Cognitive Science

CGS 1100 First Year Seminar (1 semester credit hour) This course is designed to introduce incoming freshmen to the intellectual and cultural environment of the School of Behavioral and Brain Sciences (BBS). Students will learn about plans of study and career paths for majors in Psychology, Neuroscience, Speech Language Pathology and Audiology, Child Learning and Development, and Cognitive Science. Required for all freshman Behavioral and Brain Sciences majors; open to all non-BBS majors. Corequisite: UNIV 1010. (Same as CLDP 1100 and NSC 1100 and PSY 1100 and SPAU 1100) (1-1) Y

CGS 2301 Cognitive Science (3 semester credit hours) An introduction to the study of the brain and behavior from the point of view of cognitive science, including approaches from psychology, philosophy, neuropsychology, and computational modeling. Includes phenomena involving sensory systems, memory, decision making, language, and communication. (3-0) Y

CGS 3325 Historical Perspectives on Psychology: Mind and Machines since 1600 (3 semester credit hours) Basic frames of reference in twentieth century psychology and their historical development in Western thought since 1600 with an emphasis on issues involved with minds, brains, and machines. Includes behaviorism, learning theory, artificial intelligence, and gestalt, structural and cognitive approaches. Prerequisite: PSY 2301 or CGS 2301. (Same as PSY 3360) (3-0) Y

CGS 3340 Experimental Projects in Cognitive Science (3 semester credit hours) Laboratory and field experience in designing and conducting research, with a major emphasis on writing research reports. Prerequisite: PSY 3392 or PSY 3490. (Same as PSY 3393) (3-0) S

CGS 3342 Cognitive and Neural Modeling Laboratory (3 semester credit hours) Computational Neuroscience, Cognitive Neural Modeling, and Mathematical Psychology modeling methodologies are introduced through the use of computer-based simulation modeling experiments. Linear Algebra (MATH 2418) and Computer Programming experience are recommended but not required. (3-0) T

CGS 3361 Cognitive Psychology (3 semester credit hours) Theory and research on perception, learning, thinking, psycholinguistics, and memory. Prerequisite: CGS 2301 or PSY 2301. (Same as PSY 3361) (3-0) S

CGS 4312 Computational Modeling Methods for Language Understanding (3 semester credit hours) Probabilistic-based methods for developing machine learning algorithms that support text mining using both the PERL and MATLAB. Topics include latent semantic analysis, hidden Markov models, and knowledge ontologies. (3-0) R

CGS 4313 Neural Net Mathematics (3 semester credit hours) Advanced matrix calculus and vector calculus-based probability theory with applications to problems in machine learning and artificial neural network modeling. Stochastic sequences and stochastic convergence. Markov/Conditional Random Fields. Intended to provide mathematics preparation for CGS 4314 and CGS 4315.

Prerequisites: MATH 2418 and (MATH 2414 or MATH 2419) and (SE 3341 or STAT 3341). (3-0) T

CGS 4314 Intelligent Systems Analysis (3 semester credit hours) This course covers essential convex and non-convex mathematical optimization theorems for the analysis and design of machine learning and artificial neural network algorithms. Theorems will be used to analyze and design both deterministic and stochastic optimization methods for the analysis and design of unsupervised, supervised, and reinforcement learning algorithms and constraint satisfaction. Prerequisite: CGS 4313 or consent of instructor. (Same as CS 4314) (3-0) T

CGS 4315 Intelligent Systems Design (3 semester credit hours) This course covers essential theorems from the field of mathematical statistics to support the analysis and design of machine learning and artificial neural network algorithms. Theorems will be used to analyze and design objective functions for unsupervised, supervised, and reinforcement learning algorithms and constraint satisfaction algorithms. Prerequisite: CGS 4313 or instructor consent required. (Same as CS 4315) (3-0) T

CGS 4352 Human Computer Interactions I (3 semester credit hours) Methods and principles of human-computer interaction (HCI), user-centered design (UCD), and usability evaluation. Provides broad overview of HCI and how HCI informs UCD processes throughout product development lifecycle. (Same as CS 4352) (3-0) T

CGS 4353 Human Computer Interactions II (3 semester credit hours) Detailed exploration of human-computer interaction (HCI) through readings in journal articles and research reports. Practical experience in methodology typically used in the design of usable systems. (Same as CS 4353) (3-0) T

CGS 4359 Cognitive Neuroscience (3 semester credit hours) Examines how modern cognitive neuroscientists explore the neural underpinnings of perception, memory, attention, language and emotion. Investigates how the brain-bases of these functions are uncovered by ingenious observations of clinical populations (including brain-damaged and schizophrenic patients), animal and human electrophysiological techniques, and powerful new functional neuroimaging tools. Prerequisite: PSY 2301. (Same as NSC 4359 and PSY 4359) (3-0) S

CGS 4362 Perception (3 semester credit hours) Considers the processes by which the individual gathers information from the external world, the physiological basis of those processes, and how they develop throughout the life span of the individual. Prerequisite: CGS 2301 or PSY 2301. (Same as PSY 4362) (3-0) R

CGS 4364 Attention and Memory (3 semester credit hours) Factors influencing the capacity to pick up, organize, and remember complex information. Prerequisite: (CGS 3361 or PSY 3361) or instructor consent required. (Same as PSY 4364) (3-0) R

CGS 4385 Neuropsychology (3 semester credit hours) This course is a comprehensive introduction of the relationship between brain and behavior. Topics include the foundations of neuropsychology, the brain's organization and functional systems, and neuropsychological perspectives of memory, attention, language, emotion, and spatial functions, and their related

disorders. Prerequisite: NSC 3361. (Same as NSC 4385 and PSY 4385) (3-0) Y

CGS 4386 Adult Development and Aging (3 semester credit hours) This course is designed to provide an overview of theories, methods, and research on the psychological processes during adulthood and aging. A selection of topics will be covered to understand the nature of and multiple influences on development throughout the adult lifespan. Prerequisite: PSY 2301. (Same as PSY 4386 and SPAU 4386) (3-0) Y

CGS 4389 Developmental Cognitive Neuroscience (3 semester credit hours) Course examines how the human brain develops and changes throughout childhood to support a range of essential cognitive processes. The course will include the following topics: the development of the neuronal structures underlying imperative cognitive processes including: vision, attention, social cognitive, memory, language, and planning; how genetic and environmental factors interact to shape brain networks underlying human behavior; methods for studying cognitive neuroscience across the lifespan, including fMRI, EEG, rTMS, and DTI; and neuroplasitcity and the changing brain throughout development. Prerequisite: PSY 2301. (Same as CLDP 4389 and NSC 4389 and PSY 4389) (3-0) Y

CGS 4394 Internship in Cognitive Science (3 semester credit hours) Students earn course credit for field experience in an applied setting. Requires working at least 8 hours per week at an approved community agency or business of the student's choice. Students keep daily job diaries, attend one class meeting per month, and write brief papers relevant to their experiences. Open to students in good academic standing with a GPA of at least 2.500 who have reached junior or senior standing (more than 53 hours). Apply for placements on the BBS website. Credit/No Credit only. Instructor consent required. (Same as CLDP 4394 and NSC 4394 and PSY 4394 and SPAU 4396) (3-0) S

CGS 4395 Co-op Fieldwork (3 semester credit hours) Students earn course credit for field experience in an approved business or government setting. Requires working at least 8 hours per week. Students will keep a journal of their workplace experience, maintain contact with the instructor, and prepare a written report that focuses on the accomplishments and insights gained through their co-op experience. Open to students in good academic standing with a GPA of at least 2.500. Credit will not be awarded retroactively. Apply for placements through the Career Center office. Credit/No Credit only. May be repeated for credit (6 semester credit hours maximum). Instructor consent required. (Same as CLDP 4395 and PSY 4395) (3-0) S

CGS 4397 Thesis Research (3 semester credit hours) An independent study in which the student writes a thesis under faculty supervision. Instructor and Associate Dean consent required. (3-0) S

CGS 4V75 Honors Seminar (1-3 semester credit hours) A course for students enrolled in the BBS Honors Program (minimum 3.500 GPA and 30 graded hours at UT Dallas) who will conduct undergraduate thesis research in BBS. The seminar addresses issues related to research activities. This course is required for students seeking BBS School Honors. Offered only in spring semester. Credit cannot be received for more than one of the following: CGS 4V75, CLDP 4V75, NSC 4V75, PSY 4V75 or SPAU 4V75. Director of the Honors Program consent required. ([1-3]-0) Y

