

# Psychological & Brain Sciences

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## Courses

### PSYCH 1000 Introduction to Psychology

A survey and analysis of concepts, theory, and research covering the areas of biological psychology, human development, learning, memory, social psychology, and mental disorders and their treatment. This is a general survey course designed to introduce students to the diversity of topics, research methods, and theories that comprise the study of mind and behavior. Psych 100B is required of all majors and is a prerequisite to all upper-level courses in Psychological & Brain Sciences. Open to first-year students and above. NOTE: For first-year students with AP/IB exemption, and first- and second-year students enrolled in Psych 100B who are interested in exploring a few areas of Psychology within a seminar format, see Psych 102, First-Year Opportunity: Contemporary Issues in Psychology.  
 Credit 3 units. A&S IQ: SSC Art: SSC BU: BA EN: S  
 Typical periods offered: Fall, Spring, Summer

### PSYCH 1100 First-Year Opportunity: Contemporary Issues in Psychology

This seminar enables students to explore several of the ideas and issues in contemporary psychology. Each week a different issue is discussed, and students familiarize themselves with critical aspects of the issue and discuss and critically evaluate the pros and cons of each side. Open to First-Year students who are concurrently enrolled in or who have completed (or are exempt from) Psych 100B/1000. Also open to Sophomores who are concurrently enrolled in Psych 100B/1000. Sections are limited to 15 students  
 Credit 1 unit. A&S IQ: SSC Art: SSC EN: S  
 Typical periods offered: Fall, Spring

### PSYCH 1101 First-Year Opportunity: Psychology of Young Adulthood

This course will cover selected topics relevant to the developmental, social, personal, and cognitive issues confronting young adults during their college years. Material will be drawn mainly from the field of psychology, and the emphasis will be on the scientific basis of concepts and on empirically supported strategies for growth and development. The knowledge gained may contribute to academic success, personal development, and a more rewarding social and academic experience over the course of college and beyond. This one-unit course is only open to first-year students. Credit/No Credit only.  
 Credit 1 unit.  
 Typical periods offered: Fall

### PSYCH 1160 First-Year Opportunity: Research in Psychology

Weekly one-hour presentations by the Psychological & Brain Sciences Department faculty. Each week a member of the faculty will present a lecture in an area of interest. The seminar will introduce students to research areas and issues of current interest. The seminar is highly recommended for those individuals with an interest in Psychology. Open to First-Years and Sophomores only. Credit/No Credit option only.  
 Credit 1 unit. A&S IQ: SSC Art: SSC EN: S  
 Typical periods offered: Spring

### PSYCH 1170 First-Year Opportunity: Mindfulness Science & Practice

Mindfulness is a term that is becoming increasingly used in popular culture to refer to a set of skills associated with increased attentional focus, successful stress-management, and improved health, sleep, and emotional well-being. This course will expose students to the various facets of mindfulness from both an applied and scientific perspective, by teaching mindfulness skills through a set of easy-to-learn practices and exercises, and by surveying of empirical research regarding mindfulness effects on cognition, emotion, brain function, and health. The goal of the seminar will be to provide practical skills that can contribute to personal development, emotional well-being, and academic success, while also developing critical thinking skills in learning how to read and evaluate primary scientific literature on mindfulness. Open to freshman only.  
 Credit 1 unit.  
 Typical periods offered: Spring

### PSYCH 1600 The Science of Effective Study Strategies

You have now spent at least 12 years in school, studying for exams and/or tests (for most of you, that's most of your lifetime). What can current research tell us about how well we study, whether we make efficient study decisions, and whether our study strategies are effective? This course offers an overview of current research from cognitive and educational psychology on effective study strategies. Throughout this course, students will be encouraged to develop their understanding of scientific research and evaluate evidence supporting study strategies. PREREQ: Open only to freshmen and sophomores. Credit/no credit only.  
 Credit 1 unit. A&S IQ: SSC EN: S  
 Typical periods offered: Fall, Spring

### PSYCH 1995 Psychology Coursework Completed Abroad

This course is for study abroad credits.  
 Credit 1-12 units.  
 Typical periods offered: Fall, Spring

### PSYCH 1996 Psychological & Brain Sciences Elective - 100 Level

This course is for elective or transfer credits.  
 Credit 0.5-12 units. EN: H, S  
 Typical periods offered: Fall, Spring, Summer

### PSYCH 2190 The Infant Mind: Sophomore Seminar

What goes on inside the mind of an infant? In this course we will explore a variety of hot topics concerning how babies experience the world around them. We will cover topics such as temperament (Do babies get mad?), language and communication (How do infants learn words and what if a baby is exposed to more than one language?), the effects of poverty on the developing brain (Does it matter?), social categories and relationships (Do babies notice differences across people?), and morality (Do babies have a sense of justice?). We will also discuss how to put child development research into practice, for example, by considering research relevant to policies concerning vaccination, early childhood education, and whether screen time is okay for babies.

Students will have ample opportunity to interact with children at a local childcare center, where they can experience first-hand the research they are learning about in class. If you are curious about the developing mind, human nature, or considering a career in a field that involves children (e.g., education, medicine, public policy) this course is for you. PREREQ: Sophomore standing, and is open to students from all majors. Enrollment is restricted to 20 sophomores or permission of instructor. Credit 3 units. A&S IQ: SSC BU: BA EN: S  
Typical periods offered: Spring

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**PSYCH 2196 Practical Applications in Psychology and Brain Science**

Credit for internships in Psychological and Brain Sciences  
Credit 3 units.  
Typical periods offered: Fall, Spring, Summer

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**PSYCH 2210 First-Year Seminar: Introduction to Memory Studies**

This course focuses on memory not only as an individual phenomenon but also how our memories for historical events can be determined by the groups to which we belong (collective memory). We will survey such topics as experimental methods and findings in the study of individual memory; questions of accuracy and vividness of memory; false and illusory memories; eyewitness memory reports that are used in trials; methods to greatly enhance learning and memory; and people with extraordinary memories; . We then transition to the study of collective memory, or how our memories and identities are shaped by the groups to which we belong. The topics will include transmission of memories and identity through narratives; shared historical memories; battles over how the past is to be remembered; and revision of the memories of the past to meet concerns of the present. We also consider how memory is used in political arguments. Enrollment is restricted to first-year students..  
Credit 3 units. A&S IQ: SSC Art: SSC BU: BA EN: S  
Typical periods offered: Spring

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**PSYCH 2610 Applying the Science of Learning**

This course is intended to cover the science of human learning, with special focus on areas, theory, and research that have potential to improve how students learn. Thus, the course will provide selective coverage of theoretical and empirical work in the science of learning that can inform and improve student learning. The applicability of these themes to the students in this course will be explicitly developed through students' explicit translation of the experimental findings from the literature to their own learning challenges. The course will be organized around three major integrated goals. First, the relevant basic theory and findings in select topics in the science of learning will be covered. Second, the implications of this work for improving learning outcomes in authentic educational contexts will be considered. Third, together we will develop concrete techniques and examples of how the principles that emerge can be adopted to significantly enhance outcomes of lifelong learning challenges. Prerequisite: Psych 100B.  
Credit 3 units. A&S IQ: SSC Art: SSC BU: BA EN: S  
Typical periods offered: Spring

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**PSYCH 2900 Directed Research in Psychological & Brain Sciences**

Introduces first-years and sophomores to research by engaging them in ongoing faculty research projects within the department. Under the direction of a faculty mentor, students take part in tasks that contribute to the mentor's research. Through this hands-on experience, students learn about the research process and build foundational research skills that can benefit their future academic experience and development. Faculty mentors provide regular guidance, training, and feedback to

support students' understanding and growth. Students are registered by the department after approval from the faculty member leading the research project. The course may be taken for 1-3 credit hours based on the weekly hours required. Credit/No Credit only  
Credit 3 units.

