

Eastern Illinois University
New/Revised Course Proposal Format
(Approved by CAA on 4/3/14 and CGS on 4/15/14, Effective Fall 2014)

Banner/Catalog Information (Coversheet)

1. ☒ **New Course** or ☐ **Revision of Existing Course**
2. **Course prefix and number:** ☐ ECN5410 _____
3. **Short title:** ☐ Intro. Econ of Sustainability _____
4. **Long title:** ☐ Introduction to the Economics of Sustainability _____
5. **Hours per week:** ☐ 3 **Class** ☐ 0 **Lab** ☐ 3 **Credit**
6. **Terms:** ☐ Fall ☐ Spring ☐ Summer ☒ On demand
7. **Initial term:** ☒ Fall ☐ Spring ☐ Summer Year: ☐ 2020 _____
8. **Catalog course description:**

This course is aimed at developing the ability to look at the world from a systems perspective and gaining an understanding of key economic concepts relevant to understanding sustainability problems. Specifically targeted at graduate students with limited to no background in economics, the course allows students to appreciate the widespread application of economic ideas and concepts to problems around the world. This course is not open to students working toward an M.A. in Economics.

9. Course attributes: NA

General education component: _____

☐ Cultural diversity ☐ Honors ☐ Writing centered ☐ Writing intensive ☐ Writing active

10. Instructional delivery

Type of Course:

☒ Lecture ☐ Lab ☐ Lecture/lab combined ☐ Independent study/research
☐ Internship ☐ Performance ☐ Practicum/clinical ☐ Other, specify: _____

Mode(s) of Delivery:

☐ Face to Face ☒ Online ☐ Study Abroad
☐ Hybrid, specify approximate amount of on-line and face-to-face instruction _____

11. Course(s) to be deleted from the catalog once this course is approved. ☐ none _____

12. Equivalent course(s): ☐ NA _____

a. Are students allowed to take equivalent course(s) for credit? ☐ Yes ☐ No

13. Prerequisite(s): ☐ none _____

a. Can prerequisite be taken concurrently? ☐ Yes ☐ No

b. Minimum grade required for the prerequisite course(s)? ____

c. Use Banner coding to enforce prerequisite course(s)? ____ Yes ____ No

d. Who may waive prerequisite(s)?

____ No one ____ Chair ____ Instructor ____ Advisor ____ Other (specify)

14. Co-requisite(s): ____none_____

15. Enrollment restrictions

a. Degrees, colleges, majors, levels, classes which may take the course: _Graduate students_

b. Degrees, colleges, majors, levels, classes which may not take the course: _M.A. Economics_

16. Repeat status: _x_ May not be repeated ____ May be repeated once with credit

17. Enter the limit, if any, on hours which may be applied to a major or minor: _3_

18. Grading methods: _x_ Standard ____ CR/NC ____ Audit ____ ABC/NC

19. Special grading provisions: NA

____ Grade for course will not count in a student's grade point average.

____ Grade for course will not count in hours toward graduation.

____ Grade for course will be removed from GPA if student already has credit for or is registered in:

____ Credit hours for course will be removed from student's hours toward graduation if student already has credit for or is registered in: _____

20. Additional costs to students:

Supplemental Materials or Software ____none_____

Course Fee _x_ No ____ Yes, Explain if yes _____

21. Community college transfer:

____ A community college course may be judged equivalent.

x A community college may not be judged equivalent.

Note: Upper division credit (3000+) will not be granted for a community college course, even if the content is judged to be equivalent.

Rationale, Justifications, and Assurances (Part I)

1. ☐ Course is required for the major(s) of _____
_____ Course is required for the minor(s) of _____
_____ Course is required for the certificate program(s) of _____
☒ Course is used as an elective

2. Rationale for proposal :

This course was developed to support the curriculum of the revised MS degree in Sustainability.

3. Justifications for (answer N/A if not applicable)

Similarity to other courses: NA

Prerequisites: NA

Co-requisites: NA

Enrollment restrictions: This is a graduate level course developed in conjunction with forthcoming proposed changes to the M.S. in Sustainable Energy. Because it is intended for students with little to no background in economics, it would not be appropriate for students in the M.A. program in Economics.

