Course Information and Syllabus:

Econ 177, Economic Growth, Spring 2025
Tue/Th 1:15-2:30PM, BC 36

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Textbook and Website Reading Material

The textbook for this class is *Introduction to Economic Growth*, 4th edition, by Chad Jones and Dietz Vollrath. This newest edition is available to buy or rent via Amazon as well as directly through Norton at this link: https://wwnorton.com/books/9781324059578. We will occasionally use the Growth Study Guide (available at: https://growthecon.com/StudyGuide/) created and maintained by one of the textbook authors, Dietz Vollrath. We will also cover some of the material in *The Power of Creative Destruction* by Philippe Aghion, Céline Antonin, and Simon Bunel, although this book is optional and not required to complete the class. In addition to these materials, the reading includes some articles which will be posted on Canvas. I will also post assignments, lecture notes, and other materials to this site throughout the semester, and we will use Canvas for uploading completed and graded assignments.

Course Material

This course provides a comprehensive survey of economic growth combining both theoretical and empirical approaches. We will begin with basic facts about economic growth and GDP over time and across countries, and then learn how standard macroeconomic models, such as the Solow and Romer models, can explain these facts. We will also consider several extensions of these well-known models, and then use this broad theoretical framework to examine key issues related to growth. These issues include the macroeconomics of development, the role of institutions in explaining global living standards, industrialization and structural change, global inequality, population growth and demographics, economic growth and the environment, and artificial intelligence.

Prerequisites

Econ 101 or 102, and Econ 120

Assignments, Exams, and Grading

There will be four problem sets in this class and the due dates for these problem sets are noted on the course schedule below. I will post the problem sets to Canvas approximately two weeks before they are due. It is okay to discuss and collaborate on these, but each person must hand in their own copy of the completed assignments. Completed problem sets are due in class (**25% will be deducted for each day late that they are handed in**).

There will also be two exams in this class. If you must miss an exam or cannot hand in a homework on time for medical reasons, it is your responsibility to tell me in advance. I will need a note from a doctor or health services if this occurs.

The final grade for this class will be based on participation, problem sets, exams, and a small group paper presentation and report. The participation part of this class will be based on attendance, participation, and attentiveness during class activities and discussion. The weighting scheme for the final class grade is:

10% Participation
25% Problem Sets
30% Paper Presentation and Report
35% Exams

Paper Presentation and Report

In groups of two, you are expected to present a discussion of one academic paper of your choice (from a list of papers that I will provide) as well as a 2-3 page report (single space, font size 12) based on that same paper. These presentations will occur in the final two weeks of the semester, and also during our final exam slot if necessary. Each presentation should last approximately 15-20 minutes, with 5-10 minutes afterwards for questions from the class.

Zoom

I will use Zoom this semester for most Wednesday office hours, as well as some out-of-class meetings as is convenient. The Zoom link we will use for all class activities is:

https://cmc-its.zoom.us/j/89813068216?pwd=aFU0cVFEVlpJUjVCc2xYa2dnUUl2Zz09

The meeting ID is 898 1306 8216

The password is econ177

Reasonable Accommodations

Your experience in this class is important to me. If you have already been approved by CMC Accessibility Services to receive accommodations, please forward your eligibility letter to me at your earliest convenience so that we can discuss the implementation of your accommodations in this course. If you have not yet established accommodations through Accessibility Services, but have a disability (conditions include but are not limited to: mental health, attention-related, learning, vision, hearing, physical or health), you are encouraged to contact Accessibility Services to ask questions and/or begin the process. General information and accommodations request information can be found at the CMC Accessibility Services website. Students may apply for accommodations from CMC Accessibility Services at any point in the semester. Please keep in mind that the process takes time to complete, and accommodations are not retroactive. In addition, please note that accommodations do not become effective for this course until you have forwarded me your eligibility letter from CMC Accessibility Services. CMC is committed to creating an inclusive and accessible learning environment consistent with federal and state law. If you are not a CMC student, please connect with the Disability & Accessibility Services Coordinator on your campus regarding a similar process.

