

AREAS OF RESEARCH EMPHASIS C:

# Computational Neuroscience & NeuroEngineering

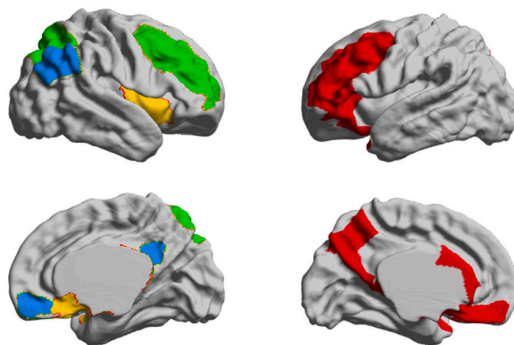
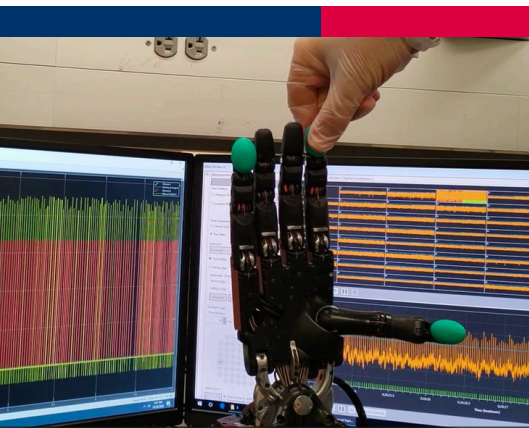


FLORIDA ATLANTIC UNIVERSITY

Neuroscience  
Graduate Program  
Stiles-Nicholson  
Brain Institute

The FAU Neuroscience Graduate Program (NGP) links the Colleges of Science, Medicine, Engineering and Computer Science, Education, the Wilkes Honors College, and the Max Planck Florida Institute for Neuroscience to achieve a one-of-a-kind multidisciplinary research and training experience. Research in Computational Neuroscience and NeuroEngineering incorporates paradigms from complexity science, behavioral and cognitive neuroscience, mathematics, computer science and engineering, allowing NGP students to tackle the most profound questions of normal brain function and functional disturbances that arise from devastating brain disorders.

Training ranges from AI-based modeling of protein and RNA structure, complex physiological patterns of neuronal functioning in dynamic, integrated circuits, and systems approaches that interrogate fundamentals of sensation, cognition, personality, consciousness, and dynamic social interactions. Modern technologies are applied to the development of improved, non-invasive methods for the study of the brain in model systems and that aid in the diagnosis and treatment of brain injuries, including biosensor-based and neuroprosthetic strategies to extend and restore function. Trainees pursue research through a broad array of platforms including multi-electrode recording and fiber photometry of neurochemical dynamics, fMRI brain imaging, optical, fNIRS and EEG sampling of cellular and systems activity, biophotonics, bio-robotics and brain-machine interfaces, computer simulations, machine learning and artificial intelligence.



Learn more:

[fau.edu/brain/gradneuro](http://fau.edu/brain/gradneuro)

FLORIDA ATLANTIC UNIVERSITY STILES-NICHOLSON BRAIN INSTITUTE

Education Office | 777 Glades Road, Boca Raton, FL 33431  
Bleducation@fau.edu | 561.297.4989

# Neuroscience in the Sun

NGP students can pursue education and research options on the FAU Boca Raton, Davie and Jupiter campuses. All campuses are located only minutes away from coastal beaches and intracoastal waterways, each teaming with wildlife and providing many opportunities for aquatic adventures. The Everglades National Park, as well as many state parks, nature centers and wildlife refuges offer hours of relaxation amid the beauty of the natural world.

Sophisticated and inexpensive dining and entertainment are within easy reach of FAU students. A free, Wi-Fi enabled shuttle connects the Boca Raton and Jupiter campuses. Step out of class and into all that South Florida offers: stunning beaches, snorkeling, paddleboarding, boating and fishing.

**World-class shops and restaurants. Engaging culture and arts. Top-tier Entertainment.** You'll quickly see why millions travel here from around the globe—and why so many choose to stay.