CGS 4V90 Special Topics in Cognitive Science (1-3 semester credit hours) May be repeated for

credit as topics vary (9 semester credit hours maximum). ([1-3]-0) R

CGS 4V96 Teaching Internship (1-3 semester credit hours) Students work individually with faculty member in preparing and presenting course materials and tutoring students. Must have completed the relevant course with a grade of at least B and have a UT Dallas GPA of at least 3.000. Credit/No Credit only. May be repeated for credit (6 semester credit hours maximum). Instructor and Associate Dean consent required. ([1-3]-0) S

CGS 4V98 Directed Research (1-3 semester credit hours) Student assists faculty with research projects or conducts a research project under weekly faculty supervision. Credit/No Credit only. May be repeated for credit (6 semester credit hours maximum). Instructor consent required. ([1-3]-0) S

CGS 4V99 Individual Study (1-3 semester credit hours) Student studies advanced topics under weekly faculty direction. Credit/No Credit only. May be repeated for credit (6 semester credit hours maximum). Instructor and Associate Dean consent required. ([1-3]-0) S

Child Learning and Development

CLDP 1100 First Year Seminar (1 semester credit hour) This course is designed to introduce incoming freshmen to the intellectual and cultural environment of the School of Behavioral and Brain Sciences (BBS). Students will learn about plans of study and career paths for majors in Psychology, Neuroscience, Speech Language Pathology and Audiology, Child Learning and Development, and Cognitive Science. Required for all freshman Behavioral and Brain Sciences majors; open to all non-BBS majors. Corequisite: UNIV 1010. (Same as CGS 1100 and NSC 1100 and PSY 1100 and SPAU 1100) (1-1) Y

CLDP 2314 (PSYC 2314) Lifespan Development (3 semester credit hours) Covers physical, cognitive, and socio-emotional development throughout the human life span. Topics include development of the brain, information processing, self development, attachment family processes, and aging. (Same as PSY 2314) (3-0) S

CLDP 3303 Normal Language Development (3 semester credit hours) The development of language and communication, including phonology, syntax, semantics, pragmatics, and literacy. (Same as SPAU 3303) (3-0) S

CLDP 3305 Language and Literacy Development (3 semester credit hours) Examines research trends, theories and best practices as they relate to the development of language and literacy in school aged children. Considers brain development, development of spoken language competence, normal literacy development, literacy disorders, motivation, influence of parents and socio-cultural issues. Current research in reading and written language instructional strategies will be reviewed. (Same as SPAU 3305) (3-0) Y

CLDP 3310 Child Development (3 semester credit hours) Introduction to psychological theory and research on physical, cognitive, social, and emotional development from birth to adolescence. (Same as PSY 3310) (3-0) Y

CLDP 3332 Social and Personality Development (3 semester credit hours) The study of the forces affecting the socialization of children. Emphasis will be placed on children's interactions with others and how this influences their development in such areas as self-concept, identity, and morality. Prerequisite: (CLDP 2314 or PSY 2314) or (CLDP 3310 or PSY 3310) or (CLDP 3339 or PSY 3339) or equivalent. (Same as PSY 3332) (3-0) S

CLDP 3336 Infancy (3 semester credit hours) Review of relevant developmental theories and processes as well as skills acquired in motor, sensory-perceptual, cognitive, and social domains from birth through two years of age. Prerequisite: (CLDP 2314 or PSY 2314) or (CLDP 3310 or PSY 3310) or (CLDP 3339 or PSY 3339) or equivalent. (Same as PSY 3336) (3-0) R

CLDP 3338 Adolescence (3 semester credit hours) Covers physical, cognitive, and socio-emotional development of adolescents. Topics include puberty, identity development, family processes, peers, schools, achievement and adolescent problems. (Same as PSY 3338) (3-0) Y

CLDP 3339 Educational Psychology (3 semester credit hours) This course focuses on the psychological foundations of education and teaching. Topics include development, individual variations, learning and cognitive processes, motivation, classroom management, and assessment. Emphasis will be on applications in actual teaching behavior. (Same as PSY 3339) (3-0) S

CLDP 3342 Exceptional Children (3 semester credit hours) Examines the characteristics of exceptional children and their education, including children with disabilities (learning, emotional/behavioral, communication and physical) as well as those who are gifted. The causes and assessment of exceptionality are examined, along with educational and social policy considerations. Prerequisite: (CLDP 2314 or PSY 2314) or (CLDP 3310 or PSY 3310) or (CLDP 3339 or PSY 3339) or equivalent. (Same as PSY 3342 and SPAU 3342) (3-0) S

CLDP 3343 Children in a Changing World (3 semester credit hours) Issues relevant to childhood in the twenty-first century. Topics include effects of electronic use, child maltreatment, effects of maternal drug use on infants, medical progress, divorce, child care, children in different cultures, and the human genome project. (3-0) Y

CLDP 3362 Cognitive Development (3 semester credit hours) Examines Piagetian, information-processing, and social learning approaches to the development of cognitive processes throughout childhood. Also focuses on the implications of current research in the area of cognitive development. Prerequisite: (CLDP 2314 or PSY 2314) or (CLDP 3310 or PSY 3310) or (CLDP 3339 or PSY 3339) or equivalent. (Same as PSY 3362) (3-0) S

CLDP 3365 Child Learning (3 semester credit hours) Examines the nature of child learning and implications for improving the teaching and learning process. Major theories and research on conditioning paradigms, learning and remembering, attention, knowledge representation and retrieval, and problem solving. Illustrations of how these processes relate to teaching and the acquisition of expertise in content areas such as reading, mathematics, and science. Child assessment, identification of learning styles, and tests and measurements are also considered. Prerequisite: (CLDP 2314 or PSY 2314) or (CLDP 3310 or PSY 3310) or (CLDP 3339 or PSY 3339) or equivalent. (3-0) Y

CLDP 3366 Motivation and Achievement (3 semester credit hours) Examines theories and research on achievement and achievement motivation. Topics include methods of assessing school achievement, theories of achievement motivation, socio-cultural and situational influences. Also explores classroom applications. Prerequisite: CLDP 3339 or PSY 3339. (Same as PSY 3366) (3-0) Y

CLDP 3394 Research and Evaluation Methods (3 semester credit hours) Laboratory and field experience in all phases of behavior science research, including study design, measurement, sampling, data collection, data analysis, and report writing. The course covers the fundamental concepts of the psychometrics of measurement and testing, as well as applications of experimental and non-experimental designs in research and evaluation. Credit cannot be received for both courses, CLDP 3394 and CLDP 3494. Prerequisites: (PSY 2317 or STAT 1342) and PSY 3392. (3-0) S

CLDP 3494 Research and Evaluation Methods (4 semester credit hours) This is a 3-hour lecture course with a required 2-hour lab. Students gain experience in all phases of behavior science research, including study design, measurement, sampling, data collection, data analysis, and report writing. The course covers the fundamental concepts of the psychometrics of measurement and testing, as well as foundations of experimental and non-experimental designs in research and evaluation. Credit cannot be received for both courses, CLDP 3394 and CLDP 3494. Prerequisite: PSY 2317 or STAT 1342. (3-1) S

CLDP 4308 Language Disorders in Children (3 semester credit hours) Language impairment in children, including etiology, characteristics, evaluation, and treatment procedures with special emphasis on factors that interfere with normal development of language skills. Prerequisite: CLDP 3303 or SPAU 3303 or instructor consent required. (Same as SPAU 4308) (3-0) Y

CLDP 4344 Child Psychopathology (3 semester credit hours) Present various views of clinical issues in childhood from sociological, anthropological, and psychological perspectives. Historical views of children are examined in terms of the evolution of current perspectives in childhood psychopathology. Prerequisite: (CLDP 2314 or PSY 2314) or (CLDP 3310 or PSY 3310) or (CLDP 3339 or PSY 3339) or equivalent. (Same as PSY 4344) (3-0) Y

