughout the semester. All grades will be placed on Blackboard within a week of being earned (barring unforeseen circumstances). The lag time is included in case of the need for grade changes.

Fixing a Grading Error on Blackboard:
Please verify immediately that the grade listed on Blackboard is the grade you earned. If not, please make Mr. Coale aware of the error immediately by turning back in the assignment/quiz/exam that shows the correct grade. Corrections must be made within one week of being returned in class. All errors must be brought to our attention in person because we need the assignment.

Exams:
Please remove all hats before a quiz or an exam. Please bring a ruler and a #2 pencil to all quizzes/exams. You must use the calculator provided by the AEAB dept. There will be three (3) exams during the regular semester. Students cannot drop any of the three exams given this semester. Make up exams may be permitted and taken outside of class hours and must be arranged prior to the exam unless it is a medical emergency (personal or close family). Dr. J. may randomly reassign seats on exam and quiz days. The final exam will take place at the scheduled final time. (University rules, not Dr. J.’s.)

Take Home Assignments:
Take home assignments are posted on blackboard. They must be turned in at the start of class on the day they’re due to get points. Answers are provided in class after assignments are turned in. If you would like assistance please visit Dr. J or our TA during our office hours. All students must turn in their own work.

Daily Quizzes:
A daily quiz is given at the start of nearly every class. Quiz questions will be based on text and class material as well as guest lecturers, student presentations and/or project materials. Daily quizzes are the easy way to improve your grade. You get extra point opportunities every day (so if you miss class no need to make them up!). Here is how it works. Students must earn an average of 2 points (out of a possible 5 points) each quiz day in order to get a perfect score. Students are given an opportunity to earn three bonus points on each quiz (so if you miss a class or two, you’re covered). Daily quiz points will not be awarded to a student who leaves class early without a valid confirmed reason even if he/she was there to take the quiz. Daily quiz grades cannot be dropped.
Seating:
Students will have the opportunity to explore the classrooms during the first week of class. However the seat you choose on January 25th will be yours for the rest of the semester. This is necessary for the distribution of daily quiz and returned assignments/quizzes/tests in a timely manner. Further it helps the two of us get to know the 100+ of you! Choose your seat wisely. Anyone not in attendance that day will have their seat chosen for them (likely in the front row). If you have any special circumstances (e.g., visual, hearing) that require you to sit in a particular area, please let Dr. J. know. We will do our best to accommodate.

Class Notes and Reading of the Textbook:
An effort will be made to place class notes on Blackboard by 5:00 PM the Friday before the start of the new lecture week. Even when available, these notes will not be complete, they will not include notes relevant to some in-class discussions or other non-text readings and thus cannot replace note taking in class. Students are strongly encouraged to read all materials before the class as this course moves at a good pace. Powerpoints may include a list of required readings; others will be announced in class. Be prepared to take notes in class, it will help for the quizzes/exams!

Use of Computers and Cell Phones During Class:
In general, computers may not be used during class. If you have special circumstances that require you to use a computer you must have it approved by Dr. J at least one class period in advance of using the computer. Dr. J. reserves the right to choose the seats of anyone needing computer usage (most likely front row). In general, cell phones are not allowed to be used in class. Students using a cell phone for ANY purpose in class (other than a designated emergency as described below or another use pre-approved by Dr. J.) will be considered in violation of academic honesty rules and will be reported for sanctions. These computer and cell phone policies have been developed on the recommendations of previous students who found the inappropriate behavior distracting. We want to minimize distractions so everyone can learn!

Emergency Procedures:
The following information has been provided to us from the Provost's office. Many types of emergencies can occur on campus; instructions for specific emergencies such as severe weather, active shooter, or fire can be found at emergency.uark.edu.

Severe Weather (Tornado Warning):
- Follow the directions of the instructor or emergency personnel
- Seek shelter in the basement or interior room or hallway on the lowest floor, putting as many walls as possible between you and the outside
- If you are in a multi-story building, and you cannot get to the lowest floor, pick a hallway in the center of the building
- Stay in the center of the room, away from exterior walls, windows, and doors
- Violence / Active Shooter (CADD):
  - CALL- 9-1-1
  - AVOID- If possible, self-evacuate to a safe area outside the building. Follow directions of police officers.
  - DENY- Barricade the door with desk, chairs, bookcases or any items. Move to a place inside the room where you are not visible. Turn off the lights and remain quiet. Remain there until told by police it’s safe.
  - DEFEND- Use chairs, desks, cell phones or whatever is immediately available to distract and/or defend yourself and others from attack.

