University Council

January 10, 2025

UNIVERSITY CURRICULUM COMMITTEE – 2024-2025
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Ex-Officio – Provost S. Jack Hu
Undergraduate Student Representative – Ella Colker
Graduate Student Representative – William Walker

Dear Colleagues:

The attached proposal from the Franklin College of Arts and Sciences to offer a major in Neuroscience (B.S.) will be an agenda item for the January 17, 2025, Full University Curriculum Committee meeting.

Sincerely,

Susan Sanchez, Chair

cc: Provost S. Jack Hu
Dr. Marisa Pagnattaro

UNIVERSITY SYSTEM OF GEORGIA

USG Academic Degree Program Application

Released

Updated Version: Summer 2023

Points of Contacts

Dr. Dana Nichols

Vice Chancellor for Academic Affairs

dana.nichols@usg.edu

Version Control

Date	***Changes***	***USG Approved date***	***Website update date***
7/15/2023	*Overview: Added Degree Acronym*	*7/31/2023*	*8/28/2023*
7/15/2023	*Overview: Changed 6-Digit CIP Code to 8_Digit CIP Code*	*7/31/2023*	*8/28/2023*
7/15/2023	*Chart #28 deleted to reduce redundancy.*	*7/31/2023*	*8/28/2023*
7/15/2023	*Minor grammatical edits for clarity*	*7/31/2023*	*8/28/2023*
7/15/2023	*Prompt #30 – Delivery Mode chart changed to match DMA*	*7/31/2023*	*8/28/2023*
12/1/2022	*Updated column title in Table 25 from "Experienced Salary" to "Future Potential Earnings"*	*12/1/2022*	*12/1/2022*
12/1/2022	*Corrected numbering*	*12/1/2022*	*12/1/2022*
12/1/2022	*Corrected footnote dates*	*12/1/2022*	*12/1/2022*
8/19/2022	*Attach as a WORD document only – no PDFs. Use Times New Roman 12pt. font.*	*8/19/2022*	*8/19/2022*
8/19/2022	*All questions are required for ALL degree levels.*	*8/19/2022*	*8/19/2022*
8/19/2022	*Some charts have been modified/deleted for consistency and to reduce redundancy.*	*8/19/2022*	*8/19/2022*
8/19/2022	*Signature page must be fully completed. Any addendums must be signed off by CBO.*	*8/19/2022*	*8/19/2022*
8/19/2022	*External Reviews for Doctoral Degrees are the responsibility of the Institution. See Prompt 30 for more information.*	*8/19/2022*	*8/19/2022*

USG Routing Only

- ☐ *Program was part of the Annual Academic Forecast*
- ☐ *This proposal requires USG integrated review*

USG ACADEMIC PROGRAM APPLICATION

A. OVERVIEW *To be completed as part of SharePoint Submission*

1. *Request ID: (SharePoint Generated unique ID)*

2. *Institution Name***:** University of Georgia

3. *USG Sector:* Research University

4. *School/Division/College:* Franklin College of Arts and Sciences

5. *Academic Department:* Cellular Biology and Psychology

6. *Degree Level:* Bachelor

7. *Proposed Program Name:* Bachelor of Science with a major in Neuroscience

8. *Major:* Neuroscience

9. *Degree Acronym:* B.S.

10. *CIP Code* **(***8 digit):* 26.150100
(Please use default (00) for the last 2-digit extension unless using same CIP code for similar institutional program.)

10. *Anticipated Implementation Semester and Year^***:** Fall 2025

11. *Was this program listed in the most recent Academic Forecast?*

☐ *Yes*

☒ *No (If no, explain why below)*

This program was not included in the Academic Forecast because it had not been approved through faculty governance.

12. Program Description **(**Provide a description of the program to be used in the Board of Regents meeting packet)**:**

The University of Georgia has offered a concentration in Neuroscience since 2012. This program has robust student demand, with approximately 800 students graduating with the concentration in Neuroscience between 2015 and 2024. The growth rate during this time has averaged 20%. Students in this program have expressed a strong preference for a comprehensive major in Neuroscience, and surveys conducted since 2015 of over 1,000 undergraduate students in STEM disciplines at the University of Georgia have documented the strong desire of students at UGA to have access to a major in Neuroscience rather than the existing concentration. As a result, the University is now proposing a major in Neuroscience under the Bachelor of Science degree. The proposed major in Neuroscience will expand upon the existing concentration to provide a more comprehensive foundation for this rapidly changing discipline.

The proposed major in Neuroscience strives to be top in the nation. Not only will it prepare students for success in a variety of related fields**,** but it will also promote the discovery of new ideas and methodologies related to this rapidly changing discipline. Neuroscience is an expansive discipline that spans genetic, molecular, cellular, electrophysiological, pharmacological, structural, systemic, developmental, cognitive, behavioral, and clinical levels of analysis. Neuroscientists study how neural systems support sensory, perceptual, motor, and cognitive capabilities across species, including humans. Neuroscience research provides fundamental knowledge about how nervous systems develop and sustain appropriate, flexible, and healthy behaviors, how disrupted neural systems cause disease, and mechanisms by which those disruptions can be effectively treated. Multiple academic disciplines within and outside the Franklin College of Arts and Sciences contribute to neuroscientific knowledge, including cellular, chemical, and molecular biology, computation and mathematics, engineering, genetics, linguistics, medicine, pharmacology, philosophy, physics, and psychology. As a result, the study of neuroscience is critical for persons pursuing many academic and nonacademic careers.

The Bachelor of Science (B.S.) in Neuroscience is an interdisciplinary academic program dedicated to the comprehensive study of the nervous system. The curriculum encompasses a wide spectrum of academic and scientific approaches, including those from molecular and cellular biology, electrophysiology, systems neuroscience, behavior and cognition, and computational modeling. Students engage in coursework in core areas such as biology, neurophysiology, cellular and molecular neurobiology, neurogenetics, developmental neurobiology, and clinical and cognitive neuroscience. The curriculum is designed to offer flexibility, enabling students to customize their academic pathway by selecting specialized courses that align with their specific interests. This approach prepares graduates for careers in research, academia, healthcare, and industry, equipping them with the knowledge and skills required to excel in a variety of professional and academic settings.

A major in neuroscience opens multiple avenues for students depending on their own unique interests, including industry and sales, especially in pharmaceuticals and health-related fields, education, and work with government agencies, especially those focused on public health issues. Neuromarketing, or consumer neuroscience, is another growing field that is seeking neuroscientists to understand consumer behavior and decision-making processes at a neurological level. Neuroscience is also becoming influential in disciplines such as health disparities, philosophy, economics, and law, as evidenced by the development of new sub-fields in neuroscience such as neuro-ethics, neuro-economics, and neuro-law. The National Institutes of Health has granted over 19 billion dollars for biomedical and molecular imaging since 2019, both of which are subcomponents of neuroimaging, reflecting the importance of neuroscience in modern clinical and academic medicine.

13. Accreditation^: Describe disciplinary accreditation requirements associated with the

program (if applicable, otherwise indicate not applicable).

Not applicable. There is currently no national accreditation agency that evaluates academic programs in neuroscience.

14. Specify **SACSCOC** or other accreditation organization requirements^.
Mark all that apply.

☐ Substantive change requiring notification only [1]
☐ Substantive change requiring approval prior to implementation [2]
☐ Level Change [3]
☒ None

B. STRATEGIC PLAN

15. How does the program align with the USG System Wide/Strategic Plan Context (within mission fit):

The Bachelor of Science (B.S.) in Neuroscience closely aligns with the goal of the University System of Georgia '*to be recognized as the best system of higher education in the United States as it advances the prosperity of individuals, the state of Georgia, and the nation through education, research, engagement, and innovation.'*

The proposed program exemplifies the University System of Georgia's commitment to providing an affordable, accessible, and high-quality education. The program capitalizes on existing investments in facilities and cutting-edge faculty research to provide students with an innovative, interdisciplinary education that will serve the needs of the state of Georgia and beyond.