Writing active, intensive, centered: NA

4. General education assurances (answer N/A if not applicable)

General education component: NA

Curriculum: NA

Instruction: NA

Assessment: NA

5. Online/Hybrid delivery justification & assurances (answer N/A if not applicable)

Online or hybrid delivery justification: This class will be offered online to enhance accessibility to students who are part of the MS in Sustainability degree program and to help recruit students into the program.

Instruction: Course content will be delivered online in a variety of media such as audio/visual recorded lectures, textual conversations, video streaming of documentaries, and multi-media components as appropriate and hosted on the University's online learning management system. Instructional techniques may include peer learning/social learning, abstracted-simulation-based learning, problem-based learning, reading and writing assignments. All online instructors must complete requisite training to offer courses online before teaching the course.

Integrity: Plagiarism checking/measuring software will be used to monitor the academic integrity of written assignments. The instructor will correspond with students electronically by giving comment and feedback on assignments and by responding to questions or posts. Discussion board posts will be monitored to ensure proper online etiquette, as well as making sure the posts are not merely repeating the information from assignments.

Interaction: Students will have access to online drop-boxes for assignments, online discussion boards, and e-mail access to the other students. Students will be able to contact the instructor through e-mail, or by phone during office hours or a scheduled appointment time. The instructor will also correspond with students electronically by giving comment and feedback on assignments and by responding to questions or posts.

Model Syllabus (Part II)

Please include the following information:

I. Course number and title

- ECN5410: Introduction to the Economics of Sustainability

II. Catalog description

- This course is aimed at developing the ability to look at the world from a systems perspective and gaining an understanding of key economic concepts relevant to understanding sustainability problems. Specifically targeted at graduate students with limited to no background in economics, the course allows students to appreciate the widespread application of economic ideas and concepts to problems around the world. This course is not open to students working toward an M.A. in Economics.

III. Learning objectives.

- A. Develop a foundational awareness of the fundamental systemic social impediments to sustainable development. (GLG 1, 2)
- B. Explain and critique the concepts of externalities, public goods, property rights, market failure, and social cost-benefit analysis. (GLG 1-3)
- C. Evaluate and analyze alternative public policy responses such as administrative regulation, marketable permits, tax incentives, and direct subsidies. (GLG 1-4)

IV. Course materials.

- We will use two brief and inexpensive texts at the outset to lay the backdrop of the economic way of thinking from which we will expand into the problems of interest.

- Hazlitt, Henry, *Economics in One Lesson*. Random House, 1979
- Brennan, Geoffrey and James M. Buchanan, *The Reason of Rules*. Cambridge University Press, 1985
- Problems of interest will be explored with the help of selected readings. These will be supplied in the CMS or be provided in your main text which is
 - Stavins, Robert (ed), *Economics of the Environment Selected Readings*, Seventh Edition, Edward Elgar Publishing, 2019

V. Weekly outline of content.

Weeks 1 & 2: The Economic Way of Thinking

- Friedman, David, "What Economics Is and Why it Isn't Boring." [Audio Recording](#)
- Hazlitt, Henry, *Economics in One Lesson*. Random House, 1979
- Brennan, Geoffrey and James M. Buchanan, *The Reason of Rules*. Cambridge University Press, 1985
- Fullerton, Don and Robert Stavins, "How Economists See the Environment," *Nature* 395, October 1998, 433-4
- Solow, Robert M. "Sustainability: An Economist's Perspective," Lecture to the Marine Policy Center, Woods Hole Oceanographic Institution, Woods Hole, MA, June 14 1991