CLDP 4345 Violence in the Family (3 semester credit hours) Explores the area of family violence with primary emphasis on the problems of spouse abuse and child abuse. Analysis of each of these areas of family violence focuses specifically on the epidemiology of the problem, characteristics of the families, etiological theories, and treatment approaches. (Same as PSY 4345) (3-0) Y

CLDP 4347 Marriage and Family Psychology (3 semester credit hours) Examines family life from socio-psychological viewpoints with an emphasis on process, satisfaction, and diversity in interpersonal relations. Research topics include dating, mate selection, communication, stress, parenting, work, divorce, and public policy. (Same as PSY 4347) (3-0) Y

CLDP 4389 Developmental Cognitive Neuroscience (3 semester credit hours) Course examines how the human brain develops and changes throughout childhood to support a range of essential cognitive processes. The course will include the following topics: the development of the neuronal

structures underlying imperative cognitive processes including: vision, attention, social cognitive, memory, language, and planning; how genetic and environmental factors interact to shape brain networks underlying human behavior; methods for studying cognitive neuroscience across the lifespan, including fMRI, EEG, rTMS, and DTI; and neuroplasitcity and the changing brain throughout development. Prerequisite: PSY 2301. (Same as CGS 4389 and NSC 4389 and PSY 4389) (3-0) Y

CLDP 4394 Internship (3 semester credit hours) Students earn course credit for field experience in an applied setting. Requires working at least 8 hours per week at an approved community agency or business of the student's choice. Students keep daily job diaries, attend one class meeting per month, and write brief papers relevant to their experiences. Open to students in good academic standing with a GPA of at least 2.500 who have reached junior or senior standing (more than 53 hours). Apply for placements on the BBS website. Credit/No Credit only. Instructor consent required. (Same as CGS 4394 and NSC 4394 and PSY 4394 and SPAU 4396) (3-0) S

CLDP 4395 Co-op Fieldwork (3 semester credit hours) Students earn course credit for field experience in an approved business or government setting. Requires working at least 8 hours per week. Students will keep a journal of their workplace experience, maintain contact with the instructor, and prepare a written report that focuses on the accomplishments and insights gained through their co-op experience. Open to students in good academic standing with a GPA of at least 2.500. Credit will not be awarded retroactively. Apply for placements through the Career Center office. Credit/No Credit only. May be repeated for credit (6 semester credit hours maximum). Instructor consent required. (Same as CGS 4395 and PSY 4395) (3-0) S

CLDP 4397 Thesis Research (3 semester credit hours) An independent study in which the student writes a honors thesis under faculty supervision. Instructor and Associate Dean consent required. (3-0) S

CLDP 4V75 Honors Seminar (1-3 semester credit hours) A course for students enrolled in the BBS Honors Program (minimum 3.500 GPA and 30 graded hours at UT Dallas) who will conduct undergraduate thesis research in BBS. The seminar addresses issues related to research activities. This course is required for students seeking BBS School Honors. Offered only in spring semester. Credit cannot be received for more than one of the following: CGS 4V75, CLDP 4V75, NSC 4V75, PSY 4V75 or SPAU 4V75. Director of the Honors Program consent required. ([1-3]-0) Y

CLDP 4V90 Special Topics in Child Learning and Development (1-3 semester credit hours) May be repeated for credit as topics vary (9 semester credit hours maximum). ([1-3]-0) R

CLDP 4V96 Teaching Internship (1-3 semester credit hours) Students work individually with faculty member in preparing and presenting course materials and tutoring students. Must have completed the relevant course with a grade of at least B and have a UT Dallas GPA of at least 3.000. Credit/No Credit only. May be repeated for credit (6 semester credit hours maximum). Instructor and Associate Dean consent required. ([1-3]-0) S

CLDP 4V98 Directed Research (1-3 semester credit hours) Student assists faculty with research projects or conducts a research project under weekly faculty supervision. Credit/No Credit only.

May be repeated for credit (9 semester credit hours maximum). Instructor consent required. ([1-3]-0) S

CLDP 4V99 Individual Study (1-3 semester credit hours) Student studies advanced topics under weekly faculty direction and writes a paper turned in to the Associate Dean. Credit/No Credit only. May be repeated for credit (6 semester credit hours maximum). Instructor consent required. ([1-3]-0) S

Neuroscience

NSC 1100 First Year Seminar (1 semester credit hour) This course is designed to introduce incoming freshmen to the intellectual and cultural environment of the School of Behavioral and Brain Sciences (BBS). Students will learn about plans of study and career paths for majors in Psychology, Neuroscience, Speech Language Pathology and Audiology, Child Learning and Development, and Cognitive Science. Required for all freshman Behavioral and Brain Sciences majors; open to all non-BBS majors. Corequisite: UNIV 1010. (Same as CLDP 1100 and CGS 1100 and PSY 1100 and SPAU 1100) (1-1) Y

NSC 3344 Anatomy and Physiology of Speech and Hearing (3 semester credit hours) Study of anatomic and physiologic mechanisms underlying speech: respiration, phonation, and articulation. Overview of the peripheral auditory system, neuroanatomy, and normal swallowing. (Same as SPAU 3344) (3-0) Y

NSC 3345 Neural Basis of Communication (3 semester credit hours) Organization and function of cortical and subcortical structures that underlie speech, language and hearing. Special consideration of structures and pathways typically affected in neurogenic disorders of communication. (Same as SPAU 3345) (3-0) Y

NSC 3361 Introduction to Neuroscience (3 semester credit hours) Introductory course that explores the nature of the brain processes underlying behavior, including consideration of basic neurophysiology and the physiology of sensation, learning, and emotion. (3-0) S

NSC 4350 Medical Neuropathology (3 semester credit hours) Medical school format course on the major topics of neurology (coma, stroke, dementia, muscle diseases, etc) with discussion of neurologic symptoms, signs and diseases and their diagnosis, evaluation, and treatment. Patient vignettes form much of teaching and relevant neuroanatomy and neurophysiology will be reviewed as needed. Prerequisites: NSC 3361 and NSC 4366. (3-0) Y

NSC 4351 Medical Neuroscience (3 semester credit hours) Discussions of major topics in the medical neurosciences (including coma, stroke, dementia, muscle diseases, etc.) with discussion of neurologic symptoms, signs, and diseases. Coverage of their diagnosis, evaluation, and treatment for students considering advanced medical training. Prerequisite: NSC 3361. (0-3) Y

NSC 4352 Cellular Neuroscience (3 semester credit hours) The cell biology and cellular physiology of the neuron. Growth and maintenance of dendrites, axons and synapses, and the underlying processes of macromolecule synthesis, packaging, and transport are the central biological issues.

Electrical signaling, ion channel functions, and synaptic transmission are covered. Prerequisites: NSC 3361 and CHEM 1311 and CHEM 1312. Prerequisite or Corequisite: BIOL 2311. (3-0) Y

NSC 4353 Neuroscience Laboratory Methods (3 semester credit hours) This laboratory course provides hands-on experience with the use of electrophysiological techniques for the analysis of living neural preparations. Prerequisites: NSC 3361 and NSC 4352 and CHEM 1311 and CHEM 1312 and BIOL 2311 and (MATH 2413 or MATH 2417). (0-3) S

NSC 4354 Integrative Neuroscience (3 semester credit hours) Examines the collective behavior of neuronal systems with respect to sensory processing, motor control, and the plasticity regulating more advanced behavioral, motivational, and cognitive functions. Prerequisite: NSC 3361. (3-0) Y

NSC 4355 Advanced Neuroscience Laboratory (3 semester credit hours) This laboratory course exposes students to a structured research project, with topics selected in consultation with the instructor. It requires students to develop a rationale for experiments and to interpret their results. Each student writes a publication-style paper with reference to the scientific literature. Prerequisite: NSC 4353. (0-3) R

NSC 4356 Neurophysiology (3 semester credit hours) This course focuses on the elements of neural functions ranging from the kinetics of channels in excitable membranes to the collective behavior of real neural networks. Prerequisites: NSC 3361 and NSC 4352 and CHEM 1311 and CHEM 1312 and BIOL 2311 and (MATH 2413 or MATH 2417). (3-0) Y