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**PSYCH 2901 Internship in Psychology**

An opportunity to gain practical, applied experience in a non-academic, community service agency. For description of prerequisites, course goals, agency selection, registration policies, and course requirements, obtain a copy of Internships in Psychology available in room 207B in Somers Family Hall or on the P&BS website: <http://psychweb.wustl.edu/undergraduate>. This course can be taken only once, open to junior and senior P&BS majors only. Credit/No Credit only. Permission of Instructor Required.  
Credit 3 units.  
Typical periods offered: Fall, Spring

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**PSYCH 2902 Practicum: Peer Crisis Intervention Training**

See department for details. Credit cannot be counted toward fulfilling the requirements for the major or minor in P&BS. Credit/No Credit only. Enrollment by Department Only.  
Credit 2 units.  
Typical periods offered: Fall, Spring

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**PSYCH 2910 Practicum in Applied Behavior Analysis: Autism Spectrum Disorder**

An opportunity to be trained in applied behavior analytic techniques and to work with a child with autism spectrum disorder. Training and supervision will be arranged and coordinated by the family of the child and/or their consultant/agency. Students must complete the minimum number of hours of training and therapy, and attend regular therapy meetings. In addition, there is a required seminar for discussion of assigned readings and presentations on autism and therapy. Completion of a paper in the second semester also is required. For further information and petition form, pick up the Practicum brochure from the Department. Credit/No Credit only. Enrollment through the practicum coordinator only.  
Credit 0.5-3 units.  
Typical periods offered: Fall, Spring

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**PSYCH 2993 Study Abroad Seminar**

Required of students in the approved Psychology Study Abroad Program. Enrollment by Study Abroad Office only. Credit/No Credit only.  
Credit 1 unit. A&S IQ: SSC EN: S  
Typical periods offered: Fall, Spring

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**PSYCH 2994 Study Abroad: Experiences in Psychology**

PREREQ: Enrollment in an approved Psychology Study-Abroad program and prior permission of the Director of Undergraduate Studies. Credit to be arranged. CR/NCR only. Credit variable, max 3 units.  
Credit 3 units.  
Typical periods offered: Spring

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**PSYCH 2995 Psychological & Brain Sciences Coursework Completed Abroad**

This course is for study abroad credits.  
Credit 1-12 units.  
Typical periods offered: Fall, Spring

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**PSYCH 2996 Psychological and Brain Sciences Elective - 200 Level**

This course is for elective or transfer credits.

Credit 0.5-12 units. EN: H, S

Typical periods offered: Fall, Spring, Summer

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**PSYCH 3000 Introduction to Psychological Statistics**

Descriptive statistics including correlation and regression. Inferential statistics including nonparametric and parametric tests of significance through two-way analysis of variance. Course emphasizes underlying logic and is not primarily mathematical, though knowledge of elementary algebra is essential. Psych 300 is required of all P&BS majors. PREREQ: Psych 100B.

Credit 3 units. A&S IQ: NSM, AN Art: NSM

Typical periods offered: Fall, Spring

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**PSYCH 3010 Experimental Psychology**

This course provides training in the logic and techniques of psychological research so as to provide students with experience in the design of psychology experiments and interpretation of results. Topics include experimental design and control, library research, quantitative treatment of data, graphical presentation of results, and clarity of scientific writing. Lectures focus on general principles of experimentation, whereas the laboratory sections provide an introduction to a range of psychological phenomena through hands-on experience in experimentation. Each student also completes an independent research project. Declared P&BS majors will have priority. Limited to 15 students per section. PREREQ: Psych 100B and 300.

Credit 4 units. A&S IQ: NSM Art: NSM BU: SCI

Typical periods offered: Fall, Spring, Summer

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**PSYCH 3011 Experimental Psychology**

Psych 3011 is limited to students who have not taken Psych 300 and want to enroll in Psych 300 and Experimental Psychology concurrently. Therefore, students who enroll in Psych 3011 must also register for Psychology 300. Psych 3011 fulfills the Psychology 301 requirement for the major. Topics in the two courses (i.e., Psych 300 and Psych 3011) will be coordinated in order to integrate the concepts from Statistics with those from Experimental Psychology. Experimental Psychology provides training in the logic and techniques of psychological research so as to provide students with experience in the design of psychology experiments and interpretation of results. Topics include experimental design and control, library research, quantitative treatment of data, graphical presentation of results, and clarity of scientific writing. Lectures focus on general principles of experimentation while the laboratory component provides an introduction to a range of psychological phenomena through hands-on experience in experimentation. Each student also completes an independent research project of his or her own design under supervision of a faculty member. Enrollment limited to 15 students. Declared P&BS majors will have priority. PREREQ: Psych 100B and concurrent enrollment in Psy 300.

Credit 4 units. A&S IQ: NSM Art: NSM BU: BA, SCI

Typical periods offered: Fall, Spring

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**PSYCH 3050 Health Psychology**

Review and discussion of psychobiological approaches to health, as well as psychological aspects of physical illness. Topics: stress and coping, psychosocial factors in the etiology and progression of chronic illness, and psychological sequelae of chronic illness. There will be an emphasis on research methodology and results. PREREQ: Psych 100B.

Credit 3 units. A&S IQ: SSC Art: SSC BU: BA EN: S

Typical periods offered: Fall, Spring

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**PSYCH 3095 Prejudice, Stereotyping, & Discrimination**

This course will trace prejudice, stereotyping, and discrimination from its ordinary origins in social cognition to its most extreme consequences in war and genocide. Topics include prejudice, the causes of stereotyping and discrimination, the development of prejudice in children, subtle and overt prejudice and stereotyping, group conflict, the role of social norms, the experience of being a target of discrimination, and interventions to reduce prejudice and discrimination. Areas covered include racism, sexism, ageism, homophobia, ableism, colorism, and religious discrimination. Prerequisite: Psych 100B.

Credit 3 units. A&S IQ: SSC, SC Art: SSC BU: BA EN: S

Typical periods offered: Spring

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**PSYCH 3096 Psychological Dynamics of Empathy**

In this course, we will explore the antecedents and consequences of empathic motivation, defined broadly. Along the way, we consider answers to several interesting questions: Why are some people generally more empathic than others? Are there cultural differences in levels of this trait? To what extent is empathy an emotional or cognitive phenomenon? We will also consider the conditions under which empathy is associated with prosocial outcomes (e.g., reducing racial prejudice) but with recognition that empathy has a darker side, one that can ironically exacerbate people's preexisting biases. The approach to empathy will be highly interdisciplinary as we consider research and theory within several fields within psychology (e.g., social, personality, cognitive) as well as areas that draw from other scholarly disciplines (e.g. social neuroscience, social anthropology). Prerequisite: Psych 100B/1000.

Credit 3 units. A&S IQ: SSC Art: SSC BU: BA EN: S

Typical periods offered: Fall, Spring

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**PSYCH 3150 Introduction to Social Psychology**

An introduction to the scientific study of social influence. Topics include person perception, social cognition, attitudes, conformity, group behavior, aggression, altruism, prejudice and psychology's interface with law, health, and climate change. PREREQ: Psych 100B/1000

Credit 3 units. A&S IQ: SSC Art: SSC BU: BA EN: S

Typical periods offered: Fall, Spring

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**PSYCH 3175 Applied Statistical Analysis With R**

This course is designed to introduce R as both a means of applied statistical analysis as well as a window into data organization and programming. The goal of the course is to teach the tools needed to take a raw dataset and not only perform a statistical test in R, but also learn how to arrange the dataset to perform a variety of tests, to choose the appropriate test, and to visualize the results. Students will gain practical knowledge of how to use statistics in research. Please note that this is an introductory course and knowledge of R prior to enrollment is not expected. PREREQ: Psych 300

Credit 3 units. A&S IQ: NSM Art: NSM

Typical periods offered: Fall

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**PSYCH 3195 Abnormal Child Psychology**

This course will familiarize students with current perspectives on the nature, causes, assessment, treatment, and prevention of child psychiatric disorders and related family dysfunction. Theoretical perspectives and research findings will be discussed pertaining to anxiety, depression, conduct disorder, attention-deficit/hyperactivity disorder, autism, learning impairments, and parent-child conflict. PREREQ: Psych 100B

Credit 3 units. A&S IQ: SSC Art: SSC BU: BA EN: S

Typical periods offered: Spring

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**PSYCH 3210 Developmental Psychology**

This course concentrates on the cognitive and social development of the person from conception to adolescence. Topics covered include: infant perception, attachment, cognitive development from Piagetian and information processing perspectives, aggression and biological bases of behavior. PREREQ: Psych 100B.

