

Humphrey School of Public Affairs
University of Minnesota

PA 5521

Development Planning and Policy Analysis, 4 credits

LEC 2:30-3:45 TTh, HHH 184

LAB 8:15-9:30 F HHH 85

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Office Hours: Wed. 1:00-3:00

Thurs. 4:00-5:30

Sign-up at: <http://tinyurl.com/nt7eygf>

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(Wahed)

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Prerequisite: PA 5031, Empirical Analysis or equivalent.

Course Description:

This course examines the techniques and assumptions of development planning and policy analysis at the national, program and project levels. The course focuses on modeling techniques and policy applications rather than on theory. Students are therefore assumed to have some background in the theories of economic development and to have had previous preparation in quantitative methods. While the focus will be on developing countries, many of the techniques covered will also have applications in the U.S. context.

Learning objectives:

- Provide an introduction to some widely used quantitative modeling techniques.
- Build an appreciation of the promise and pitfalls of quantitative modeling.
- Acquire a specific set of modeling and interpretation skills through hands-on application.
- Develop an ability to describe the macroeconomic context of a country based on an analysis of time series data on major economic variables.
- Learn to conduct financial and social cost-benefit analyses of public and non-profit development interventions and programs.
- Become effective and critical consumers of experimental and non-experimental impact evaluation studies of development programs and interventions

Course Requirements and Grading:

The class format will be lectures with active student participation through comments and questions. Students are therefore expected to do the required readings prior to class and to actively participate in discussion. A weekly lab session is a required part of the class and will be used for hands-on data analysis and empirical applications.

Grading will be as follows:

	<u>% of Grade</u>	<u>Date Due</u>
Project # 1	25%	2/16
Midterm Exam	15%	2/23
Project # 2	35%	4/11
Final Assignment: Review of non-experimental evaluation	25%	5/10

Course website: There is a Moodle 2.8 course website.

Exam and Final Assignment. There will be one take-home open-book, open-notes mid-term exam. The exam will be made available on Friday February 19th at 10am and will be due back on Tuesday February 23rd at 2:00pm. The final assignment is a review of a non-experimental impact evaluation study, which will be due on Tuesday of finals week (5/10) at 5:00pm. Both the mid-term and the final assignment are to be completed individually.

Team Work: Projects 1 and 2 are both team projects. The team will be formed by the instructor using information from an online survey to be filled on Moodle in the first week of class. The survey will elicit information on your abilities along several dimensions and your schedule, as well as suggestions of classmates you wish to work with and ones you cannot work with. One project report is expected from each team. The report should be submitted to the Moodle site no later than midnight on the due date. See “Tips for PA 5521 success” document on the Moodle site.

Workload expectations. According to University policy, undergraduates are expected to spend 3 hours on homework per credit hour per week, on average, in order to achieve an average grade. For this class, that means that 9 hours per week on homework would be expected for undergraduates. Expectations are higher for graduate students.

Extra credit. No extra credit will be allowed in this class.

Missed exams and late work. Missed exams can be made up if the instructor is informed in advance and agrees that the reason for delay is valid. Late work will be marked down at the instructor’s discretion. Students will not be penalized for absence during the semester due to unavoidable or legitimate circumstances. Such circumstances include verified illness, participation in intercollegiate athletic events, subpoenas, jury duty, military service, bereavement, and religious observances. Such circumstances do not include voting in local, state, or national elections. For complete information, please see:
<http://policy.umn.edu/Policies/Education/Education/MAKEUPWORK.html>

Incompletes. This course follows the Humphrey School policy regarding incompletes. An incomplete will only be granted after the instructor and the student have mutually agreed upon a timetable (written contract) for completion of coursework. An incomplete must be requested in advance, and the Humphrey School incompletes form must be filled out.

Disabilities. It is University policy to provide, on a flexible and individualized basis, reasonable accommodations to students who have disabilities that may affect their ability to participate in course activities or to meet course requirements. Students with disabilities are encouraged to contact their instructor early in the semester to discuss their individual needs for accommodations. Accommodations must be arranged in advance. Further information is available from Disabilities Services (230 McNamara Hall).

