ECON*6020
Macroeconomic Theory I
Winter 2015
0.50 Credit weight

General Course Information

Instructor: Laurent Cellarier

Email	lcellari@uoguelph.ca, Ext. 52180
Office Location	MCKN 712
Office Hours	Mon, Wed 4:00PM-5:30PM or by appointment
Department/School	Department of Economics and Finance

TA's   TBA

Email	TBA
Office Location	TBA
Office Hours	TBA

Class Schedule: Mon, Wed 10:00AM - 11:20AM MCKN, Room 235

Pre-requisites:

Course Description

Objectives: The goal of this course is to provide graduate students with tools and techniques required to understand advanced macroeconomic theory.

Course Assessment

Grades: Course grades will be determined according to the following weighting scheme:

			Associated Learning Outcomes	Due Date/ location
Assessment 1:	*20%*	*3 Homework Assignements*		*TBA*
Assessment 2:	*35%*	*Midterm Examination*		*Mar. 6th, 3:00pm-6:00pm*
Assessment 3:	*45%*	*Comprehensive Final Exam*		*TBA*
Total	*100%*			

Course Resources

Online Course Materials: Lectures notes, homework assignments, and practice exercises will be available at:

http://courselink.uoguelph.ca/

Course Content

Chapter 1   A One-Period Model with Production

Part 1   A Decentralized Economy

C. I. Jones, Macroeconomics, 2nd U.S. edition, Chapter 4, p66-p96.

Part 2   A Centralized Economy

S. Williamson, Macroeconomics, Prentice Hall (2010); 4th edition, Chapters 4, 5 and Appendix
Pages 664-672.

Chapter 2   Two-Period Overlapping Generations Models

E. Malinvaud, The Overlapping Generations Model in 1947, Journal of Economic Literature, 25, March 1987,
Pages 103-105.

Part 1   Pure Exchange Economies

D. Gale, Pure Exchange Equilibrium of Dynamic Economic Models, Journal of Economic Theory, 6, (1972),
Pages 12-36.

P. A. Samuelson, An Exact Consumption-Loan Model of Interest with or without the Social Contrivance of
Money, Journal of Political Economy, 66, (1958), Pages 467-482.

Part 2   Production Economies

P. A. Diamond, National debt in a neoclassical growth model, American Economic Review 55, (1965),
Pages 1126-1150.

O. Galor and H. E. Ryder, Existence, uniqueness, and stability of equilibrium in an overlapping generations
model with productive capital, Journal of Economic Theory, 49, (1989), Pages 360-375.

O. J. Blanchard and S. Fisher, Lectures on Macroeconomics, MIT Press (1996), Chapter 3, Pages 91-153.

D. Acemoglu, Introduction to Modern Economic Growth, Princeton University Press (2009), Chapter 9,
Pages 327-358.

Chapter 3   Long/Infinite Horizon Models with Production

Part 1   Examples of Long/Infinite Horizon Planning Problems

D. De La Croix and P. Michel, A Theory of Economic Growth, Cambridge University Press (2002), Chapter 2
Pages 72-128.
C. Azariadis, Intertemporal Macroeconomics, Blackwell Publishers Inc (1998), Part 1 Chapter 7 Pages 68-84.

T J. Sargent, Dynamic Macroeconomic Theory, Harvard University Press (1987), Part 1 Chapter 1 Pages 11-56.

Part 2   Dynamic Programming Methods

A. K. Dixit, Optimization in Economic Theory, Oxford University Press, Second Edition, (1990), Chapter 10, Pages 145-161.

L. Ljungqvist, T. J. Sargent, Recursive Macroeconomic theory, MIT Press, (2000), Chapters 2, 3, 4, Pages 29-82.

N. L. Stockey, R. E. Lucas with E. C. Prescott, Recursive Methods in Economic Dynamics, Harvard University Press, selected chapters.

