

Green Economics

USP 490/590 Spring 2024 Tues. 18:40-21:20 Place: Urban Center Building 304

Bobby Cochran, National Policy Consensus Center, Instructor

Office Hours: by appointment, Best Tues 17:40-18:40

Phone: 503-334-6872

Email: jcochran@pdx.edu

What's Next to Green Our Economy

Green Economics examines prevailing assumptions about economic growth, production, consumption, labor, and leisure. We consider how changes in these basic assumptions might help us design an economic system that includes alternative values such as appropriate scale, community impact, and environmental sustainability.

FOR THE 2024 YEAR, we will focus on a range of economic development issues in Oregon in ways that could inform policy in Oregon and at the federal level. Topics will range from clean water, renewable energy, affordable housing, equitable healthcare, and climate justice for small towns.

I also try to incorporate some of the skills organizations look for in their leaders--A combination of interdisciplinary knowledge, analytical and communications skill building, and resume building with a final project will be incorporated throughout the course.

Assignments and evaluation

Class Participation (10%): Students are expected to attend class- in-person (roll will be taken) and participate in the discussion as active listeners and participants. This portion of the grade also assumes each student will have completed the readings and watched the video lecture (if there are some) for the week and come to class prepared for active discussion.

Weekly class reflections + discussion responses (25%): After each class, post a brief reflection on something from class that surprised you, you liked, you did not like. We will set up a discussion thread on Canvas for each week. Also, post at least two responses in the discussion thread for each week.

Mini Assignments (35%): Throughout the term, there will be five (5) mini assignments that build from the readings to apply to an issue and design actions for resolving that issue. Several of the mini assignments help build toward your final project. The purpose of the mini assignments is to allow you to comment on and integrate what you read during the week. Each mini assignment should include citations to the readings (using APA style), your own original thinking, and clear recommendations for action. Some mini assignments are worth 5pts and some are worth 10 pts.

Your weekly mini assignments should be submitted on Canvas by 5:00 PM on Friday. I will read, and return your mini assignments each week. Each student will have the opportunity to re-write one mini assignment during the course, but ONLY if the original assignment was turned in before 6/4. Late or missing mini assignments will negatively affect your evaluation.

Green solutions project (30%): Your final assignment will be done with teams working on a similar water and economic development challenge, but with individual submissions focused on different solutions to that same challenge. Your solution concept will be presented in class, and in a 10 page written policy memo. Teams will be 2-5 people. If the class is large, a second presentation session will be arranged.

We will have a list of environment and economic development challenges, but students are encouraged to find a solutions project that will make the most difference in the short time we have.

Final Exam: There will be no final exam.

Readings

This course is heavy on readings across a diversity of subject matter. Readings will be taken from texts, websites, and articles.

Course Web Site

There is a Canvas site for the course. You must have an ODIN account to access Canvas; use your ODIN login and password to access Canvas. Canvas course sites can be accessed at <https://canvas.pdx.edu/>. If you're registered for the class and have an ODIN account, you'll be added to the course web site automatically. We will rely on the web site for announcements, updates, and additional information. We will also post needed data files and extra readings there, in addition to lecture slides, when appropriate.

Creating a Safe, Inclusive, Professional Learning Environment

It is important to us to have a class space where people are free to learn, challenge each other's ideas, and advance. The goal of inclusive spaces is one of today's most pressing sustainability challenges, so always feel free to help us make our classroom more inclusive.

Title IX: Portland State is committed to providing an environment free of all forms of prohibited discrimination and sexual harassment (sexual assault, domestic and dating violence, and gender or sex-based harassment and stalking). If you have experienced any form of gender or sex-based discrimination or sexual harassment, know that help and support are available. Information about PSU's support services on campus, including confidential services and reporting options, can be found on PSU's Sexual Misconduct Prevention and Response website at: <http://www.pdx.edu/sexual-assault/get-help> or you may call a confidential IPV Advocate at 503-725-5672 or schedule Online at <https://psuwrc.youcanbook.me>. You may report any incident of discrimination or discriminatory harassment, including sexual harassment, to:

- PSU's Title IX Coordinator: Julie Caron by calling 503-725-4410, via email at titleixcoordinator@pdx.edu or in person at Richard and Maureen Neuberger Center (RMNC), 1600 SW 4th Ave, Suite 830

