Psychology and Neuroscience Course Descriptions

The curriculum in the Department of Psychology and Neuroscience is structured such that 100-level courses are to be considered introductory to either major. These courses are designed to be appropriate for students in their first year of study. The 200-level courses are typically survey courses covering the range of important sub-disciplines within the larger field. These courses are designed to be appropriate for students in their second year or third year of study. The 300-level courses are typically specialized, applied courses examining specific issues in depth. These courses are designed to be appropriate for students in their third and fourth years of study. The 400-level courses are designed to be taken only by majors and typically serve capstone, integrative functions.

PSY 1105 The Psychological Sciences. This course examines the scientific study of behavior and mental processes using current issues and research as the framework for exploring the discipline of psychology. In this course you will learn that psychology is a science that attempts to answer some of the age-old questions about the human experience by using rigorous empirical methods. Students will become familiar with the concepts, general theories, and specific approaches and applications used in the field of psychology as well as how they relate to the work done by other social scientists. The following subfields in psychology will be explored: research methodology, biological bases of behavior, development, sensation and perception, consciousness, learning, memory and cognition, motivation and emotion, personality, social behavior, abnormal psychology, and the treatment of psychological disorders. Prerequisites: None. 4 Semester Hours.

PSY 120 Professional Development in Psychology. This course is designed to acquaint students with the range of career possibilities that exist for them after graduation. This course will also include practical training in two important areas of professional development: writing and ethics. Students will explore their interests across the field of psychology and develop a comprehensive plan for their undergraduate careers. Students will be provided with an introduction to writing in psychology consistent with the requirements of the American Psychological Association. In addition, students will be introduced to ethics in educational, research, and applied settings as related to psychology. Prerequisite: PSY 110. 2 Semester Hours.

PSY 199 Special Topics in Psychology. See All-University 199 course description.

PSY 200 Research Methods and Data Analysis I. This course is a survey of basic research methodology, design considerations and statistical analyses of corresponding behavioral data. It includes presentation of elementary descriptive and experimental research procedures as well as related statistical procedures (descriptive statistics, data presentation and characterization, inferential statistics, basics of hypothesis testing and parameter estimation). Students will apply these principles in conjunction with and as an introduction to various areas of research psychology through laboratory exercises and use of state-of-the-art statistical packages. Three lecture hours and one lab hour per week. Prerequisites: PSY 110 (may not be taken concurrently with PSY 205) and sophomore standing. Open only to declared psychology or neuroscience majors. 4 Semester Hours. (Typically offered fall semester).

PSY 205 Research Methods and Data Analysis II. This course is a continuation of PSY 200 dealing with more complex methodological issues. Advanced correlational and experimental designs are introduced. An experimental research project, laboratory exercises and continued work with computerized statistical programs provide direct experience with these techniques. Three lecture hours and one lab hour per week. Prerequisite: PSY 200. 4 Semester Hours. (Typically offered spring semester).

PSY 210 Educational Psychology. This course explores the psychological issues in the educational context beyond reading, writing, and arithmetic. Students that are interested in pursuing careers in school counseling, school psychology, school social work, or teaching should take this course. It examines the application of psychological theories and principles to education and teaching. It is also intended to prepare Education majors for the Praxis PLE exams. There is a focus on the educational implications and application of research relating to human development (including physical, social, emotional, and cognitive development). The topics covered include: cognitive processes (e.g., metacognition, memory, transfer, critical thinking, problem solving, etc.) the theories and principles of learning; motivation; individual and group differences; social contexts for learning; and classroom management. Prerequisite: PSY 110. 4 Semester Hours.

PSY 215 Child and Adolescent Development. This course explores human development from birth to adolescence. The domains of development explored include prenatal, physical, cognitive, linguistic, social and emotional. The course also examines the contexts in which these domains develop. Students are required to engage in regular written and intellectual discourse about contemporary topics related to the course. Prerequisite: PSY 110. 4 Semester Hours.

PSY 220 Aging and Adulthood. This course is intended to facilitate an understanding of and appreciation for the significant developmental processes and changes that occur in early, middle and late adulthood. In addition to examining current research and theories related to biological, cognitive and social factors, particular attention is paid to the impact of culture and the environmental context on the aging process. Prerequisite: PSY 110 or equivalent. 4 Semester Hours.

PSY 225 Lifespan Development. This course utilizes a holistic approach to understanding the development of the individual from conception to death. Emphasis is placed on the ways in which contextual variables influence development and functioning in physical, cognitive, affective and social domains. Prerequisite: PSY 110 or permission of instructor. 4 Semester Hours.

