The University of Georgia Interdisciplinary Neuroscience Program GRADUATE STUDENT HANDBOOK

Revised August 2021

TABLE OF CONTENTS

Introduction	3
Neuroscience Program Resources	4
University Resources	5
Neuroscience Program Graduate Office	8
Expectations of Graduate Students	9
Admission into the Interdisciplinary Neuroscience Program	10
Direct Ph.D. Admission & Requirements	11
Financial Support	12
Ph.D. Program of Study Requirements	14
Ph.D. Program Enrollment Requirements & Time Limits	
Selection of Major Professor	22
Selection of Ph.D. Advisory Committee	23
Ph.D. Program of Study Approval	25
Comprehensive Exam & Admission to Candidacy	26
Graduation	
Dissertation Defense	31

INTRODUCTION

This **University of Georgia Interdisciplinary Neuroscience Graduate Student Handbook** provides details of our graduate programs and presents guidelines for completing degree requirements. It also describes some of the operational aspects of the programs that will be of value to students as they proceed through their programs.

This **Graduate Handbook** does not replace or supersede the **Graduate Bulletin** (<u>http://grad.uga.edu/index.php/current-students/policies-procedures/graduate-bulletin/graduate-bulletin-a-c/</u>) issued by the University of Georgia, and it should be viewed as a supplement to the material in the catalog. In the event of a conflict between this handbook and the Graduate Bulletin, the Graduate Bulletin shall prevail.

It cannot be overemphasized how important it is that all students completely familiarize themselves with all Graduate School, program requirements and milestones as well as information pertaining to the student's program of study. Although we strongly encourage students to seek advice from their Major Professors, Graduate Directors, and the Neuroscience Program Office regarding degree requirements, it is ultimately the student's responsibility to meet the rules and regulations for degree completion.

NEUROSCIENCE PROGRAM RESOURCES

Building/Maintenance Requests

Report issues with buildings and maintenance to your direct supervisor or major professor.

Desks/Workspaces

Contact your direct supervisor or major professor to request an assigned workspace.

Faculty Directory

The Program's online faculty directory may be accessed at <u>https://neuroscience.uga.edu/people/program-faculty-m-2/</u>.

Human Resources

Contact the Human Resources Officer of your major professor if you have questions about your employment or need assistance with your I-9 forms.

Instructional Technology

For assistance regarding IT issues, please submit a work request via the form here: <u>https://ugaovpr.atlassian.net/servicedesk/customer/portal/1</u>

Keys

Contact your direct supervisor or major professor to request keys and/or access to university facilities.

Payroll

Contact the Business Office of your major professor if you have questions or issues with payroll.

Purchasing and Reimbursement Requests

Contact one of the administrative professionals of your major professor for help with purchasing and reimbursement requests.

For purchases or reimbursements made through the Neuroscience Program Office, please contact either Barry Coleman, <u>ccole@uga.edu</u> or Adriana Copley, <u>adriana.copley@uga.edu</u> for assistance.

UNIVERSITY RESOURCES

Athena

Athena (<u>https://athena.uga.edu</u>) is the online portal to the student information system application. It allows students to view course schedules, register for courses, view or update student records, check holds, view financial aid information, and much more.

Bursar's Office

The Bursar and Treasury Services Division (<u>www.busfin.uga.edu/</u>) is comprised of Accounts Receivable, Bursar and Treasury Services, and Student Account Services. These departments provide assistance regarding tuition and fees, payment plans and deadlines, taxes, and other student account services.

Counseling & Psychiatric Services (CAPS)

CAPS is dedicated to student mental health and wellbeing. They support students in achieving both academic and personal life goals. CAPS is committed to providing high quality, affordable, and confidential services to UGA students and their eligible partners. See www.uhs.uga.edu/caps/welcome or call 706-542-2273 for more information.

Disability Resource Center

Graduate students with disabilities requesting accommodations and services should contact the Disability Resources Center (<u>www.drc.uga.edu</u> or 706-542-8719) to discuss specific needs.

