UNITED NATIONS UNIVERSITY

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Maastricht University

Maastricht Graduate School of Governance

An Introduction to Impact Evaluation of Policies and Programs

Online course

www.maastrichtuniversity.nl/governance

- **INTRODUCTION TO THE COURSE**

Impact Evaluation of Policies and Programs

Overview

In this course you will learn how to conduct a rigorous impact evaluation of a development policy, program or intervention. The course aims to enable participants to understand how to quantify the causal effect of interventions by carefully understanding attribution and the practical applications of methodologies. The course takes you through several steps of conceptualizing an evaluation, understanding the pathways of change, understanding the different methodologies for conducting impact evaluation and choosing the most appropriate methodology given the set of circumstances. You will be introduced to the quantitative techniques of impact evaluation and learn about their weaknesses and strengths and appropriateness to real life evaluation scenarios.

Key Concepts

- Theory of change
- Understanding the counterfactual
- Choosing an impact evaluation design and how to execute

Learning Goals

- Having knowledge of:
  - The pathways of change underlying the causal relationship (linking the intervention to the outcomes)
  - Randomized designs and quasi-experimental designs
  - Software code that can be applied in analysis
- Understanding:
  - How to formulate evaluation questions
  - How to choose a good comparison group that approximates the counterfactual given real life scenarios
  - The strengths and weaknesses of each methodology and when to choose each methodology

- **COURSE OUTLINE**

1. Unit 1: Beginning an impact evaluation
    a. Evaluation questions
    b. Theory of change: how to understand pathways underlying a causal relationship
    c. Need for a credible counterfactual
        i. How to select a comparison group
        ii. Sources of bias
    d. Choosing the research design
2. Standard methods (identification strategies)
    a. Experimental/Randomized methods

b. Quasi-experimental methods
    i. Regression Discontinuity Design
    ii. Differences in Differences
    iii. Matching
3. Other methods
    i. Instrumental variables
    ii. Multifaceted program designs
4. How to implement an impact evaluation
    a. Choosing an impact evaluation method
    b. Sampling and Data collection
    c. Estimations/Analysis

- **LEARNING MATERIALS**

1. Lectures / Video Recordings
    - Lecture slides are provided online
    - There are introductory video recordings for each Unit.

2. Readings

REQUIRED
All methods
Gertler, P. J., Martinez, S., Premand, P., Rawlings, L. B., & Vermeersch, C. M. (2011). Impact Evaluation in Practice. World Bank. https://siteresources.worldbank.org/EXTHDOFFICE/Resources/5485726-1295455628620/Impact_Evaluation_in_Practice.pdf

Schlotter, Martin, Guido Schwerdt, and Ludger Woessmann. (2011). "Econometric methods for causal evaluation of education policies and practices: a non-technical guide." *Education Economics* 19(2): 109-137. http://www.tandfonline.com/doi/abs/10.1080/09645292.2010.511821

Randomized Methods
Glennerster, R., & Takavarasha, K. (2013). *Running randomized evaluations: A practical guide*. Princeton University Press. http://runningres.com

FURTHER READING
Non-technical

White, H. (2009). Theory-based impact evaluation: principles and practice. *Journal of Development Effectiveness*, 1(3), 271-284. http://www.tandfonline.com/doi/abs/10.1080/19439340903114628

Chabrier,J, Hall, T and B. Struhl. (2017). Implementing Randomized Evaluations in Government
Lessons from the J-PAL State and Local Innovation Initiative.

https://www.povertyactionlab.org/sites/default/files/documents/implementing-randomized-evaluations-government.pdf

Ravallion, M. (2009). Evaluation in the Practice of Development. *World Bank Research Observer*, 24(1), 29-53. https://academic.oup.com/wbro/article/24/1/29/1671701/Evaluation-in-the-Practice-of-Development

Technical

Guido W. Imbens and Jeffrey M. Wooldridge (2009) Recent Developments in the Econometrics of Program Evaluation. *Journal of Economic Literature* 47(1), pp. 5-86. https://www.jstor.org/stable/27647134?seq=1#page_scan_tab_contents

Chapter 5.2 on difference in differences; Chapter 6 on regression discontinuity: Angrist, Joshua D. and Jörn-Steffen Pischke. (2008). *Mostly Harmless Econometrics: An Empiricist's Companion*. Princeton University Press.

