PHD: THEMATIC SEMINARS (PST)

PST 1702 Management Strategy (3 credits)

This course focuses on the foundations of strategic management research, focusing primarily on strategy content research (i.e., what strategies are used by firms, and what is their effect of firm performance). Its principal objective is to serve as an introduction to research in Strategic Management. To do so, we will cover a number of the principal theoretical streams in Strategic Management, including business-level strategy, competitive strategy and theories of the firm. Upon completion participants will have developed an understanding of the key concepts, theories and interconnected research streams in Strategic Management; be able to critically evaluate and review academic writings in the field of Strategic Management; develop new ideas and approaches that advance some portion of the theory/research on Strategic Management; and communicate in oral and written form knowledge, critical evaluations and make individual contributions to the Strategic Management literature.

Typically Offered: Every two or more years

PST 1705 Organizational Behavior (3 credits)

This seminar is designed to inform participants of contemporary theory and research in organizational behavior, with a focus on individual employee behavior. The course will provide a thorough exposure to the range of topics and research issues that will enable participants to conduct advanced research in the field.

Typically Offered: Every two or more years

PST 1706 Mathematical Statistics (3 credits)

The objective of this reading course is to ensure a solid foundation in the principles of probability and mathematical statistics, on a par with that received by PhD graduates from applied statistics departments. Attention will be given to the fact that our graduates are likely to be teaching this material if they should pursue an academic career. The course will involve studying chapters from the book by Casella and Berger mentioned below and presenting them to the class about once a week, thereby gaining focused teaching experience, as well as working on a few selected homework problems from each chapter. The output for the course will consist of a portfolio of prepared presentations and homework problems.

Typically Offered: Every two or more years

PST 1707 Advanced Analytics (3 credits)

This is a course in classical stochastic models, Bayesian analysis and other advanced stochastic models that are used in various areas of business. The initial component of the course will cover traditional stochastic models such as count processes, waiting time processes, Markov processes (discrete and continuous), branching processes, birth death processes and queueing processes. The second component of the course will cover both analytic and computer driven Bayesian models and utilize OpenBugs for applications. The final component of the course will cover topics that are of interest to the students. These topics could include hierarchical models, mixed models (latent class models), generalized linear models (glm), generalized estimating equation models (gee), longitudinal models, or time series models. This course provides a deeper exposure to the background, derivation and theory associated with these topics along with an understanding of how to apply the models to research.

Typically Offered: Every two or more years

PST 1708 Applied Time Series (3 credits)

Time series analysis, the art and science of exploiting the past to foresee the future, has witnessed a rich, illustrious, and at times, tortuous history that continues to swell with each passing day. This course examines a crucial fraction of that history through techniques inspired by linear regression. Through grasping the fundamentals of autocorrelation, we will begin by surveying how this course is different from those that deal with data collected at a frozen time-snapshot. Predictable and deterministic tendencies will be examined next through decomposition, exponential smoothing, and Holt-Winters type models. Unpredictable and stochastic movements will be tackled subsequently through ARIMA models with and without homoscedastic errors, quantile estimation, and value-at-risk and GARCH-type models. Depending on interests, we may study topics such as hidden Markov models, long-memory, chaotic processes, and deal with context-specific peculiarities such as intermittent demand.

Typically Offered: As needed

PST 1710 Behavioral and Experimental Economics (3 credits) This course introduces the issues covered and methodologies employed in the field of Behavioral Economics. Behavioral Economics adds insights from Psychology to the economic model of behavior. It looks beyond the standard neoclassical model of how people, managers, and firms make decisions, examining ways in which behavior is not consistent with strict rational self-interested decision-making. We will review how standard economic theory predicts people will behave in a given situation and compare that to how people actually behave. The course begins with an overview of the primary statistical tools employed in the field. Because it is frequently inappropriate to assume that our data are drawn from a particular type of distribution, many if not most of these techniques are nonparametric. With these methods in our toolbox, we then proceed to an overview of the many issues covered in the field and discuss examples from the literature of how these tools are applied.