Graduate School

The Graduate School coordinates the graduate programs of all schools and colleges of the University. Resources for continuing students (including the Graduate Bulletin, important dates, and deadlines, and required forms) are housed on their website at <u>www.grad.uga.edu</u>.

Information Technology

UGA's Enterprise Information Technology Services (EITS) is the central IT department at the University. EITS manages key technology systems and services on campus, such as UGAMail, Athena and eLearning Commons (eLC). Contact the EITS Help Desk at helpdesk@uga.edu or 706-542-3106 for assistance.

The EITS Help Desk's website (<u>www.eits.uga.edu/</u>) features detailed information on how to reset your UGA MyID password and configure your UGAMail account for your phone, as well as provides answers to other top questions. The UGA Student Technology Guide and New Student Tech Checklist is housed on the EITS website at <u>www.eits.uga.edu/support/new_to_campus</u>.

International Student Life (ISL)

The department of International Student Life (<u>www.isl.uga.edu</u>) enhances the student-learning environment through programs and services that internationalize the campus experience. ISL organizes an international student orientation for new students. The program includes information concerning immigration issues, taxes for non-residents, cross-cultural adjustment, housing assistance, course registration procedures, Social Security Cards, UGA payroll, and campus tours. A helpful Resource Guide for new international students is shared on their website at <u>www.isl.uga.edu/content_page/international-student-resources-content-page</u>.

Office of the Registrar

The Registrar's Office supports the academic mission of the University by providing services such as student transcripts, letters of certification, graduation clearance, diploma printing, residency classification, course scheduling, grading, re-admittance to the University, tuition waivers, FERPA, University governance, Veteran's Education Benefits, and general academic information. See www.reg.uga.edu for more information.

University Health Center

The Health Center (<u>www.uhs.uga.edu</u>) advances the wellbeing of students by providing primary, specialty, and mental health care services. All full-time UGA students and their eligible spouses/partners may use health center services.

University Libraries

The UGA Libraries (<u>www.libs.uga.edu/</u>) provide a vast array of electronic and print resources. Librarians are available to help you in person or via an online chat service.

Transportation and Parking Services

This office issues parking permits for the UGA campus and oversees the UGA bus routes. See <u>www.tps.uga.edu</u> for more information.

Ramsey Student Center

The Ramsey Student Center (www.recsports.uga.edu/site) is the 440,000 square foot student recreational and athletic facility located on the East Campus. Known by students as "Ramsey," the facility is one of the largest student athletic recreation facilities in the United States. Full-time students are assessed a recreation fee which gives them access to this facility.

Travel Funding

The UGA Graduate School provides travel grants on a quarterly basis to doctoral students who are at an advanced stage in their graduate program and who are presenting results of their dissertation findings. Interested students submit their request to the Neuroscience Program Office by the deadline, which is provided via the program mailing list each semester. See https://grad.uga.edu/index.php/current-students/financial-information/travel-funding/ for additional information.

University of Georgia Police Department

The UGA Police Department (<u>www.police.uga.edu</u> or 706-542-2200) exists to protect and serve the University community and provide a safe and secure learning environment. Call 911 only in cases of emergency.

Writing Center

The Writing Center (<u>www.english.uga.edu/writing-center</u>) assists students in understanding the writing process, elaborating on their ideas and theories, and evaluating and editing their own work. To schedule an appointment, visit <u>www.uga.mywconline.com</u> and click on the "Appointments" link.

NEUROSCIENCE GRADUATE PROGRAM OFFICE

The Neuroscience Graduate Program Office assists with student recruitment, processes admission applications for the Neuroscience Graduate Program, offers support to faculty in the application review process, disseminates information to students on University and Program policies and procedures, and provides registration assistance when applicable.

Bradly Philips, Pharm.D., BCPS, FCCP

Director of the Biomedical & Translational Sciences Institute, Professor of Clinical and Administrative Pharmacy R.C. Wilson, room 270L bgp@uga.edu or 706-542-5317

Philip Holmes, Ph.D.

Director of the Interdisciplinary Neuroscience Graduate Program, Professor Behavioral and Brain Sciences Program Psychology Building, room 616 <u>pvholmes@uga.edu</u> or 706-542-3105

James D. Lauderdale, Ph.D.

