Resolution

Approving the Submission of a Notification of Intent to Submit a Proposal (NISP) for a Master of Science (M.S.) Degree in Behavioral Neuroscience (CIP Code 42.2706)

WHEREAS, the College of Arts and Sciences at The University of Alabama at Birmingham strives to deliver quality programs that are relevant and innovative; and

WHEREAS, the program will train students who are in demand by employers to support discoveries of the basic principles of behavioral neuroscience; and

WHEREAS, M.S., in Behavioral Neuroscience students will enter the work force with a terminal M.S. degree or may choose to pursue additional training (e.g., a Ph.D.); and

WHEREAS, the program is built upon a successful history of the current Ph.D., in Psychology;

NOW, THEREFORE, BE IT RESOLVED by The Board of Trustees of The University of Alabama that it approves submission of a Notification of Intent to Submit a Proposal (NISP) for a Master of Science (M.S.) degree in Behavioral Neuroscience (CIP Code 42.706) by The University of Alabama at Birmingham.
This collection of proposals aims to: 1) separate the 3 existing PhD concentrations in Psychology into distinct PhD programs to better reflect their distinct focus, curricula, and admission and program procedures; 2) change the master’s degree from MA to MS to align with the scientific nature and research focus of the programs; and 3) separate the master’s degree into the same 3 areas as the PhD to reflect the distinct focus, curricula, and admission procedures associated with the master’s degree in each area.

**Current**

**MA Psychology**

- PhD Psychology

**Concentrations**

- Medical / Clinical Psychology
- Developmental Psychology
- Behavioral Neuroscience

**Proposed**

**MS Medical / Clinical Psychology**

- Joint program with the School of Medicine

**PhD Medical / Clinical Psychology**

**MS Applied Developmental Psychology**

**PhD Applied Developmental Psychology**

**MS Behavioral Neuroscience**

**PhD Behavioral Neuroscience**

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1 Behavioral Neuroscience does not currently offer a master’s degree.  
2 No terminal master’s degree offered.  
3 Behavioral Neuroscience plans to offer a terminal master’s degree.
Alabama Commission on Higher Education

NOTIFICATION OF INTENT TO SUBMIT A PROPOSAL (NISP) FOR A NEW PROGRAM OF INSTRUCTION

1. Institution: University of Alabama at Birmingham

2. Date of NISP Submission: June 10, 2022

3. Institutional Contact Person: Katrina Mintz, Ph.D.
   Telephone: (205) 934-2384
   Fax: (205) 934-3179
   E-mail: kmintz@uab.edu

4. Program Identification:
   Title: Behavioral Neuroscience
   Award: MS
   CIP Code: 42.2706

5. Proposed Program Implementation Date: Fall 2023

6. Statement of Program Objectives (Objectives should be precise and stated in such a way that later evaluation/assessment of program outcomes is facilitated.):

   The objective of the Behavioral Neuroscience MS Program is to train students who are in demand by employers and who lead fulfilling careers through their abilities to 1) support discoveries of the basic principles of behavioral neuroscience, 2) assist in the application of Behavioral Neuroscience principals to solve complex, real-world issues of interest and importance, and 3) demonstrate Master’s level proficiency in the professional skills needed for success in the Behavioral Neuroscience field.

   Specific Program Objectives include training students to:

   - Demonstrate a broad foundation in the concepts and methodologies of neuroscience
   - Demonstrate the ability to read, review, and critically evaluate the neuroscience literature
   - Select and utilize scientific techniques/methods to test a neuroscience research question
   - Demonstrate research skills that include the ability to design experiments, and collect, analyze, and interpret data
   - Effectively communicate the results of research both orally and in writing
7. Relationship of program to other programs within the institution.

a. How will the program support or be supported by other programs within the institution?

The Behavioral Neuroscience MS Program will be affiliated with the Department of Psychology in the UAB College of Arts and Sciences. The Behavioral Neuroscience MS program will be supported by the Psychology Department, which agrees to provide the necessary infrastructure for the program, including teaching faculty.

Students in Behavioral Neuroscience MS program will take courses alongside students in other graduate programs affiliated with the Department of Psychology (currently Developmental Psychology and Medical/Clinical Psychology). Courses taught by faculty associated with Behavioral Neuroscience will be open to students in the other Psychology graduate programs as well as other UAB programs such as the Graduate Biomedical Sciences and Vision Science programs. Students will take elective courses from faculty in other Schools (e.g., Medicine and Optometry). Faculty from other Schools can also serve as research mentors for students in the Behavioral Neuroscience program.

