

Discipline Specific Elective 9 (DSE-9): Environmental Economics

Semester	Course title & Code	Credits	Duration (per week)			Eligibility Criteria	Prerequisite
			Lecture	Tutorial	Practical/ Practice		
V/VII	Environmental Economics– ECON039	4	3	1	0	Class 12th Pass	Introductory/Principles of Microeconomics

Learning Objectives

The Learning Objectives of this course are as follows:

- This course provides basic knowledge of environmental economics, its relationship with microeconomics and welfare economics, to present and explains the significance and application in the present environmental challenges.
- It aims to describe and comprehend various environmental policies by deploying various policy instruments and to understand and measure the various market and non-market benefits of environmental policies.
- The course addresses the problems related to climate change, transboundary environmental problems, and challenges related to trade and the environment also.

Learning outcomes

The Learning Outcomes of this course are as follows:

The students will learn the trade-offs of economy and environment, and related challenges. They will comprehend the role of state and institutions to minimise the trade-offs.

Syllabus

UNIT I: Introduction to Environment Economics (9 hours)

What is environmental economics? review of microeconomics and welfare economics; Overview of environmental problems in India

UNIT II: Design and Implementation of Environmental Policy (12 hours)

Overview; Pigouvian taxes and effluent fees; tradable permits; choice between taxes and quotas under uncertainty; implementation of environmental policy.

UNIT III: Measuring the Benefits of Environmental Improvements (12 hours)

Non-market values and measurement methods; risk assessment and perception.

UNIT IV: International Environmental Problems (12 hours)

Transboundary environmental problems; economics of climate change; trade and environment.

Recommended readings

- Charles Kolstad. Intermediate Environmental Economics, Oxford University Press, 2nd edition (2012).
- Roger Perman, Yue Ma, James McGilvray and Michael Common. Natural Resource and Environmental Economics, Pearson Education/Addison Wesley, 4th edition (2011).
- Robert N. Stavins (ed.). Economics of the Environment: Selected Readings, W.W. Norton, 6th edition (2012).

- Don Fullerton and Robert Stavins (1998). “How Economists See the Environment.” *Nature*, Vol. 395, Oct 1, 1998, pp. 433-434.
- State of Environment Report: India 2009 (Ministry of Environment and Forests, Government of India, 2009): Chapter 2 (State and Trends of the Environment): Land, Air, Water, Biodiversity (p. 9 to 71).
- Schmalensee, Richard and Robert N. Stavins (2017). “The design of environmental markets: What have we learned from experience with cap and trade?” *Oxford Review of Economic Policy*, Vol. 33, No. 4, pp. 572-588.
- Blackman, Allen, Li, Z., and Liu, A. A. (2018). “Efficacy of command-and-control and market-based environmental regulation in developing countries,” *Annual Review of Resource Economics*, Vol. 10, pp. 381-404.
- Jonathan Harris and Brian Roach (2018). *Environmental and Natural Resource Economics: A Contemporary Approach*, Routledge.
- Nordhaus, William D. (2013). *Climate Casino: Risk, Uncertainty, and Economics for a Warming World*, Yale University Press.
- Richard Newell, William Pizer and Daniel Raimi (2013). “Carbon markets 15 years after Kyoto: Lessons learned, new challenges,” *Journal of Economic Perspectives*, Vol. 27, No. 1, pp. 123-46.
- Stern, N. (2008) The economics of climate change, *American Economic Review*, 98(2): 1–37.

Note: Examination scheme and mode shall be as prescribed by the Examination Branch, University of Delhi, from time to time.