

Energy and Environmental Economics

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Course overview

Energy is a vital input factor in our economies, with significant environmental externalities. This course aims to familiarize students with and provide an understanding of leading research in energy and environmental economics, with a focus on market failures and their potential solutions. This year, the course will focus on different aspects of emissions pricing:

- 1) Fundamentals of emissions pricing
- 2) Integrated assessment models
- 3) Overlapping climate policies
- 4) Optimal environmental taxation
- 5) Design of emission taxes and trading
- 6) Carbon leakage and countermeasures
- 7) Consumer behavior

For each topic, this course combines topical introductions from the lecturers with in-class discussions, hands-on exercises, and student presentations on specific research articles. In the presentation, students are expected to establish connections to general concepts of behavioral and public economics, draw conclusions for real-world energy and environmental markets and policies, and identify reference points for their own doctoral (or master's) research.

Course organization

Class hours & venues

- Wednesdays, 09:00 – 12:00
- 827 Seminarraum (KFR1), Alte Wagenfabrik, Vogelsanger Str. 321a

Office hours are offered on request.

Please **register for this course** via KLIPS (1st and 2nd registration period).

No prior knowledge of energy or environmental economics is needed.

This course features a **combined examination**:

- Presentation (50% of points)
- Exam (50% of points)

The presentation should be 15 minutes long, followed by 5–10 minutes for discussion. The presentations will be integrated into Sessions 3 to 10 (see dates below).

Further information and course material will be distributed via the **ILIAS platform**.

For **content questions**, please do not hesitate to reach out to:

- Oliver Ruhnau (oliver.ruhnau@uni-koeln.de)
- Félix Michelet (felix.michelet@wiso.uni-koeln.de)

For **administration questions**, please get in touch with:

- Monika Räthe (monika.raethe@uni-koeln.de).

Course schedule

The following schedule is tentative. Potential changes would be communicated via ILIAS.

Date	Type	Teacher	Event
15 Apr 26	Session 1	Oliver + Félix	Introduction to the course
<i>By 17 Apr 26, 23:59</i>	<i>Deadline</i>		<i>Register for examination</i>
22 Apr 26	Session 2	Oliver	Research skills + climate damage (abatement benefits)
<i>By 24 Apr 26, 23:59</i>	<i>Deadline</i>		<i>Withdraw from examination</i>
29 Apr 26	Session 3	Oliver	Emissions pricing fundamentals (prices, quantities, abatement costs)
06 May 26	Session 4	Oliver + Carmen?	Integrated assessment models
13 May 26	Session 5	Oliver	Overlapping climate policies
20 May 26	Session 6	Oliver	Optimal taxation (redistributional issues)
03 Jun 26	Session 7	Félix	Emission taxes
10 Jun 26	Session 8	Félix	Emission trading schemes
17 Jun 26	Session 9	Félix + Maria?	Carbon leakage
24 Jun 26	Session 10	Félix	Consumer behavior
01 Jul 26	Session 11	Félix	Exam preparation
08 Jul 26	Buffer		
22 Jul 26	Exam		