

Advanced environmental macroeconomics

ECTS : 3

Description du contenu de l'enseignement :

The course focuses on market failures in environmental economics and the appropriate macroeconomic policies to correct them, with a particular focus on carbon taxing in an intertemporal perspective. The course is gradual and starts with a presentation of Integrated Assessment models (IAM) that analyze climate policy in a long perspective. Next, the course introduces the notion of carbon taxing at the business cycle frequency in Dynamic Stochastic General Equilibrium (DSGE) models. Environmental policy in the short term may interfere with the economic cycle, inflation dynamics as well as credit cycles.

The course is structured in five chapters. The two first lectures are given by Lise Patureau (Université Paris Dauphine-PSL). The last three lectures are provided by Garth Heutel (Georgia State University, USA).

1. A presentation of Integrated Assessment models
2. The intertemporal implementation of optimal carbon tax
3. Environmental economics and real business cycles
4. Environmental economics and nominal rigidities
5. Environmental economics and financial frictions

Compétence à acquérir :

The objective of the course is to provide students with an overview of recent developments in environmental macroeconomics dealing with carbon tax policies interacting with financial, nominal and economics components of the economy.

Students should be able to solve the theoretical models presented and to interpret their normative predictions. From a practical perspective, students are also expected to learn the relevant institutional framework for implementing these policies.

Mode de contrôle des connaissances :

Final written exam of 2 hours, 100% of the final grade.

Bibliographie, lectures recommandées :

Papers studied in class, list provided in the slides

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