Week 3&4: Impediments to Achieving a Sustainable Society

- Garrett Hardin, "The Tragedy of the Commons." *Science*. 162:1243-48 (1968).
- Coase, Ronald H., "The Problem of Social Cost," *The Journal of Law and Economics* 3, October 1960, 1-44
- Hahnel, Robin and Kristen Sheeran (2009) "Misinterpreting the Coase Theorem," *Journal of Economic Issues* 43(1): 215-237.
- Ostrom, E. (2008). "The challenge of common-pool resources." *Environment: Science and Policy for Sustainable Development*, 50(4), 8-21
- Frey, Bruno S., et al, "The Old Lady Visits Your Backyard: A Tale of Morals and Markets," *Journal of Political Economy* 104 (6), December 1996, 1297-1313.
- Fullerton, Don, "A Framework to Compare Environmental Policies," *Southern Economic Journal* 68 (2), October 2001, 224-48.

Week 5: The Measurement of Benefits

- Portney, Paul R., "The Contingent Valuation Debate: Why Economists Should Care," *Journal of Economic Perspectives* 8 (4), Fall 1994, 3-17
- Arrow, Kenneth, et al, "Is There a Role for Benefit-Cost Analysis in Environmental, Health, and Safety Regulation?," *Science*, April 12, 1996
- Metrick, Andrew and Martin L. Weitzman, "Conflicts and Choices in Biodiversity Preservation," *Journal of Economic Perspectives* 12 (3), Summer 1998, 21-34
- Brown, Gardner, and Jason Shogren, "The Economics of the Endangered Species Act," *Journal of Economic Perspectives* 12(3), Summer 1998, 3-20
- Kahn, Matthew (2005) "The Death Toll from Natural Disasters: The Role of Income, Geography and Institutions," *Review of Economics and Statistics* 87(2): 271-284.

- Sen, Amartya (2004) “Why We Should Preserve the Spotted Owl,” *London Review of Books*, 5 February.

Week 6: The Measurement of Costs

- van Houtven, G.L. and M.L. Cropper, “When Is a Life Too Costly To Save? The Evidence from Environmental Regulations”, in W. Oates, ed., *The RFF Reader in Environmental and Resource Management, Resources for the Future*, Washington, DC, 1999.
- Jorgenson, Dale W. and Peter J. Wilcoxon, "Environmental Regulation and U.S. Economic Growth," *RAND Journal of Economics* 21, Summer 1990, 314-40.
- Porter, Michael E. and Claas Van der Linde, “Toward a New Conception of the Environment-Competitiveness Relationship,” *Journal of Economic Perspectives* 9 (4), Fall 1995, 97-118 (Chapter 7 in EESR).
- United Nations and World Bank (2010) *Natural Hazards, Unnatural Disasters: The Economics of Prevention*. Washington, DC: World Bank. Overview + ch. 4.

Week 7: Benefit-Cost Analysis

- Kelman, Steven, “Cost-Benefit Analysis: An Ethical Critique,” *AEI Journal on Government and Society Regulation*, Jan/Feb. 1981, 33-40
- Fisher, Anthony C., and John V. Krutilla, "Economics of Nature Preservation," in Allen V. Kneese and James L. Sweeney, eds., *Handbook of Natural Resource and Energy Economics*, Vol. I, Amsterdam: North-Holland, 1985.
- Stavins, Robert N. and Adam B. Jaffee, "Unintended Impacts of Public Investments on Private Decisions: The Depletion of Forested Wetlands," *American Economic Review* 80 (3), June 1990, 337-52.
- Mohai, Paul (2008) “Equity and the Environmental Justice Debate,” in Robert C. Wilkinson and William R. Freudenberg, eds., *Equity and the Environment, Research in Social Problems and Public Policy*, Vol. 15. Amsterdam: Elsevier, pp. 21-50.
- Sen, Amartya (2000) “The Discipline of Cost-Benefit Analysis,” *Journal of Legal Studies* 29: 931-952.
- Clowney, Stephen (2006) “Environmental Ethics and Cost-Benefit Analysis,” *Fordham Environmental Law Review* 18: 105-150.
- Driesen, David M. (2013) “Cost-Benefit Analysis and the Precautionary Principle: Can They be Reconciled?” *Michigan State Law Review* 771-826.

