

ECOL 8990: Environmental Policy & Natural Resource Management

Spring 2023

2 Credit Hours

University of Georgia

Odum School of Ecology

Sechindra Vallury, Ph.D.

Office: River Basin Center

Email: sechindra.vallury@uga.edu

Class Schedule: Thursdays, 2:20 PM to 4:00 PM Class

Location: Ecology 12

Office Hours: available by appointment

Course Description

Key concepts in the study of environmental policy and natural resource management. Students will learn to apply the framework of new institutional economics to study how regulation, property rights, and collective action strategies perform as mechanisms for aligning individual incentives with long-term sustainable resource use across a variety of contexts from common pool resources such as groundwater to environmental externalities such as air pollution. The course will focus on how underlying conditions determine the transactions costs associated with different forms of policy responses. Two competencies that students can expect to gain from this course are: (1) understand how the effectiveness of different policy responses to environmental dilemmas are shaped by underlying legal rules, user characteristics, and resource characteristics, and (2) an ability to critically analyze these policy concepts and how these relate to their own research. These skills will provide a foundation for students interested in policy-related research. These competencies will be developed through individual writing exercises and in-class discussion.

Student Learning Objectives

Upon completion of this course, you will be able to:

- Demonstrate broad knowledge related to environmental policy and politics, especially the institutional analysis literature.
- Complete regular exercises to demonstrate your ability to rigorously analyze sustainability science research on environmental policy and politics.
- Develop and improve your command of theoretical concepts to conceptually frame and communicate policy research.

Recommended Text

Having a copy of the following book might serve you well, as we will draw several readings from it: *Anderson, Terry L., and Gary D. Libecap. Environmental Markets: A Property Rights Approach. Cambridge University Press, 2014.* An e-copy of this textbook is available for free via UGA Library.

eLearning Commons and Online Resources

In addition to the required textbooks, additional reading is posted in a folder in the eLearning Commons (eLC). Students can access online information about our class at <http://elc.uga.edu>. Graduate students should become familiar with searching for journal articles and books using the library's holdings and electronic databases. Many journals are free to you through your status as a student at the University of Georgia, and you should make use of these resources.

Grades

40%	Class participation
60%	Written summaries

Assignments will be evaluated using a point system, with 100 points possible for the class. Note, the grade “A” indicates “outstanding” achievement. The following scale will be used to assign letter grades in this class:

100 – 94 points A	86.9 – 83 points B	75.9 – 70 points C
93.9 – 90 points A-	82.9 – 80 points B-	69.9 – 60 points D
89.9 – 87 points B+	79.9 – 76 points C+	59.9 – 0 points F

All grades will be posted in a timely manner in eLC. Students are encouraged to frequently check their progress during the semester. Students have two weeks after a grade is posted to meet with me regarding grading issues. **After two weeks, the grade WILL NOT be changed.**

Should you wish to discuss your grade, you must meet with me during office hours or by Zoom. I am not able to discuss grades by email.

Class Participation

Student must complete the reading assigned before each class meeting and be prepared for discussion. We are interested in each person’s contribution, so please understand if I ask for brevity or a conclusion to a chain of discussion to ensure everyone has an opportunity for input. Your dedication each week will be necessary for gaining the knowledge and tools necessary for the writing assignments and presentation. Finally, you are expected to practice professional decorum and respect in the classroom.

Written Summaries

Students are responsible for completing all the mandatory readings before each class. Additional readings on some topics are listed for those who are interested, but not required. Students will be expected to submit a brief, 1-page summary and critique of the readings including 3-5 discussion questions, due at **8:00 AM the day of class for 10 of the 16 class discussions**. These summaries can be uploaded to eLC. One student’s discussion questions will be randomly selected before the start of each class and provide supplementary discussion to my prepared remarks. You must coordinate to ensure that at least one person prepares discussion questions for each class — there will be a 2% grade penalty for everyone in the class if I do not receive any discussion questions for a given class.

Late Assignments

Deadlines have been structured so that the instructor can provide regular and periodic feedback on your understanding and application of the course material. For late submissions, 1 point will be deducted from the final grade of the assignment for each day it is late. **No late material will be accepted after May 8, 2023.**

Class Expectations and Guidelines

Lecture Protocols: Recording or distribution of class sessions (video or audio) is prohibited. If a student wishes to record, they must first gain approval from the instructor and other students that may be included in the recording. Students that require recording for purposes of special accommodation must

have relevant written accommodations from the UGA Disability Resource Center. Please see the [DRC guidelines](#) for more information.

