**PSYCHOLOGY (PSYC)**

**PSYC 110a, Introduction to Psychology**  Samuel McDougle  
A survey of major psychological approaches to the biological, cognitive, and social bases of behavior.  

**PSYC 116b / CGSC 216b / LING 116b, Cognitive Science of Language**  Staff  
The study of language from the perspective of cognitive science. Exploration of mental structures that underlie the human ability to learn and process language, drawing on studies of normal and atypical language development and processing, brain imaging, neuropsychology, and computational modeling. Innate linguistic structure vs. determination by experience and culture; the relation between linguistic and nonlinguistic cognition in the domains of decision making, social cognition, and musical cognition; the degree to which language shapes perceptions of color, number, space, and gender.  

* **PSYC 118a, Disney: A Case Study in Applied Psychology**  Katherine Battle  
Disney wields enormous influence on our society. Its domination of social media, film, theme parks, and online merchandising allows Disney to shape entire generations. This course uses a theoretical and empirical framework of psychology to examine how Disney exerts its influence and what impact that influence has on behavior, self-perception, and mental health. We incorporate theories and practices from a wide range of branches of psychology including social, clinical, industrial/organization, neuropsychology, developmental, environmental, and media psychology as a foundation for the seminar. The course interweaves related multidisciplinary readings and insights from perspectives including (but not limited to) women's, gender, and sexuality studies; race and ethnicity; film and media; visual arts; music; environmental studies; food/health; philosophy/morality; global affairs; and economics. The course begins with an overview of how Disney uses psychology to influence behavior in its theme parks, online marketing, and workplace and will culminate in a critical examination of representation in Disney films/media and the psychological literature on how that representation impacts self-perception and mental health. Students have ample opportunity to focus on specific areas of interest in weekly responses and longer writing assignments. Prior coursework in psychology is not necessary, nor is it assumed. Prior coursework in psychology is not necessary, nor is it assumed.  

* **PSYC 125a / CHLD 125a / EDST 125a, Child Development**  Ann Close and Carla Horwitz  
This course is first in a sequence including Theory and Practice of Early Childhood Education (CHLD127/PSYCH 127/EDST 127) and Language Literacy and Play (CHLD 128/PSYCH 128/EDST 128). This course provides students a theoretical base in child development and behavior and tools to sensitively and carefully observer infants and young children. The seminar will consider aspects of cognitive, social, and emotional development. An assumption of this course is that it is not possible to understand children – their behavior and development – without understanding their families and culture and the relationships between children and parents. The course will give an overview of the major theories in the field, focusing on the complex interaction between the developing self and the environment, exploring current research and theory as well as practice. Students will have the opportunity to see how programs for young
children use psychodynamic and interactional theories to inform the development of their philosophy and curriculum. Weekly Observations:-Total Time Commitment 3 hours per week. Students will do two separate weekly observations over the course of the semester. They will observe in a group setting for 2 hours each week at a Yale affiliated child care center. Students will also arrange to do a weekly 1 hour observation (either in person or virtually) of a child under the age of 6. Students must make their own arrangements for these individual observations. If it is not possible to arrange a child to observe, please do not apply to take this course. For a portion of class meetings, the class will divide into small supervisory discussion groups. Priority given to juniors, seniors, Ed Study students. wr, so

* PSYC 127b / CHLD 127b / EDST 127b, Theory and Practice of Early Childhood Education Carla Horwitz

The course deals with development and delivery of curricula for young children ages 3-6 and the current context of educational reform and debate. Goals are to deepen insights through critical analysis of educational programs for young children in light of current research and developmental theory and to understand how political context contributes to the practice of education. Regularly scheduled seminar discussions and workshops that engage students with learning materials emphasize the ongoing dynamic process of developing emergent curriculum and focus on methods of creating a responsive, inclusive environment; planning and assessment; appreciating cultural and linguistic diversity; teachers’ roles; anti-bias education; working with families; conceptualizing the professional challenges of collaborating on a teaching team within the organization of the school; standards and accountability and the role of policy and advocacy in educational change. The course will use newspaper and magazine articles and other recent media as primary sources in addition to current research and other texts. Students must arrange to do a weekly one-hour observation (in-person or virtually) of a child under age 6 and an additional 2 hour in-person classroom observation at Calvin Hill Day Care Center. Total observation time commitment is 3 hours per week. CHLD 125 is recommended. Permission of instructor is required. Priority given to juniors, seniors, and Ed Study students. wr, so rp

* PSYC 128b / CHLD 128b / EDST 128b, Language, Literacy, and Play Ann Close and Carla Horwitz

