

ECON 4605 Economics of Education

Spring 2026

TR 8:00am-9:15am

DUAN G131

Disclaimer: All syllabi are subject to change. This includes any dates posted, which may change depending on class progress. Updates will be communicated via Canvas and in class.

Instructor Information

Instructor: Prof. Monge-Navarro (she/her)
Email: daniela.monge@colorado.edu
Office: ECON 206

Office Hours

- **In person:** Tuesdays, 11:00am–2:00pm
- **Virtual:** By appointment via Calendly

If you have an issue you need to discuss and the times above conflict or you can't find an opening in the coming weeks please don't hesitate to email! Students are encouraged to review professional email etiquette [here](#).

Course Description

Education is at the center of growth and development of a society. How we invest in education, its returns, the role of early childhood education in economic development, problems guaranteeing access to higher education, income mobility, productivity, etc. are all issues addressed in the economics of education. This course offers an opportunity to explore the theory behind human capital, skills, signaling, empirical tools for analysis, and research questions on educational policy and reforms.

We begin by studying education as an economic institution, focusing on allocation problems, market failures, and the role of government. We then develop formal models of educational investment, including human capital and signaling frameworks, and examine the private and social returns to education using modern empirical methods.

The course analyzes how education is produced, how resources are allocated within schools, and whether additional spending improves student outcomes, drawing on classic and contemporary policy debates. We explore the sources of inequality in educational attainment and achievement, including differences by race, socioeconomic status, and neighborhood environments, and examine the role of education in intergenerational mobility.

A portion of the course focuses on higher education, including college access, choice, financial aid, student debt, peer effects, major selection, and completion. We then extend standard economic models by incorporating insights from behavioral and experimental economics to understand underinvestment in education, student effort, motivation, and the design of effective policy interventions. Finally, the course examines how education systems are responding to major economic and technological changes, including the COVID-19 pandemic, remote learning, and the rise of artificial intelligence.

Throughout the course, students engage with real-world data, policy-relevant research, and empirical tools used by economists to evaluate education policies and outcomes.

Course Philosophy and Expectations

Mathematician George Pólya famously stated that “mathematics is not a spectator sport.” Economics is no different. The concepts in this course require consistent practice and repetition. Completing assignments, readings, discussion boards, and participating actively are essential for success. The most important requirement is your willingness to commit time and effort and to actively participate in the learning process.

Learning Objectives

As with fundamental economic courses, with this class we aim to cultivate critical thinking, creative inquiry, and collaborative problem solving. We will apply a foundation of economic analysis focusing on the topic of education in economics.

Students will be able to apply several tools of economic analysis to address the links between education and economic growth, consumption, investment, employment, and equity. Students should be able to examine issues related to the economics of education and apply the tools of economic analysis to policy issues.

Required Materials:

The main source of information will be class slides, your notes and any handouts provided for each topic we cover. An optional resource is the book *Economics of Education* by Mike Lovenheim and Sarah Turner. You are **not** required to purchase this book. All required material from this content and readings will be posted in Canvas.

Grading:

Assignments	20%
Class discussion and analysis	20%
Final Paper and Presentation	30%
Quizzes	15%
Final Exam	15%

Final grading is a weighted average and the final letter grade is based on the scale below:

A 94-100	B 83-86	C 73-76	D 63-66
A- 90-92	B- 80-82	C- 70-72	D- 60-62
B+ 87-89	C+ 77-79	D+ 67-69	F <60

Assignments:

Assignments will be handed in class or uploaded via Canvas depending on the instructions. In Canvas you will see due dates for each assignment. It is important you complete these by the required deadline as late submissions are penalized. Most of these will consist of short practices or essays to help review the material studied in each topic.

Examinations:

Quizzes and exams will be administered in class. This may be individual or in group depending on our topic and goal. I will provide details on these in advance and you should come prepared to class which means you should complete any assigned readings beforehand.

Final Paper, Presentation, and Discussion:

All details will be posted in Canvas after we discuss details on these in class.

Course Outline

Module	Content
Module 1	Education in the Economy: Foundations and Institutions. Economic motivations for investing in education; education as a private investment and public good; scarcity, opportunity cost, and allocation; education markets and market failures; peer effects; public versus private provision; the role of government; education, productivity, and economic growth; education and rising inequality.
Module 2	Human Capital, Signaling, and Returns to Education. Human capital theory and signaling models; costs and benefits of educational investment; private and social returns to schooling; the Mincer earnings function; ability bias and selection; credit constraints; life-cycle returns; empirical strategies for estimating causal effects of education.
Module 3	Education Production, Resources, and Effectiveness. Education production functions; inputs, outputs, and efficiency; school resources and student achievement; the Coleman Report; the Hanushek critique and responses; class size, teacher quality, and value-added; measurement challenges in evaluating education policies.
Module 4	Inequality, Segregation, and Intergenerational Mobility. Racial, ethnic, and socioeconomic achievement gaps; neighborhood effects and school segregation; intergenerational mobility; early childhood education; historical and international perspectives on education systems and inequality.
Module 5	Higher Education: Access, Choice, and Completion. College enrollment gaps; college choice and matching; financial aid, tuition, and net price; student debt and borrowing constraints; peer effects in higher education; major choice; persistence and completion; long-run impacts of higher education.
Module 6	Behavioral Economics of Education and Policy Design. Departures from standard rational models; bounded rationality and heuristics; time inconsistency and present bias; effort, motivation, and incentives; identity, confidence, and self-control; experimental and behavioral interventions; nudges and information policies to expand educational opportunity.