- Deputy Title IX Coordinator: Yesenia Gutierrez by calling 503-725-4413, via email at yesenia.gutierrez.gdi@pdx.edu or in person at RMNC, 1600 SW 4th Ave, Suite 830

Please be aware that all PSU faculty members and instructors are required to report information of an incident that may constitute prohibited discrimination, including sexual harassment and sexual violence. This means that if you tell me about a situation of sexual harassment or sexual violence that may have violated university policy or student code of conduct, I have to share the information with my supervisor, the University's Title IX Coordinator or the Office of the Dean of Student Life. However, the Title IX Coordinators will keep the information confidential and refer you to a confidential advocate. For more information about Title IX please complete the required student module Creating a Safe Campus in your D2L.

Access and Inclusion for Students with Disabilities

PSU values diversity and inclusion; My goal is to create a learning environment that is accessible, equitable, inclusive, and welcoming. I am committed to fostering mutual respect and full participation for all students. If any aspects of instruction or course design result in barriers to your inclusion or learning, please notify me. Additionally, the Disability Resource Center (DRC) provides reasonable accommodations for students who encounter barriers in the learning environment. The DRC works with students who have physical, learning, cognitive, mental health, sensory, and other disabilities.

If you have, or think you may have, a disability that may affect your work in this class and feel you need accommodations, contact the Disability Resource Center to schedule an appointment and initiate a conversation about reasonable accommodations.

If you already have accommodations, please contact me to make sure that I have received your faculty notification letter from the DRC so we can discuss your accommodations.

The DRC is located in 116 Smith Memorial Student Union, Suite 116. You can also contact the DRC at 503-725-4150 or drc@pdx.edu. Visit the DRC online at <https://www.pdx.edu/disability-resource-center>.

Academic honesty

Students are expected to be ethical not only in the classroom, but also out of the classroom. It is in all students' interest to avoid committing acts of academic dishonesty and to discourage others from committing such acts. Academic dishonesty includes, but is not limited to, the following examples: engages in any form of academic deceit; refers to materials or sources or uses devices not authorized by the instructor for use during any quiz or assignment; provides inappropriate aid to another person in connection with any quiz or assignment; engages in Plagiarism. Plagiarism is the act of claiming someone's work as your own through copying it without giving the creator of the work credit. Plagiarism can also include using another person's theories, ideas, or phrases without proper attribution. The simplest way to avoid plagiarizing is to always cite the sources from which you gather information or develop arguments – just cite anything you use from someone else (it actually makes your work stronger!). Plagiarism is a serious issue and is a violation of the PSU Student Conduct Code. University policy requires instructors to report all instances of plagiarism and penalize the perpetrator(s) according to guidelines set. Please see me if you ever have any questions about how to cite your work.

Grading Policies

Incomplete grades. We will only assign an incomplete (I) grade when circumstances are consistent with PSU's policy on incomplete grades, shown below. "Circumstances must be unforeseen or beyond [your] control." In other words, we do not give incompletes for poor planning on your part, e.g., you got too busy with work and your other classes. If you do encounter unforeseen circumstances, approach me as soon as possible about entering into a written agreement for an incomplete grade.

Late assignments will be marked down – one-third of a grade per day late. "One-third of a grade" is, for example, from A to A-, B+ to B, etc. (or 3.3% using the scale below). As with incomplete grades, we generally do not allow students to turn things in late without assessing this penalty, except in unusual circumstances, e.g. medical emergencies. Having too much work in other classes or at work/internship does not count. All students have those challenges. *The LAST day to submit late assignments is 6/4/2024 by 12pm.*

Our grading scale works as follows:

	Above
A	93.3%
A-	90.0%
B+	86.7%
B	83.3%
B-	80.0%
C+	76.7%
C	73.3% etc.

Class Schedule

4/2 (Week 1): What is economics? And why does its link to environment and justice matter?

- Introductions, review of the syllabus
- Establishing some working foundations for climate and economic development in Oregon—how climate underpins our economy, our cultures, our lives; How can economics help us understand our relationship with the environment?
- Making your case compelling Part I: How to write a policy memo
- Fleshing out topics of interest to the class
- Beginning: define the state of the Oregon's environment in the context of the world

Read:

Oregon Global Warming Commission. Climate Change in Oregon.

