Department of Economics
ECON 5254: Applied Development Economics
Fall 2026 Course Syllabus

Dalhousie University operates in the unceded territories of the Mi'kmaw, Wolastoqey, and Peskotomuhkati Peoples. These sovereign nations hold inherent rights as the original peoples of these lands, and we each carry collective obligations under the Peace and Friendship Treaties. Section 35 of the Constitution Act, 1982, recognizes and affirms Aboriginal and Treaty rights in Canada.

We recognize that African Nova Scotians are a distinct people whose histories, legacies, and contributions have enriched the part of Mi'kma'ki known as Nova Scotia for over 400 years.

Mondays and Wednesdays 13:05-14:25, Studley MCCAIN ARTS&SS 2190

Instructor: Prof. Mevlude Akbulut-Yuksel, Dalhousie University, Department of Economics
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Office hours: Wednesdays 11:30-13:00. Meetings at other times should be arranged in advance via e-mail and will take place in Zoom or in-person.

Course Description: This course is one of the required courses of the Master of Development Economics (MDE) degree. The aim of this course is to provide an overview of the current literature on the microeconomic foundations of development as well as topics pertaining to the current policy debate in development economics. Topics covered include the role of human capital (health, education), the functioning of factor markets, trade, climate change, social welfare programs, artificial intelligence, economics of conflict and female empowerment. On the methodological side, we will examine econometric techniques that researchers have used to identify causal relationships (randomized control trials, ordinary least square, panel data, difference-in-differences, regression discontinuity design, instrumental variables, and synthetic cohort).

Learning Outcomes:

- Students will develop a solid understanding of the microeconomic foundations of development economics through lectures, readings, class discussions, and policy-oriented assignments.
- Students will be able to critically assess and discuss scholarly articles and books in development economics, with particular attention to the underlying economic arguments and empirical evidence.
- Students will understand the main causal inference methods widely used in applied economics and learn how to interpret empirical findings based on these methods.
- Students will be able to apply economic reasoning, empirical evidence, and insights from causal inference to contemporary development policy issues through policy reports and in-class debates.

Requirements and Grading:

1. First Midterm: 20% (in class on Monday, October 19, 2026)
2. Second Midterm: 20% (in class on Wednesday, November 26, 2026)
3. Final: 40% (during Final Week, date to be announced)
4. In-class Debate: 15% (the last week of the semester)
5. Individual Policy Paper: 5% (before the debate starts)

Class Procedure: Few. Please show up on time. Please leave your phones and pagers and other electronic items OFF. At this level of graduate study, we are trying to engage in a discussion about current research, and we are trying to avoid me simply lecturing. As part of this, you must read the required material ***before*** class. Come with questions or ideas that came out of the readings.

Midterms and Final: Exams will draw from lectures, books and papers covered in the class. They are NOT open book. ***The final exam will cover the subject matter of the entire course.*** The midterms will take place during the class time as indicated above. If you miss the midterms or the final exam for a valid medical reason, you must notify me immediately and make arrangements to write-up exam as soon as health permits.

In-class Debates and Policy Report: Over the last week of the semester, there will be in-class debates on several highly debated issues on development economics. The classroom debates are exercises designed to allow you to strengthen your skills in the areas of leadership, interpersonal influence, teambuilding, group problem solving, and oral presentation, as well as a way to learn about important topics in development economics. All of you will be assigned to groups of 2-3 students and to a topic and side. All group members are expected to participate in the research, development, and presentation of your debate position. As part of this course component, each student will be expected to write a policy report detailing their discussion. The policy report portion of the debate is due on ***Monday, December 7th*** before the start of the debates. ***Late submissions will receive zero.*** Each policy report should be submitted **individually**. You are expected to submit your policy report through Turnitin in the Brightspace.

Use of Generative AI/LLM Tools: Generative AI and large language models (e.g., ChatGPT, Claude) may be used only for the assignment in this course, subject to the following conditions:

- AI tools may be used to support learning and writing activities, including summarizing difficult readings, brainstorming ideas, organizing notes, and improving grammar, clarity, and structure.
- Students may **not** submit AI-generated analysis, interpretation, or arguments as their own. Any AI-assisted content must be critically evaluated, verified, and substantially reviewed by the student.
- Any use of AI in submitted coursework must be disclosed. Students should include a brief AI-use statement indicating the tool(s) used and the purpose for which they were used.
- AI tools are not permitted during midterms or the final examination, which are closed-book, in-person assessments.
- Students remain fully responsible for the accuracy, originality, appropriate citation, and academic integrity of all submitted work, including work produced with AI assistance.