NSC 4357 Neurobiology of Learning and Memory (3 semester credit hours) Current research and theory on modifications in the nervous system that may underlie memory. Includes overviews of synaptic physiology and behavioral pharmacology, and concepts of neural plasticity revealed from research findings. Prerequisites: NSC 3361 and NSC 4352 and CHEM 1311 and CHEM 1312 and BIOL 2311. (3-0) T

NSC 4358 Neuroscience of Pain (3 semester credit hours) A review of the anatomical and physiologic basis for different forms of pain, with an emphasis on similarities and differences between different forms of pain. Basic neural processing of pain signals in the dorsal horn of the spinal cord and the brain, including the anatomy and function of the ascending and the descending systems are covered. Prerequisite: NSC 3361. (3-0) T

NSC 4359 Cognitive Neuroscience (3 semester credit hours) Examines how modern cognitive neuroscientists explore the neural underpinnings of perception, memory, attention, language and emotion. Investigates how the brain-bases of these functions are uncovered by ingenious observations of clinical populations (including brain-damaged and schizophrenic patients), animal and human electrophysiological techniques, and powerful new functional neuroimaging tools. Prerequisite: PSY 2301. (Same as CGS 4359 and PSY 4359) (3-0) S

NSC 4362 Molecular Neuroscience (3 semester credit hours) Examines the regulation and expression of major macromolecules of neurons and glia, including DNA, RNA, and proteins. Interdependence of major pathways, and the effects of development and experience on molecular mechanisms will be explored. Prerequisites: NSC 3361 and NSC 4352 and CHEM 1311 and CHEM

1312 and BIOL 2311. (3-0) T

NSC 4363 Neuropharmacology (3 semester credit hours) A survey of neurotransmitter functions with special emphasis on effects in the central nervous system. Emphases on ion channels and receptors, and on neurotransmitter metabolism, transport and release. Mechanisms of action from the subcellular to whole organism level are discussed. Prerequisites: NSC 3361 and NSC 4352 and CHEM 1311 and CHEM 1312 and BIOL 2311 and (MATH 2413 or MATH 2417). (3-0) Y

NSC 4364 Journey into Medicine (3 semester credit hours) For those students considering or committed to a career in medicine, this course will help in understanding exactly what life will be like during medical school and beyond for you. Considers personal, financial, spiritual, social and legal aspects of training and working as a physician. Prerequisite: NSC 3361. (3-0) T

NSC 4365 Laboratory Methods in Human Neuroscience (3 semester credit hours) This laboratory course provides hands-on experience with the use of electrophysiological techniques for testing hypotheses and collecting and analyzing cognitive neuroscience data. Prerequisites: NSC 3361 and (NSC 4352 or NSC 4356). (0-3) R

NSC 4366 Neuroanatomy (3 semester credit hours) Introduction to the anatomical organization and basic functional principles of the major sensory, motor, associational, and modulatory systems of the human brain. Students learn to identify visually specific structures on slides, magnetic resonance images (MRI), and dissected brain specimens in relation to neural pathways and system interconnections. This course provides a basis for a general understanding of the human brain and its functions in relation to disease and behavior. Prerequisites: NSC 3361 and CHEM 1311 and BIOL 2311. (3-0) Y

NSC 4367 Developmental Neurobiology (3 semester credit hours) Examines the processes guiding the proliferation, differentiation, and migration of neurons as they form transient or long-lasting connections and circuits. Prerequisites: NSC 3361 and NSC 4352 and CHEM 1311 and CHEM 1312 and BIOL 2311. (3-0) T

NSC 4370 Neuroendocrinology (3 semester credit hours) A detailed examination of central nervous system regulation of the endocrine system, primarily via the hypothalamic-pituitary-adrenal axis. Examines feedback effects of hormonal actions on neuronal function. Prerequisite: NSC 4366. (3-0) T

NSC 4371 Neural Plasticity (3 semester credit hours) Review of the basic principles of neural plasticity. Special emphasis on cortical or subcortical plasticity related to development, recovery from injury and adaptations to the external world involved in learning and memory. Prerequisites: NSC 3361 and NSC 4352 and CHEM 1311 and CHEM 1312 and BIOL 2311. (3-0) T

NSC 4372 Neuroimmunology (3 semester credit hours) Studies of the effects of the brain and the mind on the immune system, and subsequent effects on health and disease. Immune effects on neural and endocrine actions are also considered. Prerequisite: NSC 3361. (3-0) T

NSC 4373 Sensory Neuroscience (3 semester credit hours) Review of the basic principles of neural

information processing, with emphasis on the central nervous system processes underlying one or more sensory modalities. Readings and discussion of classic and modern primary papers. Prerequisite: NSC 3361. (3-0) T

NSC 4374 Neuroplasticity in Disorders of the Nervous System (3 semester credit hours) The symptoms and signs of multiple disorders caused by reorganization or plasticity of the central nervous system. A review of the neural plasticity underlying the pathophysiology of disorders such as chronic pain, tinnitus, balance disorders, spasticity, etc., i.e. a "dark side" of plasticity not widely recognized. Prerequisite: NSC 4352. (3-0) T

NSC 4376 Neurobiology of Stress (3 semester credit hours) Studies of the effects of stressors (specific and nonspecific) on bodily systems, with respect to health and disease and maintenance of homeostatic equilibria. Neural, endocrine, and immune interactions will be assessed. Prerequisite: NSC 4354. (3-0) T

NSC 4378 Neurotoxicology (3 semester credit hours) An overview of modern toxicology as it affects the nervous system. Adverse effects of xenobiotics and neurotoxins, hypo or hyperactivation of neuromodulatory and hormonal systems. Prerequisite: NSC 4352 or NSC 4363. (3-0) T

NSC 4385 Neuropsychology (3 semester credit hours) This course is a comprehensive introduction of the relationship between brain and behavior. Topics include the foundations of neuropsychology, the brain's organization and functional systems, and neuropsychological perspectives of memory, attention, language, emotion, and spatial functions, and their related disorders. Prerequisite: NSC 3361. (Same as CGS 4385 and PSY 4385) (3-0) Y

NSC 4387 Neuropathology (3 semester credit hours) This course studies diseases of nervous system tissue, examining surgical biopsies or whole autopsy brains to discover what can go wrong with the human brain. Neuropathology is a subspecialty of anatomic pathology, neurology, and neurosurgery, examining human clinical cases. Prerequisites: NSC 3361 and NSC 4366. (3-0) T

NSC 4388 Medical Physiology (3 semester credit hours) This course is designed to improve understanding of the basic sciences of human physiology: how body systems work to maintain homeostasis, and how alterations in homeostasis are associated with disease. Covers how the nervous system functions with and regulates other physiological systems of the body. Prerequisites: NSC 3361 and NSC 4352. (3-0) T

NSC 4389 Developmental Cognitive Neuroscience (3 semester credit hours) Course examines how the human brain develops and changes throughout childhood to support a range of essential cognitive processes. The course will include the following topics: the development of the neuronal structures underlying imperative cognitive processes including: vision, attention, social cognitive, memory, language, and planning; how genetic and environmental factors interact to shape brain networks underlying human behavior; methods for studying cognitive neuroscience across the lifespan, including fMRI, EEG, rTMS, and DTI; and neuroplasitcity and the changing brain throughout development. Prerequisite: PSY 2301. (Same as CLDP 4389 and CGS 4389 and PSY 4389) (3-0) Y

NSC 4394 Internship in Neuroscience (3 semester credit hours) Students earn course credit for field experience in an applied setting. Requires working at least 8 hours per week at an approved community agency or business of the student's choice. Students keep daily job diaries, attend one class meeting per month, and write brief papers relevant to their experiences. Open to students in good academic standing with a GPA of at least 2.500 who have reached junior or senior standing (more than 53 hours). Apply for placements on the BBS website. Credit/No Credit only. Instructor consent required. (Same as CGS 4394 and CLDP 4394 and PSY 4394 and SPAU 4396) (3-0) S

NSC 4397 Thesis Research (3 semester credit hours) An independent study in which the student writes a thesis under faculty supervision. Instructor and Associate Dean consent required. (3-0) S

NSC 4V75 Honors Seminar (1-3 semester credit hours) A course for students enrolled in the BBS Honors Program (minimum 3.500 GPA and 30 graded hours at UT Dallas) who will conduct undergraduate thesis research in BBS. The seminar addresses issues related to research activities. This course is required for students seeking BBS School Honors. Offered only in spring semester. Credit cannot be received for more than one of the following: CGS 4V75, CLDP 4V75, NSC 4V75, PSY 4V75 or SPAU 4V75. Director of the Honors Program consent required. ([1-3]-0) Y

