61348 - New Macroeconometric models

Información del Plan Docente

Academic Year	2017/18
Faculty / School	109 - Facultad de Economía y Empresa
Degree	525 - Master's in Economics
ECTS	3.0
Year	1
Semester	Second semester
Subject Type	Optional
Module	---

1.General information

1.1.Introduction

1.2.Recommendations to take this course

1.3.Context and importance of this course in the degree

1.4.Activities and key dates

2.Learning goals

2.1.Learning goals

2.2.Importance of learning goals

3.Aims of the course and competences

3.1.Aims of the course

3.2.Competences

4.Assessment (1st and 2nd call)

4.1.Assessment tasks (description of tasks, marking system and assessment criteria)

5.Methodology, learning tasks, syllabus and resources

5.1.Methodological overview

The methodology followed in this course is oriented towards achievement of the learning objectives. A wide range of teaching and learning tasks are implemented, such as lectures, student participation, autonomous work (preparation of lectures, exercises or essays) and study of the course contents. Computer-related resources might be required in some topics.

61348 - New Macroeconometric models

5.2.Learning tasks

The course includes the following learning tasks:

- Lectures (20 hours): compulsory attendance
- Autonomous work (45 hours): homework preparation and study of the course contents
- Presentation and discussion of homework (10 hours): compulsory attendance

5.3.Syllabus

The course will address the following topics:

Topic 1. Presentation

1.1. DSGE models, calibration and estimation

1.2. Dynare and Octave

Topic 2. Solution of stacionary DSGE models

2.1. A fundamental distintion: determinist and stochastic models

2.2. Introduction of an example

2.3. The structure of a .mod file in Dynare

2.4. Preamble

2.5. Model specification

2.6. Steady estate and/or initial values

2.7. The inclusion of shocks

2.8. The selected computation

2.9. The complete file

Topic 3. Estimation of stationary DSGE models

3.1. Introduction of an example

3.2. Declaration of variables and parameters

61348 - New Macroeconometric models

3.3. Model declaration

3.4. Declaration of observed variables

3.5. Steady estate

3.6. Declaration of a priori distributions

3.7. Launching the estimation

3.8. The complete .mod file

3.9. Interpreting the output

Topic 4. Solution of non-stationary DSGE models

4.1. The characteristics of a non-stationary model

4.2. Introduction of an example

4.3. Declaration of variables and parameters

4.4. The origin of the non-stationarity

4.5. Transforming the non-stationary variables to stationary ones

4.6. Preamble

4.7. Model specification

4.8. Steady estate and/or initial values

4.9. The inclusion of shocks

4.10. The selected computation

4.11. The complete .mod file

Topic 5. Estimation of non-stationary DSGE models

5.1. The link between the stationary variables and the data

61348 - New Macroeconometric models

5.2. The block of the resulting model in the .mod file

5.3. Declaration of observed variables

5.4. Declaration of trends in the observed variables

5.5. Steady estate

5.6. Declaration of a priori distributions

5.7. Launching the estimation

5.8. The complete .mod file

5.9. Summing-up

5.4.Course planning and calendar

Provisional calendar of sessions:

Session	Topic
1	Introduction. DSGE model, calibration and estimation. Dynare and Octave
2	Solution of DSGE stationary models
3	Solution of DSGE stationary models
4	Solution of DSGE stationary models. Homework presentation
5	Estimation of DSGE stationary models
6	Estimation of DSGE stationary models
7	Estimation of DSGE stationary models. Homework presentation
8	Estimation of DSGE stationary models. homework presentation

61348 - New Macroeconometric models

9	Solution of DSGE non-stationary models
10	Solution of DSGE non-stationary models
11	Solution of DSGE non-stationary models. Homework presentation
12	Estimation of DSGE non-stationary models
13	Estimation of DSGE non-starionary models
14	Estimation of DSGE non-stationary models. Homework presntation
15	Exam

5.5.Bibliography and recommended resources

- Mancini, Tommaso. Dynare: user guide /Tommaso Mancini. Mimeo, 2014
- Dynare: Reference manual, versión 4.4.3 / Adjemian, Stéphane... [et al.] 2014