

# Energy and Environmental Economics

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## Course overview

Energy is a vital input to our economies, but it also carries significant environmental externalities. This course aims to familiarize students with 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) Emissions pricing fundamentals
- 2) Climate-economy models
- 3) Overlapping climate policies
- 4) International competition and cooperation
- 5) Optimal environmental taxation
- 6) Emission trading schemes
- 7) Consumer behavior

For each topic, this course combines introductory lectures with in-class discussions, hands-on exercises, and student presentations on specific research articles. In the presentation, students are expected to connect to general concepts in behavioral and public economics, draw conclusions for real-world energy and environmental markets and policies, and identify reference points for their own master thesis or doctoral dissertation.

## 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 (1<sup>st</sup> and 2<sup>nd</sup> 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 10 minutes for discussion. The presentations will be integrated into Sessions 3-10 (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](mailto:oliver.ruhnau@uni-koeln.de))
- Félix Michelet ([felix.michelet@wiso.uni-koeln.de](mailto:felix.michelet@wiso.uni-koeln.de))

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

- Monika Räthe ([monika.raethe@uni-koeln.de](mailto: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
<b>By 17 Apr 26, 23:59</b>	<b>Deadline</b>		<b>Register for the examination</b>
22 Apr 26	Session 2	Oliver	Research skills + climate change
<b>By 24 Apr 26, 23:59</b>	<b>Deadline</b>		<b>Withdraw from the examination</b>
29 Apr 26	Session 3	Oliver	Topic 1: Emissions pricing fundamentals
06 May 26	Session 4	Oliver & Carmen	Topic 2: Climate-economy models
13 May 26	Session 5	Oliver	Topic 3: Overlapping climate policies
20 May 26	Session 6	Félix	Topic 4: International competition
03 Jun 26	Session 7	Félix	Topic 5: International cooperation
10 Jun 26	Session 8	Oliver	Topic 6: Optimal environmental taxation
17 Jun 26	Session 9	Félix	Topic 7: Emission trading schemes
24 Jun 26	Session 10	Félix	Topic 8: Consumer behavior
01 Jul 26	Session 11	Félix	Exam preparation
08 Jul 26	Buffer		