With the proposed curriculum for the major in Neuroscience, the program strives to be ranked among the top neuroscience programs in the nation. Proposed new courses and enhanced existing courses will provide students with the career preparation and hands-on experience currently available at only a handful of institutions.

In support of the USG Community Impact goal to promote clear connections to in-demand careers in Georgia and beyond, two new career development courses will be mandatory for all students in the program. The first course, Neuroscience Careers Exploration, will introduce undergraduates to the diverse career opportunities within neuroscience. The course will cover various professional paths including research, clinical practice, industry roles, and academic positions. The second course, Neuroscience Career Development, is a capstone course that students must complete before graduation. In this course, students will present their undergraduate research in an academic conference-style symposium. Besides enhancing scientific research and communication skills, the course provides essential knowledge in career planning, job search strategies, networking, and professional development.

[1] See page 22 (Requiring Notification Only) of SACSCOC Substantive Change Policy and Procedures document.
[2] See page 17 (Requiring Approval Prior to Implementation) of SACSCOC Substantive Change Policy and Procedures document.
[3] See page 3 (Level Change Application) of SACSCOC Seeking Accreditation at a Higher or Lower Degree Level document for level change requirements.

Three new hands-on courses and one enhanced laboratory course will provide unparalleled opportunities for students to gain experience with modern equipment used in research and healthcare settings. This aligns closely with the Research Engagement initiative as part of USG's goal of Economic Competitiveness. These courses will also help students apply critical thinking skills in the collection and analysis of neuroscience data. Two of the new courses will leverage existing investments in state-of-the-art imaging facilities at the University of Georgia's BioImaging Research Center (BIRC). The enhanced laboratory course will integrate data recorders, amplifiers, and headstages suitable for conducting extracellular or intracellular recordings in neuroscience teaching laboratories with existing high-end electrophysiology equipment, microscopes, and other molecular and cellular research tools. Collectively, these new courses will equip students with a robust and cohesive knowledge base suitable for a wide range of careers in neuroscience. By providing students with a comprehensive skill set, the program will prepare graduates for a lifetime of impactful contributions at the state, national, and global levels.

16. How does the program align with your institutional mission and function^?
If the program does not align, provide a compelling rationale for the institution to offer the program.

"The University of Georgia shares with the other research universities of the University System of Georgia the following core characteristics:

- a statewide responsibility and commitment to excellence and academic achievements having national and international recognition;
- a commitment to excellence in a teaching/learning environment dedicated to serving a diverse and well-prepared student body, to promoting high levels of student achievement, and to providing appropriate academic support services;
- a commitment to excellence in research, scholarship, and creative endeavors that are focused on organized programs to create, maintain, and apply new knowledge and theories; that promote instructional quality and effectiveness; and that enhance institutionally relevant faculty qualifications"[4]

The proposed major in Neuroscience aligns with these University goals by creating a program that will prepare students for success in a variety of related fields and promote the discovery of new ideas and methodologies related to the rapidly changing discipline.

17. How does the program align with your institution's strategic plan and academic program portfolio? Identify the number of existing and new courses to be included in the program.

The three mission-centered strategic directions of the University of Georgia are:

1. Promoting Excellence in Teaching and Learning
2. Growing Research, Innovation, and Entrepreneurship
3. Strengthening Partnerships with Communities Across Georgia and the Around the World

The proposed major in Neuroscience would advance all three of these by leveraging 32 courses already approved or offered in the biological and psychological disciplines with six new courses. The six new courses will provide career preparation and hands-on laboratory experience that will develop both the intellectual and technical skills needed for post-graduate employment.
New Courses:

- NEUR 2500, Neuroscience Careers Exploration (1 hour)

[4] https://bulletin.uga.edu/bulletin_files/univ/mission.html

- NEUR 2800, Introduction to Neuroscience (3 hours)
- NEUR 3200, Advanced Human and Comparative Neuroanatomy (3 hours)
- NEUR 4600, Fundamentals of Neuroimaging (3 hours)
- NEUR 4700, Neuroimaging and Electrophysiology Data Analysis (3 hours)
- NEUR 4950, Career Development in Neuroscience (1 hour)

The major in Neuroscience aligns with the existing interdisciplinary Neuroscience (Ph.D.) program at the University of Georgia, which was first offered in 2006. This program has graduated nearly 100 students since its inception and maintains an annual enrollment of 25-30 students and receives approximately 200 applications per year.

C. NEED

18. To what extent does the program align with local, regional, and/or state talent demand or workforce strategies?

The field of neuroscience has seen significant growth over the past few decades, as evidenced first in the 1990s being dedicated as "the decade of the brain" by then President Bush. Since then, the need has only grown. With an aging population, the incidence of neurological disorders such as Alzheimer's and Parkinson's disease is on the rise, increasing the demand for neurologists and healthcare providers with expertise in neuroscience. The development of personalized medicine, based on genetic profiling, is further expected to increase the need for healthcare professionals trained in both neuroscience and genetics.

Advances in neuroimaging techniques are resulting in a greater demand for radiologists and technologists proficient in the latest technologies. Neuro-rehabilitation is another growing field within healthcare that requires the expertise of neuroscientists to develop and apply therapies and technologies to assist patients with neurological impairments.

In the tech industry, the demand for neuroscientists has risen steadily. Companies are exploring the potential of brain-computer interfaces (BCIs), which could revolutionize the way users engage with technology.

The breadth of neuroscience opens additional avenues for students depending on their own unique interests, including industry and sales, especially in pharmaceuticals and health-related fields, education, and work with government agencies, especially those focused on public health issues. Neuromarketing, or consumer neuroscience, is another growing field that is seeking neuroscientists to understand consumer behavior and decision-making processes at a neurological level. Neuroscience is also becoming influential in disciplines such as health disparities, philosophy, economics, and law, as evidenced by the development of new sub-fields in neuroscience such as neuro-ethics, neuro-economics, and neuro-law. The National Institutes of Health has granted over 19 billion dollars for biomedical and molecular imaging since 2019, both of which are subcomponents of neuroimaging, reflecting the importance of neuroscience in modern clinical and academic medicine.

The program is designed to serve the needs of the state of Georgia as well as the nation. According to the Bureau of Labor Statistics, the demand for neuroscientists and related professions is projected to grow an average of 6% nationally and 14% within the state of Georgia from 2018 to 2028. Neuroscience occupations are part of the healthcare and social assistance industry, which the Bureau of Labor Statistics projects to be the fastest growing industry over the next decade.

https://www.bls.gov/emp/images/industries.png

According to the U.S. Department of Labor O-Net statistics, the demand for neuroscientists and related professions is projected to grow an average of 6% nationally and 14% within the state of Georgia from 2018 to 2028.

