Behavioral Science in the Field
Course Syllabus

A novel graduate course in Kenya providing an interdisciplinary approach to Behavioral Science, with three tracks in economics, political science, and social psychology, and training in the full cycle of lab-in-the-field research, including fieldwork, open science, design, data collection, and analysis.

KELLY ZHANG & CHANING JANG / JANUARY 2020*

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Suggested Citation: Zhang, Kelly and Chaning Jang. 2020. “Behavioral Science in the Field Course Syllabus.” Massachusetts Institute of Technology Governance Lab (United States) and Busara Center for Behavioral Economics (Kenya).

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Location: Nairobi, Kenya
Dates: Pilot course — January 5, 2020 - January 31, 2020

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MIT GOV/LAB is a group of political scientists focusing on innovation in citizen engagement and government responsiveness. MIT GOV/LAB is based in the Political Science Department of the Massachusetts Institute of Technology (https://mitgovlab.org/).

Busara Center for Behavioral Economics is an organization that works with researchers and organizations to advance and apply behavioral science in pursuit of poverty alleviation. (https://www.busaracenter.org/).

The pilot course was made possible with generous support from MIT's J-WEL Grant in Higher Education Innovation and MITx Express Exploration Grant, and core contributions from Busara and MIT GOV/LAB.
Course Overview

The Behavioral Science in the Field Course is a collaboration between The Massachusetts Institute of Technology Governance Lab (MIT GOV/LAB) and the Busara Center for Behavioral Economics, to train graduate students from the U.S. and local universities in East Africa in cutting-edge behavioral science research. Conducted in Kenya, the course is structured as an intensive deep dive into interdisciplinary behavioral science and provides students the opportunity to develop novel behavioral science games to answer research that will result in data collection.

In recent years, behavioral sciences, or ways to better understand determinants of human behavior, have emerged as a leading innovation across disciplines and sectors. These novel methods and data allow us to measure what incentivizes individual and group behavior to inform numerous interventions; for example, targeted online marketing, incentives for healthier eating, improved educational pedagogy, enhanced community policing protocols, effective policy design for compliance with public health ordinances or paying taxes. Lab in the field experiments, in particular, are one of the gold standards to test behavior using a method that most closely resembles real life. Training in behavioral sciences is a critical skill for students to master from across disciplines and is one of the most exciting developments for bridging the gap between theory and practice with proven potential to achieve real-world impacts.

The course will provide students with practical experience in implementing a lab in the field experiment. To encourage innovative thinking beyond disciplinary boundaries, the course will be open to PhD students in the social sciences more broadly (e.g. political science, economics, business, psychology).

Goals

Graduate students participating in the course will gain hands-on experience in designing and implementing behavioral games in the lab, and come away with a novel behavioral game and data for an academic publication. At the end of this course, students will be able to:

- Identify and recognize the fundamental assumptions/premises of different disciplines
- Judge and assess the appropriate tools to tackle research question
- Combine inductive and deductive learning in the development of research questions
- Develop original research questions that are meaningful to the local context
- Recognize and respect the perspective of the research subject in the research process
- Design a novel lab experiment or behavioral measure
- Plan a well-designed and well-implemented lab in the field project
- Develop productive and long-lasting relationships between disciplines and cultures
Outputs

- Original research question
- Lab protocol for new game
- Pre-analysis plan
- Descriptive summary and pre-analysis plan results
- Blog post

Expert Mentoring

The course is designed with comprehensive mentoring and iterative feedback sessions throughout the course with disciplinary and topic experts. Experts from economics, social psychology, and political science included in the pilot:

Guest speakers:

- Joshua Dean, University of Chicago
- Alexandra Scacco, WZB Berlin and Shana Warren, New York University
- Daniel Posner, University of California Los Angeles

Pre-analysis plans and game design:

- Macartan Humphreys, Columbia University and WZB Berlin
- Alexandra Scacco, WZB Berlin

Issue area experts:

- Amanda Robinson, Ohio State University
- George Ofosu, London School of Economics
- Johannes Haushofer, Princeton University
- Joshua Dean, University of Chicago
- Lorenzo Casaburi, University Zurich
- Julian Dyer, University of Toronto
- Catherine Thomas, Stanford University
Schedule

June-October 2019 - Recruitment
- Recruitment and application stage for PhD students in the U.S. and East Africa

January 2020 - Course and Fieldwork Intensive

Week 1 – Literature: (Location: Busara, Nairobi, Kenya)
Seminars on experiments in economics, political science, and social psychology.
- Behavioral Economics (Chaning Jang, Nathanial Peterson)
- Social Behavior (Rebecca Littman)
- Political Behavior (Kelly Zhang)
- Guest speaker call-ins (Joshua Dean, Alexandra Scacco, Shana Warren, Daniel Posner)
- Student presentations on research interests
- Common tools in behavioral science experiments
- Busara lab session to participate in common lab games

Week 2 - Contextualize: (Location: Field Site)
Exploratory fieldwork to refine research questions.
- Visit to fieldsite in Kenya for focus groups and interviews
- Best practices for contextualizing games and qualitative research
- Best practices for field research and research ethics

Week 3 – Design: (Location: Busara, Nairobi, Kenya)
Develop novel experiments using open science tools.
- Students propose an original research question and design
- Initial draft of pre-analysis plan
- Initial draft of lab protocol
- Game programming for pilot
- Office hours with course facilitators, lab staff, and issue area experts

Week 4 - Pilot: (Location: Busara, Nairobi, Kenya and Field Site)
Pilot new behavioral game and finalize research design.
- Students pilot their game with a small sample
- Refine pre-analysis plan, lab protocol, and game programming
- Final student presentations of research design

March-May 2020 - Data collection
- Finalize lab protocols
- Refine pre-analysis plans
- Register pre-analysis plans
- Submit IRB protocols
- Data collection for 1,500 individuals, to be used by graduate students for publication
Behavioral Economics

Instructors: Chanding Jang and Nathaniel Peterson, Busara Center for Behavioral Economics

Pre-Course Reading


Course Readings


Supplemental Readings

Background


Time and Risk Preference

Social Preference


Scarcity / Poverty


Social Networks


Development

Social Behavior

_Instructor:_ Rebecca Littman, Massachusetts Institute of Technology

**Pre-Course Reading**


**Course Readings**


**Supplemental Readings**

*Cooperation and Punishment*


*Intergroup Interactions*


*Morality*

Social Norms

Political Behavior

Instructors: Kelly Zhang, Massachusetts Institute of Technology Governance Lab

Pre-Course Reading

Course Readings

Supplemental Readings

Background
Governance


Conflict/Post-Conflict


Identity Politics

Open Science Resources

Compiled with the assistance of BITSS (Berkeley Initiative for Transparency in the Social Sciences).

Pre-Analysis Plan Registries

- American Economic Association (AEA) Social Science Registry
- Evidence in Governance and Politics (EGAP)
- AsPredicted
- Center for Open Science (OSF)

Pre-Analysis Plan Resources

- A pre-analysis plan checklist
- 10 Things to Know About Pre-Analysis Plans
- Working toward a Common Rule for Transparent, Reproducible, and Ethical Research
- Better pre-analysis plans through design declaration and diagnosis
- DeclareDesign
- Journal of Development Economics template for pre-analysis plan
- World Bank Reproducibility Training
- Manual of Best Practices in Transparent Social Science Research
- NBER - Research Transparency & Reproducibility in Economics and Beyond
- 2019 EASST/BITSS Transparency Training Workshop
- Research Transparency and Reproducibility Training Workshop Materials
- BITSS Resource Library
  - Previous RT2s resources here
  - Videos from training here
  - Research Transparency and Reproducibility Training (RT2) Participant Manual
  - Demo for power analysis with DeclareDesign
  - Introduction to Pre-Analysis Plans
  - PAP Starter in R using DeclareDesign
  - Reproducibility and Replicability

Relevant Papers