Credit 3 units. A&S IQ: SSC Art: SSC BU: BA EN: S

Typical periods offered: Fall, Spring, Summer

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**PSYCH 3250 Psychology of Adolescence**

This course concentrates on brain, cognitive, and social development during adolescence. This period of development is marked by transition and change. Special topics will include the vulnerability of the adolescent brain and the development of sexual orientation. Prerequisite: Psych 100B.

Credit 3 units. A&S IQ: SSC Art: SSC BU: BA EN: S

Typical periods offered: Fall, Spring

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**PSYCH 3260 Introduction to the Psychology of Aging**

Study of the processes of aging in the individual in terms of their behavioral effects. Age changes in biological functions, sensation, perception, intelligence, learning, memory, and creativity studied to understand the capacities and potentials of the mature and older person. PREREQ: Psych 100B.

Credit 3 units. A&S IQ: SSC Art: SSC BU: BA EN: S

Typical periods offered: Spring

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**PSYCH 3300 Sensation and Perception**

What's involved in seeing and hearing? This course will cover perception from the physical stimuli (light and sound) that impinge upon the sensory receptors through the higher-level percepts that the stimuli generate. Demonstrations and illusions will be used as we learn about the anatomy and physiology of the sensory systems and study the brain mechanisms that are involved in vision and audition. Prerequisite: Psych 100B/1000.

Credit 3 units. A&S IQ: NSM Art: NSM BU: BA, SCI

Typical periods offered: Fall, Spring, Summer

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**PSYCH 3384 Cognition and Culture**

This course examines the influence of evolved cognitive dispositions (the way natural selection engineered the human mind) on the transmission of cultural knowledge. Dispositions present from early childhood make certain kinds of cultural knowledge particularly easy to acquire, and therefore, culturally stable. We also consider the evidence for differences in cognitive processes triggered by different social environments. Emphasis is on empirical studies and experimental methods in the study of cultural similarity and differences. Prerequisite: Psych 100B, Anthro 160B or permission of instructor.

Credit 3 units.

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**PSYCH 3401 Biological Psychology**

An introduction to biological mechanisms underlying behavior. Topics will include the physiology of nerve cells, anatomy of the nervous system, control of sensory and motor activity, arousal and sleep, motivation and higher mental processes. PREREQ: PSYCH 100B

Credit 3 units. A&S IQ: NSM Art: NSM BU: SCI

Typical periods offered: Fall, Spring, Summer

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**PSYCH 3450 Genes, Environment, and Human Behavior**

This class will examine how genetic influences impact various dimensions of human behavior, ranging from traits (e.g. personality) to psychiatric disorders. Topics to be covered include methods used to study genetic influence, how genetic predispositions interact with

the environment, and ethical implications. Modern methods for gene-identification, such as genomewide association studies, polygenic risk scores and epigenetic experiments will be examined in detail. Emphasis will be placed on understanding core concepts (e.g. what is identity-by-descent) as well as application (e.g. calculate heritability, interpretation of results from published studies). PREREQ: Psych 100B. 3 units. Same as L64 PNP 3451.

Credit 3 units. A&S IQ: SSC Art: SSC BU: SCI EN: S

Typical periods offered: Fall

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**PSYCH 3460 Living, Dying, and Death: A Biopsychosocial****Approach to Understanding the End of Life**

Although in some ways death is the pinnacle of our life, a culmination of all that we've lived, we often don't treat it that way. Instead, we ignore it, actively avoid it, consider it a taboo even to talk about it. Yet planning for the end of life can lead to a better death experience, for us and for the people we leave behind. This course explores some of the reasons why death has been a difficult topic for people to approach and how that may be changing. Through a variety of discussions, projects, guest speakers, and field trips, this course addresses dying and death from biological, psychological, social, and spiritual perspectives. Topics include historical and cross-cultural attitudes, psychological facets of coping with death at different points in the lifespan, the process of dying and definitions of death, healthcare professionals and treatment approaches for the dying, assisted death and other ethical/legal issues, grief and bereavement, mass tragedy and public death, and theoretical and empirical approaches to studying dying and death. PREREQ: Psych 100B

Credit 3 units. A&S IQ: SSC Art: SSC BU: BA EN: S

Typical periods offered: Spring

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**PSYCH 3501 Psychotherapy: Introduction to Practice and Research**

This is an introductory course in psychotherapy: The treatment of psychological problems through the application of interventions grounded in psychological theory and focusing on behavior or mental processes. Students will become familiar with the more popular schools of psychotherapy, including their historical context, characteristic techniques, theoretical underpinnings, and current research support. Students will also gain an appreciation of the problems and solutions in researching psychotherapy, as well as emerging variations on psychotherapy procedures.

Credit 3 units. A&S IQ: SSC BU: BA EN: S

Typical periods offered: Spring

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**PSYCH 3530 Psychology of Personality**

What is personality, and how can we scientifically study it? How did we become who we are today? Is personality fixed, or can we change? How does personality shape our everyday experiences and consequential life outcomes? Do we know ourselves and others? This course will address such questions by providing a rigorous contemporary overview of the field of personality psychology that will help students better understand themselves and others. Students should expect to be challenged and be prepared to work hard and attend class.

Credit 3 units. A&S IQ: SSC Art: SSC BU: BA EN: S

Typical periods offered: Fall, Spring

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**PSYCH 3540 Psychopathology and Mental Health**

This is an introductory course in psychopathology or the scientific study of mental health disorders. The course will include definitions, theories, and classification of Psychopathological behavior. Content will focus on symptoms, classification, prevalence, etiology, and treatment of mental health disorders, including mood, anxiety, eating, schizophrenia spectrum, substance use, and personality disorders. PREREQ: Psych 100B.

Credit 3 units. A&S IQ: SSC Art: SSC BU: BA  
Typical periods offered: Fall, Spring, Summer

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**PSYCH 3570 Introduction to Clinical Psychology**

A survey of clinical psychology. Emphasis is placed on historical and recent developments in the field (e.g., managed care), as well as the consideration of the roles, functions, and techniques of clinical psychologists including psychological testing and psychotherapy. Prerequisite: Psych 100B and either Psych 353 or Psych 354. Credit 3 units. A&S IQ: SSC Art: SSC BU: BA EN: S  
Typical periods offered: Fall

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**PSYCH 3580 Language Acquisition**

This course examines the development of language skills in children, asking how children so rapidly learn their first language. Topics include: biological bases of language development; development of phonology, syntax, and morphology; language development in atypical populations; childhood bilingualism; and development of written language skills. Prerequisite: Psych 100B and Ling 170D. Credit 3 units. A&S IQ: SSC Art: SSC BU: BA EN: S  
Typical periods offered: Fall

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**PSYCH 3581 Language Acquisition**

This course examines the development of language skills in children, asking how children so rapidly learn their first language. Topics include: biological bases of language development; development of phonology, syntax, and morphology; language development in atypical populations; childhood bilingualism; and development of written language skills. PREREQ: Psych 100B and Ling 170D and junior or senior standing. Writing intensive. Credit 3 units. A&S IQ: SSC, WI EN: S

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**PSYCH 3600 Cognitive Psychology**

Introduction to the study of thought processing from an information-processing approach. Emphasis will be placed on theoretical models that are grounded in empirical support. Topics include pattern recognition, attention, memory, reasoning, language processes, decision making, and problem solving. PREREQ: Psych 100B. Credit 3 units. A&S IQ: NSM Art: NSM BU: BA  
Typical periods offered: Fall, Spring

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**PSYCH 3604 Cognitive Neuroscience**