Week 8: Command and Control Policies

- Keohane, Nathaniel O., Richard L. Revesz, and Robert N. Stavins, “The Choice of Regulatory Instrument in Environmental Policy,” *Harvard Environmental Law Review* 22, 1998, 313-67 (Chapter 29 in EESR).
- Levinson, Arik, "State Taxes and Interstate Hazardous Waste Shipments," *American Economic Review* 89 (3), June 1999, 666-77.
- Sigman, Hilary, “Liability Funding and Superfund Clean-Up Remedies,” *Journal of Environmental Economics and Management* 35(3), May 1998, 205-24.
- Suykens, Bert (2015) “The Land that Disappeared: Forceful Occupation, Disputes and the Negotiation of Landlord Power in a Bangladeshi Bastei,” *Development & Change* 46(3): 486-507.

- Kysar, Douglas A. (2010) *Regulating from Nowhere: Environmental Law and the Search for Objectivity*. New Haven: Yale University Press, introduction & ch. 2.
- Meyer, Frederick and Gary Gereffi (2010) "Regulation and Economic Globalization: Prospects and Limits of Private Governance," *Business and Politics* 12(3).

Weeks 9&10: Market-Based Incentives

- Sandel, Michael J., "It's Immoral to Buy the Right To Pollute," *New York Times*, Dec. 15 1997, p.A29 (Chapter 19 in EESR; also read replies in EESR).
- Burtraw, Dallas, "Trading Emissions To Clean the Air: Exchanges Few but Savings Many," in W. Oates, ed., *The RFF Reader in Environmental and Resource Management, Resources for the Future*, Washington, DC, 1999.
- Dasgupta, Susmita, et al, "Confronting the Environmental Kuznets Curve," *Journal of Economic Perspectives* 16(1), Winter 2002, 147-68.
- Chan G., Stavins R., Stowe R. and Sweeney R. (2012) "The SO₂ allowance-trading system and the clean air act amendments of 1990: Reflections on 20 years of policy innovation," *National Tax Journal* 65(2): 419-452.
- Kurien, John (2007) "The Blessing of the Commons: Small-Scale Fisheries, Community Property Rights, and Coastal Natural Assets," in James K. Boyce, Sunita Narain, and Elizabeth A. Stanton, eds., *Reclaiming Nature: Environmental Justice and Ecological Restoration*. London and Chicago: Anthem Press, ch. 1.
- Ferguson, James (2015) *Give a Man a Fish: Reflections on the New Politics of Distribution*. Durham, NC: Duke University Press, chs. 1 & 6.
- Ishihara, Hiroe et al. (2017) "Dancing With Storks: The Role of Power Relations in Payments for Ecosystem Services," *Ecological Economics* 139: 45-54.
- Gale, Fred (2014) "Four Models of Interest Mediation in Global Environmental Governance," *Global Policy* 5(1): 10-21.
- Nash, Jonathan R. (2000) "Too Much Market? Conflict between Tradable Pollution Allowances and the 'Polluter Pays' Principle," *Harvard Environmental Law Review* 24: 465-535.
- Stavins, Robert N. (2003) "Experience with Market-Based Environmental Policy Instruments," in Karl-Goran Maler and Jeffrey Vincent, eds., *Handbook of Environmental Economics*, Volume 1. Amsterdam: Elsevier, ch. 9.
- Pallante, Giacomo et al. (2016) "Assessing the potential for niche market development to contribute to farmers' livelihoods and agrobiodiversity conservation: Insights from the finger millet case study in Nepal," *Ecological Economics* 130: 92-105.

Weeks 11&12: Natural Resources

- Arrow, Kenneth, et al, "Are We Consuming Too Much?" *Journal of Economic Perspectives* 18(3), Summer 2004, 147-72.
- Sun, Cong et al. (2017) "Self-protection investment exacerbates air pollution exposure inequality in urban China," *Ecological Economics* 131: 468-474.
- Zhang, Qiang et al. (2017) "Transboundary health impacts of transported global air pollution and international trade," *Nature* 543: 705-710.
- Carothers, Leslie (2014) "Upholding EPA Regulation of Greenhouse Gases: The Precautionary Principle Redux," *Ecology Law Quarterly* 41: 683-749.