Students will be admitted to a terminal Behavioral Neuroscience MS program. Students in the terminal MS program will take a subset of courses alongside students admitted to the Behavioral Neuroscience PhD program. Students admitted to the PhD program, who meet requirements for the MS degree, will earn an MS in Behavioral Neuroscience en route to the PhD. Upon graduation, terminal MS students will enter the work force or may choose to pursue additional training (e.g., a PhD). Students that wish to pursue a PhD in Behavioral Neuroscience at UAB would then apply to the Behavioral Neuroscience PhD program. If accepted, they would complete additional course work and laboratory training needed to earn the PhD.

Day-to-day administrative support for the Behavioral Neuroscience program will be provided by the Department of Psychology. Behavioral Neuroscience program leadership will participate collaboratively in the administration of the other Psychology graduate programs, for example in development of shared policies, oversight of administrative staff, and planning for shared instructional and administrative space.

b. Will this program replace any existing program(s) or specialization(s), options or concentrations within existing programs? Yes: ____ No: __X__

If yes, please explain.
8. If this program is duplicative of any other programs in the state, please give your rationale for program duplication.

The Behavioral Neuroscience MS Program does not duplicate other programs in the state. However, UAB does have a master's program in Multidisciplinary Biomedical Science (CIP: 26.0102). The University of Alabama at Tuscaloosa has an existing Educational Neuroscience PhD concentration under the Educational Psychology Program (CIP: 42.2806), and Auburn University has a PhD concentration in Cognitive and Behavioral Sciences in their Psychology Department (CIP: 42.0101). However, none of these programs admit students to a stand-alone, terminal Master’s program in behavioral neuroscience.

9. Do you plan to explore possible program collaboration with other institutions? Please explain.

Collaboration with other institutions may be possible in the future, but nothing formal is planned at this time.

10. Do you anticipate the use of distance education technology in the delivery of the program? Please explain.

The use of distance education technology is not currently planned.

11. What methodology will you use to determine the level of student demand for this program?

Demand for this program has already been established and is reflected by the approximately 20-30 applications we receive for admission to the Behavioral Neuroscience concentration (PhD in Psychology) each year. We receive queries from approximately 10-20 potential applicants about a Behavioral Neuroscience Master’s degree each year. We anticipate 5-10 graduates per year as planned new enrollment takes full effect. We will track the number of applications we receive to monitor student demand over time and will continue to be responsive to student needs.

12. What methodology will you use to determine need for this program?

Need will be determined by alumni outcomes. We will continue to monitor alumni job placements to assess the need for this program and to proactively make programmatic changes to ensure successful placements into the workforce and/or PhD or professional programs.
According to the U.S. Bureau of Labor Statistics, jobs for neuroscientists are projected to grow by 10-20% over the next decade. The demand for jobs at this level of training is reflected by the growing number of undergraduate neuroscience degree programs across the country, which have tripled in the last decade. In addition, STEM (Science, Technology, Engineering, and Mathematics) fields continue to grow in line with projected increases in jobs requiring STEM skills. The increased number of undergraduates with bachelor level neuroscience degrees has increased the need for graduate level programs to train the next generation of neuroscientists with more advanced knowledge and skills.

Students graduating with an MS in Behavioral Neuroscience will be very competitive candidates for positions as lab technicians. For example, research laboratories in scientific research organizations (e.g., Southern Research) and at state universities (e.g., UAB, Auburn University, and University of Alabama) hire Master’s level technicians to manage laboratory activities as well as collect and analyze research data. MS level graduates will also be competitive as candidates for PhD (e.g., Psychology, Vision Science, and Neuroscience programs) or professional (e.g., Medicine, Dentistry, Optometry) programs. In addition, graduates with a Master’s degree will also be competitive candidates for teaching positions at community or junior colleges across the state of Alabama.
THE UNIVERSITY OF ALABAMA AT BIRMINGHAM

Resolution

Granting Initial Approval of and Submission to the Alabama Commission on Higher Education (ACHE) a Proposal for a Master of Science (M.S.) Degree in Behavioral Neuroscience (CIP Code 42.2706)

WHEREAS, the Board of Trustees approved a Notification of Intent to Submit a Proposal (NISP) for the Master of Science (M.S.) degree in Behavioral Neuroscience on June 10, 2022; and

WHEREAS, the College of Arts and Sciences at The University of Alabama at Birmingham strives to deliver quality programs that are relevant and innovative; and

