

**BOARD OF GOVERNORS  
STATE UNIVERSITY SYSTEM OF FLORIDA  
NEW DOCTORAL DEGREE PROPOSAL STAFF ANALYSIS**

**Program:** Ph.D. in Cognitive Neuroscience

**CIP Code:** 42.2706

**Institution:** Florida International University

**Proposed Implementation Date:** Fall 2021

**Staffed By:** Jeremy M. Hudak and Brittanian K. Gamble

**Initial Review Date:** July 27, 2020

**Last Update:** August 22, 2020

**Projected program costs:**

	Total	% & \$ Current Reallocated	% & \$ New Recurring	% & \$ New Non- Recurring	% & \$ C&G	% & \$ P&E	Auxiliary Funds	Cost per FTE	SUS 19- 20 Average Cost per FTE
Year 1	\$728,797	50% \$363,824	0% \$0	0% \$0	50% \$364,967	0% \$0	\$0	\$24,255	\$17,241 42 CIP
Year 5	\$867,227	44% \$384,858	0% \$0	0% \$0	56% \$482,369	0% \$0	\$0	\$19,243	

**Projected FTE and Headcount are:**

	Student Headcount	Student FTE
First Year	15	15
Second Year	20	20
Third Year	20	20
Fourth Year	22	22
Fifth Year	20	20

*On March 29, 2007, the Florida Board of Governors approved Board Regulation 8.011, which sets forth criteria for implementation and authorization of new doctorates by the Board of Governors, as well as criteria for implementation and authorization of Bachelor's, Master's and Specialist degrees by Boards of Trustees. The following staff analysis is an assessment of how well the university meets Board Accountability and Readiness criteria for implementation of this degree program.*

**Proposal Page Numbers:**

INTRODUCTION		ACCOUNTABILITY		READINESS				
Program Description	BOG Goals	Overall	Budget	Mission and Strength	Program Quality	Curriculum	Faculty	Resources
2	4	5	9	12	14	15	20	21

**A. Program Description:**

Florida International University (FIU) is proposing a Ph.D. in Cognitive Neuroscience, within its College of Arts, Sciences, and Education's Department of Psychology. The program will be in CIP 42.2706, which is a designated Program of Strategic Emphasis in STEM. The program will provide a rigorous, broad-based graduate education with an emphasis on topic-specific skills in neuroscience research methodology and data analysis; cognitive, developmental, and behavioral neuroscience; learning and memory; and neuropsychological disorders, combined with broader STEM-related skills, preparing graduates for both lab and field-based work. The program will be offered through a traditional, face-to-face mode of delivery, with all core and general elective courses offered on the main campus. The institution will charge the currently approved graduate tuition rate of \$455.64 per credit hour for resident students and \$1,001.69 per credit hour for non-resident students. Additionally, the per-semester fees include \$10 for intercollegiate athletics, \$93.69 for student health services, and \$95.13 for transportation access.

The Ph.D. in Cognitive Neuroscience will require a minimum of 75 credit hours, post-baccalaureate. The curriculum includes: 9 credit hours of core required statistics; 15 credit hours of Cognitive Neuroscience content courses; 24 credit hours of supervised research; 6 credit hours for the master's project; 12 credit hours of approved electives; and 15 credit hours of dissertation work that is based on the student's original research. Students are also required to pass a comprehensive exam. Students have the option to transfer a maximum of 36 credit hours from a completed master's program, if applicable. If approved by the Board of Governors, this program will begin enrolling students in fall 2021.

**B. System-Level Analysis and Evaluation in accordance with BOG Regulation 8.011:**

**Institutional Mission and Board Strategic Plan Alignment:**

The Ph.D. in Cognitive Neuroscience program supports both FIU's mission and the Board of Governor's Strategic Plan. Specifically, the proposed program aligns with FIU's mission as follows:

1. Strengthening the quality and relevance of FIU with regard to state, national, and international preeminence;
2. Increasing graduate student participation in research so as to strengthen the pipeline of researchers pursuing post-graduate jobs;
3. Increasing research activities to foster an entrepreneurial campus culture; and
4. Attracting more external funding.