BLS Code	BLS Description	Projected GA Growth %	Projected US Growth %	Annual Projected GA Job Openings
11-9121.01	Clinical Research Coordinators	6	5	90
19-1021	Biochemists and Biophysicists	10	7	30
19-1042	Medical Scientists, Except Epidemiologists	21	10	210
19-3039.02	Neuropsychologist	10	5	90
29-1217	Neurologists	18	7	18
29-1223	Psychiatrists	17	7	20
29-2011	Clinical Laboratory Technologists	18	5	1,010

Worldwide, a quantitative assessment of the growth rate in investment in the neuroscience market is projected at between 15% and 28% in molecular diagnostics, 5% to 9% in drug development, and 3% to 5% in behavioral therapy services. This growth is driven by an aging population and the increasing need for advancements in understanding of brain function and neurological disorders. These needs are extensive and span social, clinical, and basic scientific levels.[5]

19. Was this proposal and the design of the curriculum informed by talking with alumni, employers, and community representatives or other evidence of demand (e.g. employment sector trends, clearly defined

[5] (Deloitte Insights, Deloitte Development LLC: Segmentation and growth factors of the global neuroscience market (2023)

learner demand, complement to an existing program, meeting a persistent, new, or emerging demand for knowledge and innovation).

☐ *No*

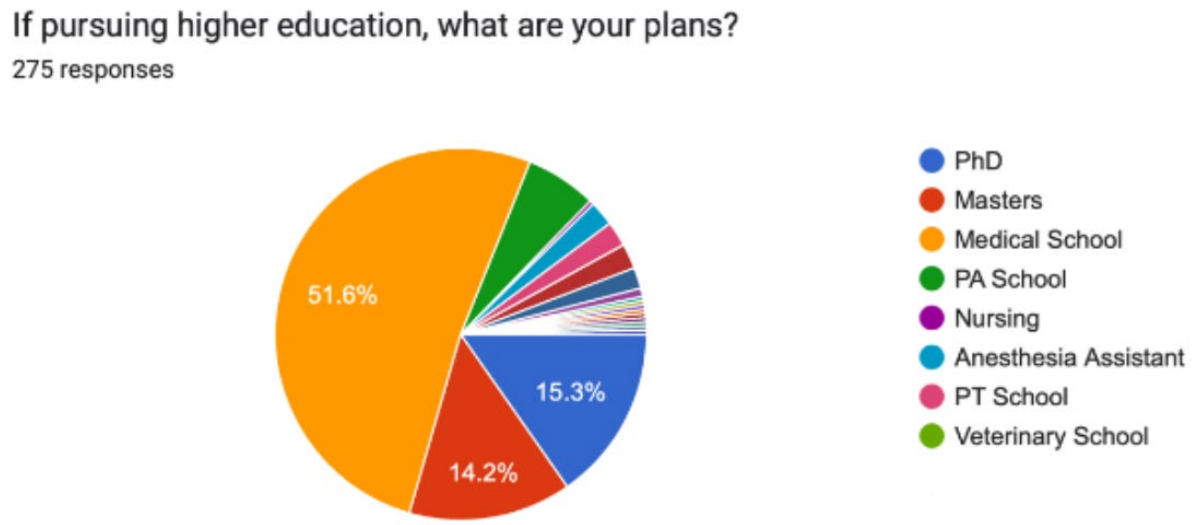
☒ *Yes (If yes, use the space below to explain how their input informed this proposal)*

The curriculum has been developed with input from employers, alumni, students, and professional organizations such as The Society for Neuroscience (SfN)**.** SfN is a nonprofit professional society for scientists and physicians who study the brain and nervous system and has nearly 35,000 members. This program includes professional development resources, career training, and curriculum development resources.

Neuroscience is currently offered as a concentration, known at UGA as an area of emphasis. The area of emphasis is in high demand with 431 students currently enrolled. From FY2015 to FY2024, nearly 800 students graduated with an Area of Emphasis in Neuroscience. The growth rate during this time has averaged 20%.

A survey of Undergraduate Neuroscience Organization (UNO) members at the University of Georgia was conducted in fall 2024, and similar surveys were conducted in 2019 and 2015. More than 90% of the 280 respondents in 2024 indicated they would be "interested" or "extremely interested" in majoring in Neuroscience if it were offered at the University of Georgia. Of respondents, 36% said they considered attending another institution because of their neuroscience major and many students indicated they were considering or planning to transfer to another institution to allow them to complete a major in neuroscience.

Of the 280 respondents in 2024, 97% plan to pursue additional education beyond the bachelor's degree: 52% plan to attend medical school, 30% plan to pursue a master's or doctoral program, and 18% plan to pursue various healthcare-related programs, such as physician's assistant, physical therapy, anesthesia assistant, or nursing programs.



The surveys conducted since 2015 of over 1,000 undergraduate students in STEM disciplines at the University of Georgia have documented the strong desire of students at UGA to have access to a major in Neuroscience rather than the existing area of emphasis**.**

20. Identify the partners you are working with to create a career pipeline with this program.^
Mark all that apply.

☐ High School CTAE	☒ Other USG institutions	☒ Professional associations
☐ High School STEM	☒ Other universities	☒ Other (specify below)
☐ Career academies	☒ Employers	
☐ TCSG programs	☒ Community partnerships	☐ None

Neuroscience is a versatile field with applications across various professions. The proposed neuroscience major curriculum was developed with input from alumni and other contacts in industry, academia, and professional organizations that focus on neuroscience. Ensuring that students possess the skills and training necessary to be successful in various neuroscience occupations will promote a robust career pipeline.

Three new courses are being added that will be required for all students. The first is an exposure course that surveys career opportunities in the field through team teaching and incorporates presentations from professionals across a wide range of occupations. The second is an introductory course that covers basic biological and behavioral topics in neuroscience. The third is a capstone-type class which requires presentation of research at a conference-style event, scientific communication (writing, speaking), and professional development (including relevant topics for optimizing career readiness).

Students who identify Neuroscience as a major interest and meet other academic qualifications are invited to join UGA's chapter of Nu Rho Psi, the only nationally-recognized honor society in the area of brain research. Primarily directed towards undergraduate students, Nu Rho Psi emphasizes undergraduate research, offering grants and awards to support student projects. Additionally, Nu Rho Psi organizes various events, including conferences, workshops, and seminars, to foster professional development and networking among its members. As part of this, Nu Rho Psi provided resource materials for courses on career development, teaching labs, and the new introductory course on neuroscience. The University of Georgia has been a member of Nu Rho Psi since 2015.

Neuroscience faculty in Cellular Biology and Psychology belong to professional organizations that foster student mentoring and networking opportunities. One such organization is the Society for Neuroscience (SfN), which plays a crucial role in fostering collaboration, education, and advocacy within the neuroscience community. In consultation with SfN staff, resources provided by SfN have been integrated into the proposed neuroscience major curriculum to ensure students receive a comprehensive education in the latest neuroscience research and techniques. SfN's career resources, such as job boards, mentoring programs, and professional development workshops, are being incorporated into two new career development courses to help students in the major prepare for careers in neuroscience. These resources provide guidance on career paths, resume building, and networking opportunities for students majoring in neuroscience at UGA. The Society for Neuroscience (SfN) also hosts a Job Board (https://neurojobs.sfn.org/careers/) as well as an annual conference that includes an interview booth for employers to meet with prospective candidates. The annual meeting also includes a graduate school fair to allow students planning to pursue careers requiring additional education to learn more about the different programs that are available.

Undergraduates of the major in Neuroscience at the University of Georgia will benefit from existing collaborations of neuroscience faculty within the state. One example is the Georgia Clinical and Translational Science Alliance (CTSA) which concentrates basic, translational, and clinical research investigators, community clinicians, professional societies, and industry collaborators in dynamic clinical and translational research projects. The Alliance is comprised of Emory University, Morehouse School of Medicine, Georgia Tech, and UGA, and was formed with grant funding from the National Center for Advancing Translational Sciences (https://ncats.nih.gov/) to improve the way biomedical research is conducted across the country. Undergraduates in the Neuroscience major will be able to participate in translational research in alignment with the Georgia CTSA.