WHEREAS, the program will train students who are in demand by employers to support discoveries of the basic principles of behavioral neuroscience; and

WHEREAS, M.S in Behavioral Neuroscience students will enter the work force with a terminal M.S. degree or may choose to pursue additional training (e.g., a Ph.D.); and

WHEREAS, the program is built upon the successful history of the current Ph.D., in Psychology;

NOW, THEREFORE, BE IT RESOLVED by The Board of Trustees of The University of Alabama that it approves granting initial approval of and submission to the Alabama Commission on Higher Education (ACHE) a proposal for a Master of Science (M.S.) Degree in Behavioral Neuroscience (CIP Code 42.2706) by The University of Alabama at Birmingham.
The University of Alabama System: Outline for a New Proposal: MS in Behavioral Neuroscience

Executive Summary

The MS degree in Behavioral Neuroscience is a program within the Department of Psychology in the College of Arts and Sciences at the University of Alabama at Birmingham (UAB). This program offers a terminal MS degree, however students admitted to the Behavioral Neuroscience PhD program, who meet requirements for the MS degree, will earn an MS in Behavioral Neuroscience en route to the PhD. The program will replace an existing Behavioral Neuroscience concentration within the Psychology Department. Behavioral Neuroscience is currently one of three Psychology concentrations (i.e., Behavioral Neuroscience, Developmental Psychology, and Medical/Clinical Psychology) at UAB. These three concentrations largely operate independently, with separate directors, admissions procedures, and steering committees that have distinct foci, admissions, curricula, and training goals. Thus, our aim is to separate the three existing concentrations in Psychology into three distinct programs.

This program will be the only Behavioral Neuroscience MS program in the state. Behavioral neuroscience is inherently interdisciplinary as the field evolved from several traditional sub-disciplines within psychology (physiological psychology, experimental psychology, sensation and perception, conditioning and learning, motivation, cognition, and regulatory biology) in order to interface with the then emerging field of neuroscience. This program is designed to provide students with a broad foundation in the concepts and methodologies of behavioral neuroscience while exposing students to cutting edge research in the field. Behavioral neuroscience emphasizes the neural underpinnings of behavior, and this program is designed to produce outstanding scientists capable of pursuing successful entry-level teaching and research careers by providing well-founded academic training and interdisciplinary research experiences, all under the guidance of UAB’s expert faculty.

Behavioral neuroscientists provide a vital contribution to the field of neuroscience by emphasizing behavioral and functional endpoints in their research. Behavioral neuroscience is represented by scientists with interests in the physiological and neural substrates of behavior. Research in behavioral neuroscience at UAB occurs within an interdisciplinary context thereby providing a rich experience for graduate students. A major strength of the program is that it is interdisciplinary and includes programmatic research and training under the supervision of any faculty member within any department at UAB who has research interests that lie in the area of behavioral neuroscience. Faculty in Behavioral Neuroscience at UAB hold primary appointments in the Departments of Psychology, Anesthesiology, Ophthalmology, Cell Biology, Neurobiology, Neurology, and Psychiatry & Behavioral Neurobiology. This breadth of perspective is reflected both in the courses offered and the research pursued by Behavioral Neuroscience students. In this spirit, students study core content areas (e.g., statistics, neurobiology, behavioral neuroscience, cognitive neuroscience) and can choose to obtain direct, hands-on laboratory-based training in a specific behavioral neuroscience topic.
2. Steps taken to determine if other UA System Institutions might be interested in collaborating in the program.

We have not yet explored collaboration with other University of Alabama System institutions. We already have long-standing internal collaborations established, and opportunities for partnership with other University of Alabama System Institutions will be considered.

3. Desegregation Impact Statement:

The UAB College of Arts and Sciences and Department of Psychology are committed to ensuring recruitment and retention of students from diverse backgrounds in all programs. We will ensure this program, like all other degree offerings at the University of Alabama at Birmingham, is accessible and available to diverse population.

4. Summary of Consultant’s Comments

N/A

5. Summary of Other Campuses’ Comments

N/A

6. Other pertinent information

N/A
PROPOSAL FOR A NEW DEGREE PROGRAM (Part 1: Proposal)

1. Date of Proposal Submission: June 9, 2023  
   Full program name and level: Behavioral Neuroscience MS  
   Degree nomenclature (e.g., MBA, BS): MS  
   CIP Code: 42.2706

2. Learning Outcomes:  
   Succinctly list at least four (4) but no more than seven (7) of the most prominent student learning outcomes of the program.
   
   i. Demonstrate a broad foundation in the concepts and methodologies of neuroscience.
   
   ii. Demonstrate the ability to read, review, and critically evaluate the neuroscience literature.
   
   iii. Select and utilize scientific techniques/methods to test a neuroscience research question.
   
   iv. Demonstrate research skills that include the ability to design experiments, and collect, analyze, and interpret data.
   
   v. Effectively communicate the results of research both orally and in writing.

