

Macroeconometrics

**ECTS** : 6

**Description du contenu de l'enseignement :**

This course will provide the fundamental tools in macroeconometrics. It starts providing the basic knowledge on the modelling of univariate time series, the concept of stationarity, the main tools to represent a univariate time series. Then, it will show some extensions to this basic framework (time varying parameters, selection of variables...). The course will also introduce to forecasting. We will then present the modelling of multivariate time series with VAR models, explain how structural VAR analysis is the natural set up to depart from a purely statistical description and provide economic interpretation. Finally, different extensions to this set up will be introduced: time-varying parameters, co-integration, expectations ....

**Compétence à acquérir :**

The objective of the course is to provide the student with the solid theoretical and practical knowledge of the methods used to analyse and model time series data. Practical skills will be acquired through the modelling of economic time series with econometric software (practical sessions under Matlab). After having attended the classes, the students will master the main tools of time series' modelling and be able to run an empirical work by themselves.

**Mode de contrôle des connaissances :**

Final Exam (50%) + Final Project in pairs (40%) + Participation (10%)

**Bibliographie, lectures recommandées :**

Hamilton, J.D. (1994). Time Series Analysis, Princeton University Press. Johnston, J. and J.E. DiNardo (2007), Econometric Methods, Mac Graw-Hill Econometric series.

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