<div align="center">

Syllabus
Economics of Education (ECN 152)
University of California, Davis | Summer 2021

</div>

Instructor: Justin C. Wiltshire | jcwiltshire@ucdavis.edu | https://justinwiltshire.com
Teaching Assistant: Baiyu Zhou | baizhou@ucdavis.edu

This course will be conducted virtually. Please use the Zoom links and course materials on Canvas.

Meeting times (Pacific Daylight Time):

- Monday - 12:10–1:50pm: Lectures. *No class on July 5*. Midterm on July 19

- Tuesday - 12:10–1:50pm: Student presentations and discussions

- Wednesday - 12:10–1:50pm: Lectures, student presentations and discussions

Study hall: Wednesday - 2:10–3:00pm
One-on-one instructor office hours: Email Justin for an appointment
Discussion sections: Baiyu will pre-record discussion section material for viewing at your leisure
TA office hours: Monday - 7:00–8:00pm

Course description: Educational attainment varies substantially across countries and even across individuals. Focusing just on the United States, we still see large disparities in attainment across family income levels, race and ethnicity, sex, and birth cohort. Why is this, and why does it matter?

We will consider the economic evidence on the benefits and costs that influence how much education individuals acquire, and on those factors which affect how much and how well students learn along the way. We will read influential research papers in education economics and consider the key ideas within them. We will explore publicly-available data and learn to conduct some analysis ourselves. And we will come up with our own research projects to answer related questions that interest us.

The purpose of this course is *not* to test your ability to memorize things before a test (we will have **one midterm** and **no final exam**). Rather, this course will give you experience reading, thinking about, and analyzing economic research. The skills you learn should serve you well in any job where you are expected put your economic training to use.

You can expect to finish this course with a working knowledge of the seminal research in the field. You will gain an understanding of the key ideas and controversies, and a basic working knowledge of important publicly-available data sources. You will learn to engage these ideas in conversation with each other, and to collaborate with each other.

We will not use a textbook. Instead, you will be expected to read a set of influential research papers and listen to complementary podcasts. As part of your homework assignments, you will be required to submit a short write-up on each paper. On Mondays, and occasionally on Wednesdays, I will typically lecture on the key economic models and econometric methods in these papers. As part of your homework assignments, you will demonstrate your comprehension of these models and methods. Each assigned paper for that week

will be presented by one group. This will be followed by a class discussion of the papers and the podcasts for the week. **The midterm will be held on Monday, July 19**, and will test your comprehension of the models, methods, and key ideas in the papers covered to that point. You will also be expected to complete a final research project proposal, informed by what we have studied together, as well as by your own additional research and a one-on-one conversation with me.

Grading and key dates: *The dates and times below are **firm**.*[1]

- Homework: **20%**** (Due 12:10pm each Monday, except final week (due 12:10 Wednesday, July 28))

- Group presentations: **15%**

- Participation: **15%** (10% for in-class participation; 5% for group participation)

- Midterm: **20%** (Monday, July 19, 2021)

- One-on-one meeting to discuss final project: **5%** (To be scheduled for no later than July 9)

- Final project: **25%** (Due July 28, 2021)

** *Five assignments, each worth 5%. Lowest score will be dropped, **excluding the final assignment**.*

Homework: *You are required to complete your homework assignments with a group, and to submit a single assignment with the names of all participating group members at the top.*

Each week, you will read influential research papers (**required reading**) and then submit a short write-up for **two** of the papers to demonstrate that you read and thought about them. You may select the two papers from all those assigned for that week, marked with a *. For the final homework assignment, you will submit write-ups for **four** of the papers with a * from the second half of the course. The write-up *for each paper* should be *no longer than half of one page*, with normal single-spacing and margins, and size 11 font. The write-ups should briefly describe the key question the paper is addressing, describe the model, method, or data the authors use, and summarize the key findings. Additionally, you should include a few sentences describing *what* you liked or disliked about the paper (**not** just *whether* or not you liked it!), and a question or concern/criticism you had after reading the paper (motivated by economic reasoning).

During the first half of the class you will also have additional homework questions based on the models and/or methods and data we study each week. Your answers should be included with your write-ups on the papers. Any Stata code should be submitted as a .do file with all the authors names included in a preamble at the top. Additionally, there is an assigned podcast episode to listen to each week. You should explicitly refer to these podcasts in your reflections on the papers or during the group discussions.