<https://www.keeporegoncool.org/climate-change-in-oregon>.

Oregon Water Futures. Oregon Water Justice Framework. 2022.

<https://www.oregonwaterfutures.org/water-justice-framework>.

Musso, J., B. Biller, and B. Myrtle. 1999. *The Tradecraft of Writing for Policy Analysis and Management*. <https://priceschool.usc.edu/students/tradecraft/>.

4/9 (Week 2): Defining the problems: State of Oregon's Environment

- Ecosystem services
- Direct and indirect drivers of change in water
- Elements of human well-being relative to water
- Beginning: the role of the economy and how economists view the natural world

Read:

Millennium Ecosystem Assessment, 2005. *Living Beyond Our Means: Statement from the Board*. Island Press, Washington, DC.

<https://www.millenniumassessment.org/documents/document.429.aspx.pdf>

Fifth Oregon Climate Assessment: Executive Summary. 2021.

<https://oregonstate.app.box.com/s/3ce2qvmxy881vug4qu4wgb4ypijbv7m5>.

4/16 (Week 3): **VIRTUAL CLASS: Measuring our footprints in ecological, economic, and social terms**

- Ecosystem service valuation within a cost-benefit analysis (Lents neighborhood, Value of riparian vegetation, Hedonic pricing, willingness to pay, etc...)
- Cost Benefit Analysis

Read & Watch:

Read: Portney, Paul R. 2019. Benefit-Cost Analysis.
<https://www.econlib.org/library/Enc/BenefitCostAnalysis.html>.

Watch: “Intro to Cost-Benefit Analysis” (2014). The Conservation Strategy Fund.
<https://www.youtube.com/watch?v=7tdKkeNCIPE>.

Download the Cost-Benefit Analysis template from Canvas and try filling it out with the data from the YouTube video.

Read: One of the blog posts from Law and Political Economy Project. 2021. Symposium on the Future of Cost-Benefit Analysis. <https://lpeproject.org/symposia/cost-benefit-analysis/>.

Read: Ervin, D., S. Vickerman, S. Ngawhika, F. Beaudoin, S. Hamlin, E. Dietrich, P. Manson, and J. Schoenen. 2014. Principles to Guide Assessments of Ecosystem Service Values, first revised edition. Portland, Oregon: Cascadia Ecosystem Services Partnership, Institute for Sustainable Solutions, Portland State University.
<https://defenders.org/sites/default/files/publications/principles-to-guide-assessments-of-ecosystem-service-values.pdf>.

4/23 (Week 4): How do economists see the natural world?

- The economics of climate—Pricing, rights, markets, and value
- Neoclassical economics
- Institutional economics
- New institutional economics

Read & Watch:

Watch this 10 minute video on Economic Theory that’s a little broader, but pretty good:
<https://www.youtube.com/watch?v=tZvjh1dxz08>

A neoclassical view (hint-Austrian and Chicago schools linked to this): Anderson, Terry L., and Donald R. Leal. 1992. Free Market Versus Political Environmentalism. *Harvard Journal of Law & Public Policy* 15(2): 297–310.

Saleth, RM. 2018. Editorial: The Institutional Economics of Water. *Water Economics and Policy*, Vol 4 (3). <https://www.worldscientific.com/doi/10.1142/S2382624X18020034>.

The Diamond-Water Paradox. 2018.
<https://www.npr.org/sections/money/2018/07/25/632473671/the-diamond-water-paradox>.

Understanding Water Rights in Oregon. 2017. Coalition of Oregon Land Trusts.
<https://oregonlandtrusts.org/wp-content/uploads/2019/04/COLT-water-law-primer-final-draft-August-14-2017.pdf>

4/30 (Week 5): The global economy in an interconnected world

- The impacts of a global economy on peace
- The interplay between trade, poverty, conflict, and the environment for water in Oregon

Read & Listen:

Listen to **TWO** of these Planet Money podcasts:

- <https://www.npr.org/2022/08/17/1118017763/planet-money-summer-school-6-trade-the-better-life>
- <https://www.npr.org/2022/10/21/1130640816/strong-dollar-us-latin-america-inflation-peso-mexico-argentina-chile>
- <https://www.npr.org/2022/09/30/1126167551/would-you-like-a-side-of-offshoring-with-that>
- <https://www.npr.org/2022/03/09/1085605288/the-dollar-at-the-center-of-the-world-classic>
- <https://www.npr.org/sections/money/2018/03/20/595338556/a-brief-history-of-tariffs>
- <https://www.npr.org/2022/03/14/1086492040/conflict-and-high-food-prices-update>
- <https://www.npr.org/2022/03/11/1086163829/what-do-mcdonalds-stores-oil-and-nickel-have-in-common>
- <https://www.npr.org/sections/money/2018/03/14/593606142/what-trade-organization>
- <https://www.npr.org/2022/05/06/1097135961/the-day-russia-adopted-the-free-market>

5/7 (Week 6): Can economics help link environment, health, education, and development to advance equity?

- Sources of inequity and injustice in water (e.g., water rights allocations, pollution, affordability)
- The economic impacts of injustice and the economic benefits of equity, diversity, and inclusion: Using a lens of health, economic mobility, food sovereignty, etc.
- Ways to use economics to cross sectors and advance equity

Read:

Noel, Nick, Duwain Pinder, Shelley Stewart, and Jason Wright. 2019. "The Economic Impact of Closing the Racial Wealth Gap." McKinsey and Company report, New York.

<https://www.imf.org/en/Publications/fandd/issues/2020/09/the-economic-cost-of-racism-losavio>.

[Read transcript or just watch the first 30 min] Brookings Institution. 2022. Reshaping the economic narrative around America's rural communities.

<https://www.brookings.edu/events/reshaping-the-economic-narrative-around-americas-rural-communities/>.

Frumkin et. al. (2017). Nature Contact and Human Health: A Research Agenda. Environmental Health Perspectives, Volume 125 (7). <https://doi.org/10.1289/EHP166> 3

5/14 (Week 7): Hold for Panel of Speakers or Final Project Study Hall

5/21 (Week 8): Greening existing markets and building new markets (food, fiber, air, water, and biodiversity)

- Subsidies (Farm Bill Conservation titles, electric vehicle credits)
- Taxes (Carbon tax, NYC congestion tax)
- Full cost accounting (Carbon accounting in capital investments)
- Certification (LEED, FSC)
- Carbon markets
- Mechanics of an offset market

Read:

Oregon Climate Protection Program. 2021. Program Brief for Communities. [https://www.oregon.gov/deq/ghgp/Documents/ CPP-Overview.pdf](https://www.oregon.gov/deq/ghgp/Documents/_CPP-Overview.pdf).

Salzman, J. (2005). "Creating Markets for Ecosystem Services: Notes from the Field." *New York University Law Review*, 80, 870-961.

5/28 (Week 9): Finding the Money to Fund Green Projects

- What are the different types of money accessible to fund climate justice projects?

Read:

Kim, Y., Shimeall, C., and Cochran B. 2021. Water Investment Ready Oregon. Willamette Partnership <https://willamettepartnership.org/water-investment-ready-oregon/>.

Go on to the Conservation Finance Network's website, and read Conservation Finance 101 (<http://conservationfinancenetwork.org/conservation-finance-101>) and two of the newest headlines on the home page.

6/4: Final Project Presentations 1

Opportunity: Submit draft final papers for our review and comments

6/11: Final Project Presentations 2 (If needed-but we don't usually need this)

Mini Assignments

1. Final project topic, problem definition, and problem drivers (5pts). Due 4/12

- A. This assignment should be no more than one page.
- B. Identify the environment and economic solutions topic you are interested in pursuing (1pt).
- C. With that topic in mind, define the environmental and economic problem you are trying to solve (2 pts).
- D. Identify the direct and indirect drivers that are making that problem better or worse in Oregon now, and in the future (2 pts).

