#### Advanced Research Methods – Winter/Spring 2022

Masters in Social Science, Carlos III University

Mondays 10:30-13:30. Room 18.1.A01

Part I: Robert M. Fishman Part II: Ilona Lahdelma

This course provides Masters students with an opportunity to familiarize themselves with both the underlying methodological logic and many of the practical challenges associated with two important components of contemporary social research methodology: qualitative methods and experimental methods. Both of these approaches are often deployed in combination with other research strategies as part of a more broadly multi-method strategy for pursuing the advance of social science knowledge. The course will involve both assigned readings and practical exercises. It is intended to assist Masters students with their current research – especially in the context of their MA theses – and future research plans. The course is divided into two halves. The first part, taught by Robert Fishman, concentrates on qualitative research methods with an emphasis on qualitative interviewing and both case study and comparative approaches. The second part, taught by Ilona Lahdelma, will focus on experimental design and methods. Those students enrolled in the class are expected to take both segments; doing so will broaden their research capabilities in ways that are likely to prove highly valuable. Course requirements include attendance and participation in class and written assignments that are indicated in the syllabus. The course grade will be divided 50/50 between the two parts of the course. Within each half course the grade will be divided equally between attendance and participation on the one hand and written work on the other hand.

Part I: Qualitative and Multi-Method Research. The Search for Mechanisms, Causal Processes and Understanding. Qualitative Interviews. Ethnographic Observation. Case Study and Comparative Research. Historical Approaches.

Week 1: The Place of Qualitative Research in Social Science Methodology: A Complement to Quantitative Work in Multi-Method Designs, an Alternative to Quantitative Research or Simply a Lack of Rigor? The Relevance of Qualitative Methods for Causal Inference.

Reading: Henry Brady and David Collier, *Rethinking Social Inquiry: Diverse Tools, Shared Standards.* Chapters 1, 12 & 13. (Co-authored by Brady, Collier and Jason Seawright).

Week 2: The Rationale for Case Studies and for Comparative Approaches. Contrasts with the Logic of Large N Quantitative Analysis.

Reading: *Rethinking Social Inquiry*: Chapters 8 (authored by Charles Ragin) and 9 (authored by Timothy McKeown).

Week 3: Qualitative Fieldwork. Lessons from the Research of Liesselotte Viaene. Discussion to be Led by Prof. Viaene.

Week 4: The Rationale for In-Depth Qualitative Interviewing: The Search for Causal Mechanisms, Anthropological Understanding and Case Knowledge Unavailable in Written Texts. Historical Reconstruction and Anthropological Understanding through Interviewing: Practical Lessons.

Reading: Mario Luis Small, "How Many Cases Do I Need?". Ethnography, 2010 V10(1): 5-38.

Class will focus primarily on a practical discussion of how and why to do qualitative interviewing.

# Week 5: Comparative and Historical Research Designs. Paired Comparisons, Natural Experiments and Critical Junctures.

Reading: Sidney Tarrow, "The Strategy of Paired Comparison: Toward a Theory of Practice", *Comparative Political Studies*, 2010. V43: 230-259. David Collier and Gerardo Munck, "Symposium on Critical Junctures and Historical Legacies", *Qualitative and Multi-Method Research*. Spring 2017. 15(1).

Assignment: Write a two to three-page paper proposing a design for comparative or case study research. Your design may be historical in nature but that is not necessary. Please explain the rationale for the design you propose.

# Week 6: Workshop on Qualitative Methods: Discussion of Student Proposals for Using Qualitative Methods.

Assignment: Write a draft proposal of three to five pages in length for the use of qualitative interviews. Proposals should include an explanation of the general objectives of your study, your rationale for doing qualitative interviewing and approximately ten sample questions.

For the workshop discussion, students may choose to circulate and discuss in class either assignment: their design for case study or comparative research – or their proposal for qualitative interviewing. In any case the submission of both written assignments is required.

### Part II: Experimental Methods

Does anticipation of a tax audit make you pay your taxes? Does the smell of home-baked bread make people more likely to buy a house? Do gender quotas increase female representation? These are just some of the questions that experimental research designs might help us to answer. While experimental methods are seen as the "gold standard" in social science research, it does not come without its own hazards to navigate.

This part of the course aims to familiarize students with the basic concepts, toolkit, and things to watch out for while designing and implementing experimental research in the social sciences. Part II of the course consists of two levels: we address both the theoretical need for experimental research as well as the hands-on coding and problem solving of the research process.

At the end of this part of the course students will plan their own experimental study design and present it to their classmates.

Required materials:

All slides and code will be provided, so students only need to come with basic understanding of statistical analysis. Students need to have the latest version of R downloaded to their laptops and come with their laptops to class. The course will mainly follow the book "Field Experiments" by Gerber and Green (2012). It is not a prerequisite to have read the book, but students are encouraged to consult the book throughout the course. On weeks 2,3,4, and 5 we will read and replicate a published journal article using experimental methods. The used paper will be announced on the previous week. The code for each week will be uploaded prior to the lesson to Aula Global.

Prerequisites

Introduction to statistics.

### Objectives

Successful students will have an understanding at the end of the course about

- Why experimental analysis is used in the social sciences

- What types of research questions and problems lend themselves to experimental analysis
- The main stages of the experimental research design process
- The main stages of data management and analysis
- How reliable experimental estimates can be
- The main hurdles and shortcomings of experimental designs

Part II Course structure:

Typically, the first half of each session (1,5 hours) focuses on the how and why of experimental methods while the second half (1,5 hours) will involve a lab session for replication of existing research for learning coding skills.

Assessment:

Continuous evaluation of class participation (50 %) and final project (50 %)

Course Policies

**During Class** 

Please refrain from using computers for anything but activities related to the class.

Attendance Policy

Attendance is expected in all lecture and lab sections. Valid excuses for absence will be accepted before class. In extenuating circumstances, valid excuses with proof will be accepted after class.

### Schedule and weekly learning goals

The schedule is tentative and subject to change. The learning goals below should be viewed as the key concepts you should grasp after each week, and also as a study guide.

### Week 7 Why experiments? Introduction to the potential outcomes framework

- Understand why experimental methods are needed and how they can help us
- Learn basic notation and the potential outcome framework
- Learn to read experimental research publications

### Week 8 Sampling, randomization, statistical inference, and statistical power

- Learn what an optimal sample and randomization procedure is like
- Learn to draw inferences from the data
- Learn the code for randomization inference and power calculations

#### Week 9 Analyze as you randomize: Blocking, clustering, weighting, and covariates

- Learn how to build in population parameters to your research design
- Learn to use covariates to increase precision
- Learn to code weights

### Week 10 Dealing with complications: Non-compliance, attrition, and spill-over effects

- Understand the risks different forms of attrition pose to inferences
- Ways to overcome issues of non-compliance with the experimental condition
- Ways to overcome spillover effects between experimental units
- -

### Week 11 Designing and executing experiments: field-experiments vs. lab-experiments

- Understanding the difference between field and lab experiments and knowing when to apply each
- Understanding how the research questions drives the design
- Understanding the pitfalls of heterogeneous treatment effects and subgroup analysis

# Week 12 Quasi-experimental methods: when randomized trials are not possible + Final presentations

- Learn about applying the experimental mindset to observational data
- Present own research project