- Frederick, Kenneth D., "Marketing Water: The Obstacles and the Impetus," in W. Oates, ed., *The RFF Reader in Environmental and Resource Management, Resources for the Future*, Washington, DC, 1999.
- Levinson, Arik, "State Taxes and Interstate Hazardous Waste Shipments," *American Economic Review* 89 (3), June 1999, 666-77.
- Arrow, Kenneth, et al, "Are We Consuming Too Much?" *Journal of Economic Perspectives* 18(3), Summer 2004, 147-72.

Weeks 13&14: Climate Change

- Nordhaus, William D., "Reflections on the Economics of Climate Change," *Journal of Economics Perspectives* 7 (4), Fall 1993, 11-25
- Kenneth J. Arrow, "Global Climate Change: A Challenge to Policy" in *The Economics of Climate Change*, Edward Elgar Publishing, 2010.
- McKibbin, Warwick J. and Peter J. Wilcoxon, "The Role of Economics in Climate Change Policy," *Journal of Economics Perspectives* 16(2), Spring 2002, 107-30.
- Sussman, Fran et al. (2014) "Challenges in Applying the Paradigm of Welfare Economics to Climate Change," *Journal of Benefit Cost Analysis* 5(3): 347-376.
- Ackerman, Frank and Elizabeth Stanton (2014) *Climate Change and Global Equity*. Anthem. Chs 1, 8 & 11.
- Nordhaus, William (2017) "Revisiting the Social Cost of Carbon," *Proceedings of the National Academy of Sciences*, February 14.
- De Canio, Stephen (2003) *Economic Models of Climate Change: A Critique*. New York: Palgrave Macmillan, chs. 1, 5, 6.
- Stern Review: The Economics of Climate Change (2007) "[Executive Summary](#)."

Week 15: Political Economy

- Keohane, Nathaniel O., Richard L. Revesz, and Robert N. Stavins, "The Choice of Regulatory Instrument in Environmental Policy," *Harvard Environmental Law Review* 22, 1998, 313-67
- Maloney, Michael T. and Robert E. McCormick, "A Positive Theory of Environmental Quality Regulation", *Journal of Law & Economics* 25, April 1982, 99-123.
- Scoones, Ian (2016) "The Politics of Sustainability and Development," *Annual Review of Environment and Resources* 41: 293-319.
- Baer, Paul et al. (2008) "Greenhouse Development Rights: Towards an equitable framework for global climate policy," *Cambridge Review of International Affairs* 21(4): 649-669.
- Nordhaus, William (2015) "Climate Clubs: Overcoming Free-riding in International Climate Policy," *American Economic Review* 105(4): 1339-1370

VI. Assignments and evaluation, including weights for final course grade.

- Online Discussion Board Posts 100 points
- Peer Learning Exercises 200 points
- Problem-based Learning Exercises 200 points
- Abstracted Simulation Exercises 200 points
- Exams 300 points
- Total: 1000 points

VII. Grading scale.

- iff 895 ≤ student total points, then grade=A
- iff 795 ≤ student total points < 895, then grade=B
- iff 695 ≤ student total points < 795, then grade=C
- iff 595 ≤ student total points < 695, then grade=D
- if student total points < 595, then grade=F

VIII. Correlation of learning objectives to assignments and evaluation.

Course Objectives (University Learning Goals and Graduate Learning Objectives)	Online Discussion Boards	Peer Learning Exercises	PBL Exercises	Abstracted Simulation	Exams
A (GLG 1, 2)			X	X	
B (GLG 1-3)	X	X			X
C (GLG 1-4)	X	X			X

Date approved by the department or school: 10/4/2019

Date approved by the college curriculum committee: 10/8/2019

Date approved by the Honors Council (*if this is an honors course*):

Date approved by CAA: CGS: 11/5/2019