Graduate Coordinator of the Interdisciplinary Neuroscience Graduate Program, Associate Professor of Cellular Biology Paul D. Coverdell Center, room 250B jdlauder@uga.edu or 706-542-7433

Barry Coleman

Business Manager Tucker Hall, room 420 <u>ccole@uga.edu</u> or 706-542-0869

Abigail Butcher

Graduate Program Administrator Tucker Hall, room 422 <u>abutcher@uga.edu</u> or 706-389-1169

Adriana Copley

Administrative Associate Tucker Hall, room 422 adriana.copley@uga.edu or 706-542-5922

EXPECTATIONS OF GRADUATE STUDENTS

Students are expected to demonstrate professional behavior while enrolled in the graduate program and to act in a manner that demonstrates integrity and respect for others and the campus environment. Students are expected to adhere to all UGA policies governing research and academic conduct, non-discrimination and anti-harassment, and workplace violence. See the following links for detailed information:

UGA Academic Honesty: https://honesty.uga.edu/Academic-Honesty-Policy/

UGA Non-Discrimination & Anti-Harassment Policy: <u>https://eoo.uga.edu/policies/non-discrimination-anti-harassment-policy</u>

UGA Workplace Violence Policy: http://safeandsecure.uga.edu/workplace.html

ADMISSION TO THE NEUROSCIENCE PH.D. PROGRAM

Students holding a B.S. degree or M.S. from an accredited institution are invited to apply for admissions to our program via the Integrated Life Sciences Program (<u>https://ils.uga.edu</u>).

Typical student profiles feature undergraduate coursework in quantitative skills—particularly as it relates to chemistry, physics, biology, genetics, biochemistry, and neuroscience. Nevertheless, students without these backgrounds are also encouraged to apply.

Base requirements for consideration for admission are listed below:

- Completion of a B.S. from an accredited institution.
- There is no GPA requirement. However, the average undergraduate GPA and graduate GPA of recent accepted students is 3.4 and 3.6 (on a 4.0 scale), respectively.
- Submission of an Integrated Life Sciences application (<u>https://ils.uga.edu/admissions/how-to-apply/</u>) AND
- Submission of a UGA Graduate School Application (https://gradapply.uga.edu/apply/).
- Official undergraduate and graduate academic transcripts
- A statement of purpose
 - 10,000-character limit addressing the following:
 - your reason(s) for pursuing graduate study
 - your interests (e.g. names of faculty, interdisciplinary groups, and/or graduate programs)
 - evidence of scholarly activity (e.g. research experiences, manuscripts published/in preparation)
 - any special circumstances of which you wish to make us aware
- if applicable, explanations for any perceived deficiencies in your application
 Two letters of recommendation, preferably from faculty or supervisors who are familiar with
- your academic and/or research capabilities
- No GRE scores are required. However, they are accepted and considered if submitted with your application materials.
- Official TOEFL (or IELTS) scores that are not more than two years old are required for international students whose native language is other than English.
 - Minimum TOEFL requirement: overall score of 80 with at least 20 on speaking and writing o Minimum IELTS requirement: overall bandwidth of 6.5; no single band score below 6.0.

Integrated Life Sciences Program

The Neuroscience Program predominantly accepts students through the Integrated Life Sciences Program (<u>https://ils.uga.edu</u>). This mechanism allows first-year graduate students to explore the research areas of nearly 250 faculty and 14 participating Ph.D. graduate programs.

Entering students perform three laboratory rotations and take a streamlined and innovative curriculum in the fall semester that is designed to facilitate the transition to graduate education and research. Upon completion of these rotations, a student chooses a major professor and matriculates into the Neuroscience Ph.D. Program the follow spring semester.

Direct Ph.D. Admission

In exceptional cases, students may be admitted directly into the Neuroscience Program. However, this path is not generally encouraged due to the benefits afforded by the ILS Program. To inquire about direct admission, please contact the Neuroscience Program Office at <u>neuro@uga.edu</u>.

