ECONOMICS 308

THE POLITICAL ECONOMY OF THE ENVIRONMENT

Fall 2021 – TuTh 2:30PM - 3:45PM - Tobin Hall room 304

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Synopsis: This course examines the political economy of the protection and degradation of the natural environment and its impacts on society. The course addresses the major environmental challenges of society today using economic tools, and with the goal to understand how we could build a fair, efficient and sustainable society. The economic tools used draw from neoclassical and neoinstitutional economics as well as contemporary tools from game theory and behavioral economics to understand how power, institutions and human choice interact to produce desirable or undesirable social outcomes with respect to the environment and human well-being. As part of the pedagogical process, we will be using classroom experiments during the course so that students experience first-hand the type of institutions, incentives and choices associated with social interactions and interactions with their natural environment.
Covid during Fall 2021: rules for the classroom.

We are still navigating complex times, and university life is no exception. We are returning from a virtual learning environment to the classroom where we will share a common space and can see each other in person. This will imply challenges for all, but the benefits of coming to the classroom might be greater than the expected costs associated with the risks from a pandemic that the world is still dealing with. UMass has achieved an incredibly outstanding level of vaccination (98% of domestic undergraduate students and 93% for faculty and staff, including me) which should create an environment of contagion with much lower probabilities. When I look at what this situation is in my home country, trust me, this is a great achievement.

To keep the level of infections low we must do our part and the science-based recommendations are very clear. Wearing masks, hand washing and keeping to a minimum being in unventilated closed spaces with close distances should help a lot. This brings us to the classroom. We can still, and must -according to the regulations in place, wear a mask in public indoor spaces; we can still wash hands often and keep 6 feet distances among ourselves, but we will share a non-ideal space with less ventilation or air circulation than outdoors. For these reasons, I want to be clear about our guidelines for attending class, in person, and continue maintaining the covid infection rates to its minimum possible:

- Every student must attend class wearing a mask covering from chin to nose and with the required material layers. If a student forgets to bring a mask, I will do my best effort to maintain a supply of extra masks.
- For purposes of safety, drinking and eating in class will be forbidden. I have no problem with a sip of water from your bottle and taking your mask off momentarily. In fact, I might have to drink water myself to keep my throat healthy.
- My initial plan will be to use a mask as well and give a try with the microphone in the room. If that affects your listening and understanding (wait for my accent!!), I will take it off and maintain the 6 feet distance from any of you. If anyone feels uncomfortable with me not wearing mask, I will find a solution to sound if the room does not solves the sound problem.
- We must be prepared for this policy to change during the semester. The university has shown determination when tough measures are required to stop a fast spreading of the virus. Constant testing and reporting will be key. I expect everyone who might feel any symptoms, even if vaccinated, to get a test and while results are back, isolate from everyone else for the protection of all.

As in any course that involves the economics of environmental issues, your actions will affect and be affected by others. This is a classical collective action problem that requires that everyone chips in. I expect you to be part of a safe and healthy return to the campus and a productive learning experience for all of you.
On academic honesty and short-cuts.

Academic integrity and honesty is, at least to me, a “universal good” problem. That is, the more is spread around, the more I benefit from it. The more honesty is around me, the more I benefit from being honest. Acting honestly in a context of dishonesty, cheating and use of shortcuts is very costly and painful, even if I keep my moral integrity intact when I look at the mirror or when I see my family and close ones. Think of people who pay their taxes and notice that most of friends, family and neighbors do not. Not only the provision of public goods will suffer from less revenue, but also the sense of injustice will create further loss of well-being for the honest taxpayers.

The academic world, including mine where cheating and shortcuts in science can happen and give people short run rewards in their careers. No major scientific breakthrough would succeed with its creators recurring to altering their data or lying about their results. During the formation years in college and graduate school, there are plenty of possible shortcuts¹. There are also formal regulations we should all use for guidance. The UMass Amherst code of student conduct is an important source of information in case of doubts, and with clear disciplinary procedures that would be followed if necessary.

As an economist, I can see clearly a demand and a supply for shortcuts. In fact, they even have prices in the market place these days. Contracting essays became a better shortcut when plagiarizing essays from friends become less effective with the improvement of algorithms like TurnitIn that compare rapidly essay contents. There is a whole industry out there selling these services, even overseas at much lower costs, and professionals making a living by participating in the supply side of contract cheating.

On the demand side, there is the integrity and honesty that will come from your own beliefs, values and actions that will determine your decision not to use these shortcuts. I expect you to understand that obtaining the grades that reflect your true effort and interest is better for you, and for your peers and for the university as a whole. Imagine a major newspaper headline saying that students at the university you graduated from are vastly using these shortcuts, the day before your job interview with your newly minted diploma from such university.

I expect you to understand that shortcuts in your academic years is, above all, detrimental to you, even if you see it as a low hanging fruit or your current state leads you to think that it is worth the cost and the risk. Also you should understand that this is also detrimental to the rest of the class and to a culture of integrity where we learn more if the evaluation process we do is based on your actual learning and effort, and provided that we instructors, become a source for support when this learning is difficult. Therefore, you should expect from me that the evaluations in this course are designed to evaluate your effort and learning, and that they are interesting enough that you can engage in the process.

