

ECON 326: Economics of Developing Countries

Fall 2023

Instructor: Prof. Jonas Jin (jjjin@northwestern.edu)

Class Hours and Location: Monday and Wednesday, 11:00AM - 12:20PM, Harris L07

Office Hours: M 1 - 2 PM; T 10 - 11 AM and 2 - 3 PM; W 2 - 3 PM; or by email in KGH 3389

Teaching Assistant: Sebastian Sardon (sebastiansardon2026@u.northwestern.edu)

Section: Friday, 11:00 AM - 12:20 PM, Harris L07

Office Hours: Friday, 3:30 - 5:30 PM in KGH 3496

Course Description

This course aims to develop your knowledge of the economic lives of people in low-income countries, with a focus on microeconomic issues. Topics include investments in education and health, saving and lending behavior, microfinance, insurance, gender, migration, political economy, foreign aid, and more. We will investigate questions regarding the effects of underdevelopment across the world, with a particular focus on interventions that improve the lives of the poor. In doing so, we will apply both theoretical models and empirical tools used to study important policy questions related to poverty, inequality, and development.

Prerequisites

Econ 281 and Econ 310-1. The lectures and readings will build on material from microeconomics and econometrics. While there will be a brief review of the econometric methods used, you will be much better prepared to learn from and enjoy the class with the frameworks in mind.

Textbook, Readings, and Software

The first textbook is *Poor Economics* by Banerjee and Duflo (PublicAffairs 2011), which can be found at the Norris Center Bookstore for purchase or rent or at the University Library's circulation desk for reserve. The textbook chapters provide a largely non-technical overview of the topics. We will also use some sections of *Development Economics* by Debraj Ray (Princeton University Press 1998), which is available via the course website.

There will be readings associated with each topic. Required readings are denoted with a * in the Course Calendar. Non-required readings are marked with a -. There will also be readings

covered or referenced in class that are not on the reading list. It is not necessary to understand the technical details of every paper in its entirety, but please try to understand the motivation of the paper and how it addresses its questions. The necessary technical details will be emphasized in class or in section.

Some problem sets will have you work with Stata, a statistical software package used to analyze datasets. Northwestern provides online access through <https://northwestern.apporto.com>. You may also purchase Stata from the website at a discounted student rate—I would suggest purchasing the “SE version” or higher. Sebastian will provide a Stata tutorial during the first Friday section.

Grading Policy

- **30% Problem Sets**

- There will be 4 problem sets during the quarter which will be due at 11:59 PM the following weekend.
- Collaboration is allowed and encouraged, but everybody must submit their own copy, and your submitted work must reflect a significant individual contribution. Each individual should indicate with whom they worked.
- Each problem set will be weighted equally in your final grade.
- Please upload problem sets online through Canvas using a scanner or an app such as CamScanner. Extensions may be provided on an individual basis; please request them in a timely manner when possible.

- **30% Midterm**

- The midterm exam will be held during class on **Monday, October 23** for 80 minutes.
- The midterm will cover material through Lectures 1-9.

- **40% Final**

- The final exam will be on **Friday, December 8** from 9 AM to 11 AM. It will be cover material from both before and after the midterm, with a slight focus on the latter half of the course.

Accessibility and NUHelp

AccessibleNU: Any student requesting accommodations related to a disability or other condition is required to register with AccessibleNU (accessiblenu@northwestern.edu; 847-467-5530) and provide professors with an accommodation notification from AccessibleNU, preferably within the first two weeks of class. All information will remain confidential.

NUHelp: Students can find useful resources for safety and security, academic support, and mental and physical health and well-being at the NUHelp website and app at <https://www.northwestern.edu/nuhelp/>.

Course Policies

- **Academic Integrity:** Students are expected to comply with Northwestern's academic integrity policy found at <https://weinberg.northwestern.edu/undergraduate/courses-registration-grades/integrity/index.html>. All assignments must be submitted electronically unless otherwise instructed and may be tested for plagiarism.

Keep in mind that the Provost's definition of plagiarism "includes, but is not limited to, the unauthorized use of generative artificial intelligence to create content that is submitted as one's own." Using AI in this class for assignments is permitted *only* to assist you in generating Stata code for the purpose of learning to use Stata. However, any other parts of the assignment (including, but not limited to, written responses and interpretation) must be done without any AI assistance.

- **Late Assignments:** Problem sets must be submitted by 11:59 PM on the Saturday of the next week from the day they are assigned. Extensions may be granted on an individual basis with sufficient advance notice for full credit. Otherwise, late problem sets can be turned with 30% of the total possible points deducted from the grade for each day that has passed after the deadline.

For example, a homework assignment due on Saturday night at 11:59 PM and turned in on Sunday morning at 4 AM will receive at most 70%.

- **Recording by Students:** Unauthorized student recording of classroom or other academic activities (including office hours) is prohibited. Unauthorized recording is unethical and may also be a violation of University policy and state law. Students requesting the use of assistive technology as an accommodation should contact AccessibleNU.

