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University of Toronto  
Department of Economics

# ECO2031H

Macroeconomic Theory-II (PhD), 2016 Winter

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## Course Description

This course is the fourth and the last in 1<sup>st</sup> year PhD macroeconomics sequence and complements its predecessors, ECO2030 and the first half of the ECO2031. The ultimate goal of this course is to learn how to develop a variety of quantitative models (that can be used to generate artificial data of both allocations and prices which can be meaningfully mapped to actual data) to give answers to macroeconomic questions. In this course most (if not all) of the material will be studied from the strict theoretical point of view and the emphasis is on *economic rigor*. So we will neither look at data in any serious manner nor computationally solve the models. Furthermore, this course is not a survey of topics in macroeconomics: The objective is not to give a review of known results of a specific topic but rather to give an example of how to use modern macroeconomic tools to tackle questions.

## Textbooks and Papers

- Frontiers of Business Cycle Research, by Cooley, T. (1995), Princeton University Press.
- Recursive Methods in Economic Dynamics, by Stokey and Lucas with Prescott, Harvard University Press.
- Recursive Macroeconomic Theory, by Ljungqvist and Sargent, The MIT Press.
- None of these books are required. I will post my slides and I will benefit from Victor Rios-Rull's and Dirk Krueger's notes in my slides.
- The papers that I cite (in a very incomplete form below) are not to be read in general, although some students may find them useful.

## Evaluation

- The final exam will be held at a date and location to be set by the University.
- In the context of the course, I will occasionally assign some homework questions. But these are not required.
- Class participation may affect your final grade in some special circumstances.

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or by appointment.

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## Lecture Hours

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- Tuesdays and Thursdays,  
9-11am, at GE100

## Tutorials

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- TBA

## Teaching Assistant

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- Swapnika Rachapalli
- [s.rachapalli@mail.utoronto.ca](mailto:s.rachapalli@mail.utoronto.ca)
- Office Hours: Wednesdays,  
2-3 pm at GE313

## Course Website

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[TEACHING.serdarozkan.me](http://TEACHING.serdarozkan.me)

The website will be used extensively for posting announcements, lecture notes, problem sets, and solutions. Please consult it on a regular basis.

## Preliminary List of Topics

1. Introduction, Modern Macroeconomics Framework
  - a. What's an equilibrium?
2. Exogenous Growth Models
  - a. Basic growth facts.
  - b. Solow Model
  - c. Neo-classical growth model
3. Endogenous Growth Models
  - a. AK Model
  - b. Human Capital Model
  - c. Romer's R&D Model
4. Recursive Equilibrium, Real Business Cycle Theory and Variants of Neo-classical Growth Model
  - a. Business cycle facts
  - b. Plain vanilla RBC model and tweaks to the basic model.
5. Lucas tree and asset pricing
6. Industry equilibrium
7. Life Cycle models with heterogeneous agents and incomplete markets.
  - a. Consumption insurance.