

UNIVERSITY OF WYOMING

ENR 3900-02

Sem: Environmental Economics (3 credits)

Classroom Building 118 (capacity 18); In-Person and/or Hyflex

Spring 2021

8:00-9:15am Tuesdays & Thursdays (Jan. 21 to May 7)

Thursday January 21st (online – 1 class meetings)

Tuesday January 26th – Tuesday March 30th (19 class meetings Hyflex/In-Person)

March 31st – April 4th – Spring Break (no class)

Tuesday April 6th – Thursday May 6th (online – 10 class meetings)

Tuesday May 11th at 8:00am (remote final exam)

Instructor contact information: Jacob Hochard, Ross Hall 403, JHochard@uwyo.edu

Dedicated Course Websites: www.jacobhochard.com/students & WyoCourses/Canvas

Office hours and/or open-door policy: Office hours will be held each Tuesday and Thursday in my virtual office from 9:30-11:00am on Tuesdays and Thursdays and by appointment.

Jake's Virtual Office Link: <https://uwyo.zoom.us/j/8261068265>

Course prerequisites, co-requisites, enrollment restrictions: None

Course Description: The class explores the economic basis of environmental problems and provides an accessible approach to how economic concepts can be applied to guide environmental policy. Market failures that give rise to excessive air and water pollution, land degradation and biodiversity loss are presented alongside potential market-based solutions. We also examine approaches to natural resource valuation techniques and the economic underpinnings to the management of renewable and non-renewable resources.

Student Learning Outcomes:

- A basic familiarity with the economic paradigm of thinking as it applies to natural resource management and environmental challenges.
- Gain a working knowledge of economics jargon as it applies to solving society's most pressing environmental challenges.
- Ability to leverage economic thinking to design and evaluate appropriate environmental policies.

Required texts, readings, and special tools or materials:

Environmental Economics and Policy (Lewis and Tietenberg, 7th edition), Routledge Press.

Supplementary material and reading will be posted to WyoCourses and the dedicated course website at (www.jacobhochard.com/students).

General requirements and expectations for the course: Attendance policy, late work policy, and other expectations for performance: Class attendance is expected and will be critical to doing well in this course. All assignments in this course will be submitted digitally via WyoCourses or e-mail directly to Dr. Hochard (JHochard@uwyo.edu). Assignment due dates will be posted throughout the semester with advanced warning and are non-negotiable. If special circumstances necessitate a late assignment, quiz or exam submission, appropriate University documentation must be provided or special approval from the instructor should be granted *before* the assignment's due date.

Required examinations, assignments, activities, and projects.

Exams (50% of final grade)

The first three online exams will be made available on the dates listed below and will remain open until the due date and time posted. The final and fourth exam will be non-comprehensive and treated like any other class exam. Each exam will count for 12.5% of your final grade.

Exam #1 – **Available on Canvas:** Thursday February 11th at 8:00am

Due: Sunday February 14th at 8:00pm

Exam #2 – **Available on Canvas:** Thursday March 11th at 8:00am

Due: Sunday March 14th at 8:00pm

Exam #3 – **Available on Canvas:** Thursday April 8th at 8:00am

Due: Sunday April 11th at 8:00pm

Exam #4 – **Available on Canvas:** Friday May 7th at 8:00am

Due: Tuesday May 11th at 8:00pm

Quizzes (20% of final grade)

Four online quizzes will be made available leading up to each exam on the dates and times listed below and will remain open until the due date and time posted. These quizzes are designed to reinforce class and reading material and prepare students for the exam material. Each quiz will be worth 5% of your final grade.