Grading: Grades will be determined according to the following scale:

A+	A	A-	B+	B	B-	F
90+	85-89	80-84	77-79	73-76	70-72	<70

Textbooks:

- Angrist, Joshua D. and Jorn-Steffen Pischke. 2015. *Mastering Metrics*. Princeton and Oxford: Princeton University Press **(Required)**.

- Banerjee, Abhijit and Esther Duflo. 2019. *Good Economics for Hard Times*. Public Affairs **(Required)**.

- Yuksel, Mutlu and Yigit Aydede. 2025. *Causal Inference and Machine Learning in Economics, Social, and Health Sciences*. Chapman and Hall **(Recommended).**

- Banerjee, Abhijit and Esther Duflo. 2011. Poor Economics: A Radical Rethinking of the Way to Fight Global Poverty. Public Affairs **(Recommended).**

- Cunningham, Scott. 2021. The Mixtape: Causal Inference. Yale University Press **(Recommended)**
  (https://mixtape.scunning.com/index.html)

- Huntington-Klein, Nick. 2022. The Effect: An Introduction to Research Design and Causality **(Recommended)**

- Angrist, Joshua D. and Jorn-Steffen Pischke. 2009. Mostly Harmless Econometrics: An Empiricist's Companion, Princeton and Oxford: Princeton University Press. **(Recommended)**

COURSE OUTLINE *(subject to change):*

I. Introduction to Economic Development and Causal Inference Methods

Banerjee, A. and E. Duflo. 2019. Good Economics for Hard Times, Introduction.

Angrist, Joshua D. and Jorn-Steffen Pischke. 2015. *Mastering Metrics*. Introduction and Chapter 1: Randomized Control Trials.

Angrist, Joshua D. and Jorn-Steffen Pischke. 2015. *Mastering Metrics*. Chapter 2: Regression.

Dupas, Pascaline. 2014. "Short-Run Subsidies and Long-Run Adoption of New Health Products: Evidence from a Field Experiment." *Econometrica*, 82(1): 197-228.

Miguel, Edward and Michael Kremer. 2004. "Worms: Identifying Impacts on Education and Health in the Presence of Treatment Externalities." *Econometrica*, 72(1): 159-217.

II. Difference-in-Differences and Regression Discontinuity Design

Angrist, Joshua D. and Jorn-Steffen Pischke. 2015. *Mastering Metrics*. Chapter 5: Difference-in-Differences.

The recent developments in Difference-in-Differences.

Akbulut-Yuksel, Mevlude. 2014. "Children of War: The Long-Run Effects of Large-Scale Physical Destruction and Warfare on Children." *Journal of Human Resources*, 49(3): 634-662.

Angrist, Joshua D. and Jorn-Steffen Pischke. 2015. *Mastering Metrics*. Chapter 4: Regression Discontinuity.

Akbulut-Yuksel, Mevlude, Zhou Zhang, and Weina Zhou. 2025. "Navigating Cleaner Waters: Waste Import and Water Pollution." IZA Discussion Paper No. 17828.

III. Climate Change and Artificial Intelligence

Banerjee, A. and E. Duflo. 2019. Good Economics for Hard Times, In Hot Water, Chapter 6.

Ebenstein, Avraham, Maoyong Fan, Michael Greenstone, Guojun He, and Maigeng Zhou. 2017. "New Evidence on the Impact of Sustained Exposure to Air Pollution on Life Expectancy from China's Huai River Policy." *Proceedings of the National Academy of Sciences*, 114(39): 10384–10389.

Allcott, Hunt, and Todd Rogers. 2014. "The Short-Run and Long-Run Effects of Behavioral Interventions: Experimental Evidence from Energy Conservation." *American Economic Review*, 104(10): 3003–3037.

Banerjee, A. and E. Duflo. 2019. Good Economics for Hard Times, Player Piano, Chapter 7.

