
Economic Growth, Econ 4794

Fall 2020

MWF 12:40-1:30 p.m.

Course Outline

Professor: Carol H. Shiue

Office Hours: Fridays, 8:30 – 10:00 a.m. and by appointment.

Email: shiue@colorado.edu

Required Text

David N. Weil, Economic Growth, 3rd edition. Copies have been ordered at CU Bookstore.

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 under **Announcements** to keep up-to-date. Check for new class materials under **Modules, Media Gallery, Discussion, and Assignments**. Check your university email account regularly as information will also be sent via email. Students can email and communicate with others in class by using the **People** link in Canvas.

Course Requirements and Evaluation

Course evaluation will be based on 2 quizzes, a final exam, one presentation of a published research article, your discussion posts on other student presentations, work submitted on Friday assignments, and a research report (the Country Analysis Report) analyzing the growth of chosen countries.

There will be an emphasis on quantitative reasoning and problem-solving, including the analysis and interpretation of data. The format of classes will consist of lectures and problem-solving demonstrations on Mondays and Wednesdays. 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. Fridays will be spent on Discussion and Friday Assignments, described below.

Your grade will have the following components:

Quiz 1 (Wed. Sept. 30)	15%
Quiz 2 (Wed. Nov. 4)	15%
Country Analysis Report (due Mon. Dec. 7)	15%
Presentation of an Article on the Syllabus	10%
Discussion and Friday Assignments	10%
Final Exam (Wed. Dec. 9)	35%

Country Analysis Data Report: The aim of your report 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. You may work independently, or you may team up with one or two other classmates for this project. *Target dates:* Decide which countries to study by Oct. 2. Prepare a preliminary outline or draft (3 pages) to turn in before Oct 16. I will schedule student meetings between Oct. 19 and Oct. 26 to give personalized feedback. *Deadline:* The final draft of the paper is due via Canvas submission on **Monday, December 7, at 12 noon**. The final paper should be 15 pages (double-spaced, including all tables and figures), but not including references.

Presentation of an Article on the Syllabus: Teams of students will be responsible for a presentation (about 35-40 minutes) of an article on the syllabus. Be sure to present each section of the paper and talk about the data used (if any), the arguments presented, the tables and figures (may be selective if time is constrained), and the results and conclusions. Each person on the team will craft a well-written question directed to the class to initiate a discussion about the article. Thus, if there are 4 students on a

team, there should be 4 questions. 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. The questions proposed for class discussion should be listed together on the final slide of the presentation.

The number of students in each team will depend on class size. A Google Spreadsheet link will be shared as soon as possible to allow students to have some choice as to which article or on which date they would like to present. Presentations should be written in Powerpoint (or Google slides) and recorded with Zoom screen share. The slides and the Zoom presentation video must be uploaded on Canvas by **12 noon on the due date**. This can be done by Replying to my Discussion post that shows the title of your article. Teams are responsible for uploading the project by Friday at noon on the day it is due. Points will be deducted for late or missing presentations.

Discussion and Friday Assignments: Discussion and Friday Assignments are 10% of the course grade.

Friday assignments will require you to complete lecture videos, and answer questions included in the video, and/or to work out problems with numerical solutions and submit your answers. Minute papers may also be part of weekly assignments. These assignments are typically posted in Canvas on Friday morning and due before Monday at 12 noon.

To earn points on Discussions of Student Presentations, post comments in Canvas in response to the questions posed in the Student Presentation. Generally, new videos will be available on Fridays. Discussion points may be earned for all 12 articles, including the article you will be presenting yourself—just post a response to someone else’s comment—e.g. comment or give feedback to any other student’s posting. Grading is simple: 2 points for considered and thoughtful comments that demonstrate you read the article and listened to the presentation and/or are responding in such a way to another student’s posting; 1 point for relatively cursory posts that fail to demonstrate that; and 0 points if nothing is posted. The Discussion board will close on **December 7, at 12 noon**. All posts must be completed by that time. No extensions.

Policy on Late Work and Missed Quizzes: Quizzes are timed and must be started within a certain 24-hour period. If you miss a quiz for any reason, contact me immediately. The report is a long-term project; plan accordingly. To ensure I have sufficient time to read the reports and turn in grades, late reports will be penalized by one letter grade per day late, i.e., a paper that would have received an “A” grade if turned in on time will instead receive a B grade if turned in during any 24-hour period after the deadline; and a C grade if turned in during any 24 to 48-hour period after the deadline, etc. Reports that are 3 days late will not be graded. All students must take the final exam to pass the course.

Quizzes and Final Exam: Both quizzes will be timed at 50 minutes each. The final will be twice as long as each of the quizzes, at 100 minutes. The Final Exam for this course has been scheduled by the CU Registrar for Wed., Dec. 9 at 7:30 pm. 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.

Note: You may create a physical one-page crib sheet and refer to it during the quizzes and final. However, students may not work together or use phones or computers to communicate with others or look up additional information (including from websites or Canvas) on their electronic devices. We will be using the Proctorio Online Exam Proctoring Service in this course. Proctorio is a software extension in Chrome that uses your computer's screen, web cam, and microphone to create a remote proctored environment, and enables you to take exams via Canvas in the location of your choice. You must have a strong and stable internet connection for Proctorio to work well. During the exam, you, your computer, your BuffOne Card, and the environment you are taking the exam in may all be recorded.