A general introduction to the underlying principles and mechanisms of brain function that give rise to complex human cognitive behavior. Emphasis will be placed on how emerging methods and approaches from both neuroscience and cognitive psychology have been integrated to yield new insights into the organization and structure of higher mental processes. Topics include perception, attention, memory, language, and executive control. Prerequisite: Psych 100B/1000. Credit 3 units. A&S IQ: NSM Art: NSM BU: SCI  
Typical periods offered: Fall, Spring

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**PSYCH 3610 Psychology of Learning**

The experimental analysis of behavior is presented with examination of Operant and Pavlovian conditioning, aversive control, theories of reinforcement, choice behavior, behavioral economics, etc. Theoretical and experimental approaches to the study of behavior as developed in the laboratory are emphasized. Consideration is given to applications from the laboratory to everyday behavior. PREREQ: Psych 100B. Enrollment limited to 30. Credit 3 units. A&S IQ: NSM Art: NSM BU: SCI  
Typical periods offered: Fall

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**PSYCH 3611 Psychology of Learning: Laboratory**

This laboratory course is a supplement to The Psychology of Learning (Psy 361) class. Students will gain first-hand experience, via a virtual rat, of principles and procedures related to the acquisition and maintenance of behavior. Weekly lab meetings introduce Pavlovian and Operant principles that are then implemented as laboratory exercises with the virtual rat. 1 unit. Concurrent enrollment in Psy 361 required. Credit 1 unit. A&S IQ: NSM  
Typical periods offered: Fall

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**PSYCH 3645 Understanding Emotions**

Emotions both shape and are shaped by our subjective experiences, physiology, behaviors, cognitions, social interactions, and health. Their complexity and significance make the study of emotions particularly exciting and challenging. This course offers an overview of theory and research on emotions with content stretching across psychological disciplines, including personality, social, clinical, developmental, and neuropsychology. Course content will include definitions of emotions, physiological changes associated with emotions, and individual differences in emotional experience. The course will also examine how culture, cognitions, and relationships affect and are affected by emotions and how emotion is related to physical and mental health. PREREQ: Psych 100B.

Credit 3 units. A&S IQ: SSC Art: SSC BU: BA EN: S  
Typical periods offered: Fall

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**PSYCH 3670 Positive Psychology: The Science of Happiness**

Historically, the field of psychology has placed a lot of attention on what's wrong with people and what we can do to treat disorders of the mind. More recently, the field has broadened its scope to give more attention to what's right with people and what we can do to optimize our potential for psychological health. This course focuses on this latter development by examining scientific research relevant to the pursuit of happiness and well-being. Topics include the nature and measurement of happiness, the biological basis of positive emotions, an overview of positive trait theories, self-esteem, gratitude, mindset, the mind-body connection, physical activity, emotional intelligence, resilience, prosocial behavior, decision-making, willpower, mindfulness meditation, and the characteristics of successful relationships. PREREQ: Psych 100B. Credit 3 units. A&S IQ: SSC Art: SSC BU: BA EN: S  
Typical periods offered: Spring

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**PSYCH 3800 Human Learning and Memory**

A survey of issues related to the encoding, storage and retrieval of information in humans. Topics include memory improvement strategies, people with extraordinary memories, memory illusions and distortions, among other topics. Limited to 25 students. Prerequisite: Psych 100B/1000. Credit 3 units. A&S IQ: NSM Art: NSM BU: BA  
Typical periods offered: Spring

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**PSYCH 3860 Psychology of Black Women**

This course is designed to provide a critical analysis of the distinctive experiences of Black women through a psychological lens. We will explore topics relating to Black women's experiences in home, school, and community contexts, such as identity development, socialization experiences, and misogyny. The class will also consider how Black women draw on individual strengths and cultural assets to support their personal wellbeing. This course will heavily center the narratives of Black women, and focus on mixed methods and qualitative research approaches. We will draw upon interdisciplinary frameworks (e.g., intersectionality, Black feminist thought, and liberation psychology) to help us understand Black women's experiences. PREREQ: L33 Psych 100B



Credit 3 units. A&S IQ: SSC, SC Art: SSC EN: S  
Typical periods offered: Fall, Spring

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**PSYCH 3866 Community Psychology**

Community psychology goes beyond an individual focus and integrates social, cultural, economic, political, environmental, and international influences to promote positive change, health, and empowerment at individual and systemic levels. In this course, we will focus on identifying the root causes of various social problems and become familiar with community-defined priorities for addressing them.

We will discuss how to use psychology as a scientific foundation to better understand social determinants of health and wellness, and discuss best practices on how to build collaborative relationships with community members, groups, and organizations to solve social problems.

Credit 3 units. A&S IQ: SSC EN: S

Typical periods offered: Fall, Spring

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**PSYCH 3885 The Mental Health Crisis in Higher Education**

During the last decade, college campuses have seen unprecedented increases in the proportion of students suffering from mental health problems. Many institutions have responded by increasing the number of mental health counselors available in student health centers, making the accommodations at disability resource centers more robust, and providing safe spaces for students to process incidents and events that have triggered them. Are such interventions improving the well-being of today's students, or might they actually be further encumbering students' psychological health? This discussion-based course will explore arguments made on all sides of this provocative debate and examine research on the nature of today's college students and what resources and services most contribute to their psychological health and well-being. Enrollment is limited to 15 students. Prerequisite: at least 6 units of advanced home-based psychology courses.

Credit 3 units. A&S IQ: SSC Art: SSC BU: BA EN: S

Typical periods offered: Fall

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**PSYCH 3890 Advanced Psychological Statistics: The General Linear Model and Beyond**

The General(ized) Linear Model (GLM) refers to a common family of statistical techniques popular in the social sciences such as ANOVA, regression, and logistic regression. The primary goal of this course is for students to understand the basics and nuances of the GLM. We will also explore and introduce students to extensions of the GLM common in psychology and neuroscience research. These frameworks include multilevel modeling, generalized linear models, Bayesian analyses, machine learning, etc. Students will analyze data using each of these methods using R statistical software, therefore improving their advanced computing skills. By the end of the course, students will understand the general framework used in most statistical tests employed by psychological and neuroscientific researchers. Students will not be expected to know every detail of every test, but will instead have a conceptual understanding of these tools and practice in deploying these tools. PREREQ: L33 Psych 300, Mth 2200, Mth 3200, or DAT 120 and Fluency or proficiency with R statistical software (e.g., Psych 4175).

Credit 3 units. A&S IQ: NSM, AN Art: NSM

Typical periods offered: Spring

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**PSYCH 3902 Practicum: Advanced Peer Crisis Intervention**

See department for details. Credit cannot be counted toward fulfilling the requirements for the major or minor in P&BS. Credit/No Credit only. Enrollment by Department Only.

Credit 3 units.

Typical periods offered: Fall, Spring

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**PSYCH 3995 Psychology Coursework Completed Abroad**

This course is for study abroad credits.

Credit 0.5-15 units.

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**PSYCH 3996 Psychological & Brain Sciences Elective**

This course is for elective or transfer credits.

Credit 0.5-12 units. EN: H, S

Typical periods offered: Fall, Spring, Summer

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**PSYCH 3999 Independent Study in Psychological and Brain Sciences**

PREREQ: Psych 100B and permission of a member of the faculty of the department (or other approved supervisor) who agrees to supervise the student's work. Credit to be arranged. A maximum of 6 units may be applied toward the major. The electronic Petition for Supervision of Independent Study form is available at the URL, <http://eyes.wustl.edu/psych333>. Students will be enrolled only after their form is approved by the faculty supervisor and forwarded to the Undergraduate Coordinator. Credit/ No Credit only.

Credit 0.5-6 units.

