BEHAVIORAL & DECISION SCIENCES (BDS)

BDS 501 Behavioral Economics & Psychology: Theory & Experiments
In reality, our understanding of different mechanisms and (economic) relationships is hampered by a lack of data and, more often than not, either the observation itself or the data is not reliable. In recent decades, through the work of pioneers in the behavioral and experimental economics field like Daniel Kahneman and Vernon Smith, economic 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, you will explore economic behavior by developing a research idea, designing an experiment, then carrying out experiments under controlled conditions. In this course, you will learn how to think about ideas, generate predictions, and use economic experiments to test them.
Activity: Lecture
1 Course Unit

BDS 502 Social Norms and Informal Institutions
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.
Activity: Lecture
1 Course Unit

BDS 503 Public Policy and Applications
for permits please see: https://www.sas.upenn.edu/lps/graduate/mbds/
permit-request The 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 themain theoretical and empirical findings of modern policy analysis and upon an extensive set of case students. Students are required to master the conceptual material and to confront and solve practical cases in public policy.
Activity: Lecture
1 Course Unit

BDS 504 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 Course Unit

BDS 505 Quantitative Modeling in the Decision and Social Sciences
How is a forest fire relevant to bank failures? What can an urn tell us about constitutional change? In this course we will learn about and apply many different models to a broad range of social science phenomena. Social science problems often have so many details and moving parts that it can be difficult for researchers to gain traction. By using models, we can think abstractly about the core mechanics of a problem - like Brexit, sharing articles on socialmedia or water conservation - and generate expectations for outcomes. This is aclass that moves quickly and covers a lot of ground. Each class we'll discuss adifferent model and its application to social science, looking at how we can apply the model's insights to existing and ongoing questions in social science. This is also a class that involves a fair bit of writing - to be a successful social scientist, you will need to not only have interesting ideas but you will need to convey those ideas to others effectively. This course will help you on both fronts: we will explore the mathematics of different models and develop our skills to communicate about these models to a broader audience.
Activity: Lecture
1 Course Unit

BDS 511 Negotiation Behavior
We negotiate every day— with merchants, service providers, employers, coworkers, friends, and family— determining what price we will pay, the amount of our salary and compensation, what movies to watch, where to go to dinner, who will clean the kitchen, and so forth. 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 those 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 to such practical advice. In this way, the goal of this course is to combine negotiation practice and theory so you can develop a comprehensive skillset of negotiation behavior.
Activity: Lecture
1 Course Unit

BDS 512 Power, Persuasion and Influence
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Activity: Lecture
1 Course Unit

BDS 516 Quantitative Modeling in the Decision and Social Sciences
How is a forest fire relevant to bank failures? What can an urn tell us about constitutional change? In this course we will learn about and apply many different models to a broad range of social science phenomena. Social science problems often have so many details and moving parts that it can be difficult for researchers to gain traction. By using models, we can think abstractly about the core mechanics of a problem - like Brexit, sharing articles on socialmedia or water conservation - and generate expectations for outcomes. This is aclass that moves quickly and covers a lot of ground. Each class we'll discuss adifferent model and its application to social science, looking at how we can apply the model's insights to existing and ongoing questions in social science. This is also a class that involves a fair bit of writing - to be a successful social scientist, you will need to not only have interesting ideas but you will need to convey those ideas to others effectively. This course will help you on both fronts: we will explore the mathematics of different models and develop our skills to communicate about these models to a broader audience.
Activity: Lecture
1 Course Unit
BDS 517 Trust and Uncertainties
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Why do we trust some people and not others? What signals give us reason to trust some brands or products more than others? Trust is a foundational feature of the decisions we regularly undertake and turns largely on the kinds of uncertainty that we encounter. This course will provide background on the different types of trust we elicit and the motivational conditions that bring these expectation about. In so doing we will see that the nature of trust requires a more nuanced assessment of what we mean by uncertainty and how we experience it.
Activity: Lecture
1 Course Unit

BDS 521 Judgments & Decisions
This course is designed to help you become a better decision maker. By the end of the semester, you will develop the skills to approach decisions from a new perspective with new tools and a new awareness of errors and biases. You will learn about normative decisions (how people should make their choices if they want to use principles of rationality), descriptive decisions (how people actually make their choices) and prescriptive decisions (how people can make better choices given what we know about human behavior). We will discuss what people do better than computers and what computers do better than people which have implications for how to create hybrid systems. Understanding normative ways to think about decisions, in addition to descriptive theories and results can lead to better judgments in fields such as intelligence analysis, medicine, law, business, and public policy.
Activity: Lecture
1 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.
Activity: Lecture
1 Course Unit