3. Employment Outcomes and Program Demand  
   Please describe how the proposed program prepares graduates to seek employment in the occupations (SOC codes) identified within the NISP. Note: you may also indicate any updates to those codes here.
   
   SOC 1 11.9199  Managers, All other
   SOC 2 19.1029  Bioinformatics Science
   SOC 3 19.1099 Life Science all other

   The Behavioral Neuroscience MS program will prepare graduates to successfully seek employment through rigorous coursework and research training. In particular, courses will provide foundational knowledge in behavioral neuroscience and neurobiology. In addition, advanced coursework in statistical methodology will equip graduates with the
skills needed to manage and analyze research data. In addition, Plan I students will also complete a master’s thesis project.

The program has some goals in common for all students so that they have the ability to perform competently after graduation. The following competencies are expected to be mastered by graduation to a level that suggests the student is ready to undertake the activities under limited supervision while seeking reasonable consultation with others as needed; performs at a level of competency and independence that is consistent with that of a master’s degree level scientist. These are transferable skills that will prepare graduates for employment in a variety of contexts/careers:

- **Plan a program of research**
  - Evaluate and synthesize scientific literature.
  - Identify research problems and questions.
  - Identify and operationalize relevant constructs.
  - Generate testable hypotheses.
  - Recognize the significance of research questions and problems for application to real-world settings.

- **Design a study**
  - Make well-justified research design decisions to answer research questions and test hypotheses.
  - Select and appropriately justify measures to address research questions.
  - Design studies to generate data relevant to a research problem/question.
  - Select appropriate methods for statistical analysis.
  - Determine sample size and adjust study design based on statistical power considerations.
  - Identify, explain, and control for potential confounds.
  - Describe and justify the feasibility of a study, as well as a reasonable timeline for study completion.

- **Communicate research**
  - Effectively communicate the rationale, methods, and findings of research in oral and written formats.
  - Effectively respond to questions and challenges.
  - Critically evaluate their research in the field.

Please explain whether further education/ training is required for graduates of the proposed program to gain entry-level employment in the occupations you have selected.

Further education/training is not required, but may be obtained, before entry-level employment in the occupations listed. For example, graduates of the Behavioral Neuroscience MS program will be competitive for entry-level teaching appointments at small liberal arts and junior colleges within Alabama and across the United States.
However, many graduates will pursue additional graduate training to earn a PhD and further develop their research credentials to become competitive for faculty positions that have a greater level of independence. Similarly, graduates of the Behavioral Neuroscience MS program will be competitive for many research positions in university and industry positions (e.g., Southern Research) without further education/training. However, graduates may pursue additional training to advance their competitiveness for other positions, perhaps even within the same organization, that require PhD level training.

Briefly describe how the program fulfills a specific industry or employment need for the State of Alabama. As appropriate, you should discuss alignment with Alabama’s Statewide or Regional Lists of In-Demand Occupations (available at https://ache.edu/Instruction.aspx under “Policy/Guidance”) or with emerging industries as identified by Alabama’s Innovation Commission or the Economic Development Partnership of Alabama (EDPA).

According to the U.S. Bureau of Labor Statistics, jobs for neuroscientists are projected to grow by 10-20% over the next decade. The demand for jobs at this level of training is reflected by the growing number of undergraduate neuroscience degree programs across the country, which have tripled in the last decade. In addition, STEM (Science, Technology, Engineering, and Mathematics) fields continue to grow in line with projected increases in jobs requiring STEM skills. The increased number of undergraduates with bachelor-level neuroscience degrees has increased the need for graduate-level programs to train the next generation of neuroscientists with more advanced knowledge and skills.

Many of the students graduating with a MS in Behavioral Neuroscience will pursue further training in neuroscience, medicine, dentistry, ophthalmology, etc. Others will pursue master’s level research assistant, technician, technologist or staff scientist positions in scientific research organizations (e.g., Southern Research) and university-based research labs (e.g., UAB, Auburn University, and University of Alabama). Our MS level graduates will also be competitive for master’s level teaching positions at Liberal Arts or junior colleges.