Freedom of expression is welcome, but decorum must be professional and respectful. In accordance with UGA [here](#), expressive activities must not disrupt the class.

Preferred Name and Pronouns: Professional courtesy and sensitivity are especially important with respect to individuals and topics dealing with differences of race, culture, religion, politics, sexual orientation, gender, gender variance, and nationalities. Class rosters are provided to the instructor with the student's legal name. I am eager to address you by your preferred name and/or gender pronoun. Please advise me of this preference early in the semester so that I may make appropriate changes to my records.

Academic Honesty: As a University of Georgia student, you have agreed to abide by the University's academic honesty policy, "A Culture of Honesty," and the Student Honor Code. All academic work must meet the standards described in "A Culture of Honesty" found at: <https://honesty.uga.edu/Academic-Honesty-Policy/>. Lack of knowledge of the academic honesty policy is not a reasonable explanation for a violation. Questions related to course assignments and the academic honesty policy should be directed to the instructor.

Plagiarism: Our capacity to learn and synthesize knowledge within the public administration profession depends upon our ability to build on the foundation of existing knowledge and research. Recognizing and documenting the work of others is critical for all students, but especially for graduate students. When writing, students must take great care in how they reference ideas and information sources. **Never use someone else's words or ideas in your writing without proper attribution.** Serious penalties exist for academic misconduct and plagiarism. Students should read and be familiar with the following resources:

o UGA Academic Honesty Policy: Plagiarism https://honesty.uga.edu/Academic-Honesty-Policy/Prohibited_Conduct/

o UGA Libraries Research Guide: Writing and Citing <http://www.libs.uga.edu/researchguide/writing/index.html>

Mental Health and Wellness Resources: If you or someone you know needs assistance, you are encouraged to contact Student Care and Outreach in the Division of Student Affairs at 706-542-7774 or visit <https://sco.uga.edu>. They will help you navigate any difficult circumstances you may be facing by connecting you with the appropriate resources or services.

- UGA has several resources for a student seeking mental health services (<https://www.uhs.uga.edu/bewelluga/bewelluga>) or crisis support (<https://www.uhs.uga.edu/info/emergencies>).
- If you need help managing stress anxiety, relationships, etc., please visit BeWellUGA (<https://www.uhs.uga.edu/bewelluga/bewelluga>) for a list of FREE workshops, classes, mentoring, and health coaching led by licensed clinicians and health educators in the University Health Center. Additional resources can be accessed through the UGA App.

Electronic Devices: Silence all phones and other electronic noise-making devices while you are in the classroom. Save text messages and emails for the break or after class. Laptop computers or tablets may be used for taking notes, but students must refrain from participating in any online activities during class.

Attendance and Accommodations: Attendance is not required, but it is necessary to receive credit for in-class discussion. To receive full credit for in-class discussion, you will need to attend 13 of the 15 classes (this does not include the presentation day on December 2). You are responsible for staying up to date on class content and assignments. If you fall ill, please communicate with the instructor so that we can make appropriate accommodations. If health concerns develop and you require an accommodation, please reach out to the instructor and/or the Disability Resource Center (DRC) on campus, as appropriate. The DRC can be reached at drc@uga.edu or 706.542.8719.

Communication with the Instructor: Throughout the semester, you can reach me by email, and can expect me to return correspondence in a timely manner (at most 48 hours, not including weekends). I am also available to talk during office hours. If the available time slot does not align with your schedule, contact me by email so that we can identify a good meeting time.

Disabilities and Accommodations: If you plan to request accommodations for a disability, please register with the Disability Resource Center. They can be reached by visiting Clark Howell Hall, calling 706-542-8719 (voice) or 706-542-8778 (TTY), or by visiting <http://drc.uga.edu>

Syllabus and Schedule Changes: The course syllabus is a general plan for the course; deviations announced to the class by the instructor may be necessary. The instructor will communicate changes in writing through your UGA email account.

Other Logistics:

- Please go [here](#) to learn more information on the confidentiality of student records.
- Requests for incompletes (I) and withdrawal (W) must be made in accordance with university policies. For information on incompletes, please go to [here](#); for withdrawals go [here](#).

Coronavirus Information for Students

Information on resources for dealing with COVID-19 are outlined here.

