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# Economic Growth, Econ 4794

Spring 2020

T&TH 12:30-1:45 p.m. in HLMS 141

## Course Outline

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Professor: C. H. Shiu

Office: Economics 206B

Office Hours: Tue and Thurs 1:50-2:50 p.m.

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### **Required Text**

David N. Weil, Economic Growth, 3<sup>rd</sup> edition.

### **Objectives of the course**

Economic Growth has emerged as an independent field of active research in 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 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.

**Communication:** Check Canvas regularly for announcements and class materials. Also, check your university email account as I will use email to communicate information about classes.

### Course Requirements and Evaluation

There will be an emphasis on quantitative reasoning and problem-solving. The format of classes will consist of lectures and problem-solving demonstrations. Demonstrations consist of empirical problems that we will solve in class as well as 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.

Your grade will have the following components, in addition to an attendance (see below for attendance requirement):

Quiz 1 (Tue. Feb. 25)	15%
Quiz 2 (Thur. Apr. 9)	15%
Country Analysis Report and Oral Summary (Apr. 23)	25%
Presentation of an Article on the Syllabus	10%
Final Exam (Sat. May 2)	35%

**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 in class discussion during student presentations, in particular, is appreciated. I will take attendance randomly. At the end of the semester, everyone will automatically get 2 excused absences, no questions asked. Beyond 2 classes, each recorded absence will negatively impact your final grade by 1-percentage point, up to and no more than 15 percentage points.

### Country Analysis Data Project

Students should work with one or two other classmates for this paper project. The aim of your paper is to compare the growth performance of a country (of your choosing) with the growth performance of any two other countries. For example, you may compare the growth performance of Columbia over the years 1970 to 2016 with that of two other countries of similar income and size, while discussing the role of education, savings, and productivity in driving the relative differences in growth. Your goal is to assess the causal factors behind the performance of the country in question by drawing on concepts covered in class, while demonstrating competence in quantitative methods and qualitative interpretation. Target dates: Decide which countries to study by **Feb. 20**. Prepare a preliminary outline or draft (3 pages) to turn in—hardcopy and as Canvas submission—before **March 10**. I will schedule student meetings between March 12 and March 19 to give feedback. Deadline: The final draft of the paper—in hardcopy and as Canvas submission—is due in class on **Thursday April 23**. The paper should be 15 pages (double-spaced), including all references and tables and figures. On the due date, each group should prepare a short (5-6 minute) oral summary of their findings (verbal only, no slides).

## **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 a discussion about the article. The questions can be open-ended and can relate to anything mentioned in the paper that you think the class might be interested to discuss further, whether in the context of the paper or in the context of your own perspective(s). The goal is to generate further thoughts and class participation. Students will be assigned to work together as a team, and assignments will be made at least a week ahead of time. The number of students in each team will depend on class size. Please email me your presentation slides in PDF or Powerpoint format by 5 p.m. on the evening before the day of your presentation. This will ensure that I can set up your presentation on my laptop prior to the start of class.

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

**Final Exam:** The final exam has been scheduled by the CU Registrar for **Sat. May 2 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 by the standard deadline to drop a course and supply written information on the conflict. See University policy on final exam scheduling: <https://www.colorado.edu/policies/final-examination-policy>.

**Electronic Devices:** Unless we are actively using laptops as part of a class activity, electronic devices (cellphones, tablets, and laptops) should be stowed away for use until after class. Students who need a laptop for note-taking should make arrangements to do so with the instructor.

## **University policies:**

- **Accommodation for Disabilities** If you qualify for accommodations because of a disability, please submit your accommodation letter from Disability Services to your faculty member in a timely manner so that your needs can be addressed. Disability Services determines accommodations based on documented disabilities in the academic environment. Information on requesting accommodations is located on the [Disability Services website](#). Contact Disability Services at 303-492-8671 or [dsinfo@colorado.edu](mailto:dsinfo@colorado.edu) for further assistance. If you have a temporary medical condition or injury, see [Temporary Medical Conditions](#) under the Students tab on the Disability Services website.
- **Classroom Behavior** Students and faculty each have responsibility for maintaining an appropriate learning environment. Courtesy in the classroom is expected. Disruptive conduct includes behavior that hinders or distracts the class from the subject matter or discussion. Those who fail to adhere to such behavioral standards may be subject to discipline. Professional courtesy and sensitivity are especially important with respect to individuals and topics dealing

with race, color, national origin, sex, pregnancy, age, disability, creed, religion, sexual orientation, gender identity, gender expression, veteran status, political affiliation or political philosophy. For more information, see the policies on [classroom behavior](#) and the [Student Code of Conduct](#).

