This major studies questions spanning the entire spectrum of modern neuroscience research. Departing from the traditional focus on individual disciplines, USC Dornsife’s neuroscience program is characterized by collaborative interactions between faculty and students working at many different levels of analysis. It includes faculty from Biological Sciences, Chemistry, Computer Science, Biomedical Engineering, Linguistics, Philosophy, Psychology, Gerontology, Medicine, and Pharmacy.

Opportunities for Students

- **Research:** More than 60 USC Neuroscience faculty conduct externally funded research programs in areas ranging from the molecules that determine neuronal function to the principles of human cognition and emotion. Undergraduates are warmly welcomed to assist them.

- **Study Abroad:** Earn credit as a student at King’s College London, attending courses alongside British students on an urban campus near Covent Garden and the National Gallery.

- **Supplemental Instruction:** This academic support program provides regularly scheduled, peer-led study sessions for common Biology, Chemistry, Math, and Physics courses.

- **Freshman Science Honors Program:** FSH allows exceptional freshmen to study in an enriched first year science sequence, featuring smaller classes and access to lectures, tours, and field trips.

Notable Courses

- **HBIO 306: Primate Social Behavior and Ecology** — Social behavior of living nonhuman primates, with an emphasis on field studies of apes and monkeys. Topics include aggression, communication, reproduction, cognition and ecology.

- **BISC 325: Genetics** — Transmission genetics and genotype/phenotype, mapping methods, complex traits, and genetics of human disease and population genetics.

- **NEUR 532: Systems and Behavioral Neurobiology** — Systems and behavioral neurobiology: hierarchical mechanisms controlling behavior, experimental techniques; perceptual (visual, auditory, somatosensory) systems; sensorimotor systems; motivated behavior; learning, memory and adaptation.

- **PSYC 440: Introduction to Cognitive Neuroscience** — Introduction to the major components of cognition (perception, memory, intelligence) in terms of the neural coding characteristic of the relevant brain areas.
NEUROSCIENCE

Bachelor of Arts (BA) Requirements

Core Requirements*
- BISC 220: General Biology — Cell Biology and Physiology
- BISC 421: Neurobiology
- CHEM 103: General Chemistry for the Environment & Life or CHEM 105a: General Chemistry
- MATH 125: Calculus I
- NEUR 408: Systems Neuroscience — From Synapses to Perception
- PSYC 100: Introduction to Psychology
- PSYC 274: Statistics
- PSYC 440: Introduction to Cognitive Neuroscience

Elective Course Requirements (select four)**
- BISC 307: General Physiology
- BISC 313: Evolution & Population Genetics
- BISC 320: Molecular Biology
- GERG 414: Neurobiology of Aging
- PSYC 301: Cognitive Processes
- PSYC 304: Sensation and Perception
- PSYC 305: Learning and Memory
- PSYC 320: Principles of Psychobiology
- PSYC 326: Behavioral Neuroscience
- PSYC 420: Animal Behavior

Additional Bachelor of Science (BS) Requirements*
- CHEM 105b: General Chemistry (prerequisite CHEM105a)
- CHEM 322a & CHEM 322b: Organic Chemistry
- PHYS 135a: Physics for the Life Sciences or PHYS 151: Fundamentals of Physics I — Mechanics and Thermodynamics
- PHYS 135b: Physics for the Life Sciences or PHYS 152: Fundamentals of Physics II — Electricity and Magnetism
- Computer Science course: CSC 103 or CSC 455 or EE 150
- Programming course: ITP 109 or ITP 115 or ITP 168
- One (1) additional course from the Elective Course list above

*This information is offered as a partial overview only. For additional information, including all major requirements, please consult the USC Catalogue or http://www.usc.edu/programs/neuroscience/undergraduate/. Updated as of August 2015.

**This does not represent all options in this category. For a complete list, please consult the USC Catalogue.