21. Are there any competing or complementary programs at your own institution?

☐ *No*

☒ *Yes (If yes, provide additional information about the competing program(s) below***).**

The University of Georgia currently offers an Area of Emphasis in Neuroscience. The area of emphasis will be eliminated upon approval of the neuroscience major.

22. The program service area is used as the basis for labor market supply and demand analysis. What is the program's service area (local, regional, state, national)? If outside of the institution's traditional service area, provide a compelling rationale for the institution to offer the program. If the program's service area is a region within the state, include a map showing the counties in the defined region.

The program is designed to serve the needs of the state of Georgia as well as the nation. According to the Bureau of Labor Statistics, the demand for neuroscientists and related professions is projected to grow an average of 6% nationally and 14% within the state of Georgia from 2018 to 2028. This growth is driven by an aging population and the increasing need for advancements in understanding of brain function and neurological disorders. These needs are extensive and span social, clinical, and basic scientific levels.[6]

23. Do any other USG higher education institutions in close proximity or sector service area offer a **similar** program?

☐ *No* ☒ *Yes (If yes, provide a rationale for the institution to offer the program)*

Within the University System of Georgia, the Georgia Institute of Technology, Georgia State University, and Augusta University offer majors in Neuroscience. The supply of graduates from these institutions is substantially less than the 2,000 projected annual job openings in neuroscience occupations. The current annual total of graduates from Georgia institutions, both public and private, is roughly 400. Augusta University hasn't yet produced any graduates due to the recent introduction of their major, but even after accounting for their program, demand will greatly exceed supply**.**

The interdisciplinary nature of the UGA program is designed with flexibility to allow students to tailor their education to the rapidly expanding breadth of career options. The major in Neuroscience

[6] Rochon, C., et al. Quantitative Indicators of Continued Growth in Undergraduate Neuroscience Education in the US. 2019

The Department of Education National Center for Education Statistics (NCES; https://nces.ed.gov).
U.S. Bureau of Labor Statistics: Employment Projections 2023-2033

at the University of Georgia will address the exceptional growth in neuroscience occupations projected within the state of Georgia.

Undergraduates of the major in Neuroscience at the University of Georgia will benefit from existing collaborations of neuroscience faculty within the state. One example is the Georgia Clinical and Translational Science Alliance (Georgia CTSA) which concentrates basic, translational, and clinical research investigators, community clinicians, professional societies, and industry collaborators in dynamic clinical and translational research projects. The Alliance is comprised of Emory University, Morehouse School of Medicine, Georgia Tech, and UGA, and was formed with grant funding from the National Center for Advancing Translational Sciences (https://ncats.nih.gov/) to improve the way biomedical research is conducted across the country. Undergraduates in the Neuroscience major will be able to participate in translational research in alignment with the Georgia CTSA.

24. Using IPEDS data, list the supply of graduates in the program and related programs in the service area.

Similar or Related Degrees/Programs	CIP Code	Supply[1] (Graduates/Completers)	Competitor Institutions[2]
Neuroscience (B.S.)	26.1501	90	Georgia Institute of Technology
Neuroscience (B.S.)	26.1501	95	Georgia State University
Neuroscience (B.S.)	26.1501	0	Augusta University

[1] Supply = Number of program graduates last year within the study area
[2] Competitors = List other USG institutions that offer this program or a similar program in the area (see **Question 23**)

25. Based on the program's study area, what is the employment outlook for occupations related to the program. An Excel version of the CIP to SOC crosswalk is also available from NCES. If data for the study area is not available, then use state- or national-level data. Only list the jobs that are highly aligned and likely to be those for which you are preparing students and not every possibility.

Possible resources:

- Click **here** for US and Georgia occupation projections
- Click **here** for 2026 Georgia Department of Labor data projections for the State or Georgia Workforce Board Regions in Qlik (link to GDOL Projections); data is also available through the GDOL Labor Market Explore Website
- For a custom Georgia geography – request a Jobs EQ report from **USG Academic Affairs office.**
- Using data from ***O*-Net,*** identify the average salary for the related occupations identified in question.

Labor Market/Career Placement Outlook/Salary:

Occupation	O*Net[1]	Current Employment	% Growth	Average Salary (O-Net data)	Future Earnings Potential (O-Net data)
Clinical Research Coordinators	11-9121	1,190	6	$108,480	168,830
Biochemists and Biophysicists	19-1021	300	10	$60,460	126,370
Medical Scientists, Except Epidemiologists	19-1042	2,110	21	$89,730	154,490
Neuropsychologists	19-3039	1,180	10	$121,330	154,340

Neurologists	29-1217	240	18	239,200+	239,200+
Psychiatrists	29-1223	300	17	$239,200+	239,200+
Medical and Clinical Laboratory Technologists	29-2011	11,750	18	$60,780	90,170

[1]National Center for O*NET Development. *O*NET OnLine*. Retrieved September 2024 from https://www.onetonline.org/

26. Based on the data provided in questions **24** and **25**, discuss how this program will help address a need or gap in the labor market**?**
(Provide letters of support and explain the collaboration and how partners will share or contribute resources. Consider internal pipeline programs – "off-ramp programs," Nursing to integrated health, or MOUs for pathways with other USG institutions (pipelines – keep them in state for grad school if possible).

Based on data from O*-Net**,** projected job growth throughout the U.S. is high for careers in neuroscience and is even higher within the state of Georgia**.** The number of graduates from institutions within the state of Georgia is significantly below the need projected by O-Net. Given the growing influence of neuroscience on other disciplines such as philosophy, economics and law, there will likely be new occupational categories related to neuroscience in the future that aren't reflected in the current projections.

BLS Code	BLS Description	Projected Annual GA Job Openings
11-9121.01	Clinical Research Coordinators	90
19-1021	Biochemists and Biophysicists	30
19-1042	Medical Scientists, Except Epidemiologists	210
19-3039.02	Neuropsychologists	90
29-1217	Neurologists	18
29-1223	Psychiatrists	20
29-2011	Medical and Clinical Laboratory Technologists	1,010
	Total	**1,468**

27. Using data from ***O*-Net,*** identify the average salary for the related occupations identified in question 24. Then list at least three technical skills and three Knowledge, Skills and Abilities (KSAs) associated with the related occupations. This information can be found using at onetonline.org.

Occupation	SOC Code	Occupation specific technology skills & KSAs

Clinical Research Coordinators	11-9121	Analytical or scientific and database query software, reading comprehension, customer and personal service, deductive reasoning
Biochemists and Biophysicists	19-1021	Analytical or scientific and graphics software, critical thinking, scientific methods, reading comprehension, biology, chemistry
Medical Scientists, Except Epidemiologists	19-1042	Analytical or scientific and database query software, biology, chemistry, writing, active learning, science, inductive reasoning
Neuropsychologists	19-3039	Analytical or scientific and database query software, active listening, reading comprehension, critical thinking
Neurologists	29-1217	Medical software, active listening, complex problem solving, inductive and deductive reasoning
Psychiatrists	29-1223	Graphics and medical software, active listening, social perceptiveness, critical thinking, oral comprehension, oral expression
Medical and Clinical Laboratory Technologists	29-2011	Medical and office software, active listening, critical thinking, biology, written comprehension

Provide any additional comments, if needed:

28. Based on the data compiled and analyzed for this section (see Section C: Need), what is the job outlook for occupations filled by students with this degree?^

    The job outlook for students graduating with a major in neuroscience is high, both in terms of availability of jobs and earning potential. In addition to the careers listed above, many new career areas are emerging as the field of neuroscience matures. Projected job growth in Georgia for students majoring in neuroscience is much higher than projected for other parts of the country.

