EIB E242: Development Economics: Micro Perspectives The Fletcher School, Tufts University Spring 2024

Time: Wednesday, 9:30-11:50 EST

Instructor's Information:

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Course Objectives:

One of the primary challenges for policymakers, development practitioners, donors and non-governmental organizations is understanding what policies and interventions are the most effective in improving the welfare of the world's poor. While monitoring and evaluation (M&E) is useful in determining whether a program is on the "right track", and impact evaluation can be used to tell us whether a particular intervention, policy or program actually causes changes in development outcomes, understanding the *causes* of poverty in a particular context is crucial for *designing*, implementing and evaluating these policies and programs. Yet there are a multitude of tools and techniques to do so.

The objective of this course it to provide students with a set of theoretical and practical skills to understand the microeconomic foundations of poverty in lower-income countries, with a goal towards designing, implementing and evaluating policies and programs, primarily in the public sector. The course will start with a brief overview of development. We will then review the microeconomic foundations of household-and firm-level decision-making in low-income countries, before turning to issues that constrain and support development: human capital (health and education); financial capital (financial services); physical capital (land, the environment and infrastructure); technological innovations; and institutions. While we do not have a particular class on gender, we will address gender-related issues in a number of classes.

This course is complementary to EIBE240 and EIBE241. EIB E240 primarily focuses on the macroeconomic framework for development, whereas EIB E241 focuses on conducting comprehensive analyses of development policies. This course is a complement to those courses in that it uses formal microeconomic theory as a tool for analyzing real-world problems, developing interventions to address those problems and evaluating those interventions. Throughout the course, we will discuss the ways in which theory can be used to complement and improve policies and programs, and vice versa.

Learning Outcomes:

By the end of this course, a student should be able to:

- Understand and apply a variety of microeconomic tools for analyzing and designing development programs, including understanding different market failures and how they constrain development
- Critically analyze microeconomic research and gauge the validity of the findings, including learning how to use STATA and interpret technical readings
- Analyze a development problem and design policies to address the problem,
 and presenting this to outside clients to get experience with real-world pitches

<u>Pre-requisites:</u> Intermediate microeconomics (EIB E211) or an equivalent micro course is strongly recommended. Introductory econometrics (EIB E213) can be taken concurrently, as the readings and problem sets will assume knowledge of econometrics. That being said, there are pre-class videos for both topics, and students will have help with STATA via a Teaching Assistant. All relevant microeconomic and econometric concepts will be reviewed as they arise.

Methods of Instruction:

For each topic covered in the class, students should familiarize themselves with the material by preparing prior to class. This is critical to the learning process in this course, as in-class lecture time will be limited. Sufficient pre-class preparation will allow students to familiarize themselves with relevant concepts and tools prior to class, so that class time can be primarily spent discussing, applying, critiquing and extending the basic ideas.

For most classes, pre-class preparation will require: (1) reading 2-3 theoretical and/or empirical readings; (2) watching videos or listening to audio on more technical topics; and (3) preparing for an in-class activity or case study by reading a short document. There will be weekly quizzes on the relevant readings. The videos will be either review (allowing students to review material that they might not have learned for some time) or will provide additional detailed information on topics that will be covered more briefly in class. There relevant technical videos include: Microeconomics (review), Calculus and optimization, Externalities, Risk Preferences, Decision-Making under Uncertainty, Moral Hazard and Public Goods.

Outside of class, you will use problem sets and referee reports to reinforce your understanding (and prepare for mid- and end-semester assessments).

This course is a hybrid course, and <u>approximately</u> 2/3 of courses will be held in-person, with an online option available. These will be identified in the calendar, so that students can plan accordingly.

Requirements and Grading:

There will be weekly online reading quizzes, two problems sets, two referee reports, a policy presentation and two exams. The due dates of each of these will be provided in a separate calendar. Grades will be calculated based upon the following criteria:

Problem sets:	25%
Exams:	30%
Policy presentation:	18%
Referee reports	25%
Weekly quizzes:	2%

While a formal grade will not be provided for participation, full and thoughtful class participation (ie, a meaningful contribution to critiques and ideas discussed in class) will improve your grade if you are on the margin (ie, an A from an A-, an A- from a B+), as will your performance on the weekly quizzes.

Problem sets

Problem sets will contain empirical exercises, theory exercises and written assignments. The problem sets will be posted on Canvas and due one week later. They can be completed in groups of no fewer than 4 and no more than 6 people.

Referee Reports

The referee reports will be individual reviews of assigned technical academic papers or policy reports. The report should start off with a one-paragraph summary of the main argument of the article. You should describe your main 3-4 critiques in detail <u>as if you were writing directly to the author</u> and conclude the report with more minor comments. A good referee report not only clearly states the shortcomings of the work, but also lays out constructive, detailed and realistic suggestions for improvements.

