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# Economic Growth, Econ 4794

Fall 2018

MWF 9:00-9:50 a.m. in HLMS 241

## Course Outline

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### Text

There is one required text: David N. Weil, Economic Growth, 3<sup>rd</sup> edition. Copies have been ordered at CU Bookstore.

### Objectives of the course

Economic Growth has emerged as an independent field of active research within Economics. The aim of this course is to synthesize recent ideas and approaches to understanding economic growth at the undergraduate level, and to survey the leading explanations for the causes of growth. This course is organized into three substantive sections. The first examines the degree to which income variations across countries can be attributed to variations in factor accumulation, and, the determinants of factor accumulation. In the second part of the course, we study of the role of productivity and technology in explaining income differences. The third section explores the deeper or fundamental characteristics of countries that may underlie differences in factor accumulation and productivity among countries. We will supplement textbook material with articles about the economic history of country experiences and contemporary topics of interest.

### Prerequisites

Econ 1088 Math Tools for Economists II or equivalent.

Econ 3070 Intermediate Micro or Econ 3080 Intermediate Macro.

Prerequisite courses should be completed with earned credit before taking this class. If you are uncertain whether you have the prerequisites, please find out immediately. Students without the necessary prerequisites will be administratively dropped.

**Class Email:** I will be using the class email list for this course to communicate information about classes. Please check your CU email account to ensure that you will be up to date with the latest announcements.

### **Course Requirements and Evaluation**

There will be an emphasis on quantitative reasoning and problem solving. The format of classes will consist of lectures and lab demonstrations. Lab demonstrations basically consist of empirical problems that we will solve in class and hands-on examples of how data may be used to analyze issues in economic growth. These exercises will not be handed in for a grade but will be crucial for understanding how to answer questions that may appear on your exams.

Evaluation will be based on a midterm, a final exam, a group presentation of a published research article, and a research report analyzing the growth of chosen countries.

Your grade will have the following components:

Quiz 1 (Fri. Oct. 12)	15%
Quiz 2 (Wed. Nov. 14)	15%
Country Analysis Report and Presentation (Mon. Dec. 10)	25%
Presentation of an Article on the Syllabus	10%
Final Exam (Wed. Dec. 19)	35%

### **Country Analysis Report**

In your report you will compare the growth performance of a country of your choice with the growth performance of two other countries. For example, you may compare the growth performance of Columbia over the years 1970 to 2006 with that of two other countries of similar income and size during the same period. The goal of the paper is to explain the growth performance of the country in question, drawing on concepts covered in class, while demonstrating your competence in quantitative methods and qualitative interpretation. On or before the fifth week of class (Sept. 24), students should organize into groups of three and decide which countries to study. Then, the group should prepare a preliminary outline or draft (around 3-5 pages) to turn in before Oct 26. I will schedule individual meetings with all groups on Oct. 31 and Nov. 2 to give feedback. Note some meetings will have to be scheduled before 9:00 a.m. The final draft of the paper, in hardcopy, is due in class on Mon. December 10. The paper should be 15 pages (double-spaced in 12 point font), including all references and tables and figures. On the due date, each group will give a short (5-6 minute) oral summary of their findings.

## **Presentation of an Article on the Syllabus**

You will be responsible for a presentation (about 25 minutes) of an article on the syllabus, and, the crafting of three to four questions directed to the class to initiate discussion. The questions can be open-ended and can relate to anything mentioned in the paper that you think the class might be interested to talk about more, whether in the context of the paper or in the context of your own perspective(s). The goal is mainly to generate further thoughts and class participation. I will be choosing some of the papers and questions to include on the final exam. Students will be assigned together in teams to work together on the presentation. The number of students in each team will depend on class size. Email me your presentation slides at least 1 hour ahead of class the day of your presentation so that I can set up your presentation prior to the start of class.

**Class Attendance and Participation:** If you miss a class, you are strongly encouraged to make an appointment with me to discuss specific questions about the material after you have obtained notes from someone in class. Participation is important for this class and you should attend class unless you are ill. I will take attendance. You can miss 4 classes for any reason. Beyond 4 classes, each recorded absence will negatively impact your final grade by 1 -percentage point.

**Policy on Late Work and Exams:** There are no makeup examinations for missed exams. If you miss the midterm due to an emergency, your grade will be reweighted by the final exam. The report is a long-term project that cannot be missed because of an emergency. No late reports will be accepted. There are no extra credit provisions. All students must take the final exam to pass the course.

The final exam has been scheduled by the CU Registrar for Wed., Dec. 19 at 1:30-4:00 p.m. The final will be comprehensive. Students who have three or more final exams on the same day are entitled to reschedule the last exam or exams that day, but you must make arrangements to do so no later than the tenth week of the semester. See University policy on final exam scheduling:

[http://www.colorado.edu/policies/final\\_exam.html](http://www.colorado.edu/policies/final_exam.html).

### **University policies:**

*Disability Accommodations:* If you qualify for accommodations because of a disability, please submit to me a letter from Disability Services by the third week of class so that your needs may be addressed. Disability Services determines accommodations based on documented disabilities.

<http://www.Colorado.EDU/disabilityservices>

*Religious observance:* (see full details of this policy at [http://www.colorado.edu/policies/fac\\_relig.html](http://www.colorado.edu/policies/fac_relig.html)). If you have a conflict covered by this policy, let me know by the third week of class so as to allow ample time to make alternative arrangements.

*Honor Code:* Cheating and plagiarism are academic offenses and any student caught cheating or plagiarizing will be sanctioned. Plagiarism is defined as the use of another's ideas or words without appropriate acknowledgment. <http://www.colorado.edu/policies/academic-integrity-policy>.