Please describe how you will determine whether graduates are successful in obtaining relevant employment or pursuing further study.

Success obtaining relevant employment or additional training will be determined by following the employment/training status of graduates upon graduation. We will track the location and type of employment for their first position following graduation along with annual updates to monitor their current employment/training status (location and type of employment) for at least 10 years following graduation. For graduates that pursue further education, we will track the degree, program, and institution of their subsequent graduate training.
Briefly describe evidence of student demand for the program, including enrollments in related coursework at your institution if applicable. If a survey of student interest was conducted, please briefly describe the survey instrument, number and percentage of respondents, and summary of results.

Demand for this program has already been established and is reflected by the approximately 20-35 applications we receive for admission to the current Behavioral Neuroscience concentration in Psychology each year. We receive queries from an additional 10-20 potential applicants about a Behavioral Neuroscience Master’s degree each year. We anticipate 5-10 graduates per year as planned new enrollment takes full effect. We will track the number of applications we receive to monitor student demand over time and will continue to be responsive to student needs.

4. Specific Rationale (Strengths) for Program

What is the specific rationale for recommending approval of this proposal? List 3-5 strengths of the proposed program.

i. Behavioral Neuroscience is currently one of three Psychology concentrations (i.e., Behavioral Neuroscience, Developmental Psychology, and Medical/Clinical Psychology) at UAB. Our aim is to separate the three existing concentrations in Psychology into three distinct programs. The rationale for doing so is that these concentrations largely operate independently, with separate directors, admissions procedures, and steering committees for existing concentrations that have distinct foci, admissions, curricula, and training goals that map onto different CIP codes.

ii. The field of behavioral neuroscience evolved from several traditional sub-disciplines within psychology (physiological psychology, experimental psychology, sensation and perception, conditioning and learning, motivation, cognition, and regulatory biology) in order to interface with the emerging field of neuroscience. In this manner, the behavioral neuroscientist provides a vital contribution to the field of neuroscience by emphasizing behavioral and functional endpoints in their research. Behavioral neuroscience is represented by scientists with interests in the physiological and neural substrates of behavior. Research in behavioral neuroscience at UAB occurs within an interdisciplinary context thereby providing a rich experience for graduate students. Faculty in Behavioral Neuroscience at UAB hold primary appointments in the Departments of Psychology, Anesthesiology, Ophthalmology, Cell Biology, Neurobiology, Neurology, and Psychiatry & Behavioral Neurobiology. This breadth of perspective is reflected both in the courses offered and the research pursued by Behavioral Neuroscience students. In this spirit, students study core content areas (e.g., statistics, neurobiology, behavioral neuroscience, cognitive neuroscience) and can choose to obtain direct, hands-on laboratory-based training in a specific behavioral neuroscience topic, including experience developing research funding proposals, manuscripts, and public presentations.

iii. Master’s training in Behavioral Neuroscience at UAB is designed to produce outstanding young scientists 1) capable of reading, reviewing, and critically
evaluating research in the field; 2) utilizing the concepts and methodologies of neuroscience; 3) selecting appropriate techniques/methods to test neuroscience-related questions; 4) designing and executing neuroscience experiments; and 5) effectively communicating results. It is the philosophy of the Behavioral Neuroscience program that this mission is best achieved by having each student obtain a firm academic foundation in both psychology and neuroscience curriculums and engage the student in systematic research under the supervision of program faculty.

iv. A major strength of the Behavioral Neuroscience program is that it is an interdisciplinary program that includes programmatic research and training under the supervision of any faculty member within any department at UAB who has research interests that lie in the area of behavioral neuroscience. This training approach is an advantage to our students that will allow them to obtain research positions in psychology departments as well as many other neuroscience-related departments within university settings, medical schools, research institutions, and private industry.

Please list any external entities that have supplied letters of support attesting to the program’s strengths, and attach letters with the proposal.

5. Program Resource Requirements

A. Faculty. Please provide or attach a brief summary of primary and support faculty that includes their qualifications specific to the program proposal. Note: Institutions must maintain and have current and additional primary and support faculty curriculum vitae available upon ACHE request for as long as the program is active, but you do not need to submit CVs with this proposal.

Primary Faculty

Mary Boggiano, PhD
Qualifications: Teaches program elective (e.g., PY 520: Motivation and Emotion), serves on student master’s thesis committees, and trains graduate students in the lab.

