Econ 817: Advanced Macroeconomic Theory II
Winter 2004

Instructor:
Hiroyuki Kasahara
Office: DUN 233
Phone/Email: 533-2258, kasahara@qed.econ.queensu.ca

Teaching Assistant: Zhen Song, MC A423, 533-6000(ext. 75468), songz@qed.econ.queensu.ca

Office Hours:
Monday 10:00-11:00am and Thursday 5:30-6:30pm

Class Times: The class will meet in Dunning 227 from 8:30-9:50am on Monday and from 10:00-11:20am on Thursdays.

Text: General reference texts will be Stokey and Lucas with Prescott (1989) and Ljungqvist and Sargent (2000). For numerical dynamic programming, references are Ch. 12 of Judd (1998) and Rust (1996):

- Stokey, Nancy and Robert E. Lucas with Edward Prescott (1989) *Recursive Methods in Economic Dynamics*, Cambridge: Harvard University Press.
- Ljungqvist, Lars and Thomas Sargent (2000) *Recursive Macroeconomic Theory*. Cambridge: MIT Press.
- Judd, Kenneth L. (1998) *Numerical Methods in Economics*, Cambridge: The MIT Press.
- Rust, John (1996) "Numerical Dynamic Programming in Economics," in H.M.Amman, D.A.Kendrick and J.Rust, eds, *Handbook of Computational Economics*, Volume I, Amsterdam: Elsevier.

Course Description: The emphasis will be on the concepts and techniques in recursive decision-making and their application to various problems in macroeconomic theory. The course aims at learning the theory of dynamic programming based on Stokey and Lucas (1989) and developing (practical) numerical dynamic programming techniques using computers. As an example of applications, we study the one-sector growth model. Other topics covered in this course are: (1) Incomplete Insurance and Heterogenious Agents, (2) Search and Matching, and (3) Investment.

Course Requirements: Homework are essential for learning and understanding the materials that will be covered in this course. Homework assignments are assigned regularly and they will be an important part of the final grade. Late homework may be accepted but the score will be discounted by 20 points (out of 100 points) for each additional day after the due date. The final grade will be determined on a weighted average of marks on homework assignments and two exams: a midterm and a final. The mid-term exam includes some questions from homework (especially, some mathematical proofs). The final exam has two-parts: a theory part and a computer programming (take-home) part. The weights will be:

Homework:	30%
Midterm Exam:	30%
Final Exam (Theory):	20%
Final Exam (Programming):	20%