UCONN | COLLEGE OF LIBERAL ARTS AND SCIENCES

COMMITTEE ON CURRICULA AND COURSES

Proposal to Add a New Graduate Course

Last revised: September 24, 2013

1. Date: April 8, 2014
2. Department requesting this course: Public Policy
3. Semester and year in which course will be first offered: Spring 2015

Final Catalog Listing

Assemble this after you have completed the components below. This listing should not contain any information that is not listed below!

PP 5314. Casual Program Evaluation
3 credits. Seminar.

This course will provide the student with the advanced methods and tools used for causal program evaluation. This course is an MPA capstone option. This course is cross-listed with ECON 5314.

Items Included in Catalog Listing

Obligatory Items

1. Abbreviation for Department, Program or Subject Area: PP
2. Course Number: 5314
3. Course Title: Casual Program Evaluation
4. Number of Credits (use digits, "3" not "three"): 3
5. Course Description (second paragraph of catalog entry):
6. Course Type, if appropriate:
   __Lecture __ Laboratory _X_ Seminar __ Practicum

Optional Items

7. Prerequisites: None.
8. Recommended Preparation: None.
9. Consent of Instructor: Not Required.
10. Exclusions: None.
11. Repetition for credit: None.
12. S/U grading: A-F Graded

Justification

1. Reasons for adding this course:
The Master of Public Administration (MPA) program recently completed a curriculum review. The review affirmed the need for all students to have an option for a capstone course that provides advanced causal program evaluation techniques. The other option for students is the Applied Management Project. Students in the MPA program can decide to take either of these courses as their capstone option.

2. Academic merit:
The course is important for students studying in the MPA program as part of their capstone requirement. It is also a cross-listed course with the Department of Economics.

3. Overlapping courses: None
4. Number of students expected: about 20
5. Number and size of sections: 1 section
6. Effects on other departments: Proposal of cross listing this course with the Department of Economics.
7. Staffing: Staffing for the course will be provided by the Department of Public Policy. No new staff is necessary to offer this course.
8. Dates approved by
   Department Curriculum Committee:
   Department Faculty:
9. Name, Phone Number, and e-mail address of principal contact person:

Ken Dautrich
860-570-9090
K.Dautrich@uconn.edu

Syllabus

A syllabus for the new course must be attached to your submission email.

Additional Approval

New graduate courses must also be approved by the Graduate Faculty Council.

University of Connecticut
Department of Public Policy

Causal Program Evaluation

Spring 2012 | PP 5322 | LB 403
Thursdays 4:00-6:30pm

Instructor: Eric Brunner
Office: Library, Room 431
Phone: (860) 570-9282
Email: eric.brunner@uconn.edu
Office Hours: T & TH 3:00 – 4:00.

Course Description:
This course surveys the statistical methods and tools commonly used in program evaluation. The primary objective of the course is to learn how to evaluate causal claims about the impact of public policies and programs. The course will be structured around a series of projects and problem sets that require students to apply the tools they learn in class to evaluate public policies and programs. Lectures will complement the problem sets and projects by providing the link between behavioral theory, statistical theory, and actual program evaluation. The course will survey the various techniques used in making causal inferences about the impact of public policies and interventions. Specific topics include, randomized field trials, panel data analysis, difference-in-differences, instrumental variables, regression discontinuity designs and propensity score matching.

Required Texts:
Murnane, R. and Willet J. (2010). Methods Matter: Improving Causal Inference in Educational and Social Science Research, Oxford University Press.

Morgan, S. and Winship, C. (2007). Counterfactuals and Causal Inference: Methods and Principles for Social Research, Cambridge University Press.

Supplemental Texts:
In addition to the required textbooks, the following books contain chapters that will be discussed in class at various times and may be of interest to many students.

Angrst, J. and Pischke, J. (2009). Mostly Harmless Econometrics, Princeton University Press.

Pirog, M. (Ed.). (2008). Journal of Policy Analysis and Management Classics Series: Social Experimentation, Program Evaluation, and Public Policy. Hoboken, NJ: Wiley-Blackwell.

