Advanced Environmental Economics

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<th>Course title - Intitulé du cours</th>
<th>Advanced Environmental Economics</th>
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<tbody>
<tr>
<td>Level / Semester - Niveau /semestre</td>
<td>M2 / S2</td>
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<tr>
<td>School - Composante</td>
<td>Ecole d'Economie de Toulouse</td>
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<tr>
<td>Teacher - Enseignant responsable</td>
<td>REYNAERT Mathias - AMBEC Stefan</td>
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<tr>
<td>Lecture Hours - Volume Horaire CM</td>
<td>30</td>
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<tr>
<td>TA Hours - Volume horaire TD</td>
<td>0</td>
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<td>TP Hours - Volume horaire TP</td>
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<tr>
<td>Course Language - Langue du cours</td>
<td>Anglais</td>
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<td>TA and/or TP Language - Langue des TD et/ou TP</td>
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Teaching staff contacts - Coordonnées de l’équipe pédagogique :

Mathias Reynaert Mathias.reynaert@tse-fr.eu  Office Number (TBD) Stefan Ambec Stefan.ambec@inra.fr  Office Number MS113 Interaction in class or by appointment.

Course’s Objectives - Objectifs du cours :

Over the last two centuries, the development of the world economies, and the associated demographic changes, have led to profound impacts to the environment: resources are affected, in quantity and in quality, to such an extent that the whole functioning of our climate and of our ecosystems is changing, with important consequences for our health and our way-of-life. Environmental Economics is the branch of Public Economics that studies such phenomena. The aim of this class is to introduce PhD students to the research frontier in environmental economics. The class will cover the set of problems that environmental policies are trying to solve (market failures, asymmetric information, policy design), the theoretical properties of regulations (tax, quotas, standards, subsidies, nudges, ...); and the empirical tools that economists use in order to empirically evaluate the extent of the market failures and the effects of policies. On each of these topics, we will present and discuss papers that are at the frontier of the literature and will discuss the remaining unanswered questions that could make nice topics for PhD dissertations in environmental economics. At the end of the class, students should be able to formulate a research project at the frontier of the literature in environmental economics and to write a referee report on a paper submitted to a scientific journal in environmental and resource economics.

Prerequisites - Pré requis :

Good knowledge of intermediate microeconomics, standard econometric methods, and basic mathematics for economists.

Practical information about the sessions - Modalités pratiques de gestion du cours :

Students will be expected to read the papers discussed in class in advance and to actively participate in the discussions.
**Grading system - Modalités d’évaluation:**

Evaluation is based on:

- A biweekly referee report and class discussion of a paper (50%)
- A written research proposal and oral presentation of the proposal (50%)

**Bibliography/references - Bibliographie/références:**

Lecture notes and papers will be posted on Moodle.

**Session planning - Planification des séances:**

Session planning:

- Estimating the economic effects of global warming
- Estimating the economic effects of pollution
- Policy instruments: standards, taxes and tradable permits
- Innovation
- Asymmetric information
- Environmental regulations and imperfect markets
- Monitoring and enforcement
- Political economy of environmental regulation
- Energy transition
- Green labels and nudges
- Topic TBD: deforestation, water, adaptation...