Quiz #1 – **Available on Canvas:** Friday February 5th at 8:00am

Due: Sunday February 7th at 8:00pm

Quiz #2 – **Available on Canvas:** Friday March 5th at 8:00am

Due: Sunday March 7th at 8:00pm

Quiz #3 – **Available on Canvas:** Tuesday March 30th at 8:00am

Due: Monday April 5th at 8:00pm

Quiz #4 – **Available on Canvas:** Friday April 30th at 8:00am

Due: Sunday May 2nd at 8:00pm

Environmental Economics and Policy Brief/Case Study (30% of final grade):

Students will produce a professional policy brief on an environmental/natural resource economics case study/application relevant to course material. Example concepts include but are not limited to the following:

1. Blue Carbon Markets and Developing Countries
2. Transboundary Considerations of Fresh Water Provision
3. Renewable Energy Portfolio Standards and Cross-State Externalities
4. Local Adaptation to Climate Change in the Wine Industry
5. Adaptation through Migration and Climate Change
6. Climate Change Considerations in Global Fisheries Markets
7. Natural Wealth Accounting and Implications for Wyoming
8. Entrepreneurial Approaches to Payments for Ecosystem Services
9. Entrepreneurial Approaches to Natural Resource Valuation

10. Entrepreneurial Approaches to Climate Change Mitigation in Urban Areas
11. Roles of Charisma and the Joint Management of Endangered and Invasive Species
12. Environmental Justice and Reproductive Health
13. Global Environmental Agreements and Governance: From Rio to Glasgow and Beyond
14. Global Pandemic Risk and Climate/Environmental Policy

*Topics are preliminary and suggestive. Final topics will be decided jointly by the instructor and students.

Each case study will include topic background, review of relevant literature and policy efforts, an economic analysis that applies concepts learned in class and suggested policy considerations and approaches to resolving the environmental challenge.

Each case study should be 3 concise written pages using side 12 Times New Roman. Figures and diagrams can be included but only to the extent that they support the written material in the policy brief (e.g., avoid non-substantive images that do not add analytical support to the policy brief such as a picture of a charismatic polar bear or a rainforest).

Each student will submit 3 drafts that will receive thorough feedback from the instructor. The project will be worth 30% of your final grade.

Draft 1 – 5% of your final grade.

Draft 2 – 10% of your final grade.

Final Draft 3 – 15% of your final grade.

Each draft will be graded on your ability to respond to the detailed feedback received by the instructor including writing quality, concise communication, policy brief depth and displaying a clear understanding of how economic concepts apply to and inform the policy context of the given environmental challenge.

Grading Scale and Grading Policies: Include your methods of evaluation, how those methods factor into the final grade, the scale used to determine final grades, and how late assignments will be handled.

Grade	Points	Definition
A	4.000	≥ 90
B	3.000	≥ 80 and < 90
C	2.000	≥ 70 and < 80
D	1.000	≥ 60 and < 70
F	0.000	< 60

Preliminary Course Material Schedule:

**Additional reading, news clippings, podcasts and other material will be added to the class schedule throughout the semester.*

Thursday January 21 st	Online Class: Syllabus and Course Introduction
Tuesday January 26 th	HyFlex Class: L&T Chapters 1 and 2 The role of economics in formulating and implementing policy The economic approach: property rights, externalities, and environmental problems
Thursday January 28 th	HyFlex Class: L&T Chapter 3 The role of policy instrument choice in efficient environmental management
Tuesday February 2 nd	HyFlex Class: L&T Chapter 4 Evaluating trade-offs: benefit-cost analysis and other decision-making metrics
Thursday February 4 th	HyFlex Class: L&T Chapter 5 Valuing the environment: methods and examples
Friday February 5 th	Quiz 1 Available on Canvas: Friday February 5 th at 8:00am Quiz 1 Due: Sunday February 7 th at 8:00pm
Tuesday February 9 th	Review of Chapters 1 – 5 and Quiz 1
Thursday February 11 th	No Scheduled Class Exam 1 Available on Canvas: Thursday February 11 th at 8:00am Exam 1 Due: Sunday February 14 th at 8:00pm
Tuesday February 16 th	HyFlex Class: L&T Chapter 6 Ecosystem goods and services: nature's threatened bounty