Additional readings will also be assigned throughout the semester and will be made available through HuskyCT. In addition, a set of class notes that follow the material presented in class will be made available on HusyCT.

Requirements:
Course grades will be based on: (1) two exams, (2) a series of problem sets, and (3) class participation/debate. The relative weight assigned to each of these in the determination of course grades is:

	% Of Course Grade
Exams	50% (25% each)
Problem Sets	40%
Participation/Debate	10%

Problem Sets:
A number of problem sets or projects, which supplement lectures and readings in the text, will be assigned during the semester. These assignments are designed to familiarize you with the statistical techniques covered in the course and re-enforce course material. In addition, problem sets and projects will provide you the opportunity to conduct actual program evaluations. All assignments will require extensive use of STATA.

Participation/Debate:
Students are expected to actively contribute to class discussions. In addition, students will be expected to contribute to class debates on various topics related to the course material.

Academic Honesty and Integrity:
Students are expected to undertake all assignments with honesty and integrity as detailed in the University of Connecticut's Responsibilities for Community Life: The Student Code. Violations of this policy can result in severe penalties.

Accommodations for Students with Disabilities:
The University of Connecticut recognizes that each student learns differently. Consequently, the University of Connecticut complies with Section 504 of the 1973 Rehabilitation Act and the Americans with Disabilities Act (ADA) of 1990. Students who wish to disclose a disability must make their request by contacting the Center for Students with Disabilities.

Course Overview

1. Overview of Causal Inference

Topics:
Introduction to the methods and techniques used in making causal inferences. Topics include the role of theory in causal policy analysis, an overview of modern techniques for causal inference, introduction to the counter factual model.

Readings:
- Murnane and Willet, Chapters 1-3.
- Morgan and Winship, Chapters 1-2.
- Pirog, The State of Social Experimentation and Program Evaluation (pages 3–14).

2. Randomized Experiments

Topics:
Randomized experiments and their link to causal inference, how randomization solves the selection problem, conducting randomized field trials.

Readings:
- Murnane and Willet, Chapters 4-5.
- Pirog, M. A. (2009). The role of random assignment in social policy research. Journal of Policy Analysis and Management, 28(1), 164-165.
- Chetty, R., Friedman, J. N., Hilger, N., Saez, E., Schanzenbach, D. W., & Yagan, D. (2011). How does your kindergarten classroom affect your earnings? Evidence from Project STAR. *The Quarterly Journal of Economics*, 126(4), 1593-1660.
- Heckman, J.J., Moon, S.H., Pinto, R., and Savelyev, P.A. and A. Yavitz. 2010. The Rate of Return to the HighScope Perry Preschool Program. *Journal of Public Economics* 94 (1-2): 114-128.
- Glazerman, S., Mayer, D., & Decker, P. (2006). Alternative routes to teaching: The impacts of Teach for America on student achievement and other outcomes. *Journal of Policy Analysis and Management*, 25(1), 75-96.
- Bertrand, M. & Mullainathan, S. (2004). Are Emily and Greg more Employable than Lakisha and Jamal? A Field Experiment on Labor Market Discrimination. *American Economic Review*, 94(4), 991-1013.

3. Regression Estimators of Causal Effects

Topics:
Review of multivariate regression analysis with a focus on causal inference, conditional independence assumption (selection on observables), omitted variables bias formula.

Readings:
- Morgan and Winship, Chapter 5.
- Schneider, B., Carnoy, M., Kilpatrick, J., Schmidt, W. H., & Shavelson, R. J. (2007). Estimating Causal Effects using Experimental and Observational Designs (report

from the Governing Board of the American Educational Research Association Grants Program). Washington, DC: American Educational Research Association.
- Bitler MP, Currie J. (2005). Does WIC Work? The Effects of WIC on Pregnancy and birth Outcomes. *Journal of Policy Analysis and Management*, 24(1): 73-91

4. Matching Estimators of Causal Effects

Topics:
Matching techniques including motivation for matching, propensity score methods, alternative matching algorithms.