*Classroom Behavior:* Courtesy in the classroom is expected. Disruptive conduct includes behavior that hinders or distracts the class from the subject matter or discussion, and may result in academic sanctions, see <http://www.colorado.edu/policies/student-classroom-and-course-related-behavior>.

## Topic Outline and Readings

The schedule is approximate and subject to change based on class progress. Articles in the *Journal of Economic Perspectives* are available on <https://www.aeaweb.org/jep/issues.php> or via electronic access from the CU library. Other readings will be made available on Canvas.

### **I. Introduction and Preliminaries**

(Week 1 and 2) Chapter 1 and 2: Differences in the level and rate of income growth among countries.

Theory: Working with growth rates; review of the logarithm function.

Readings:

- Debraj Ray, *Development Economics*, Ch. 2.
- Lant Pritchett, "Divergence, Big Time," *Journal of Economic Perspectives*, 11(3), 1997.
- Roger Fouquet and Stephen Broadberry, "Seven Centuries of European Economic Growth and Decline," *Journal of Economic Perspectives*, 29(4), Fall 2015.

**Student Presentation A:** Abhijit Banerjee and Esther Duflo, "The Economic Lives of the Poor," *Journal of Economic Perspectives*, 21(1), Winter 2007.

### **II. Factor Accumulation**

(Week 3 and 4) Chapter 3: Capital's Role in Production

Theory: Harrod-Domar Model; the Solow Model.

Reading:

- Ray, pp. 47-57.

(Week 5 and 6) Chapter 4: The Role of Population in Economic Growth (skip appendix).

Theory: The Malthusian Model; Fertility Transition.

Readings:

- Tiloka de Silva and Silvana Tenreyro, "Population Control Policies and Fertility Convergence," *Journal of Economic Perspectives*, 31(4), Fall 2017: 205-228.

**Student Presentation B:** Karen N. Eggleston and Victor R. Fuchs, "The New Demographic Transition: Most Gains in Life Expectancy Now Realized Late in Life," *Journal of Economic Perspectives*, 26(3), 2012.

Quiz 1 Review, October 10

Quiz 1, October 12

(Week 7 and 8) Chapter 6: The Effect of Human Capital on Growth

Theory: Returns to Education.

**Student Presentation C:** Tessa Bold et al. "Enrollment without Learning: Teacher Effort, Knowledge, and Skill in Primary Schools in Africa." *Journal of Economic Perspectives*, 31(4): 185-204, Fall 2017.

### III. Productivity

(Week 9 and 10) Chapter 7: How much does productivity growth differ among countries?

Theory: Growth Accounting, Total Factor Productivity

Reading:

**Student Presentation D:** Barry Bosworth and Susan M. Collins, "Accounting for Growth: Comparing China and India," *Journal of Economic Perspectives*, 22(1), Winter 2008.

Before October 28, have ready a preliminary outline/draft of report to turn in for feedback

(Week 11) Meetings with groups to discuss draft of report

(Week 12) Chapters 8 and 9: Can technological gaps explain differences in productivity?

Theory: Model of Technological Change

Reading:

- William D. Nordhaus, "Two Centuries of Productivity Growth in Computing" *Journal of Economic History*, 67 (1), 2007.

**Student Presentation E:** Bailey, Michael, Rachel Cao, Theresa Kuchler, Johannes Stroebel, and Arlene Wong. 2018. "Social Connectedness: Measurement, Determinants, and Effects." *Journal of Economic Perspectives*, 32 (3): 259-80.

Quiz 2 Review, November 12

Quiz 2, November 14

(Week 13) Fall Break--Happy Thanksgiving!

(Week 14 and 15) Chapter 10: How much of productivity differences come from inefficiency?

Theory: Decomposing productivity into technology and efficiency

Reading:

**Student Presentation F:** Nicholas Bloom and John Van Reenen, "Why Do Management Practices Differ Across Firms and Countries?" *Journal of Economic Perspectives*, 24(1), 2010.

**Student Presentation G:** David Autor, “Why are There Still So Many Jobs? The History and Future of Workplace Automation” *Journal of Economic Perspectives*, 29(3), 2015.

#### IV. Fundamentals

(Week 16) Chapter 15: Historical Influences Explaining Differences in Wealth

Reading:

- Jared Diamond. *Guns, Germs, and Steel: The Fates of Human Societies*, Chapters 4-10.
- Daron Acemoglu, Simon Johnson, and James Robinson, “The Colonial Origins of Comparative Development, An Empirical Investigation,” *American Economic Review*, Dec. 2001.

**Student Presentation H:** Stanley Engerman and Kenneth Sokoloff, “Institutions, Factor Endowments, and Paths of Development in the New World,” *Journal of Economic Perspectives*, 14(3), 2000.

**Student Presentation I:** Nathan Nunn and Nancy Qian. “The Columbian Exchange: A History of Disease, Food, and Ideas,” *Journal of Economic Perspectives*, 24(2), 2010.

Cultural Differences and Growth

Reading: Weil, Ch. 14.

Nathan Nunn and Wantchekon, “The Slave Trade and the Origins of Mistrust in Africa,” *American Economic Review*, 101(7), 2011.

**Student Presentation J:** Michal Bauer, Christopher Blattman, Julie Chytilová, Joseph Henrich, Edward Miguel, and Tamar Mitts. “Can War Foster Cooperation?” *Journal of Economic Perspectives*, 30(3), 2016.

Final Exam Review, December 7

Papers Due. December 10, Country Analysis Presentations (prepare 5-6 minutes summary)