

Course and Examination Fact Sheet: Spring Semester 2025

8,278: Environmental Economics

ECTS credits: 4

## Overview examination/s

(binding regulations see below)

decentral - Active participation, Analog, Individual work individual grade (20%)

Examination time: Term time

decentral - Written work, Digital, Group work individual grade (80%)

Examination time: Term time

## Attached courses

Timetable -- Language -- Lecturer 8,278,1.00 Environmental Economics -- English -- Boney Petyo

# Course information

## Course prerequisites

It is recommended that participants have attended some basic course in statistics/econometrics / data analytics. Statistics 1 and 2 in Bachelor Economics HSG or Quantitative Methods International Affairs HSG are sufficient.

### Learning objectives

Students learn how to (1) evaluate econometrically environmental policy effects, (2) how to determine good policy design.

# Course content

This Master level course develops the most important concepts of environmental behavioral economics and introduces students to state of the art research. It deals with individual behavior as a response to environmental policies. Particular attention is paid to how bounded rationality impacts decisions and behavior and how this generates unexpected side effects of policies.

#### **Environmental Policy and Individual Behavior**

- Introduction: psychological aspects of economic policies (rationality, bounded rationality, and environmental
  policy).
- Green nudges: understanding green defaults (such as electricity payment plans), limited attention vs. rational
  inattention, framing effects, empirical evaluation of green nudges, ethical discussion on the right of the state to nudge
  ("Libertarian paternalism").
- Behavioral spillovers: side effects of environmental policies based due to mental accounting, attention spillovers and
  cognitive dissonance; econometric evaluation of environmental behavioral spillovers; implications for policy design.
- Social norms and other information-based policy tools: effects of policies that provide information about behavior of peers (such as neighbors and colleagues), distinguishing between altruism, warm glow and stigma.
- Crowding out of intrinsic motivation: study of economic incentives might interact and crowd in or out intrinsic
  motivation through taking away individual autonomy or leading to market-wise thinking and moral disengagement.
- Effectiveness of environmental policies: policy take-up, habit formation, econometric tools for policy targeting and optimal policy design.
- Case Study: policies that foster the adoption of biodiversity friendly management practices



# Course structure and indications of the learning and teaching design

The course is structured as three block (full-day) lectures. The preparation consists of a reading part (see recommendations in the literature section).

#### Course literature

There will be lecture notes distributed at the beginning of the lecture. Below there is a list of topic-specific optional but very helpful reads. Further references will be distributed in due time.

#### General:

Kahneman, D. Maps of bounded rationality: Psychology for behavioral economics. Amer. Econ. Rev. 2003

#### Green nudges:

Hedlin, S., & Sunstein, C. R. (2016). Does active choosing promote green energy use: Experimental evidence. *Ecology LQ*, 43, 107.

#### Behavioral spillovers

Dolan, P., & Galizzi, M. M. (2015). Like ripples on a pond: Behavioral spillovers and their implications for research and policy. *Journal of Economic Psychology*, 47, 1-16.

#### Social Norms

Goldstein, N. J., Cialdini, R. B., & Griskevicius, V. (2008). A room with a viewpoint: Using social norms to motivate environmental conservation in hotels. *Journal of consumer Research*, 35(3), 472-482.

**Policy effectiveness**: take-up, habit formation, econometrics of optimal policy design Vollaard et al. Breaking habits. *Working paper*, 2021

### Crowding out of intrinsic motivation

Bowles et al. Economic incentives and social preferences, Journ. Econ. Lit., 2012 (only introductory part and part of section 2)

On the econometrics part: I recommend chapters 2.1 and 2.2. from Angrist and Pischke "Mostly Harmless Econometrics" (A book).

## Additional course information

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## **Examination information**

## Examination sub part/s

# 1. Examination sub part (1/2)

Examination modalities

Examination type Active participation

Responsible for organisation decentral

Examination form Oral examination

Examination mode Analog



Time of examination Term time
Examination execution Synchronous
Examination location On Campus

Grading type Individual work individual grade

Weighting 20°
Duration --

Examination languages Question language: English Answer language: English

Remark

Active participation in discussions during lecture

Examination-aid rule Free aids provision

Basically, students are free to choose aids. Any restrictions are defined by the faculty members in charge of the examination under supplementary aids.

Supplementary aids

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# 2. Examination sub part (2/2)

**Examination modalities** 

Examination type Written work
Responsible for organisation decentral
Examination form Written work
Examination mode Digital
Time of examination Term time
Examination execution Asynchronous
Examination location Off Campus

Grading type Group work individual grade

Weighting 80% Duration --

Examination languages Question language: English Answer language: English

Remark

Short group term paper (3-5 pages max)

Examination-aid rule Free aids provision

Basically, students are free to choose aids. Any restrictions are defined by the faculty members in charge of the examination under supplementary aids.

Supplementary aids

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# **Examination content**



#### Examination content:

- 1. Active course participation (which may include reading a short paper (e.g. during the lecture) and criticizing in a joint discussion). Personal grade, 20%
- 2. Group term projects: students are divided into groups and write a short (up to 10 pages) term paper. The project consists of either (1) performing and evaluating a small randomized experiment that replicates an already published experiment or (2) replicating an already published paper with an existing dataset. The precise content depends on the project and is on one of the topics of the course (e.g., Green Nudges, Social Norms, Behavioral Spillovers, Crowding effects...). Group grade 80%

## Examination relevant literature

### **Specifics literature:**

Term projects will be randomized among the students in lecture 1.

The precise literature for each student depends on the randomly assigned assignments and will be announced when assignments are given.

#### Environmental behavior literature: I recommend the papers

Goldstein, N. J., Cialdini, R. B., & Griskevicius, V. (2008). A room with a viewpoint: Using social norms to motivate environmental conservation in hotels. *Journal of consumer Research*, 35(3), 472-482.

Hedlin, S., & Sunstein, C. R. (2016). Does active choosing promote green energy use: Experimental evidence. *Ecology LQ*, 43, 107.

Dolan, P., & Galizzi, M. M. (2015). Like ripples on a pond: Behavioral spillovers and their implications for research and policy. *Journal of Economic Psychology*, 47, 1-16.

#### **Econometrics literature:**

Angrist, J., Pischke, S. ANY VERSION, Mostly Harmless Econometrics, chapters 2.1 and 2.2 (selection problem and how randomization solves it).



# Please note

Please note that only this fact sheet and the examination schedule published at the time of bidding are binding and takes precedence over other information, such as information on StudyNet (Canvas), on lecturers' websites and information in lectures etc.

Any references and links to third-party content within the fact sheet are only of a supplementary, informative nature and lie outside the area of responsibility of the University of St.Gallen.

Documents and materials are only relevant for central examinations if they are available by the end of the lecture period (CW21) at the latest. In the case of centrally organised mid-term examinations, the documents and materials up to CW 13 (Monday, 25 March 2025) are relevant for testing.

Binding nature of the fact sheets:

- Course information as well as examination date (organised centrally/decentrally) and form of examination: from bidding start in CW 04 (Thursday, 23 January 2025);
- Examination information (supplementary aids, examination contents, examination literature) for decentralised examinations: in CW 12 (Monday, 17 March 2025);
- Examination information (supplementary aids, examination contents, examination literature) for centrally
  organised mid-term examinations: in CW 14 (Monday, 31 March 2025);
- Examination information (regulations on aids, examination contents, examination literature) for centrally
  organised examinations: two weeks before ending with de-registration period in CW 15 (Monday, 07 April
  2025).