PSY 230 Personality Theory. This course is a survey of the work of a diverse group of theorists who have all sought to explain the structure, development and functioning of human personality. Theoretical perspectives covered will include psychodynamic, sociocultural, humanistic, existentialist, biological, trait, behavioral and cognitive approaches. Prerequisite: PSY 110 or permission of instructor. 4 Semester Hours.

PSY 235 Social Psychology. This course is an examination of human behavior in a social and cultural context. Topics covered will include psychodynamic, sociocultural, humanistic, existentialist, biological, trait, behavioral and cognitive approaches. Prerequisite: PSY 110 or permission of instructor. 4 Semester Hours.

PSY 240 Abnormal Psychology. Abnormal Psychology is largely concerned with the nature, origin, and treatment of mental illness. This course offers the student a comprehensive overview of the field, focusing on the biological, psychological, relational, and social components of mental disorders. A historical and contemporary exploration of mental illnesses offers the student a broad overview of the field, while a cross-cultural examination of disorders offers students insight to how mental illness is viewed from various perspectives. Prerequisite: PSY 110. 4 Semester Hours.

PSY 245 Learning and Conditioning. This course is an introduction to the concepts of learning as reflected in major theories including classical, operant and social learning. This course examines how humans and animals seek and acquire information about their surroundings, make correlations or predictive inferences and express those inferences behaviorally. Students will engage in various activities to help them understand how basic learning principles explain much of human behavior. A major project in the course will involve a service learning project where students train animals to perform various novel behaviors. This training process will be documented in videos that will be made available to the public on the department webpage. When possible, the class will take a trip to the Cleveland Metroparks Zoo to see how classical and operant conditioning are used in a professional setting. Prerequisites: PSY 110. 4 Semester Hours.

PSY 250 Neuroscience: The Brain. This course is part of a two course series examining the biological foundations of behavior which can be completed in any order. This course begins with an introduction to the cells and structures of the nervous systems. Current and past research and psychopharmacological methods are covered during the second portion of the course. Final topics include a detailed look into how visual, auditory, and motor functions are processed by the brain. The course includes a psychophysiological and neuroscience laboratory portion. Prerequisite: PSY 110. One semester of University level biology and chemistry is suggested. 4 Semester Hours.
**PSY 260 Sensation and Perception.** This course covers present research theories of how our sensory organs function and how we perceive the world around us. The course begins with an overview of how sensation and perception research is conducted. The second portion of the course focuses on vision and how various cognitive processes lead to our discovery of our environments. The final portion of the course will explore the senses of audition, taste, smell, and touch. Prerequisite: PSY 110. PSY 250 is recommended but not required. 4 Semester Hours.

**PSY 270 Cognitive Psychology.** This course examines how humans process (i.e., acquire, store and use) information. The course addresses such topic areas as perception, attention, memory, knowledge organization, language comprehension and production, problem-solving and creativity. Time is spent examining current theories, research techniques and the effect these theories have on important practical problems in society. Hands-on projects are used to explore theories in depth. Prerequisite: PSY 110. 4 Semester Hours.

**PSY 280 Health Psychology.** This course examines the interrelationships between emotion, stress, and physical health using theories from behavioral and psychosomatic medicine and health psychology. The course will provide insight into the history of stress research. Autonomic and central nervous system control of health will be examined throughout the course. Genetic and individual difference variables will be explored to show how our bodies respond to the psychological and physical stresses of our environments. Prerequisite: PSY 110. PSY 250 is recommended but not required. 4 Semester Hours.

**PSY 290 Introduction to Autism Spectrum Disorders.** This course is for students interested in learning more about people with autism spectrum disorders. In this course students will gain an understanding of the characteristics and incidence of autism, and the implications for children’s learning, behavior and ability to process information. Students will explore the latest research on potential causes, best practices for assessment and intervention, areas of impairment, as well as current issues related to autism services. Prerequisite PSY 110. 4 Semester Hours.

**PSY 299 Special Topics in Psychology.** See All-University 299 course description .

**PSY 300 Movies and Madness.** This course explores the ways people with mental illnesses and psychological disorders as well as those who treat them have been presented in feature films. The course examines the issue of stigmatization and marginalization of people with mental illness as a social problem exacerbated by misleading and negative images presented in the mass media. The course will also provide basic information about psychological disorders, the mental health system and various treatment approaches. Students will analyze film content, hear first person accounts of living with mental illness, and develop their own community education projects. 4 Semester Hours.

**PSY 305 The Psychology of Humor.** The study of humor crosses into multiple psychological domains, including the cognitive, neurological, developmental, social, and positive psychology. This course offer students the opportunity to explore each of these different aspects, and presents an overview of relevant past and current research in this growing field. Students will investigate historical and contemporary theoretical perspectives on humor, and how it is applied in different aspects of life. Prerequisite: PSY 110 or permission from instructor. 4 Semester Hours.