Olivio Clay, PhD
Qualifications: Teaches required program courses (e.g., PY 619: Diversity, Equity, and Inclusion; PY 716: Introduction to Statistics) and serves on student master’s thesis committees.

Ed Cook, PhD
Qualifications: Teaches required program courses (e.g., PY 717: Applied Statistical Methods) serves on student master’s thesis committees.

Burel Goodin, PhD
Qualifications: Serves on student master’s thesis committees and trains graduate students in the lab.

David Knight, PhD
Qualifications: Teaches required program courses (e.g., PY 756: Research Seminar in Behavioral Neuroscience), serves on student master’s thesis committees, and trains graduate students in the lab.
Sylvie Mrug, PhD  
Qualifications: Teaches elective program courses (e.g., PY 719: Multivariate Statistical Methods; PY 746: Structural Equation Modeling), serves on student master’s thesis committees, and trains graduate students in the lab.

Robert Sorge, PhD  
Qualifications: Teaches elective program courses (e.g., PY 687: Dynamics of Pain), serves on student thesis committees, and trains graduate students in the lab.

Christiane Strang, PhD  
Qualifications: Teaches required program courses (e.g., PY 653: Foundations of Behavioral Neuroscience; PY 792: Introduction to Neurobiology), serves on student thesis committees, and trains graduate students in the lab.

Edward Taub, PhD  
Qualifications: Serves on student thesis committees and trains graduate students in the lab.

Jarred Younger, PhD  
Qualifications: Serves on student thesis committees and trains graduate students in the lab.

Jennifer DeBerry, PhD  
Qualifications: Serves on student thesis committees and trains graduate students in the lab.

Ronald Lazar, PhD  
Qualifications: Serves on student thesis committees and trains graduate students in the lab.

Lynn Dobrunz, PhD  
Qualifications: Serves on student master’s thesis committees and trains graduate students in the lab.

Jane Allendorfer, PhD  
Qualifications: Serves on student master’s thesis committees and trains graduate students in the lab.

Mark Bolding, PhD  
Qualifications: Teaches program elective (e.g., NBL 735: Functional MRI), serves on student master’s thesis committees, and trains graduate students in the lab.

Jerzy SzafiarSKI, MD, PhD  
Qualifications: Serves on student master’s thesis committees and trains graduate students in the lab.

Andrew Pickering, PhD  
Qualifications: Serves on student master’s thesis committees and trains graduate students in the lab.

Adrienne Lahti, MD  
Qualifications: Serves on student master’s thesis committees and trains graduate students in the lab.
Nina Kraguljac, MD  
Qualifications: Serves on student master’s thesis committees and trains graduate students in the lab.

Eric Roberson, MD, PhD  
Qualifications: Serves on student master’s thesis committees and trains graduate students in the lab.

Junghee Lee, PhD  
Qualifications: Serves on student master’s thesis committees and trains graduate students in the lab.

Kristina Visscher, PhD  
Qualifications: Teaches program elective (e.g., NBL 625: Methods in Neuroimaging), serves on student master’s thesis committees, and trains graduate students in the lab.

Please provide faculty counts for the proposed program:

<table>
<thead>
<tr>
<th>Status</th>
<th>Faculty Type</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Primary</td>
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<tr>
<td>Current Full-Time</td>
<td>22</td>
</tr>
<tr>
<td>Current Part-Time</td>
<td>0</td>
</tr>
<tr>
<td>Additional Full-Time (to be hired)</td>
<td>0</td>
</tr>
<tr>
<td>Additional Part-Time (to be hired)</td>
<td>0</td>
</tr>
</tbody>
</table>

Note: Annual compensation costs for additional faculty to be hired should be included in the NEW ACADEMIC DEGREE PROGRAM SUMMARY table in Part 3. Salary/benefits for current faculty should not be included.

Briefly describe the qualifications of any new faculty to be hired: N/A

B. Staff. Will the program require dedicated staff?  
☐ Yes  ☐ No

If so, indicate the number or percentage of FTEs.

Note: Annual compensation costs for staff to be hired should be included in the NEW ACADEMIC DEGREE PROGRAM SUMMARY table in Part 3.

C. Equipment. Will any special equipment be needed specifically for this program?  
☐ Yes  ☐ No

If yes, please list. Their cost should be included in the NEW ACADEMIC DEGREE PROGRAM SUMMARY table in Part 3.

D. Facilities. Will any new facilities be required specifically for the program?  
☐ Yes  ☐ No
If yes, please list. Only new facilities need be listed. Their cost should be included in the NEW ACADEMIC DEGREE PROGRAM SUMMARY table in Part 3.