NSC 4V90 Special Topics in Neuroscience (1-3 semester credit hours) May be repeated for credit as topics vary (9 semester credit hours maximum). ([1-3]-0) R

NSC 4V91 Green Fellowship Directed Research (1-12 semester credit hours) Student assists faculty with research projects or conducts a research project under weekly faculty supervision. Enrollment is limited to students selected for the Green Fellowship program. Instructor and Associate Dean consent required. ([1-12]-0) Y

NSC 4V95 Externship in Neuroscience (1-3 semester credit hours) Students earn course credit for directed research performed at approved laboratories at UT Southwestern or other local neuroscience centers. Credit/No Credit only. May be repeated for credit (9 semester credit hours maximum). UT Dallas NSC faculty consent required. ([1-3]-0) R

NSC 4V96 Teaching Internship (1-3 semester credit hours) Students work individually with faculty member in preparing and presenting course materials and tutoring students. Must have completed the relevant course with a grade of at least B and have a UT Dallas GPA of at least 3.000. Credit/No Credit only. May be repeated for credit (6 semester credit hours maximum). Instructor and Associate Dean consent required. ([1-3]-0) S

NSC 4V98 Directed Research (1-3 semester credit hours) Student assists faculty with research projects or conducts a research project under weekly faculty supervision. Credit/No Credit only. May be repeated for credit (9 semester credit hours maximum). Instructor consent required. ([1-3]-0) S

NSC 4V99 Independent Study (1-3 semester credit hours) Student studies advanced topics under weekly faculty supervision. Credit/No Credit only. May be repeated for credit (6 semester credit hours maximum). Instructor and Associate Dean consent required. ([1-3]-0) S

Psychology

PSY 1100 First Year Seminar (1 semester credit hour) This course is designed to introduce incoming freshmen to the intellectual and cultural environment of the School of Behavioral and Brain Sciences (BBS). Students will learn about plans of study and career paths for majors in Psychology, Neuroscience, Speech Language Pathology and Audiology, Child Learning and Development, and Cognitive Science. Required for all freshman Behavioral and Brain Sciences majors; open to all non-BBS majors. Corequisite: UNIV 1010. (Same as CLDP 1100 and CGS 1100 and NSC 1100 and SPAU 1100) (1-1) Y

PSY 2301 (PSYC 2301) Introduction to Psychology (3 semester credit hours) Overviews the major theories and scientific research examining the human mind and behavior. The topics range from studies of perception, cognition, memory, language, and thought to studies of development, personality, relationships, motivation, abnormal patterns of thought and behavior, and cultural differences. (3-0) S

PSY 2314 (PSYC 2314) Lifespan Development (3 semester credit hours) Covers physical, cognitive, and socio-emotional development throughout the human life span. Topics include development of the brain, information processing, self development, attachment family processes, and aging. (Same as CLDP 2314) (3-0) S

PSY 2317 (PSYC 2317) Statistics for Psychology (3 semester credit hours) Introduces concepts and calculations of descriptive statistics, including mean, sum of squares, variance, standard deviation, correlation and regression. It also includes the logic of statistical decision making, the use of binomial and Gaussian distributions, and fundamental considerations in the design of psychological experiments. Prerequisite: MATH 1306 or MATH 1314 or equivalent. (3-0) S

PSY 2364 Animal Communication (3 semester credit hours) Surveys the diverse forms of communication used throughout the animal kingdom. Topics include the social contexts of communication, the sensory and neural mechanisms involved in signal production and perception, as well as the evolutionary and ecological forces that shape these systems in their natural environments. (3-0) Y

PSY 3100 Careers in Psychology (1 semester credit hour) Examines the professions that utilize the theories, research findings, and practices from the field of psychology. Students gain information and skills that will help them select and pursue a career in psychology or a related field. Course information will be conveyed through readings, homework assignments, exercises, internet searches, guest speakers, in-class exercises and group discussions. It is recommended that all Psychology majors take this course during their sophomore year. Prerequisite: PSY 2301. (1-0) Y

PSY 3310 Child Development (3 semester credit hours) Introduction to psychological theory and research on physical, cognitive, social, and emotional development from birth to adolescence. (Same as CLDP 3310) (3-0) Y

PSY 3322 Psychology of Adjustment (3 semester credit hours) Students gain a broad understanding of effective living and coping, combining basic scientific and applied perspectives to

help students sort through the best approaches to personal adjustment. Among the topics covered are coping, stress, personality, the self and identity, interpersonal communication, work and career development, adult development, health, abnormal psychology, love and intimacy, and therapies. (3-0) Y

PSY 3324 Psychology of Gender (3 semester credit hours) Examines gender as it is expressed in the personality of the individual and in the social relations of dyads and groups. Topics include gender identity, sexual orientation, gender differences in intellectual abilities and personality characteristics, gender as it is expressed in friendships, marriage, and sexuality, and cultural gender stereotypes as they affect individual psychology and personal relationships. (Same as GST 3301) (3-0) Y

PSY 3331 Social Psychology (3 semester credit hours) Theory and research on social influence, social cognition and social perception, self-knowledge and self-justification, attitudes and attitude change, conformity and compliance, group processes, aggression, prejudice, interpersonal attraction, culture/socialization, and prosocial behavior. (3-0) S

PSY 3332 Social and Personality Development (3 semester credit hours) The study of the forces affecting the socialization of children. Emphasis will be placed on children's interactions with others and how this influences their development in such areas as self-concept, identity, and morality. Prerequisite: (CLDP 2314 or PSY 2314) or (CLDP 3310 or PSY 3310) or (CLDP 3339 or PSY 3339) or equivalent. (Same as CLDP 3332) (3-0) S

PSY 3333 Approaches to Clinical Psychology (3 semester credit hours) A survey of therapeutic approaches used in modern psychotherapy. Covers a variety of psychotherapeutic approaches, including psychodynamic, behavioral, humanistic, cognitive, and medical. Prerequisite: PSY 2301. (3-0) Y

PSY 3336 Infancy (3 semester credit hours) Review of relevant developmental theories and processes as well as skills acquired in motor, sensory-perceptual, cognitive, and social domains from birth through two years of age. Prerequisite: (CLDP 2314 or PSY 2314) or (CLDP 3310 or PSY 3310) or (CLDP 3339 or PSY 3339) or equivalent. (Same as CLDP 3336) (3-0) R

PSY 3338 Adolescence (3 semester credit hours) Covers physical, cognitive, and socio-emotional development of adolescents. Topics include puberty, identity development, family processes, peers, schools, achievement and adolescent problems. (Same as CLDP 3338) (3-0) Y

PSY 3339 Educational Psychology (3 semester credit hours) This course focuses on the psychological foundations of education and teaching. Topics include development, individual variations, learning and cognitive processes, motivation, classroom management, and assessment. Emphasis will be on applications in actual teaching behavior. (Same as CLDP 3339) (3-0) S

PSY 3342 Exceptional Children (3 semester credit hours) Examines the characteristics of exceptional children and their education, including children with disabilities (learning, emotional/behavioral, communication and physical) as well as those who are gifted. The causes and assessment of exceptionality are examined, along with educational and social policy

considerations. Prerequisite: (CLDP 2314 or PSY 2314) or (CLDP 3310 or PSY 3310) or (CLDP 3339 or PSY 3339) or equivalent. (Same as CLDP 3342 and SPAU 3342) (3-0) S

PSY 3350 Psychology of Communication (3 semester credit hours) A survey of psychological theories, concepts and principles that bear on processes of human communication ranging from intrapersonal to interpersonal, group, organizational, intercultural, international and mass communication. (3-0) Y

PSY 3351 Mass Communication and Behavior (3 semester credit hours) Examines the role mass communication plays in creating, maintaining, and changing human behavior. Topics include media's influence on values, children, race relations, consumer behavior, political preference, and policy support. Also examined: the future of the music industry, fake news, the role of newspapers, and the information age. (3-0) Y