The focus of this course will be to demonstrate the complicated role that play has in the development of language and literacy skills. A major part of each topic presentation will be a discussion of the role that play has in the curriculum in enhancing these developmental areas. There is a widespread consensus that play is an essential component of a developmentally appropriate early childhood curriculum. Research indicates that play enhances a child’s creativity, intellectual development and social emotional development. Because learning to play, learning language and learning literacy skills are all part of the process of thinking and communication, the course will provide a view which attempts to demonstrate the integration of language, literacy and play in an early childhood education curriculum. Theoretical aspects of each of these developmental areas will be examined first, and it will be that theoretical understanding which will be the basis upon which ideas about curriculum will be explored, experienced and discussed. Students must arrange to do a weekly one-hour observation (in-person or virtually) of a child under age 6 and an additional 2 hour in-person classroom observation at Calvin Hill Day Care Center. Total observation time
commitment is 3 hours per week. Permission of instructor. Enrollment priority will be given to juniors, seniors, and education study scholars. WR, SO RP

**PSYC 130a / CGSC 110a, Introduction to Cognitive Science**  
Brian Scholl  
An introduction to the interdisciplinary study of how the mind works. Discussion of tools, theories, and assumptions from psychology, computer science, neuroscience, linguistics, and philosophy. SO

**PSYC 140a / EDST 140a, Developmental Psychology**  
Julia Leonard  
An introduction to research and theory on the development of perception, action, emotion, personality, language, and cognition from a cognitive science perspective. Focus on birth to adolescence in humans and other species. Prerequisite: PSYC 110. SO

**PSYC 141a / NSCI 141a, The Criminal Mind**  
Arielle Baskin-Sommers  
Theoretical and empirical study of the development of criminal behavior, including constitutional, social, and neurobiological elements. Personality and psychopathological factors associated with criminal behavior; theoretical and psychobiological explanations of crime; the biological/environment interaction; the impact of psychobiological models for policy and intervention. SO

**PSYC 150a / EDST 160a, Social Psychology**  
Maria Gendron  
Theories, methodology, and applications of social psychology. Core topics include the self, social cognition/social perception, attitudes and persuasion, group processes, conformity, human conflict and aggression, prejudice, prosocial behavior, and emotion. SO

**PSYC 160a / NSCI 160a, The Human Brain**  
Gregory McCarthy  
Introduction to the neural bases of human psychological function, including social, cognitive, and affective processing. Preparation for more advanced courses in cognitive and social neuroscience. Topics include memory, reward processing, neuroeconomics, individual differences, emotion, social inferences, and clinical disorders. Neuroanatomy, neurophysiology, and neuropharmacology are also introduced. SC

**PSYC 200a, Statistics**  
Staff  
Measures of central tendency, variability, association, and the application of probability concepts in determining the significance of research findings. This course may not be taken after S&DS 100. QR 0 Course cr

* **PSYC 235a, Research Methods, Writing Intensive**  
Yarrow Dunham  
Introduction to general principles and strategies of psychological research. Topics include generating and testing hypotheses, laboratory and field experiments, scale construction, sampling, archival methods, case studies, ethics and politics of research, and Internet and cross-cultural methods. Hands-on research experience in laboratories. Prerequisite: PSYC 200 or S&DS 103. WR, SO

* **PSYC 312a / ER&M 412a, Native American Mental Health**  
Mark Beitel and Christopher Cutter  
Issues of health policy, research, and service delivery in Native American communities, with a focus on historical antecedents that shape health outcomes and social policy for indigenous communities. Urgent problems in health and wellness, with special attention to Native American mental health. The roles of the Indian Health Service, state and local agencies, and tribal health centers; comparison of Native American and European American conceptions of health and illness. SO
* PSYC 314a / CGSC 314a, Performance Psychology and Neuroscience  Marvin Chun  
Human cognitive and motor performance fluctuates over time and varies across situations. What explains peak performance and how can it be sustained? The variation can be explained by neural mechanisms of attention and executive control; psychological factors like emotion, stress, mindset, and positive thinking; and physiological factors such as sleep and exercise, which affect the brain and mind.  

**PSYC 317a / EDST 237a / LING 217a, Language and Mind**  Maria Pinango  
The structure of linguistic knowledge and how it is used during communication. The principles that guide the acquisition of this system by children learning their first language, by children learning language in unusual circumstances (heritage speakers, sign languages) and adults learning a second language, bilingual speakers. The processing of language in real-time. Psychological traits that impact language learning and language use.  