2. Evaluating policy options with a cost-benefit analysis (5 pts). Due 4/19

- A. Cost-benefit analysis is a structured way to evaluate different options using an economic lens. For this assignment, you will start thinking about different costs and benefits. We will do a full cost-benefit analysis in class together Week 3.
- B. Define three solution options for addressing the environmental and economic problem you are trying to solve for your final project (1 pt).
- C. For each option, list the direct and indirect costs and benefits in a table (2 pts)

Option	Costs	Benefits
A		
B		
C		

- D. Write a ½ page on ways you might assign economic values to some of these costs and benefits. (1 pt)
- E. Recommend what discount rate you would use and why (1 pt)
- F. This assignment should be no more than one page. You do not need to estimate all of the real costs or benefits of the policy, but should do basic research to outline how you would include estimates given more time. Try to fill out the CBA template, but you only need to turn in your 1page write up with the table.

3. Final Project: Work Plans and Research Design (5 pts). Due 4/26

- A. Submit a completed Work Plan and Research Design for your final project.
- B. The plan is more for you than it is for me, but should include at a minimum:

- Objective
- Relevant Literature/Background info/Etc...
- Target audience/Client
- Problem statement or Research question
- Project deliverables:
- Budget (if applicable)
- Project Action Plan and Timetable
- What steps are needed to complete the project?
- When will those steps be completed?
- How will you rely on your team to help with aspects of the project?

4. Making sense of economic theory (10 pts). Due 5/10

- A. Use for your final topic to think about how the ecosystem services framework from the Millennium Ecosystem Assessment can help understand your issue.
- B. For this assignment, take the diagram on p7 of the [MA Living Beyond Our Means](#) and use it to describe (~1.5 pages) the direct and indirect drivers of change for your issue, and make sure to link the ecosystem services with direct and indirect drivers of change, and constituents of human well-being. You can use the three different geographic scales or focus on one. (5 pts)
- C. Now, pretend you are a neoclassical (free-market or environmental economist), new institutional (transaction cost or ecological), and institutional economist—each in turn. Being that economist, write up some of the solutions each school of economic theory might develop (~1.5 pages). If your topic is water pollution, a neoclassical economist might say “put a tax on pollution”, a new institutionalist might say “define who’s responsible for cleaning up the pollution”, and an institutionalist might say, “we need to focus on changing consumer behavior to reduce demand for pollution-causing products.” It may be that each school of thought may select the same solution, but for different reasons. (5 pts)

5. Greening new and emerging markets: Defining Best Practices (10 pts). Due 5/24.

- A. Pick an existing market that’s small enough to shift with localized effort (e.g. the Northwest wine industry, carbon offsets, or water rights transactions).
- B. Describe the market forces at play that are keeping your market from being greener (~1 page) (3 pts).
- C. Now, describe an action plan for greening that market using at least three different types of *voluntary* incentives (e.g. tax credits, recognition, loan guarantees, etc...) (~1 page) (3 pts).

D. Include how those actions will be financed (~1 page) (4 pts).

Final project scoring rubrics below.

Presentations (10 points). Presentations on 6/4.

As a team, together, you will present your solutions for your environment & economic challenge. Presentations should be no longer than 10 min, with 5 min for Q&A. The Presentation can be done with slides, other kinds of visuals, or just talking. Each team member will be graded the same. The presentation should be cohesive, weaving the different solutions together from each team member.

- Clear articulation of challenge/problem and why things should change (2)
- Clean description of the solution proposed (2)
- Actionable recommendations from each team member's solutions that are well-founded, with evidence provided on their feasibility (2)
- Application of economic concepts learned in class or pulled from other sources (3)

- Good team coordination of presentation (1)

Written Product (20 points, each individual solution is graded). Final reports due 6/11.

- Clearly defined purpose/problem and target audience (4)
- Good set-up of current condition and case for change (5)
- Actionable recommendations that are well-founded, with evidence provided on their feasibility and cost-effectiveness (5)
- Conclusions that summarize key points for the target audience (2)
- Properly referenced in-text citations and reference list using APA-style (2)
- Well-written, cohesive, and organized presentation of facts and recommendations (2)

Optional Reading

WEEK 2

Oregon Climate Adaptation Framework. 2021.

https://www.oregon.gov/lcd/CL/Documents/2021_CLIMATE_CHANGE_ADAPTATION_FRAMEWORKandBlueprint.pdf.

Draining Oregon. 2016. Oregonian.

https://www.oregonlive.com/environment/page/draining_oregon_day_1.html

WEEK 3

Optional further reading:

Daily, G. et. al. (2000). “The Value of Nature and the Nature of Value.” *Science Magazine*, Vol. 289 (5478), pp. 395-396.