Thursday February 18 th	HyFlex Class: L&T Chapter 6 Ecosystem goods and services: nature's threatened bounty
Tuesday February 23 rd	HyFlex Class: L&T Chapter 7 Fisheries policy
Thursday February 25 th	HyFlex Class: L&T Chapter 7 Fisheries policy
Tuesday March 2 nd	HyFlex Class: L&T Chapter 8 Climate change I: The nature of the challenge
Thursday March 4 th	HyFlex Class: L&T Chapter 8 Climate change I: The nature of the challenge
Friday March 5 th	Quiz 2 Available on Canvas: Friday March 5 th at 8:00am Quiz 2 Due: Sunday March 7 th at 8:00pm
Tuesday March 9 th	Review of Chapters 6 – 8 and Quiz 2
Thursday March 11 th	No Scheduled Class Exam 2 Available on Canvas: Thursday March 11 th at 8:00am Exam 2 Due: Sunday March 14 th at 8:00pm
Tuesday March 16 th	HyFlex Class: L&T Chapter 9 Climate change II: the role of energy policy
Thursday March 18 th	HyFlex Class: L&T Chapter 10 Climate change III: carbon pricing
Tuesday March 23 rd	HyFlex Class: L&T Chapter 11 Climate change IV: adaptation

Thursday March 25 th	<p>HyFlex Class:</p> <p>L&T Chapter 11</p> <p>Climate change IV: adaptation</p>
Tuesday March 30 th	<p>HyFlex Class:</p> <p>Quiz 3 Available on Canvas:</p> <p>Tuesday March 30th at 8:00am</p> <p>Quiz 3 Due:</p> <p>Monday April 5th at 8:00pm</p>
Tuesday April 6 th	<p>Review of Chapters 9 – 11 and Quiz 3</p> <p><i>First Draft of Policy Brief DUE</i></p>
Thursday April 8 th	<p>No Scheduled Class</p> <p>Exam 3 Available on Canvas:</p> <p>Thursday April 8th at 8:00am</p> <p>Exam 3 Due:</p> <p>Sunday April 11th at 8:00pm</p>
Tuesday April 13 th	<p>Online Class:</p> <p>L&T Chapter 12</p> <p>Transportation: managing congestion and local pollution</p>
Thursday April 15 th	<p>Online Class:</p> <p>L&T Chapter 12</p> <p>Transportation: managing congestion and local pollution</p>
Tuesday April 20 th	<p>Online Class:</p> <p>L&T Chapter 13</p> <p>Water: managing water quality for rivers, lakes and oceans</p> <p><i>Second Draft of Policy Brief DUE</i></p>
Thursday April 22 nd	<p>Online Class:</p> <p>L&T Chapter 13</p> <p>Water: managing water quality for rivers, lakes and oceans</p>
Tuesday April 27 th	<p>Online Class:</p> <p>L&T Chapter 14</p> <p>Toxics policy and environmental justice</p>

Thursday April 29 th	Online Class: L&T Chapter 14 Toxics policy and environmental justice
Friday April 30 th	Quiz 4 Available on Canvas: Friday April 30 th at 8:00am Quiz 4 Due: Sunday May 2 nd at 8:00pm
Tuesday May 4 th	Online Class: Review of Chapters 12 – 14 and Quiz 4
Thursday May 6 th	Online Class: <i>Final Policy Brief Due</i> Review of Chapters # – # and Quiz 4 L&T Chapter 15 Meeting the challenges: the role of economics Semester Wrap-Up / Final Thoughts
Friday May 7 th	Final Exam 4 Available on Canvas: Friday May 7 th at 8:00am Final Exam 4 Due: Tuesday May 11 th at 8:00pm

Attendance and Absence policies. Class attendance does not factor directly into grade calculations. However, attendance in class is particularly essential in this class to learning class material. University policies on excused absences are outlined in [UW Regulation 2-108 \(Student Attendance Policy\)](#). Subject to instructor discretion, excused absences are required to make up any late or missing assignments.

Classroom Behavior Policy:

At all times, treat your presence in the classroom and your enrollment in this course as you would a job. Act professionally, arrive on time, pay attention, complete your work in a timely and professional manner, and treat all deadlines seriously. You will be respectful towards you classmates and instructor. Spirited debate and disagreement are to be expected in any classroom and all views will be heard fully, but at all times we will behave civilly and with respect towards one another. Personal attacks, offensive language, name-calling, and dismissive gestures are not warranted in a learning atmosphere. As the instructor, I have the right to dismiss you from the classroom, study sessions, electronic forums, and other areas where disruptive behavior occurs.

