

Syllabus
Research Methodology
PUBL 600

UMBC School of Public Policy
Fall 2017
Tuesdays 7:10– 9:40PM
Room: PUP 438

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Blackboard and UMBC Email:

I use Blackboard to post class materials and to send emails to the class. Emails sent via Blackboard will go to your UMBC email account. If you use another email as your primary account, you have the option of automatically forwarding your UMBC email to that account.

Contacting Me:

Email is the best way to get in touch with me to set up an appointment or ask a question.

Campus Text Message Alert System:

It is a good idea to subscribe to UMBC's cell phone alert system. This system will send you a text message in the event of an emergency or class cancellations due to weather or other circumstances. You can sign up at <http://my.umbc.edu/go/alerts>

Disability Accommodations:

Should you need services or accommodations due to a disability to fully participate in class, please speak with me or contact the Office of Student Support Services at <http://sss.umbc.edu/>

Course Description

Research provides the foundation for informed public policy making. This class is designed to provide you with an introduction to research methodology, from the basics of research design to advanced methods for causal inference. This course provides a foundation for further study of research methodology. By design, many topics will be covered at a foundational level; however, by the end of the course you will be prepared to evaluate the quality of existing research and propose studies of your own to address questions of interest. This course is designed to allow you to both understand and perform important research techniques. For instance, we will not only study sampling and understand the value of different types of sampling, but we will also learn how to implement sampling techniques through statistical software.

Course Objectives

By the end of this course you should be able to:

- Distinguish between and identify different approaches to public policy research (quantitative/qualitative, descriptive/causal, theory testing/theory forming, etc.) and discuss when they are or are not appropriate for a research question
- Relate public policy research to public policy making and implementation
- Identify the steps in the research process and their purpose
- Understand and apply appropriate approaches to technical issues such as sampling, measurement, and study validity
- Evaluate existing research for the merits of its research design
- Design a research plan for addressing questions of interest
- Access and perform basic data cleaning tasks of quantitative data in Stata
- Identify key ethical issues in conducting research and be able to discuss their importance

Course Requirements

Attendance and participation are essential components for your success in this class. I expect students to attend all classes, be punctual, and come to class having completed readings and assignments. You are allowed to miss one class without penalty. Any unexcused absences beyond that will result in a 5% deduction of your final grade. In either case, please let me know before class if you cannot be in attendance.

Student learning will be assessed through several assignments. Most weeks, students will complete a “journal assignment” in which they read a primary research article identifying and evaluating components of its methodology. Some weeks, students will apply the concepts taught to actual data through “Stata exercises”. Cumulative learning will be assessed through exams. Finally, the culminating course project involves the development of a research proposal. Course assignments and their respective percentage of the course grade are shown below:

Journal assignments	20%
Stata exercises	20%
Mid-term exam	15%
Final exam	15%
Research proposal	30%

Readings

The primary readings for this course include textbook chapters and primary journal articles. Journal articles will generally be available through Blackboard.

Remler, Dahlia K. and Gregg Van Ryzin (2014). *Research Methods in Practice: Strategies for Description and Causation*. Thousand Oaks, CA: Sage Publications.

Software

As policymakers, policy analysts, and researchers it is important that you not only understand the core components of research design but that you can also apply them in your work. To this end, I will be incorporating a basic introduction to data analysis into the course. This way, you will not only know why a random sample is useful but you will be able to generate a random sample of school districts, hospitals, cities, or some other unit of analysis. We will conduct data analysis in Stata. You can purchase a student version of Stata (<http://www.stata.com/order/new/edu/gradplans/student-pricing/>) or utilize Stata on the lab computers on campus. I recommend at least Stata IC to accommodate larger numbers of variables and observations. Do NOT purchase Stata Small as it is insufficient to conduct analyses for this and future courses. While purchasing Stata may be beneficial for future classes (statistics, for example) and for your own professional work, all of the Stata assignments for this course are designed to be completed in one sitting, typically under an hour, allowing you to use the lab computers if you choose not to purchase the software.

Grading Scale:

93 to 100 A
90 to <93 A-
87 to <90 B+
83 to <87 B
80 to <83 B-
77 to <80 C+
73 to <77 C
70 to <73 C-
67 to <70 D+
63 to <67 D
60 to <63 D-
<60 Not passing

Note: I may change components of this syllabus (timing, assignments, readings) as necessary to meet the interests of students, time constraints of the class, or pedagogical need.

