

Syllabus

Course name

Environmental Economics

Semester

Fall 2022 semester

Name of the instructor

Vladimir Otrachshenko, Ph.D.

vladimir.otrachshenko@zeu.uni-giessen.de

Date

- Classes: November 7 – December 16, 2022
- Final exam week: December 19 – 23, 2022
- Make-up exam week: December 26 – 30, 2022

Time

- Lectures: To be determined.
- Exercise session: To be determined.

Office hours

To be determined.

Course Aims and Objectives

This course introduces major concepts in the field of environmental economics. It is designed to help students understand theories related to natural resources and make use of microeconomic and statistical analysis. This course will also focus on valuation techniques for environmental goods used in the real world by analysts and policy makers. There is a growing demand in economics and public sectors for individuals with quantitative skills who can understand and apply these techniques, analyze results, and produce reports. By the end of this course, students should be able to analyze economic problems related to environmental goods using rigorous valuation techniques.

Learning Outcomes

Upon completion of the course unit, students will be able to discuss and demonstrate an understanding of key concepts in environmental economics and the economic issues related to a wide range of environmental problems.

In terms of knowledge and understanding:

- Use economic theory to study environmental issues
- Analyze environmental issues
- Demonstrate understanding of verbal and statistical representation of economic ideas and analysis, including their relationship

Prerequisites

Microeconomics and Statistics/Econometrics at the introductory level. Since this course includes empirical applications, it is expected that universities provide students the STATA software.

Grading

- 3 quizzes (50%)
- Final exam (50%)

To pass this course and earn a certificate, at least 50% on final exam and 50% of the overall course results is required.

Recommended readings

1. R. Perman, Y. Ma, M. Common, D. Maddison, and J. McGilvray (2011). *Natural Resource and Environmental Economics*, 4th edition, Pearson Education Limited.
 2. I.J. Bateman, R.T. Carson, B. Day, M. Hanemann, N. Hanley, T. Hett, m. Jones-Lee, G. Loomes, S. Mourato, E. Ozdemiroglu, D. W. Pearce OBE, R. Sudgen and J. Swanson (2002), *Economic Valuation with Stated Preference Techniques*, Edward Elgar, Cheltenham.
 3. R. C. Mitchell, T.C. Carson (1989), *Using Surveys to Value Public Goods: the Contingent Valuation Method*. Resources for the Future, Washington
 4. Research articles:
 - M. Dell, Jones, B.F., Olken, B.A. (2014). What do we learn from the weather? The new climate – economy literature. *Journal of Economic Literature* 52 (3), 740–798.
 - V. Otrachshenko, O. Popova, and J. Tavares (2021). Extreme Temperature and Extreme Violence: Evidence from Russia, *Economic Inquiry* 59(1), 243-262.
 - V. Otrachshenko and L.C. Nunes (2022). Fire Takes No Vacation: Impact of Fires on Tourism, *Environment and Development Economics* 27(1).
 - M.A. Cunha-e-Sá, L.C. Nunes, V. Otrachshenko, and R. Freitas (2018). On Natures' Shoulders: Riding the Big Waves in Nazaré, *Tourism Economics* 24(4), 369-385.
-

V. Otrachshenko, E. Tyurina, and A. Nagapetyan (2022). The Economic Value of the Glass Beach: Contingent Valuation and Life Satisfaction Approaches, *Ecological Economics* 198.

Course structure

The course topics include:

1. Introduction to Environmental Economics (Perman et al., 2011; Chapter 1-3)
 2. Welfare Economics and the Environment (Perman et al., 2011; Chapter 4)
 3. Environmental Pollution (Perman et al., 2011; Chapter 5)
 4. Economic Valuation Techniques for Non-Market Goods (Bateman et al., 2002; Mitchell and Carson, 1989).
 5. Natural Capital and Economic Development (Cunha-e-Sá et al., 2018; Otrachshenko et al., 2022)
 6. Climate Change and its Consequences (Dell et al., 2014; Otrachshenko et al. 2021; Otrachshenko and Nunes, 2022)
-