

Dalhousie University
Faculty of Science Course Syllabus
Department of Economics
ECON 5500: Macroeconomic Theory.
Fall 2018.
CRN: 12939

Instructor :

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Lectures :

Mondays and Wednesdays 14.35am – 15.55am Rowe 3080

Textbook: :

See below.

Learning Objectives: The main goal of this class is to teach you to model and understand macroeconomic data. On successful completion of this course, students will be able to:

- Fit appropriate statistical models to macroeconomic data.
- Explain/forecasts certain features of these data.
- Write clearly and concisely about data modeling.

Course Description: In order to achieve the learning objective we will start by studying in detail a simple Dynamic Stochastic General Equilibrium model. This is the dominant modeling approach in modern macroeconomics since, despite its complexity and limitations, there simply aren't any compelling alternatives. We will continue with collecting and analyzing macroeconomic data to ultimately fit a battery of statistical models that we judge capable of capturing and replicating the underlying data generating process. We will not learn the full statistical background that lie behind these models, but rather we will instead focus on their *practice*. If time permits, we will compare the statistical findings with the model's prediction, to conduct a simple, but informative, test of the fitness of modern macroeconomic models.

Course Materials: The class is divided in nine Lectures. The associated notes will be posted online when needed, but each student is expected to take their own notes during class which will allow them to prepare for the examinations. It will typically take several classes to cover a Lecture, and the pace will depend on the degree of class participation and on your ability to absorb the materials. It is possible, therefore, that we will not be able to cover all of the Lectures listed here. At the end of the Syllabus you will find a list of the topics covered in the Lectures and the associated supporting materials. These readings are not required and as such there is *no* required textbook for this class. Computer codes and data will be made available online.

Grading: The class grade will be based on several in-class tests that will be taken right after the end of each Lecture. If the class learning pace allows for the full delivery of the nine Lectures, there will be nine examinations; alternatively, there will be as many examinations as the number of Lectures that I will be able to deliver. Each exam will count equally towards your final grade.

Course Content:

This is our lesson plan and the pertinent references, assuming the class can learn the materials at a good rate.

Lecture 1: A simple DSGE model. “Structural Macroeconometrics.” DeJong D. and C. Dave, 2007, Princeton University Press, Princeton, NJ, Chapter 5.

Lecture 2: National Income and Product Accounts. “A Guide to the National Income and Product Accounts of the United States”
www.bea.gov/national/pdf/nipaguid.pdf

Lecture 3: Trend and Cycle. “Structural Macroeconometrics.” DeJong D. and C. Dave, 2007, Princeton University Press, Princeton, NJ, Chapter 3.

Lecture 4: Statistical Modeling of the Data “Structural Macroeconometrics.” DeJong D. and C. Dave, 2007, Princeton University Press, Princeton, NJ, Chapter 4.

“New Introduction to Multiple Time Series Analysis.” H. Lütkepohl, 2007, Springer, Berlin, Chapter 2.

Lecture 5: Using VARs “New Introduction to Multiple Time Series Analysis.” H. Lütkepohl, 2007, Springer, Berlin, Chapters 3, and 4.

Lecture 6: Cointegration. “The Cointegrated VAR Model.” K. Juselius, 2006, Oxford University Press, New York, NY, Chapters 5, 8, 10, 11.

Lecture 7: The Lucas Critique & Structural VARs. “Applied Macroeconometrics.” C. Favero, 2001, Oxford University Press, New York, NY, Chapters 3, 4, and 6.

Lecture 8: Model-Consistent Expectations. “Learning and Expectations in Macroeconomics” G. Evans and S. Honkapohja, 2001, Princeton University Press, Princeton, NJ, Chapters 1 and 2.

“Solving Linear Rational Expectations Models” C. Sims,
<http://sims.princeton.edu/yftp/gensys/LINRE3A.pdf>

Lecture 9: Statistical Tests of DSGE Models. “Explaining business cycles. A multiple-shock approach.” B. Fisher Ingram, N. Kocherlakota, N. Savin, *Journal of Monetary Economics*, 34, pp. 415–428, 1994.

“Time Series Analysis” J. Hamilton, 1994, Princeton University Press, Princeton, NJ, Chapter 5.

“Structural Macroeconometrics.” DeJong D. and C. Dave, 2007, Princeton University Press, Princeton, NJ, Chapters 4 and 8.