**Travel Behavior Theories and Applications Winter 2019**

**Instructor:** Susie Pike; [scpike@ucdavis.edu](mailto:scpike@ucdavis.edu)

**Time/Day:** M/W 12:10 to 1:30

**Classroom:** 109 Wellman

**Course Number:** TTP 289A-002 3 units

**Office hours:** by appointment: 1715 Tilia Street #1147 (West Village)

**Behavior Theories:** draw on economics, psychology and sociology to provide a foundation for research in individual behavior and decision-making. Behavior theories aim to identify and describe the factors and processes including psychology, self-efficacy, attitudes, goals, and environmental and social factors, important in behavioral outcomes.

**Course Description:** This course examines theories of behavior and their application to understanding travel behavior, focusing on policy applications. Theories of individual behavior include the rational choice model, utility maximization, heuristics, planned behavior, social networks, stages of change, and others. The fundamental assumptions, model of the individual, decision-making processes, and key characteristics of the choice environment for each theory are covered. Coursework includes application of theories to travel behavior outcomes of interest, with particular attention to the implications for policy and planning.

**Goals:** Develop a working knowledge of theories of individual behavior, identify the key assumptions, limitations and processes described by each theory, and explain differences among theories. Evaluate the use of theories in past scholarship and apply theories to travel behavior and other environmental outcomes. Formulate research questions and data collection plans for the analysis of behavioral outcomes, drawing on theories discussed in class.

**Assignments and Grading:**

1. Weekly readings: 2-3 chapters/articles on each theory or theme
2. In class discussion participation
3. Lead In-Class Discussion: each student is responsible for leading an in-class discussion on one theory. About half of the class period may be devoted to presenting on a) and b) and the remainder devoted to discussion. This should include (not limited to) the following
   1. Identify and share *at least two* additional relevant papers or book chapters
   2. Lead in-class discussion; identify one or more outstanding research challenges, areas of disagreement, or extensions of the theory, pose relevant and meaningful discussion topics to the group, and have ready follow-ups to keep the discussion moving!
4. Written Assignment 10-15 pages
   1. Conceptual Abstract; Due Wednesday January 23
   2. Peer-to-peer Feedback; Exchange Wednesday February 13
   3. Peer-to peer Feedback; Return Monday February 25
   4. Final Paper; Due Monday March 11

**Schedule (subject to change):**

|  |  |  |  |
| --- | --- | --- | --- |
| **Week** | **Dates** | **Topics** | **Readings** |
| **Week 1** | 7-Jan | Introduction to Theories of Behavior, and Measurement | Bhattacherjee - Chapter 4 Theories - Social Science Research Principles Methods and Practices |
|  |  |  | Whetten - What Constitutes a Theoretical Contribution? |
|  |  |  | Bhattacherjee - Chapter 6 Measurement of Constructs - Social Science Research Principles Methods and Practices |
|  | 9-Jan | Economic Theories, Rational Choice and Bounded Rationality | Simon (1955) A Behavioral Model of Rational Choice |
|  |  |  | Kahneman (2003) Maps of Bounded Rationality |
| **Week 2** | 14-Jan | Economic Theories, Rational Choice and Bounded Rationality |  |
|  | 16-Jan | Dual Process Theories of Cognition | Evans (2008) Dual-Processing Accounts of Reasoning, Judgement and Social Cognition |
|  |  |  | Sloman (1996) The Empirical Case for Two Systems of Reasoning |
|  |  |  | Gilbert (1999) What the Mind’s Not |
| **Week 3** | 21-Jan | NO CLASS MLK DAY |  |
|  | 23-Jan | Habits and Behavior | Schneider (2013) Theory of Routine Mode Choice Decisions: An operational framework to increase sustainable transportation |
|  | Paper Topic Outline/Abstract Due |  | Gregory et al. (2003) Repeated Behavior and Environmental Psychology, |
|  |  |  | Verplanken et al (1997) Habit, Information Acquisition, and the Process of Making Travel Mode Choices |
| **Week 4** | 28-Jan | Habits and Behavior | Ohtomo and Hirose (2007) The Dual-Process of Reactive and Intentional Decision-Making Involved in Eco-Friendly Behavior |
|  | 30-Jan | Theory of Planned Behavior, and Reasoned Action | Ajzen (1991) The Theory of Planned Behavior |
|  |  |  | Bamberg et al. (2003) Choice of Travel Mode in the Theory of Planned Behavior: The Roles of Past Behavior, Habit, and Reasoned Action |
|  |  |  | Gibbons et al (1998) - Reasoned Action and Social Reaction: Willingness and Intention as Independent Predictors |
| **Week 5** | 4-Feb | Theory of Planned Behavior, and Reasoned Action |  |
|  | 6-Feb | Value Belief Norm Theory | Schultz (2001) The Structure of Environmental Concern: Concern for Self, Other People and the Biosphere |
|  |  |  | Stern et al. (1999) A Value-Belief-Norm Theory of Support for Social Movements: The Case of Environmentalism |
| **Week 6** | 11-Feb | Value Belief Norm Theory |  |
|  | 13-Feb | Collective Action and Collective Interest Model | Finkel and Muller (1998) Rational Choice and the Dynamics of Collective Political Action: Evaluating Alternative Models with Panel Data |
|  | PEER TO PEER FEEDBACK EXCHANGE |  | Lubell (2002) Environmental Activism as Collective Action |
|  |  |  | Ostrom (1998) A Behavioral Approach to the Rational Choice Theory of Collective Action |
| **Week 7** | 18-Feb | NO CLASS PRESIDENTS DAY | Gerlak and Heikkila (2011) Building a Theory of Learning in Collaboratives Evidence from the Everglades Restoration Program |
|  | 20-Feb | Social Learning and Behavioral Norms | Bandura (1971) Social Learning Theory |
|  |  |  | Tabura and Pahl Wostl (2007) Sustainability Learning in Natural Resource Use and Management |
|  |  |  | Boyd and Richerson (1995) Why Does Culture Increase Human Adaptability? |
| **Week 8** | 2/25/2018 PEER TO PEER FEEDBACK RETURN | Social Learning and Behavioral Norms |  |
|  | 27-Feb | Diffusion of Innovations | Young (2009) Innovation Diffusion in Heterogeneous Populations |
|  |  |  | Rogers - Chapter 5 The Innovation Diffusion Process - Diffusion of Innovations 5th Ed. |
| **Week 9** | 4-Mar | Diffusion of Innovations |  |
|  | 6-Mar | Comparing and Integrating Theories | Wilson and Dowlatabadi (2007) Models of Decision Making and Residential Energy Use |
| **Week 10** | 11-Mar | Policy Implications of Understanding Behavior | **Final Paper Due** |
|  | 13-Mar | Round-table Discussion of Papers, Research, Etc. | Selected chapters from Thaler and Sunstein Nudge: Improving Decisions About Health, Wealth, and Happiness. 2009 Penguin. |