Under the University's Copyright Policy, faculty own the copyright to instructional materials – including those resources created specifically for the purposes of instruction, such as syllabi, lectures and lecture notes, and presentations. Students cannot copy, reproduce, display, or distribute these materials. Students who engage in unauthorized recording, unauthorized use of a recording, or unauthorized distribution of instructional materials will be referred to the appropriate University office for follow-up.

- **Missed Exams:** Please plan to take the midterm exam as scheduled. If you have a valid reason such as a medical issue/exemption, religious or athletic conflict, or a family emergency, please inform me as soon as possible and we can try to figure out an alternative, which may include increasing the weight on other components of the class.

Per Weinberg rules, students are required to take the final exam at the designated time. I am unable to make alternative arrangements personally, but in the case of extenuating circumstances (e.g. similar to above), please reach out as soon as possible.

- **Changes to the Syllabus:** Lectures and due dates on this syllabus are subject to change. *Any changes will be mentioned in class, and any changes to due dates will be made at least a week in advance. I will upload a new syllabus to the Canvas course site with any changes.*

Course Calendar

Lecture slides will be posted by 9 AM on the day of class.

Lecture 1: Introduction

Wednesday, September 20

- Facts, trends, measurement
- Course overview
- * Ray, Chapter 2
- * Banerjee and Duflo, Chapter 1

Lecture 2: Empirical Methods

Monday, September 25

- Endogeneity
- Instrumental variables
- Other methods of causal inference
- * Review your econometrics notes on the topics listed above
- Duflo, E., R. Glennerster, and M. Kremer (2007). "Using Randomization in Development Economics Research: A Toolkit," *Handbook of Development Economics* 4, 3895–3962

Lecture 3: Poverty Traps

Wednesday, September 27

- Types of poverty traps
- Theory and evidence
- * Ray, Chapter 8: p. 272-279 (8.4.2 *Poverty, nutrition, and labor markets*)
- * Ray, Chapter 13: p. 489-495 (13.4.1 until *Asset inequality, nonlabor income, and the labor market*)
- * Kraay, Aart, and David McKenzie. 2014. "Do Poverty Traps Exist? Assessing the Evidence." *Journal of Economic Perspectives*, 28(3): 127-48.

Problem set 1 assigned, due at 11:59 PM on Saturday, October 7.

Lecture 4: Fundamental Causes of Development

Monday, October 2

- Institutions vs. Geography hypotheses
- * Acemoglu, Daron, Simon Johnson, and James A. Robinson. 2001. "The Colonial Origins of Comparative Development: An Empirical Investigation." *American Economic Review*, 91(5): 1369-1401.
- Daron Acemoglu, Simon Johnson, James A. Robinson. 2002. "Reversal of Fortune: Geography and Institutions in the Making of the Modern World Income Distribution." *The Quarterly Journal of Economics*, 117(4): 1231–1294.

Lecture 5: RCTs and Nutrition**Wednesday, October 4**

- Randomized controlled trials (RCTs): theory
- Effect of transfer programs on nutrition
- * Duflo, Glennester, and Kremer. 2007. "Using Randomization in Development Economics Research: A Toolkit." Sections 1-3.
- * Hidrobo, Melissa, et al. 2014. "Cash, Food, or Vouchers? Evidence From a Randomized Experiment in Northern Ecuador." *Journal of Development Economics*, 107: 144-156.

Problem set 1 due at 11:59 PM on Saturday, October 7; problem set 2 assigned, due at 11:59 PM on Sunday, October 15.

Lecture 6: Health and Health Care**Monday, October 9**

- Supply side issues: access and quality
- Demand side issues: health care products
- * Jishnu Das et al. 2016. "The impact of training informal health care providers in India: A randomized controlled trial." *Science*, 354. *The structured abstract is sufficient.*
- * Das, J., & Hammer, J. (2014). "Quality of primary care in low-income countries: Facts and economics." *Annual Review of Economics*, 6(1), 525–553.
- Ashraf, Nava, James Berry, and Jesse M. Shapiro. 2010. "Can Higher Prices Stimulate Product Use? Evidence from a Field Experiment in Zambia." *American Economic Review*, 100 (5): 2383-2413.

Lecture 7 : Education (Supply Side)**Wednesday, October 11**

- Return to schooling
- Teacher absence
- * Banerjee and Duflo, Chapter 4
- * Duflo, "Schooling and Labor Market Consequences of School Construction in Indonesia: Evidence from an Unusual Policy Experiment," *American Economic Review*, 91(4): 795-813, 2001.

Problem set 2 due at 11:59 PM on Saturday, October 14

Lecture 8: Education (Demand Side)**Monday, October 16**

- Model of educational investment choice
- Perceived return to schooling
- Child labor

- * Robert Jensen, "The (Perceived) Returns to Education and the Demand for Schooling," *The Quarterly Journal of Economics*, Volume 125, Issue 2, May 2010, Pages 515–548.
- * Snilstveit et al. 2016, "The impact of education programmes on learning and school participation in low- and middle-income countries," *3ie Systematic Review Summary 7*. You can read the entire report if you are interested, but the "Main Findings" section of the webpage is sufficient.
- Edmonds, Eric, V., and Nina Pavcnik. 2005. "Child Labor in the Global Economy." *Journal of Economic Perspectives*, 19 (1): 199-220.