Readings:
- Morgan and Winship, Chapter 4.
- Schneider, B., Carnoy, M., Kilpatrick, J., Schmidt, W. H., & Shavelson, R. J. (2007). Estimating Causal Effects using Experimental and Observational Designs (report from the Governing Board of the American Educational Research Association Grants Program). Washington, DC: American Educational Research Association.
- Diaz, J. J., & S. Handa. (2006). An Assessment of Propensity Score Matching as a Nonexperimental Impact Estimator: Evidence From Mexico's PROGRESA Program. *Journal of Human Resources*, 41(2), 319-345.
- Marco Caliendo and Sabine Kopeinig. 2008. Some Practical Guidance for the Implementation of Propensity Score Matching. *Journal of Economic Surveys*, Vol. 22, No. 1, pp. 31–72.
- Elizabeth Ty Wilde and Robinson Hollister. 2007. How Close is Close Enough? Evaluating Propensity Score Matching Using Data from a Class Size Reduction Experiment. *Journal of Policy Analysis and Management*, Volume 26 Issue 3: 455 - 477

5. Instrumental Variable Estimators of Causal Effects

Topics:
Introduction to instrumental variables estimation, instrument validity, two-stage least squares, local average treatment effects (LATE).

Readings:
- Murnane and Willet, Chapters 10-11.
- Morgan and Winship, Chapter 7.
- Dee, T. S. (2004). Are There Civic Returns to Education? *Journal of Public Economics*, 88(9-10), 1697-1720.
- Abdulkadiroğlu, Atila, Joshua Angrist, Susan Dynarski, Thomas Kane and Parag Pathak. 2011. Accountability and Flexibility in Public Schools: Evidence from Boston's Charters and Pilots. *The Quarterly Journal of Economics* 126(2): 699-748. (Lotteries).
- Dobbie, W., Fryer, R. G., & Fryer Jr, G. (2011). Are high-quality schools enough to increase achievement among the poor? Evidence from the Harlem Children's Zone. *American Economic Journal: Applied Economics*, 3(3), 158-187. (IV and Lotteries).

- Leigh, A., & Ryan, C. (2008). Estimating returns to education using different natural experiment techniques. *Economics of Education Review*, 27(2), 149-160. (IV).

6. Causal Inference Using Natural Experiments and Regression Discontinuity Designs

Topics:
Overview of natural experiments, using natural experiments to mimic randomized experiments.

Readings:
- Murnane and Willet, Chapters 8-9
- Papay, J. P., Murnane, R. J., & Willett, J. B. (2010). The consequences of high school exit examinations for low-performing urban students: Evidence from Massachusetts. *Educational Evaluation and Policy Analysis*, 32(1), 5-23.
- Ludwig, J. & Miller, D. (2007). "Does Head Start Improve Children's Life Chances? Evidence from a Regression Discontinuity Design," *Quarterly Journal of Economics*, 122(1), 159-208.
- Cellini, Stephanie, Fernando Ferreira and Jesse Rothstein. 2010. The Value of School Facility Investments: Evidence from a Dynamic Regression Discontinuity Design. *Quarterly Journal of Economics* 125(1): 215–261.

7. Repeated Observations and the Estimation of Causal Effects

Topics:
Panel data estimation techniques, fixed effects, difference-in-differences.

Readings:
- Morgan and Winship, Chapter 9.
- Curry J., Thomas, D. (1995). Does Head Start Make a Difference?, *American Economic Review*, 85:3, 341-364. (Fixed Effects)
- Sass, T. 2006. Charter Schools and Student Achievement in Florida, *Education Finance and Policy* 1: 91-122. (Fixed Effects)
- Dynarski, S. M. (2003). "Does Aid Matter? Measuring The Effect Of Student Aid On College Attendance And Completion." *The American Economic Review*, 93(1), 279-288. (Difference-in-Differences).
- Neilson, Christopher and Seth Zimmerman. 2013. The Effect of School Construction on Test Scores, School Enrollment, and Home Prices. Working Paper. Yale University.