

DEPARTMENT of PSYCHOLOGY & NEUROSCIENCE

Fall 2019 Graduate Course Descriptions

PSYC 5102 BEHAVIORAL GENETICS
Dr. Carey 001 2:00-3:15 TTH MUEN E317

This is an introductory course on behavioral genetics for graduate students. The course objectives are: 1. understand how basic principles of genetics can be used in the study of behavior, 2. learn about the variety of methods that can be used to determine how genes and environment influence behavior, and 3. learn from recent examples of studies using these methods. Topics covered include a review of genetics, twin and adoption studies, univariate and multivariate behavior genetic studies, gene-environment correlation, gene-environment interaction, environmental influences, linkage, and association. This course is required for students in the behavior genetics program and students completing Institute for Behavioral Genetics' interdisciplinary certificate program. Other students who are interested in the course objectives are encouraged to enroll. There is not a prerequisite for this course.

PSYC 5606 SOCIAL-PERSONALITY PSYCHOLOGY
Dr. Ito 801 1:00-3:30 W MUEN E214

This proseminar is team taught by three social psychology faculty members. This Fall the faculty will include Drs. Tiffany Ito, Bernadette Park, and Chris Loersch. Dr. Ito will cover the role of emotion in intergroup relations. This will involve both integral emotional experiences (e.g., emotions elicited by group members) as well as more incidental affects (e.g., how existing emotional state influences perceptions and reactions to group members). Dr. Park will examine five classic theories in social psychology. These include: impression formation work (Asch; Anderson), attribution theory (Kelly), cognitive dissonance theory (Festinger), social comparison theory (Festinger), and social identity theory (Tajfel & Turner). Prof. Loersch will cover Attitudes: Theory and Measurement. This section will survey classic and contemporary conceptualizations of the attitude construct with a focus on understanding the question, "What is an attitude?" In doing so, we will examine the cognitive processes that underlie attitude formation and expression and the practical and theoretical issues that have presented themselves as the field has attempted to measure this construct.

PSYC 5685 RESEARCH METHODS PROSEMINAR
Dr. Kim 801 1:30-4:00 W MUEN D430
 Main topic is research methods in cognitive psychology, with an emphasis on experimental methods. Students will gain the skills and knowledge necessary to (a) critically evaluate existing research and (b) design, conduct, analyze, and write up their own experimental studies. The course also covers additional topics, including some professional issues (e.g., publication process) and recent methodological developments in the field (e.g., preregistration, replicability, questionable research practices). Required for graduate students in Cognitive Psychology. Graduate students in all programs are welcome with instructor consent and advanced undergraduates are welcome with instructor consent.

PSYC 5741 GENERAL STATISTICS
Drs. Friedman/Pedersen 100 3:30-4:45 lecture TTH MUEN E113
101 9:00-10:50 lab TH MUEN E311
102 11:00-12:50 lab TH MUEN E311

PSYC 6603 PROFESSIONAL ISSUES IN CLINICAL PSYCHOLOGY
Dr. Willcutt 801 12:00-1:00 M MUEN E214
 Covers a range of topics important for professional development in clinical psychology, including preparation and delivery of research presentations, preparation of grant proposals/manuscripts and practicum experience (i.e., interviewing and assessment, treatment planning, intervention and documentation). Intended to prepare students for careers as research scientists and clinicians.

PSYC 6605 COGNITIVE PSYCHOLOGY RESEARCH UPDATE
Dr. Curran 801 12:00-1:00 M MUEN D430
 Provides summaries of current research by graduate students and faculty members in the Cognitive Psychology program in the Department of Psychology and Neuroscience. Professional Development issues relevant to cognitive psychologists will also be discussed.

PSYC 6606 PROFESSIONAL ISSUES IN SOCIAL PSYCHOLOGY
Dr. Loersch 801 12:00-1:00 W MUEN E214
 Covers a range of topics important for professional development in social psychology, including preparation and delivery of research presentations, preparation of grant proposals and manuscripts, and peer review of manuscripts. Intended to prepare students for careers as research scientists.

PSYC 6831 INTERDISCIPLINARY SOCIAL SCIENCE PROF SOCIALIZATION
Dr. Sokhey 002 11:00-12:00 F IBS 155B
 Trains graduate students and provides professional socialization in interdisciplinary social science research. Open to all interested students, with programming provided by the Institute of Behavioral Science. Sessions include IBS-housed colloquia and workshops in professional socialization, technological tools, interdisciplinary research, ethics, grant writing, etc. Students workshop and submit a research paper. Same as SOCY 6851.