Typical periods offered: Fall, Spring, Summer

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**PSYCH 4048 Neuropsychology of Dementia**

The primary goal of this course is to acquaint students with the basic features of common dementia subtypes, such as Alzheimer's disease, frontotemporal dementias, vascular dementia, Lewy body disease, Huntington's disease and Parkinson's disease. The course will cover the clinical manifestations (cognitive and behavioral symptoms, course, prognosis), neuroanatomical signatures, pathophysiology, intervention and treatment, and current research directions. Students will gain a detailed understanding of the major dementia subtypes as manifestations of underlying brain pathology and anatomical patterns of brain damage. Upon completion of the course, the student should be able to (1) identify and distinguish the most common dementia subtypes based on knowledge of clinical presentation and disease mechanisms; (2) understand how underlying brain changes may be linked to specific clinical manifestations; (3) understand how therapeutic strategies are linked to pathophysiology; (4) engage in scholarly discussion about the topics; and (5) read and critique empirical research papers. Prerequisite: Psych 326 and either Biol 3411, Psych 344, or Psych 3401.

Credit 3 units. A&S IQ: NSM Art: NSM BU: BA

Typical periods offered: Fall, Spring

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**PSYCH 4075 Advanced Research Methods & Design**

This course is an advanced foray into research design and methods used in psychological science. This course is project-based, writing intensive, and will be supplemented heavily with readings and discussions of topics of broad importance to psychological research (e.g., reliability, validity, signal detection theory, philosophy of science). These readings will enhance your abilities to think critically about psychological research design and methods, as both a consumer and creator of psychological research. During the course of the semester you will complete two original research projects (e.g., an observation study and an experimental study). Together with your classmates you will devise research questions, design studies to test your research questions, collect data, and statistically analyze your results. Individually, you will write-up, and then revise, each research project in an APA-style paper. The writing requirements for this course build on the skills you acquired in Experimental Psychology and will further your abilities to communicate scientific ideas more skillfully, clearly, and accurately. Prerequisite: L33 Psych 301 or 3011

Credit 3 units. A&S IQ: NSM, WI Art: NSM BU: BA

Typical periods offered: Spring

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#### **PSYCH 4081 Topics in Psycholinguistics**

Language is one of the most important things that people learn, and children are able to speak in complex sentences before they can tie their shoes. How do children master this seemingly impossible task? In this course, we will cover theories and research on these issues. We will focus on language development in children who are learning English as their first language, with special consideration given to vocabulary development. We will also consider other populations, including bilingual children and children with language difficulties. Prerequisite: Psych 100B, completion of a course in developmental psychology, linguistics, and/or speech and hearing sciences. Junior or senior standing.

Credit 3 units. A&S IQ: SSC EN: S

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#### **PSYCH 4085 Seminar: Human Memory**

A seminar that explores the primary literature on the scientific study of human memory. Topics include retrieval processes, forgetting, distortions of memory, and individual differences in memory. Prerequisites: Cognitive Psychology (L33, 360), Human Learning and Memory (L33, 380), or permission of instructor.

Credit 3 units. A&S IQ: SSC EN: S

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#### **PSYCH 4099 Human Evolutionary Psychology**

How did evolution by natural selection shape the way human beings think and behave? Does evolution explain human cooperation and friendship, human morality, reproductive decisions and social interactions? What sex differences in cognition or behavior are caused by evolution? This course introduces the concepts and findings of evolutionary psychology, mostly through reading of primary sources--articles from psychology and biology journals--and discussion and presentation of empirical cases. PREREQ: At least 6 units of upper-level, home-based Psychology coursework, OR Anthro 3383.

Credit 3 units. A&S IQ: SSC Art: SSC EN: S

Typical periods offered: Fall

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#### **PSYCH 4130 Contemporary Topics in Social Psychology**

Consideration of selected contemporary topics in social psychology. Participation in a research project of appropriate scope. Prerequisite: Psych 315.

Credit 3 units. A&S IQ: SSC Art: SSC

Typical periods offered: Fall

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#### **PSYCH 4175 Applied Statistical Analysis With R**

This course is designed to introduce R as both a means of applied statistical analysis as well as a window into data organization and programming. The goal of the course is to teach the tools needed to take a raw dataset and not only perform a statistical test in R, but also to learn how to arrange the dataset to perform a variety of tests, to choose the appropriate test, and to visualize the results. Students will gain practical knowledge of how to use statistics in research. Please note that this is an introductory course and knowledge of R prior to enrollment is not expected. PREREQ: Psych 300; OR graduate standing by permission.

Credit 3 units. A&S IQ: NSM Art: NSM

Typical periods offered: Fall, Spring

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#### **PSYCH 4182 Perception, Thought, and Action**

This course focuses on current topics in visual perception, visual attention, and the control of action. Readings consist of recent journal articles. Class meetings emphasize presentation and discussion of the material in the readings. Limited to 15 students. PREREQ: Psych 100B/1000 and one of the following: Psych 301/3010, Psych 330/3300, Psych 3401, Psych 344/3440, Psych 360/3600, Psych 361/3610, Psych 3604, Psych 380/3800, Psych 433/4330, or Psych 4604.

Credit 3 units. A&S IQ: NSM Art: NSM BU: BA

Typical periods offered: Fall

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#### **PSYCH 4227 The Psychology of Close Relationships**

This course will examine close relationships from a scientific perspective. The course will focus on intimate relationships but will also touch on friendships and family relationships. The objective of this course is to introduce you to the scientific perspective of close relationships. You will learn how research psychologists apply the scientific method of data collection and analysis to investigate how people experience and think about relationships. We will explore questions such as: Why are people attracted to some people but not others? How do relationships develop over time? How does each person's personality influence the trajectory of a relationship? How do external factors (e.g., social norms, stress, life events) influence relationships? How do gender and sexual orientation influence people's experiences in romantic relationships? PREREQ: Psych 100B and Psych 301

Credit 3 units. A&S IQ: SSC EN: S

Typical periods offered: Spring

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#### **PSYCH 4255 Special Topics in Clinical Psychology**

An introduction to what clinical psychologists do, why they do it, and where they do it. Reviews the history and development of clinical practice with special attention to psychological assessment, psychotherapy, theoretical orientations, settings in which psychologists practice, and ethical issues. Written assignments in this writing-intensive course include a research paper, a case study, and a formal analysis of an ethical problem in clinical psychology. Prereq: Psych 354. Not open to students who have taken Psych 450 OR Psych 357.

Credit 3 units. A&S IQ: SSC

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#### **PSYCH 4270 Social Gerontology**

This course provides an introduction to aging and growing old, from an interdisciplinary perspective. Specific attention is paid to demographics, physical health and illness, mental health, interpersonal relations, work issues, living arrangements, ethics, and death and dying. PREREQ: Junior or Senior standing and completion of 6 advanced units in Psychology.

Credit 3 units. A&S IQ: SSC Art: SSC EN: S

Typical periods offered: Fall, Spring

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#### **PSYCH 4301 Contemporary Topics in Cognitive Development**

Cognitive Developmental topics to be covered will include: Piagetian abilities (e.g., conservation, formal reasoning), basic cognitive abilities (e.g., processing speed), executive functions (e.g., working memory), and other current topics (e.g., processing facial stimuli). Prerequisite: Psych 321 or 360.

Credit 3 units. A&S IQ: SSC

Typical periods offered: Spring

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#### **PSYCH 4302 Cognitive Psychology Applied to Education**

This course is intended to cover topics in the cognitive psychology of human memory, conceptual learning, and comprehension with special focus on areas, theory, and research that have potential application to education. Thus, the course will provide selective coverage of

theoretical and empirical work in cognitive psychology that provides potential to inform and improve educational practice. The applicability of these themes will be explicitly developed and evaluated through the primary research literature using educationally oriented experimental paradigms. The course is expected to be of interest and benefit to education majors and to psychology majors interested in cognitive psychology and its applications. PREREQ: Junior/Senior status, 9 units in Psychology and Psych 100B OR Junior/Senior status, 9 units in Education and Psych 100B.

