

## **ESTABLISHMENT OF A NEW PROGRAM FOR PHD IN INTEGRATIVE NEUROSCIENCE**

### **Recommendation**

It is recommended that the Board of Governors establish a new degree program, the PhD in Integrative Neuroscience in the Eugene Applebaum College of Pharmacy and Health Sciences, effective Fall 2025.

### **Background**

The proposed PhD program in neuroscience spans multiple colleges/schools at Wayne State University (WSU), including College of Liberal Arts and Sciences, College of Engineering, Eugene Applebaum College of Pharmacy, College of Nursing, College of Education, and the School of Medicine. Supported by participation of 57 different faculty from six different schools and colleges, this program intends to provide students maximum flexibility in their course selection to facilitate their development into the next generation of cutting-edge neuroscientists.

This proposed program builds upon WSU's successful recruitment and retention of internationally recognized, highly trained scientists with a range of specialties within the field of neuroscience; NIH's Team Science support mechanisms; and well-mapped Detroit demographics that are catalysts for developing highly competitive programs. This new program will also serve as the nucleus for an application for an institution-wide training grant through the T32 mechanism from the NIH/NINDS.

This new program will be promoted as the Integrative NeuroScience Program in Research and Education (INSPIRE).

### **Program Description**

The goal of the INSPIRE program is to prepare the neuroscientist of the future – the neuroscientist who has both a firm understanding of general neural sciences and a particular specialty in research, development and teaching of a key area of neuroscience, as outlined in our major concentrations.

The program will provide unprecedented flexibility in course selections at WSU and will include professional development and responsible conduct of research as major components of the formal training of students. The program will include specific courses on the future of employment in neuroscience both inside and outside academia to help students understand what the future may hold for them. Cross-disciplinary courses will ensure exposure to fields students may have not thought to pursue before. The pedagogical approach will front-load technical and scientific information early in the students' training, while professional and personal development is gradually introduced with each passing semester, with the goal that by the end of year 4 each student has a very clear idea and understanding of what their future in neuroscience holds. This schedule allows adequate time for networking and ensures that by their graduation, all students are fully prepared to pursue the desired direction with ease, competence, and success.

This new program is structured to expose students to ideas from a wide range of neuroscience disciplines in a manner that cannot be achieved by existing programs with a narrower

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focus. Additionally, interactions of students and faculty from divergent neuroscience sub-disciplines will enhance students' abilities to communicate and work with scientists outside the narrow focus of their own research projects.

### **Admission Requirements**

Prospective students must be admitted to the Graduate School. Additionally, they will be required to meet the following admission requirements:

- Minimum overall GPA: 3.00; minimum science GPA: 3.00
- Bachelor's degree with a major in biology, psychology or related field
- Required undergraduate courses, with a grade of C or better, to be completed before entering the graduate program: Intro to Biology, Intro to Chemistry, Intro to Physics, English Composition
- Supporting materials, including: 3 recommendation letters, Curriculum Vitae, Personal statement describing the applicant's personal and educational background that led towards their application, Research interest statement describing aspects of neuroscience research of interest to the applicant and description of the applicant's prior research experience
- Interview

### **Curriculum Requirements**

Students will complete required foundational work in the first year and, based on a program-approved plan-of-work filed with the Graduate School, pursue flexible discipline-specific and professional development opportunities in subsequent years. Coursework requirements will leave ample time for PhD dissertation research to be completed within 5 years of matriculation.

### **Graduation Requirements**

To graduate, students will complete 67 credits of coursework and dissertation research, as detailed in the plan of work document, including successful completion of two steps of the comprehensive examination and approval for thesis defense by the student's PhD thesis committee, per the academic regulations of the Graduate School.

### **Program Administration**

The program will be housed in EACPHS for the purposes of student record tracking and tuition assessment. There will be a program director, with administrative and academic support to implement the program, including recruitment, applicant review, onboarding, registration, overrides, graduate research assistant appointments, student learning outcomes assessment, and progress monitoring.

The program faculty will establish by-laws constituting and governing the program faculty-of-record. The by-laws will further constitute standing faculty committees to oversee academic and student affairs aspects of the program.

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**Budget and Resource Requirements**

Resources will be internally re-allocated to support the program through the annual budget process. For direct support of student training, a T-32 training grant application will be submitted to the National Institute for Neurological Disorders and Stroke of the National Institutes of Health.

**Accreditation**

Not Applicable

**Approvals**

The proposal was approved by the faculty and deans of the College of Education, College of Engineering, College of Liberal Arts and Sciences, College of Nursing, Eugene Applebaum College of Pharmacy and Health Sciences, School of Medicine, Graduate Council, the dean of the Graduate School, and the Provost.