

Approved by the Board of Trustees,
May 19, 2005

Board Meeting
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ESTABLISH THE MASTER OF SCIENCE AND DOCTOR OF PHILOSOPHY
IN NEUROSCIENCE, GRADUATE COLLEGE, CHICAGO

Action: Approve the Establishment of the Master of Science and Doctor of Philosophy in Neuroscience, Graduate College, Chicago

Funding: No Funding Required

The Chancellor at Chicago, with the advice of the Chicago Senate and the Graduate College, recommends the establishment of two new graduate degrees, the Master of Science and the Doctor of Philosophy in Neuroscience.

For more than 30 years, the interdisciplinary field of neuroscience has gained recognition among academic institutions and through the creation of professional organizations of neuroscientists representing a wide array of traditional biological and social sciences, including anatomy, cell and molecular biology, developmental biology, biomedical engineering, psychology, and zoology. Thus began the establishment of several independent academic programs dedicated to the study of the brain and the training of new scientists armed with the technical and intellectual skills needed to succeed in this growing field.

The National Institutes of Health (NIH) in its *Report on Addressing the Nation's Changing Needs for Biomedical and Behavioral Scientists (2000)* recommended stronger and expanded emphasis on multidisciplinary training in basic biomedical sciences as well as in behavioral and social sciences. Multidisciplinary programs provide

students with an understanding of the interdisciplinary connections among fields that no other single discipline program can. The field of neuroscience exemplifies this multidisciplinary strategy.

The University of Illinois at Chicago is uniquely positioned to take a leadership role in this field of endeavor and is poised and ready to meet this challenge. With more than 100 faculty members representing several colleges within UIC who have an interest and investment in neuroscience research and training of students in this field, UIC proposes to offer the Master of Science and Doctor of Philosophy in Neuroscience.

The M.S. and Ph.D. in Neuroscience will be organized around three areas of concentration, as follows:

1. Neural signal transduction and molecular biology
2. Systems and integrative neuroscience
3. Human/therapeutic neuroscience and methods of neural imaging

Students admitted to the Master of Science program are required to complete 32 semester hours of course work consisting of core courses, elective courses chosen to fulfill one of the concentrations, and a master's thesis.

For the Ph.D., students must complete 96 semester hours of credit beyond the baccalaureate. For students entering the Ph.D. program with a master's degree from an accredited institution, a maximum of 32 credit hours may be recognized as counting toward the doctoral degree. The 96 hours consist of core course work, electives to fulfill an area of concentration, and a dissertation. In addition, other requirements include a preliminary examination, a mid-thesis seminar prior to graduation, and a final public seminar and oral defense of the dissertation.

Faculty resources for the two programs will be made available from existing resources in the Colleges of Medicine, Liberal Arts and Sciences, Engineering, Nursing, Pharmacy, Applied Health Sciences, and Dentistry. No new state resources are needed to support the proposed programs.

The board action recommended in this item complies in all material respects with applicable State and federal laws, University of Illinois *Statutes*, *The General Rules Concerning University Organization and Procedure*, and Board of Trustees policies and directives.

The Vice President for Academic Affairs concurs with this recommendation. The University Senates Conference has indicated that no further Senate jurisdiction is involved.

The President of the University recommends approval, pending further review by the Illinois Board of Higher Education.