Electronics in class. You may use your laptop computer in class for note-taking or (rarely) looking up answers to questions that come up in class. You may not use it for checking email or Facebook or anything else. It's very tempting – and also inappropriate, not to mention detrimental to your education. First offenders are asked to turn off the computer for the class. Second offenders are required to keep computers put away for the rest of the semester. Similarly, **cell phones and smart phones** and the like may be kept on and visible by people with small children or similar responsibilities (but tell the instructor); everyone else is expected to keep their electronics out of sight and out of hearing.

Academic integrity. Academic integrity is essential for a positive teaching and learning environment. All students enrolled in this course are expected to complete course-related responsibilities with fairness and honesty. Failure to do so by seeking unfair advantage over others, by misrepresenting someone else's work as your own, or by another kind of scholastic dishonesty can result in disciplinary action, including receiving an F or an N for the course.

Scholastic misconduct is broadly defined as any act that violates the right of another student in academic work or that involves misrepresentation of your own work. Scholastic dishonesty includes, (but is not necessarily limited to): cheating on assignments or examinations; plagiarizing, which means misrepresenting as your own work any part of work done by another; submitting the same paper, or substantially similar papers, to meet the requirements of more than one course without the approval and consent of all instructors concerned; depriving another student of necessary course materials; or interfering with another student's work. Student Conduct Code: http://regents.umn.edu/sites/regents.umn.edu/files/policies/Student_Conduct_Code.pdf

Sexual harassment. "Sexual harassment" means unwelcome sexual advances, requests for sexual favors, and/or other verbal or physical conduct of a sexual nature. Such conduct has the purpose or effect of unreasonably interfering with an individual's work or academic performance or creating an intimidating, hostile, or offensive working or academic environment in any University activity or program. Such behavior is not acceptable in the University setting. For additional information, please consult Board of Regents

Policy: <http://regents.umn.edu/sites/default/files/policies/SexHarassment.pdf>

Equity, diversity, equal opportunity, and affirmative action: The University will provide equal access to and opportunity in its programs and facilities, without regard to race, color, creed, religion, national origin, gender, age, marital status, disability, public assistance status, veteran status, sexual orientation, gender identity, or gender expression. For more information, please consult Board of Regents

Policy: http://regents.umn.edu/sites/default/files/policies/Equity_Diversity_EO_AA.pdf.

Appropriate student use of class notes and course materials: Taking notes is a means of recording information but more importantly of personally absorbing and integrating the educational experience. However, broadly disseminating class notes beyond the classroom community or accepting compensation for taking and distributing classroom notes undermines instructor interests in their intellectual work product while not substantially furthering instructor and student interests in effective learning. Such actions violate shared norms and standards of the academic community. For additional information, please see: <http://policy.umn.edu/Policies/Education/Education/STUDENTRESP.html>.

Resources for Success:

Student Writing Support at the Center for Writing. Student Writing Support provides free writing instruction for all University of Minnesota students – graduate and undergraduate – at all stages of the writing process. They help students develop productive writing habits and revision strategies via in-person consultations. See writing.umn.edu/sws/index.html. It is also possible to submit short papers online to the Student Writing Support page at the Center for Writing and get comments and feedback from experienced writing tutors.

Mental health. As a student you may experience a range of issues that can cause barriers to learning, such as strained relationships, increased anxiety, alcohol/drug problems, feeling down, difficulty concentrating and/or lack of motivation. These mental health concerns or stressful events may lead to diminished academic performance or reduce a student's ability to participate in daily activities. University of Minnesota services are available to assist you with addressing these and other concerns you may be experiencing. You can learn more about the broad range of confidential mental health services available on campus via the Student Mental Health Website at <http://www.mentalhealth.umn.edu>

Course Topics and Schedule

Introduction:

Topic #1 (1/19): Intro to class and “What do we mean by development planning and policy analysis?”

