Stubbs, Darrel W. (1962) BM, U. of Rochester, 1949; MM, Indiana U., Bloomington, 1952; DMA, U. of Southern California, 1966.
Terry, Elvis B. (1957).

Native American Studies

See History.

Navajo

See Center for Language Studies.

Neuroscience Center

Neuroscience Center Office
1055 SWKT, (801) 422-1218

College of Family, Home, and Social Sciences Advisement Center
151 SWKT, (801) 422-3541

College of Biology and Agriculture Academic Advisement Office
380 WIDB, (801) 422-3042

The neuroscience undergraduate program is an interdisciplinary program that allows students to seek advisement at the College of Biology and Agriculture Academic Advisement Office or the College of Family, Home, and Social Sciences Advisement Center.

Admission to Degree Program

The degree program in the Neuroscience Center carries special enrollment limitations. Please see the college advisement center for specific details.

The Discipline

Neuroscience is the field of study covering the development and function of the central nervous system and its connection to influencing/regulating behavior. The study of neuroscience examines topics such as neuroanatomy, neuropsychopharmacology, neurophysiology, molecular neurobiology, and neuroendocrinology. The interdisciplinary nature of neuroscience requires the tools provided by experience and training in calculus, general biology, genetics, physiology, molecular biology, chemistry (general, organic, and biochemistry), physics, psychology (hormones and behavior, memory, cognition, sensation, and perception), and research design and analysis.

The objectives for students pursuing a major in neuroscience are to (1) establish and promote an interdisciplinary education in neuroscience, (2) produce scientifically literate individuals having the ability to design, conduct, and analyze research activities, and (3) have students think critically in an integrative fashion based upon research-rich and inquiry-based academic curricula.

Career Opportunities

Neuroscience prepares students to pursue advanced degrees in graduate school or to enter into the pharmaceutical and biotechnology workforce. Neuroscience is an excellent preprofessional field of study for those interested in health professions, law, or business.

Graduation Requirements

To receive a BYU bachelor's degree a student must complete, in addition to all requirements for a specific major, the following university requirements:

- The university core, consisting of requirements in general and religious education (See the University Core section of this catalog for details. For a complete listing of courses that meet university core requirements, see the current class schedule.)
- A minimum of 30 credit hours in residence
- A minimum of 120 credit hours
- A cumulative GPA of at least 2.0

Undergraduate Programs and Degrees

BS Neuroscience

Students should see their college advisement center for help or information concerning the undergraduate programs.

BS Neuroscience (66–68 hours*)

This is a limited-enrollment program requiring departmental admissions approval. Please see the Family, Home, and Social Sciences College Advisement Center for information regarding requirements for admission to this major.

Major Requirements

1. Complete the following prerequisite courses:
   Biol 120.
   Chem 105.
2. Students must have a minimum grade of C+ for each of the above courses before being accepted to the major. Grades will be accepted from transfer students for chemistry and introductory biology. Information regarding the average grades earned in prerequisite courses by students accepted into the major can be obtained from the College of Family, Home, and Social Sciences Advisement Center.
3. Complete the following:
   Biol 240, 340, 360.
   Neuro 205, 360, 460, 480, 481.
   PDBio 362.
4. Complete the following:
   Chem 106, 107, 351, 352, 481.
5. Complete one of the following options:
   Either Phscs 105, 106, 107, 108
   Or Phscs 121, 123, 220.
6. Complete the following:
   Engl 316.
7. Complete one course from the following:
   Math 119.
   Stat 221.
8. Complete at least 10 hours from three different departments from the following electives:
   Biol 220.
   Chem 482.
   InBio 370.
   Neuro 449R**.
   PDBio 363, 561, 565**, 568**.
   Psych 370***, 375, 382, 584**.

   Either Math 119
   Or Stat 221.

   Note: Students should carefully consult with the Neuroscience Center and faculty regarding which electives they should take to best support their postgraduate plans.