Module	Content
Module 7	Education Policy in a Changing Economy. Education responses to major economic and technological shocks; COVID-19 and learning loss; remote and hybrid instruction; high-dosage tutoring; artificial intelligence and education technology; implications for the future of work and the role of universities.

We will spend approximately 1.5 weeks on each module. Readings for each week and topic will be periodically linked in Canvas.

Other course policies and resources

There are various resources you will find linked in our Canvas course page. Below are important statements and information regarding our class as well as support for students.

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 Honor Code may include but are not limited to: plagiarism (including use of paper writing services or technology [such as essay bots]), 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. Understanding the course's syllabus is a vital part of adhering to the Honor Code.

All incidents of academic misconduct will be reported to Student Conduct & Conflict Resolution at StudentConduct@colorado.edu. Students found responsible for violating the Honor Code will be assigned resolution outcomes from Student Conduct & Conflict Resolution and will be subject to academic sanctions from the faculty member. Visit the Honor Code website for more information on the academic integrity policy.

Accommodation for Disabilities, Temporary Medical Conditions, and Medical Isolation

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.

If you have a temporary illness, injury, or required medical isolation for which you require adjustment, reach out as soon as possible so that we can work on a plan to ensure it does not affect your learning progress.

Accommodation for Religious Obligations

Campus policy requires faculty to provide reasonable accommodations for students who, because of religious obligations, have conflicts with scheduled exams, assignments, or required attendance. Please communicate the need for a religious accommodation in a timely manner. In this class, you should let me know at least one week in advance to plan accordingly and strictly before any due dates that might be affected. See the campus policy regarding religious observances for full details.

Preferred Student Names and Pronouns

CU Boulder recognizes that students' legal information does not always align with how they identify. If you wish to have your preferred name (rather than your legal name) and/or your preferred pronouns appear on your instructors' class rosters and in Canvas, visit the Registrar's website for instructions on how to update your personal information in university systems.

Classroom Behavior

Students and faculty are responsible for maintaining an appropriate learning environment in all instructional settings, whether in person, remote, or online. Failure 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, marital status, political affiliation, or political philosophy.

Additional classroom behavior information:

- Student Classroom and Course-Related Behavior Policy

- Student Code of Conduct
- Office of Institutional Equity and Compliance

Sexual Misconduct, Discrimination, Harassment, and/or Related Retaliation

CU Boulder is committed to fostering an inclusive and welcoming learning, working, and living environment. University policy prohibits protected-class discrimination and harassment, sexual misconduct (harassment, exploitation, and assault), intimate partner abuse (dating or domestic violence), stalking, and related retaliation by or against members of our community on- and off-campus.

The Office of Institutional Equity and Compliance (OIEC) addresses these concerns. Individuals who have been subjected to misconduct may contact OIEC at 303-492-2127 or via email at OIEC@colorado.edu. Information about university policies, reporting options, and OIEC support resources, including confidential services, can be found on the OIEC website.

Please note that faculty and graduate instructors are required to inform OIEC when they are made aware of incidents related to these concerns, regardless of when or where something occurred. This ensures that individuals impacted receive outreach regarding resolution options and support resources. To learn more about reporting and support options, visit the Don't Ignore It page.

Mental Health and Wellness

The University of Colorado Boulder is committed to the well-being of all students. If you are struggling with personal stressors, mental health concerns, or substance use issues that are impacting your academic or daily life, please contact Counseling and Psychiatric Services (CAPS), located in C4C, or call (303) 492-2277, available 24/7.

Acceptable Use of AI in This Class

A primary learning goal in this course is to develop a range of skills and to think critically. This requires a strong understanding and careful distillation of concepts. Skills take time to develop and require practice to refine. Using emerging AI tools before giving yourself the opportunity to develop your own skills—and, importantly, your own creative ideas—can undermine learning and growth.

There are acceptable uses of AI that may vary across courses. In some cases, these tools can help troubleshoot questions or explain concepts that are not yet fully understood, and many textbooks and homework platforms already integrate AI-based tools.

However, other uses can be detrimental to the learning process. Generative AI output should **not** replace your own thinking.

Intellectual honesty is a cornerstone of the Honor Code and is vital to any academic community. I expect that all work you submit for this course is your own, both in the writing and in the thinking behind the writing. Plagiarism—including ideas or text attributable to generative AI—is a violation of the Honor Code and will be reported accordingly.