

Intitulé du cours

Course title – Intitulé du cours	Climate economics
Level / Semester – Niveau /semestre	L3-S2
School – Composante	Ecole d'Economie de Toulouse
Teacher – Enseignant responsable	Christian Gollier
Lecture Hours – Volume Horaire CM	30
TA Hours – Volume horaire TD	0
TP Hours – Volume horaire TP	0
Course Language – Langue du cours	English

Teaching staff contacts :

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Course Objectives :

This course is aimed at providing a rigorous economic analysis of climate change. It will use tools from various subfields, such as public economics, social choice theory, decision theory under uncertainty, asset pricing theory, and behavioral economics. We will evaluate different climate policies implemented around the world, with a special focus on France (carbon tax, feed in tariff, subsidies, convention citoyenne, bans, norms,...) and Europe (Green Deal, market for permits, carbon border adjustment mechanism,...). We will also examine the dynamics of the COPs in international negotiations. Finally, we will discuss the role of climate activists, corporate climate responsibilities, green finance and the like. I will promote the notion of a carbon value growing over time, and I will determine its level.

Keywords: Carbon pricing, market for permits, energy transition, Paris Agreement, nuclear electricity, renewable energy, free riding problem, environmental externality, green finance, CSR, green deal.

Prerequisites :

Tout cours d'introduction à la microéconomie standard

Practical information about the sessions :

The interactions between the teacher and the participants of this course will be promoted.

Grading system – Modalités d'évaluation :

An oral exam will be organized at the end of the semester.

Bibliography/references – Bibliographie/références :

Gollier, C., (2012), Pricing the planet's future: The economics of discounting in an uncertain world, Princeton University Press, October 2012.

Gollier, C., (2019), *Le climat après la fin du mois*, PUF, Paris.

Gollier, C., (2022), *Entre fin du mois et fin du monde: Economie de nos responsabilités envers l'humanité*, Fayard. Available on open source [here](#).

Twitter : @CGollier

Session planning

Weeks 1 to 5 : Climate policies

Big picture : Blood, sweat and tears

Cost of transition: electricity, steel, aviation, Reducing speed on highways and roads, electric car

Externality, free-riding problem, Pigou, Coase.

EU-ETS and its history

Carbon tax in France and abroad

Carbon leakage and the carbon border adjustment mechanism.

The problem of inequalities

The problem of unrealistic beliefs (utopia of a happy transition)

The problem of international negotiations

What role for climate activists: consumers, investors, banks, insurers

Internal carbon price

Weeks 6 to 10 : Economics of our responsibilities towards future generations

Welfare economics : comparing immediate sacrifices and distant benefits

Individual and collective preferences : inequality aversion

Role of interest rates and the cost of capital

Ramsey rule and the risk-free rate puzzle

Decision theory and asset pricing theory