NRSC - NEUROSCIENCE (NRSC)

NRSC 101 Neuroscience Overview
Credit 1. 1 Lecture Hour.
An introductory survey of neuroscience for freshmen undergraduate students on the basic neuroscience core ideas and neurological disorders.
Cross Listing: BIOL 102, PSYC 101 and VIBS 101.

NRSC 201/VIBS 201 History of Neuroscience
Credit 1. 1 Lecture Hour.
Wide spectrum of neuroscience discovery beginning at the turn of the 20th Century; emphasis on key discoveries and their rationale, experimental design, experimental methods, major findings and interpretation of results.
Prerequisites: Sophomore classification.
Cross Listing: VIBS 201/NRSC 201.

NRSC 235/PSYC 235 Introduction to Behavioral and Cognitive Neuroscience
Credits 3. 3 Lecture Hours.
Physiological bases of sensation, motor functions, emotion, motivation and complex psychological processes.
Prerequisites: PSYC 107 or BIOL 111.
Cross Listing: PSYC 235/NRSC 235.

NRSC 277/VIBS 277 Introduction to Neuroscience
Credits 3. 3 Lecture Hours.
Neuroscience from the molecular to system levels; fundamental principles and knowledge of neuroscience; current research information on neuroscience.
Prerequisites: Freshman or sophomore classification and approval of instructor.
Cross Listing: VIBS 277/NRSC 277.

NRSC 289 Special Topics in...
Credits 1 to 4. 1 to 4 Lecture Hours. 0 to 4 Lab Hours.
Selected topics in an identified area of neuroscience. May be repeated for credit.
Prerequisite: Approval of instructor.

NRSC 311/PSYC 311 Psychology of Animal Behavior
Credits 3. 3 Lecture Hours.
Problems, principles, and methods of animal psychology; animal learning, motivation, discriminative processes and abnormal, social and instinctual behaviors.
Prerequisites: PSYC 107, BIOL 111, or BIOL 113.
Cross Listing: PSYC 311/NRSC 311.

NRSC 320/PSYC 320 Sensation-Perception
Credits 3. 3 Lecture Hours.
Review of sensory physiology, sensory and perceptual phenomena and the major perceptual theories; current research in the field.
Prerequisites: PSYC 107; junior or senior classification; PSYC 301 and PSYC 302 recommended.
Cross Listing: PSYC 320/NRSC 320.

NRSC 332/PSYC 332 Neuroscience of Learning and Memory
Credits 3. 3 Lecture Hours.
Brain mechanisms of learning and memory from molecular to behavioral levels; synaptic plasticity, model systems, multiple memory systems, diseases of learning and memory.
Cross Listing: PSYC 332/NRSC 332.

NRSC 333/PSYC 333 Biology of Psychological Disorders
Credits 3. 3 Lecture Hours.
Neurobiology and clinical explanation of molecular mechanisms underlying psychiatric disorders and their drug treatments; depression and bipolar anxiety disorders, mood disorders, psychosis and schizophrenia.
Cross Listing: PSYC 333/NRSC 333.

NRSC 336/PSYC 336 Drugs and Behavior
Credits 3. 3 Lecture Hours.
Physiological, pharmacological and behavioral effects of psychoactive drugs, including short-term and long-term effects of psychoactive drugs, properties of addictive drugs, etiology of addiction, and treatments of drug addiction and withdrawal.
Cross Listing: PSYC 336/NRSC 336.

NRSC 340/PSYC 340 Psychology of Learning
Credits 3. 3 Lecture Hours.
Survey of significant concepts, experimental methods and principles of learning.
Prerequisites: PSYC 107, BIOL 111, or BIOL 113.

NRSC 350/PSYC 350 Cognitive Neuroscience
Credits 3. 3 Lecture Hours.
Research in cognitive neuroscience; methodological advances that enable the study of the human brain safely in the laboratory; complex aspects of the mind like emotion, social behavior and consciousness.
Prerequisite: PSYC 107; PSYC 301, PSYC 302, and NRCS 277 recommended.
Cross Listing: PSYC 350/NRSC 350.

NRSC 360/PSYC 360 Health Psychology and Behavioral Medicine
Credits 3. 3 Lecture Hours.
Health psychology emphasizing behavioral and lifestyle factors in health and illness, prevention and modification of health-compromising behaviors, health care utilization, and psychological management of chronic disorders and psychological management of chronic disorders and terminal illnesses.
Prerequisite: PSYC 107.
Cross Listing: PSYC 360/NRSC 360.
NRSC 401/VIBS 401 Developmental Neurotoxicology
Credits 2. 2 Lecture Hours.
Effects of exposure to toxic substances on the developing nervous system; content to include mechanisms of toxicity of substances potentially devastating to the developing nervous system including lead, mercury and other heavy metals, alcohol, nicotine (smoking), pesticides, flame retardants and others.
Prerequisite: Junior or senior classification.
Cross Listing: VIBS 401.

NRSC 407/VIBS 407 Core Ideas in Neuroscience
Credits 2. 2 Lecture Hours.
General overview of selected core ideas across the full spectrum of neuroscience.
Prerequisite: Junior or senior classification; background in science courses recommended.
Cross Listing: VIBS 407/NRSC 407.

NRSC 434/Biol 434 Regulatory and Behavioral Neuroscience
Credits 3. 3 Lecture Hours.
Cell biology and biophysics of neurons; functional organization of the vertebrate nervous system; physiological basis of behavior.
Prerequisites: BIOL 213, BIOL 319, BIOL 320, BIOL 388, BIOL 413, NRSC 235/PSYC 235, or PSYC 235/NRSC 235, or approval of instructor.
Cross Listing: BIOL 434/NRSC 434.

NRSC 440/PSYC 440 Hormones and Behavior
Credits 3. 3 Lecture Hours.
Principles of hormones and the endocrine system; relationships among hormones, the nervous system and a variety of behaviors in vertebrates including humans.
Prerequisites: PSYC 235/NRSC 235, NRSC 235/PSYC 235, PSYC 340/NRSC 340, NRSC 340/PSYC 340, VIBS 277/NRSC 277, or NRSC 277/VIBS 277, or approval of instructor.
Cross Listing: PSYC 440/NRSC 440.

NRSC 444 Neural Development
Credits 3. 3 Lecture Hours.
Cellular and molecular mechanisms of nervous system development including neural induction and the basis of complex behaviors; use of a wide range of model organisms with a specific emphasis on vertebrate nervous system development.
Prerequisites: BIOL 213, BIOL 319, BIOL 320, BIOL 413, BIOL 388, NRSC 235/PSYC 235 or PSYC 235/NRSC 235.
Cross Listing: BIOL 444/NRSC 444.

NRSC 450/VIBS 450 Mammalian Functional Neuroanatomy
Credits 4. 3 Lecture Hours. 2 Lab Hours.
Functional morphology of the domestic animal and human brain using gross specimens, microscopic sections, interactive computer-, DVD-, and video-assisted instructional programs supplemented with clinical case studies.
Prerequisites: Junior or senior classification; BIMS, biology, biochemistry, or psychology majors, or neuroscience minors with overall 3.5 TAMU GPA; or approval of instructor.
Cross Listing: VIBS 450/NRSC 450.

NRSC 485 Directed Studies
Credits 0 to 3. 0 to 3 Other Hours.
Directed readings or research problems in selected areas designed to supplement existing course offerings conducted under the direction of a member of the Faculty of Neuroscience. May be repeated for credit.
Prerequisite: Approval of member of the faculty of neuroscience.