   **These courses require the instructor's signature before enrolling.

   ***This course is strongly recommended.

Recommended Courses

In addition to the above courses, students may find the following courses helpful (see Preprofessional Advisement Center, 3326 WSC):

Chem 353.
PDBio 220.
StDev 139, 227, 229, 239, 329, ~~339~~, 399R, 439.

*Hours include courses that may fulfill university core requirements.

Neuroscience (Neuro)

Undergraduate Courses

205. Neurobiology. (3:3:0) F, W Prerequisite: neuroscience majors or pre-neuroscience majors.
The nervous system; cellular communication, neural basis of behavior, and hormonal influences.

360. Neuroanatomy. (2:2:0) F, W, Sp Prerequisite: Neuro 205.
Functional anatomy of the human brain and spinal cord, including surface and cross-sectional gross anatomy, microscopic anatomy, and sensory, motor, and integrative systems' circuitry.

449R. Undergraduate Research Experience. (1–3:0:0 ea.) F, W, Sp, Su
Undergraduate research experience in neuroscience.

460. Behavioral Neuroscience. (3:3:0) F, W Prerequisite: Neuro 205; neuroscience major status.
Critical examination of anatomical, physiological, and chemical bases of behavioral expression.

480. Advanced Neuroscience. (3:3:0) F, W Prerequisite: Neuro 205, Biol 360; neuroscience major status.
Principles of neural science. Structure-function relationships and integration of the nervous system.

481. Neuroscience Laboratory. (1:0:3) F, W Prerequisite: Neuro 480 or concurrent enrollment; neuroscience majors only.
Exposure to classical/modern experiments in neuroscience.

Graduate Courses

For 600- and 700-level courses, see the BYU 2007–2008 Graduate Catalog.

Neuroscience Faculty

Professors

Bigler, Erin D. (1990) BS, PhD, Brigham Young U., 1971, 1974.
Bloch, George J. (1989) BS, Brandeis U., 1962; MA, Claremont Graduate School, 1965; PhD, Stanford U., 1968.
Busath, David D. (1995) BA, MD, U. of Utah, 1974, 1978.
Higley, James Dee (2006) BA, Brigham Young U., 1980; MS, PhD, U. of Wisconsin, Madison, 1983, 1985.
Lephart, Edwin D. (1994) BS, MS, Brigham Young U., 1979, 1982; PhD, U. of Texas Southwestern Medical Center, Dallas, 1989.
McPherson, David (1991) BS, Brigham Young U., 1967; MA, George Washington U., 1969; PhD, U. of Washington, 1972.
Porter, James P. (1998) BS, MS, Brigham Young U., 1976, 1978; PhD, U. of California, San Francisco, 1982.
Woodbury, Dixon J. (2001) BS, U. of Utah, 1980; PhD, U. of California, Irvine, 1986.

Associate Professors

Hedges, Dawson W. (2000) BS, Weber State Coll., 1984; MD, U. of Utah, 1988.
Hopkins, Ramona O. (1999) BS, Westminster Coll., 1998; MS, PhD, U. of Utah, 1992, 1996.
Judd, Allan M. (1991) BS, MS, Brigham Young U., 1973, 1978; PhD, West Virginia U., 1982.
Steffensen, Scott C. (2000) BS, PhD, U. of Utah, 1980, 1986.

Assistant Professors

Allen, Mark (2006) BS, MA, U. of Utah, 1993, 1999; MA, PhD, Johns Hopkins U., 1999, 2000.
Brown, Michael D. (2003) BS, Brigham Young U., 1993; MS, PhD, Colorado State U., 1998, 1999.
Flom, Ross A. (2001) BS, U. of Minnesota, 1992; MEd, Idaho State U., 1993; PhD, U. of Minnesota, 1999.
Stark, Michael R. (2001) BS, Brigham Young U., 1992; MS, Idaho State U., 1994; PhD, U. of California, Irvine, 1998.
Sudweeks, Sterling N. (2001) BS, Brigham Young U., 1992; PhD, U. of Utah, 1997.

Emeriti

Fleming, Donovan E. (1971) BS, MS, Brigham Young U., 1956, 1957; PhD, Washington State U., 1962.