Week	Topic	Readings	Homework Due
1 (Jan 31st)	Introduction to Research Course overview and introductions Defining research Quantitative vs. qualitative Descriptive vs. causal Methods matter	Readings <ul style="list-style-type: none"> • Remler and Van Ryzin: Chapter 1 “Research in the Real World” pages 1-16 	
2 (Feb 7th)	Anatomy of a Research Proposal/Report Policy problems versus areas Topic Purpose Problem Question Sections of a Research Report Literature Reviews	<ul style="list-style-type: none"> • Remler and Van Ryzin: Chapter 17 Pages 530-543 • Curran, F. C., & Kellogg, A. T. (2016). Understanding Science Achievement Gaps by Race/Ethnicity and Gender in Kindergarten and First Grade. <i>Educational Researcher</i>, 45(5), 273-282. • Curran, F. C. (2016). The State of Abstracts in Educational Research. <i>AERA Open</i>, 2(3), 1-9. 	Journal Assignment #1 - Curran
3 (Feb 14th)	Ethics of Research Tuskegee Syphilis Stanford prison experiment LaCour Belmont Report IRB	<ul style="list-style-type: none"> • Remler and Van Ryzin: Chapter 1 pages 17-20 • New Yorker: How a gay-marriage study went wrong • Irregularities in LaCour: pages 1-3 • Belmont Report 	Research Proposal: Problem statement

4 (Feb 21st)	Theoretical Frameworks and Causal Models Theories Models Variables (independent, dependent, mediator, moderator)	<ul style="list-style-type: none"> • Remler and Van Ryzin: Chapter 2 “Theory, Models, and Research Questions” • Drake, T. A. (2014). The Effect of Community Linguistic Isolation on Language-Minority Student Achievement in High School. <i>Educational Researcher</i>, 43(7), 327-340. 	Journal Assignment #2 - Drake
5 (Feb 28th)	External Validity and Sampling Population versus sample Generalizability Non-probability sampling Probability sampling (random sample, stratified, clustered) Oversampling Weighting	<ul style="list-style-type: none"> • Remler and Van Ryzin: Chapter 5 “Sampling” 	Stata Exercise 1 – Opening data Research Proposal – Annotated bibliography
6 (March 7th)	Measurement Conceptualization and operationalization Scales Latent versus manifest variables Validity versus reliability Categorical versus continuous variables	<ul style="list-style-type: none"> • Remler and Van Ryzin: Chapter 4 “Measurement” • Fox, L., Wimer, C., Garfinkel, I., Kaushal, N., & Waldfogel, J. (2015). Waging war on poverty: Poverty trends using a historical supplemental poverty measure. <i>Journal of Policy Analysis and Management</i>. 	Journal Assignment #3 - Fox Stata Exercise 2 - Sampling

7 (March 14)	Secondary Data Analysis Structures of data Levels of data Time dimensions of data Data sources	<ul style="list-style-type: none"> • Remler and Van Ryzin: Chapter 6 “Secondary Data” • www.icpsr.umich.edu 	Stata Exercise 3 – Variable types (continuous, binary, categorical) and generating new variables Research Proposal: Literature review
Spring Break – No Class			
8 (March 28)	Mid-Term Exam		
9 (April 4th)	Internal Validity Causation versus correlation Requirements Bias and endogeneity Experiments	<ul style="list-style-type: none"> • Remler and Van Ryzin: Chapter 11 “Strategies for Causation” 	
10 (April 11th)	Randomized Experiments	<ul style="list-style-type: none"> • Remler and Van Ryzin: Chapter 14 “Randomized Experiments” • Taubman, S. L., Allen, H. L., Wright, B. J., Baicker, K., & Finkelstein, A. N. (2014). Medicaid increases emergency-department use: evidence from Oregon's Health Insurance Experiment. <i>Science</i>, 343(6168), 263-268. 	Journal Assignment #4: Taubman Stata Exercise 4: Measures of variables (mean and standard deviation and graph)

11 (April 18th)	Correlational Studies Linear regression with control variables	<ul style="list-style-type: none"> • Remler and Van Ryzin: Chapter 12 “Observational Studies” • Remler and Van Ryzin: Chapter 13 “Using Regression to Estimate Causal Effects” • Claessens, A., Engel, M., & Curran, F. C. (2015). The effects of maternal depression on child outcomes during the first years of formal schooling. <i>Early Childhood Research Quarterly</i>, 32, 80-93. 	Journal Assignment #5: Claessens
12 (April 25th)	Quasi-experiments Diff-in-Diff	<ul style="list-style-type: none"> • Remler and Van Ryzin: Chapter 15 “Natural and Quasi Experiments” • Long, B. T. (2004). How do financial aid policies affect colleges? The institutional impact of the Georgia HOPE scholarship. <i>Journal of Human Resources</i>, 39(4), 1045-1066. 	Journal Assignment #6: Long Stata Exercise 5: Regression
13 (May 2nd)	Quasi-experiments Regression discontinuity	<ul style="list-style-type: none"> • Remler and Van Ryzin: Chapter 15 “Natural and Quasi Experiments” • Jacob, Zhu, Somers, & Bloom. (2012). A Practical Guide to Regression Discontinuity. MDRC. Read pages 1- 17 	
14 (May 9th)	Qualitative and Mixed-Methods Research Qualitative versus quantitative	<ul style="list-style-type: none"> • Remler and Van Ryzin: Chapter 3 “Qualitative Research” 	Journal Assignment #7: DeLuca

	Purposive sampling Interviews, focus groups, ethnography Coding qualitative data	<ul style="list-style-type: none"> DeLuca, S. All over the map: Explaining the educational outcomes of the Moving to Opportunity program. 	Research Proposal: Proposed data and methods section
15 (May 16 th)	Research Proposal Presentations		Stata Exercise 6: Diff-in-Diff
Exam Week	Final Exam Released: May 16 th Due: May 20 th		Research Proposals Due: May 22 nd