Group presentations: You will be assigned to a group during the first lecture. Your group must select **three** papers (at least one from each "half" of the course) which you will collectively present to the class. *These papers will be selected via a web sign-up on a first-come, first-served basis.* Each presentation should be 20 minutes long (a maximum of 10 slides), and should touch on the key elements of the paper including (as appropriate) the elements in your write-up, the motivation for the paper (*why* the research question is

---

[1]No exceptions will be considered without extensive supporting documentation. If you anticipate a conflict (e.g. a pre-booked flight), you must email me for approval *before* June 26. Please provide a brief explanation and supporting documentation.

important), as well as important details of any models, methods, or data used, and a summary slide at the end.

Class discussions and participation: After each group presentation of a paper, the class will discuss the paper and the presentation. Participation in these discussions is mandatory, and your informed participation will determine your participation grade. Your thoughtful reference of the content of the assigned podcasts will also indicate your active engagement with the material, and positively impact your participation grade. When listening/reading and preparing for the group discussions, consider the following questions: Can I summarize this in a sentence or two? What is the key takeaway? What model, methods, or data are used? Is an important consideration missing? Do I believe what is being claimed/do I buy the argument being made? Why or why not? Does this give me any ideas for other research questions?

Final project: You <u>must</u> schedule a brief one-on-one meeting with me to discuss your proposal, which should take place no later than **July 9.** You should prepare for this meeting by coming up with a basic proposal for your project (details below), including key papers which you intend to lean on. Before our meeting, look through the reading list and read the papers you think might be relevant for your proposal.

A key element of the course will be a research proposal, individually completed by each student. This proposal should be **five pages, double-spaced, with 11-point font and normal margins**, not including references, figures, or tables. Your proposal should include *a minimum of **six** academic references, including at least **one** of which is marked as required reading on the assigned reading list, below*. See an example research proposal here.

Your proposal should state and motivate a question that you find interesting within the realm of education economics. It can be a replication and update or extension of an existing paper (if an empirical paper, the data used must be publicly available), such as one of those on the reading list. Or it can be a new proposal. If the former, you should include a brief review of more recent academic literature which has substantially engaged your chosen paper, and you should use more recent data to update the results of the paper (after having replicated the authors' results). If the latter, you should include a brief review of similar economic research/literature that helps motivate and frame the proposed research question.

Your proposal should contain a model, methods, or data of particular relevance to the research question, and a discussion of how you propose to use these to address your research question. Depending on the focus of your proposal, it should either contain a first attempt at developing/extending a model, or it should contain a first-pass effort at the analysis (including basic summary statistics of your data). If you propose to conduct an experiment and/or collect new data, your proposal should contain a detailed discussion of the experimental design and the various relevant actors among whom the experiment needs to be coordinated.

Reading and listening list: *Group presentations must be selected from papers marked with *, which are required reading*. At least one presentation per group must be selected from each 'half' of the course (Part I and Part II, below). The paper marked with ** is also <u>required reading</u>, and the author will join us to present the paper and answer questions. You are expected to <u>read all of papers</u> marked with a * and submit write-ups as indicated in the syllabus.[2] Podcasts, marked with a †, are required listening. Listed papers that are not marked are for your reference only, and are not required reading.

---

[2] Articles are accessible through the UCD library using a UC Davis VPN. Simply log on to the VPN then click the links. All articles should be read in full unless otherwise indicated. Appendix content is optional reading for all articles.

Part I: Public and Private Benefits and Costs of Education

Week 1:

† **Podcast:** Economist Radio - Checks and Balance: Merit where it's due

*   Mankiw, N.G., Romer, D. and Weil, D.N., 1992. "A Contribution to the Empirics of Economic Growth." *The Quarterly Journal of Economics*, 107(2): 407-437. ***Read Sections I, II, and Conclusion***

*   Spence, M., 1973. "Job Market Signaling." *The Quarterly Journal of Economics*, 87(3): 355-374.

   Weiss, A., 1995. "Human Capital vs. Signalling Explanations of Wages." *Journal of Economic Perspectives*, 9(4): 133-155.

   Tyler, J.H., Murnane, R.J., and Willett, J.B., 2000. "Estimating the labor market signaling value of the GED." *The Quarterly Journal of Economics*, 115(2): 431-468.

   Bedard, K., 2001. "Human capital versus signaling models: university access and high school dropouts." *Journal of Political Economy*, 109(4): 749-775.

   Jaeger, D.A. and Page, M.E., 1996. "Degrees matter: New Evidence on Sheepskin Effects in the Returns to Education." *The Review of Economics and Statistics*, 78(4): 733-740.