Policy Presentation

Students will work in groups of 3-4 people to develop a proposal throughout the semester that addresses a need or problem in a lower-income country. Students must identify a problem, research the underlying causes, and come up with a program or intervention that may help address the problem. Each group of students is required to present their findings during brief class presentations.

Auditors

Certified auditors will be accepted *depending upon the class size*. Auditors will need to attend each class, complete the readings and hand in all problem sets.

Texts and Reading Materials:

There is <u>no required text</u> for this course. However, having access to a microeconomics textbook (preferably one that uses calculus) will also be useful as a reference, such as Nicholson and Synder's *Microeconomic Theory* (Tenth Edition). For those of you who have *not* taken econometric impact evaluation, the World Bank has a non-technical treatment of impact evaluation methodologies Glewwe, Paul and Petra Todd. 2022. "Impact Evaluation in International Development: THEORY, METHODS, AND PRACTICE." http://hdl.handle.net/10986/37152. In addition, for those interested, students will receive a free copy of Professor Aker's new book, "Mobile Phones and Development in Africa: Does the Evidence Meet the Hype?"

For most classes, readings include theoretical and empirical papers. You should try to understand the empirical approach and results. Readings with a "*" are required; the rest are suggested.

Diversity Statement

While this is a class on the microeconomics of development, and hence is more technical in nature, as you will see throughout this course, there is no such thing as perfectly objective social science. The social science fields we use to learn microeconomics and impact evaluation have historically been built on a small set of privileged voices. I acknowledge that it is possible that there may be both overt and covert biases in the material due to the lens with which it was written, even if the material is primarily of a technical nature. Integrating a diverse set of experiences is important for a more comprehensive understanding of policy analysis tools and their application to real-world problems. I will attempt to bring in more viewpoints in the examples and cases that we discuss throughout this case. Please contact me if you have suggestions to improve the diversity of the course material.

Furthermore, I would like to create a learning environment in this class that supports a diversity of thoughts, perspectives, and experiences, and honors your identities. As a community, we aim to be respectful to all. We reject all forms of prejudice and discrimination, including but not limited to those based on age, color, disability, gender, gender identity, gender expression, national origin, political affiliation, race, religion, sexual orientation, and veteran status. Faculty and students are expected to commit to creating an environment that facilitates inquiry and self-expression, while also demonstrating diligence in understanding how others' viewpoints may be different from their own.

If something is said in class, by me or anyone else, that makes you feel uncomfortable, please talk to me about it as soon as possible. As a participant in course discussions, you should also strive to honor the diversity of your classmates.

Accessibility

- Accommodations for Students with Disabilities: Tufts University is committed to providing equal access and support to all qualified students through the provision of reasonable accommodations so that each student may fully participate in the Tufts experience. If you have a disability that requires reasonable accommodations, please contact the StaarCenter@tufts.edu or 617-627-4539. Please be aware that accommodations cannot be enacted retroactively, making timeliness a critical aspect of their provision.
- Student Accessibility and Academic Resources (StAAR) Center. The StAAR Center offers academic support through one-on-one academic coaching, writing consultations, tutoring, study groups and study strategies and discipline specific workshops, including time management. Services are free to all enrolled students. Students can make an appointment for any of these services at https://students.tufts.edu/staar-center. Resources specific to graduate students can be found at: https://students.tufts.edu/staar-center/academic-support/graduate-student-resources

Important Dates

While we will follow the class schedule for online and in-person classes, due to unforeseen circumstances (related to COVID), it may be possible that an in-person course is taught online. I will strive to inform you well in advance if this is the case.

Course Outline:

I. Using Microeconomic Theory to Design and Evaluate Development Programs

Videos/Audio

*Pre-class video on using microeconomic theory

Michael Kremer on "The Economics of Vaccine Development and Deployment."

Readings

- *Kremer, Michael. 2002, "Pharmaceuticals and Development", *Journal of Economic Perspectives*, 16(4), 67-80.
- *Neia Prata Menezes, Muloongo Simuzingili, Zelalem Yilma Debebe, Fedja Pivodic, Ernest Massiah. August 2021. "What is driving COVID-19 vaccine hesitancy in Sub-Saharan Africa?" World Bank Blogs.
- *Aker, Jenny C. 2016. "Comparing Cash and Voucher Transfers in a Humanitarian Context: Evidence from the Democratic Republic of Congo." World Bank Economic Review.

^{*}Case study document: Productivity in Agriculture and Cash versus in-kind transfers

Additional Resources:

- Calculus review video
- Micro review video
- Varian, Hal. *Microeconomic Analysis*. Pp. 172-174 (uncertainty), p 177 (risk preferences), pp. 189-190 (mean variance utility), Lagrangian (p. 497), externalities (p. 432), public goods (p. 414)

II. Using Impact Evaluation Techniques to Evaluate Development Programs

Videos:

*Pre-class video on impact evaluation techniques

*Esther Duflo Ted Talk "Social Experiments to Fight Poverty"

Readings:

*Ozler, Berk. March 26, 2018. "<u>Dear Governments: Want to help the poor and transform your economy?</u> Hold on, recalculating..." World Bank Development Blogs.