D. Acemoglu, Introduction to Modern Economic Growth, Princeton University Press (2009), Chapter 6, Pages 182-226.

Chapter 4   Business Cycle Models

Real Business Cycle Models

T. F. Cooley and E. C. Prescott, Economic Growth and Business Cycles, in Frontiers of Business Cycle Research (Thomas F. Colley. Ed), Princeton University Press (1995), Pages 1-39.

R. G. King, C. I. Plosser and S. T. Rebelo, Production, Growth and Business Cycles: I. the Basic Neoclassic Model, Journal of Monetary Economics, 21 (1988), Pages 195-232.

R. G. King, C. I. Plosser and S. T. Rebelo, Production, Growth and Business Cycles: Technical Appendix, Working Paper (2001).

R. G. King and S. T. Rebelo, Resuscitating Real Business Cycles, in Handbook of Macroeconomics, J. Taylor and M. Woodfords Eds., Elsevier Science Publishing, 1999.

J. H. Cochrane, Solving Real Business Cycle Models by Solving System of First-Order Condition, Lectures notes (2001).

N. L. Stockey, R. E. Lucas with E. C. Prescott, Recursive Methods in Economic Dynamics, Harvard University Press, selected chapters.

Part 2   Endogenous Business Cycle Models

M. Boldrin, and M. Woodford, Equilibrium Models Displaying Endogenous Fluctuations and Chaos: a Survey, Journal of Monetary Economics, 25, Pages 189-222.

J. Benhabib and R. H. Day, Erratic Accumulation, Economic Letters, 6, (1980), Pages 113-117.

J. Benhabib and R. H. Day, A Charaterization of Erratic Dynamics in the Overlapping Generations Model, Journal of Economic Dynamics and Control 4, (1982) Pages 37-55.

J. M. Grandmont, On Endogenous Competitive Business Cycles, Econometrica, 53, (1985), Pages 995-1046.

R. E. A. Farmer, Deficits and Cycles, Journal of Economic Theory, 40, (1986), Pages 77-88.

P. Reichlin, Equilibrium Cycles in an Overlapping Generations Economy with Production, Journal of Economic Theory, 40, (1986), Pages 89-102.

Chapter 5   Models with Boundedly Rational Agents

In Descriptive Models

G. W. Evans and S. Honkapohja, Learning and Expectations in Macroeconomics, Princeton Univ. Press, Princeton, New Jersey, (2001).

J. M. Grandmont, Expectations Formation and Stability of Large Socioeconomic Systems, Econometrica, Vol. 66, No. 4, (1998), Pages 741-781.

In Overlapping Generations Models

J. P. Benassy and M. Blad, On Learning and rational expectations in an overlapping generations model, Journal of Economic Dynamics and Control, 13, (1989), Pages 379-400.

J. Bullard, Learning equilibria, Journal of Economic Theory, 64, (1994), Pages 468-485.

M. Schönhofer, Chaotic learning equilibria, Journal of Economic Theory, 89, (1999), Pages 1-20.

J. Tuinstra, Beliefs equilibria in an overlapping generations model, Journal of Economic Behavior and Organization, 50, (2003), Pages 145-164.

Part 3   In Long/Infinite Horizon Models with Production

L. L. Cellarier, Constant Gain Learning and Business Cycles, Journal of Macroeconomics 28: 51-81, 2006.

L. L. Cellarier, Least square Learning and Business Cycles, Journal of Economic Behavior and Organization, 68: 553-564, 2008.

R. H. Day, Flexible Utility and Myopic Expectations in Economic Growth, Oxford Economic Papers, 21: 299-311, 1969.

H. Dawid, Long Horizon Versus Short Horizon Planning in Dynamic Optimization Problems with Incomplete Information, Economic Theory, 25: 575-597, 2005.

G. W. Evans, and B. McGough, Learning to Optimize, Working Paper, 2009.

Course Policies

Grading Policies

https://www.uoguelph.ca/registrar/calendars/graduate/2014-2015/

University Policies

Academic Consideration

When you find yourself unable to meet an in-course requirement because of illness or compassionate reasons, please advise the course instructor in writing, with your name, id#, and e-mail contact. See the academic calendar for information on regulations and procedures for

Academic Consideration: https://www.uoguelph.ca/registrar/calendars/graduate/2014-2015/

Academic Misconduct

The University of Guelph is committed to upholding the highest standards of academic integrity and it is the responsibility of all members of the University community, faculty, staff, and students to be aware of what constitutes academic misconduct and to do as much as possible to prevent academic offences from occurring.