Credit 3 units. A&S IQ: SSC EN: S

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**PSYCH 4305 Psychological Science: Fact and Fiction**

Skeptical analysis of psychological science as practiced and popularized in the media. Analysis of discrepancies between media and scientific claims regarding areas such as repressed memory, brain imaging, heritability, and psychotherapy. Additional examination of scientific career demands such as peer review, journal publication, and research funding. These topics are interwoven with a review of common errors in reasoning particularly with respect to probabilistic reasoning and the public misperception of the practice and principles of scientific psychology. PREREQ: Psych 100B, Junior or Senior standing, and completion of 6 units of advanced home-based psychology.

Credit 3 units. A&S IQ: SSC, WI Arch: HUM Art: SSC EN: S

Typical periods offered: Spring

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**PSYCH 4330 Psychology of Language**

This course surveys current research and theory in psycholinguistics, covering the biological bases, cognitive bases, and learning of language. We consider studies of normal children and adults, the performance of individuals with various types of language disorders, and computer simulations of language processes. Topics range from the perception and production of speech sounds to the management of conversations. Each student will carry out an original research project on some aspect of psycholinguistics. Prereq: Ling 170D and Psych 100B

Credit 3 units. A&S IQ: SSC Art: SSC EN: S

Typical periods offered: Spring

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**PSYCH 4351 Reading and Reading Development**

This seminar surveys current research on reading and spelling skills and their development. Students will read and discuss journal articles that examine the cognitive and linguistic processes involved in reading, reading disorders, and educational issues. Prerequisite: Permission of instructor and previous course work in experimental psychology or psychology of language.

Credit 3 units. A&S IQ: SSC EN: S

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**PSYCH 4352 Reading and Reading Development WI**

This writing intensive seminar surveys current research on reading and spelling skills and their development. Students will read and discuss articles and chapters that examine the cognitive and linguistic processes involved in reading, reading disorders, and educational issues. PREREQ: Psych 100B and Ling 170D and junior or senior standing.

Credit 3 units. A&S IQ: SSC, WI EN: S

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**PSYCH 4355 Personality Development Across the Life Span**

This seminar examines how individual differences develop over the lifespan. Or, in other words, how we become who we are. The scope of the class covers a multitude of individual differences constructs (e.g., happiness, intelligence, goals), but a particular focus will be on personality traits. Questions that will be examined include: How early in the lifespan does one's personality emerge? How much do parents

matter in shaping who you become? Does your personality change across the lifespan? Readings will cover theories of development at different life stages and empirical research from childhood to older adulthood. PREREQ: Psych 100B and Psych 353

Credit 3 units. A&S IQ: SSC Art: SSC BU: BA EN: S

Typical periods offered: Fall, Spring

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**PSYCH 4367 Seminar in Positive Psychology**

This course focuses on scientific research relevant to the pursuit of happiness and well-being. Topics include the nature and measurement of happiness, the biological basis of positive emotions, an overview of positive trait theories, self-esteem, gratitude, mindset, the mind-body connection, physical activity, emotional intelligence, resilience, prosocial behavior, decision-making, willpower, mindfulness meditation, and the characteristics of successful relationships. As an advanced seminar on these topics, students will parlay their course of study into real-world proposals that universities could use to address the mental health crisis. PREREQS: Intro Psych 100B, and at least 6 units of either upper-level home based psychology coursework OR upper-level coursework from other departments related to well-being.

Credit 3 units. A&S IQ: SSC Art: SSC

Typical periods offered: Fall, Spring

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**PSYCH 4411 Topics in Cognitive Neuroscience**

How the brain organizes behavior, emphasizing higher functions such as perception, language, and attention. Course aims at integration of information from neuro-biological approaches (e.g., single-unit recording, lesion-behavior experiments) and information-processing approaches (e.g., cognitive psychological models, connectionist models). Prerequisite: Psych 3401 or Psych 360 or Psych 3604.

Credit 3 units. A&S IQ: NSM Art: NSM

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**PSYCH 4413 Advanced Cognitive Neuroscience (Writing Intensive)**

This course presents an intensive, case-study based approach to the underlying principles and mechanisms of brain function that give rise to complex human cognitive behavior. Emphasis will be placed on understanding and evaluating cutting-edge neuroscience research that has yielded new insights into the organization and structure of higher mental processes. Students will develop critical thinking and writing skills via a strong class participation component and a writing-intensive format. Topics include perception, attention, memory, language, emotion, and executive control. Writing Intensive. Declared psychology majors will be given priority over others to enroll. Prerequisite: Psych 3401, Psych 344/Biol 3411, or Psych 3604.

Credit 3 units. A&S IQ: NSM, WI Art: NSM

Typical periods offered: Fall

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**PSYCH 4414 Advanced Cognitive Neuroscience**

An intensive, case-study based approach to the underlying principles and mechanisms of brain function that give rise to complex human cognitive behavior. Emphasis will be placed on understanding and evaluating cutting-edge neuroscience research that has yielded new insights into the organization and structure of higher mental processes. Students will develop critical thinking via a strong class participation component. Topics include perception, attention, memory, language, emotion, and executive control. Declared Psychology majors will be given priority over others to enroll. PREREQ: Psych 100B/1000, and either Psych 3401 or Psy 344/Bio 3411 or Psych 3604.

Credit 3 units. A&S IQ: NSM Art: NSM

Typical periods offered: Fall



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**PSYCH 4418 Computational Modeling in Cognitive Neuroscience**

Introduces the ideas and methods used in simulating cognitive and perceptual processes using computational models. The focus will be on neural network mechanisms, which provide a bridge between behavioral and biological levels of analysis. The first half of the course will introduce the basic computational and biological properties of individual neurons and neuronal networks, and the learning mechanisms which organize these networks. The second half of the course will examine how these computational mechanisms can be used to explore a range of cognitive phenomena, including perception, attention, memory, language and higher-level cognition (i.e., executive control). Prerequisite: Cognitive Neuroscience (Psych 3604) or Permission of Instructor.

Credit 3 units. A&S IQ: NSM Art: NSM

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**PSYCH 4444 Neuropsychology of Dementia (Writing Intensive)**

The primary goal of this course is to acquaint students with the basic features of common dementia subtypes, such as Alzheimer disease, frontotemporal dementias, vascular dementia, Lewy Body disease, and Parkinson disease. The course will cover the clinical manifestations (cognitive and behavioral symptoms, course, prognosis), neuroanatomical signatures, pathophysiology, intervention and treatment as well as current research directions. Students will gain a detailed understanding of the major dementia subtypes as manifestations of underlying brain pathology and anatomical patterns of brain damage. Upon completion of the course, the student should be able to a) identify and distinguish the most common dementia subtypes based on knowledge of clinical presentation and disease mechanisms; b) understand how underlying brain changes may be linked to clinical manifestations; c) understand how therapeutic strategies are linked to pathophysiology; d) engage in scholarly discussion about the topics; e) think and write critically about empirical research papers. PREREQ: Psych 100B, Psych 326, and EITHER Bio 3411 OR Psych 3401.

Credit 3 units. A&S IQ: NSM, WI

Typical periods offered: Fall, Spring

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**PSYCH 4450 Functional Neuroimaging Methods**

In this course, you will learn neuroimaging methods in the context of accurate, reproducible, and open science. There is no substitute for wrestling with data yourself, and so this is a hands-on course. Students will need to bring a laptop on which to install Matlab and conduct analyses. Some background in neuroimaging or programming will be helpful but is not required. Topics covered include experimental design, accounting for artifacts, single-subject models, and group models. By the end of the course, students will have used a computer script to analyze an fMRI dataset and have a good understanding of preprocessing and statistical analyses in fMRI. Limited to 24 students. Prerequisite: Psych 3604, Psych 4413, or graduate standing.

Credit 3 units. A&S IQ: SSC Art: SSC EN: S

Typical periods offered: Fall

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**PSYCH 4495 Attitude Change and Persuasion**

Overview of theory and research in the field of attitudes. Topics will include: attitude formation and activation, the attitude-behavior relationship, measuring attitudes, social influence, attitude change, and persuasion techniques. Prereq: Psych 315. Enrollment limited to 25.

