

Brain & Cognitive Sciences Curriculum

Department of Psychology Southern Illinois University Carbondale

The Brain and Cognitive Sciences graduate program at SIUC covers a variety of different specialty areas and research methodologies. Students entering the BCS program are likely to come from a wide range of backgrounds. The curriculum is therefore designed to provide a broad basis for interdisciplinary work within the brain and cognitive sciences, while also preparing students for advanced work. Students build up their basic knowledge by taking courses from three core areas within the Program: *Cognition, Development, and Neuroscience*.

Conducting research is a crucial part of the BCS program and students will be involved in research throughout their graduate studies. Given the interdisciplinary nature of the field, students will develop competence in at least two different research methodologies. In addition, students enroll in a weekly Pro-seminar in Brain and Cognitive Science. Students do much of their basic coursework within the first two years of study. During the second year of study students also prepare and defend a Masters thesis. Students complete a major preliminary exam during their third year. Finally, students are expected to prepare and defend a PhD dissertation during their fourth year of study (although many students require a fifth year to complete their program of study). The requirements for the BCS program can be summarized as follows:

- Experimental Design and Statistics
- Four courses from the following, with at least one from each pair:
 - Theory and Research in Cognitive Psychology
 - Principles of Learning and Memory
 - Life-span Developmental Psychology
 - Language and Cognition
 - Neurobiological Bases of Behavior
 - Human Clinical Neuroanatomy
- Training in at least two different research methodologies from:
 - Cognitive/Behavioral Experimentation
 - Computational Modeling
 - Neurobiology
 - Psychological Assessment

Expertise in a primary methodology is demonstrated by the student's thesis/dissertation research. Expertise in a secondary methodology from a different grouping may also involve research experience, or may be achieved by taking the appropriate methodology course within the department.

- Weekly Pro-seminar in Brain and Cognitive Sciences
- Supervised research throughout the program
- Advanced courses as needed to achieve scholarly background and specialized expertise.
- Masters Thesis (not required if you enter with a Masters in a closely related field).
- Major preliminary examination within the research areas covered by the core courses.
- Doctoral Dissertation.

For more information about our graduate program, take a look at the [Brain and Cognitive Sciences Program Handbook](#).