Costanza, R., d'Arge, R., de Groot, R., Farber, S., Grasso, M., Hannon, B., Naeem, S., Limburg, K., Paruelo, J., O'Neill, R.V., Raskin, R., Sutton, P., & van den Belt, M. (1997). “The value of the world's ecosystem services and natural capital.” *Nature* , 387, 253-260.

David Evans and Associates, INC and ECONorthwest (2004). *Comparative Valuation of Ecosystem Services: Lents Project Case Study*. Prepared for City of Portland Watershed Management Program. <https://www.portlandoregon.gov/bes/article/386288>.

Death Saves You Money (2010).

<https://www.npr.org/sections/money/2010/07/16/128569258/the-friday-podcast-death-saves-you-money>

WEEK 5

Optional further reading: Nobel

Prizes in economics:

https://www.nobelprize.org/nobel_prizes/economic-sciences/laureates/index.html

Anderson, Terry L. and Donald R. Leal (2001) . Free Market Environmentalism . San Francisco: Pacific Research Institute for Public Policy and Westview Press.

Solomon, B.D. (1999). “New directions in emissions trading: the potential contribution of new institutional economics.” *Ecological Economics* , Vol. 30, pp. 371–387.

Vatn, A., 2010. An Institutional Analysis of Payments for Environmental Services. *Ecological Economics*, 69:1245-1252.

WEEK 6

Optional further reading:

Worldwide Fund for Nature Macroeconomics Program Office (2006). *Trade and Consequences* .
<http://assets.panda.org/downloads/tradewebfinal.pdf>

Grafton, R.Q. (2000). “Governance of the Commons: A Role for the State?” *Land Economics* ,
Vol. 76(4), pp. 504-517.

WEEK 7

Optional further reading:

Willamette Partnership (2018). Green Infrastructure and Health Guide.
<http://willamettepartnership.org/green-infrastructure-health-guide/> .

Galloway, Ian. Using Pay-For-Success to Increase Investment in the Nonmedical Determinants of Health. https://www.healthaffairs.org/doi/pdf/10.1377/hlthaff.2014.074_1.

WEEK 8

Optional further reading:

Oregon Climate Protection Program. 2021. Modelling Study on Program Options.
<https://www.oregon.gov/deq/ghgp/cpp/Pages/modelingstudy.aspx>.

Columbia Basin Water Transactions Program. 2018. 2018 Annual Report.
https://www.nfwf.org/sites/default/files/2020-01/cbwtp-annual-report-2018_0.pdf

Ackerman, Bruce A. and Richard B. Stewart (1988). “Reforming Environmental Law: The Democratic Case for Market Incentives.” *Environmental Law* , vol. 171, pp. 178-88.

Unai Pascual, Roldan Muradian, Luis C. Rodríguez, Anantha Duraiappah (2010). “Exploring the links between equity and efficiency in payments for environmental services: A conceptual approach. ” *Ecological Economics* , 69, 1237-1244 .

Kruger, J. (2005). “Companies and Regulators in Emissions Trading Programs.” RFF DP 05-03. Washington, DC: Resources for the Future.

Read through at least one case study of a Living Building.
<https://living-future.org/lpc/case-studies/>

Planet Money:

<https://www.npr.org/sections/money/2018/03/16/594317824/episode-454-the-lollipop-war>

Jenkins, M., S.J. Scherr, and M. Inbar (YEAR). *Scaling Up Biodiversity Protection: Potential Role and Challenges of Markets for Biodiversity Services*. Washington, D.C.: Forest Trends.

WEEK 9

Optional further reading:

Credit Suisse AG & McKinsey Center for Business and Environment (2016). *Conservation Finance From Niche to Mainstream: The Building of an Institutional Asset Class*. Available at: <https://www.credit-suisse.com/media/assets/corporate/docs/about-us/responsibility/banking/conservation-finance-en.pdf>.

Sequoia Consulting. 2022. Pathways to Securing Rural Federal Funding. Ford Family Foundation. <https://www.tfff.org/sites/default/files/PathwayToSecuringRuralFederalFunding.pdf>.