*World Bank. Impact Evaluation in Practice. Chapters 1, 3 and 4

*Case study document

III. Health Markets

*Video: Online video on externalities

Readings:

*Mwabu, Germano. "Health Economics for Low-Income Countries." Chapter 53. *Handbook of Development Economics*. Pp. 3306-3307; pp. 3308-3321

*Dupas, Pascaline. 2009. "What Matters (and What Does Not) in Households' Decision to Invest in Malaria Prevention?" American Economic Review: Papers and Proceedings.

*Mobarak, Mushfiq et al. 2021. "The Impact of Community Masking on COVID-19: A Cluster Randomized Trial in Bangladesh." Pp. 1-31.

*Case study document

IV. Education Markets

Readings:

- *Orazem, Peter F. and Elizabeth M. King. "Schooling in Development Countries: The Roles of Supply, Demand and Government Policy." Chapter 55. *Handbook of Development Economics.* Pp. 3478-3483; 3499-3507; and 3535-3541.
- *Evans, David, Amina Mendez Acosta and Fei Yuan. <u>"Girls' Education: Going from What Works to What Works at Scale."</u> Center for Global Education. October 19, 2021.
- *World Bank. Impact Evaluation in Practice. Chapter 7 (Difference in differences).
- *Blimpo, Moussa, Ousman Gajigo, Todd Pugatch. 2019. "Financial Constraints and Girls' Secondary Education: Evidence from School Fee Elimination in The Gambia." *The World Bank Economic Review*, Volume 33, Issue 1, Pages 185–20
- *Case study document

V. Technology Adoption

- *Online video on risk, uncertainty and expected utility
- *Foster, Andrew and Mark Rosenzweig. 2010. "Microeconomics of Technology Adoption." *Annual Review of Economics*. 2: 395-424.
- *Gine, Xavier and Dean Yang. "Insurance, Credit, and Technology Adoption: Field Experimental Evidence from Malawi." *Journal of Development Economics*.
- *Beaman, Lori, Dean Karlan, Brum Thuysbaert, and Christopher Udry. 2013. "Profitability of Fertilizer: Experimental Evidence from Female Rice Farmers in Mali."
- *Case study on technology adoption

VI. Financial Services (Credit, Savings and Insurance)

Videos

*Online video of principal-agent models

Readings

*Banerjee, Abhijit V., and Esther Duflo (2010). "Giving Credit Where It Is Due." *Journal of Economic Perspectives*, 24(3), 61-80.

- *World Bank. Impact Evaluation in Practice. Chapter 6 (Regression Discontinuity Design).
- *Baradwaj, Prashant and Tavneet Suri. 2020. "Improving Financial Services through Digital Savings and Credit." AEA Papers and Proceedings.
- *Aker, Jenny C., Markus Goldstein, Margaret McConnell, Michael O'Sullivan and Melita Sawyer. 2020. "Just a Bit of Cushion: The Role of a Simple Savings Device on Planned and Unplanned Expenditures in Niger." 2020. World Development.

VII. Markets: Land

*Online video of public goods

*Ray, Chapter 12.

- Feder, Gershon and David Feeny. 1991. "Land Tenure and Property Rights: Theory and Implications for Development Policy." World Bank Economic Review. Pp. 135-153.
- *Daniel Ayalew Ali, Klaus Deininger Markus Goldstein. 2014. "Environmental and Gender Impacts of Land Tenure Regularization in Africa: Pilot evidence from Rwanda." *Journal of Development Economics*.

VIII. Public Infrastructure

- *Jensen, Robert. 2007. "The Digital Provide: Information (Technology), Market Performance and Welfare in the South Indian Fisheries Sector." Quarterly Journal of Economics. Vol. 122, Issue 3. Pp. 879-905. Please read pp. 879-883, and then 890-903, 913-920.
- *Gonzalez-Navarro, Marco and Climent Quintana-Domeque. (2016). "Paving Streets for the Poor: Experimental Analysis of Infrastructure Effects". Review of Economics and Statistics.

IX. Institutions, Conflict and Development

- *Lin, Justin Yifu and Jeffrey B. Nugent. "Institutions and Economic Development." Chapter 38, Handbook of Development Economics.
- *Fujiwara, Thomas and Leonard Wantchekon. "Can Informed Public Deliberation Overcome Clientelism? Experimental Evidence from Benin". American Economic Journal: Applied Economics (Forthcoming)

^{*}Case study on financial services

X. Putting it All Together