Lecture 9: Health and Education Relationship**Wednesday, October 18**

- Effect of children's health on education
- Spillover effects and externalities
- * Miguel, E. and Kremer, M. 2004. "Worms: Identifying Impacts on Education and Health in the Presence of Treatment Externalities." *Econometrica*, 72: 159-217.

Lecture 10: Midterm Exam**Monday, October 23**

- Covers material from lectures 1-9

Lecture 11: Gender**Wednesday, October 25**

- Gender bias and "missing women"
- Women as political leaders
- * Seema Jayachandran, 2014. "The Roots of Gender Inequality in Developing Countries," *Annual Review of Economics*, 7(63): 63-88.
- * Beaman, Lori, et al. "Powerful Women: Does Exposure Reduce Bias?" *The Quarterly Journal of Economics*, vol. 124, no. 4, 2009, pp. 1497–540.
- Field, Erica, and Attila Ambrus. 2008. Early marriage, age of menarche, and female schooling attainment in Bangladesh. *Journal of Political Economy*, 116(5): 881-930.

Problem set 3 assigned, due Saturday, November 4 at 11:59 PM.

Lecture 12: Risk, Insurance, and Migration**Monday, October 30**

- Reasons for and consequences of lack of formal insurance in developing countries
- * Banerjee and Duflo, Chapter 6
- * Bryan, Gharad et al. 2014. "Underinvestment in a Profitable Technology: The Case of Seasonal Migration in Bangladesh. *Econometrica*, 82(5): 1671-1748.
- Townsend, Robert M. 1995. "Consumption Insurance: An Evaluation of Risk-Bearing Systems in Low-Income Economies." *Journal of Economic Perspectives*, 9 (3): 83-102.

Lecture 13: Finance and Microcredit**Wednesday, November 1**

- Ray credit market model
- Informal finance institutions
- * Banerjee and Duflo, Chapter 7
- * Banerjee, Abhijit, Esther Duflo, Rachel Glennerster, and Cynthia Kinnan. 2015. "The Miracle of Microfinance? Evidence from a Randomized Evaluation." *American Economic Journal: Applied Economics*, 7 (1): 22-53.

Problem set 3 due Saturday, November 4 at 11:59 PM

Lecture 14: Savings and Mobile Money**Monday, November 6**

- Temptation and time preferences
- Commitment products
- * Banerjee and Duflo, Chapter 8
- * Nava Ashraf, Dean Karlan, Wesley Yin, Tying Odysseus to the Mast: Evidence From a Commitment Savings Product in the Philippines, *The Quarterly Journal of Economics*, Volume 121, Issue 2, May 2006, Pages 635–672.
- Suri, Tavneet, and William Jack. "The long-run poverty and gender impacts of mobile money." *Science (New York, N.Y.)* vol. 354,6317 (2016): 1288-1292.

Lecture 15: Corruption**Wednesday, November 8**

- Theory and evidence on corruption
- * Banerjee and Duflo, Chapter 10
- * Olken, Benjamin A. "Monitoring Corruption: Evidence from a Field Experiment in Indonesia." *Journal of Political Economy*, vol. 115, no. 2, 2007, pp. 200–49.

Problem set 4 assigned, due Saturday, November 18 at 11:59 PM.

Lecture 16: Foreign Aid**Monday, November 13**

- Effectiveness of foreign aid
- * Nunn, Nathan, and Nancy Qian. 2014. "US Food Aid and Civil Conflict." *American Economic Review*, 104 (6): 1630-66.
- * Deaton, Angus. "How to Help Those Left Behind." *The Great Escape: Health, Wealth, and the Origins of Inequality*, Princeton University Press, 2013, pp. 267–324. *Chapter 7 only.*
- Burnside, Craig, and David Dollar. "Aid, Policies, and Growth." *The American Economic Review*, vol. 90, no. 4, 2000, pp. 847–68.

Lecture 17: Environment and Natural Resources**Wednesday, November 15**

- Relationship between the environment/natural resources and development
- Environmental interventions in developing countries
- * Jayachandran, Seema, "How Economic Development Influences the Environment," *Annual Review of Economics*, 11 Aug 2022, Vol. 14, Issue 1, pages 229 - 252.
- Jayachandran, Seema et al. "Cash for carbon: A randomized trial of payments for ecosystem services to reduce deforestation." *Science (New York, N.Y.)* vol. 357,6348 (2017): 267-273.
- Jeffrey D. Sachs, Andrew M. Warner, "The curse of natural resources," *European Economic Review*, Volume 45, Issues 4–6, 2001, Pages 827-838.

Problem set 4 due Saturday, November 18 at 11:59 PM

Lecture 18: Land and Agriculture**Monday, November 20**

- Land ownership
- * Ray, Chapters 11 and 12 (skip 12.4)
- Banerjee, Abhijit V., et al. "Empowerment and Efficiency: Tenancy Reform in West Bengal." *Journal of Political Economy*, vol. 110, no. 2, 2002, pp. 239–80.

No class**Wednesday, November 22****Final Exam: Friday, December 8: 9 AM - 11 AM**