Instructor: Minjoon Lee  
Email: minjoon.lee@carleton.ca  
Office: D892 Loeb Building  
Office Hours: Friday 10:30 AM – 12:00 PM (Tentative)

Schedule  
Lectures: Monday 2:35 PM – 5:25 PM (Southam Hall 315)

Prerequisites  
ECON 5021 (or equivalent) and ECON 6019

Course Description  
This is a Ph.D. level macroeconomic theory course. The course covers growth models, micro-foundations for macroeconomics, and business cycle models. The course also covers basic programming using MATLAB, a software that is commonly used in macroeconomic research.

Resources  

1) Textbook  
This course does not have a required textbook, but the following books are good references:  

2) CULearn  
This course will make use of CULearn. I will post materials including problem sets and answer keys. I will also use CULearn to send announcements to the class as needed. Please make sure that you are set up on CULearn prior to the course start date.
3) **Computer Programs**
This course requires programming with MATLAB. MATLAB is available under the university-wide license.

**Course Outline (Tentative)**

I. Growth theories
   - Solow model
   - Continuous time optimization
   - Ramsey model
   - Overlapping generations model (time permitting)
II. Micro-foundations for macroeconomics
   - Discrete time optimization
   - Consumption
     - PIH/RW, Asset pricing, risk premium puzzle
   - Investment
     - Q-theory, adjustment cost
III. Business cycle models
   - (Representative-agent) Real business cycle models
   - Heterogeneous agent models

**Exams**

1) **Midterm exam**
There will be one mid-term exam on February 26 (in class). Students who can document a compelling reason for missing the midterm exam will be excused and the weight of the midterm will be automatically added to the final exam. There will be no deferred midterm exam.

2) **Final exam**
The final exam will take place during the Winter term examination period at a time and place set by the University. The final exam covers the materials taught after the Midterm.

**Problem Sets**
There will be four problem sets. The problem sets are due at the beginning of the class on the following days:

- Problem set 1: January 29
- Problem set 2: February 12
• Problem set 3: March 19
• Problem set 4: April 9

The grading is based on effort and completeness, not on accuracy of the answers. Each assignment will be graded on a scale of \{0,1,2\}. In answering the questions, students are expected to show their work, i.e. write down key logical steps as well as final answers. Late submission will not be accepted. If you fail to submit a problem set and do not provide proper documentation, you will be assigned a mark of zero.

**Evaluation**
- Problem sets: 20%
- Midterm: 40%
- Final: 40%

**Important Notes**

1) Remarketing
Any request for the remarketing of a midterm exam or problem set must be submitted in writing within two weeks of that exam first being returned to the class. The request should contain a detailed explanation of why you feel you should receive a higher mark. Please note that remarketing will apply to the entire assignment/exam, not just the contentious question. As a result, the revised mark maybe higher than, lower than or the same as the original mark. Exams or problem sets completed in pencil or erasable ink will not be regraded.

2) Plagiarism
Please be aware that plagiarism is a serious offence at Carleton and should be recognized and avoided. For further information on how to do so, see Pammett on Plagiarism and Paraphrasing at http://www.carleton.ca/economics/courses/writing-preliminaries.

3) Accommodation Requests
Accommodation Requests: Students with disabilities requiring academic accommodations in this course must contact a coordinator at the Paul Menton Centre (PMC) for Students with Disabilities to complete the necessary Letters of Accommodation. After registering with the PMC, students should make an appointment to meet and discuss their needs with the instructor as early in the term as possible. Please note the Fall-term deadline for submitting completed forms to the Paul Menton Centre for accommodation at the April Exam is March 9, 2018.
**Reading List**
(Ones with *underline* should be the most helpful for this course.)

- **Solow Model**
  - BS, Chapter 1, Section 1 and 2.
  - ROMER, Chapter 1.
  - ACE, Chapter 2.

- **Continuous Time Optimization**
  - ACE, Chapter 7, Section 1-5.

- **Ramsey Model**
  - BS, Chapter 2, Section 1 – 6.
  - ROMER, Chapter 2, Part A.
  - ACE, Chapter 8, Section 1-9.

- **Overlapping Generations Model**
  - ACE, Chapter 9, Section 1-9.

- **Discrete Time Optimization**
  - LS, Chapter 3 and 4.

- **Consumption**
  - ROMER, Chapter 8.
• Investment
  o ROMER, Chapter 9.

• Real Business Cycle Models
  o ROMER, Chapter 5.

• Heterogeneous Agent Models
  o LS, Chapter 16 and 17.
