Syllabus

[cmcd.economia@fgv.br]

Course: Macroeconomics III
Professor:

2016 SECOND SEMESTER

PROGRAM

The aim of the course is to introduce techniques and methods for analysing macroeconomic issues, with a particular focus on computational methods for advanced macroeconomics.
The topics covered include approximation of stochastic processes, function approximation techniques, linear methods, Blanchard-Kahn conditions and quasi-linear methods. We will introduce students to value and policy function iterations, and methods for models with heterogeneous agents (Ayiagari-Hugget, Krussel-Smith).

BIBLIOGRAPHY

There is no main textbook for the course. The students are given necessary lecture notes/handouts, as well as some computing toolboxes (Matlab codes, etc.) for implementing the computational methods covered. This material is also supplemented with a reading list of various papers and chapters from books.
Some useful books:
_ Adda, J. and R. Cooper, (2003). “Dynamic Economics”, MIT Press;
_ Heer and Maussner (2005). “Dynamic General Equilibrium Modelling: Computational Methods and Applications”, Springer;
_ *Judd, K. (1998). “Numerical Methods in Economics”, MIT Press;
_ Ljungvist, L. and Sargent, T.J. (2000). “Recursive Macroeconomic Theory”, MIT Press;
_ Marimon, R. and Scott, A. (1998). “Computational Methods for the Study of Dynamic Economies”, Oxford University Press;
_ Miao, J. (2014). “Economic Dynamics in Discrete Time”, MIT Press;
_ Miranda, M.J. and Fackler, P.L. (2002). “Applied Computational Economics and Finance”, MIT Press;
_ Stokey, N. and R. Lucas, (1989). “Recursive Methods in Economic Dynamics’ Harvard University Press.

GRADING

The grade will be based on four problem sets (50%) and a project paper (50%). The project paper can be a reproduction of numerical results of some well established paper (we have to agree on that). I will define the deadline for the project later on.

PROFESSOR - EMAILS

DETAILED PROGRAM

Course Outline and Organisation:
_ Basic principles of computing and programming, approximation of stochastic processes, function approximation methods;
_ Global approximation techniques (value and policy function iterations);
_ Local linear and quasi-linear methods;
_ Methods for models of heterogeneous agents.