**PSY 310 Child and Adolescent Psychopathology.** This course introduces students to the field of Child and Adolescent Psychopathology. Both a historical and contemporary perspective of this field will be explored, with specific focus placed on theoretical models, etiology, and treatment of mental illness. Current research, case studies, and in-class debate concerning contemporary issues allow for a rich overview of this growing and evolving field of study. Prerequisite: PSY 110. Recommended: PSY 240. 4 Semester Hours.

**PSY 315 Clinical Assessment Lab.** This course introduces students to the assessment of child and adult psychopathology. Students will receive training and instruction on how various psychological and neuropsychological assessments of function and personality are conducted while testing their own levels of function. Current research on assessment of function and methods of assessment will be covered. Diversity, gender, and cultural issues with determining what is normal will be explored. Note: This course is optional for majors and does not meet the requirements as a 4-credit psychology elective. Prerequisite: PSY 110. Recommended: PSY 240. 2 Semester Hours.

**PSY 320 Neuroscience: Behavior and Psychiatric Disorders.** This course is part of a two course series examining the biological foundations of behavior which can be completed in any order. This course examines in closer detail how the brain and nervous system impact behavior. The course will begin with an overview of the central nervous system structures. The course will discuss life-sustaining processes such as how the brain regulates sleep, biological rhythms, reproduction, and emotion. Broader topics such as learning, memory, and cognition will be covered as well as how language and communication are handled by the brain. The course will conclude with an examination of neurological correlates of various psychological disorders. The course includes a psychophysiological and neuroscience laboratory portion. Prerequisites: PSY 110. One semester of University level biology and chemistry is suggested. 4 Semester Hours.

**PSY 330 Drugs and Behavior.** This course begins with an exploration of the neurobiological nature of chemical dependency. The course examines various models of chemical addiction as well as providing information about psychopharmacology. The second portion of the course examines various drugs and their impact on the brain-behavior relationship. The course closes with theories related to treatment and recovery. Prerequisite: Successful completion of PSY 110 or permission of instructor. PSY 250 is recommended but not required. 4 Semester Hours.

**PSY 340 Animal Cognition.** This course begins with an overview of the history of philosophical and scientific thought in relation to the debate about what kinds of mental abilities non-human animals have, if any. Past and current empirical research methodologies will be discussed as will findings regarding the existence and extent of self-awareness, memory, problem-solving and other cognitive processes in various species (including but not limited to birds, sea mammals, monkeys and apes). These findings will be discussed in terms of the research on human cognitive processes; however, the implications for the animals themselves will also be explored. Prerequisite: PSY 110 or permission of the instructor. 4 Semester Hours.

**PSY 345 Human Sexual Behavior.** This course examines the developmental and experiential determinants of sexual orientation and behavior from a number of coordinate viewpoints. These viewpoints include culture, history, genes, hormones, emotions, and cognition, as well as gender identity, attitudes, orientation, and intimacy. This course contains discussion and related content of an explicit nature relevant to human sexuality, anatomy and sexual expression. Prerequisite: PSY 110 or permission of the instructor and junior or senior standing. 4 semester hours.

**PSY 350 Social Responsibility and Personal Well-Being.** This is an experientially-based course that looks at what it means to operate in a socially responsible manner in today's world. It is assumed that service and other forms of helping behavior can be a significant component of social responsibility and so the class discusses service extensively and provides both local and international opportunities for service. One of these service components involves a week-long Spring Break service project in a third world country. In addition to service, the course examines such concepts as sustainability (environmental, economic and social), responsible consumer behavior, economic fairness and social justice. By examining these issues and participating in the service projects, it is hoped that students emerge committed to living in a more socially responsible way. Prerequisite: PSY 110 or SOC 100. 4 Semester Hours. (Typically offered spring semester.)

**PSY 360 Introduction to Counseling.** This course is an introduction to the field of Counseling Psychology. This course has a two-tiered emphasis, including 1) an introduction to the classic and contemporary theoretical perspectives that serve as a foundation to the field, and 2) a focus on current issues, research, and trends that are shaping the field today. Students will also gain hands-on experience into the field of counseling through role-play activities in the department counseling offices. Prerequisite: PSY 110. Recommended: PSY 240. 4 Semester Hours.