In case of a tornado, our classroom and the hallway/stairwell outside of our classroom can serve as shelter. For other scenarios, if we need to vacate the classroom quickly, please be aware that exits include the door to the Plant Science building hallway (the main classroom entry/exit way) as well as the emergency exit by the instructor lectern in the front of the classroom. Please let Dr. J know if you have any questions or concerns.

Center for Educational Access:
Students who have received official university approval for alternate accommodations must present the official paperwork to Dr. J. during the first week of class. If part of your accommodation includes a different setting for the exam please inform me at least one week before the exam so I can guarantee that your request can be met. We have limited access to viable locations so time is needed to guarantee the space. Thank you!

Student Travel:
If you participate in a UA sponsored organization that requires you to travel, you will be excused from class but not from completing the material or from daily quiz. Be sure to earn those extra points each day! Apart from daily quiz, assignments/quizzes deadlines that overlap with scheduled travel (e.g., conferences, competitions, sporting events) must be completed before leaving for your trip. Travel made for personal reasons can also be approved but same rules for completing assignments holds here as well. Keep us posted and everything will go smoothly!
Extra Credit:
There are plenty of opportunities to earn lots of points as the course is structured. Please be sure to do your best on all assignments, quizzes and exams. No other credit opportunities will be given.

Academic Dishonesty:
All UA faculty have been encouraged to include the following statement in the syllabus. 
As a core part of its mission, the University of Arkansas provides students with the opportunity to further their educational goals through programs of study and research in an environment that promotes freedom of inquiry and academic responsibility. Accomplishing this mission is only possible when intellectual honesty and individual integrity prevail. Each University of Arkansas student is required to be familiar with and abide by the University’s ‘Academic Integrity Policy’ which may be found at http://provost.uark.edu/ Students with questions about how these policies apply to a particular course or assignment should immediately contact their instructor.
In particular please visit http://provost.uark.edu/246.php for sanctions. This is serious stuff! Please do not place yourself or other students in a position to have to face such consequences. I want all my students to succeed!

Inappropriate Sharing of Course Materials:
Here is a rule you may not know. All notes/problem sets/quizzes/exams provided to you this semester are for the expressed usage of this course only. According to UA rules, students found sharing these materials (with individuals/websites/etc.) without written consent from Dr. Popp will be subject to both legal and academic disciplinary action. This is serious stuff – let’s avoid it! If you have any questions, please check with Dr. J. before you share.

Inclement Weather:
If both the University and Fayetteville school district are open by our class time, class will be held as scheduled. If UA is open but Fayetteville is closed, please check your email regarding attendance. Please use your best judgment before getting on the road – we want you to be safe! Students who live off campus will have the opportunity to make up a missed exam in the case of inclement weather. However, to receive full credit on any assignments due that day, the assignment must be posted on blackboard by its due date/time.

Dropping this Class:
Valid situations can arise that warrant dropping a class. However, please see Dr. J. before you drop the class so we can properly assess whether this is in your best interest (things may not be as bad as you think!).

Managing Our Scarce Resources:
As environmental economists, we value our scarce resources. There are some on campus who have moved their classes to a complete electronic format. In this class, I will provide to you the syllabus, notes and other handouts in electronic format with the hopes you will use the double sided printers on campus to print them as needed only once. In order to best grade your assignments and exams, most will need to be turned in as a hard copy. When things are required to be turned in in a hard copy, please optimize the use of the paper by writing/printing on both sides and minimizing your margin widths. Shred and recycle all papers at the end of the semester.

We Look Forward to Working with You This Semester!
Students taking this course come from a variety of backgrounds. Some have a strong understanding of economics; others have strengths in other sciences, engineering, or policy. The application of environmental economics concepts to real world situations involves an understanding of and collaboration across multiple disciplines. While this can present challenges and draw many out of their comfort zone, it is critical to the development of sound analysis and good policy. It is hoped that all students from all backgrounds will share their thoughts and experiences to enrich the learning process.

