



## NEW PHD FIELD AND COURSES IN

# Energy and Environmental Economics

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Department  
of Economics



The Department of Economics and Harris School of Public Policy at the University of Chicago will start offering three new PhD courses on Energy and Environmental Economics in academic year 2016-17.

Energy and Environmental Economics (EEE) is a growing research field, owing to increasing interest in the area among researchers and policymakers. This increasing interest is creating strong demand for faculty among leading Economics Departments, Policy Schools, and Business Schools.

In academic year 2016-2017, these three new courses can be combined to form a field in Public, Energy, and Environmental Economics. In subsequent years, EEE will be a standalone field, making the University of Chicago the first top economics department to offer a EEE PhD course sequence. This will be accomplished by leveraging faculty expertise in both the Department and Harris.

The course descriptions are below. We hope to see many of you taking the sequence. In the meantime, please feel free to contact us with any questions.

- Michael Greenstone, Koichiro Ito, and Ryan Kellogg

**Questions?** Contact: Ryan Kellogg at [kelloggr@uchicago.edu](mailto:kelloggr@uchicago.edu)

### **ENERGY AND ENVIRONMENTAL ECONOMICS I (PPHA 44320/ECON 36730)**

Instructor: Ryan Kellogg

Schedule: Fall 2016, Mondays 3:00 PM - 5:50 PM

This course will emphasize the economics of natural resource production and problems associated with externalities and common property, with a focus on the energy sector. Most lectures will be theoretical in nature, but we will spend considerable time studying applications that have an empirical component. The course has several complementary objectives: (1) provide a solid foundation in concepts like Hotelling's Rule and Pigouvian taxation that are a prerequisite for understanding modern environmental and resource economics; (2) develop proficiency with theoretical, computational, and empirical tools that will be valuable for future self-directed research; and (3) gain experience in reading, presenting, and discussing modern research in energy and environmental economics.

### **ENERGY AND ENVIRONMENTAL ECONOMICS II (PPHA 44330)**

Instructor: Michael Greenstone

Schedule: Winter 2017, Meeting Time TBA

This course will cover the theory and evidence on regulatory, tax, and other government responses to problems of market failure. Special emphasis will be given to developing and implementing tools to evaluate the costs and benefits of energy and environmental policies. Other topics will include techniques for measurement of willingness to pay for non-market goods; the economics of climate change; the intersection of Energy and Environmental Economics with development economics; cost-benefit analysis, including discounting; the value of a statistical life; health as human capital; and the economics of energy efficiency.

### **ENERGY AND ENVIRONMENTAL ECONOMICS III (PPHA 44340)**

Instructor: Koichiro Ito

Schedule: Spring 2017, Meeting Time TBA

Optimal environmental regulation requires an analysis of the trade-offs between market and regulatory imperfections. Market allocations are inefficient in the presence of imperfections such as externalities, market power, and informational asymmetries. On the other hand, government intervention to mitigate these imperfections is not costless, and can even make market performance worse. This course focuses on recent empirical analysis of the costs and benefits of environmental and energy policies, including an introduction to the relevant econometric methodologies such as randomized controlled trials, regression discontinuity designs, bunching analysis, and structural estimation. Topics will include: energy demand and the energy efficiency gap, fuel economy and appliance efficiency standards, non-linear and real-time electricity pricing, wholesale electricity markets, renewable electricity policies, natural gas markets, retail gasoline markets, and technology innovations.