Credit 3 units. A&S IQ: SSC

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**PSYCH 4512 Neurobiology of Learning & Memory**

The brain is the most complex object in the known universe, and among its most incredible attributes is its ability to acquire and store vast amounts of information to guide behavior. Over a lifetime, our experiences shape our brains and our behavior, ultimately making each of us unique. What information is encoded by the brain? How is it

stored? How is it retrieved? How does this occur at different spatial and temporal scales? Does stored information change over time? How do learning and memory change across the lifespan, and with neurological disorders? Can you trust your memories?

Credit 3 units. A&S IQ: NSM BU: BA

Typical periods offered: Spring

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**PSYCH 4541 Personality and Psychopathology**

This course is an advanced seminar in the study of personality disorders. It will cover a range of conceptual and methodological issues involved in scientific efforts to understand ways in which pathological personality features disrupt people's lives. Students will learn about the similarities and distinctions between normal and pathological features of personality as well as the role that personality may play with regard to the causes and treatment of other kinds of mental disorder. A laboratory component of the class will focus on the development of practical skills in conducting research interviews designed to elicit information about personality and social adjustment. PREREQ: Psych 354, and junior or senior standing.

Credit 3 units. A&S IQ: SSC Art: SSC EN: S

Typical periods offered: Fall, Spring

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**PSYCH 4555 Emotion Regulation**

The purpose of this course is to provide an introduction to the field of emotion regulation. We will discuss theoretical and empirical work on emotion regulation from various areas of psychology, including social, personality, developmental, clinical, and neuroscience. Example topics include definitional issues, goals and strategies, personal and interpersonal consequences, sociocultural influences, life-span development, health and psychopathology. PREREQ: Psych 301.

Credit 3 units. A&S IQ: SSC Art: SSC EN: S

Typical periods offered: Spring

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**PSYCH 4557 Biopsychosocial Aspects of Eating Disorders and Obesity**

This seminar examines the epidemiology, etiology, prevention, and treatment of body image, eating disorders, and obesity. An emphasis will be placed on understanding the characteristic symptoms of excessive dieting, body image disturbance, and binge eating, not only as formal psychiatric syndromes, but as a representation of dysregulatory processes reflecting social-cultural, psychological, and biological disturbances. Students will also learn about the clinical characteristics, medical sequelae, and physical aspects of eating disorders and obesity. PREREQ: Psych 100B and junior or senior standing, plus 6 units of advanced home-based psychology courses.

Credit 3 units. A&S IQ: SSC Art: SSC EN: S

Typical periods offered: Spring

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**PSYCH 4591 The Development of Social Cognition**

From birth we are surrounded by other social beings, making children's ability to navigate the social world a foundational capacity. This course will explore how children navigate the social world. We will discuss topics such as infants' concept of agency, intentions, children's learning from and about others, trust and skepticism, social groups and intergroup cognition, relationships, and morality. We may also explore what happens when the human ability to reason about the mind and understand behavior breaks down (ASD). PREREQ: Psych 100B and one of the following: Psych 315 or 321 or 360. Open to advanced undergraduate students.

Credit 3 units. A&S IQ: SSC BU: BA EN: S

Typical periods offered: Fall, Spring

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**PSYCH 4592 Development of Social Cognition (Writing Intensive)**

This course explores current hot topics in social cognitive development. We will study this in children by examining the development of social groups/categories and identity in children, with a focus on language, race, and ethnicity. We will also explore the emergence and development of bias and prejudice and approaches to reducing its development in children. We will explore these issues in the context of innate knowledge and the effects of the environment on children's development. Each week we will cover a topic by reading one book chapter and two journal articles. Class time will be devoted to active discussion of these readings, with lecture and class activities as needed, to complement the readings and set the stage for discussion. This is a writing intensive course, so a second goal is to improve student writing. There will be several writing assignments that will receive extensive feedback from the instructor, and then students will write an improved final version. Students will also give class presentations: one that directly addresses writing and another on a research topic of their choice that is relevant to social cognitive development. Prerequisites: Psych 100B and either Psych 315, Psych 321, or Psych 360.

Credit 3 units. A&S IQ: SSC, WI Art: SSC EN: S

Typical periods offered: Fall, Spring

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**PSYCH 4594 Psychology of the Good Life**

What is the good life, and how can people achieve it? This discussion-based seminar class explores two aspects of the "good life": (1) "good" for oneself (living a personally fulfilled life), and (2) "good" for others (living an ethical life, being a good person). We will consider how psychological science can be used to conceptualize, uncover the causes of, and promote well-being for oneself and for others. There will be a particular focus on the ways in which these two aspects of the good life are in alignment or in conflict with each other. Classes will focus on critically evaluating research and integrating and connecting the weekly readings to students' personal research interests and lives, primarily through student-led discussions.

Credit 3 units. A&S IQ: SSC Art: SSC EN: S

Typical periods offered: Spring

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**PSYCH 4610 Seminar in Selected Topics in Learning & Memory: Cognitive Illusions**

This course will consider illusions of perceiving, attending, remembering and, more broadly, thinking. The reading will be concentrated on three books - Blink, The Invisible Gorilla, and Thinking Fast and Slow - as well as selected journal articles. We will consider how processes that lead us astray in some situations are the same ones that aid us in other situations, which is why these processes exist. Students will write essays and a term paper on one illusion or class of illusions. Prerequisites: Psych 100B and either Psych 360 or Psych 380.

Credit 3 units. BU: BA

Typical periods offered: Spring

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**PSYCH 4612 False Memory**

It is well-accepted that our visual systems can sometimes lead us astray, leading to visual illusions. It can be harder to realize how readily our memories can also lead us astray, resulting in illusory memories or false memories. This course will focus on the many ways in which false memories are exhibited and what we can learn from them about memory more generally. Topics will range from eyewitness memory and flashbulb memories to more everyday conversational false memories. We will also learn about how imagination and remembering interact. Many false memory controversies exist, and we will explore some of them. Finally, we will consider how false memories might be considered an adaptive feature of a flexible cognitive system, which usually serves us well but, in the right circumstances, can also lead us astray. PREREQ: Psych 100B and EITHER Psych 221, OR Psych 360, OR Psych 380.

Credit 3 units. A&S IQ: SSC BU: BA EN: S

Typical periods offered: Spring

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**PSYCH 4615 The Science of Paying Attention**

What processes underlie humans' ability to pay attention? This course will introduce students to theories of attention and cognitive control. Students will develop an understanding of empirical approaches to studying the control of attention, and examine factors that facilitate and impair humans' ability to pay attention. A final section will examine attention and cognitive control challenges that accompany aging and select psychological disorders such as ADHD, and applications of attention and cognitive control research to the classroom, driving, and other contexts. PREREQ: Psych 100B and Psych 301.

Credit 3 units. A&S IQ: SSC Art: SSC EN: S

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**PSYCH 4620 Psychology of Memory and Cognition**

This course will explore the core readings that have shaped the way scientists tackle fundamental aspects of memory and cognition. These include cognitive methods, pattern recognition, attention, working memory, episodic memory, semantic memory, language acquisition and comprehension, decision making, problem solving, and expertise. Each week we will explore at least three classic readings on a given topic along with some more recent papers. The goal is to expose students to this foundational literature, and develop a better understanding of the zeitgeist that set the stage for these papers to change how researchers tackled specific problems. PREREQ: Psych 360 or Psych 380.

Credit 3 units. A&S IQ: SSC Art: SSC EN: S

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**PSYCH 4631 Introduction to Computational Cognitive Science**

How does the mind work? Over the last few decades, cognitive psychologists have become increasingly interested in using computational models. These models are designed to describe cognitive processes and the behavior that is produced by them. This computational approach has several advantages. Computational theories of cognition are more specific than verbal theories. Therefore, they do not only afford precisely quantifying certain aspects of cognition, but they also make it possible to simulate cognitive processes. This course provides an introduction to several leading computational methods for understanding cognition, including model fitting and comparison, reinforcement learning, neural networks and Bayesian modeling. These methods will be applied to a wide range of cognitive phenomena, such as short-term memory, reinforcement learning, decision making, cognitive control, concept learning and visual perception. Prerequisites: Psych 100B and Psych 301/3011.