The proposed program aligns with the Board of Governors 2025 Strategic Plan as follows:

1. Strengthening the quality and reputation of academic programs and Universities
2. Increasing degree productivity and program efficiency.
3. Increasing the number of degrees awarded in STEM and other areas of strategic emphasis.
4. Strengthening the quality and reputation of scholarship, research, and innovation.

**Need for Graduates in the Labor Market:**

The proposed program is designed to prepare students for scientific and research careers in the field of Cognitive Neuroscience. It will help students to gain skills that will be useful in both laboratory settings and fieldwork. Additionally, students will receive instruction in Neuroscience research methodology and data analysis, preparing students for research careers in Neuroscience, Medical Science, Pharmacology, Neuropsychology, Biomedical sciences, Brain-Machine Interface Technologies, and broader careers within the field of Psychology.

Table 1 provides an overview of the occupations that are aligned with the proposed CIP code for the program. All of the occupations have shown growth both within the State of Florida and nationally. Board staff acknowledge the limited number of occupations identified due to the limitations of the occupation data as it relates to CIP codes; however, FIU provided sufficient additional workforce demand information in their proposal.

**Student Demand for the Program:**

Currently, there is one program at the doctoral level in CIP 42.2706 within the State University System Academic Degree Program Inventory. This program is at FAU. It has shown consistent enrollment and graduation numbers, as shown in Table 2 and Table 3 below.

The proposed program at FIU is currently an existing major under another doctoral program in Psychology. The student demand for the program is justified based on the enrollment history of the existing major. The current major has 22 matriculated students, and the demand for the program is expected to continue at the current rate.

**External Consultant's Report:**

Dr. Craig Stark, James L. McGaugh Professor, Neurobiology and Behavior at the University of California at Irvine, served as the external consultant for the proposed program. He conducted the review in May 2020, and Dr. Stark was very supportive of the program. He noted an initial concern over the amount of formal coursework required for the program. In response, FIU revised the proposal to be more consistent with similar programs at other institutions. He also noted that FIU was responding to the evolution in the field by classifying the proposed program as STEM. Dr. Stark noted the level of focus on quantitative methodology and analytic training in the program that students receive. This would make them competitive applicants for data science occupations, among others.

**Overall Summary and Board Staff Comments:**

The proposed Ph.D. in Cognitive Neuroscience is a unique program. The proposed program will train students for scientific and research-based careers in the field of neuroscience. It aligns with many of FIU's strengths and with the strategic planning goals for the system. Board staff have no concerns regarding the proposed program and support it moving forward for consideration by the Board of Governors.

**Table 1: Labor Market Demand, CIP Code 42.2706**

<b>Occupations</b>	<b>FL Change, 2019-27 Percent</b>	<b>National Change, 2018-28 Percent</b>	<b>FL Total Annual Average Job Openings</b>	<b>National Openings, 2018-28 Annual Average</b>	<b>FL Change, 2019-27 Number</b>	<b>National Change, 2018-28 Number</b>	<b>BLS Typical education needed for entry</b>
Managers, All Other	9.7	6.3	3,493	91,300	3,995	68,500	Bachelor's degree
Psychologists, All Other	13.6	11.6	173	1,600	278	2,100	Master's degree
Psychology Teachers, Postsecondary	14.6	11.7	171	4,800	254	5,600	Doctoral or professional degree

Sources:

Date Retrieved: August 20, 2020

U.S. Bureau of Labor Statistics – <https://www.bls.gov/oo>

Florida Department of Economic Opportunity - <http://www.floridajobs.org/labor-market-information/data-center/statistical-programs/employment-projections>

**Table 2: Historical Enrollment (Fall Headcount), CIP Code 42.2706**

<b>Institution</b>	<b>Fall 2015</b>	<b>Fall 2016</b>	<b>Fall 2017</b>	<b>Fall 2018</b>
FAU	13	14	14	14
<b>Grand Total</b>	<b>13</b>	<b>14</b>	<b>14</b>	<b>14</b>

Date Retrieved: August 20, 2020

Source: Office of Data Analytics, Board of Governors

**Table 3: Historical Degrees Awarded, CIP Code 42.2706**

<b>Institution</b>	<b>2015-2016</b>	<b>2016-2017</b>	<b>2017-2018</b>	<b>2018-2019</b>
FAU	3	2	1	3
<b>Grand Total</b>	<b>3</b>	<b>2</b>	<b>1</b>	<b>3</b>