BLS Code	BLS Description	Projected GA Growth %	Projected US Growth %
11-9121.01	Clinical Research Coordinators	6	5
19-1021	Biochemists and Biophysicists	10	7
19-1042	Medical Scientists, Except Epidemiologists	21	10
19-3039.02	Neuropsychologists	10	5
29-1217	Neurologists	18	3
29-1223	Psychiatrists	17	7
29-2011	Clinical Laboratory Technologists	18	5

D. CURRICULUM

29. Enter the number of credit hours required to graduate and/or complete the program^

120

30. Are you requesting a credit hour requirement waiver (either below or above traditional credit hour length requirements as prescribed by the University System of Georgia**?** See section 2.3.5 (Degree Requirements) of the USG Board of Regents Policy Manual **here** for more information).

☒ *No*
☐ *Yes* (If yes, explain the rationale for the request in the space below)

31. Delivery Mode: related to SACSCOC accreditation, specify if the program format of the proposed program is a^:

	Format (Check 1)
X	On Campus
	On Campus AND Online
	Online
	Partially Online
	External
	Campus/Online/External
	On Campus & External

	Program Percentage
	<50%
	50-94%
X	95-100%
	Unknown

32. Is the program synchronous or asynchronous?[7] Mark one of the options below.

☐ Synchronous

The majority of courses are offered at scheduled, pre-determined times with students connecting to a virtual room or location and interacting with faculty and fellow students via web/video conferencing platform.

☐ Asynchronous

33. For **ALL** degree proposals, which **High Impact Practices**[8] (HIPs) will faculty embed into the program? Mark all that apply.

☐ Internships
☒ Common Intellectual Experiences
☐ Diversity/Global Learning
☐ ePortfolios
☒ Service Learning, Community Based Learning
☒ First-Year Experiences
☒ Undergraduate Research
☒ Capstone Courses and Projects
☐ Learning Communities
☒ Writing-Intensive Courses
☒ Collaborative Assignments and Projects

[81] Direct measures may include assessments, HIPs, exams, etc.
[8] See Kuh (2008). High-Impact Practices: What They Are, Who Has Access to Them, and Why They Matter. *Association of American Colleges and Universities*, *14*(3), 28-29).

34. For **ALL** degrees, discuss how **HIPs** will be embedded into the program? Your discussion should provide specific examples and include whether the HIP is required or an optional component. It should also indicate at what point the experience is offered or required.

    First-Year Experiences - Faculty in the Neuroscience program will offer First-Year Odyssey Seminar courses that emphasize various aspects of neuroscience.

    Common Intellectual Experiences – All students enrolled in the Neuroscience major will take the same core courses, as well as an exposure course that surveys career opportunities in the field through team teaching and presentations from professionals across a wide range of occupations. All students will also take an introductory course which covers basic biological and behavioral topics in neuroscience and a capstone class.

    Writing-Intensive Courses – All students in the Neuroscience major must take the capstone course which includes a writing component. Additionally, students are encouraged to complete an Undergraduate Research Thesis or Final Project. These courses aim to enhance students' writing competence and engagement by treating writing as a learning process. Students have several opportunities for constructive feedback and guidance on writing. Students are encouraged to revise their work based on feedback to improve their writing skills.

    Collaborative Assignments and Projects – Most of the undergraduate research projects discussed below will involve working with other undergraduate and graduate students, as well as post-doctoral scholars, research staff, and Principal Investigators.

    Service Learning, Community Based Learning – Neuroscience students will have the opportunity to volunteer for experiential learning opportunities on campus with one of the many community-based mental health organizations or complete a service learning class.

    Undergraduate Research – Hands-on research experiences as an undergraduate significantly enhance a student's prospects for graduate school, advanced academic and professional training programs, and securing a job after graduation. The proposed Neuroscience major addresses this need in two ways.

    First, the program offers four structured laboratory experiences designed to provide students with hands-on real-world research activities that will allow them to develop essential skills and gain valuable experience that they can then use in professional laboratories as part of a research opportunity or career as a research scientist.

    Second, all students in the Neuroscience major will be required to carry out at least three credit hours of neuroscience-related research under the direction of affiliated faculty member or an approved supervisor. Students are encouraged to complete an Undergraduate Research Thesis or Final Project.

    Capstone Courses and Projects – All Neuroscience students will complete a capstone course that focuses on the development of scientific research and communication skills. Students are also encouraged to complete an Undergraduate Research Thesis or Final Project. They will present their work during an academic conference-style symposium.

35. Does the program take advantage of any USG initiatives?

    Mark all that apply, and provide a letter of support from applicable initiatives' leadership.

[ ] eCampus [ ] Georgia Film Academy

[ ] FinTECH [ ] Other: Specifiy Initiative Here

36. List the learning outcomes for the program. Attach the curriculum map for the upper division or major curriculum.

Program learning outcomes:

1. Students will demonstrate a comprehensive understanding of the structure and function of the nervous system with a depth of knowledge to include the cellular/molecular and behavioral/cognitive perspectives.
2. Students will learn and apply laboratory skills relevant to neuroscience research, such as electrophysiology, imaging techniques, and cellular/molecular biology methods.
3. Students will apply their understanding of neuroscience to real-world situations.
4. Students will apply critical thinking and analytical skills to identify assumptions and relevant information to analyze a case or problem and identify potential solutions.
5. Students will demonstrate strong oral and written communication skills by presenting information clearly and effectively, both in written reports and oral presentations.

37. For **ALL** degree proposals, fill in the table below to demonstrate the link between the **learning outcomes** and NACE **career ready competencies**.

Insert more rows as needed.

Career Ready Competencies (NACE)	Student Learning Outcomes	Direct Measure (s)[1]
Critical Thinking/Problem Solving	Demonstrate the ability to consider, analyze, and evaluate information to develop and support sound conclusion(s).	Students will be evaluated on their ability to: (1) Make decisions and solve problems using sound, inclusive reasoning and judgment. (2) Gather and analyze information from diverse sources to fully understand a problem. (3) Proactively anticipate needs and prioritize action steps. (4) Assess the accuracy in summarizing and interpreting data, while being aware of personal biases that may impact outcomes. These measures will be observed in courses, especially experiential and laboratory offerings, through methods including performance tasks, case studies, and real-world problem-solving.
Analytical Thinking	Demonstrate the ability to reason, interpret, analyze, and solve	Students will be evaluated on specific behaviors and skills that demonstrate a student's ability to

	problems from a wide array of authentic contexts.	analyze information and solve problems effectively, including: (1) How well a student gathers and analyzes information from diverse sources to understand a problem. (2) The ability of a student to use logical reasoning to make decisions and solve problems. (3) Assess accuracy in summarizing and interpreting data, while being aware of personal biases that may impact outcomes. (4) Assess how proactively a student anticipates needs and prioritizes action steps. These measures will be observed in courses, especially experiential and laboratory offerings, through methods including performance tasks, case studies, and real-world problem-solving.
Oral/Written Communications	Demonstrate the ability to assimilate, interpret, and analyze the content of written information from various disciplines. Students will be able to compose and present information in oral or written form that is stylistically appropriate for various academic and/or professional contexts.	Direct measures of this competency include: (1) Presentations: Evaluating the clarity, organization, and delivery of oral presentations. (2) Written Reports: Assessing the structure, coherence, and effectiveness of written communication. (3) Peer Reviews: Collecting feedback from peers on communication effectiveness in group projects.
Team Work/ Collaboration	Demonstrate an ability to foster a constructive team environment, using mature interpersonal skills, to effectively work with others toward a common goal.	Direct measures of this competency include: **(**1**)** Group Projects: Evaluating the effectiveness of collaboration and contribution in team-based assignments. **(**2**)** Peer Evaluations: Collecting feedback from team members on an individual's ability to work collaboratively. **(**3**)** Conflict Resolution: Assessing how well an individual manages and resolves conflicts within a team.

