

Senior Seminars Spring 2020

Section 1: Dr. Mel Mark (social)

### **Psychology and Program Evaluation**

Many college students participated in some substance abuse prevention program in junior high school. Companies use a range of diversity programs. A list of social and educational programs could go on and on. But how do we know if a program is effective? How can we improve a program? Program evaluators apply social science theory and research methods, to see whether a social program works, or to guide improvements in an ongoing program, or to design a new and hopefully better program. Psychology, especially social psychology, has much to offer the field of program evaluation. Most programs are intended to change human behavior (e.g., to prevent substance abuse); psychological theories are relevant, both for contributing to program (re)design and as a way to guide efforts to see why a program is (or isn't) working. Program evaluators also encounter challenges in carrying out their work, such as how to collect input about priorities from relevant parties who differ in power; psychology can help point to better ways of dealing with these challenges. Psychologists also have methodological skills that are relevant to program evaluation. In addition to reviewing key linkages between psychology and evaluation, we will discuss training and career options in evaluation, as well as how to apply course content to endeavors other than program evaluation.

Section 2: Dr. Roger Beaty (cognitive)

### **The Creative Brain**

This course is designed for students who are interested in the psychology and neuroscience of creativity. It surveys scientific research on a broad range of topics, including the nature and measurement of creative thinking, the right vs. left brain controversy, the roles of memory and attention in creative problem solving, the relationship between creativity and intelligence, and the neural basis of musical improvisation, among others. The course will include diverse examples from the fine arts and humanities (visual art, literature, music), the sciences, and other relevant domains, largely from the perspectives of cognitive psychology and neuroscience.

Section 3: Dr. Reg Adams (social)

### **The Psychology of Humor and Laughter**

Humor and laughter are vital to human functioning, promoting physical and emotional well-being, social harmony, learning, and creativity. Humor and laughter can also be used as weapons against others, and can transmit and perpetuate stereotypes and prejudice. This course is designed to explore these phenomena and to apply insights gained to broader research themes such as creativity, social cognition, attribution theory, and emotion theory.

#### Section 4: Dr. Lizz Karuza (cognitive)

##### **Networks in Cognitive Science**

In this course we will explore the rich history of networks in cognitive science and discuss the recent surge in applying tools from network science to understand the inner workings of the mind. We will focus on two distinct, but related content areas: (1) *the human brain as a network* of regions constantly communicating with one another to support learning, memory, attention, and sensory processing; and (2) *the world around us as a network* of inter-connected elements, and how complex patterns in our environment influence our behavior.

#### Section 5: Dr. Jenae Neiderheiser (developmental)

##### **Developmental Behavioral Genetics**

This senior seminar focuses on understanding how genes and environments operate together to influence behavioral development throughout the lifespan. This course will be comprised of four interrelated sections that will usually be discussed together as part of a substantive topic. (1) The theories and methods of quantitative and molecular genetics. This will include a review of family, twin, sibling, and adoption designs; basic molecular genetic methods including association and linkage designs and within and between family strategies; assumptions and limitations of quantitative and molecular genetic methods; and the relative roles of genotype-environment correlation and interaction. (2) Quantitative genetic studies of development throughout the lifespan. This section will review classic and recently published articles examining genetic and environmental influences on behaviors including temperament and personality, cognitive abilities and psychopathology. We will also discuss papers that focus on understanding the etiology of comorbidity and of understanding genetic and environmental influences on change and continuity. (3) Molecular genetic studies of development throughout the lifespan. The focus here will be on examining studies that have examined genes related to behaviors of particular relevance to developmental psychologists. (4) The interplay of genes and the environment: gene-environment correlation ( $rGE$ ) and interaction ( $GxE$ ). This final section will consider published studies of  $rGE$  and  $GxE$  in both quantitative and molecular genetics.