I. Macroeconomic Accounting and Modeling:

Topic #2 (1/21, 1/26, 1/28, 2/2): Review of income and product accounts and the balance of payments.

Lab #1 (1/22): Downloading Data from the World Development Indicators (WDI) Database
<http://data.worldbank.org/data-catalog/world-development-indicators>

Lab #2 (1/29): Analysis of Macroeconomic data using Excel

Lab #3 (2/5): Analysis of Macroeconomic data using Excel and interpreting the results: The Case of the Philippines

Topic #3 (2/4, 2/9): Exchange Rates: Definitions and Significance

Topic #4 (2/11, 2/16, 2/18): Forces Affecting the Real Exchange Rate: External Shocks, stabilization and Trade Policy

Lab #4 (2/12): Calculating Effective, Real and Equilibrium Exchange Rates: The Case of Pakistan

Lab #4 (Contn'd) (2/19) Exchange rates (Contn'd)

II. Project Appraisal and Cost-Benefit Analysis:

Topic #5 (2/23, 2/25, 3/1, 3/3): Cost-Benefit Analysis

Lab #5 (2/26) Example of a Resource Statement: the Carton Project

Lab #6 (3/4): Case Analysis (“Cost-Benefit Analysis of Izbit Khayrallah Urban Upgrading Project”)

Topic # 6 (3/8, 3/10, 3/22): Social Cost Benefit Analysis

Lab #7 (3/11): Case Analysis (Contn'd)

Lab #8 (3/25): Case Analysis (Contn'd)

Topic #7 (3/24) Non-Traded Outputs in Cost-Benefit Analysis

III. Program Impact Evaluation

Topic #8 (3/29, 3/31) Causal Inference and Program Evaluation

Lab #9 (4/1) Case Analysis (Contn'd)

Topic #9 (4/5) Introduction to Program Evaluation Methods: Experimental and Non-Experimental Methods

Topic # 10 (4/7, 4/12) Randomized Evaluations

Lab #10 (4/8) Examples of Randomized Evaluations

Topic #11 (4/14) Regression and Propensity Score Matching Methods

Lab #11 (4/15) Sample size determination for treatment and control groups

Topic # 12 (4/19) Example of Matching Methods

Lab # 12 (4/22) Propensity Score Matching in Practice

Topic # 13 (4/21, 4/26) Difference-in-Difference Methods

Topic 14 Instrumental Variable Methods

Lab# 13 (4/29)
Topic # 15 (5/3, 5/5)

Instrumental Variable Methods
Regression Discontinuity Methods and Conclusion of
Course

Course Readings

Introduction:

Topic # 1: What do we mean by development planning and policy analysis?

Required:

Killick, T. 1976. "The possibilities of Development Planning." *Oxford Economic Papers* 41, 4 (October)

Chowdury, A. and C. Kirkpatrick. 1994. *Development Policy and Planning: An Introduction to Models and Techniques*. London: Routledge. Preface pp. xi-xii, Chap. 1, pp. 1-11

Suggested:

Todaro, M.P. 1981. *Economic Development in the Third World*. 2nd Edition. New York: Longman. Ch. 15: "Development Planning: Theory and Practice."

I. **Macroeconomic Accounting and Modeling:**

Topic # 2: Review of income and product accounts and the balance of payments.

Required:

Ghatak, S., N. Healey and P. Jackson. 1992. *The Macroeconomic Environment*. London: Weidenfeld and Nicolson, pp. 8-34. (Chapter 2: Measuring the Macro-Economy)

Dornbusch, R. 1980. *Open Economy Macroeconomics*. New York: Basic Books. Ch. 2: "Some basic relations." pp. 12-29.

United Nations. 1968. *A System of National Accounts*. Series F, no. 2, rev. 3. New York: United Nations. Ch. 1: 1-16.

You will also need to refer to the following to complete Project # 1:

World Bank. World Development Indicators Database (Available online: <http://data.worldbank.org/data-catalog/world-development-indicators>)
Select series of interest and click on notes to see definition.