PSYC 7102 ABCD: The Adolescent Brain Cognitive Development Study
Dr. Hewitt 001 1:30-4:00 W IBG 210

Readings for this course will begin with understanding the rationale, aims, and design of the ABCD study, based on a selection of papers from the special issue of Developmental Cognitive Neuroscience available at:

<https://www.sciencedirect.com/journal/developmental-cognitive-neuroscience/vol/32/suppl/C>

We will also sample new papers being published and accessible through:

<https://abcdstudy.org/scientists-publications.html>

As well as readings, we will register each student to use the ABCD study's Data Analysis and Exploration Portal (DEAP) to provide direct access to the ABCD Data Repository and user-friendly analysis tools. See: https://abcdstudy.org/scientists_data_sharing.html

Individual and/or group projects using the DEAP should lead to at least one outline/draft/completed scientific paper per student. (This will be the basis of assessment for the course).

Contact john.hewitt@colorado.edu if you have any questions about this course.

PSYC 7102 SEMINAR: BEHAVIORAL GENETICS
Dr. Keller/Stitzel 002 TIME TBD IBG 210

A hands-on proseminar that introduces graduate students to cutting-edge behavioral genetics methods across a broad range of topics, including family/twin studies, genome-wide association studies, polygenic risks scores, GREML, cloning, functional characterization of regulatory sequences, and gene expression. The time in MyCUInfo is listed as Tuesdays 3-5:30. However the class time is TBD.

PSYC 7215 TRANSLATIONAL COGNITIVE NEUROSCIENCE
Dr. Banich 001 9:00-11:30 M MUEN E214

The goal of this course will be to examine some examples of how research from cognitive neuroscience can and is being applied to various clinical syndromes and practical applications, ranging from psychiatric disorders to brain injury to pain management to the law. Right now is a particularly exciting time. There is an ever-growing number of techniques to examine brain function, and increasing momentum to use them to help understand and diagnosis different neuropsychiatric disorders, as well as to assess the efficacy of different treatment options. In addition, newer and safer methods of altering brain activity are being used to attempt to treat disorders. This course will survey some of these new findings and trends.

PSYC 7415 COGNITIVE SCIENCE RESEARCH PRACTICUM I
Dr. Sumner 801 9:30-11:30 F MUEN D424

Cross reference to CSCI 7412, LING 7415, EDUC 6506, PHIL 7415.

Independent, interdisciplinary research project in cognitive science for advanced graduate students pursuing a joint Ph.D. in an approved core discipline and cognitive science. Research projects will integrate at least two areas within the cognitive sciences, e.g., Psychology, Computer Science, Linguistics, Education, Philosophy. This is the first semester of a two-semester course required for the joint Ph.D. in cognitive science. Students will need to get commitments from two mentors for their project.

PSYC 7425 COGNITIVE SCIENCE RESEARCH PRACTICUM II
Dr. Sumner 801 9:30-11:30 F MUEN D424

Cross reference to CSCI 7412, LING 7415, EDUC 6506, PHIL 7415.

Independent, interdisciplinary research project in cognitive science for advanced graduate students pursuing a joint Ph.D. in an approved core discipline and cognitive science. Research projects will integrate at least two areas within the cognitive sciences, e.g., Psychology, Computer Science, Linguistics, Education, Philosophy. This is the second semester of a two-semester course required for the joint Ph.D. in cognitive science. Students will need to get commitments from two mentors for their project.

PSYC 7536 SOCIAL PSYCHOLOGY OF PUBLIC POLICY
Dr. Van Boven 801 9:30-12:00 M MUEN E317

This doctoral seminar will examine social psychological research relevant to public policy. There has been growing interest in using insights from psychology to generate and improve evidence-based policy at all levels of government, NGOs, and other organizations. This interest was catalyzed by the popularity of behavioral economics and by federal agencies that explicitly sought to use behavioral science as a tool for policy design and implementation. The cornerstone of these efforts is evidence built through rigorous lab and field studies in the psychological sciences that are directly relevant to public policies. This course has three primary objectives: (a) review literature of psychological science relevant to public policy; (b) learn general principles and best practices on conducting policy relevant research; (c) discuss benefits to theory and broader impacts for public policy. Students will develop research ideas over the length of the course, with focus on a sound foundation in theory and realistic consideration of practical constraints.

PSYC 7663 **INTELLECTUAL ASSESSMENT LAB**
Dr. Richardson **801**
See description of PSYC 7683.

PSYC 7683 **INTELLECTUAL ASSESSMENT WITH PRACTICUM**
Dr. Richardson **801** **9:00-11:30** **M** **MUEN D334**
Focuses On Administering And Interpreting Objective Test Commonly Used In Clinical Psychology Practice. Includes Case Study Approach And Direct Clinical Experience.

PSYC 7703 **SOCIAL AND AFFECTIVE PSYCHOLOGICAL SCIENCE**
Dr. Gruber **001** **1:00-3:30** **M** **MUEN E214**

General overview of theoretical issues and methods in the fields of social and affective psychological science. Course will cover core empirical issues and methods in affective science (e.g., evolutionary theories of emotions; cognitive and behavioral aspects of emotion; expression of emotion; neurophysiological mechanisms; and psychopathology and emotion) and integrate and apply these to fundamental social psychological processes (e.g., empathy, cooperation and kindness, interpersonal regulation, relationships, culture, and social cognition). Course will fulfill Discipline Specific Knowledge requirements in social and affective bases of behavior.

PSYC 7703 **DEVELOPMENTAL AND COGNITIVE PSYCHOBIOLOGY**
Dr. Kaiser **002** **9:30-12:00** **T** **MUEN E214**

Broad overview of current research and methods in the field of developmental cognitive psychobiology. Coverage will include fundamental topics in cognitive development (e.g., language, memory, attention, executive functions, social cognition) from the point of view of the developing brain, from infancy through older adulthood. Discussion of both typically and atypically developing populations, with a focus on understanding core principles and debates about cognitive and neurobiological development.

PSYC 7713 **CLINICAL PRACTICUM**
Dr. Arch **801** **TBA** **Controlled enrollment**
TBD **802** **TBA** **Controlled enrollment**

PSYC 7775 **TOPICS IN COGNITIVE SCIENCE**
Dr. Sumner **001** **12:00-2:00** **F** **MUEN D430**
Reading of interdisciplinary innovative theories and methodologies of cognitive science. Students participate in the ICS Distinguished Speakers series that hosts internationally recognized cognitive scientists who share and discuss their current research. Session discussions include analysis of leading edge and controversial new approaches in cognitive science.

PSYC 7793 Child Assessment Practicum
Dr. Chhabildas 801 12:00-2:00 W MUEN 216A

Allows students who have already learned adult assessment measures to broaden their knowledge and skills in order to complete psychoeducational evaluations with children. The course covers the background of common childhood disorders, general testing strategies with children, and specific test administration.

NRSC 5092 BEHAVIORAL NEUROENDOCRINOLOGY
Dr. Spencer 100 11:00-12:15 lecture T/TH RAMY N1B23
101 9:30-10:30 recitation TH MUEN E214

Provides an introduction to neuroendocrinology with a focus on the interaction between hormones and brain function. In addition to attending and meeting all the requirements for the lecture portion of the course (NRSC 4092), graduate students meet for an additional hour each week with the instructor to discuss in depth behavioral neuroendocrinology relevant research articles. Same as NRSC 4092.

NRSC 5100 INTRODUCTION TO NEUROSCIENCE I
Dr. Campeau 801 1:30-4:00 W MUEN E317

This first course in the year-long sequence of introduction to neuroscience provides an intensive introduction to the principles of neuroscience, covering detailed neuroanatomy, physiology, neurophysiology, neurochemical and developmental characteristics of the central nervous system. Structure-function relationships in sensory and motor systems are then explored with neuroanatomical and electrophysiological perspectives. Recommended requisite, restricted to Interdepartmental Neuroscience Program or instructor consent required.

NRSC 6100 ADVANCES IN NEUROSCIENCE
Dr. Spencer 001 3:30-5:15 T MUEN E214

Designed for beginning graduate students interested in neuroscience. Students read, discuss, and evaluate the primary literature on a number of current topics in neuroscience as well as attend the seminar program in neuroscience.

NRSC 6602 ALTERNATIVE CAREERS TO ACADEMIA (BEHAVIORAL NEUROSCIENCE PROFESSIONAL SKILLS DEVELOPMENT)
Dr. Watkins 800 3:00-4:00 M MUEN D430

The focus of this course is on Alternative Careers to Academia. The rationale is simple: a large percentage (some sites quote as high as 80%) of PhDs exit academia to pursue careers outside of the Ivory Towers. How did they do that? What kinds of jobs exist outside of academia? How can one move from academia to successful non-academic careers? We'll explore this by sharing the life and career paths of people who have successfully moved from biological sciences into paths outside of academic settings. This is a rare and golden opportunity to ask whatever you'd like of people who, like you, started academia and then they decided to pursue their career path in different directions. Confirmed speakers come

from a variety of backgrounds including medical diagnostics, brain injury recovery centers, marketing research, science advisors to venture capital investors, cannabis and pharmaceutical firms, medical science liaisons, consultant firms, science writers, prosthetics, robotics, patent law, managed care, etc. This course is open to both graduate and undergraduate students in neuroscience and related fields.

NRSC 7102	MODERN NEUROSCIENCE METHODS			
Dr. Root	001	9:30-12:00	W	MUEN D424

Neuroscience has entered into an era of viral-based research whereby individual types of neurons can be assessed for their individual characteristics (e.g., receptors and neurotransmission capabilities), recorded for their natural activity during awake behavior, and manipulated to change their activity to assess their causal contributions to awake behavior. A goal of this course is to raise the consciousness of each researcher so that they can expand their understanding of the tools employed in the field of neuroscience. In order to use these tools within our research they must be understood in detail. This course will dive into the development of these techniques as well as their advantages and disadvantages. Students are expected to read published material and lead discussions of weekly topics.
