

# Macroeconomic Dynamics





(18h)

Master Applied Mathematics and Statistics (2<sup>nd</sup> Year)

Parcours Economics of Global Risks (EGR)

**Marc-Alexandre S enegas (9h)**

**Martin Zumpe (9h)**

-  Office hours (MA S enegas) : Tuesday 13.30 – 15.00 pm
-  : [marc-alexandre.senegas@u-bordeaux.fr](mailto:marc-alexandre.senegas@u-bordeaux.fr)
-  : <http://senegas.u-bordeaux4.fr>
-  : [martin.zumpe@u-bordeaux.fr](mailto:martin.zumpe@u-bordeaux.fr)

## **Schedule of the course**

### Introduction to Dynamic Macroeconomic Analysis

#### **Part A : Introduction to DSGE Modelling (basic NKM model)**

- 1- The basic New Keynesian Macroeconomic Model : Main features
- 2- The basic New Keynesian Macroeconomic Model : Derivation of the model
- 3- The basic New Keynesian Macroeconomic Model : Dynamic analysis

#### **Part B : Introduction to Agent Based Macroeconomic Modelling**

- 1- Principles of Agent Based Macroeconomic Models
- 2- Key papers on the Agent Based Macroeconomic literature
- 3 - Practical applications: Macroeconomic Agent Based programming

## References [Part A]

### [Textbooks]

- Gali J. (2015), *Monetary Policy, Inflation and The Business Cycle : an introduction to the New Keynesian Framework*, 2<sup>nd</sup> edition, Princeton University Press, Princeton.
- Walsh C. (2010), *Monetary Theory and Policy*, 3<sup>rd</sup> edition, MIT Press, Cambridge (EU).

### [Articles]

Gali J. (2003), "New Perspectives on Monetary Policy, Inflation, and the Business Cycle", in Dewatripont, M., L. Hansen, and S. Turnovsky (eds.) Advances in Economics and Econometrics, Cambridge University Press vol. III, pp. 151-197.

Poutineau J.-Ch., G. Vermandel and K Sobczak (2015), "The analytics of the 3-equation New Keynesian Model", *Economics and Business Review*, vol. 15, no. 2, pp. 110-129.

Sbordone A. M, Tambalotti A., Rao K. and K. Walsh (2010), "Policy Analysis Using DSGE Models: An Introduction", *Federal Reserve Bank of New York Economic Policy Review*, Oct., pp. 23-43.