Course Information and Syllabus:

Econ 177, Economic Growth, Spring 2024
Tue/Th 1:15-2:30PM, BC 34

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Claremont McKenna College   Office Hours: Tue 2:45-4pm, W 10-11am
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Textbook and Website Reading Material

The textbook for this class is *Introduction to Economic Growth*, 3rd edition, by Chad Jones and Dietz Vollrath. You can buy a hardcover or buy/rent an ebook version of the 3rd edition at Amazon and other third-party sites. We will also use the Growth Study Guide created and maintained by one of the textbook authors, Dietz Vollrath. You can find the study guide online at: https://growthecon.com/StudyGuide/. We will cover some of the material in *The Power of Creative Destruction* by Philippe Aghion, Céline Antonin, and Simon Bunel as well, 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 Sakai. I will also post assignments, lecture notes, and other materials to this site throughout the semester, and we will use the dropbox tab in Sakai 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, including Schumpeterian and Malthusian models of economic growth. This broad theoretical framework will be used 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 climate change, and the emergence of artificial intelligence.

Prerequisites

Econ 101, 102, and 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'll post the problem sets to Sakai 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 and participation in 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 20-25 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 established accommodations with Accessibility Services at CMC, please communicate your approved accommodations to me at your earliest convenience so we can discuss your needs in this course. You can start this conversation by forwarding me your accommodation letter. If you have not yet established accommodations through Accessibility Services, but have a temporary health condition or permanent 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 be found at the CMC Accessibility Services website. Please note that arrangements must be made with advance notice in order to access the reasonable accommodations. You can request accommodations from CMC Accessibility Services at any point in the semester. Be mindful that this process may take some time to complete, and accommodations are not retroactive. It is important to Claremont McKenna College to create inclusive and accessible learning environments 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 16: Introduction, Basic Facts about GDP and Growth, Math Review
    (Jones & Vollrath Ch. 1, Appendix A)

January 18: Growth Rates, International GDP, and Balanced Growth Paths
    (Jones & Vollrath Appendix A)
    (Optional: *Understanding PPPs and PPP-based National Accounts*)

January 23: Solow Model
    (Jones & Vollrath Ch. 2.1-2.2)
    (Optional: Jones & Vollrath Ch. 2 Appendix)

January 25: Growth Accounting and Predictions of the Solow Model
    (Jones & Vollrath Ch. 2.3-2.4, 3.1)
    (Optional: *A Contribution to the Empirics of Economic Growth*, *Why do Some Countries Produce so Much More Output per Worker than Others?*)

January 30: World Income Distribution

 (Jones & Vollrath Ch. 3.2-3.3, *Global Income Inequality in Numbers*)

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

February 1: Institutions and Long-Run Economic Performance

 (Jones & Vollrath Ch. 7)

 (Optional: *The Colonial Origins of Comparative Development*, *The Historical Roots of Economic Development*)

February 6: Ideas and Growth, **Problem Set 1 due**

 (Jones & Vollrath Ch. 4)

February 8: Romer Model

 (Jones & Vollrath Ch. 5.1)

 (Optional: *Endogenous Technological Change*)

February 13: The Economics of the Romer Model

 (Jones & Vollrath Ch. 5.2)

 (Optional: *R&D-Based Models of Economic Growth*)

February 15: Innovation and Growth

 (Jones & Vollrath Ch. 5.2, 5.5)

 (Optional: *A Calculation of the Social Returns to Innovation*)

February 20: Ideas, Competition, and Policy

 (Aghion, Antonin, & Bunel Ch. 4, 10)

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

February 22: Review, **Problem Set 2 due**

February 27: **Exam 1**

February 29: Growth and Economic Development

 (Jones & Vollrath Ch. 6.1-6.3, 6.5, Aghion, Antonin, & Bunel Ch. 7.2-7.4)

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

March 5: Industrialization and Structural Change

 (Aghion, Antonin, & Bunel Ch. 8)

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

March 7: 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 12: No Class, Spring Break

March 14: No Class, Spring Break

March 19: Productivity Growth and Superstar Firms

(Aghion, Antonin, & Bunel Ch. 6)

(Optional: *Does the U.S. Have a Productivity Slowdown or a Measurement Problem?, Missing Growth from Creative Destruction, 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 21: The Malthusian Economy

(Jones & Vollrath Ch. 8.1-8.2)

(Optional: *Population Growth and Technological Change*)

March 26: Population and the Growth Takeoff, **Problem Set 3 due**

(Jones & Vollrath Ch. 8.3, 8.5-8.6, Aghion, Antonin, & Bunel Ch. 2)

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

March 28: Economic Growth and Natural Resources

(Jones & Vollrath Ch. 10.1-10.4)

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

April 2: Growth, the Environment, and Climate Change

(Jones & Vollrath Ch. 10.5-10.6, Aghion, Antonin, & Bunel Ch. 9)

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

April 4: Economic Growth in the Age of AI

(Optional: *Artificial Intelligence and Economic Growth, Are We Approaching an Economic Singularity?*)

April 9: Review, **Problem Set 4 due**

April 11: **Exam 2**

April 16-18: Student Presentations

April 23-25: Student Presentations

April 30: Student Presentations

Final Exam Slot: Thursday, May 9, 2pm

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