BEHAVIOURAL ENVIRONMENTAL ECONOMICS
COURSE OUTLINE SUMMER 2017
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CONTENT
In this module, students will become acquainted with the intercept of behavioural economics (BE) and environmental economics (EE). The lecture covers standard environmental economics’ topics that fit well within the classical concepts of market failure, like pollution control via market-based instruments (e.g., emissions trading and taxes). In addition, more behavioural tools like information policy, nudging and eco-labelling will be introduced and discussed, for which the relevance of psychological factors conflicting with the standard model of economic (wo)man are especially relevant.

The students will learn how one may represent a given environmental problem and possible solution mechanisms in formal models, in principle. The emphasis is not on advanced mathematical analysis though. The students will learn what limits exist to standard theory and how so-called modern behavioural economics allows to advance the standard models in such a way that well-known decisions biases that are highly relevant in economics’ context can be considered (Prospect Theory). However, there also exists another (preceding) approach to behavioural economics, emphasising theories of process and the relevance of the decision context/environment. The students will learn about the differences of these two approaches and how the latter may be implemented in simulation models, in principle.

Besides the lectures (Tuesdays, 8.00-9.30), the tutorials (Thursdays, 14.30-16.00) are considered an important part of the overall module. Starting from the second tutorial, the students will present up to four original papers each session. They will prepare beamer slides and provide a single-page handout. The students will discuss the paper within the class. Anybody presenting a paper gets 5 bonus points for the exam, anybody doing a decent job gets 10 bonus points instead. The papers will focus on empirical and experimental research, although some purely theoretical work might be included. However, the focus will be on intuition, methodology and results, not on mathematical analysis. The second half of each tutorial will focus on recapturing some of the main arguments from the lecture and (formal) problems. I will make use of students’ feedback to the lectures to structure this second part, explaining more in detail aspects that are not yet fully understood. The goal is to directly reflect students’ personal demands. The initial tutorial will cover some basic concepts and theory necessary throughout the course (like decision under risk, assumptions necessary for perfect competitive equilibrium / social optimum, etc.).

It is obvious that the module cannot cover all topics of environmental behavioural economics in depth. Therefore, the focus will be laid upon four applied topics: common-pool resources, (eco-)labelling, policies targeting the so-called energy efficiency gap and emissions trading schemes (This list may still be changed!).

MODULE OBJECTIVES

- You will enhance your abilities to follow lectures and discussions in English.
- You will enhance your abilities to discuss in English.
- You will enhance your abilities to understand, summarise and present original research articles (in English).
- You will learn what kind of policy instruments for the management of environmental problems exist and several ways to categorise them, as well as how (in principle) to analyse them.
With a focus on environmental problems and institutions dealing with environmental problems:

- You will learn (to some extent) when and how economic actors' decisions deviate from what the standard economic model of rational choice predicts.
- You will learn how amendments to the standard model allow representing some of this deviant behaviour.
- You will get to know alternative concepts of rationality (procedural/ecological rationality) that allow behaviour not satisfying the assumptions of standard economic rationality (even if amended as above).
- You will learn how procedural simulation models can represent such alternative concepts of rationality.
- You will become more critical regarding standard assumptions and learn to formulate articulate hypotheses (“educated guesses”) about the consequences of applying non-behavioural (standard) models to real world problems when these assumptions do not hold.

**PREREQUISITES**

You will need good skills in reading, listening and writing English. You should be willing to read original research articles and present a summary of such an article (with slides) in the class. Sound skills in intermediate microeconomics are useful. In specific: market failure due to negative externalities and asymmetric information, decision under risk/uncertainty and basic game theory. However, all relevant concepts will be introduced (briefly) in the lecture and/or repeated within the tutorials.

**ORGANISATION**

This module consists of lectures and tutorials as spelled out above. The content of the tutorials, provided by the papers presented and discussed, is an important complement to the lectures. If you cannot manage to attend both, lectures and tutorials, make sure to stay updated by your peers and also to read the papers discussed and the lecture/tutorial notes. A Moodle course will be available with all the course materials, including references and the articles from which students may select for presentation, and the opportunity to ask questions, etc., at: https://moodle.ruhr-uni-bochum.de/m/course/view.php?id=8953.

**Participants:** A maximum of 40 students

**Registration:** Only during the first two lectures and tutorials, by personal inscription. Until the limit of 40 students is reached, everybody that applies is inscribed. If at any single event (lecture or tutorial) the combined number of already inscribed students and new applications is above 40, random selection takes place. For example, in the first lecture, 30 students apply and are inscribed. In the following first tutorial 15 additional students apply. Of these 15, 10 will be chosen randomly for inscription.

**Assessment:** Exam (100%, 100 points)

A final exam of 90 minutes. There will be two questions to answer (50 points each) to be chosen from four candidate questions. The four topics covered by the candidate questions will be communicated in advance, during the lecture. I will not grade you down for bad spelling or grammar as long as everything is comprehensible and written in English.

**Bonus points (10 points, up to 10%)**

You get bonus points for presenting a research paper. 5 points are granted for presenting, another 5 if the presentation was reasonably good.

**Time and place:**

Tuesday, 8.00-9.30h, GC 03/42 (Lecture)
Thursday, 14.30 – 16.00h, GC 03/42 (Tutorial)

**Start:**

Lecture: April 18, 2017
Tutorial: April 20, 2017