		(4) Team Presentations: Observing the coordination and collective effort in delivering a group presentation.
Digital Technology	Utilize common digital tools such as spreadsheets, presentation tools, and data analysis tools.	Direct measures of this competency include: (1) Technical Assessments: Evaluating proficiency in specific software, tools, or programming languages through tests or practical tasks. (2) Project Work: Assessing the use of digital tools and technologies in completing projects, including the ability to choose appropriate technologies and apply them effectively. (3) Digital Portfolios: Reviewing digital portfolios that showcase an individual's work, demonstrating their ability to use various technologies as applied to analyzing complex or multidimensional neuroscience related datasets (4) Simulations: Using simulations or role-playing scenarios to evaluate how individuals adapt to new and emerging technologies. (5) Performance Reviews: Gathering feedback from instructors or peers on the effective use of digital tools to analyze data.
Leadership	Demonstrate the capacity to engage in the relational process of optimizing personal and collective strengths toward a common goal. Perform effectively as a leader in an interdisciplinary team	Direct measures of this competency include: (1) Leadership Projects: Evaluating the effectiveness of leading a project or initiative, including planning, execution, and outcomes. (2) 360-Degree Feedback: Collecting comprehensive feedback from peers and instructors on leadership behaviors and effectiveness. (3) Self-Assessments: Using tools like the Leadership Practices Inventory (LPI) to self-evaluate

		leadership skills and identify areas for improvement.
Professionalism/ Work Ethic	Demonstrate the ability to understand ethical behavior in social applications, apply societal ethics to scientific inquiry, and explain how ethical principles provide justification for standards of conduct.	Direct measures of this competency include: (1) Performance Reviews of Projects**:** Students will be evaluated on punctuality, reliability, and productivity in experiential and laboratory settings**.** (2) Self-Assessments: Using tools like the Professionalism Self-Assessment to reflect on and improve work habits and behaviors. **(**3**)** Peer Feedback: Collecting feedback from peers on professional behavior and work ethic. (4) Observation: Instructors observing and noting professional conduct, such as adherence to dress codes and workplace etiquette of students **(**5**)** Project Management: Assessing the student's ability to manage time and workload effectively through the completion of projects and tasks.
Career Management	Understand the breadth of career options and required education and skill required in relevant areas of interest	Direct measures of this competency include: (1) Career Development Plans: Evaluating the creation and execution of personal career development plans, including setting goals and identifying steps to achieve them. **(**2**)** Self-Assessments: Using tools like the Career Management Self-Assessment to reflect on career goals, strengths, and areas for improvement. **(**3**)** Mentorship Feedback: Collecting feedback from mentors on career planning and progress. **(**4**)** Networking Activities: Assessing participation in networking events, professional associations, and other career-building activities.

Global/Intercultural Fluency	Demonstrate an understanding of the complexity of elements important to members of another culture, outside the U.S., in relation to its history, values, politics, communication styles, economy, or beliefs and practices	Direct measures of this competency include: (1) Evaluating performance in projects that require collaboration with individuals from diverse backgrounds. **(**2**)** 360-Degree Feedback**:** Collecting feedback from team members and instructors on an individual's ability to work inclusively.

38. How will outcomes for graduates of the program be assessed?
*(Outcomes may include employment and placement rates, student or employer surveys, or other assessments of graduate outcomes***)**

Neuroscience Advisory Committee: An advisory committee will be formed to proactively assess the program and consider best practices in creation, adoption, and approval of new courses.

Alumni Survey: Neuroscience alumni will be asked to complete a survey every 3 years that assesses their post-baccalaureate education and employment. It will also inquire about the area of neuroscience they've pursued, which courses or activities they consider to be the most valuable, and which could be improved or modified. The Neuroscience Advisory Committee will collect the survey responses and the department heads will tabulate the results and report them to the faculty at the annual faculty meeting. This is an indirect assessment of all learning outcomes.

39. List the entire course of study required to complete the academic program**.**

- Include course**:** prefixes, numbers, titles, and credit hour requirements
- Indicate the word "new" beside new courses
- Include a program of study

Required Courses (20-23 hours):

Neuroscience (5 hours)
NEUR 2500, Neuroscience Careers Exploration (1 hour) **- NEW**
NEUR 2800**,** Introduction to Neuroscience (3 hours) **- NEW**
NEUR 4950, Neuroscience Career Development (1 hour) **- NEW**

Cellular Biology (8-11 hours)
CBIO 3800, Neurobiology (4 hours)
CBIO 4980, Research in Cellular Biology (3-6 hours)
CBIO 4990, Fourth-Year Seminar in Cellular Biology (1 hour)

Genetics (4 hours)
GENE 3200-3200D, Genetics (4 hours)

Psychology (3 hours)

PSYC 4140, Cognitive Neuroscience (3 hours)

Elective Courses (minimum of 9 hours)
Select a minimum of 9 hours from the following:
ANTH 4790/6790, Human Adaptation (3 hours)
BCMB 3100, Introductory Biochemistry and Molecular Biology (4 hours)
BCMB 4120/6120, Human Biochemistry and Disease (4 hours)
BCMB 4130, Human Biochemistry II (4 hours)
BCMB 4130H, Human Biochemistry II (Honors) (4 hours)
BIOL 3110L, Basic Skills in the Laboratory (4 hours)
CBIO 3000-3000L, Comparative Vertebrate Anatomy (4 hours)
CBIO 3010-3010L, Functional Human Anatomy (4 hours)
CBIO 3200L, Medical Anatomy (1-3 hours)
CBIO 3400, Cell Biology (4 hours)
CBIO 3410L, Laboratory in Cellular and Developmental Biology (4 hours)
CBIO 3600, Developmental Biology (4 hours)
CBIO 3800L, Neurobiology Laboratory (2 hours)
CBIO 4200, Biomedical Research in Health and Disease (3 hours)
CBIO 4730/6730**,** Endocrinology (3 hours)
CBIO(CSCI) 4835/6835, Introduction to Computational Biology (3 hours)
GENE(CBIO**)** 4310, Genetic Approaches to Developmental Neuroscience (3 hours)
GENE 4500/6500, Human Genetics (3 hours)
NEUR 3200, Advanced Human and Comparative Neuroanatomy (3 hours) **- NEW**
NEUR 4600, Fundamental Neuroimaging (3 hours) **- NEW**
NEUR 4700, Neuroimaging and Electrophysiology Data Analysis (3 hours) **- NEW**
PSYC 3230, Psychopathology (3 hours)
PSYC 3810, Psychology of Health (3 hours)
PSYC 4120, Sensation and Perception (3 hours)
PSYC 4130, Physiological and Comparative Psychology (3 hours)
PSYC 4150, Biological Foundations of Health Psychology (3 hours)
PSYC(GRNT) 4700/6700, Psychology of Aging (3 hours)
PSYC 5770/7770, Organization of Primate Social Groups (3 hours)
PSYC 5850, Psychopharmacology – Drugs and Behavior (3 hours)

General Electives (28-31 hours)
Upper Division General Electives: 14 hours
Any Level General Electives: 14-17 hours

E. IMPLEMENTATION

40. Provide an enrollment projection for the next four academic years^

	Year 1	Year 2	Year 3	Year 4
Fiscal Year (Fall to Summer)	2025-26	2026-27	2027-28	2028-29
Base enrollment[1]		360	375	380
Lost to Attrition (should be negative)		-15	-15	-15

New to the institution	110	120	140	150
Shifted from Other programs within your institution	350	20	0	0
Total Enrollment	460	485	500	515
Graduates	-100	-110	-120	-125
Carry forward base enrollment for next year	360	375	380	390

[1]Total enrollment for year 1 becomes the base enrollment for year 2

a. Discuss the assumptions informing your enrollment estimates (i.e. for example, you may highlight anticipated recruiting targets and markets, if and how program implementation will shift enrollment from other programs at the institution, etc.)