PSY 3355 Psychology of Creativity (3 semester credit hours) Examines psychological theories and research focusing on creative thinking and accomplishment. Students also develop techniques and skills for innovation and effective problem solving applied to real life issues. As the world changes in complexity, creativity becomes increasingly one of the most important personal and business strategies for survival and success. (3-0) Y

PSY 3356 The Creative Process (3 semester credit hours) Explores the relationship between human development and creative process. Personal and societal perspectives are examined through the use of assessments, inventories, and interviews. Integration and application of concepts and skills are emphasized. (3-0) Y

PSY 3360 Historical Perspectives on Psychology: Mind and Machines since 1600 (3 semester credit hours) Basic frames of reference in twentieth century psychology and their historical development in Western thought since 1600 with an emphasis on issues involved with minds, brains, and machines. Includes behaviorism, learning theory, artificial intelligence, and gestalt, structural and cognitive approaches. Prerequisite: PSY 2301 or CGS 2301. (Same as CGS 3325) (3-0) Y

PSY 3361 Cognitive Psychology (3 semester credit hours) Theory and research on perception, learning, thinking, psycholinguistics, and memory. Prerequisite: PSY 2301 or CGS 2301. (Same as CGS 3361) (3-0) S

PSY 3362 Cognitive Development (3 semester credit hours) Examines Piagetian, information-processing, and social learning approaches to the development of cognitive processes throughout childhood. Also focuses on the implications of current research in the area of cognitive development. Prerequisite: (CLDP 2314 or PSY 2314) or (CLDP 3310 or PSY 3310) or (CLDP 3339 or PSY 3339) or equivalent. (Same as CLDP 3362) (3-0) S

PSY 3363 Evolution of Behavior (3 semester credit hours) This course places human behavior in an evolutionary framework, showing how much human behavior has been subject to natural selection and is genetically transmitted. Emphasizes the continuities between human and non-human behavior. Classic ethological theories and sociobiology are discussed. (3-0) R

PSY 3366 Motivation and Achievement (3 semester credit hours) Examines theories and research on achievement and achievement motivation. Topics include methods of assessing school achievement, theories of achievement motivation, socio-cultural and situational influences. Also explores classroom applications. Prerequisite: CLDP 3339 or PSY 3339. (Same as CLDP 3366) (3-0) Y

PSY 3392 Research Design and Analysis (3 semester credit hours) Advanced techniques for research design and data analysis in the behavioral sciences, with an emphasis on identifying meaningful hypotheses, implementing research practices, and interpreting and communicating research findings. Prerequisite: PSY 2317 or STAT 1342. (3-0) S

PSY 3393 Experimental Projects in Psychology (3 semester credit hours) Laboratory and field experience in designing and conducting research, with a major emphasis on writing research reports. Prerequisite: PSY 3392 or PSY 3490. (Same as CGS 3340) (3-0) S

PSY 3490 Accelerated Quantitative Methods (4 semester credit hours) An honors-level survey of statistical methods in psychology. Presents measurement techniques, basic research designs, and statistical analyses developed in terms of the general linear model. Draws upon examples primarily from cognitive and social psychology to illustrate methods in behavioral research. Prerequisite: Grade of B+ or better in MATH 1306 or MATH 1314 or higher. (4-0) R

PSY 4323 Cultural Diversity and Psychology (3 semester credit hours) Explores cultural diversity and multiculturalism from both scientific research and practical perspectives. Emphasis is placed on increasing students' awareness of differing world views, privilege, the experience of self, and the interactions between different cultures. (3-0) Y

PSY 4324 The Psychology of Prejudice (3 semester credit hours) Examines prejudice and discrimination, applying social-psychological theory and research to various social and historical topics, including stereotypes and prejudice in the media, old-fashioned and modern prejudice, genocide, sexism, heterosexism, classism, and intergroup contact. Students will apply intergroup relations theory to social policies including public housing, women's rights, gay rights, and Affirmative Action. Students may opt to participate in semester-long service-learning project and learn social entrepreneurial skills as part of the course. Prerequisite: PSY 2301. (3-0) Y

PSY 4325 Death and Dying (3 semester credit hours) This course will help develop your understanding of death, dying, and grief across the lifespan. Students will explore their own perspectives on loss and gain understanding of how their perspective impacts their response to others. A focus on how culture, history, community, and religion impact ones view of death will be explored. Students will gain skills to develop plans and interventions to work with individuals and families who are or have been impacted by death. (3-0) Y

PSY 4327 Stress Management (3 semester credit hours) This course examines stress management from scientific and practical perspectives. Topics include stress psychopathology, stress and illness/disease, interventions to reduce stress, relaxation techniques, and strategies of decreasing stressful behavior. Prerequisites: NSC 3361 and PSY 2301. (3-0) R

PSY 4328 Health Psychology (3 semester credit hours) An examination of psychological factors as

they influence physical disease; the involvement of personality variables and stress in heart disease, diabetes, and cancer. Behavioral interventions and their effects are discussed. Prerequisites: NSC 3361 and PSY 2301. (3-0) Y

PSY 4331 Personality (3 semester credit hours) A comparative survey and analysis of theories of personality, including consideration of research and research techniques. Prerequisite: PSY 2301. (3-0) Y

PSY 4332 Psychology in the Workplace (3 semester credit hours) Examines scientific knowledge about effective behavior in the workplace and provides practical ways to improve behavioral skills. Topics include communication, leadership, motivation, decision-making, teamwork, conflict and stress management, and abuse in the workplace, including sexual harassment. Prerequisite: PSY 2301. (3-0) Y

PSY 4333 Human Relations (3 semester credit hours) Overviews theory and research on human relations across the lifespan. Topics include relationships development and maintenance, intimacy, conflict, conflict resolution and other aspects of human relationships. Four areas of the lifespan are highlighted: childhood, adolescence, early/middle adulthood, and later adulthood. Prerequisite: PSY 2301. (3-0) Y

PSY 4343 Abnormal Psychology (3 semester credit hours) Considers patterns of abnormal human behavior, approaches to psychotherapy, and related research. (3-0) S

PSY 4344 Child Psychopathology (3 semester credit hours) Present various views of clinical issues in childhood from sociological, anthropological, and psychological perspectives. Historical views of children are examined in terms of the evolution of current perspectives in childhood psychopathology. Prerequisite: (CLDP 2314 or PSY 2314) or (CLDP 3310 or PSY 3310) or (CLDP 3339 or PSY 3339) or equivalent. (Same as CLDP 4344) (3-0) Y

PSY 4345 Violence in the Family (3 semester credit hours) Explores the area of family violence with primary emphasis on the problems of spouse abuse and child abuse. Analysis of each of these areas of family violence focuses specifically on the epidemiology of the problem, characteristics of the families, etiological theories, and treatment approaches. (Same as CLDP 4345) (3-0) Y

PSY 4346 Human Sexuality (3 semester credit hours) Covers a wide range of issues concerning behavioral and biological aspects of sexuality. Topics include how to judge sexual research, values and sex, love and intimacy, male and female sexual anatomy and physiology, sexually transmitted diseases, patterns of sexual response, sexual problems and therapies, the development of sexuality, sexual orientation, reproductive sexuality, forcible sexual behavior, and social issues in sexuality. (3-0) S

PSY 4347 Marriage and Family Psychology (3 semester credit hours) Examines family life from socio-psychological viewpoints with an emphasis on process, satisfaction, and diversity in interpersonal relations. Research topics include dating, mate selection, communication, stress, parenting, work, divorce, and public policy. (Same as CLDP 4347) (3-0) Y

PSY 4359 Cognitive Neuroscience (3 semester credit hours) Examines how modern cognitive neuroscientists explore the neural underpinnings of perception, memory, attention, language and emotion. Investigates how the brain-bases of these functions are uncovered by ingenious observations of clinical populations (including brain-damaged and schizophrenic patients), animal and human electrophysiological techniques, and powerful new functional neuroimaging tools. Prerequisite: PSY 2301. (Same as CGS 4359 and NSC 4359) (3-0) S

PSY 4362 Perception (3 semester credit hours) Considers the processes by which the individual gathers information from the external world, the physiological basis of those processes, and how they develop throughout the life span of the individual. Prerequisite: CGS 2301 or PSY 2301. (Same as CGS 4362) (3-0) R