Laptops are allowed for note-taking purposes; those who require laptops for accommodation of disabilities, work with Disability Support Services and me to accommodate your needs. No unauthorized video or audio recording during class is allowed to protect the privacy of your fellow students; for those who require recording for accommodation of disabilities, work with Disability Support Services and me to accommodate your needs.

Classroom Statement on Diversity: The University of Wyoming values an educational environment that is diverse, equitable, and inclusive. The diversity that students and faculty bring to class, including age, country of origin, culture, disability, economic class, ethnicity, gender identity, immigration status, linguistic, political affiliation, race, religion, sexual orientation, veteran status, worldview, and other social and cultural diversity is valued, respected, and considered a resource for learning.

Disability Support: *The University of Wyoming is committed to providing equitable access to learning opportunities for all students. If you have a disability, including but not limited to physical, learning, sensory or psychological disabilities, and would like to request accommodations in this course due to your disability, please register with and provide documentation of your disability as soon as possible to Disability Support Services (DSS), Room 128 Knight Hall. You may also contact DSS at (307) 766-3073 or udss@uwyo.edu. It is in the student's best interest to request accommodations within the first week of classes, understanding that accommodations are not retroactive. Visit the DSS website for more information at: www.uwyo.edu/udss"*

Academic Dishonesty Policies: Academic dishonesty will not be tolerated in this class. Cases of academic dishonesty will be treated in accordance with UW Regulation 2-114. The penalties for academic dishonesty can include, at my discretion, an "F" on an exam, an "F" on the class component exercise, and/or an "F" in the entire course. Academic dishonesty means anything that represents someone else's ideas as your own without attribution. It is intellectual theft – stealing – and includes (but is not limited to) unapproved assistance on examinations, plagiarism (use of any amount of another person's writings, blog posts, publications, and other materials without attributing that material to that person with citations), or fabrication of referenced information. Facilitation of another person's academic dishonesty is also considered academic dishonesty and will be treated identically."

Duty to Report: Statement referring to your duty to report status as instructional personnel under Title IX.

UW faculty are committed to supporting students and upholding the University's non-discrimination policy. Under Title IX, discrimination based upon sex and gender is prohibited. If you experience an incident of sex- or gender-based discrimination, we encourage you to report it. While you may talk to a faculty member, understand that as a "Responsible Employee" of the University, the faculty member MUST report information you share about the incident to the university's Title IX Coordinator (you may choose whether you or anyone involved is identified by name). If you would like to speak with someone who may be able to afford you privacy or confidentiality, there are people who can meet with you. Faculty can help direct you or you may find info about UW policy and resources at <http://www.uwyo.edu/reportit>

You do not have to go through the experience alone. Assistance and resources are available, and you are not required to make a formal complaint or participate in an investigation to access them.

Global Pandemic: We are experiencing unprecedented challenges as a society and each person is affected differently by those challenges. I am committed to helping and supporting you however I am able. Please contact me if the global pandemic is affecting you adversely and hindering your ability to be successful in this class.

Substantive changes to syllabus: *All deadlines, requirements, and course structure is subject to change if deemed necessary by the instructor. Students will be notified verbally in class, on our WyoCourses page announcement, and via email of these changes.*

Student Resources:

Example: CAMPUS RESOURCES

DISABILITY SUPPORT SERVICES: udss@uwyo.edu, 766-3073, 128 Knight Hall, www.uwyo.edu/udss

COUNSELING CENTER: uccstaff@uwyo.edu, 766-2187, 766-8989 (After hours), 341 Knight Hall, www.uwyo.edu/ucc

ACADEMIC AFFAIRS: 766-4286, 312 Old Main, www.uwyo.edu/acadaffairs

DEAN OF STUDENTS OFFICE: dos@uwyo.edu, 766-3296, 128 Knight Hall, www.uwyo.edu/dos

UW POLICE DEPARTMENT: uwpd@uwyo.edu, 766-5179, 1426 E Flint St, www.uwyo.edu/uwpd

STUDENT CODE OF CONDUCT WEBSITE: www.uwyo.edu/dos/conduct

2021 SPRING CAMPUS PLAN: http://www.uwyo.edu/alerts/_files/docs/uw-spring-plan_final.pdf