Credit 3 units. A&S IQ: NSM Art: NSM BU: BA

Typical periods offered: Spring

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**PSYCH 4651 History and Modern Systems of Psychology**

An introduction to the history of psychology. This course begins with a brief consideration of forces leading to the development of psychology in the mid-1800s. It then examines the birth of modern psychology in Germany and the schools of psychology that emerged early in the 20th century. Newer orientations and ideas are considered in the final segment of the course. We also consider the impact of psychology on American public life during the 20th century. Prerequisite: Psych 100B, junior or senior standing, and 6 units of advanced home-based psychology courses.

Credit 3 units. A&S IQ: HUM Arch: HUM Art: HUM BU: HUM EN: H

Typical periods offered: Spring

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**PSYCH 4746 Biological Pathways to Psychopathology: From Genes and the Environment to Brain and Behavior**

How do subtle disturbances in brain circuits lead to abnormal behavior and psychopathology? This course provides students with a working knowledge of our rapidly evolving understanding of brain circuits that create order in our social, emotional and cognitive worlds, and how disorder within these circuits leads to a broad range of psychopathology including depression, anxiety, phobias, PTSD, OCD, addiction, schizophrenia, psychopathy and violence.

Credit 3 units. A&S IQ: NSM Art: SSC

Typical periods offered: Spring

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**PSYCH 4765 Inside the Disordered Brain: Biological Bases of the Major Mental Disorders**

How do subtle disturbances in brain circuits lead to abnormal behavior and psychopathology? This course provides students with a working knowledge of our rapidly evolving understanding of brain circuits that create order in our social, emotional and cognitive worlds, and how disorder within these circuits leads to a broad range of psychopathology including depression, anxiety, phobias, PTSD, OCD, addiction, schizophrenia, psychopathy and violence. PREREQ: Psych 100B and one of the following: Biological Psychology (Psych 3401), Abnormal Psych (Psych 354), or a basic Biology/Neuroscience course.

Credit 3 units. A&S IQ: NSM Art: NSM

Typical periods offered: Spring

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**PSYCH 4880 The Cognitive Neuroscience of Film**

To understand complex events in real life depends on perception, action, and memory. To understand movies, people probably depend on similar psychological and neural mechanisms. This seminar will use results from psychology and neuroscience to try to better understand the experience of a movie viewer, and will use theory and practice to explore psychological hypotheses about perception. PREREQ: Psych 360, or 3604, or 4604, or Graduate standing in Psychology.

Credit 3 units. A&S IQ: NSM

Typical periods offered: Spring

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**PSYCH 4940 Behavioral Psychology Readings Group**

This weekly journal-style readings course provides the opportunity to read and discuss seminal as well as current writings on the conceptual aspects of behavioral psychology and relevant research. Points of contact among behaviorism, cognitivism, and neuroscience and the natural lines of fracture will be examined. Prerequisites: Psych 100B and one of the following: Psych 361, Psych 360, or a Philosophy course.

Credit 1 unit. A&S IQ: SSC Art: SSC EN: S

Typical periods offered: Spring

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**PSYCH 4970 Independent Study (Capstone)**

In addition to the approved research, an APA-style research paper must be satisfactorily completed to obtain credit. Petition for Supervision of P&BS 444A forms are available from Shelley Kohlman (skohlman@wustl.edu), Somers Family Hall, room 207B. Students will be enrolled only after they have completed both the Petition for Supervision of P&BS 444A, and returned them to the Shelley Kohlman in Somers Family Hall, room 207B. Open only to P&BS majors, and by faculty research supervisor and departmental approval.

Credit 3 units.

Typical periods offered: Fall, Spring

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**PSYCH 4971 Undergraduate Teaching**

Limited opportunities for outstanding undergraduates to serve as teaching assistants for selected departmental courses. PREREQ: P&BS major only, junior/senior standing and permission of Psych advisor, course instructor and departmental approval. Credit cannot be counted toward fulfilling the requirements for the major or minor in P&BS. Credit/No Credit only. Enrollment by Department Only.

Credit 2 units.

Typical periods offered: Fall, Spring

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**PSYCH 4980 Study for Honors**

Acceptance into the Honors Program is based on superior performance as evidenced by the student's record in undergraduate course work and the written agreement (Petition for Permission to Enroll) of a member of the faculty of the Department (or other approved supervisor) to supervise an Honors project. The student must complete 6 units of Honors work (3 units of Psych 498 and 3 units of Psych 499), submit an acceptable written thesis, and be recommended by the Department. Recommendation for an Honors degree will be based on the evaluation of the written thesis and the student's overall performance as an undergraduate. Students in the Honors Program meet regularly in the Honors Seminar to discuss their research and become acquainted with the work of the other students. Psych 498 is a writing intensive course. Permission of Instructor is required for this course. All students must meet with Dr. Sommers prior to registering. Prerequisite: Psych 301 or 3011.

Credit 3 units. A&S IQ: SSC, WI EN: S

Typical periods offered: Fall

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**PSYCH 4990 Study for Honors**

Acceptance into the Honors program is based on superior performance as evidenced by the student's record in undergraduate course work and the written agreement (Petition for Permission to Enroll) of a member of the faculty of the Department (or other approved supervisor) to supervise an Honors project, as well as the Honors Coordinator, Dr. Mitch Sommers. The student must complete 6 units of Honors work (3 units of Psych 498 and 3 units of Psych 499), submit an acceptable written thesis, and be recommended by the department. Recommendation for an Honors degree will be based on the evaluation of the written thesis and the student's overall performance as an undergraduate. All students must meet with Dr. Sommers prior to registering. Students in the Honors Program will meet regularly in the Honors Seminar to discuss their research and become acquainted with the work of the other students. PREREQ: Psych 498

Credit 3 units. A&S IQ: SSC Art: SSC EN: S

Typical periods offered: Spring

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**PSYCH 4991 Independent Study for the Major in P&BS: Cognitive Neuroscience (Capstone)**

PREREQ: PREREQ: Experimental Psychology 301 or 3011, and acceptance into the P&BS: Cognitive Neuroscience major. Permission of a member of the faculty of the department (or other approved research supervisor) who agrees to supervise the student's work. In addition to the approved research in the area of cognitive neuroscience, an APA-style research paper must be satisfactorily completed to obtain credit. Petition for Supervision of P&BS 444B is available in Somers Family Hall, room 207B. Students will be enrolled only after they have completed the petition and returned it to the Undergraduate Coordinator in Psychology 207B. Open only to P&BS:CN major, by prior faculty research supervisor and departmental approval only.

Credit 3 units. EN: S

Typical periods offered: Fall, Spring

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**PSYCH 4992 Independent Study for a Specialization in Psychological and Brain Sciences (Capstone)**

PREREQ: Experimental Psychology 301 or 3011, and acceptance into a Specialization in Psychological and Brain Sciences. Written permission (Petition for Supervision of P&BS 444C) of a member of the faculty of the department (or other approved research supervisor) who agrees to supervise the student's work is also required. In addition to the approved research for the concentration, an APA-style research paper must be satisfactorily completed to obtain credit. Petition for Supervision of P&BS 444C are available in Somers Family Hall, room 207B. Students will be enrolled only after they have completed both the Petition for a Concentration in P&BS and the Petition for Supervision of P&BS 444C, and returned them to the Undergraduate Coordinator in 207B. Open only to P&BS majors and with prior faculty research supervisor and departmental approval.  
Credit 3 units.

Typical periods offered: Fall, Spring

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**PSYCH 4995 Psychological & Brain Sciences Coursework Completed Abroad**

This course is for study abroad credits.

Credit 0.5-12 units.

Typical periods offered: Fall, Spring

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**PSYCH 4996 Psychological & Brain Sciences Elective**

This course is for transfer credits.

Credit 0.5-12 units. EN: H, S

Typical periods offered: Fall, Spring, Summer

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