Five College Certificate in Cognitive Neuroscience

Overview

Cognitive neuroscience is the study of mind as it is manifested in the human brain. Cognitive neuroscientists combine psychophysical and brain imaging techniques such as functional magnetic resonance imaging (fMRI) and event-related potentials (ERPs) to examine the brain function underlying cognitive abilities in human beings.

The program of study is designed to offer students the opportunity to deepen their understanding of cognitive neuroscience, through both theoretical and empirical training. The certificate program includes courses in research techniques, basic scientific foundations, neuroscience, philosophy, and cognition, combined with independent research. It brings together several related disciplines, each of which provides a different focus on mind-brain issues.

The certificate encourages students to follow a program distinct from, and yet complementary to, majors such as neuroscience and behavior, philosophy, or psychology.

Requirements for the Certificate

Courses

- At least one course in each of six areas of study:
  - Overview of cognitive science
  - Scientific foundations (physics, computer science, chemistry, and biology)
  - Research methods, design, and analysis
  - Philosophy of mind
  - Neuroscience (neuroanatomy and neurophysiology)
  - Advanced topics
- At least one semester of independent research through a thesis, course project, or special study. The course project may be completed in conjunction with one of the classes listed under the Research Methods area. An adviser-approved summer research project would also meet the research requirement.

Faculty/Contact

For further information, consult with the Mount Holyoke College advisor for this certificate, Katherine Binder, Department of Psychology and Education, or see www.fivecolleges.edu/sites/cogneuro/.

See Also

- Neuroscience and Behavior