The proposed major in Neuroscience, currently offered as an area of emphasis, is in high demand. At the University of Georgia, 431 students are currently enrolled in the Area of Emphasis in Neuroscience. In a recent survey, 91% of students currently enrolled indicated they would prefer to major in Neuroscience if it were offered. From FY2015 to FY2024, approximately 800 students graduated from the University of Georgia with an Area of Emphasis in Neuroscience. The Area of Emphasis in Neuroscience has exhibited a sustained growth rate of about 20% since its inception. Surveys conducted annually since 2015 of over 3,000 undergraduate students in STEM disciplines at the University of Georgia have documented the strong desire among students at UGA for access to a major in Neuroscience rather than an area of emphasis. The net impact on current majors is expected to be low. The majority of Neuroscience majors are expected to transfer from the Biology and Psychology majors, both of which typically enroll over 2000 students per year. It is anticipated approximately 10% of these 4,000 students will either switch to Neuroscience or double major with one of these existing majors.

The demand for a major in Neuroscience is not only high at the University of Georgia, but also in the state of Georgia and nationally among undergraduate students. Over the past five years, the number of Bachelor of Science (B.S.) degrees in Neuroscience awarded in the United States has been increasing by about 9% per year.[9] This growth is a testament to the interdisciplinary nature of neuroscience, which combines elements of biology, psychology, philosophy, chemistry, and physics, making it an attractive option for students interested in understanding the brain and nervous system. The high interest in neuroscience is driven by the current and projected job outlook for people majoring in neuroscience. Collectively, these metrics indicate enrollment in a neuroscience major at the University of Georgia will be robust in the foreseeable future.

b. If projections are significantly different from enrollment growth for the institution overall, please explain.

N/A

[9] The Department of Education National Center for Education Statistics (NCES; https://nces.ed.gov).

41. If projected program enrollment is not realized in year two, what actions are you prepared to take?

    If projected program enrollment is not realized in year two, the program will elevate the visibility of the program using social media, engage in targeted recruitment of high schools within the state of Georgia, and engage in targeted recruitment of transfer students. However, the likelihood of low enrollment in the program is judged to be very low based on current metrics from the neuroscience emphasis program and estimates of demand within prospective students.

42. Discuss the marketing and recruitment plan for the program. Include how the program will be marketed to adult learners and underrepresented and special populations of students**.** What resources have been budgeted for marketing the new program?

    An Advisory Committee will be formed and, in consultation with the Department Heads of Psychology and Cellular Biology**,** will provide suggestions and materials for marketing and recruitment for the program**.** The program will be marketed using social media and through engagement with high-schools and smaller institutions of higher learning in Georgia and surrounding states that do not offer neuroscience research opportunities.

43. Provide a brief marketing description for the program that can be used on the Georgia **OnMyLine website.**

    Neuroscience (B.S.) at the University of Georgia offers an interdisciplinary approach to understanding the complexities of the brain and nervous system. This program integrates knowledge from biology, psychology, and chemistry to provide a comprehensive education in neuroscience. Students will explore topics such as neural development, brain function, behavior, and neurological disorders through a combination of coursework, laboratory research, and hands-on experiences. With access to state-of-the-art facilities and opportunities for collaborative research, graduates will be well-prepared for careers in healthcare, research, biotechnology, and beyond. Join us at UGA to embark on a journey of discovery and innovation in the fascinating field of neuroscience**!**

44. If this proposal is for a Doctorate program, provide information below for at least three external and one USG reviewer of aspirational or comparative peer programs**.**

    Not Applicable

F. RESOURCES

F1. Finance^: Complete and submit the Excel budget forms and the questions below

(*Do <u>not</u> cut and paste in the excel budget template into this document, submit the Excel budget templates separately.)*

45. Are you requesting a differential tuition rate for this program? (masters, doctoral, and professional programs only)

    ☒ No (Move to answer question 46**)**

    ☐ Yes (If yes, answer questions 45a & 45b**)**

a. What is the differential rate being requested? The rate below should reflect the core tuition plus the differential, i.e. the tuition rate being advertised to the student.
In-State per Semester: $Enter Amount
Out-of-State per Semester: $Enter Amount

b. Provide tuition and mandatory fee rates assessed by competitive/peer programs per full-time student per semester. Please complete the table below:

Institution name	Link to institution's tuition & fee website	In-state tuition	Out-of-state tuition	In-state fees	Out-of-state fees

46. If existing funds are being reallocated, describe the impact on existing programs and the plan to mitigate these impacts.

Reallocation of funds will be managed by the college. With support from the Presidential Hiring Initiative, Franklin College of Arts and Sciences authorized four new positions in neuroscience with a start date of August 1, 2025. This includes two new faculty in Psychology (Assistant and Associate Professors) and two in Cellular Biology (Associate Professor and Professor). These positions enable Franklin College of Arts and Sciences to offer eighteen additional course credits (e.g., six, three-credit courses) each year. Thus, relatively few resources will need to be reallocated to implement these courses. Specifically, six new courses are proposed: four 3-credit courses and two 1-credit courses. The planned course schedule for these courses means that at steady state, 22 credits in new courses will be offered each year. To make up for the four credits that cannot be covered in load by the four new hires described above, Cellular Biology and Psychology will each allocate two credit hours per year to existing faculty. There is capacity in both departments to absorb these two additional credits with current faculty.

47. If student fees are being charged (excluding mandatory fees), explain the cost and benefit to students**,** per fee.

Not Applicable

48. Are there any additional financial costs that students will have to take on as part of this program, but not assessed directly by the institution**?** (e.g. software licenses, equipment, travel, etc.) If so, please describe these costs and what strategies you have considered to decrease the student's financial burden?

Not Applicable

49. How does the institution plan for and fund increased indirect costs associated with the growth in students anticipated in the proposed program? Consider costs such as student advisement, student support services, tutoring, career services, additional library materials, technology, or other infrastructure.

    An Undergraduate Coordinator Assistant is included in the budget to help manage the increased advising load, ensuring that each student receives timely and personalized guidance on course selection, career planning, and academic progress.

F2. Faculty^ – Explain your faculty and staff plan for the program

50. Discuss how existing courses may be incorporated into this new program:

    a. Course Development

# of total courses in the curriculum:	**38**
# of existing courses to be part of the new program	**32**
Net number of new courses to be developed	**6**

    Seven of the 38 courses are required while the rest are available as elective options. Three of the required courses and three of the elective courses are new.

    b. Comment on the costs and workload related to the new course development.

    Course development for four of six new courses was performed as part of the major proposal development. The two new courses in imaging data collection and analysis will be developed by existing faculty and new faculty hires in collaboration with the Neuroscience Advisory Committee.

51. Explain how **current faculty and staff** will contribute to the program**.**^

    a. How many faculty will be re-directed to this program from existing programs?