Date Retrieved: August 20, 2020

Source: Office of Data Analytics, Board of Governors

**C. Assessment of the University Review Process in accordance with BOG Regulation 8.011:**

*Due to the system of stair step accountability set in place by the Board of Governors in Regulation 8.011, it is now incumbent upon University Board of Trustees to verify that all doctoral programs coming before the Board of Governors have met the requirements of the regulation. The following is an assessment of the university review process to ensure that all criteria set forth have been considered by the university prior to submission to the Board of Governors office.*

**ACCOUNTABILITY**

**Check 'yes' or 'no' box, and make comments beneath criterion as appropriate.**

**1. Overall** – *The proposal is in the correct format, includes all necessary signatures, and contains complete and accurate tables for enrollment projections, faculty effort, and the proposed budget.*

**YES NO**

**The proposal has been approved by the university board of trustees and includes all required signatures.**

The proposal was approved at the June 16, 2020 Board of Trustees meeting.

**The university has provided a proposal written in the standard SUS format which addresses new academic program approval criteria outlined in BOG Regulation 8.011.**

The institution submitted the proposed program in the standard SUS format.

**The Pre-Proposal was reviewed by the Council of Academic Vice Presidents (CAVP) Academic Coordination Group and any concerns identified by the group have been listed and addressed in the proposal.**

The Pre-Proposal was reviewed by the CAVP Academic Coordination Group on February 28, 2020. No concerns were expressed.

**The university has provided data that supports the need for an additional program in the State University System as well as letters of support or concern from the provosts of other state universities with substantially similar programs.**

The proposed program would be the second doctoral-level program in CIP 42.2706. Florida Atlantic University also offers a doctoral-level Neuroscience degree in this CIP code.

**The university has provided complete and accurate projected enrollment, faculty effort, and budget tables that are in alignment with each other.**

The institution submitted all required tables in Appendix A, and provided additional, supplemental information.

- The university has included a statement in the proposal signed by the equity officer as to how this proposal will meet the goals of the university's equity accountability plan.**

The Equal Opportunity Officer signed the proposal on January 16, 2020.

- The program does not substantially duplicate programs at FAMU or FIU or, if it does, evidence was provided that consultations have occurred with the affected university on the impact of the new program on existing programs.**

The proposed program does not duplicate an existing program at Florida Agricultural and Mechanical University.

**2. Budget** – *The proposal presents a complete and realistic budget for the program consistent with university and BOG policy, and shows that any redirection of funding will not have an unjustified negative impact on other needed programs.*

**YES NO**

- The University Board of Trustees has approved the most recent budget for this proposal.**

The budget for the proposed program was approved in conjunction with the full proposal by the Board of Trustees on June 16, 2020.

- The university has reviewed the budget for the program to ensure that it is complete and reasonable, and the budget appears in alignment with expenditures by similar programs at other SUS institutions.**

The cost per FTE for the proposed program is aligned with the 2017-2018 SUS expenditure analysis for similarly leveled programs in the CIP 42 family.

- The proposal indicates that the program will follow the cost-recovery or market-rate funding models. If so, details and timelines for getting approvals for these funding models are included in the proposal.**

The proposed program will not operate using a cost-recovery or market-rate funding model. It will utilize E&G funding as well as funds from grants attained by the academic department.

- In the event that resources within the institution are redirected to support the new program, the university has identified this redirection and determined that it will not have a negative impact on undergraduate education, or the university has provided a reasonable explanation for any impact of this redirection.**

The proposed program is already in existence as a major at the institution. The institution anticipates no negative impact on related programs as the result of implementing this degree.

**READINESS**

***Check 'yes' or 'no' box, and make comments beneath criterion as appropriate.***

**3. Program Quality** – *The proposal provides evidence that the university planning activities have been sufficient and responses to any recommendations to program reviews or accreditation activities in the discipline pertinent to the proposed program have been addressed.*

**YES NO**

- The university has followed a collaborative planning process for the proposed program in accordance with policies and procedures adopted by the University Board of Trustees.**

The institution provided a narrative and chronological table of events that occurred during the development of the proposal as well as a list of the campus constituents involved. Additionally, the institution provided a table of events necessary for the implementation of the proposed program.