- ***What do I do if I have symptoms?*** Students showing symptoms should self-isolate and schedule an appointment with the University Health Center by calling 706-542-1162 (Monday-Friday, 8am—5pm). Please DO NOT walk-in. Please go to the UGA [emergencies and after-hours care website](#) for more information.
- ***What do I do if I am notified that I have been exposed?*** Students who believe they have been directly exposed to COVID-19 and are showing symptoms should seek care from the [University Health Center](#). Please isolate until you can be assessed and do not walk in. For everyone's safety, the [Health Center](#) is seeing patients by appointment only. For respiratory complaints, we will often schedule a telehealth visit via Zoom through which we can determine how best to arrange for both care and testing. To make an appointment via telehealth or in person please call 706-542-1162, or, if you know it use your primary care team's number.
- ***How do I get a test?*** Students who are demonstrating symptoms of COVID-19 should call the [University Health Center](#). UHC is offering testing by appointment for students; appointments may be booked by calling 706-542-1162 or your primary care team's number.
- ***What do I do if I test positive?*** Anyone who tests positive should isolate for 5 days, even if you are not experiencing any symptoms, regardless of vaccination status per the CDC. You are also

strongly encouraged to share your test results with those you believe you were in close contact with so they may take appropriate measure to isolate. Students should not attend classes in-person until the isolation period is completed and they test negative.

- **Where can I get vaccinated?** The [University Health Center](#) (UHC) is administering the COVID-19 vaccine for free to any eligible member of the UGA community over the age of 16. Vaccines are also offered by local health providers as well many pharmacies in the area. Students may continue to schedule their COVID vaccine appointments online through the Patient Portal.

Course Outline

** indicates that an e-book is available for free via UGA Library

Week #	Topics	Readings
1 1/12	Course overview and brief introduction	<p>** Anderson, T.L. and Libecap, G.D., 2014. Chapter 1: Who owns the environment? <i>In Environmental markets: a property rights approach.</i> Cambridge University Press.</p> <p>Hardin, G. 1968. The tragedy of the commons. <i>Science</i>, 162, 1243–8.</p>
2 1/19	The Environment and the Commons	<p>Gordon, H. S., 1954. The economic theory of a common-property resource: the fishery. <i>The Journal of Political Economy</i>, 62(2), pp. 124-142.</p> <p>Dietz, T. Ostrom, E. and Stern, P.C., 2003. The struggle to govern the commons. <i>Science</i>, 302(5652), pp.1907-1912.</p> <p>David Feeney, F. Berkes, B.J. McCay, J.M. Acheson, 1990. The tragedy of the commons: twenty-two years later. <i>Human Ecology</i> 18(1), pp. 1-19.</p> <p>Additional: Hardin, G., 1998. Extensions of "the tragedy of the commons". <i>Science</i>, 280(5364), pp.682-683.</p>
3 1/26	Externalities	<p>** Baumol, W.J. and Oates, W.E., 1988. Chapter 3: Externalities: definition, significant types, and optimal-pricing conditions <i>In The Theory of Environmental Policy;</i> Cambridge University Press: Cambridge, UK.</p> <p>Coase, R.H., 1960. The problem of social cost. <i>The Journal of Law and Economics</i>, 56(4), pp.837-877.</p> <p>Libecap, G.D., 2014. Addressing global environmental externalities: transaction costs considerations. <i>Journal of Economic Literature</i>, 52(2), pp.424-79.</p> <p>Additional:</p> <ul style="list-style-type: none"> • Allen, D.W., 1991. What are transaction costs?. <i>Research in Law and Economics</i>, 14(1991), pp.1-18. • Dahlman, C.J., 1979. The problem of externality. <i>The Journal of Law and Economics</i>, 22(1), pp.141-162.

