

NEUROSCIENCE

What does it mean to be human? By studying the molecular and cellular building blocks that make up the brain and control its function, students in this program begin to address this question. You will learn how people see, hear, move, think, and feel. Neuroscience students also learn about abnormalities that cause brain diseases and mechanisms that underlie pain and addiction.

Your future in the biological sciences

There couldn't be a better time to major in the biological sciences. Advances in genomics and related applications in biotechnology are dramatically increasing demand for biological scientists in the work force. According to the 2002 edition of *Jobs Rated Almanac*, biological scientists top a list of 250 occupations ranked by earnings potential and job prospects. The report is based on statistics from the U.S. Department of Labor, the census, professional organizations, and surveys.

Many students who earn bachelors degrees in the biological sciences go on to graduate school to pursue research and academic careers, or to a health science professional school. An increasing number, however, are employed by the biotechnology industry.

The CBS Career Center provides students with information about career planning.

Curriculum

Students complete an introductory two-course neuroscience sequence in their junior year, followed by two semesters of neuroscience laboratories. A directed research project and nine additional upper division credits also are required. Students must take at least one course in each of the following areas: cell and molecular biology, neural systems and behavior, and philosophy of science.

All CBS students are required to take a year each of calculus, general chemistry, and physics along with coursework in general biology and organic chemistry. Students also take courses in organismal biology, cell biology, ecology, and evolution. There are lots of choices that satisfy these requirements, so students may select courses that relate to their interests.

The curriculum is designed to integrate a strong basic research program with traditional and innovative classroom teaching and mentoring.



Meet Jen Sandmeyer, neuroscience major

Jen Sandmeyer, who was born in St. James, Minnesota, became interested in biology and a medical career because her father underwent surgery and medical treatment for both heart disease and cancer while she was growing up.

She chose the College of Biological Sciences because she had become familiar with the University through 4H experiences. And she chose to major in neuroscience because she felt it would give her an edge in medical school and beyond. She also liked the opportunities for lab research, and felt that faculty were very supportive.

Jen's extracurricular activities included membership in the Gamma Phi Sorority, and volunteering at Fairview University Medical Center, Shriners' Children's Hospital, and Hennepin County Medical Center. She was also in the CBS Honors Program, the Neuroscience Club, and the collegiate 4H program.

Jen is well on her way to realizing her dream of becoming a doctor. A 2002 graduate, she is now a student at Harvard Medical School.

Research opportunities

As part of a large public research university, the College of Biological Sciences offers a wealth of opportunities for hands-on research experience. This gives the college a distinct advantage over small private colleges. There are more than 1,200 life sciences faculty on the Minneapolis



and St. Paul campuses, and as many kinds of research to experience. Most CBS students complete a directed research project guided by a faculty member. Projects are done for credits that apply toward the major. Students may also volunteer to assist with faculty research projects or gain experience by working as paid lab technicians.

Administration

The neuroscience major is administered by the Department of Neuroscience. For more information about the department, refer to [www http://www.neurosci.umn.edu/](http://www.neurosci.umn.edu/).

The CBS advantage

Here are some of the advantages offered by the College of Biological Sciences:

- The University of Minnesota is ranked among the top three public research universities in the U.S.
- Molecular and Cellular Biology is one of the University's five designated priorities.
- Many classrooms and laboratories for undergraduates are located in the new \$80 million Molecular and Cellular Biology Building.
- CBS is a gateway to the Academic Health Center, which trains health professionals in medicine, pharmacy, dentistry, veterinary medicine, public health, and nursing.
- CBS operates two outstanding sites for field biology: Cedar Creek Natural History Area and Lake Itasca Forestry and Biological Station.
- Although CBS offers the advantages of access to a large public university, with 1,300 students it retains a small-college atmosphere.
- CBS offers a number of special programs to help students make a successful transition to college life and to meet other students.

For more information

If you are interested in visiting CBS, call the University of Minnesota Visit Office at 612-625-0000 or 1-800-752-1000

For more information about admissions, including an application, contact the Office of Admissions at <http://admissions.tc.umn.edu> or 612-625-2008; toll-free 800-752-1000; TTY 612-625-9051.

Twin Cities campus information is available on the Web at www.umn.edu/tc. The Undergraduate Catalog is available at www.umn.edu/commpub. To request a copy of the Undergraduate Catalog, call University Bookstores, 800-442-8636.

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