For information about Proctorio's privacy policies, please visit OIT's Proctorio Privacy page. The instructor(s) and TA(s) of this course are the only ones who will view the recordings. CU's Proctorio administrators also have access to all recordings. The Chrome browser extension must be installed before you can take the exam, and you can remove it once the exam is complete.

I will be giving a practice exam so you can become familiar with using Proctorio, and surface any issues you may encounter with Proctorio. There are limitations in Proctorio's accessibility for those who utilize screen readers and keyboard navigation. Also, you must be over the age of 18 to consent to use Proctorio. If you have concerns about your ability to use or consent to use Proctorio, please contact me at least two weeks ahead of the exam to discuss alternate arrangements.

Additional University Policy Statements

Classroom Behavior

Both students and faculty are responsible for maintaining an appropriate learning environment in all instructional settings, whether in person, remote or online. 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](#).

Requirements for COVID-19

As a matter of public health and safety due to the pandemic, all members of the CU Boulder community and all visitors to campus must follow university, department and building requirements, and public health orders in place to reduce the risk of spreading infectious disease. Required safety measures at CU Boulder relevant to the classroom setting include:

- maintain 6-foot distancing when possible,
- wear a face covering in public indoor spaces and outdoors while on campus consistent with state and county health orders,
- clean local work area,

- practice hand hygiene,
- follow public health orders, and
- if sick and you live off campus, do not come onto campus (unless instructed by a CU Healthcare professional), or if you live on-campus, please alert [CU Boulder Medical Services](#).

For more information, see the policies on [COVID-19 Health and Safety](#) and [classroom behavior](#) and the [Student Code of Conduct](#). If you require accommodation because a disability prevents you from fulfilling these safety measures, please see the “Accommodation for Disabilities” statement on this syllabus. Before returning to campus, all students must complete the [COVID-19 Student Health and Expectations Course](#). Before coming on to campus each day, all students are required to complete a [Daily Health Form](#).

Students who have tested positive for COVID-19, have symptoms of COVID-19, or have had close contact with someone who has tested positive for or had symptoms of COVID-19 must stay home and complete the [Health Questionnaire and Illness Reporting Form](#) remotely. In this class, if you are sick or quarantined, email me as soon as possible.

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 for further assistance. If you have a temporary medical condition, see [Temporary Medical Conditions](#) on the Disability Services website.

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. All incidents of academic misconduct will be reported to the Honor Code (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 an inclusive and welcoming learning, working, and living environment. CU Boulder will not tolerate acts of sexual misconduct

(harassment, exploitation, and assault), intimate partner violence (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. 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, dating and domestic violence, stalking, 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, contact me by the third week of class 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 (e.g. current events articles and videos) will be made available on Canvas. Use the **CU Boulder Libraries** link in the left menu in Canvas to access the articles. Other readings will be linked.

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).

9/11 Student Presentation A: Abhijit Banerjee and Esther Duflo, "The Economic Lives of the Poor," *Journal of Economic Perspectives*, 21(1), Winter 2007.

9/18 Student Presentation B: Roger Fouquet and Stephen Broadberry, "Seven Centuries of European Economic Growth and Decline," *Journal of Economic Perspectives*, 29(4), Fall 2015.

9/25 Student Presentation C: Alvaredo, Facundo, Anthony B. Atkinson, Thomas Piketty, and Emmanuel Saez. 2013. "The Top 1 Percent in International and Historical Perspective." *Journal of Economic Perspectives*, 27 (3): 3-20.

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:

10/2 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.

10/9 Student Presentation E: Tiloka de Silva and Silvana Tenreyro, "Population Control Policies and Fertility Convergence," *Journal of Economic Perspectives*, 31(4): 205-228, Fall 2017.

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

Theory: Returns to Education.

10/16 Student Presentation F: 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.

(Week 9) Planned group meetings to get feedback on paper draft.

III. Productivity

(Week 10 and 11) Chapter 7: How much does productivity growth differ among countries?

Theory: Growth Accounting, Total Factor Productivity

Reading:

10/23 Student Presentation G: Barry Bosworth and Susan M. Collins, "Accounting for Growth: Comparing China and India," *Journal of Economic Perspectives*, 22(1), Winter 2008.

(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.
- Bloom, Nicholas, Charles I. Jones, John Van Reenen, and Michael Webb. 2020. "Are Ideas Getting Harder to Find?" *American Economic Review*, 110 (4): 1104-44.

10/30 Student Presentation H: 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.

(Week 13 and 14) Chapter 10: How much of productivity differences come from inefficiency?

Theory: Decomposing productivity into technology and efficiency

Reading:

11/6 Student Presentation I: Nicholas Bloom and John Van Reenen, "Why Do Management Practices Differ Across Firms and Countries?" *Journal of Economic Perspectives*, 24(1), 2010.

11/13 Student Presentation J: Jakob Svensson, "Eight Questions about Corruption," *Journal of Economic Perspectives*, 19(3), 2005.

11/20 Student Presentation K: Sergei Guriev, Daniel Treisman, "Informational Autocrats," *Journal of Economic Perspectives*, 33(4), 2019.

IV. Fundamentals

(Week 15) 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.

12/4 Student Presentation L: Anthony Venebles, "Using Natural Resources for Development, Why Has it Proven So Difficult?" *Journal of Economic Perspectives*, 30(1), 2016.

Postscript: Cultural Differences and Growth, Weil, Ch. 14.

Reading:

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