<p>4 2/2</p>	<p>Regulatory approaches for pollution control</p>	<p>Goulder, L.H. and Parry, I.W., 2008. Instrument choice in environmental policy. <i>Review of environmental economics and policy</i>.</p> <p>**Olmstead, S., & A Zheng, J., 2019. Chapter 2: Survey of approaches used to control water pollution <i>In Policy Instruments for Water Pollution Control in Developing Countries</i>. Washington, D.C.: World Bank Publications, pp. 5-24.</p> <p>Alpizar, F., Carlsson, F., Lanza, G., Carney, B., Daniels, R.C., Jaime, M., Ho, T., Nie, Z., Salazar, C., Tibesigwa, B. and Wahdera, S., 2020. A framework for selecting and designing policies to reduce marine plastic pollution in developing countries. <i>Environmental Science & Policy</i>, 109, pp.25-35.</p> <p>Additional:</p> <p>**Keohane, N. O. & Olmstead, S. M. (2016). Chapters 2: Economic Efficiency and Environmental Protection <i>In Markets and the Environment</i> (pp. 11-34). Washington, D.C.: Island Press.</p> <p>**Keohane, N. O. & Olmstead, S. M. (2016). Chapter 5: Market Failures in the Environmental Realm <i>In Markets and the Environment</i> (pp. 80-98). Washington, D.C.: Island Press.</p> <p>**Keohane, N. O. & Olmstead, S. M. (2016). Chapter 3: The Benefits and Costs of Environmental Protection <i>In Markets and the Environment</i> (pp. 35-68). Washington, D.C.: Island Press.</p>
<p>5 2/9</p>	<p>Alternative policy approaches</p>	<p>Banzhaf, H.S., Fitzgerald, T. and Schnier, K., 2013. Nonregulatory approaches to the environment: Coasean and Pigouvian perspectives. <i>Review of Environmental Economics and Policy</i>.</p> <p>Kotchen, M.J., 2013. Voluntary-and information-based approaches to environmental management: A public economics perspective. <i>Review of Environmental Economics and Policy</i>.</p> <p>Bockstael, N.E., Freeman, A.M., Kopp, R.J., Portney, P.R. and Smith, V.K., 2000. On measuring economic values for nature.</p>
<p>6 2/16</p>	<p>New institutional economics</p>	<p>Williamson, O.E., 1998. The institutions of governance. <i>The American Economic Review</i>, 88(2), pp.75-79.</p> <p>Ostrom, E., 2005. Doing institutional analysis digging deeper than markets and hierarchies. <i>In Handbook of new institutional economics</i> Springer, Boston, MA., pp. 819-848.</p> <p>North, D.C., 1990. Chapter 1: An introduction to institutions and institutional change. <i>In Institutions, institutional change and economic performance</i>. Cambridge University Press.</p> <p>Additional: Ostrom, E., 2008. Institutions and the Environment. <i>Economic affairs</i>, 28(3), pp.24-31.</p>

7 2/23	Theory of property rights	Anderson, T.L. and Libecap, G.D., 2014. Chapter 3: Property Rights for the Common Pool. <i>In Environmental markets: A property rights approach</i> . Cambridge University Press. Demsetz, H., 1967. Toward a Theory of Property Rights. <i>The American Economic Review</i> , 57(2), pp.347-359.
8 3/2	Property rights approaches in practice	Depres, C., Grolleau, G. and Mzoughi, N., 2008. Contracting for environmental property rights: the case of Vittel. <i>Economica</i> , 75(299), pp.412-434. Greif, A., Milgrom, P. and Weingast, B.R., 1994. Coordination, commitment, and enforcement: the case of the merchant guild. <i>Journal of Political Economy</i> , 102(4), pp.745-776. Smith, S.M., 2018. From decentralized to centralized irrigation management. <i>Journal of Economic Behavior & Organization</i> , 151, pp.62-87.
9 3/9	SPRING BREAK, NO CLASS	
10 3/16	Limitations of property rights approaches	Anderson, Terry L., and Gary D. Libecap. "Chapter 5: The Politics of Property Rights." <i>Environmental Markets: A Property Rights Approach</i> . Cambridge University Press, 2014. Ellickson, R.C., 1985. Of Coase and cattle: Dispute resolution among neighbors in Shasta County. <i>Stan. L. Rev.</i> , 38, p.623. Hsiang, S., Oliva, P. and Walker, R., 2019. The distribution of environmental damages. <i>Review of Environmental Economics and Policy</i> .
11 3/23	Theory of collective action	Axelrod, R. and Hamilton, W.D., 1981. The evolution of cooperation. <i>Science</i> , 211(4489), pp.1390-1396. Sethi, R. and Somanathan, E., 1996. The evolution of social norms in common property resource use. <i>The American Economic Review</i> , pp.766-788. Ostrom, E., 2000. Collective action and the evolution of social norms. <i>Journal of Economic Perspectives</i> , 14(3), pp.137-158. Additional: Nowak, M.A., 2012. Evolving cooperation. <i>Journal of theoretical biology</i> , 299(0), pp.1-8. Gardner, R., Ostrom, E. and Walker, J.M., 1990. The nature of common-pool resource problems. <i>Rationality and society</i> , 2(3), pp.335-358. Ahn, T.K., Ostrom, E., Schmidt, D., Shupp, R. and Walker, J., 2001. Cooperation in PD games: Fear, greed, and history of play. <i>Public Choice</i> , 106(1), pp.137-155.
12 3/30	Interventions to foster collective action	Vallury, S., Abbott, J.K., Shin, H.C. and Anderies, J.M., 2020. Sustaining coupled irrigation infrastructures: multiple instruments for multiple dilemmas. <i>Ecological Economics</i> , 178, p.106793.

