

Topics in International Commerce (8751.518A)

: Impact Evaluation for Development Policies

Fall 2020

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Class hours: Thursday 14:00-16:50

Office Hours: By appointment

Description: The main goal of this course is to equip students with conceptual frameworks and quantitative methods to test to what extent a policy intervention is successful/effective. To achieve that goal, we will examine key statistical and econometrics tools actively used by researchers and policy makers. Examples of such tools include randomized trials, natural experiments, difference-in-difference, instrumental variables, and regression discontinuity. In addition, we will read relevant research papers examining development policies.

There will be assignments for students to practice using empirical tools and a final project. For that purpose, we will use STATA. Students may use another statistical package of their choice, but the instructor may not be able to provide detailed guidance. I expect students to know how to use STATA as a prerequisite. I will provide a brief overview and strategies and post reference and video lectures regarding how to use STATA. They are for students who need help or to refresh their memory. If you do not have any previous experience using STATA or any other statistical package, you should contact the instructor at the first class meeting to check your eligibility for this course.

Prerequisite: Research Methodology and Skills

*Students who took relevant courses (such as statistics and econometrics) in other departments may sign up for this class but should contact the instructor at the first class meeting to check their eligibility for this course.

Textbook and References:

Required Textbook: *Impact Evaluation in Practice*, Second Edition (World Bank, Inter-American Development Bank)

This book is freely available at <https://www.worldbank.org/en/programs/sief-trust-fund/publication/impact-evaluation-in-practice>

Other References:

Agresti, Franklin, and Klingenberg, *Statistics: The Art and Science of Learning from Data*

Stock and Watson, *Introduction to Econometrics*

Angrist and Pischke, *Mostly Harmless Econometrics: An Empiricist's Companion*

Angrist and Pischke, *Mastering 'Metrics*

Class Format: This class will be conducted mostly online – using video conferencing (zoom) and pre-recorded lectures. If SNU permits, I will divide students into a few groups and invite one group to attend the class on campus while the rest participate in the class via zoom. With a small class, I can minimize health concerns. At the same time, this setup will facilitate interactions among the participants and help me address your needs and challenges promptly.

Due to Chuseok, the lunar Thanksgiving holiday, we will not have a lecture on October 1st but will have one more class on December 17th.

Grading:

- 1) Class attendance and participation (5%)
- 2) Quiz (15%)
- 3) Assignments and Projects (80%)

The quiz (Week 8) will test students regarding key methodologies (RCT, Matching, IV, DID). There will be a few empirical assignments for students to practice how to use statistical methods to analyze a dataset and to conduct impact evaluations. For the final project, I will ask each student to choose a policy of his/her interest and evaluate the policy. The final score will critically depend on the quality of the final project and assignments (total of 80%).

Disability Statement: This class welcomes students with disabilities. Please contact the instructor to inquire special accommodations.

Tentative Schedule:

See the Table below.

| Week | Lectures |
|------|---|
| 1 | Introduction (Ch 1 and 2) |
| 2 | Causal Inference (Ch 3) Randomized Assignment (RCT, Ch 4) |
| 3 | STATA short review RCT application Matching (Ch 8) |
| 4 | Student presentation: preliminary ideas for the final project Evidence-based policy making |
| - | <i>Chuseok, national holiday (no class on October 1st)</i> |
| 5 | Instrumental Variable (IV, Ch 5) IV application |
| 6 | Difference-in-Difference (DID, Ch 7) DID application |
| 7 | Review session One-on-one meeting for the final project |
| 8 | Quiz (RCT, Matching, IV, DID) |
| 9 | Regression Discontinuity (RD, Ch 6) RD application |
| 10 | Additional topics (Ch 9) |
| 11 | How to choose a method (Ch 11) How to find a dataset (Ch 16) |
| 12 | How to choose a sample (Ch 15) |
| 13 | Student presentation: progress report |
| 14 | Recent developments in Impact Evaluation: Big Data and Machine Learning |
| 15 | Final project (due) One-on-one meeting for feedback |