    Enter # 0

    The program transforms the existing area of emphasis in Neuroscience, which has been offered since 2015, into an independent major. Faculty that currently participate in the area of emphasis will shift to the major.

    The six new courses created for the Neuroscience major will be taught by two new faculty members and by existing faculty whose classes will be phased out as part of curriculum revisions to better align with current student demand and educational needs**.**

    b. If this program is approved, what will be the new teaching load and distribution of time for the current faculty members? How will existing staff be impacted?

    The teaching load and distribution of time for current faculty members in the area of emphasis are expected to remain the same as they transition to the major. All but six of the major courses are currently offered and taught by existing faculty. The six new courses will be taught by two new faculty members and by faculty with classes that will be terminated as part of curriculum revisions.

An impact on existing staff is expected, particularly those responsible for advising. To effectively manage the increased workload and ensure that students receive the necessary support and guidance, The Franklin College of Arts and Sciences will work with the departments to ensure adequate resources for academic advising are available to support the Neuroscience major.

c. List the faculty that will be redirected from their current teaching load assignments to support this new program

One faculty member from Cellular Biology will be redirected to support the new program. Dr. Oshri Ovraham, who conducts neuroscience research, will switch from teaching Cellular Biology (CBIO 3400) to teaching a new Introductory Neuroscience course, and a newly hired faculty member in the department will be assigned to teach CBIO 3400.

d. Explain who will be teaching the existing courses that are being released so faculty can teach a new program course. Additionally, please discuss the fiscal implications associated with course releases and redirections of faculty.

No course releases are needed. All except for six of the major courses are currently offered and taught by existing faculty. The six new courses proposed as part of the Neuroscience major will be taught by a combination of existing faculty and two new faculty hires. The existing faculty teaching new courses will be those whose current courses are being terminated.

e. What costs are included in your budget for course development? (Consider professional development, course development time buy out, overload pay, and re-training**).**

No professional development, course development time buy out, overload pay, or re-training costs are associated with the development of the new courses proposed as part of the major.

f. Attach your SACSCOC roster for the proposed program. Include in parentheses the individual with administrative responsibility for the program and whether listed positions are projected new hires and/or currently vacant.

52. Explain your plan for <u>new</u> faculty and staff for the program:

In July 2024, the Franklin College of Arts and Sciences authorized searches for two new neuroscience faculty: an Associate Professor/Professor in Molecular Neuroscience in the Cellular Biology department and an Assistant Professor in Aging and Mental Health/Neuroscience in Psychology. Both positions are part of the Presidential Hiring Initiative managed by the Provost's office. The college requested these searches to solidify the commitment to neuroscience as a strategic research and academic area, and the work must be multidisciplinary to fully capture the range of the discipline. These two additive faculty positions will provide capacity for the department to develop and teach the new courses proposed here.

53. How many new staff will be needed for this program over the next four years?

1

a. Discuss why new or additional staff resources are needed. Consider staff needs, support services (i.e. advisement, faculty support, etc.)

As this program is overseen by two departments, it will be managed by a curriculum committee composed of faculty from the Departments of Psychology and Cellular Biology. An Undergraduate Coordinator Assistant will be hired to ensure efficient coordination and management of the program between the two departments, including student advisement.

F3. Facilities – complete the questions below

54. Where will the program be offered?^ Mark all that apply

☒ Main campus

☐ Satellite campus**:** Specify Here

☐ Other**:** Specify Here

☐ 100% Online

If the program is 100% online and will use only existing faculty, remaining facilities questions can be skipped.

55. Complete the table below. Specify if these spaces are existing or new in the table below.^ If new, provide the semester and year of completion.

Space	New Space (ASF)	Use Existing Space (as is) (ASF)	Use Existing Space (Renovated) (ASF)	Semester/ Year of Occupancy
Dry Labs (STEM related)		X		
Wet Labs (STEM related)		X		
Dedicated Offices		X		
Fine Arts Spaces[1]				
Classrooms		X		
Meeting Rooms		X		
Student Study Space		X		
Other (Specify)				

[1]Fine arts spaces can include theatres, recital halls, visual arts studios, performing arts centers, recording studios, design labs, and other performance venues.

56. If the anticipated program includes labs or "other" specialized spaces, please describe specific requirements for these rooms, including equipment.

The laboratory spaces already used by the Department of Cellular Biology will be utilized for this program as well. The existing and proposed anatomy and physiology labs will be taught in laboratory space appropriate for handling cadavers.

57. What building(s) will be used to accommodate these programs? Please indicate specific building areas or room numbers where possible. If new construction, leasing, or land acquisition is required, please describe those plans.

The proposed Neuroscience major will use the same facilities as those of the existing neuroscience emphasis. Courses associated with the neuroscience area of emphasis are currently taught in the following buildings: Biological Sciences; newly renovated space in the old Chemistry Building; Psychology; Life Sciences; the Science Learning Center; and the Paul D. Coverdell Center.

58. What is the anticipated cost of facilities investments necessary during the first 4 years of the program? What is the planned funding source for initial facilities needs?

There is no anticipated cost of facilities investments; the program will use the same facilities as those of the existing neuroscience emphasis.

F4. Technology

59. Identify any major equipment or technology integral to program start-up and operations. List any equipment or assets over $5,000 (cumulative per asset) needed to start-up and run the program (insert rows as needed)

Technology and Equipment	Start-up Costs	On-going Costs	Est. Start Date of Operations/Use
Amplifiers and Headstages x 5	15,000		Fall 2025
96 Terabyte Data Storage RAID	8,000		Spring 2028
Neural mage data acquisition and analysis		20,000	Spring 2028
Total Technology Costs	**23,000**	**20,000**	

The proposed new lab courses will provide students real-world, practical experience with the sophisticated instrumentation used in careers that span various fields in healthcare, research, and industry. The start-up costs will be spread over the first three years of the major and will be covered by the following:

- Franklin College of Arts and Sciences will cover the start-up costs of the amplifiers and headstages.
- The costs of the RAID storage and neural image and data acquisition and analysis software modules will be funded through a combination of funding sources, including external funds.
- On-going costs will be managed through a combination of standard lab fees and other funding sources.

G. RISKS AND ASSUMPTIONS

60. In the table below, list any risks to the program's implementation over the next four years. For each risk, identify the severity (low, medium, high), probability of occurrence (low, medium, high), and the institution's mitigation strategy for each risk**.** Insert additional rows as needed. (e.g. Are faculty available for the cost and time frame).

Risk	Severity	Probability	Risk Mitigation Strategy
Low enrollment	high	low	Targeted marketing campaigns to attract students
Reputation	moderate	low	Stakeholder Engagement: Involve faculty, industry experts, and potential employers in the development of the curriculum to ensure it meets academic and industry standards
Operational challenges	moderate	low	Continuous Evaluation and Feedback: Implement a system for continuous evaluation and feedback from students, faculty, and staff

61. List any assumptions being made for this program to launch and be successful **(**e.g. SACSCOC accreditation request is approved, etc.)**.**

H. INSTITUTION APPROVAL

Have you completed and submitted the signature page?

Documentation of Approval and Notification

Proposal: Neuroscience (B.S.)

College: Franklin College of Arts and Sciences

Departments: Cellular Biology; Psychology

Proposed Effective Term: Fall 2025

School/College:

- Department of Cellular Biology Department Head, Dr. James Lauderdale, 9/18/2024
- Department of Psychology Department Head, Dr. Jennifer McDowell, 9/18/2024
- Franklin College of Arts and Sciences Associate Dean, Dr. Paula Lemons, 10/18/2024