**E. Library.** Will additional library resources be required to support the program?

☐ Yes  ☒ No

Please provide a brief description of the current status of the library collections supporting the proposed program.

Students at UAB have access to extensive library resources. The Lister Hill Library of the Health Sciences is centrally located in the heart of the academic medical center and is the largest biomedical library in Alabama. In addition to an extensive collection of print books and periodicals, the library offers an excellent digital collection supporting biomedical research. The Mervyn H. Sterne Library maintains a collection of over one-million items that supports teaching and research in social and behavioral sciences, arts and humanities, business, education, engineering, and natural science and mathematics. The facility has special collections, including books, periodicals, and access to electronic titles, seminar rooms, collaborative study spaces, computers, printers and copiers, and seating for 1,350 users.

If yes, please briefly describe how any deficiencies will be remedied, and include the cost in the NEW ACADEMIC DEGREE PROGRAM SUMMARY table.

**F. Assistantships/Fellowships.** Will you offer any assistantships specifically for this program?

☐ Yes  ☒ No

If “Yes”, how many assistantships will be offered?

The expenses associated with any *new* assistantships should be included in the NEW ACADEMIC DEGREE PROGRAM SUMMARY table in Part 3.

**G. Other.** Please explain any other costs to be incurred with program implementation, including lab start-up expenses or specialized accreditation costs. Be sure to note these on the NEW ACADEMIC DEGREE PROGRAM SUMMARY table in Part 3.
Name of Proposed Program: Behavioral Neuroscience MS

Program Completion Requirements: (Enter a credit hour value for all applicable components, write N/A if not applicable)

- Credit hours required in program courses: 8
- Credit hours in general education or core curriculum: NA
- Credit hours required in support courses: NA
- Credit hours in required or free electives: 22
- Credit hours in required research: 12*
- Total credit hours required for completion: 30 to 42

* 12 research credit hours required for the Plan I MS option described below.

Maximum number of credits that can be transferred in from another institution and applied to the program:

No credit hours can be transferred in from another institution and applied to the program.

Intended program duration in semesters for full-time students:

Students are intended to complete the program within 2 (Plan II) or 4 (Plan I) semesters of full-time work.

Intended program duration in semesters for part-time students:

Students are intended to complete the program in 4 (Plan II) or 6 (Plan I) semesters of part-time work.

Does the program require students to demonstrate industry-validated skills, specifically through an embedded industry-recognized certification, through structured work-based learning with an employer partner, or through alignment with nationally recognized industry standards? If yes, please explain how these components fit with the required coursework.

Students that complete the Plan I (thesis) Behavioral Neuroscience MS will complete 12 credit hours of research training in a research laboratory and will also gain experience writing research proposals, manuscripts, and making public presentations.

Does the program include any options/concentrations? If yes, please give an overview of the options, and identify the courses for each in the table below.

The Behavioral Neuroscience MS is a terminal degree. Behavioral Neuroscience MS students will have the option to either complete a Plan I or Plan II MS degree. Both Plan I and Plan II options will require the completion of 30 credit hours of rigorous
coursework detailed in the course table below. The Plan I option will require the completion of an additional 12 credit hours of research lab-based work to be completed over four semesters. The 12 credit hours of research lab-based work can be completed as a combination of PY 698 (Premasters Level Graduate Research) and PY 699 (Masters Level Graduate Research) courses, with at least 6 of the 12 credit hours completed as PY 699: Masters Level Graduate Research.

The Plan I Behavioral Neuroscience MS with a thesis can be completed over 4 semesters if full-time. Successful completion of the Plan I Behavioral Neuroscience MS degree will require passing 30 credit hours of coursework and 12 credit hours of research lab-based work with a minimum grade of C in each class and a minimum 3.0 cumulative GPA. In addition, successful completion of a master’s thesis is required. The Plan II MS non-thesis degree in Behavioral Neuroscience can be completed over the course of two semesters if full-time. Successful completion of the Plan II Behavioral Neuroscience MS degree will require passing 30 credit hours of coursework with a minimum grade of C in each class and a minimum 3.0 cumulative GPA.