**PSY 370 Forensic Psychology.** This course is a survey of the field of forensic psychology. Forensic psychology involves the application of the science and profession of psychology to questions and issues relating to law and the legal system. The following topics will be included in the course: defining forensic psychology; describing the profession of forensic psychology; the selection, training and evaluation of police officers; psychological techniques of criminal
Supervision will be jointly provided by the cooperating organization and the instructor of the course. Prerequisite: Per psychology PSY 110, PSY 200, and PSY 205. Variable credit, 2-4 assignments and conduct historical research. Prerequisites: PSY 110. 4 Semester Hours.

**PSY 380 Psychology of Gender.** Women are from Venus, men are from Mars… or are they? This seminar explores the psychology of gender by examining psychological issues related to sex and gender. The class explores topics including: the nature and meaning of gender roles and gender stereotypes; research on gender similarities and differences with respect to cognitive, physical, personality and social functioning; how gender stereotypes and roles develop; the effects of gender stereotypes and roles on individuals, relationships, and society; and alternatives to traditional gender stereotypes, roles, and sexual orientations. Students are required to engage in regular intellectual discourse about course content and apply their knowledge of such content to real-world contexts via a service learning project. Prerequisite: PSY 110. 4 Semester Hours.

**PSY 385 Psychology of Prejudice & Power.** This is a seminar that investigates the nature of relationships/interactions between and within groups. These relationships are viewed using the lens and language of social psychology. Specifically, the historical and sociological contexts of issues like classism, heterosexism, racism, ageism, sexism, ethnocentrism and speciesism, among others, are discussed. Close attention is paid to how privilege can influence how we perceive ourselves and others within and outside our social/cultural group(s). Coursework involves readings from psychology and other disciplines, viewing relevant films, and experiential learning that is intended to result in higher levels of empathy and a broadened world view. Prerequisites: PSY 110S, GEN 201S, OR permission of the instructor.

**PSY 390 Introduction to Marriage and Family Therapy.** Marriage and Family Therapy (MFT) is a unique form of psychotherapy that focuses on relationships, interactional patterns, family dynamics, and mental health from a Family Systems perspective. This course is an introduction to the theory, practice, and research in the field of Marriage and Family Therapy. Students will explore both foundational and contemporary theories and practice the ability of applying this knowledge to individual, couple, and family case studies. Also, this course offers an overview and critical analysis of current research, as well the opportunity for students to both observe and demonstrate methods of intervention. Prerequisite: PSY 110. Recommended: PSY 240, especially for majors. 4 Semester Hours.

**PSY 399 Special Topics in Psychology.** See All-University 399 course description.

**PSY 400 Senior Research I.** This course, along with PSY 405 constitutes the major senior research project in the Psychology and Neuroscience majors. Students are required to work in groups to select a research question, review the relevant literature, develop materials for review by the IRB, and write and present a formal research proposal. Prerequisites: PSY 110, PSY 200, and PSY 205 (Cannot be taken concurrently with PSY 200 or 205). 4 Semester Hours. (Typically offered fall semester.)

**PSY 405 Senior Research II.** In this course, students will complete the research projects begun in PSY 400 by collecting and analyzing data and by writing a detailed research report according to American Psychological Association guidelines. Students will present their findings in a public forum. Prerequisite: PSY 400. (Cannot be taken concurrently with PSY 200 or 205). 2 Semester Hours. (Typically offered spring semester.)

**PSY 410 Psychology Seminar.** This course will cover various topics pertaining to present-day psychological issues. Students may repeat the course for different topics. Prerequisite: PSY 110. 4 Semester Hours.

**PSY 420 The Origins of Psychology.** This seminar explores the philosophical and physiological beginnings of the “new science” of psychology. Students are expected to 1) contemplate seminal questions about human nature posed by early philosophers, 2) see how early experimental psychology emerged from the fields of physiology and medicine, 3) be introduced to important figures and events in the various fields of psychology, and 5) explore the greater cultural and temporal paradigms that have shaped psychological theory from its beginnings to the present day. Students are required to engage in regular writing assignments and conduct historical research. Prerequisite: PSY 110. Freshman and sophomore requirements for departmental majors are strongly recommended. 4 Semester Hours.

**PSY 485 Independent Study.** This course involves an individual study of a special problem. Concentration may be on a research project or on a review of the literature in the problem area. Offered only upon request of the student who shows interest and initiative and with permission of the instructor. Prerequisites: PSY 110, PSY 200, and PSY 205. Variable credit, 2-4 Semester Hours.

**PSY 494 Honors Thesis/Project.** See All-University 494 course description.

**PSY 499 Psychology Internship.** This is an experience-based course in which the student spends an agreed upon amount of time in a social service or psychology-related organization in order to gain first-hand experience and develop an understanding of possible applications of psychology to that setting. Supervision will be jointly provided by the cooperating organization and the instructor of the course. Prerequisite: Permission of the instructor. Variable credit, 4-16 Semester Hours.