- **Preferred Student Names and Pronouns** CU Boulder recognizes that students' legal information doesn't always align with how they identify. Students may update their preferred names and pronouns via the student portal; those preferred names and pronouns are listed on instructors' class rosters. In the absence of such updates, the name that appears on the class roster is the student's legal name.
- **Honor Code** All students enrolled in a University of Colorado Boulder course are responsible for knowing and adhering to the Honor Code. Violations of the policy may include: plagiarism, cheating, fabrication, lying, bribery, threat, unauthorized access to academic materials, clicker fraud, submitting the same or similar work in more than one course without permission from all course instructors involved, and aiding academic dishonesty. Plagiarism is defined as the use of another's ideas or words without appropriate acknowledgment. All incidents of academic misconduct will be reported to the Honor Code ([honor@colorado.edu](mailto:honor@colorado.edu)); 303-492-5550). Students found responsible for violating the academic integrity policy will be subject to nonacademic sanctions from the Honor Code as well as academic sanctions from the faculty member. Additional information regarding the Honor Code academic integrity policy can be found at the [Honor Code Office website](#).
- **Sexual Misconduct, Discrimination, Harassment and/or Related Retaliation** The University of Colorado Boulder (CU Boulder) is committed to fostering a positive and welcoming learning, working, and living environment. CU Boulder will not tolerate acts of sexual misconduct, intimate partner abuse (including dating or domestic violence), stalking, or protected-class discrimination or harassment by members of our community. Individuals who believe they have been subject to misconduct or retaliatory actions for reporting a concern should contact the Office of Institutional Equity and Compliance (OIEC) at 303-492-2127 or [cureport@colorado.edu](mailto:cureport@colorado.edu). Information about the OIEC, university policies, [anonymous reporting](#), and the campus resources can be found on the [OIEC website](#). Please know that faculty and instructors have a responsibility to inform OIEC when made aware of incidents of sexual misconduct, discrimination, harassment and/or related retaliation, to ensure that individuals impacted receive information about options for reporting and support resources.
- **Religious Holidays** Campus policy regarding religious observances requires that faculty make every effort to deal reasonably and fairly with all students who, because of religious obligations, have conflicts with scheduled exams, assignments or required attendance. In this class, if you cannot meet the attendance policy because of religious observance, email the instructor by the third week of class so that there is ample time to make alternative arrangements. See the [campus policy regarding religious observances](#) for full details.

## Topic Outline and Readings

The schedule below is an outline of the topics covered this semester and is subject to change based on class progress. Additional, supplementary material 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; inequality.

Readings:

- *Development Economics*, Ch. 2.
- Lant Pritchett, "Divergence, Big Time," *Journal of Economic Perspectives*, 11(3), 1997.

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

**Student Presentation B:** Roger Fouquet and Stephen Broadberry, "Seven Centuries of European Economic Growth and Decline," *Journal of Economic Perspectives*, 29(4), Fall 2015.

### 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.

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

**Student Presentation D:** 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, Feb. 20

Quiz 1, Feb. 25

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

Theory: Returns to Education.

**Student Presentation E:** 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) Chapter 7: How much does productivity growth differ among countries?

Theory: Growth Accounting, Total Factor Productivity

Reading:

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

On or before March 10, have a preliminary outline/draft of report to turn in for feedback

(Week 10) Meetings with groups to discuss draft of report

(Week 11) Spring Break

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

Quiz 2 Review, April 7

Quiz 2, April 9

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

Theory: Decomposing productivity into technology and efficiency

Reading:

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

**Student Presentation I:** Jakob Svensson, "Eight Questions about Corruption," *Journal of Economic Perspectives*, 19(3), 2005.

**Student Presentation J:** Sergei Guriev, Daniel Treisman, "Informational Autocrats," *Journal of Economic Perspectives*, 33(4), 2019.

#### IV. Fundamentals of Growth

(Week 16) Chapter 15: Historical Influences Explaining Differences in Economic Performance Today

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

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

#### Geography and Growth

Reading: Weil, Ch. 14.

**Student Presentation L:** Anthony Venebles, "Using Natural Resources for Development, Why Has it Proven So Difficult?" *Journal of Economic Perspectives*, 30(1), 2016.

Papers Due. April 23, Country Analysis Presentations (prepare 5-6 minutes summary)

Final Exam, May 2, 1:30 - 4:00 pm