Acemoglu, Daron, and Pascual Restrepo. 2020. "Robots and Jobs: Evidence from US Labor Markets." *Journal of Political Economy*, 128(6): 2188–2244.

Faber, Marius. 2020. "Robots and Reshoring: Evidence from Mexican Labor Markets." *Journal of International Economics*, 127: 103384.

IV. Social Welfare Programs and Corruption

Banerjee, A. and E. Duflo. 2019. Good Economics for Hard Times, Cash and Care, Chapter 9.

Banerjee, Abhijit, Rema Hanna, Benjamin A. Olken and Diana Sverdlin Lisker. 2024. "Social Protection in the Developing World." *Journal of Economic Literature*, 62 (4): 1349–1421.

Vivalt, Eva, Elizabeth Rhodes, Alexander W. Bartik, David E. Broockman & Sarah Miller. *Forthcoming.* "The Employment Effects of a Guaranteed Income: Experimental Evidence from Two U.S. States", *Quarterly Journal of Economics.*

Banerjee, A. and E. Duflo. 2019. Good Economics for Hard Times, Legit.gov, Chapter 8

Chattopadhyay, Raghabendra and Esther Duflo. 2004. "Women as Policy Makers: Evidence from a Randomized Policy Experiment in India." *Econometrica*, 72(5): 1409-1443.

Olken, Benjamin. 2007. "Monitoring Corruption: Evidence from a Field Experiment in Indonesia." *Journal of Political Economy*, 115(2): 200–249.

V. Instrumental Variable and Synthetic Cohorts Methods

Angrist, Joshua D. and Jorn-Steffen Pischke. 2015. Mastering Metrics. Chapter 3: Instrumental Variables.

Akbulut-Yuksel, Mevlude, Dozie Okoye, and Belgi Turan. 2024. "Expressway to Votes: Infrastructure Projects and Voter Persuasion." *Economic Journal*, 134 (657): 48-94.

Duflo, Esther. 2001. "Schooling and Labor Market Consequences of School Construction in Indonesia: Evidence from an Unusual Policy Experiment." *American Economic Review*, 91: 795-813.

Abadie, A., and Gardeazabal, J. 2003. The Economic Costs of Conflict: A Case Study of the Basque Country. *American Economic Review*, 93(1): 113–132.

Angrist, Joshua D. and Jorn-Steffen Pischke. 2015. Mastering Metrics. Chapter 6: Wages of Schooling.

VI. Health, Nutrition, Education, Infrastructure and Armed Conflict in Developing World ***(if time permits)***

Banerjee, A. and E. Duflo. 2011. Poor Economics: A Radical Rethinking of the Way to fight Global Poverty. Chapter 3 and Chapter 4.

Akbulut-Yuksel, Mevlude. 2017. "War during Childhood: The Long Run Effects of Warfare on Health." *Journal of Health Economics*, 53: 117-130.

Akbulut-Yuksel, Mevlude and Daniel Rosenblum. 2023. "Estimating the Effects of Expanding Ultrasound Use on Sex Selection in India." *Journal of Development Studies*, 59(4): 1-17.

Jayachandran, Seema and Adriana Lleras-Muney. 2009. "Life Expectancy and Human Capital Investments: Evidence from Maternal Mortality Declines." *Quarterly Journal of Economics*, 124(1): 349-397.

Akbulut-Yuksel, Mevlude and Belgi Turan. 2013. "Left Behind: Intergenerational Transmission of Human Capital in the Midst of HIV." *Journal of Population Economics*, 26(4): 1523-1547.

Chaudhury, Nazmul, Jeffrey Hammer, Michael Kremer, Karthik Muralidharan and F. Halsey Rogers. 2006. "Missing in Action: Teacher and Health Worker Absence in Developing Countries." *Journal of Economic Perspectives*, 20(1): 91–116.

Duflo, Esther, Pascaline Dupas, and Michael Kremer. 2011. "Peer Effects, Teacher Incentives, and the Impact of Tracking: Evidence from a Randomized Evaluation in Kenya." *American Economic Review*, 101(5): 1739-1774.

Dizon-Ross, Rebecca. 2019. "Parents' Beliefs about Their Children's Academic Ability: Implications for Educational Investments." *American Economic Review*, 109(8): 2728-2765.