



Macroeconomics

Course title - Intitulé du cours	Macroeconomics
Level / Semester - Niveau /semestre	M2 / S1
School - Composante	Ecole d'Economie de Toulouse
Teacher - Enseignant responsable	COLLARD FABRICE - HELLWIG CHRISTIAN
Other teacher(s) - Autre(s) enseignant(s)	
Lecture Hours - Volume Horaire CM	36
TA Hours - Volume horaire TD	15
TP Hours - Volume horaire TP	
Course Language - Langue du cours	Anglais
TA and/or TP Language - Langue des TD et/ou TP	Anglais

Teaching staff contacts - Coordonnées de l'équipe pédagogique :

Fabrice Collard Mail and Office TBA Office hours TBA Christian Hellwig <u>christian.hellwig@tse-fr.eu</u>, Office MF 517 Office hours TBA

Course's Objectives - Objectifs du cours :

The objective of this course is to introduce students to the methods of analysis and use of dynamic stochastic equilibrium models in economics, which form the analytical core of macroeconomics. Note that although studied in the context of macroeconomics, these methods are used in many other fields of economics, such as labor economics, development economics, industrial organization, public economics, international or financial economics (corporate finance or asset pricing).

Macroeconomics, like most areas of economics, is an empirical field. Throughout the course, we will emphasize the need to confront theoretical results to empirical evidence, and we discuss methods to compare model and data. In this first semester, we will develop the canonical complete markets model that is widely used as an analytical or quantitative benchmark. The second semester will bring students to the frontier of modern macroeconomics, in which microeconomic heterogeneity and frictions play an important role in shaping cross-sectional and aggregate allocations.

Techniques: deterministic dynamic programming and optimization, value function iteration, welfare theorems, steady-state analysis, phase diagrams, stochastic dynamic programming and optimization, recursive competitive equilibrium, calibration and moment matching, stochastic processes.

Competences: Ability to formulate and answer macroeconomic questions, both from a theoretical and a quantitative point of view, Ability to develop models, optimal policy design.

Prerequisites - Pré requis :

Macroeconomics - M1

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

Computers are tolerated in class

Students are expected to answer questions in class and actively participate to the TD Homeworks have to be prepared, the assistant is not there to give the solution, solution to exercises will be given by the students, the assistant being there to guide them.

Grading system - Modalités d'évaluation :

Examen terminal

Bibliography/references - Bibliographie/références :

• Ljungquist and Sargent: Recursive Macroeconomic Theory, 2nd edition (MIT Press, available online) Offers technical background material and covers parts 1 and 2 of this course

• Acemoglu: Introduction to Modern Economic Growth (Princeton University Press) Parts I-III cover the first part of the course.

• Stokey and Lucas: Recursive Methods in Economic Dynamics (Harvard University Press) This book offers background reading on dynamic programming and Markov processes

• Gal I: Monetary Policy, Inflation and the Business Cycle (Princeton University Press) This book offers background reading on the material presented in the third part of the course. Additional readings will be provided in the form of lecture notes and references to specific papers throughout the course.