

Neuroscience is the study of the nervous system, which is one of the last great frontiers of knowledge. Neuroscience research spans from molecules, through cells and pathways, all the way up to complex human behavior. Studying Neuroscience at UNO integrates biology and psychology by studying the anatomy and physiology of the nervous system and exploring the impact structure has on behavior, including human emotional and cognitive functions.

The College of Arts and Sciences at UNO has established the first undergraduate neuroscience degree program in the Nebraska system to educate students bound for graduate programs in neuroscience as well as various careers in the health or health-related fields.

Students working toward completion of this degree will benefit from the expertise of existing faculty in the UNO departments of Biology, Psychology, Gerontology, Philosophy, and Biomechanics. Courses focus on a variety of topics including Molecular and Cellular Neuroscience and Behavioral and Cognitive Sciences. An undergraduate major in neuroscience will help students in a variety of pursuits after graduation including graduate school or medical school, as well as work in laboratory settings, pharmaceutical companies and a variety of other fields.

## Course Highlights:

- Molecular and Cellular Neurobiology
- Social Neuroscience
- Behavior Genetics
- Hormones and Behavior
- Advanced Neuroscience Laboratory
- Limits of Consciousness
- Neurimmunology
- Neuropharmacology
- Advanced Behavioral Neuroscience

## Knowledge & Skills Gained as a Neuroscience Major:

### Knowledge:

- Knowledge of the brain systems, neurotransmitters, molecular and cellular processes and the behaviors that they control
- Awareness of how various diseases and trauma to the nervous system affects behavior
- Understand the major research methods and statistical analyses used in the neurosciences

### Skills:

- Ability to develop testable hypotheses and design a study using experimental and nonexperimental research methods, including critical analysis of existing literature and the application of both descriptive and inferential statistical procedures
- Written communication skills, especially the ability to write scientific research reports
- Demonstrate laboratory skills relevant to behavioral neuroscience research

## Neuroscience Major at a glance:

**Number of majors:** 140

**Degrees offered:** B.S.

**Focus Areas:** Yes

**Credit hours needed:** 54

**Minors offered:** Yes (New!)



## Career Opportunities:

By nature, Liberal Arts majors make great employees in any field because of their ability to communicate effectively, think critically and solve complex problems. These timeless skills make them attractive to employers in all walks of society. Specifically though, Neuroscience majors often pursue careers in:

- Laboratories
- Government Agencies
- Health Care
- Pharmaceutical Companies
- Hospitals
- Research & Development
- Universities/Colleges

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When the Neuroscience major is matched with complementary minors and thoughtful internships, new possibilities arise. A few examples are:

- **Neuroscience** + English = Science Writer
- **Neuroscience** + Computer Science = High-tech research and development
- **Neuroscience** + Marketing = Marketing consultant for industry
- **Neuroscience** + Business = Industry jobs of all types
- **Neuroscience** + Medical school = Neurologist, Neuropsychologist, Neurosurgeon, Psychiatrist, and all medical fields!
- **Neuroscience** + Law school = Expertise in legal matters which increasingly involve genetics and other neuroscience-related analyses
- **Neuroscience** + Art = Aesthetics and design industries

## Student Opportunities:

- **Society for Neuroscience** (SfN) undergraduate programs
- **Nu Rho Psi** - Honorary Neuroscience Organization
- Undergraduate research opportunities at UNO and medical centers in Omaha

## Focus Areas Available in Neuroscience:

- Molecular & Cellular Neuroscience
- Behavioral and Cognitive Science

## Did you know?

The human brain can process information at speeds up to 120 meters per second. That's about 268 miles per hour!

## For more information:

For program information, contacts and course requirements visit:

[www.unomaha.edu//neuroscience](http://www.unomaha.edu//neuroscience)

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