Suggested:

Chugh, Sanjay K. 2003. A Short Course in Introductory Macroeconomics.
<http://www.skchugh.com/images/IntroReview.pdf>

Ghatak, S., N. Healey and P. Jackson. 1992. *The Macroeconomic Environment*. London: Weidenfeld and Nicolson. (other chapters, especially part II, III and IV)

Roemer, M. and J. Stern. 1981. *Cases in Economic Development: Projects, Policies, and Strategies*. London: Butterworths. Part II, Report 1, pp. 29-4, Report 3, pp. 49-65

Kennedy, Peter 2000. *Macroeconomic Essentials* 2nd Edition. MIT press.

Taylor, L. 1979. *Macro Models for Developing Countries*. New York: McGraw Hill. Ch. 2: "Numbers for national planning." pp. 12-29.

Wonnacott, T. and R. Wonnacott 1990. *Introductory Statistics for Business and Economics*. New York: John Wiley. Ch. 22: "Index numbers." pp. 664-677.

Topic # 3: Exchange Rates: Definitions and Significance

Required:

Sadoulet, Elizabeth and Alain de Janvry. 1995. *Quantitative Development Policy Analysis*. Baltimore: The Johns Hopkins University Press. Ch. 8, Sections 8.1-8.3 (pp. 214-221) & Exercise 8 (pp. 233-236). Skip Section 8.4 and 8.5 for now.

Topic # 4: Forces Affecting the Real Exchange Rate: External Shocks, Stabilization and Trade Policy

Required:

Helmers, L. 1988. "The Real Exchange Rate," in *The Open Economy: Tools for Policymakers in Developing Countries*, R. Dornbusch and C.H. Helemers (eds), Washington D.C.: Published for the World Bank by Oxford University Press, (Ch. 2), pp. 10-33.

Sadoulet, Elizabeth and Alain de Janvry. 1995. *Quantitative Development Policy Analysis*. Baltimore: The Johns Hopkins University Press. Ch. 8, Sections 8.4 (pp. 221-228). Skip section 8.5.

Suggested:

Dornbusch, R. 1988. "Overvaluation and the Trade Balance," *The Open Economy: Tools for Policymakers in Developing Countries*, pp. 80-107.

Edwards, Sebastian. 1989. *Real Exchange Rates, Devaluations and Adjustment*. Cambridge: MIT Press.

II. Project Appraisal and Cost-Benefit Analysis

Topic # 5: Cost-Benefit Analysis

Required:

Curry, S. and J. Weiss. 1993. *Project Analysis in Developing Countries*. New York: St. Martin's Press, Chs. 1-3.

Roemer, M. and J. Stern 1981. *Cases in Economic Development: Projects, Policies, and Strategies*. London: Butterworths, pp. 79-96.

Suggested:

Squire, L and H. van der Tak. 1975/1992. *Economic Analysis of Projects* Baltimore: Published for the World Bank by Johns Hopkins University Press. Seventh printing 1992. Introduction and Chs 1,2,4. pp. 3-25, pp. 39-46.

Ray, Anavityndarup. 1984. *Cost-Benefit Analysis: Issues and Methodology*. Baltimore: Published for the World Bank by Johns Hopkins University Press.

Little, I. M. D. and J. Mirrlees. 1974. *Project Appraisal and Planning for Developing Countries*. London: Heinman. Chs 1-2, pp. 3-38.

Topic # 6: Social Cost Benefit Analysis and the Use of Shadow Prices

Required:

Curry and Weiss (1993), Ch. 4, pp. 74-91.

Roemer, M. and Stern, J. 1975. *The Appraisal of Development Projects: A Practical Guide to Project Analysis with Case Studies and Solutions*. New York: Praeger Publishers. Ch. 3, pp. 43-77.

Topics # 7 Non-Traded Outputs in Cost-Benefit Analysis

Required:

Curry and Weiss (1993), Ch. 7, pp. 164-182.

Roemer, M. and J. Stern 1981. *Cases in Economic Development: Projects, Policies, and Strategies*. London: Butterworths, pp. 124-130.

Suggested:

Squire and van der Tak (1975/1992), Ch. 7.

