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### ECNS 433.R01: Economics of the Environment

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# ECNS 433: ECONOMICS OF THE ENVIRONMENT Fall 2020 Syllabus

#### Logistics

Class meeting time (via Zoom): Tuesday, Thursday; 11am – 12.20pm

• Zoom meeting access:

Meeting ID: 937 8762 0443

Passcode: 502716

You will need to be signed into your UM Zoom account to access the meetings

Instructor: Katrina Mullan

• Email: katrina.mullan@umontana.edu

Office hours: Tuesday, 2-3pm; Thursday, 9-10am; or by appointment. Meeting ID: 927 9887 4718

- Required textbook: Callan, S. J. and Thomas, J. M. (2013) *Environmental Economics and Management: Theory, Policy and Applications*, 6<sup>th</sup> Edition. Southwestern-Cengage.
- Course website: I will post lectures, assignments, readings and any additional information on the <a href="class Moodle">class Moodle</a>
  page. Announcements will be sent via Moodle, so please ensure that you regularly check both the Moodle page and wherever you receive your Moodle messages (email account, Moodle app).

#### **Course Description and Learning Outcomes**

Environmental economics seeks to analyze the interaction between human activity and the environment using the tools of economics. In this course, we will use economic theory to understand:

- 1) why environmental problems occur;
- 2) the extent to which they should be prevented;
- 3) how different policy mechanisms can be used to prevent them.

We will also look at how environmental economists quantify the values of environmental goods and services that are not bought or sold in markets. The environmental issues we will study will include air and water pollution, climate change, ecosystem conservation, deforestation, and how environmental quality relates to economic development.

Students who successfully complete this course will understand:

- how decisions about environmental protection are made
- how environmental problems result from market failures
- how trade-offs between environmental protection and economic activity can be evaluated
- the key methods used to assign monetary values to non-market goods and services
- the effectiveness and efficiency of alternative policy responses to environmental problems, including air and water pollution, climate change, and ecosystem degradation, in theory and in practice
- how to write about economics for different audiences and purposes
- how to find and synthesize information from different theoretical and empirical sources to construct an argument

#### **Class assignments**

- Homework assignments consisting of short-answer questions on the theoretical concepts and applications discussed in class.
- Policy memos that concisely describe the economic theory and evidence relating to a policy question, and make recommendations for a course of action.
- Short quizzes on videos, readings and podcasts to prepare for discussion in class meetings.
- Group presentations of a policy case study and a non-market valuation method.
- Written summary of two external webinars on environmental economics topics.
- Active participation in class zoom meetings and discussion boards, including introduction of one news item.

Detailed guidelines for each assignment will be posted on the course Moodle page.

Students taking the graduate increment will independently select a topic and identify appropriate sources for the second policy memo.

#### Grading

Assignment	Percent of Grade	
Homework	25%	
Policy Memos	25%	
Pre-class quizzes (video lectures,	10%	
readings and podcasts)		
Group exercises - policy case	20%	
study and non-market valuation		
Seminar attendance and write-up	10%	
Participation in class meetings	10%	
and discussion boards		

#### **Academic Conduct**

All students must practice academic honesty. Academic misconduct is subject to an academic penalty by the course instructor and/or a disciplinary sanction by the University (for more details on <a href="Student Conduct Code">Student Conduct Code</a>, go to: <a href="http://life.umt.edu/VPSA/student\_conduct.php">http://life.umt.edu/VPSA/student\_conduct.php</a>). Students are expected to do their own work in their own words, without seeking inappropriate assistance in preparing for or completing exams or assignments. I require that you will work to uphold high standards of integrity.

#### **Students with Disabilities**

Whenever possible, and in accordance with civil rights laws, The University of Montana will attempt to provide reasonable modifications to students with disabilities who request and require them. Please feel free to set up a time with me to discuss any modifications that may be necessary for this course. For more information, visit the <u>Disability Services for Students website</u> at http://www.umt.edu/disability.

#### **Class expectations**

Expectations for full-class, small-group, and discussion forum discussions:

- Treat all class participants with respect regardless of discussion format.
- Engage positively and constructively in all forms of discussion.

Expectations for Zoom meetings:

- Keep your microphone on mute until you want to speak and use the 'raise hand' feature.
- Try to join class from a suitable, quiet location, with a device that permits full participation in the class activities and with your video on.
- During class time, the Chat box is for questions or points related to class material or technical/logistical issues. The Chat box can be used for social chat before and after class.

Expectations for studying during a pandemic:

- Most people are facing extra challenges right now, so we should all try especially hard to be kind to one another.
- If you are struggling with life, with classwork or with trying to combine the two, please don't struggle in silence.
   Send me a message or come to my office hours (you don't have to share any information that you'd rather not) and we'll figure out some next steps together.

#### **Outline Schedule**

Week	Begins	Tentative topics (we may go faster or slower)	Textbook chapter
1	17-Aug	Role of economics	1
2	24-Aug	Role of economics	1
3	31-Aug	Economic efficiency: review	2
4	7-Sep	Modeling market failure	3
5	14-Sep	Modeling market failure	3
6	21-Sep	Command-and-control approach	4
7	28-Sep	Market-based approach	5
8	5-Oct	Market-based approach	5
9	12-Oct	Instrument choice	15
10	19-Oct	Valuing environmental benefits and costs	7, 8
11	26-Oct	Valuing environmental benefits and costs	7, 8
12	2-Nov	Environmental decision making	9
13	9-Nov	Application to climate change	13
14	16-Nov	Review and wrap up	-