NEUROSCIENCE (NEUR)

NEUR 100. Introduction to Neuroscience. 1 Credit.
Offered Fall Semester Only; Lecture hours:3
A survey of the study of the nervous system and its structure and function, ranging from molecular analyses of neurons to electrical and other correlates of human cognition.

NEUR 142. Introduction to Neuroethology. 1 Credit.
Offered Either Fall or Spring; Lecture hours:3,Other:1
This introductory biology course explores the science of neuroethology, a discipline that combines the study of animal behavior and study of neuroscience. This class is appropriate for non-science majors who are interested in learning about animal behavior. Crosslisted as BIOL 142 and ANBE 142.

NEUR 217. Psychopharmacology. 1 Credit.
Lecture hours:Varies
Psychopharmacology, the study of drugs that affect behavior, begins with an appreciation of neurochemical, pharmacological and behavioral principles in order to understand actions and effects of therapeutic compounds and addictive substances, the two major categories of psychopharmacological drugs. Crosslisted as PSYC 217.

NEUR 244. Introduction to Behavioral Neuroscience. 1 Credit.
Offered Either Fall or Spring; Lecture hours:3
Introductory neuroscience coursework offering a foundation in cellular and molecular neuroscience and neurophysiology. Prerequisites: BIOL 205.

NEUR 245. Neuroscience Techniques. 1 Credit.
Offered Either Fall or Spring; Lecture hours:3
Research methods and techniques course emphasizing empirical methodology underlying neuroscience. Prerequisites: NEUR 244.

NEUR 248. Developmental Psychobiology. 1 Credit.
Offered Either Fall or Spring; Lecture hours:3
Addresses development in humans from conception through adolescence with some comparative analysis with non-humans. Emphasis on both normal and atypical cognitive, neuropsychological and neurobiological development. Prerequisite: PSYC 100 or NEUR 100. Crosslisted as PSYC 248.

NEUR 250. Biopsychology. 1 Credit.
Offered Both Fall and Spring; Lecture hours:3
Biological bases of behavior and their relationship to motivation, learning, and perception. Prerequisite: one of the following: NEUR 100, PSYC 100, BIOL 206, ANBE 266 or permission of the instructor. Crosslisted as PSYC 250.

NEUR 253. Neural Cell Biology. 1 Credit.
Offered Fall Semester Only; Lecture hours:3
A core course for neuroscience focused on structure/function relationships in neural cells. Basic protein biochemistry, ion channel activity, protein receptors, cell signaling, electrical properties and response patterns will be emphasized. Recommended for sophomores. Prerequisites: BIOL 205 and PSYC 250 and permission of the instructor.

NEUR 305. Developmental Psychopathology. 1 Credit.
Offered Either Fall or Spring; Lecture hours:3
Addresses the behavioral phenotypes of a variety of neurodevelopmental and neuropsychiatric disorders in the context of theories and processes of normal development. Genetic and neurobiological underpinnings of disorders are discussed. Prerequisites: NEUR 248 or PSYC 248 and permission of the instructor. Crosslisted as PSYC 305 and PSYC 605.

NEUR 313. Researching Behavioral Neuroscience. 1 Credit.
Offered Both Fall and Spring; Lecture hours:3
Following a general orientation to behavioral genetics and pharmacology using mice, we will conduct group experiments. Each student will then develop and conduct an independent research project. Prerequisites: PSYC 215 or MATH 216 and PSYC 250 or an applied research methods course and permission of instructor. Crosslisted as PSYC 313 and PSYC 613 and NEUR 613.

NEUR 319. Topics in Neuroscience. 1 Credit.
Offered Either Fall or Spring; Lecture hours:3; Repeatable
Occasional seminars on selected topics of current interest in neuroscience. Prerequisites: BIOL 205, BIOL 207 and NEUR 100, junior or senior status and permission of the instructor.

NEUR 330. Neuroscience of Addiction. 1 Credit.
Offered Fall Semester Only; Lecture hours:3
A study of the changes in neurocircuitry and neurobiology that occur in the brain due to drugs of abuse and addiction. Prerequisites: NEUR 100 and BIOL 205 or permission of the instructor.

NEUR 332. Developmental Neurobiology. 1 Credit.
Offered Spring Semester Only; Lecture hours:3,Recitation:1
Primary literature-based senior seminar on topics in developmental neurobiology. Prerequisites: BIOL 205, BIOL 207, and either BIOL 206 or NEUR 100, junior or senior status, and permission of the instructor. Crosslisted as BIOL 332 and BIOL 632.

NEUR 340. Behavioral Neuroscience. 1 Credit.
Offered Either Fall or Spring; Lecture hours:3
Advanced study of the relationship between the brain and behavior. Seminar discussion of complex problems in the field of behavior neuroscience including genetics, mood disorders, drug abuse, cognition and consciousness. Prerequisite: PSYC 250 or permission of the instructor. Crosslisted as PSYC 340 and PSYC 640 and NEUR 640.

NEUR 344. Developmental Brain Research. 1 Credit.
Offered Spring Semester Only; Lecture hours:3; Repeatable
Students learn a variety of assessment techniques in developmental neuropsychology and neuroscience (including EEG) and conduct quantitative research culminating in written and oral reports. Crosslisted as PSYC 344 and PSYC 644 and NEUR 644. Prerequisite: permission of the instructor.

NEUR 348. Behavioral Pharmacology. 1 Credit.
Offered Either Fall or Spring; Lecture hours:3
Focus on drugs that affect the nervous system, drugs of abuse, therapeutic drugs, drug action, behavioral changes as a result of long-term drug use, animal models and human studies. Prerequisites: PSYC 250 or BIOL 205 and permission of the instructor. Crosslisted as PSYC 348 and PSYC 648.

NEUR 360. Honors Thesis. 1 Credit.
Offered Both Fall and Spring; Lecture hours:Varies,Other:15; Repeatable
Prerequisite: permission of the department and permission of the instructor.

NEUR 399. Undergraduate Research. .5-2 Credits.
Offered Either Fall or Spring; Lecture hours:Varies,Other:Varies; Repeatable
Research on any aspect of neuroscience. Research topics may be posed by students or faculty. Prerequisite: permission of the instructor.

NEUR 3NT. NEUR Non-traditional Study. 1-2 Credits.
Offered Fall, Spring, Summer; Lecture hours:Varies,Other:Varies
Non-traditional study course in neuroscience. Prerequisite: permission of the instructor.

NEUR 400. Senior Seminar in Neuroscience. .25 Credits.
Offered Spring Semester Only; Lecture hours:1
NEUR majors may elect to attend a lecture series in the spring semester to satisfy the Culminating Experience requirement. Students will prepare written reactions to each seminar, graded as pass/fail. Prerequisites: senior status and NEUR majors and permission of the instructor.