

# Indian Institute of Technology, Kanpur

## Department of Economic Sciences

### New Course Proposal

**1. Course No:** ECO7XX

**2. Course Title:** Environmental Economics: Policy and Trade

**3. Per Week Lectures:** 2 (L), Tutorial: 0 (T), Laboratory: 0 (P), Additional Hours: 0  
Credits: 9

**4. Duration of Course:** Full Semester Course

**5. Proposing Department:** Economic Sciences

**6. Other Departments which may be interested:**

**7. Other faculty members interested in teaching the proposed course:**

**8. Proposing instructor:** Sujaya Sircar

**9. Level of the course:** PG

**10. Course Description:** This course introduces students to environmental economics, environmental policies and regulations, and additionally introduces multilateral agreements and trade patterns in the context of environmental issues. This course is designed to familiarize students with environmental policy instruments, global environmental issues and trading of carbon and waste.

**A) Objectives:** To equip students with knowledge about environmental issues, the policies and instruments applied to tackle said issues, and an understanding of the global picture in terms of environmental negotiations.

#### **B) Contents**

S. No	Broad Title	Topics	No. Lectures*
1	Introduction: Environmental Economics	Economics and environmental policy; externalities; choice of policy instruments.	4
2	Environmental policy and instruments	Market-based incentives: taxes and tradable permits; property rights; policy	5

		endogeneity in the context of trade and environment.	
3	Environmental regulations and trade patterns	Environmental regulations in trade models; pollution offshoring; trade in waste.	6
4	Natural resources	Sustainable use; role of natural resources in trade models.	5
5	Multilateral trade and environment negotiations	Trade in carbon, border carbon adjustments; emission adjustments; global environmental negotiations.	6

\*Total 26 lectures, 1 hr and 15 minutes for each lecture.

**C) Prerequisites:** ECO701/ECO211, ECO704/ECO351

**D) Short summary for including in the Courses of Study Booklet:** This course introduces the field of environmental economics, with a focus on policy instruments, trade patterns and multilateral agreements. The topics include basics of environmental policy; externalities; market-based incentives such as taxes and permits; trade and environment policy endogeneity; trade in carbon; pollution offshoring; natural resource management; multilateral trade and environment negotiations.

**11) Recommended textbooks:**

1. Baumol William J. and Oats Wallace E. The Theory of Environmental Policy. Second Edition. Cambridge University Press. 1994
2. Kolstad, Charles D. Environmental Economics, selected chapters.

**12) Selected references#:**

1. Goulder, L. and Parry, I, (2008), "Instrument Choice in Environmental Policy," Review of Environmental Economics and Policy, 2(2): 152-174
2. Hahn,R. (1989), "Economic Prescriptions for Environmental Problems", Journal of Economic Perspectives, 3 (2): 95-114.
3. Coase, R.H. (1960) "The Problem of Social Cost," Journal of Law and Economics, 3: 1-44.
4. Brunel, Claire (2017) "Pollution Offshoring and Emission Reductions in EU and US Manufacturing", Environmental and Resource Economics 68: 621-641

5. Sakai, Marco and John Barrett (2016) “Border carbon adjustments: Addressing emissions embodied in trade”, Energy Policy, 92: 102-110
6. Barrows, Geoffrey and Helene Ollivier (2021) “Foreign demand, developing country exports, and CO2 emissions: Firm-level evidence from India”, Journal of Development Economics, 149 Issue C: 102587.
7. Steinfatt, Karsten (2020) “Trade Policies for a Circular Economy: What Can We Learn From WTO Experience?”, WTO Economic Research and Statistics Division, working paper.

#This list is not exhaustive. Other journal articles/papers will be discussed in addition to the papers listed here with respect to each module and will be part of the course material.

Dated: 11th March 2024

Proposer: Sujaya Sircar

DPGC Convener:

The course is approved/not approved

Chairman, SPGC

Dated: