PSYCHOLOGY

Kirtland Hall, 203.432.4500
http://psychology.yale.edu
M.S., M.Phil., Ph.D.

Chair
Tyrone Cannon (203.432.4545, tyrone.cannon@yale.edu)

Director of Graduate Studies
Jennifer Richeson (203.432.6686, jennifer.richeson@yale.edu)

Professors
Woo-kyoung Ahn, John Bargh, Paul Bloom, Thomas Brown, Tyrone Cannon, B.J. Casey, Marvin Chun, Margaret Clark, John Dovidio, Jutta Joormann, Alan Kazdin (Emeritus), Frank Keil, Joshua Knobe (Philosophy), Marianne LaFrance (Women's, Gender, & Sexuality Studies), Gregory McCarthy, Jennifer Richeson, Peter Salovey, Laurie Santos, Brian Scholl, Nicholas Turk-Browne, Tom Tyler (Law School), Karen Wynn (Emerita)

Assistant Professors
Arielle Baskin-Sommers, Steve Chang, Molly Crockett, Yarrow Dunham, Dylan Gee, Maria Gendron, Avram Holmes, Julian Jara-Ettinger

Lecturers
Richard Aslin (Senior Lecturer), Christine DeMaio, Nelson Donegan, Kristi Lockhart (Senior Lecturer), Mary O'Brien, Matthias Siemer

Affiliated Faculty
Alan Anticevic (Psychiatry), Amy Arnsten (Neuroscience), Christopher Benjamin (Neurology), Tori Brescoll (School of Management), Philip Corlett (Psychiatry), Ravi Dhar (School of Management), Tamar Gendler (Philosophy), Walter Gilliam (Child Study Center), Carlos Grilo (Psychiatry), Jeannette Ickovics (Public Health), Dan Kahan (Law School), Robert Kerns (Veterans Administration Medical Center), Hedy Kober (Psychiatry), John Krystal (Psychiatry), Becca Levy (Public Health), Ifat Levy (Neuroscience), Lawrence Marks (Environmental Health Sciences), Linda Mayes (Child Study Center), Carolyn Mazure (Psychiatry), James McPartland (Child Study Center), George Newman (School of Management), Nathan Novemsky (School of Management), Helena Rutherford (Child Study Center), Wendy Silverman (Child Study Center), Dana Small (Psychiatry), Jane Taylor (Psychiatry), Fred Volkmar (Child Study Center), Gideon Yaffe (Law School)

FIELDS OF STUDY
Fields include clinical psychology; cognitive psychology; developmental psychology; neuroscience; and social/personality psychology.

SPECIAL ADMISSIONS REQUIREMENT
Scores from the GRE General Test are optional.

SPECIAL REQUIREMENTS FOR THE PH.D. DEGREE
In order to allow students to be trained in accordance with their own interests and career goals, the general requirements of the department are kept to a minimum. The formal requirements are: (1) Course work selected to meet the individual's objectives with a minimum of three basic-level courses and one course in data analysis. Two of the three required basic-level courses must be in two different areas of psychology outside the student's major area of concentration. The basic-level course requirement must be completed by the end of the second year. Students must attain an Honors grade in at least two term courses by the end of the second year of study. (2) Students are required to assist in teaching four courses by the end of their fourth year. (3) Completion of a First-Year Research Paper due by May 10 of the second term. (4) Completion of a predissertation research project, to be initiated not later than the second term and completed not later than May 1 of the second year. Certification of this research project as well as performance in course work and other evidence of scholarly work at a level commensurate with doctoral study, as judged by the faculty, are necessary for continuation beyond the second year. (5) Submission of a dissertation prospectus, and a theme essay that demonstrates the candidate's comprehensive knowledge and understanding of the area of concentration. Certification of the theme essay completes the qualifying examination. (6) Approval of the dissertation by an advisory committee and the passing of an oral examination on the dissertation and its general scientific implications. The theme essay and the dissertation prospectus are completed during the third year. Students are then formally admitted to Ph.D. candidacy. There are no language requirements.

The faculty considers teaching to be an essential element of the professional preparation of graduate students in Psychology. For this reason participation in the Teaching Fellow Program is a degree requirement for all doctoral students. They are expected to serve as teaching fellows (level 20) for four terms over the course of the second through fourth years in the program. Opportunities for teaching are matched as closely as possible with students' academic interests.

CLINICAL GRADUATE STUDENT INTERNSHIPS
Registered students undertaking their required clinical internships (usually in their sixth year) are typically not eligible for Graduate School stipend funding, since these are paid internships. Sixth-year clinical internship stipends may be topped up to the current year's Psychology stipend level only if both of the following two conditions obtain: students have not already taken their University Dissertation
Fellowship, and their clinical internship stipend falls below the Psychology stipend level for the current year. Students will be considered to have fulfilled the final requirement for the degree after successfully completing their internship (typically in July) and will be awarded degrees the following December. They will not be registered in the Graduate School during the fall term in which their degrees are conferred.

**COMBINED PH.D. PROGRAMS**

Psychology offers a combined Ph.D. degree program with African American Studies. For the combined program with African American Studies, students must apply to the African American Studies department, with Psychology indicated as the secondary department.

Psychology also offers a combined Ph.D. degree program with Philosophy. Students interested in this combined degree can apply to the Philosophy department or the Psychology department. However, if a student applies to the Philosophy department for the combined degree program, that student should also contact one or more Psychology faculty members with compatible interests so that a suitable adviser in Psychology can be identified prior to an admissions decision.

Questions about the combined degree programs may be directed to the directors of graduate studies in the participating departments prior to application.

**MASTER’S DEGREES**

**M.Phil.** The academic requirements for the M.Phil. degree are the same as for the Ph.D. degree except for the submission of a prospectus, and the completion and defense of a dissertation, which define the Ph.D.

**M.S. (en route to the Ph.D.)** The M.S. degree is awarded upon satisfactory completion of a first-year research project, a predissertation research project, and a minimum of eight courses.

Program materials are available online at http://psychology.yale.edu.

**COURSES**

**PSYC 509a, Social Cognition** John Bargh

A course in contemporary social cognition theory and research, in which students fully participate in each week’s class discussion of the assigned readings. The goal of the course is to bring students up to speed, not only on the major themes and programs of research today, but also on the historical roots and context of that research—in other words, why that research is being done in the first place.

**PSYC 511b, Cognitive Development** Yarrow Dunham

**PSYC 526b, Research Methods in Human Neuroscience** Gregory McCarthy

This laboratory course provides students with experience in the major methods used in human neuroscience research. The focus is on functional magnetic resonance imaging, electroencephalography, and evoked potentials. Psychophysiological techniques such as the measurement of skin conductance are also covered, but in less detail. Students acquire a firm understanding of each technique, and they design experiments, acquire data, and perform analyses. The course makes extensive use of MATLAB.

**PSYC 530a / INP 530a, Foundations of Neuroscience: Biological Bases of Human Behavior** Avram Holmes

The purpose of this course is to provide students with an understanding of the biological factors underlying human cognition and behavior. Particular emphasis is placed on the mechanisms associated with individual differences in healthy functions (including emotion regulation, stress sensitivity, higher cognition, reward sensitivity, impulsivity, and social functions) and their relations with psychiatric and neurological disorders. Biological factors to be covered include genetic, neuroanatomical, neurophysiological, neurochemical, hormonal, and neuropsychological influences. Several of the initial sessions are devoted to basic topics (e.g., neurons, neuronal signaling, brain systems), before we begin our discussion of the neural basis of behavior and cognition. We also cover seminal work on animal models for mechanistic insights into the neurobiology of human behavior. Graduate students with any neuroscience research interest are encouraged to take this course. Required of Psychology Ph.D. students in the neuroscience area.

**PSYC 531b, Psychopharmacology** Thomas Brown

The purpose of this course is to provide an overview of pharmacological principles and the properties of psychoactive drugs. Background is furnished on neuroanatomy and neurophysiology. Topics include therapies for neurological and psychiatric disorders as well as drugs of abuse. Special attention is paid to the molecular, cellular, and physiological mechanisms of drug effects.

**PSYC 554a / MGMT 754a, Behavioral Decision-Making II: Judgment** Ravi Dhar and Nathan Novemsky

This seminar examines research on the psychology of judgment. We focus on identifying factors that influence various judgments and compare them to which factors individuals want and expect to drive their judgments. Topics of discussion include judgment heuristics and biases, confidence and calibration, issues of well-being including predictions and experiences, regret and counterfactuals. The goal is threefold: to foster a critical appreciation of existing research on individual judgment, to develop the students' skills in identifying and testing interesting research ideas, and to explore research opportunities for adding to existing knowledge. Students generally enroll from a variety of disciplines, including cognitive and social psychology, behavioral economics, finance, marketing, political science, medicine, and public health.

**PSYC 602b / MGMT 728b, Foundations of Behavioral Economics** Shane Frederick

The course explores foundational topics in behavioral economics and discusses the dominant prescriptive models (which propose what decision makers should do) and descriptive models (which aim to describe what decision makers actually do). The course incorporates
perspectives from economics, psychology, philosophy, decision theory, and finance, and engages long-standing debates about rational choice.

**PSYC 66b, Developmental Psychopathology and Sensitive Periods of Neural Development**  BJ Casey
More than one in five children suffer from serious forms of psychopathology that emerge at different developmental times. These different time courses in the emergence of symptoms suggest sensitive periods of neural development for understanding etiological factors and when and how to intervene. This course provides an overview of brain circuitry implicated in psychiatric illnesses from a neurodevelopmental perspective. Evidence from preclinical nonhuman and human imaging empirical studies is evaluated and discussed in terms of its clinical implications. We examine how understanding the biological state of the developing brain may help to optimize and target treatments more effectively for these disorders.

**PSYC 684a, Introduction to Psychotherapy: Technique**  Mary O'Brien
The focus of the seminar is on formulating and conceptualizing psychological problems from a cognitive-behavioral perspective. Special consideration is paid to individual and cultural diversity in conceptualizing cases and planning treatment. Also discussed are ways in which cognitive-behavioral perspectives can be integrated with other theoretical orientations (e.g., interpersonal theory, experiential therapy).

**PSYC 685b, Introduction to Psychotherapy**  Mary O'Brien
Open only to doctoral students in clinical psychology. This course is designed to prepare students to conduct therapy as clinical scientists. The class blends theoretical and empirical readings with practical training in applying interventions. Evidence-based therapy processes as well as the development of nonspecific therapeutic techniques (such as communicating empathy and structuring therapy sessions) are emphasized so that these skills can be applied across a wide range of client populations and problem presentations. In this second term of the yearlong course we discuss and practice skills related to dialectical behavior therapy (DBT), psycho-educational family therapy with serious mental illness, and three evidence-based approaches to couple therapy: a cognitive behavioral approach taken by John and Julie Gottman, an acceptance-enhanced CBT approach taken by Christensen and Jacobson, and Emotionally Focused couple work by Sue Johnson. The course includes discussion of multicultural and diversity issues as they apply to these therapeutic approaches.

**PSYC 689a, Psychopathology and Diagnostic Assessment**  Mary O'Brien
Didactic practicum for first-year clinical students. Main emphasis is initial assessment. Treatment planning and evaluation of progress also covered. Students first observe and then perform initial interviews. Applicable ethics and local laws reviewed.

**PSYC 690b, Ethics, Diversity, Supervision, Consultation, and Professional Practice**  Mary O'Brien
Introduction to ethical and legal guidelines for clinical practice. In addition, supervision on diagnostic interview using the Structured Clinical Interview for DSM-IV is provided.

**PSYC 691b, Law and Community Vitality**  Tom Tyler
Legal scholars, as well as judicial, police, and prison authorities, have emphasized that “you cannot arrest your way out of crime.” Most legal policies and practices are a response to underlying issues within communities. This seminar examines how existing laws and the policies and practices of current authorities support or undermine communities. A key goal is identifying alternative approaches through which law could support the social, economic, and political development of communities and the quality of the lives of the people within them. The class is structured around discussing the writing of people central to this literature. To the degree possible, we bring them into class (in person or virtually) to present and elaborate upon their ideas. Enrollment limited to twenty. Also LAW 21431.

**PSYC 702a or b, Current Work in Cognition**  Paul Bloom
A weekly seminar in which students, staff, and guests report on their research in cognition and information processing.

**PSYC 704a or b, Current Work in Behavior, Genetics, and Neuroscience**  Staff
Examination of the current status of research and scientific knowledge bearing on issues of behavior, genetics, and neuroscience. Weekly speakers present research, which is examined methodologically; recent significant journal articles or technical books are also reviewed.

**PSYC 708a or b, Current Work in Developmental Psychology**  Paul Bloom
A luncheon meeting of the faculty and graduate students in developmental psychology for reports of current research and discussion on topics of general interest.

**PSYC 710a or b, Current Work in Social Psychology and Personality**  Maria Gendron
Faculty and students in personality/social psychology meet during lunchtime to hear about and discuss the work of a local or visiting speaker.

**PSYC 715b, History and Systems in Psychology**  Arielle Baskin-Sommers
Basic and applied current research on the history and systems in psychology is presented by faculty, visiting scientists, and graduate students and examined in terms of theory, methodology, and ethical and professional implications. Students cannot simultaneously enroll in PSYC 720. Open to clinical psychology graduate students only.

**PSYC 720a or b, Current Work in Clinical Psychology**  Arielle Baskin-Sommers
Basic and applied current research in clinical psychology that focuses on the cognitive, affective, social, biological, and developmental aspects of psychopathology and its treatment is presented by faculty, visiting scientists, and graduate students. This research is examined in terms of theory, methodology, and ethical and professional implications. Students cannot simultaneously enroll in PSYC 718 or 719.
PSYC 724a or b, Research Topics in Cognition, Emotion, and Psychopathology  Jutta Joormann
This weekly seminar focuses on the role of cognition and emotion in psychopathology. We discuss recent research on basic mechanisms that underlie risk for psychopathology such as cognitive biases, cognitive control, and biological aspects of psychological disorders. The seminar also focuses on the interaction of cognition and emotion, on the construct of emotion regulation, and on implications for psychopathology.

PSYC 725a or b, Research Topics in Human Neuroscience  Gregory McCarthy
Discussion of current and advanced topics in the analysis and interpretation of human neuroimaging and neurophysiology.

PSYC 727a or b, Research Topics in Clinical Neuroscience  Tyrone Cannon
Current research into the biological bases of schizophrenia and bipolar disorder, including topics related to etiology, treatment, and prevention.

PSYC 729a or b, Research Topics in Language and Cognition  Paul Bloom
Seminar focusing on ongoing research projects in language, cognition, and development. Prerequisite: permission of the instructor.

PSYC 731a or b, Research Topics in Cognition and Development  Frank Keil
A weekly seminar discussing research topics concerning cognition and development. Primary focus on high-level cognition, including such issues as the nature of intuitive or folk theories, conceptual change, relations between word meaning and conceptual structure, understandings of divisions of cognitive labor, and reasoning about causal patterns.

PSYC 732a or b, Research Topics in Visual Cognitive Neuroscience  Marvin Chun
Examines current research in visual cognitive neuroscience, including discussion of proposed and ongoing research projects. Topics include visual attention, perception, memory, and contextual learning.

PSYC 733a or b, Research Topics in Social Cognitive Development  Yarrow Dunham
Investigation of various topics in developmental social cognition. Particular focus on the development of representations of self and other, social groups, and attitudes and stereotypes.

PSYC 735a or b, Research Topics in Thinking and Reasoning  Woo-kyoung Ahn
In this lab students explore how people learn and represent concepts. Weekly discussions include proposed and ongoing research projects. Some topics include computational models of concept acquisition, levels of concepts, natural kinds and artifacts, and applications of some of the issues.

PSYC 737a or b, Research Topics in Clinical and Affective Neuroscience  Avram Holmes
Seminar focusing on ongoing research projects in clinical, cognitive, and translation neuroscience. Prerequisite: permission of the instructor.

PSYC 739a or b, Research Topics in Autism and Related Disorders  Fred Volkmar
Focus on research approaches in the study of autism and related conditions including both psychological and neurobiological processes. The seminar emphasizes the importance of understanding mechanisms in the developmental psychopathology of autism and related conditions.

PSYC 741a or b, Research Topics in Emotion and Relationships  Margaret Clark
Members of this laboratory read, discuss, and critique current theoretical and empirical articles on relationships and on emotion (especially those relevant to the functions emotions serve within relationships). In addition, ongoing research on these topics is discussed along with designs for future research.

PSYC 742a or b, Research Topics in Computation and Cognition  Julian Jara-Ettinger
Seminar-style discussion of recently published and unpublished researched in cognitive development and computational models of cognition.

PSYC 744a or b, Research Topics in Philosophical Psychology  Joshua Knobe
The lab group focuses on topics in the philosophical aspects of psychology.

PSYC 745a or b, Research Topics in Disinhibitory Psychopathology  Arielle Baskin-Sommers
This laboratory course focuses on the study of cognitive and affective mechanisms contributing to disinhibition. We discuss various forms of disinhibition from trait (e.g., impulsivity, low constraint, externalizing) to disorder (e.g., antisocial personality disorder, psychopathy, substance use disorders), diverse methods (e.g., psychophysiology, self-report, neuroimaging, interventions), and multiple levels of analyses (e.g., neural, environmental, social). Members of this laboratory read and critique current articles, discuss ongoing research, and plan future studies.

PSYC 752a or b, Research Topics in Neuroscience of Social Behavior  Steve Wohn Chang
A weekly seminar discussing recent advances in neuroscience of social behavior. We discuss recent progress in research projects by the lab members as well as go over recently published papers in depth. Primary topics include neural basis of social decision-making, social preference formation, and social information processing. Our lab studies these topics by combining neurophysiological and neuroendocrinological techniques in nonhuman animals.

PSYC 753a or b, Research Topics in Law and Psychology  Tom Tyler
Lab focusing on ongoing research projects in law and psychology.
PSYC 754a or b, Research Topics in Clinical Affective Neuroscience and Development  Dylan Gee
This weekly seminar focuses on current research related to the developmental neurobiology of child and adolescent psychopathology. Topics include typical and atypical neurodevelopmental trajectories, the development of fear learning and emotion regulation, effects of early life stress and trauma, environmental and genetic influences associated with risk and resilience, and interventions for anxiety and stress-related disorders in youth.

PSYC 755a or b, Research Topics in Intergroup Relations  Jennifer Richeson
Students in this laboratory course are introduced to and participate in social-psychological research examining interactions and broader relations between members of socioculturally advantaged and disadvantaged groups. For instance, we examine the phenomena and processes associated with one’s beliefs about members of social groups (stereotypes), attitudes and evaluative responses toward group members (prejudice), and behaviors toward members of a social group based on their group membership (discrimination). We also study how these issues shape the experiences of social group members, especially when they are members of low-status and/or minority groups. We primarily focus on large societal groups that differ on cultural dimensions of identity, with a focus on race, ethnicity, and gender. Notably, we apply the theoretical and empirical work to current events and relevant policy issues.

PSYC 756a or b, Research Topics in the Fundamentals of Adolescent Brain and Behavior  BJ Casey
We examine and discuss how the brain is sculpted by biological and experiential factors to adapt to the unique challenges of adolescence using behavioral, psychophysiological, genetic, and brain-imaging methods. Emphasis is on how the capacity for self-control changes with age and across different social and emotional situations.

PSYC 757a or b, Research Topics in Social Neuroscience and Behavior  Molly Crockett
Seminar-style discussion of recent research in social neuroscience and behavior, covering both recent studies from the literature and ongoing research at Yale.

PSYC 758a or b, Research Topics in Cognitive Neuroscience  Nicholas Turk-Browne
Seminar-style discussion of recent research in cognitive neuroscience, covering both recent studies from the literature and ongoing research at Yale.

PSYC 759a or b, Research Topics in Affective Science and Culture  Maria Gendron
A seminar-style discussion of recent research and theory in affective science and culture. The lab group focuses on the social and cultural shaping of emotions. We also discuss the biological constraints on variation and consistency in emotion as revealed by physiological research on emotion (in both the central and peripheral nervous system). Some discussion of current and planned research in the lab group also takes place.

PSYC 766a or b, Research Topics in Perception and Cognition  Brian Scholl
Seminar-style discussion of recent research in perception and cognition, covering both recent studies from the literature and the ongoing research in the Yale Perception and Cognition Laboratory.

PSYC 771a or b, Research Topics in Nonconscious Processes  John Bargh
The lab group focuses on nonconscious influences of motivation, attitudes, social power, and social representations (e.g., stereotypes) as they impact on interpersonal behavior, as well as the development and maintenance of close relationships.

PSYC 775a or b, Research Topics in Animal Cognition  Laurie Santos
Investigation of various topics in animal cognition, including what nonhuman primates know about tools and foods; how nonhuman primates represent objects and number; whether nonhuman primates possess a theory of mind. Prerequisite: permission of the instructor.

PSYC 777a or b / WGSS 767a or b, Research Topics in Gender and Psychology  Marianne LaFrance
The “Gender Lab” meets weekly to consider research being done in the Psychology department that bears on some gender-related issue.

PSYC 778a or b, Research Topics in Clinical and Affective Neuropsychology  Hedy Kober
Lab meeting is held once a week throughout the year and is attended by undergraduate and graduate students, research staff, postdoctoral fellows, and other researchers interested in the weekly topics. In a rotating fashion, both internal and external speakers present data and ideas from various research projects, and/or research and methods papers in related areas, including the use of functional magnetic resonance imaging to answer questions in clinical and affective psychology.

PSYC 805b, Affective Bases of Behavior  Dylan Gee
Primary source readings and lectures by experts on broad and general topics in the affective bases of behavior. Open only to graduate students in clinical psychology.

PSYC 811a or b, Mood and Anxiety Disorders Practicum  Mary O’Brien
This is a course for graduate students in clinical psychology. Group supervision of therapy provided at the Yale Psychology Department Clinic.

PSYC 920a, First-Year Research  Staff
By arrangement with faculty.

PSYC 923a, Individual Study: Theme Essay  Staff
By arrangement with faculty.
PSYC 925a, Individual Tutorial  Staff
By arrangement with faculty and approval of DGS.

PSYC 930a, Predissertation Research  Staff
By arrangement with faculty.