III. Program Impact Evaluation

Topic #8 Causal Inference and Program Evaluation

Required:

Ravallion, Martin. 2008. "Evaluation in the Practice of Development." Policy Research Working Paper 4547. The World Bank, Washington DC.

Ravallion, Martin. 2007. "Evaluating Anti-Poverty Programs," In T. Paul Schultz and John Strauss (eds.) *Handbook of Development Economics, Volume 4*. Amsterdam: Elsevier. Read Sections 1-3, pages 3787-3792.

If you find Ravallion (2007) very difficult to follow, I recommend you read the following paper, which is much more accessible and also more entertaining:

Ravallion, Martin. 2001. "The Mystery of the Vanishing Benefits: An Introduction to Impact Evaluation." *The World Bank Economic Review*, 15(1): 115-140.

Topic #9 Introduction to Program Evaluation Methods: Experimental and Non-Experimental Methods

Required:

Ravallion (2007), Sections 3 & 4, pp. 3792-3805.

Revisit Ravallion (2001) in case this seems really tough to follow.

Baker, Judy. 2000. *Evaluating the Impacts of Development Projects on Poverty: A Handbook for Practitioners*. The World Bank, Washington D.C., pp. 1-16.

Suggested:

Asian Development Bank. 2006. *Impact Evaluation: Methodological and Operational Issues*

Topic # 10: Randomized Evaluations

Required:

Khandker, S., G.B. Koolwal, and H. Samad. 2010. *Handbook on Impact Evaluation: Quantitative Methods and Practices*. Washington DC: The World Bank. Chapter 3, pp. 33-52.

Card, David, Pablo Ibarrraran, Ferdinando Regalia, David Rosas, Yuri Soares. 2007. "The Labor Market Impacts of Youth Training in the Dominican Republic: Evidence from a

Randomized Evaluation. NBER Working Paper Series. Working Paper 12883.
<http://www.nber.org/papers/w12883>

Topic #11: Regression and Propensity Score Matching Methods

Required:

Ravallion (2007), Section 5, pp. 3805-3812.

Khandker, S., G.B. Koolwal, and H. Samad. 2010. *Handbook on Impact Evaluation: Quantitative Methods and Practices*. Washington DC: The World Bank. Chapter 4, pp. 53-70.

Topic #12: Example of Matching Methods

Required:

Bensch, G., J. Kluge and Jorg Peters (2011). "Impact of rural electrification in Rwanda"
Journal of Development Effectiveness, 3(4): 567-588

Topic #13: Difference-in-Difference Method

Khandker, S., G.B. Koolwal, and H. Samad. 2010. *Handbook on Impact Evaluation: Quantitative Methods and Practices*. Washington DC: The World Bank. Chapter 5, pp. 71-84.

Gertler, Paul, Harry Patrinos and Marta Rubio-Codina 2008. "Empowering Parents to Improve Education: Evidence from Rural Mexico." World Bank Policy Research Working Paper 3935. The World Bank, Washington DC.

Topic # 14: Application of Instrumental Variable Method

Khandker, S., G.B. Koolwal, and H. Samad. 2010. *Handbook on Impact Evaluation: Quantitative Methods and Practices*. Washington DC: The World Bank. Chapter 6, pp. 87-102.

Attanasio O. and M. Vera-Hernandez. 2004. "Medium and Long-Run Effects of Nutrition and Child Care: Evaluation of a Community Nursery Program in Rural Colombia." Evaluation Working Paper 04/06. Center for Evaluation of Development Policies, the Institute for Fiscal Studies.

Topic #15:**Regression Discontinuity Method**

Khandker, S., G.B. Koolwal, and H. Samad. 2010. *Handbook on Impact Evaluation: Quantitative Methods and Practices*. Washington DC: The World Bank. Chapter 7, pp. 103-114.

Ozier, Owen. 2015. "The Impact of Secondary Schooling in Kenya: A Regression Discontinuity Analysis. Policy Research working Paper #7384. The world Bank, Washington DC.