BEHAVIORAL & DECISION SCIENCES (BDS)

BDS 501 Behavioral Science: Theory and Application of Experimental Methods
Permits offered to non-MBDS students if space is available. Request a permit here: www.sas.upenn.edu/lps/graduate/mbds/permit-request. Our understanding of different mechanisms and (economic) relationships is hampered by a lack of data and - more often than not - either the observation or the data is not reliable. In recent decades, through the work of pioneers in the behavioral and experimental economics fields, such as Daniel Kahneman and Vernon Smith, economics experiments have become a vital part of the scientific discourse, facilitating our understanding of the world we live in (much like in biology, chemistry, physics, etc.). In this course, we will explore economic behavior by developing a research idea, designing an experiment, then carrying out the experiment under controlled conditions. Essentially, you will learn how to think about ideas, generate ideas, and use economic experiments to test them.
Taught by: Dimant
Activity: Lecture
1.0 Course Unit

BDS 502 Norms and Nudges
Social norms are the rules we live by, and we encounter them in any area of our life. Social norms often guarantee the smooth functioning of a group or organization. Sometimes, however, these norms are inefficient or do not benefit society at large. What can we do to change these harmful collective behaviors? Social psychology, philosophy, sociology, rational-choice, legal theory, and even economics, are investigating and theorizing pro-social behavior, justice motivation, and moral and social norms. In this course, we will examine the latest and best in this emerging multidisciplinary field. Students will be encouraged to apply its findings and methods to their area of interest.
Taught by: Bicchieri
Also Offered As: PHIL 428
Activity: Lecture
1.0 Course Unit

BDS 503 Behavioral Public Policy
A core MBDS program course requirement, this course addresses methodological issues that apply to each of the policies currently provided by governmental and non-governmental institutions worldwide. We will discuss the conditions that must be satisfied to make policies effective and the behavioral incentives that policy actors face. The course relies on the main theoretical and empirical findings of modern policy analysis and upon an extensive set of case studies. Students are required to master the conceptual material and to confront and solve practical cases in public policy.
Activity: Lecture
1.0 Course Unit

BDS 505 Research Methods for Behavioral Science
The course is a survey of methods of research in behavioral and decision sciences. We will cover principles of scientific thinking, operationalizing research questions into testable ideas, and the ethics of behavioral research. A significant portion of the class will be devoted to study designs. We will cover basics of experimental design, quasi-experiments, and observational surveys. The class will also provide an introduction to qualitative research methods, including focus groups, unstructured and semi-structured interviews, and ethnographies. We will conclude the semester with the methods of communicating our findings to different types of audiences. We will analyze research processes and results from the perspective of the information consumer. The class will be useful for those interested in learning how to read and write behavioral science publications and how to design one's own studies. For practical skills in using software to analyze data, see BDS522 and BDS516.
Taught by: Alex Shpenev
Course usually offered in fall term
Activity: Lecture
1.0 Course Unit

BDS 511 Negotiation Behavior
We negotiate every day with merchants, service providers, employers, coworkers, friends, and family-determining the price we will pay, the amount of our compensation, where to go to dinner, who will clean the kitchen, etc. Although negotiations are a ubiquitous part of our everyday lives, many of us know little about the strategy and psychology of effective negotiations. Why do we sometimes get our way, while other times we walk away feeling frustrated by our inability to achieve the agreement we desire? Over the past few decades, research in social psychology and decision science has sought the answer to this question and created a rich body of knowledge on bargaining behavior, leading to a well-validated prescription on how to negotiate. In this course, you will learn both the how and the why of negotiation behavior. Through role-playing exercises, you will be able to evaluate your own negotiation behavior as well as that of your classmates and receive advice on how to optimize it to achieve your desired outcomes. Importantly, you will also read and discuss research articles that have led to such practical advice. Non-MBDS students may request a permit to register at www.sas.upenn.edu/lps/graduate/mbds/permit-request.
Activity: Lecture
1.0 Course Unit

BDS 512 Power, Persuasion and Influence
For permits please see: https://www.sas.upenn.edu/lps/graduate/mbds/permit-request Power and influence are fundamental for taking action in personal relationships, professional contexts and in society in general. To be able to use them effectively, however, we need to understand the nature, sources, uses and development of power and influence in these various contexts. To accomplish this goal, this course will survey theories of power, persuasion and influence from multiple disciplines and discuss their application to everyday actions.
Activity: Lecture
1.0 Course Unit
BDS 516 Data Science and Quantitative Modeling
(This course fulfills the MBDS program's quantitative course requirement.) Increasingly, decision-makers and systems rely on intelligent technology to analyze data systematically to improve decision-making. Data science is opening new pathways to improve decision-making in private and public organizations. Through lectures and real-world examples, this course will present a practical understanding of the fundamental methods used by data scientists including data management techniques, quantitative modeling, and data visualization. The primary emphasis is on understanding the fundamental concepts and applications of data science in the context of behavioral and decision sciences. We will cover several algorithms though this is not an algorithms course. We will examine real-world examples and cases to place data science techniques in context, to develop data-analytic thinking, and to illustrate that proper application is as much an art as it is a science. Non-MBDS students may request a permit to register at https://www.sas.upenn.edu/lps/graduate/mbds/permit-request.

Activity: Lecture
1.0 Course Unit

BDS 521 Judgments & Decisions
This course addresses the ideal standards of judging and deciding, and the ways in which people fall short of these standards, with emphasis on the latter. We will discuss heuristics and other intuitive strategies that people may use in day-to-day thinking, and the biases that result from this use. We will apply this approach to shed light on faulty analyses in medicine, law, and everyday thinking. Understanding the ideals of good thinking and causes of our failure to conform to these ideals may ultimately help improve the decisions we make in private and professional lives. A limited number of seats in this class are reserved for upper level LPS undergraduate students who may be allowed to register with special permission from the instructor. Non-MBDS students should request a permit to register at https://www.sas.upenn.edu/lps/graduate/mbds/permit-request.

Activity: Lecture
1.0 Course Unit

BDS 522 Statistical Reasoning for Behavioral Science
For permits please see: https://www.sas.upenn.edu/lps/graduate/mbds/permit-request. The complexity of human behavior exceeds that of most phenomena studied in the natural sciences. Any inference about human behavior and decision-making has to rely on statistical methods rather than on deterministic modeling. In this class, students will learn the methods of descriptive and inferential statistics used in behavioral science from the basics to those more commonly used. In this sense, this is a class on theoretical statistics, but we will go beyond theory to apply these methods to answer our own research questions. As such, this is also a class on applied statistics. We will rely heavily on statistical programming languages (namely, R) and version control systems (Git) to create statistical reports. Finally, we will work with new research in the field and learn to critically assess the statistical methods used therein. After completing this class, students will be competent in reading cutting-edge scientific literature, producing their own results using the more commonly used methods, and able to critically assess the limitations of their own and other people's research. Non-MBDS students must complete a permit request.

Activity: Lecture
1.0 Course Unit

BDS 585 Consulting in Behavioral Science
In this course, students will gain a better understanding of applied behavioral science. The course will emphasize oral and written communications and the development of client deliverables, client relations, team work, client presentation, and peer review. There will be a mix of in-person and online course meetings. This course is for MBDS students and by permission only. MBDS students: To apply to take this course, please complete this course application: https://upenn.co1.qualtrics.com/jfe/form/SV_beGKCGR6puftiVT

Taught by: Zarak Khan
Activity: Lecture
1.0 Course Unit

BDS 990 Master's Continuation
Activity: Masters Thesis
1.0 Course Unit