#### Section 7: Dr. Kisha Jones (industrial-organizational)

##### **Diversity in Organizations**

We all have various aspects of ourselves that make up our identities. These diverse identities influence many areas of our lives, including our experiences at work. This course will focus on understanding the perspectives of individuals that have been traditionally underprivileged in the workplace, including women, racial/ethnic minorities, LGBT individuals, individuals with disabilities, and religious minorities. Students will be exposed to theories and empirical research from psychology, management, and other related areas that will allow them to better understand how gender, race/ethnicity, sexual orientation, gender identity, religion, age, physical ability, and other characteristics influence entry into the workplace, career advancement, interpersonal treatment, and other work experiences. We will also consider practical examples of how to manage diversity in the workplace.

Section 8: Dr. Nancy Dennis (cognitive)

### **False Memories & Eyewitness Testimony**

The course will examine the cognitive factors that lead to false and otherwise inaccurate memories, with a special emphasis on how such memory errors affect eyewitness testimony.

Section 9: Dr. Sandy Azar (clinical)

### **Marriage and Family**

In recent years, psychology has gone beyond studying individuals and begun to look at couples and families. This course will extend students' understanding of human behavior beyond that of the individual and the parent-child dyad and help them to consider the individual in the context of other intimate relationships (e.g., dating, living together, marriage, and the family). It will begin by familiarizing students with the major psychological theories of how couples and families operate and develop their ability to apply these theories to real life family transactions, using material from films and literature. The methods used to study families and their strengths and limitations will then be presented. Using the family life cycle as a rough developmental framework, changes in couples and families over the lifespan will be reviewed and discussed (young adulthood and leaving family of origin, dating and becoming a couple, having children, raising young and adolescent children, and launching children and old age). Along the way, discussions will focus on non-traditional couples and families (e.g., families who have adopted children, divorced families, gay and lesbian couples), as well as issues of race, ethnicity, social class, and gender. Finally, students will begin to consider the effects of major stressors on couples and family (e.g., migration, chronic physical and mental illness, poverty) and within the couple and family disturbances (e.g., dating violence, domestic violence, child abuse, substance abuse).

Section 11: Dr. Dan Weiss (cognitive)

### **Cognitive: What Makes Us Human**

A longstanding effort in science and philosophy has been determining the qualities and abilities that separate humankind from other animal species. Intuitively, we feel that humans must be special; an assertion supported by unrivaled achievements and innovations. Yet, pinpointing the source of our differences has been difficult and contentious. In this course, we will explore many issues that have been thought to separate our species from others, including language, mindreading, self-awareness, and mental time travel, among many others. The course will draw heavily from comparative psychology, exploring whether these characteristics are unique by contrasting our abilities with those found in animals. Further, we will touch on topics related to artificial intelligence and philosophy. The course will be highly interactive, with some lecture interwoven with student-led discussions

Section 12: Dr. Koraly Perez-Edgar (developmental)

### **Developmental Psychology through the Eyes of Harry Potter**

Across seven books, JK Rowling created a vivid world through which we are able to observe the developmental trajectories of her child protagonists. Although focused on a developmental window from middle childhood through late adolescence, the books raise issues and mechanisms that reach back into infancy and forward into old age. We will use excerpts and examples from the books to illustrate core developmental mechanisms within the scientific literature. Topics include early attachment, epigenetic transmission of traits, temperament and personality development, trauma and grief, peer relationships, pubertal development, and risk and resilience to developmental psychopathology. In doing so, we will draw from core theories generated by Piaget, Vygotsky, Bronfenbrenner, Masten, and Kagan, among others. We will also delve into the scientific literature to see how we can link theory to data to fantasy.

Section 13: Dr. Sam Hunter (industrial-organizational)

### **Creativity and Innovation in Organizations (Industrial-Organizational)**

This course will examine the individual, team, organizational, and environmental factors that shape novel idea generation and implementation in organizations. The course will introduce students to a number of theoretical frameworks for understanding creativity and innovation, as well as the methods and techniques utilized in research of the phenomena. We will take a process perspective on creative performance, considering the various activities that are required for successful innovation. Students engage in a semester long team-based project where they apply what they have learned from course material to understanding an invention or product of their choosing.