BEHAVIORAL NEUROSCIENCE

ACADEMIC PROGRAM INFORMATION







"Although behavioral neuroscience sounds like a very specialized major, the courses are designed to help cultivate and develop useful skills that can be used in any career. Plus, it's fascinating to learn and understand the mechanisms that motivate and

drive humans and their behavior."

ROSS MCCLELLAN Centre Class of 2018 Behavioral Neuroscience Major

THE BEHAVIORAL NEUROSCIENCE MAJOR AT CENTRE IS
DESIGNED TO PROVIDE A THOROUGH BACKGROUND IN THE BASIC
CONCEPTS, THEORIES, AND INVESTIGATIONAL TECHNIQUES
THAT WILL PREPARE OUR STUDENTS FOR A WIDE VARIETY OF
FUTURE CAREERS. STUDENTS IN THIS PROGRAM ALSO DEVELOP
THEIR CREATIVE AND CRITICAL THINKING ABILITIES BY ENGAGING
IN COLLABORATIVE RESEARCH, INTERNSHIPS, AND SENIOR
SEMINAR COURSES THAT PROVIDE THEM WITH MEANINGFUL
EXPERIENCES IN AREAS RELATED TO POTENTIAL CAREERS AND
GRADUATE STUDY.

BEHAVIORAL NEUROSCIENCE

Our behavioral neuroscience (BNS) program began in the mid '60s as "psychobiology," and according to the College Blue Book, was one of the earliest undergraduate degree-granting programs of its kind in the nation. The recently updated BNS curriculum reveals the biological bases of behavior, with particular emphasis on neuroanatomy, neurophysiology, neuropharmacology, and behavioral ecology. After completing foundation courses in behavioral neuroscience, chemistry, psychology, biology, and research methods, BNS majors will select upper-level BNS courses that best align with the student's interests and career goals. The BNS program provides students with the undergraduate training necessary for careers in neuroscience, animal behavior, and the medical field.

RESEARCH

Research experience has always been highly valued in graduate school applicants and is also valuable for most jobs. At the

junior and senior level, students are ready to make meaningful scientific contributions in collaboration with faculty. Our advanced research courses provide students with assistance on their projects in two ways: 1) through close, individual attention from a faculty member in the development of the research design, collection and analysis of data, and reporting of findings; and 2) through a regular group meeting in which students and faculty discuss methodology and implementation strategies, data interpretation and demonstration, and explore solutions to common difficulties in the research process. Student projects are commonly presented at professional meetings and/or published in professional journals, and many have won undergraduate research awards. Behavioral neuroscience students also have engaged in primate research in Barbados, and studied the roots of mindfulness in Japan. These projects and abroad experiences have provided students with useful research backgrounds for a wide variety of careers.

INTERNSHIPS

In addition to offering numerous research opportunities, Centre has an extensive internship program in which many behavioral neuroscience students participate. Students have arranged internships at Bluegrass Comprehensive Service (a community mental health center), Sunrise Children's Services (a residential facility for children and adolescents), Boyle County Detention Center's substance treatment program, Thoroughbred Research Group, as well as with regional physical therapists, dentists, and area hospitals. Students have also interned at the Louisville Zoo, the Primate Rescue Center, the Vanderbilt Center for Mental Health Policy, and the Miller Limb Motor Control Laboratory at Northwestern University. On several occasions, the internship experience has been a stepping stone to employment after graduation.

WHAT CAN YOU DO WITH A DEGREE IN BNS?

Behavioral neuroscience majors pursue a variety of post-graduate careers and educational opportunities. Within one year of graduation, approximately 45% are employed and working in fields related directly to their degree. These fields include physical therapy, clinical behavioral analysis, counseling, teaching and working as research assistants in experimental and clinical sciences. The other 55% of graduates pursue graduate degrees in fields such as pharmacology, nursing, chiropractic, health administration, neuroscience, clinical neuropsychology, physician's assistants, medicine, and occupational therapy. The behavioral neuroscience major gives students excellent preparation for medical, dental, and veterinary school, and other health professions. The qualifications of our graduates is reflected in the high number who gain admission to these programs, and who gain employment in the field.



BEHAVIORAL NEUROSCIENCE FACULTY

MELISSA BURNS-CUSATO (Ph.D., The University of Texas at Austin), current research interests: proximate mechanisms underlying monogamous behavior in birds, and alarm call system of green monkeys.

BRIAN CUSATO (Ph.D., The University of Texas at Austin), current research interests: behavioral mechanisms and adaptive specializations in learning, the role of species-typical cues in sexual conditioning, sex differences in learned behavior, and learning in ecologically relevant social interactions.

KARIN GILL (Ph.D., University of Kentucky), current research interests: neurobiological and hormonal mechanisms involved in drug abuse and addiction, sex differences in drug-induced behaviors, and psychostimulant sensitization and reward.

AARON GODLASKI (Ph.D., University of Kentucky), current research interests: cognitive and physiological effects of contemplative practices, effects of natural environment on human health, and positive emotions such as gratitude and humility.

KATIEANN SKOGSBERG (Ph.D., Northwestern University), current research interests: using EEG to measure changes in patterns of brain activity as they relate to concussions, energy drinks, and biofeedback training, and assessment of athletes knowledge or concussions and return-to-play decisions.



VISIT CENTRE

The best way to judge Centre is to tour the campus, talk to the professors and students, attend a class, and spend the night in a residence hall. We invite you to visit and encourage you to contact the Admission Office if you have any questions.



FOR FURTHER INFORMATION ABOUT THE BEHAVIORAL NEUROSCIENCE PROGRAM AT CENTRE, CONTACT:

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TO COMMUNICATE DIRECTLY WITH A CENTRE STUDENT MAJORING IN BEHAVIORAL NEUROSCIENCE, CONTACT:

- Amy Dean <u>amy.dean@centre.edu</u>
- Fah Robbins <u>yanisa.robbins@centre.edu</u>

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 $\underline{www.centre.edu/academics/majors-minors/behavioral-}\\\underline{neuroscience}$