



**School of Economics**  
**Academic Year 2014-15**  
**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>.

**Class Session:**

- TBA

**Consultation Hours:**

- Haiping: Friday 13:30-15:00, SOE Office 05-035

**Assessment & Evaluation:**

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

**Required Textbooks:**

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

### 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 (subject to changes):

Week	Topics	Chapter
1	<p><b><u>Introduction</u></b></p> <ul style="list-style-type: none"> <li>• Some Stylized Macroeconomic Facts</li> <li>• Course requirements and structure</li> <li>• Introduction to Modern Macroeconomic Models</li> </ul> <p><b><u>Part I: Modern Economic Growth</u></b></p> <p><b><u>Empirical Evidences</u></b></p> <ul style="list-style-type: none"> <li>• Cross-Country Differences in Income and Growth</li> <li>• Changing Patterns of Income Distributions</li> <li>• Kaldor's Facts</li> </ul>	DA Ch1 A-H Ch1
2	<p><b><u>Neoclassical Growth Model</u></b></p> <p>The Solow-Swan Model with Exogenous Technological Change</p> <p>The Cass-Koopmans-Ramsey Model in the Discrete Time</p> <ul style="list-style-type: none"> <li>• Competitive Equilibrium Allocation vs. Social Planner's Allocation</li> </ul>	A-H Ch1
3	<p>The Cass-Koopmans-Ramsey Model in the Continuous Time</p> <ul style="list-style-type: none"> <li>• Dynamic Optimization: the Hamiltonian method</li> </ul> <p><b><u>Endogenous Growth Models</u></b></p> <p>The AK Model</p>	A-H Ch1 DR Ch2 A-H Ch2
4	<p>The Schumpeterian Model</p> <ul style="list-style-type: none"> <li>• Monopoly profit as the driving force behind innovation</li> <li>• Competitive-equilibrium allocation</li> <li>• Social planner's allocation</li> </ul>	A-H Ch4
5	<p>Solution to Problem Set 1</p> <p>Application of the Schumpeterian Model</p> <ul style="list-style-type: none"> <li>• Competition and Innovation</li> </ul>	A-H Ch3
6	<p>Solution to Problem Set 2</p> <p>The Expanding-Variety Model</p> <ul style="list-style-type: none"> <li>• Competitive-equilibrium allocation</li> <li>• Social planner's allocation</li> </ul> <p>Middle-Income Trap, Innovation Policy, and Growth</p>	A-H Ch3

7	<p>Directed Technology Change</p> <ul style="list-style-type: none"> <li>• Relative supply of college skills and college premium</li> <li>• Relative labor supply and wage premium</li> <li>•</li> </ul> <p><b><u>Part II: Macroeconomics under Uncertainty</u></b>  Expected Utility and Measures of Risk Aversion</p>	<p>A-H Ch8  A-H Ch9</p> <p>DR Ch8</p>
8	<b>Recess</b>	
9	<p><b>Midterm Exam (2 hours)</b></p> <p>Discussing the mid-term exam</p>	
10	<p><b><u>Consumption</u></b></p> <ul style="list-style-type: none"> <li>• Precautionary saving due to prudence and liquidity constraint</li> <li>• Absolute and relative risk aversion</li> <li>• Risk-sharing through financial markets</li> <li>• Proportional income tax as a risk-sharing scheme</li> </ul>	Lecture Slides
11	<p><b><u>Uninsured Labor Income Risk</u></b></p> <ul style="list-style-type: none"> <li>• Understanding the China's saving puzzle</li> <li>• General equilibrium implications of incomplete risk sharing: Labor income risk</li> <li>• Financial crisis and aggregate output</li> </ul> <p><b><u>Uninsured Investment Risk</u></b></p> <ul style="list-style-type: none"> <li>• Optimal Portfolio Choice</li> </ul>	Lecture Slides
12	<p><b><u>Uninsured Investment Risk (Cont.)</u></b></p> <ul style="list-style-type: none"> <li>• Intertemporal optimization with risk-free and risky assets</li> <li>• General equilibrium implications of incomplete risk sharing: capital income risk</li> <li>• Financial crisis and aggregate output</li> <li>• Incomplete risk sharing and endogenous technology adoption</li> </ul>	Lecture Slides
13	<p><b><u>Credit Market Imperfections</u></b></p> <ul style="list-style-type: none"> <li>• Capital structure and the rates of return to credit and equity</li> <li>• Intertemporal optimization of borrowers and lenders</li> <li>• General equilibrium implications of borrowing constraints</li> </ul>	Lecture Slides
14	<b>Revision</b>	
15	<b>Final Exam (2 hours)</b>	