- An external consultant has reviewed the proposal and supports the department's capability of successfully implementing this new program.**

Dr. Craig Stark, James L. McGaugh Professor, Neurobiology and Behavior at the University of California at Irvine, served as the external consultant for the proposed program. He conducted the review in May 2020. His report is provided in Appendix D of the proposal.

- The university has found the level of progress that the department has made in implementing the recommendations from program reviews or accreditation activities in the discipline pertinent to the proposed program to be satisfactory.**

The institution provided an overview of program reviews conducted on related programs in the Psychology Department. The findings and recommendations from those reviews were also summarized in the proposal.

- The university has analyzed the feasibility of providing all or a portion of the proposed program through distance learning.**

The program will be offered through traditional delivery with all core and general elective courses being taught on the main campus.

- If necessary, the university has made allowances for licensure and legislative approval to be obtained in a timely manner.**

There is no applicable licensure or legislative approval required for the proposed program.

**4. Curriculum** - *The proposal provides evidence that the university has evaluated the proposed curriculum and found that it describes an appropriate and sequenced course of study, and that the university has evaluated the appropriateness of specialized accreditation for the program.*



YES NO

- The university has reviewed the curriculum and found that the course of study presented is appropriate to meet specific learning outcomes and industry driven competencies discussed in the proposal.**

The institution has provided the curriculum for the proposed program, and the coursework is designed to meet the learning outcomes for the degree.

- The university anticipates seeking accreditation for the proposed doctoral program, or provides a reasonable explanation as to why accreditation is not being sought.**

There are no specialized accrediting bodies available for graduate degree programs in Cognitive Neuroscience.

**5. Faculty** – *The proposal provides evidence that the university is prepared to ensure a critical mass of faculty will be available to initiate the program based on estimated enrollments, and that faculty in the aggregate have the necessary experience and research activity to sustain a doctoral program.*

YES NO

- The university has reviewed the evidence provided and found that there is a critical mass of faculty available to initiate the program based on estimated enrollments.**

The institution has identified 13 existing faculty members to participate in the proposed program. 12 faculty are anticipated to begin participating in the program in Fall 2021, and one faculty member will begin participating in the program in Fall 2022.

- The university has reviewed the evidence provided and found that the faculty in aggregate has the necessary experience and research activity to sustain the program.**

The institution reviewed the credentials of all faculty members participating in the program, and their curriculum vitae were included in Appendix C of the proposal.

- The university has reviewed the evidence provided and found the academic unit(s) associated with this new degree to be productive in teaching, research, and service.**

The institution provided multiple examples showing that the academic unit associated with the proposed degree program has been productive in teaching, research, and service. The unit has a strong track record of receiving substantial grants, and some of the funding from those grants will be used to financially support the proposed program.

- If appropriate, the university has committed to hiring additional faculty in later years, based on estimated enrollments.**

The institution has adequate faculty resources available to implement and sustain the proposed program at this time.

**6. Resources** – *The proposal provides evidence that the university has ensured the available library volumes and serials; classroom, teaching laboratory, research laboratory, office space, equipment, clinical and internship sites, fellowships, scholarships, and graduate assistantships will be sufficient to initiate the program, and that if applicable, funding has been secured to make more resources available as students proceed through the program..*

**YES NO**

- The university has provided a signed statement from the Library Director verifying that the library volumes and serials available are sufficient to initiate the program.**

The Library Director signed the proposal on January 10, 2020.

- The university has ensured that the physical space necessary for the proposed program, including classrooms, laboratories and office space, is sufficient to initiate the program.**

The institution provided descriptions of the physical spaces available to the program. The program has adequate space to implement and sustain the proposed program.

- The university has ensured that necessary equipment is available to initiate the program.**

The institution provided several examples of specialized equipment that are available to support the instruction and research components of the proposed program.

- The university has ensured that fellowships, scholarships, and graduate assistantships are sufficient to initiate the program.**

The institution has allocated both E&G and grant funding to support fellowships and graduate student assistantships.

- If applicable, the university has ensured that the department has arranged a suitable number of clinical and internship sites.**

Internships are not included in the curriculum for the proposed program because students are expected to engage in research through the PSY 5918-Supervised Research course consisting of 24 credit hours, so this does not apply.