University of Guelph students have the responsibility of abiding by the University's policy on academic misconduct regardless of their location of study; faculty, staff and students have the responsibility of supporting an environment that discourages misconduct. Students need to remain aware that instructors have access to and the right to use electronic and other means of detection. Please note: Whether or not a student intended to commit academic misconduct is not relevant for a finding of guilt. Hurried or careless submission of assignments does not excuse students from responsibility for verifying the academic integrity of their work before submitting it. Students who are in any doubt as to whether an action on their part could be construed as an academic offence should consult with a faculty member or faculty advisor.

The Academic Misconduct Policy is detailed in the Undergraduate Calendar:

https://www.uoguelph.ca/registrar/calendars/graduate/2014-2015/

Accessibility

The University of Guelph is committed to creating a barrier-free environment. Providing services for students is a shared responsibility among students, faculty and administrators. This relationship is based on respect of individual rights, the dignity of the individual and the University community's shared commitment to an open and supportive learning environment. Students requiring service or accommodation, whether due to an identified, ongoing disability or a short-term disability should contact Student Accessibility Services as soon as possible.

For more information, contact SAS at 519-824-4120 ext. 56208 or email csd@uoguelph.ca or see the website: http://www.csd.uoguelph.ca/csd/

Course Evaluation Information

Please refer to https://www.uoguelph.ca/economics/course-evaluation

Drop date

The last date to drop one-semester courses, without academic penalty, is March 6th, 2015. For regulations and procedures for Dropping Courses, see the Academic Calendar:

https://www.uoguelph.ca/registrar/calendars/graduate/2014-2015/

Course Learning Outcomes

Skills

1) *Written Communication:* Short answer essay questions which will be graded with the usual essay writing criteria except for the requirement of a bibliography.
2) *Numerical Problem Solving:* Students will have to **solve** various general equilibrium models namely one-period models, two-period models with overlapping generations, the Cass-Koopmans model and real business cycle models. Students will also have to make **quantitative predictions**. These numerical skills will be assessed with quantitative problems in the homework assignments, the midterm and final.
3) *Analytical Problem Solving:* Some chapters of the course rely on graphical **analysis** to **demonstrate** and **interpret** various economic models. This will be tested on the homework assignments, midterms and final.
4) *Problem solving in a Real World Context:* Students will have to **apply** the course materials to historical and current macroeconomic problems.
5) *Computer skills:* Students will have to use mathematical packages to answer some homework assignment questions.
6) *Professional and ethical awareness and conduct:* There will be no time extension to complete the homework assignments in order to master **time management** skills.

Knowledge

1) *Mathematical Methodology:* Students are expected to **analyze** large systems of difference equations and to **solve** high dimensional optimization problems.
2) *Statistical and Econometric Methodology:* Students have to be **familiar** with data analysis, sampling, probability, hypothesis testing, confidence intervals, regression analysis, robustness)
3) *Microeconomic modelling:* Students are expected to **apply** the supply and demand framework to various markets, the theory of the firm and the theory of the consumer.
4) *Macroeconomic Modeling:* As a graduate course, ECON*6040 introduces students to advanced macroeconomic modelling. Students are expected to **remember** and **recognize** various concepts and models.
5) *Understanding of Specific Markets:* Several markets are **analyzed** such as goods market, the money market, the bond market, the labor market. Students are expected to **understand** and **remember** their specificities and commonalities.
6) *Historical and Global context:* Students will be required to **research** the values of current macroeconomic indicators and variables. Short essay questions will ask students to **construct** an argument about a macroeconomic issue from an historical perspective and to **formulate** a solution for a current macroeconomic problem.
7) *Economic Policy and Regulation:* Students must **understand** and **explain** the macroeconomic consequences of government intervention.