		<p>Cody, K., 2019. The evolution of norms and their influence on performance among self-governing irrigation systems in the Southwestern United States. <i>International Journal of the Commons</i>, 13(1).</p> <p>Bastakoti, R.C. and Shivakoti, G.P., 2012. Rules and collective action: An institutional analysis of the performance of irrigation systems in Nepal. <i>Journal of Institutional Economics</i>, 8(2), pp.225-246.</p> <p>Lam, W.F. and Ostrom, E., 2010. Analyzing the dynamic complexity of development interventions: lessons from an irrigation experiment in Nepal. <i>Policy sciences</i>, 43(1), pp.1-25.</p> <p>Additional: Smith, S.M., Andersson, K., Cody, K.C., Cox, M. and Ficklin, D., 2017. Responding to a groundwater crisis: The effects of self-imposed economic incentives. <i>Journal of the Association of Environmental and Resource Economists</i>, 4(4), pp.985-1023.</p>
13 4/6	Barriers to collective action	<p>Raymond, L. (2006). Cooperation without trust: Overcoming collective action barriers to endangered species protection. <i>Policy Studies Journal</i>, 34(1), 37-57.</p> <p>Ayres, A. B., Edwards, E. C., & Libecap, G. D. (2018). How transaction costs obstruct collective action: The case of California's groundwater. <i>Journal of Environmental Economics and Management</i>, 91, 46-65.</p> <p>Bowles, S., 2008. Policies designed for self-interested citizens may undermine" the moral sentiments": Evidence from economic experiments. <i>Science</i>, 320(5883), pp.1605-1609.</p>
14 4/13	Inequality and common-pool resource governance	<p>Méndez-Barrientos, L. E., DeVincentis, A., Rudnick, J., Dahlquist-Willard, R., Lowry, B., & Gould, K. (2020). Farmer participation and institutional capture in common-pool resource governance reforms. The case of groundwater management in California. <i>Society & Natural Resources</i>, 33(12), 1486-1507.</p> <p>Baland, J.M. and Platteau, J.P., 1999. The ambiguous impact of inequality on local resource management. <i>World development</i>, 27(5), pp.773-788.</p> <p>Coleman, E. A., & Mwangi, E. (2015). Conflict, Cooperation, and Institutional Change on the Commons. <i>American Journal of Political Science</i>, 59(4), 855-865. https://doi.org/10.1111/ajps.12137</p>
15 4/20	Knowledge in social-ecological systems	<p>Timothy Tear, et al. (October 2005) "How Much is Enough? The Recurrent Problem of Setting Measurable Objectives in Conservation" <i>Bioscience</i> 55(10):835-849.</p> <p>"Stalking the American Lobster" <i>The Atlantic Monthly</i> (April 2002), pp. 62-81.</p> <p>Sarah Schuman. 2011. "Navigating the Knowledge Interface: Fishers and Biologists under Co-management in Chile" <i>Society and Natural Resources</i> 24:11</p>

<p>16 4/27</p>	<p>Sustainable environmental governance</p>	<p>**Anderson, T.L. and Libecap, G.D., 2014. Chapter 2: Is government the solution? In Environmental markets: A property rights approach. Cambridge University Press.</p> <p>Ando, A.W., 1999. Waiting to be protected under the Endangered Species Act: the political economy of regulatory delay. The Journal of Law and Economics, 42(1), pp. 29-60.</p> <p>Ostrom, E., Janssen, M.A. and Anderies, J.M., 2007. Going beyond panaceas. Proceedings of the National Academy of Sciences, 104(39), pp.15176-15178.</p> <p>Additional: Lemos, M.C. and Agrawal, A., 2006. Environmental governance. Annual review of environment and resources, 31(1), pp.297-325.</p>
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