Week 2:

† **Podcast:** Freakonomics Radio - Freakonomics Goes to College, Part 1

*   Mincer, J.A., 1974a. "Chapter 4: Age and Experience Profiles of Earnings." In *Schooling, Experience, and Earnings*, NBER: 64-82.

*   Mincer, J.A., 1974b. "Chapter 5: The Human Capital Earnings Function." In *Schooling, Experience, and Earnings*, NBER: 83-96.

Week 3:

† **Podcast:** Freakonomics Radio - Freakonomics Goes to College, Part 2

*   Grilliches, Zvi, 1977. "Estimating the Returns to Schooling: Some Econometric Problems." *Econometrica*, Econometric Society, 45(1): 1-22.

*   Angrist, J.D. and Krueger, A.B., 1991. "Does Compulsory School Attendance Affect Schooling and Earnings?" *The Quarterly Journal of Economics*, 106(4): 979-1014.

   Oreopoulos, P., 2006. "Estimating Average and Local Average Treatment Effects of Education When Compulsory Schooling Laws Really Matter." *The American Economic Review*, 96(1): 152-175.

Week 4:

† **Podcast:** Freakonomics Radio - The $1.5 Trillion Question: How to Fix Student-Loan Debt?

*   Ashenfelter, O. and Rouse, C., 1998. "Income, Schooling, and Ability: Evidence from a New Sample of Identical Twins." *The Quarterly Journal of Economics*, 113(1): 253-284.

*   Card, D. and Lemieux, T., 2001. "Can Falling Supply Explain the Rising Return to College for Younger Men? A Cohort-based Analysis." *The Quarterly Journal of Economics*, 116(2): 705-746.

   Katz, L.F. and Murphy, K.M., 1992. "Changes in Relative Wages, 1963-1987: Supply and Demand Factors." *The Quarterly Journal of Economics*, 107(1): 35-78.

*   Dynarski, S. and Scott-Clayton, J., 2013. "Financial Aid Policy: Lessons from Research." NBER Working Paper 18710.

Part II: Factors Affecting Learning and Academic Performance

<u>Weeks 5 and 6:</u>

[†] **Podcast:** Freakonomics Radio - Is America's Education Problem Really Just a Teacher Problem?

*   Hanushek, E.A., 2020. "Education Production Functions." In *Economics of Education. Second Edition (Eds. Bradley, S. and Green, C.)*, 161-170. Academic Press.

Hanushek, E.A. and Kimko, D.D., 2000. "Schooling, Labor-Force Quality, and the Growth of Nations." *American Economic Review*, 90(5): 1184-1208.

*   Krueger, A.B., 1999. "Experimental Estimates of Education Production Functions." *The Quarterly Journal of Economics*, 114(2): 497-532.

Angrist, J. and Lavy, V., 1999. "Using Maimonides' Rule to Estimate the Effect of Class Size on Scholastic Achievement." *The Quarterly Journal of Economics*, 114(2): 533-75.

Angrist, J.D., Lavy V., Leder-Luis J., and Shany, A., 2019. "Maimonides' Rule Redux." *American Economic Review: Insights*, 1(3): 309-24.

**   Rury, D., 2021. "Fixing the Leaky Pipeline: The Role of Beliefs About Ability in STEM Major Choice." Working paper.

[†] **Podcast:** Revisionist History - Miss Buchanan's Period of Adjustment

*   Ludwig, J. and Miller, D.L., 2007. "Does Head Start Improve Children's Life Chances? Evidence from a Regression Discontinuity Design." *The Quarterly Journal of Economics*, 122(1): 159-208.

Oreopoulos, P., Page, M.E. and Stevens, A.H., 2006. "The Intergenerational Effects of Compulsory Schooling." *Journal of Labor Economics*, 24(4): 729-760.

*   Dobbie, W. and Fryer Jr., R.G., 2011. "Are High-Quality Schools Enough to Increase Achievement Among the Poor? Evidence from the Harlem Children's Zone." *American Economic Journal: Applied Economics*, 3(3): 158-187.

*   Autor, D., Figlio, D., Karbownik, K., Roth, J., and Wasserman, M., 2019. "Family Disadvantage and the Gender Gap in Behavioral and Educational Outcomes." *American Economic Journal: Applied Economics*, 11(3): 338-381.

*   Levitt, S.D., List, J.A., Neckermann, S. and Sadoff, S., 2016. "The Behavioralist Goes to School: Leveraging Behavioral Economics to Improve Educational Performance." *American Economic Journal: Economic Policy*, 8(4): 183-219.