**PSYC 318a / LING 220a, Phonetics I**  Natalie Weber  
Each spoken language composes words using a relatively small number of speech sounds, a subset of the much larger set of possible human speech sounds. This course introduces tools to describe the complete set of speech sounds found in the world's spoken languages. It covers the articulatory organs involved in speech production and the acoustic structure of the resulting sounds. Students learn how to transcribe sounds using the International Phonetic Alphabet, including different varieties of English and languages around the world. The course also introduces sociophonetics, how variation in sound patterns can convey social meaning within a community, speech perception, and sound change.  

**PSYC 327a / LING 227a, Language and Computation I**  Tom McCoy  
This course introduces the design and analysis of computational models of language. There are many properties of language that make it challenging to handle computationally: First, language is ambiguous - a given word or sentence can have many possible meanings. Second, our linguistic experience is sparse - many aspects of language (e.g., certain sentence structures) occur very rarely, posing a challenge for computational systems that learn from data. Third, language has an enormous amount of hidden structure - words and other linguistic units can have complex relationships with each other that are not apparent on the surface. In this course, we explore the computational approaches that can overcome these challenges. Topics include finite state tools, neural networks, Bayesian approaches, computational morphology and phonology, grammar and parsing, lexical semantics, and the use of linguistic models in applied problems. Prerequisite: prior programming experience or permission of instructor.  

**PSYC 331b / LING 231b, Neurolinguistics**  Maria Pinango  
The study of language as a cognitive neuroscience. The interaction between linguistic theory and neurological evidence from brain damage, degenerative diseases (e.g., Alzheimer's disease), mental illness (e.g., schizophrenia), neuroimaging, and neurophysiology. The connection of language as a neurocognitive system to other systems such as memory and music. At least one class that introduces students to linguistic theory and linguistic argumentation from at least one perspective, including any of the following: (1) LING 217 Language and Mind, (2) LING 110 Intro to linguistics, (3) LING 253 Syntax 1, (4) LING 112 Historical Linguistics, (5) LING 232...
Phonology 1, (6) LING 220 General Phonetics, or (7) Instructor permission. SC, SO

* PSYC 337a, Multicultural Psychology  Mica Rencher
Multicultural Psychology examines how identity, and its social contexts, impacts human behavior and perspectives. This course will introduce students to theoretical and practical approaches used to assess the impact of culture on various psychological processes. Such examination will be guided by real-world application of material covered in class and required readings. Topics will include class, culture, family, gender, mental and physical health, race, religion and spirituality, and stereotyping and prejudice. SO

* PSYC 350b / CHLD 350b / EDST 350b, Autism and Related Disorders  Mariana Torres-Viso, Kelly Powell, and James McPartland
Weekly seminar focusing on autism and related disorders of socialization. A series of lectures on topics in etiology, diagnosis and assessment, treatment and advocacy, and social neuroscience methods; topics cover infancy through adulthood. Supervised experience in the form of placement in a school, residence, or treatment setting for individuals with autism spectrum disorders. Details about admission to the course are explained at the first course meeting. Prerequisite: an introductory psychology course. SO

* PSYC 375a / CGSC 375a / LING 375a, Linguistic Meaning and Conceptual Structure  Maria Pinango
The meaning of a word or sentence is something in the human mind that has specific properties: it can be expressed (written/signed/spoken forms); it can be combined with other meanings; its expression is not language dependent; it connects with the world; it serves as a vehicle for inference; and it is hidden from awareness. The course explores these properties in some detail and, in the process, provides the students with technical vocabulary and analytical tools to further investigate them. The course is thus intended for those students interested in undertaking a research project on the structure of meaning, the nature of lexico-conceptual structure, that is, the structure of concepts which we refer to as “word meanings”, and how they may be combined through linguistic and non-linguistic means. Its ultimate objective is to bridge models of conceptual structure and models of linguistic semantic composition, identify their respective strengths and weaknesses and explore some of the fundamental questions that any theory of linguistic meaning composition must answer. Evidence discussed will emerge from naturalistic, introspectional, and experimental methodologies. Prerequisites: LING 110, CGSC 110, LING 217, or LING 263. SO

* PSYC 408a, Topics in Thinking  Woo-Kyoung Ahn
A survey of psychological studies on thinking and reasoning, with discussion of ways to improve thinking skills. Topics include judgments and decision making, counterfactual reasoning, causal learning, inductive inferences, analogical reasoning, problem solving, critical thinking, and creativity. Students who have taken PSYC 179 are not eligible to enroll in this course. SO