Our goal is to make this class a practical, challenging and rewarding experience for everyone.
Course Outline. **All materials and dates are subject to change. Please attend class for updates!**

<table>
<thead>
<tr>
<th>Week</th>
<th>Dates</th>
<th>Topic</th>
<th>Readings and Announced Assignments</th>
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</thead>
<tbody>
<tr>
<td>1</td>
<td>Jan 20</td>
<td>Introduction and Review of Economics</td>
<td>Chapters 1 and 2 Callan and Thomas (6th edition) Elasticity and econ reviews placed on blackboard</td>
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<tr>
<td>2</td>
<td>Jan 25</td>
<td>Review of Economics con’t</td>
<td>Same course materials as previous week</td>
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<tr>
<td>3</td>
<td>Feb 1</td>
<td>Last day to withdraw from a class without a mark of a “W”</td>
<td>Chapter 3 Callan and Thomas (6th edition)</td>
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<td>4</td>
<td>Feb 8</td>
<td>Market Failure con’t</td>
<td>Assignment 1&amp;2 due Feb 10th at start of class</td>
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<td>5</td>
<td>Feb 15</td>
<td>Conventional Solutions to Environmental Problems</td>
<td>Chapter 4 Callan and Thomas (6th edition)</td>
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<tr>
<td>6</td>
<td>Feb 22</td>
<td>Economic Solutions to Environmental Problems</td>
<td>Chapter 5 Callan and Thomas (6th edition)</td>
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<td>7</td>
<td>Feb 29</td>
<td>Assessing Benefits</td>
<td>Chapter 7 Callan and Thomas (6th edition)</td>
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<td>Mar 2</td>
<td>Exam 1</td>
<td>Assignment 3 due Feb 29th at start of class</td>
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<td>8</td>
<td>Mar 7</td>
<td>Assessing Benefits* con’t</td>
<td>Chapter 7 Callan and Thomas (6th edition)</td>
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<td>Chapter 8 Callan and Thomas (6th edition)</td>
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<td>9</td>
<td>Mar 14</td>
<td>Benefit Cost Analysis</td>
<td>Chapter 9 Callan and Thomas 9 (6th edition)</td>
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<td>Assignment 4 due Mar 14th at the start of class</td>
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<td>10</td>
<td>Mar 21</td>
<td>Spring Break! Enjoy!</td>
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<tr>
<td>11</td>
<td>Mar 28</td>
<td>Benefit Cost Analysis con’t</td>
<td>Chapter 9 Callan and Thomas (6th edition)</td>
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<td>Case of Air</td>
<td>Chapters 10-13 Callan and Thomas (6th Edition)</td>
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<td>Assignment 5 due April 1 at the start of class</td>
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<td>12</td>
<td>Apr 4</td>
<td>Exam 2</td>
<td>Exam material announced in class</td>
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<td></td>
<td>Apr 8</td>
<td>Case of Air Con’t</td>
<td>Chapters 10-13 Callan and Thomas (6th Edition)</td>
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<tr>
<td>13</td>
<td>Apr 11</td>
<td>Case of Water</td>
<td>Chapters 14-16 Callan and Thomas (6th Edition)</td>
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<tr>
<td>14</td>
<td>April 18</td>
<td>Case of Water</td>
<td>Chapters 14-16 Callan and Thomas (6th Edition)</td>
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<td>Last day to withdraw from a single class with a mark of a “W”</td>
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<tr>
<td>15</td>
<td>Apr 25</td>
<td>Honors Presentations</td>
<td>Same course materials as previous week</td>
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<td>Assignment Bonus due April 27 at the start of class</td>
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<td>16</td>
<td>May 2</td>
<td>Exam 3</td>
<td>Exam material announced in class</td>
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<td>May 4</td>
<td>Wrap Up, Prep for Final</td>
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<td>May 6</td>
<td>Dead Day</td>
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<td>May 13</td>
<td>Final Exam</td>
<td>10:15am 12:15pm PLSC9</td>
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Exam review sessions are tentatively scheduled for:
March 1 from 5:30-7:30pm
April 3 and May 1 from 4pm-6pm
All in Plant Science 9.
Updates to these dates and times, if needed, will be presented in class.