¹ Examples of shortcuts include contract cheating through websites that write essays and solve problem sets for a monetary payment, copying assignments from other students, exchanging answers of a test through media not visible to the instructor, or acquiring answers to a test through illegal means. Also, this website contains more on this: https://www.umass.edu/honesty/
## Schedule

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<th>Week</th>
<th>Dates</th>
<th>Content</th>
<th>Readings</th>
<th>Activities</th>
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<td><strong>Introduction: Our spaceship earth in the XXI century</strong></td>
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<td>1</td>
<td>Sept 2</td>
<td>Growth and development in a finite planet</td>
<td>Boulding (1966)</td>
<td>Quiz-0</td>
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<td>2</td>
<td>Sep 7-9</td>
<td>The market economy and the environment. Sustainability, well-being and justice</td>
<td>CORE Unit 1 Sen</td>
<td>Exp: The world market for cars</td>
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<td><strong>Micro-foundations and social interactions</strong></td>
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<td>3</td>
<td>Sep 14-16</td>
<td>Social interactions and a bit of game theory</td>
<td>CORE Unit 4</td>
<td>Exp: 2x2 games</td>
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<td>4</td>
<td>Sep 21-23</td>
<td>Externalities and Social Dilemmas</td>
<td>CORE Unit 4</td>
<td>Exp: PG and CPR</td>
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<td><strong>Institutions</strong></td>
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<td>Sep 28-30</td>
<td>Property, power, bargaining</td>
<td>CORE Unit 5</td>
<td>Exp: UG</td>
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<td>6</td>
<td>Oct 5-7</td>
<td>Efficiency (Pareto) and allocations</td>
<td>CORE Unit 5</td>
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<td>Oct 12-14</td>
<td>Markets again, and the pollution problem</td>
<td>CORE Unit 12</td>
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<td>8</td>
<td>Oct 19-21</td>
<td>Markets and their moral limits</td>
<td>CORE Unit 12</td>
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<td><strong>Economics and the environment</strong></td>
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<td>9</td>
<td>Oct 26-28</td>
<td>Valuing costs and benefits</td>
<td>CORE Unit 20</td>
<td>Exp: markets, taxes</td>
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<td>10</td>
<td>Nov 2-4</td>
<td>Environmental justice and inequalities</td>
<td>CORE Unit 20</td>
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<td>11</td>
<td>Nov 9</td>
<td>Behavioral economics and the environment</td>
<td>Schill et.al</td>
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<td><strong>The great challenges and possible solutions</strong></td>
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<td>12</td>
<td>Nov 16-18</td>
<td>Policies for the Anthropocene</td>
<td>CORE Unit 20</td>
<td>Policy debates by teams²</td>
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<td>13</td>
<td>Nov 23</td>
<td>Climate change and biodiversity loss</td>
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<td>14</td>
<td>Nov 30–Dic2</td>
<td>Oceans, Pandemics</td>
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<td>15</td>
<td>Dic 7</td>
<td>Grand finale</td>
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* Exp: classroom experiments

### Activities:

- In-person meetings twice a week
- Synchronous and asynchronous economic experiments using virtual platforms
- Interactive polls in class
- Readings based on main textbook and additional short readings
- Policy debate in the final section of the course
- Written evaluations (short essays, quizzes)

### Important dates:

²² participation in these debates will be included in the 10% of the grades for “Active participation during synchronous sessions”.

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• Start of classes: September 1
• Last day to add/drop without record: September 8
• Last day of classes: December 8
• Final examinations: December 10-16
• Final grades due: December 22

Readings:

Primary text:

Other readings

Course Requirements and grading policy:

• Active participation during synchronous sessions 10%
• Participation in online classroom experiments 20%
• Quizzes 15%
• Two written essays 30%
• Term paper idea and final paper 25%

Important due dates:

• Term paper preliminary idea: September 30
• Essay-1: October 14
• Essay-2: November 18
• Term paper: December 9
**Term Paper Assignment**

Students will choose a particular topic from a list of environmental challenges to be built throughout the semester and conduct a research on the key elements associated with the challenge. From the sources used, the paper should develop a diagnostic of the problem, possible solutions and their potential hurdles using the tools from the course.

The paper will have a maximum of 10,000 words and should cover at least the following items:

- Describe the problem and why it relates to the political economy of the environment
- Identify and analyze the key players, incentives and institutions (rules of the game) that brought the problem to its current situation
- Describe possible solutions to the current situation and the barriers ahead for such solution
- Evaluate the ethical or moral implications of both not solving the problem and of implementing the solutions described.

Examples of environmental challenges and possible solutions:

- Carbon dividends: taxing carbon emissions and redistributing all proceeds among the entire population
- Locating dirty industries in the most-cost effective locations: ecological justice, conflicts, bargaining over location, remediation, abatement costs
- Induce changes in the diet of humans to protect biodiversity and reduce carbon emissions
- Paying communities to protect biodiversity for all: deforestation, payments for environmental services
- Taxing fossil-fuel cars or subsidizing electric cars
- Transitioning from fossil towards renewable energy
- Taxing those causing the most emissions: Deforestation, livestock methane emissions and taxes on cattle heads
- Assigning collective property rights to indigenous communities for protection of biodiversity and reduction of deforestation