* PSYC 440a, The Psychology of Attraction and Close Relationships  Margaret Clark
This course is an advanced seminar covering psychological research on interpersonal attraction and intra- and interpersonal psychological processes that lead to thriving
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(or stumbling) in close relationships such as friendships, romantic relationships, and family relationships. It covers research on what attracts people to one another, relationship initiation, commitment, and the maintenance and deterioration of relationships. It is neither a self-help nor clinical course but, rather, a social psychological course focusing on processes that influence most people’s relationships which also includes some work on individual differences in the functioning of close relationships. This course has no set prerequisites. One research methods course in psychology and at least one lecture course covering aspects of social psychology (e.g. introductory psychology, social psychology) are suggested. It is most appropriate for junior and senior psychology majors and for social psychology or clinical psychology graduate students interested in relational processes.

* PSYC 442a / NSCI 444a, Topics in Clinical Neuroscience  Tyrone Cannon
This course is an advanced seminar examining the biological bases of psychopathology. We cover research, theory, and controversies regarding the roles of genetics, neurotransmitter systems, brain development and function, and other biological influences in the major classes of mental disorders, including anxiety disorders, depression, schizophrenia, bipolar disorder, obsessive compulsive disorder, substance use disorders, eating disorders, and autism. Prominent theories emanating from cognitive, behavioral, and interpersonal approaches to psychopathology are examined in the context of multilevel models of behavior, and the interplay of biological and psychological factors are a central theme throughout. Prerequisite: PSYC 160

* PSYC 449a / NSCI 449a, Neuroscience of Social Interaction  Steve Chang
This seminar covers influential studies that inform how the brain enables complex social interactions from the perspectives of neural mechanisms. Students thoroughly read selected original research papers in the field of social neuroscience across several animal species and multiple modern neuroscience methodologies. In class, the instructor and students work together to discuss these studies in depth. Focused topics include neural mechanisms behind brain-to-brain coupling, empathy, prosocial decision-making, oxytocin effects, and social dysfunction. Prerequisite: PSYC 160 or permission from the instructor.

* PSYC 453a, The Science of the Human Mind: Pioneers between the Objective and Subjective  Kia Nobre
The human mind, with its subjective nature, is the most mysterious and elusive of all substances in the known universe. It took intrepid thinkers and ingenious scientists to forge the objective empirical study of mental functions. Today human experimental psychology, cognitive science, and neuroscience are thriving. How far have we come from the pioneering days and are we headed in a good direction? This seminar course will offer the advanced and scholarly minded student the opportunity to take a deep dive into the fundamental breakthroughs that opened the experimental study of the human mind and that continue to push the boundaries between the objective and subjective in new directions. Prerequisites: PSYC 110, PSYC 130 or PSYC 160. PSYC 335 is strongly advised.

* PSYC 493a, Directed Research  Yarrow Dunham
Empirical research projects or literature review. A student must be sponsored by a faculty member, who sets the requirements and supervises the student’s progress. To register, the student must download a tutorial form from http://psychology.yale.edu/undergraduate/undergraduate-major-forms, complete it with the adviser, and submit
it to the director of undergraduate studies by the deadline listed on the form. The normal minimum requirement is a written report of the completed research or literature review, but individual faculty members may set alternative equivalent requirements. May be elected for one or two terms. May not be used for the Psychology senior essay requirement.

* PSYC 495a, Research Topics  Yarrow Dunham
Empirical research project or literature review. A student must be sponsored by a faculty member, who sets the requirements and supervises the student’s progress. To register, the student must download a tutorial form from http://psychology.yale.edu/undergraduate/undergraduate-major-forms, complete it with the adviser, and submit it to the director of undergraduate studies by the date indicated on the form. The normal minimum requirement is a written report of the completed research or literature review, but individual faculty members may set alternative equivalent requirements. May be elected for one or two terms. May not be used for the Psychology senior essay requirement. ½ Course cr

* PSYC 499a, Senior Essay  Yarrow Dunham
Independent senior research project (either empirical research or literature review), conducted under the guidance of a faculty adviser who sets the requirements and supervises the research. To register, the student must download a tutorial form from http://psychology.yale.edu/undergraduate/undergraduate-major-forms, complete it with the adviser, and submit it by the deadline indicated on the form. The normal minimum requirement is a written report of the completed research or literature review, but individual faculty members may set alternative equivalent requirements. A paper of 5,000 words or more meets the writing needed for the senior requirement. To be considered for Distinction in the Major, the paper should be submitted at least one week before the last day of classes and will be graded by the adviser and a second reader assigned by the DUS.