PSY 4364 Attention and Memory (3 semester credit hours) Factors influencing the capacity to pick up, organize, and remember complex information. Prerequisite: (CGS 3361 or PSY 3361) or instructor consent required. (Same as CGS 4364) (3-0) R

PSY 4365 Psychology of Music (3 semester credit hours) An examination of the psychological bases for musical understanding, emotional responses to music, musical creativity, and the dramatic use of music, including relationships between musical structure and the representation of psychological states. (3-0) R

PSY 4370 Industrial and Organizational Psychology (3 semester credit hours) Overview of psychological theory and research bearing on recruitment, personnel selection, training and development, job design, work group design, work motivation, leadership, performance assessment, and job satisfaction measurement. Prerequisite: PSY 2301. (3-0) R

PSY 4372 Forensic Psychology (3 semester credit hours) Explores forensic psychology as a profession and a field of study. Topics may include criminal profiling, lie detection, insanity and competency, spouse and child abuse, child custody, and police selection, training, and interrogation. Course content varies with expertise of instructor. Prerequisite: PSY 2301. (3-0) Y

PSY 4373 Psychological Assessment (3 semester credit hours) Explores both theory and application of psychological assessment, especially concerning individual differences in ability and personality, as well as for diagnostic purposes. Test construction and validation will be discussed and specific examples of tests will be presented. Prerequisite: PSY 2301. (3-0) Y

PSY 4374 Judgment and Decision Making (3 semester credit hours) Processes of human judgment are examined from the perspective of cognitive, and social psychological theories and research. Focus is on specific domains of judgment, such as attitude formation and change, biases and prejudices, decision making in organizations, and marketing strategies to illustrate basic principles of decision making. (3-0) Y

PSY 4377 Conflict Resolution (3 semester credit hours) Examines theory, research and practice of negotiation, mediation, and conflict resolution. Topics include origins of aggression and conflict, techniques of negotiation, and methods of conflict resolution. Students gain practical experience in dispute resolution. Includes 40 hours of required Texas Mediator training. (3-0) Y

PSY 4378 Advanced Conflict Resolution: Family Mediation (3 semester credit hours) Advanced course covers the mediation of complex disputes using the joint session as well as caucus methods. Collaborative and transformative modes of mediation are introduced. Course topics include family law, family dynamics, child development, family violence, practice considerations, and skill sets required for successful family mediation. Role plays involving topics such as child custody, support, spousal maintenance and property division, are conducted. Prerequisite or Corequisite: PSY 4377. (3-0) Y

PSY 4385 Neuropsychology (3 semester credit hours) This course is a comprehensive introduction of the relationship between brain and behavior. Topics include the foundations of neuropsychology, the brain's organization and functional systems, and neuropsychological perspectives of memory, attention, language, emotion, and spatial functions, and their related disorders. Prerequisite: NSC 3361. (Same as CGS 4385 and NSC 4385) (3-0) Y

PSY 4386 Adult Development and Aging (3 semester credit hours) This course is designed to provide an overview of theories, methods, and research on the psychological processes during adulthood and aging. A selection of topics will be covered to understand the nature of and multiple influences on development throughout the adult lifespan. Prerequisite: PSY 2301. (Same as CGS 4386 and SPAU 4386) (3-0) Y

PSY 4389 Developmental Cognitive Neuroscience (3 semester credit hours) Course examines how the human brain develops and changes throughout childhood to support a range of essential cognitive processes. The course will include the following topics: the development of the neuronal structures underlying imperative cognitive processes including: vision, attention, social cognitive, memory, language, and planning; how genetic and environmental factors interact to shape brain networks underlying human behavior; methods for studying cognitive neuroscience across the lifespan, including fMRI, EEG, rTMS, and DTI; and neuroplasitcity and the changing brain throughout development. Prerequisite: PSY 2301. (Same as CLDP 4389 and CGS 4389 and NSC 4389) (3-0) Y

PSY 4393 Language in Culture and Society (3 semester credit hours) Influence of languages on nonlinguistic aspects of culture and society. Topics include patterns of communication, speech community, communication and social structure, varieties of language, and the analysis of communicative competence and communicative performance. (Same as SPAU 4393) (3-0) Y

PSY 4394 Internship in Psychology (3 semester credit hours) Students earn course credit for field experience in an applied setting. Requires working at least 8 hours per week at an approved community agency or business of the student's choice. Students keep daily job diaries, attend one class meeting per month, and write brief papers relevant to their experiences. Open to students in good academic standing with a GPA of at least 2.500 who have reached junior or senior standing (more than 53 hours). Apply for placements on the BBS website. Credit/No Credit only. Instructor consent required. (Same as CGS 4394 and CLDP 4394 and NSC 4394 and SPAU 4396) (3-0) S

PSY 4395 Co-op Fieldwork (3 semester credit hours) Students earn course credit for field experience in an approved business or government setting. Requires working at least 8 hours per week. Students will keep a journal of their workplace experience, maintain contact with the

instructor, and prepare a written report that focuses on the accomplishments and insights gained through their co-op experience. Open to students in good academic standing with a GPA of at least 2.500. Credit will not be awarded retroactively. Apply for placements through the Career Center office. Credit/No Credit only. May be repeated for credit (6 semester credit hours maximum). Instructor consent required. (Same as CLDP 4395 and CGS 4395) (3-0) S

PSY 4397 Thesis Research (3 semester credit hours) Student writes a thesis under faculty supervision. Instructor and Associate Dean consent required. (3-0) S

PSY 4V75 Honors Seminar (1-3 semester credit hours) A course for students enrolled in the BBS Honors Program (minimum 3.500 GPA and 30 graded hours at UT Dallas) who will conduct undergraduate thesis research in BBS. The seminar addresses issues related to research activities. This course is required for students seeking BBS School Honors. Offered only in spring semester. Credit cannot be received for more than one of the following: CGS 4V75, CLDP 4V75, NSC 4V75, PSY 4V75 or SPAU 4V75. Director of the Honors Program consent required. ([1-3]-0) Y

PSY 4V90 Special Topics in Psychology (1-3 semester credit hours) May be repeated for credit as topics vary (9 semester credit hours maximum). ([1-3]-0) R

PSY 4V91 Green Fellowship Directed Research (1-12 semester credit hours) Student assists faculty with research projects or conducts a research project under weekly faculty supervision. Enrollment is limited to students selected for the Green Fellowship program. Instructor and Associate Dean consent required. ([1-12]-0) Y

PSY 4V96 Teaching Internship (1-3 semester credit hours) Students work individually with faculty member in preparing and presenting course materials and tutoring students. Must have completed the relevant course with a grade of at least B and have a UT Dallas GPA of at least 3.000. Credit/No Credit only. May be repeated for credit (6 semester credit hours maximum). Instructor and Associate Dean consent required. ([1-3]-0) S

PSY 4V98 Directed Research (1-3 semester credit hours) Student assists faculty with research projects or conducts a research project under weekly faculty supervision. Credit/No Credit only. May be repeated for credit (12 semester credit hours maximum). Instructor consent required. ([1-3]-0) S

PSY 4V99 Individual Study (1-3 semester credit hours) Student studies advanced topics under weekly faculty direction. Credit/No Credit only. May be repeated for credit as topics vary (6 semester credit hours maximum). Instructor and Associate Dean consent required. ([1-3]-0) S

Speech-Language Pathology & Audiology

SPAU 1100 First Year Seminar (1 semester credit hour) This course is designed to introduce incoming freshmen to the intellectual and cultural environment of the School of Behavioral and Brain Sciences (BBS). Students will learn about plans of study and career paths for majors in Psychology, Neuroscience, Speech Language Pathology and Audiology, Child Learning and Development, and Cognitive Science. Required for all freshman Behavioral and Brain Sciences

majors; open to all non-BBS majors. Corequisite: UNIV 1010. (Same as CLDP 1100 and CGS 1100 and NSC 1100 and PSY 1100) (1-1) Y

SPAU 3301 Communication Disorders (3 semester credit hours) Overview of the field of communication disorders with emphasis on speech-language pathology and audiology as a profession; state and national certification requirements; professional ethics; definition, identification, and classification of disorders of hearing, speech, language, cognition and swallowing. (3-0) Y