Difference in Differences: DiTella, Rafael and Schargrodsky, Ernesto. Do Police Reduce Crime? Estimates Using the Allocation of Police Forces after a Terrorist Attack. American Economic Review. 2004. https://www.jstor.org/stable/pdf/10.1086/426041.pdf?refreqid=excelsior%3A45a3262eedb4314996d656f4c8c93177

Matching: Caliendo, Marco, and Sabine Kopeinig. (2008). Some practical guidance for the implementation of propensity score matching. *Journal of Economic Surveys* 22(1): 31-72. http://onlinelibrary.wiley.com/doi/10.1111/j.1467-6419.2007.00527.x/pdf

Regression Discontinuity: Jacob, Robin, Pei Zhu, Marie-Andrée Somers, and Howard Bloom (2012). A Practical Guide to Regression Discontinuity. MDRC. https://www.mdrc.org/sites/default/files/regression_discontinuity_full.pdf
Ludwig, Jens, and Douglas L. Miller. (2007) Does Head Start improve children's life chances? Evidence from a regression discontinuity design. *Quarterly Journal of Economics* 122(1): 159-208.https://academic.oup.com/qje/article/122/1/159/1924719/Does-Head-Start-Improve-Children-s-Life-Chances

Instrumental variables: Angrist, Joshua and Alan Krueger. (2001). Instrumental Variables and the Search for Identification: From Supply and Demand to Natural Experiments. *Journal of Economic Perspectives* 15(4): 69-87. https://www.aeaweb.org/articles?id=10.1257/jep.15.4.69

- **REQUIRED ACTIVITIES**

    1. Introduction videos
        - You are required to watch the introductory video recording for each Unit

    2. Discussion Forum

- You are advised to interact with others on the discussion forum to share ideas and knowledge. Online tutors will also be available to help.

3. Quizzes

   - There is a short quiz for recapping Unit 2.

4. Assignments

   - There are three assignments: for Units 1, 3 and 4. They all contribute towards the overall grade.

5. Final Exam
   - An Oral examination via canvas collaborate. Day and time will be agreed upon with your tutor.

- **GRADING PROCEDURE**

The three assignments (Unit 4) will contribute 20% each towards the final grade. The quiz (Unit 2) will contribute 15% towards the final grade. And the final examination will contribute to 25 % towards the final grade.

- **TIMELINE**

The course content is designed as four weeks content, based on an average workload of 15 hours a week. The course registration will be for 8 weeks, and will be closed after this time period. During these 8 weeks, the time investment by the participant is flexible, and can be done at time convenient to the individual as long as each unit is completed within the the time agreed with the tutor. Below the standard timeline, if you wish to deviate agree on the timeline with the tutor during your first interaction.

Week 1	Registration
Week 2	Unit 1 End of week: Submissions of answers to Unit 1 exercise
Week 3	Unit 2 End of week: Submissions of answers to Unit 2 Quiz
Week 4	Unit 3 End of week: Submissions of answers to Unit 3 exercise
Week 5	Unit 4 End of week : Submissions of answers to Unit 4 assignment
Week 6	Oral exam
Week 7	Recap the materials in case of failed exam

Week 8	Resit assignment deadline and oral exam

- **CONTACT DETAILS**

1. Tutor
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2. Course Coordinator
   Mindel van de Laar, Mindel.vandelaar@maastrichtuniversity.nl

3. ELEUM Coordinator
   Kirsten Haaland. Haaland@merit.unu.edu

4. Student Affairs
   Mieke Drossaert. Mieke.drossaert@maastrichtuniversity.nl

5. Online Course programme manager
   Mindel van de Laar. Mindel.vandelaar@maastrichtuniversity.nl

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