Plan I (thesis) and Plan II (non-thesis) options will be available for students in the Behavioral Neuroscience MS program. Offering both Plan I and Plan II options will provide flexibility to meet the educational needs of individual students that have different career goals. We expect the majority of students to select the Plan I option. The Plan I option will benefit students who plan to pursue further education (e.g., PhD program) as well as other students who will enter the workforce in research-focused careers upon graduation. Students that are not pursuing research careers may choose either option. However, we expect some of these students will choose the Plan II option. The Plan II option will benefit students who want to develop their foundational knowledge of behavioral neuroscience, critically evaluate neuroscience literature, and effectively communicate neuroscience material, but who are not pursuing a career in which developing hands-on technical abilities with specific neuroscience methods/techniques is necessary. For example, students that want to pursue science or health care policy, science communication, clinical/health care, or teaching careers in small liberal arts or junior colleges may not need the same degree of direct research training in the use of laboratory-based methods and techniques.

Please indicate any prior education or work experience required for acceptance into the program:

Interested students will apply to the Behavioral Neuroscience MS program through the UAB Graduate School. Because of the interdisciplinary nature of Behavioral Neuroscience, students with diverse backgrounds in psychology, neuroscience, and biology are encouraged to apply. All students are expected to have undergraduate training in psychology, biology, physics, chemistry, and mathematics. Students not trained in one or more of these areas may be required to make up deficits after enrollment. Relevant research experience is advantageous and considered an important indication of the applicant's motivation and commitment to program goals. Qualified applicants will be invited for a personal interview. The admissions committee
will consider all applicant information in a holistic manner to select students who will be offered program admission.

Describe any other special admissions or curricular requirements for the program:

Students completing the Plan I Behavioral Neuroscience MS will be required to complete a thesis project.

Plan I Thesis Requirements

**Thesis Proposal:** Students will prepare a thesis proposal in an F31 NIH grant proposal format. The F31 format should include 1 page of specific aims and 6 pages of significance, innovation, and approach. Preliminary data can be included but is not required for the proposal. In addition, students can include a methods-based appendix to describe methods that do not fit within the F31 page limits.

Students will also schedule a proposal meeting where the student will present the background and proposed experiments to the Thesis Committee in a PowerPoint presentation. The committee will examine the proposal and will give feedback on the document and presentation regarding the appropriateness of the proposed experiments. The thesis committee is expected to evaluate and approve/disapprove each of the proposed projects.

**Thesis Defense**

Following completion of the proposed research, the full written document will be distributed to the Thesis Committee by the student. A **Public Defense** meeting will be scheduled during which the student will defend their thesis. The student will present a departmental colloquium, open to the public, and respond to questions from the general audience. The Thesis Committee and the student will then have a closed meeting in which the project and the area(s) of expertise of the student can be discussed more fully. The committee may recommend changes to the thesis document if necessary before the MS degree is awarded. Once all changes have been made to the document, a copy will be shared with the Graduate School and program director for placement in the student’s record.

Please complete the table below indicating all coursework for the proposed program, identifying any new courses developed for the program, along with courses associated with each option as applicable. Include the course number, and number of credits. Coursework listed should total the number of hours required to complete the program.

<table>
<thead>
<tr>
<th>Course Number and Title</th>
<th>Number of Credit Hours</th>
<th>* If New Course</th>
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<tr>
<td><strong>Required Program Courses = 8 hrs</strong></td>
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<tr>
<td>PY 653: Foundations of Behavioral Neuroscience</td>
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<td>PY 716: Introduction to Statistics</td>
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### Required Program Stats/Research Elective = 3-4 hrs
Selected from list below

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<td>PY 718</td>
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### 5 Required Program Electives = 18-19 hrs
Selected from list below

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<td>PY 687</td>
<td>Dynamics of Pain</td>
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<td>NBL 735</td>
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**Plan I (Thesis Option) requires an additional 12 credit hours of research lab-based work.**

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<td>PY 698</td>
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**Total Hours for MS with Non-Thesis Option**: 30

**Total Hours for MS with Thesis Option**: 42
## NEW ACADEMIC DEGREE PROGRAM PROPOSAL SUMMARY

**INSTITUTION:** University of Alabama at Birmingham

**PROGRAM:** Behavioral Neuroscience MS

| Select Level: | Doctorate |

### ESTIMATED "NEW" EXPENSES TO IMPLEMENT PROPOSED PROGRAM

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### "NEW" REVENUES AVAILABLE FOR PROGRAM SUPPORT

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### ENROLLMENT PROJECTIONS

Note: "New Enrollment Headcount" is defined as unduplicated counts across years.

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### DEGREE COMPLETION PROJECTIONS

Note: Do not count Lead "0"s and Lead 0 years in computing the average annual degree completions.

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