Preliminary Course Schedule

January 21: Introduction, Basic Facts about GDP and Growth, Math Review
(Jones & Vollrath Ch. 1, Appendix A)

January 23: Growth Rates, International GDP, and Balanced Growth Paths
(Jones & Vollrath Appendix A)
(Optional: *How Much Should we Trust the Dictator's GDP Growth Estimates?*, Study Guide *Measuring GDP.Real GDP across countries*)

January 28: Solow Model
(Jones & Vollrath Ch. 2)
(Optional: Jones & Vollrath Appendix B.2, Study Guide *Solow and Balanced Growth*)

January 30: Growth Accounting and Predictions of the Solow Model
(Jones & Vollrath Ch. 3.1-3.2, 3.5, 7.1)
(Optional: *A Contribution to the Empirics of Economic Growth, Why do Some Countries Produce so Much More Output per Worker than Others?*)

February 4: World Income Distribution

 (Jones & Vollrath Ch. 3.3-3.4, *Global Income Inequality in Numbers*)

 (Optional: *The Three Eras of Global Inequality*)

February 6: Institutions and Long-Run Economic Performance

 (Jones & Vollrath Ch. 8)

 (Optional: *The Colonial Origins of Comparative Development*, *The Historical Roots of Economic Development*, *Do Institutions Cause Growth?*, *Reversal of Fortune*)

February 11: Ideas and Growth, **Problem Set 1 due**

 (Jones & Vollrath Ch. 4)

 (Optional: Study Guide *Ideas and Productivity*)

February 13: Romer Model

 (Jones & Vollrath Ch. 5.1)

 (Optional: *Endogenous Technological Change*, *R&D-Based Models of Economic Growth*)

February 18: The Economics of Innovation

 (Jones & Vollrath Ch. 5.2-5.3)

 (Optional: Study Guide *Ideas and Productivity.Incentives to Innovate.The Romer model*)

February 20: Applications of the Romer Model

 (Jones & Vollrath Ch. 5.2-5.3)

 (Optional: Jones & Vollrath Ch. 6.1, 6.6, Study Guide *Ideas and Productivity.Case studies.Stock market valuations*)

February 25: Ideas, Competition, and Policy

 (Jones & Vollrath Ch. 6.4-6.5, Aghion, Antonin, & Bunel Ch. 4, 10)

 (Optional: *The Rise of American Ingenuity*, *The Social Origins of Inventors*, *Competition and Innovation*)

February 27: Review, **Problem Set 2 due**

March 4: **Exam 1**

March 6: Growth and Economic Development

 (Jones & Vollrath Ch. 7.2, 7.4-7.5, Aghion, Antonin, & Bunel Ch. 7.2-7.4)

 (Optional: *Chaebols and Firm Dynamics in Korea*, *The International Diffusion of Technology*)

March 11: Industrialization and Structural Change

   (Aghion, Antonin, & Bunel Ch. 8)

   (Optional: *Macroeconomics of Unbalanced Growth, Growth and Structural Transformation, Premature Deindustrialization, Directed Technical Change*)

March 13: Inequality and Economic Growth

   (Aghion, Antonin, & Bunel Ch. 5, 11)

   (Optional: *The Rise of Income and Wealth Inequality in America, Why is Europe more Equal than the U.S.?, Income Inequality, Equality of Opportunity, and Intergenerational Mobility, Where is the Land of Opportunity?*)

March 18: No Class, Spring Break

March 20: No Class, Spring Break

March 25: Productivity Growth and Superstar Firms

   (Aghion, Antonin, & Bunel Ch. 6)

   (Optional: *Bottlenecks, Ten Facts on Declining Business Dynamism and Lessons from Endogenous Growth Theory, The Fall of the Labor Share and the Rise of Superstar Firms*)

March 27: The Malthusian Economy

   (Jones & Vollrath Ch. 9.1-9.3)

   (Optional: *Population Growth and Technological Change*)

April 1: Population and the Growth Takeoff, **Problem Set 3 due**

   (Jones & Vollrath Ch. 9.4, 9.6-9.7, Aghion, Antonin, & Bunel Ch. 2)

   (Optional: *Population, Technology, and Growth, Seven Centuries of European Economic Growth and Decline*)

April 3: No Class

April 8: Economic Growth and Natural Resources

   (Jones & Vollrath Ch. 10.1-10.3)

   (Optional: *Pricing the Limits to Growth from Minerals Depletion*)

April 10: Growth, the Environment, and Climate Change

   (Jones & Vollrath Ch. 10.4-10.5, Aghion, Antonin, & Bunel Ch. 9)

   (Optional: *The Rise and Fall of the Environmental Kuznets Curve, Environmental Preferences and Technological Choices, Growth and the Environment*)

April 15: Economic Growth in the Age of AI

    (Jones & Vollrath Ch. 12.3)

    (Optional: *Artificial Intelligence and Economic Growth*, *AI and Growth*, *The Simple Macroeconomics of AI*)

April 17: Review, **Problem Set 4 due**

April 22: **Exam 2**

April 24 and 29: Student Presentations

May 1 and 6: Student Presentations

Final Exam Slot: Monday, May 12, 2pm

This schedule is preliminary and subject to change during the semester as needed.