



School of Economics
Academic Year 2015-16
Term 2

ECON237 - ADVANCED MACROECONOMICS

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Course Objectives:

This course explores major macroeconomic topics using the general equilibrium frameworks with micro-foundations. Building upon intermediate macro- and microeconomics, we take a more quantitative approach to address endogenous growth, consumption and investment under uncertainty, credit and financial market frictions, and etc. The main objective of this course is to introduce you the workhorse models of modern macroeconomics.

The course is rigorously structured and is conducted at a fast pace. You are highly recommended to form study group with your classmates. Make sure to clarify any doubts by contacting me or teaching assistant, or through group discussions with your fellow classmates. Problem sets help you understand the course materials. You are allowed to work out the problem sets in the group, but everyone needs to submit his/her own homework separately.

Academic Integrity:

All acts of academic dishonesty (including, but not limited to, plagiarism, cheating, fabrication, facilitation of acts of academic dishonesty by others, unauthorized possession of exam questions, or tampering with the academic work of other students) are serious offences.

All work (whether oral or written) submitted for purposes of assessment must be the student's own work. Penalties for violation of the policy range from zero marks for the component assessment to expulsion, depending on the nature of the offense. When in doubt, students should consult the instructors of the course. Details on the SMU Code of Academic Integrity may be accessed at <http://www.smuscd.org/resources.html>.

Assessment & Evaluation:

- Class Participation 10%
- Problem sets 15%
- Mid-term Exam (Closed-book) 35%
- Final exam (Closed-book) 40%

Required Textbooks:

- (A-H) P. Aghion and P. Howitt. (2009). "The Economics of Growth", The MIT Press.
- (DR) D. Romer. (2012). "Advanced Macroeconomics", McGraw-Hill, 4th edition.

Recommended References:

- (DA) D. Acemoglu. (2009). "Introduction to Modern Economic Growth", Princeton University Press.
- D. N. Weil. (2009) "Economic Growth", 2nd edition, Pearson.

Supplementary References:

You may read related articles and news reports in newspapers or magazines, e.g., Financial Times, Wall Street Journals, and Economists. For a broader and deeper analysis on current economic situation, see IMF World Economic Outlook and Global Financial Stability Report.

Course Schedule:

Week	Topics	Chapter
1	<p><u>Introduction</u></p> <ul style="list-style-type: none"> • Some Stylized Macroeconomic Facts • Course requirements and structure • Introduction to Modern Macroeconomic Models <p><u>Part I: Modern Economic Growth</u></p> <p>Empirical Evidence</p> <ul style="list-style-type: none"> • Cross-Country Differences in Income and Growth • Changing Patterns of Income Distributions • Kaldor's Facts 	DA Ch1 A-H Ch1
2	<p><u>Neoclassical Growth Model</u></p> <ul style="list-style-type: none"> • Review of Solow-Swan Model • Cass-Koopmans-Ramsey Model in the Discrete Time: • Endogenize the consumption-savings choice • Competitive Equilibrium vs. Social Planner's Allocation 	A-H Ch1
3	<p>The Cass-Koopmans-Ramsey Model in the Continuous Time</p> <ul style="list-style-type: none"> • Dynamic Optimization: the Hamiltonian method <p><u>Endogenous Growth Models</u></p> <p>The AK Model</p> <p>Applications:</p> <ul style="list-style-type: none"> • optimal public expenditures • optimal education choice and human capital accumulation 	A-H Ch1 DR Ch2 A-H Ch2
4	<p>The Schumpeterian Model</p> <ul style="list-style-type: none"> • Monopoly profit as the driving force behind innovation • Competitive-equilibrium allocation • Social planner's allocation 	A-H Ch4

5	<p>Applications of the Schumpeterian Model:</p> <ul style="list-style-type: none"> • Market structure and innovation in the smart phone sector • Innovation incentive of newcomers vs. incumbents • Optimal IPR protection 	A-H Ch3
6	<p>The Expanding-Variety Model</p> <ul style="list-style-type: none"> • Competitive-equilibrium allocation • Social planner's allocation <p>• Applications: Middle-Income Trap and the future of the Chinese economy 50 Years of Growth Strategy in Singapore: 1965-2015 From factor accumulation to efficiency enhancing to innovation Institutions matter!</p>	A-H Ch3
7	<p>Directed Technology Change</p> <ul style="list-style-type: none"> • Relative supply of college skills and college premium in US • Can the extra supply of skilled labor create its own demand? The Upward-sloping long-run labor demand curve <p>Applications:</p> <ul style="list-style-type: none"> • Openness and college wage premium: China, Mexico • ICT revolution and Trade Globalization since 1990s • Directed Technical Change: North-North vs. North-south Trade • International fragmentation of production through global sourcing 	A-H Ch8 A-H Ch9 DR Ch8
8	Recess	
9	<p>Midterm Exam (2 hours)</p> <p>Discussing the mid-term exam</p>	
10	<p><u>Part II: Macroeconomics under Uncertainty</u></p> <p><u>Consumption</u></p> <ul style="list-style-type: none"> • Precautionary saving due to prudence or liquidity constraints • Absolute and relative risk aversion <p>Applications:</p> <ul style="list-style-type: none"> • Imperfect risk-sharing through financial markets: • Has Financial Development Made the World Riskier? • US subprime crisis and systemic risk • A tax cut can be a free lunch! proportional income tax as a risk-sharing scheme • Understanding China's saving puzzle 	Lecture Slides

11	<p><u>Uninsured Labor Income Risk</u></p> <ul style="list-style-type: none"> • General equilibrium implications of incomplete risk sharing: Labor income risk • Financial crisis and aggregate output <p><u>Uninsured Investment Risk</u></p> <ul style="list-style-type: none"> • Optimal Portfolio Choice: Merton-Samuelson model 	Lecture Slides
12	<p><u>Uninsured Investment Risk (Cont.)</u></p> <ul style="list-style-type: none"> • Intertemporal optimization with risk-free and risky assets • General equilibrium implications of incomplete risk sharing: capital income risk • Financial crisis and aggregate output <p>Applications:</p> <ul style="list-style-type: none"> • Incomplete risk-sharing and endogenous technology adoption • Product Life-Cycle Theory: Financial Development, Innovation, and Growth 	Lecture Slides
13	<p><u>Credit Market Imperfections</u></p> <ul style="list-style-type: none"> • Firms' capital structure and the rates of return to credit vs. equity • Intertemporal optimization of borrowers and lenders • General equilibrium implications of borrowing constraints <p>Applications:</p> <ul style="list-style-type: none"> • Global Imbalances: "uphill" and two-way capital flow puzzle • Sustainability of the US current account deficit • Emerging Asia vs. Emerging Europe 	Lecture Slides
14	Revision	
15	Final Exam (2 hours)	