SPAU 3303 Normal Language Development (3 semester credit hours) The development of language and communication, including phonology, syntax, semantics, pragmatics, and literacy. (Same as CLDP 3303) (3-0) S

SPAU 3304 Communication Sciences (3 semester credit hours) Fundamentals of speech and hearing science: introductory acoustics, basic auditory phenomena, and acoustic aspects of speech. (3-0) Y

SPAU 3305 Language and Literacy Development (3 semester credit hours) Examines research trends, theories and best practices as they relate to the development of language and literacy in school aged children. Considers brain development, development of spoken language competence, normal literacy development, literacy disorders, motivation, influence of parents and socio-cultural issues. Current research in reading and written language instructional strategies will be reviewed. (Same as CLDP 3305) (3-0) Y

SPAU 3340 Articulation Disorders (3 semester credit hours) Etiology, symptomatology, evaluation, and treatment of articulation disorders. Prerequisite or Corequisite: SPAU 3343. (3-0) Y

SPAU 3341 Audiology (3 semester credit hours) Clinical application and interpretation in audiology. Emphasis on instrumentation and calibration considerations for air and bone conduction test, speech audiometry, cerumen management, and basic masking principles. Prerequisites or Corequisites: SPAU 3304 and SPAU 3344 or instructor consent required. (3-0) Y

SPAU 3342 Exceptional Children (3 semester credit hours) Examines the characteristics of exceptional children and their education, including children with disabilities (learning, emotional/ behavioral, communication and physical) as well as those who are gifted. The causes and assessment of exceptionality are examined, along with educational and social policy considerations. Prerequisite: (CLDP 2314 or PSY 2314) or (CLDP 3310 or PSY 3310) or (CLDP 3339 or PSY 3339) or equivalent. (Same as CLDP 3342 and PSY 3342) (3-0) S

SPAU 3343 Phonetics (3 semester credit hours) The study of speech sounds. Phonetic transcription and description of articulatory, acoustic, and linguistic properties of speech. (3-0) Y

SPAU 3344 Anatomy and Physiology of Speech and Hearing (3 semester credit hours) Study of anatomic and physiologic mechanisms underlying speech: respiration, phonation, and articulation. Overview of the peripheral auditory system, neuroanatomy, and normal swallowing. (Same as NSC 3344) (3-0) Y

SPAU 3345 Neural Basis of Communication (3 semester credit hours) Organization and function of cortical and subcortical structures that underlie speech, language and hearing. Special consideration of structures and pathways typically affected in neurogenic disorders of communication. (Same as NSC 3345) (3-0) Y

SPAU 3388 Clinical Observation in Speech-Language Pathology (3 semester credit hours) Guided observation and study of assessment procedures and intervention strategies used with individuals who have communication disorders. Credit/No Credit only. Instructor consent required. (3-0) S

SPAU 3390 Clinical Practicum in Speech-Language Pathology (3 semester credit hours) Guided observation and supervised participation in evaluation and therapeutic management of individuals with communication disorders. Weekly clinical conference required. Credit/No Credit only. May be repeated for credit (6 semester credit hours). Prerequisites: SPAU 3301 and SPAU 3303 and SPAU 3388 and SPAU 3340 and SPAU 3343 and SPAU 4308 and instructor consent required. Minimum GPA requirement 3.200. (3-0) S

SPAU 4308 Language Disorders in Children (3 semester credit hours) Language impairment in children, including etiology, characteristics, evaluation, and treatment procedures with special emphasis on factors that interfere with normal development of language skills. Prerequisite: CLDP 3303 or SPAU 3303 or instructor consent required. (Same as CLDP 4308) (3-0) Y

SPAU 4342 Assessment Procedures in Speech-Language Pathology (3 semester credit hours) Principles and procedures in the diagnosis of communication disorders in preschool- and school-aged children and adults. Included will be a blend of philosophical issues with practical clinical methodology. Emphasis will be on application of diagnostic information to rehabilitation planning and techniques. Professional report writing skills included. Prerequisite: SPAU 3301 or instructor consent required. (3-0) Y

SPAU 4366 Clinical Report Writing (3 semester credit hours) Foundations of professional and technical writing that accompany each step of the therapeutic process as well as the basic rules for grammar and punctuation necessary for acceptable writing. Included will be the writing requirements necessary for their practicum experiences. Students will be required to write and will receive feedback throughout the semester. (3-0) Y

SPAU 4367 Development and Design of Therapeutic Resources (3 semester credit hours) Techniques necessary to design, create, modify or individualize therapeutic materials for use in various clinical settings. Students develop and design lesson plans and materials for children, adolescents and adults, for use with common treatment goals found in communication disorders. Students will learn about extrinsic and intrinsic reinforcement and design appropriate materials. (3-0) Y

SPAU 4386 Adult Development and Aging (3 semester credit hours) This course is designed to provide an overview of theories, methods, and research on the psychological processes during adulthood and aging. A selection of topics will be covered to understand the nature of and multiple influences on development throughout the adult lifespan. Prerequisite: PSY 2301. (Same as CGS 4386 and PSY 4386) (3-0) Y

SPAU 4393 Language in Culture and Society (3 semester credit hours) Influence of languages on nonlinguistic aspects of culture and society. Topics include patterns of communication, speech community, communication and social structure, varieties of language, and the analysis of communicative competence and communicative performance. (Same as PSY 4393) (3-0) Y

SPAU 4394 Multicultural Aspects of Communication Disorders (3 semester credit hours) Service delivery issues in culturally and linguistically diverse populations with the goal of developing sensitivity to the special needs of multiculturalism in schools and in the clinical practice of Speech-Language Pathology. Therapeutic management of foreign dialect, language differences, and the effects of cultural diversity upon learning will be discussed. (3-0) Y

SPAU 4395 Issues in the Management of Persons with Hearing Impairment (3 semester credit hours) Assessment of hearing disorders, individual and group amplification, assistive listening devices, auditory and visual speech recognition, communication strategies, and service delivery to adults and children with hearing loss. (3-0) T

SPAU 4396 Internship (3 semester credit hours) Students earn course credit for field experience in an applied setting. Requires working at least 8 hours per week at an approved community agency or business of the student's choice. Students keep daily job diaries, attend one class meeting per month, and write brief papers relevant to their experiences. Open to students in good academic standing with a GPA of at least 2.500 who have reached junior or senior standing (more than 53 hours). Apply for placements on the BBS website. Credit/No Credit only. Instructor consent required. (Same as CGS 4394 and CLDP 4394 and NSC 4394 and PSY 4394) (3-0) S

SPAU 4397 Thesis Research (3 semester credit hours) An independent study in which the student writes a thesis under faculty supervision. Instructor and Associate Dean consent required. (3-0) S

SPAU 4V75 Honors Seminar (1-3 semester credit hours) A course for students enrolled in the BBS Honors Program (minimum 3.500 GPA and 30 graded hours at UT Dallas) who will conduct undergraduate thesis research in BBS. The seminar addresses issues related to research activities. This course is required for students seeking BBS School Honors. Offered only in spring semester. Credit cannot be received for more than one of the following: CGS 4V75, CLDP 4V75, NSC 4V75, PSY 4V75 or SPAU 4V75. Director of the Honors Program consent required. ([1-3]-0) Y

SPAU 4V90 Special Topics in Speech-Language Pathology and Audiology (1-3 semester credit hours) May be repeated for credit as topics vary (9 semester credit hours maximum). ([1-3]-0) R

SPAU 4V96 Teaching Internship (1-3 semester credit hours) Students work individually with faculty member in preparing and presenting course materials and tutoring students. Must have completed the relevant course with a grade of at least B and have a UT Dallas GPA of at least 3.000. Credit/No Credit only. May be repeated for credit (6 semester credit hours maximum). Instructor and Associate Dean consent required. ([1-3]-0) S

SPAU 4V98 Directed Research (1-3 semester credit hours) Student assists faculty with research projects or conducts a research project under weekly faculty supervision. Credit/No Credit only. May be repeated for credit (12 semester credit hours maximum). Instructor consent required.

(0-[1-3]) S

SPAU 4V99 Individual Study (1-3 semester credit hours) Student studies advanced topics under faculty direction. Credit/No Credit only. May be repeated for credit (6 semester credit hours maximum). Instructor consent required. ([1-3]-0) S