Typically Offered: Once a year

PST 1711 Econometrics (3 credits)

This course will introduce the student to a wide range of microeconometric models commonly used in data analyses and empirical research within academia, business, and policy analysis, with a focus on three broad aims. First, we will learn and discuss the interpretation of the parameters and the various advantages, limitations, and assumptions underlying each estimator. Second, we will develop and study each estimation method with an emphasis on application, seeing how each method is used in practice, and on implementation, learning how to apply each estimation method within a statistical software package. Third, the focus is on deriving causal effects based on observational data. *Typically Offered:* Every two or more years

PST 1720 Introduction to Data Mining for Business (3 credits)

This class is designed to provide a brief survey of the concepts on four commonly used data mining topics for business applications. The course begins by extending the regression modeling methods to the classical forms of cluster analysis, text mining, and sentiment analysis will then be covered. The rest of the course will be devoted to tree methods beginning with decision trees. The visualization of the results will be covered in the class as well.

Typically Offered: Once a year

PST 1730 Inclusive Leadership (3 credits)

The purpose of this doctoral course to is understand the academic and professional fields of diversity, equity, and inclusion and associated frameworks and theories. Students will read academic and professional articles in DEI and gain insight into the applied research. The course will cover the evolving definitions of diversity, equity, inclusion, belonging, and social justice. Additionally, students will study the current state of DEI research and how it impacts practice.

Typically Offered: Once a year

PST 1731 Leading Transformational Change (3 credits)

The purpose of this class is to introduce students to the science and practice of planned organization change through the application of behavioral science concept and tools. Assuming some basic knowledge of organizational behavior theory and research, this course will address issues of how to gather data about organizations to: diagnose and facilitate change, increase effectiveness, and foster the capacity for learning and development over time. The focus will be on understanding organizations through the development and use of self-as-instrument in conjunction with specific change technologies during all phases of organizational consultation.

Typically Offered: Spring

PST 1740 Advanced Topics in Cognition (3 credits)

This doctoral seminar examines historical and contemporary cognitive science in relation to experience design practice. Course topics include cognitive models, memory, spatial memory, language, thinking, knowledge, intelligence, reason, judgement, decision making, unconscious processes, personality, emotion, social cognition, learning and development, as well as frontiers and trends in cognitive science. Readings are drawn from a range of influential texts, review articles, and empirical studies spanning multiple fields including neuroscience, philosophy, linguistics, physics, medicine, and psychology. Lectures, student-led presentations and discussions, and written assignments engage students in critically examining the implications of important cognitive theories, models, and frameworks for modern experience design practice.

Typically Offered: As needed

PST 1741 Perception in Action (3 credits)

Designing experiences requires understanding how interfaces shape interactions. These interactions rely on our perceptions of these interfaces and corresponding actions on them. Since our contact with the world around us depends on our senses of sight, hearing, touch, taste, smell, and balance, this Ph.D. level course allows students to explore each of these sensory systems, showing how their biology shapes our perceptual experience of artificial tools. An essential theme in the course is that our sensory systems play a crucial role in how we act, navigate, and interact with the environment and the technologies surrounding us to facilitate and improve human lives.

Typically Offered: Once a year

PST 1742 Design Ethics (3 credits)

This course explores the values that consciously and unconsciously underpin and emerge from the design process. It explores how values shape design, how they determine the features of products and services, and how values shape the entire user experience. However, this goes beyond the user to explore how that values that drive design impact our interpersonal relations, the functioning and dis-functioning of society and the wider planetary ecology. It explores how designers incorporate knowledge of human nature into their designs, and how technology changes human nature. The principles and process of mindful design are initiated as a way for designers to reflect on the (un)conscious e#ects their actions have on themselves, users and wider systems.

PST 1760 Human Resource Management and Methods (3 credits) This course is a doctoral-level seminar that provides an overview of theoretical approaches, methodologies, and contemporary issues in the field of Human Resource Management (HRM). Students will be introduced to a survey of select topics in the HRM literature including but not limited to Strategic HR, Recruitment, Selection, Performance Management, Training & Development, Compensation & Rewards, and Employee Retention. Although we will cover a broad array of topics, this course is not exhaustive. The primary focus of the selected readings is to introduce students to a number of theories, concepts, and methods utilized in the field while also providing a broad overview of certain topics.

Typically Offered: Once a year

PST 1770 Manuscript Development and Scientific Writing Methods (3 credits)

This doctoral seminar is a multi-part course that is designed to bring together concepts that students have learned in their course work to advance and structure their research towards successful completion of their comprehensive exams, final dissertation and eventual publication. The objective is to provide students the knowledge to leverage their dissertation topics, identify potential data, and introduce the students to best practices associated with the publication process, including the review and editing process.

Typically Offered: Once a year