Application Deadlines

The Neuroscience Program follows the fall deadline set by the Integrated Life Sciences Program. Those are adjusted every year, so please see their calendar for the precise deadline (<u>https://ils.uga.edu/admissions/how-to-apply/</u>).

Internal UGA Transfer Student

Change of major from any UGA M.S. or Ph.D. program to the Interdisciplinary Neuroscience Ph.D. necessitates that the following stipulations be satisfied: a) meet all program entrance requirements listed above, b) demonstrate adequate progress in their current program and be in good standing, c) an explanation or rational for the change must be given, d) a major professor must be secured.

Direct Admission Deadlines

For those that received permission to apply directly to the Neuroscience Ph.D. Program, our office will still consider all applications received by the following UGA Graduate School deadlines:

Domestic Applicants Fall Semester – July 1 Spring Semester – November 15 Summer Semester – May 1 International Applicants Fall Semester – April 15 Spring Semester – October 15 Summer Semester – February 15

In cases of slight date variations due to the calendar year, the Neuroscience Program honors applications submitted by the UGA Graduate School deadlines. Applicants are responsible for adhering to those dates.

FINANCIAL SUPPORT

Graduate students in the Neuroscience Ph.D. Program conducting dissertation research receive financial support through assistantships and fellowships.

Admission to the Neuroscience Ph.D. Program is considered separately from offers of assistantships. Accepted applicants may be considered for graduate assistantships. Assistantship and fellowships are offered to accepted students on a competitive basis.

Research Assistantships

Graduate research assistantships are awarded by individual faculty members. Such assistantships are determined through a series of collaborative discussions between the student and the major professor.

Though most neuroscience students are offered assistantships, such opportunities are not assured. Each student's funding mechanisms are individual and thus based on availability and need.

Neuroscience graduate students receiving Research Assistantships must register for a minimum number of credit hours for each semester when accepting an assistantship award. For fall and spring semesters, the minimum is 18 credit hours. For summer semester, the minimum is 12 credit hours. These hours also include research and project-based research hours.

Teaching Assistantships

All accepted applicants may be considered for graduate teaching assistantships offered through various departments.

Although the Neuroscience Program does not require a student to complete a one-semester teaching assistantship, we do encourage all students to complete the TAship training. Some major professors may require a brief teaching tenure. Students are therefore encouraged to discuss such opportunities with their major professor as early as possible.

Graduate students receiving Teaching Assistantships must adhere to UGA TA Policy (<u>https://www.ctl.uga.edu/grad-student/ta-policy/</u>) which states that all TA's must:

- 1. Attend TA Orientation
- 2. Complete GRSC 7770 or departmental equivalent (ENED 7010)
- 3. For international students, demonstrate proficiency with the English language (see https://www.ctl.uga.edu/grad-student/ta-policy/language-requirement/)

The Neuroscience Program also requires that TA's:

4. Register a minimum number of 12 graduate credit hours for each fall/spring semester and 9 hours each summer semester when receiving TA funds.

Fellowship Opportunities

NSF Graduate Research Fellowship Program (GRFP)

The NSF GRFP recognizes and supports outstanding graduate students in NSF-supported STEM disciplines who are pursuing research-based master's and doctoral degrees at accredited US institutions.

Fellowships provide the student with a three-year annual stipend of \$34,000 along with a \$12,000 cost of education allowance for tuition and fees (paid to the institution), as well as access to opportunities for professional development available to NSF-supported graduate students. For more information, please consult their website: https://www.nsfgrfp.org

NIH T32 Training Grant

The Genetics Training Program (GTP) is an inter-departmental training program that includes faculty and their students from across UGA who focus on genetics research. The GTP is supported by an NIH T32 Genetics Training Grant. The GTP brings together the genetics community at UGA, and the NIH T32 training grant provides students from across campus with training in genetics and opportunities for career development.

For information concerning application requirements and their annual deadline, please see here: <u>https://www.genetics.uga.edu/nih-training-grant</u>

NIH Fellowship Grant Program (F31)

The NIH offers a number of fellowship opportunities designed to promote the research of underrepresented students. The goal of such programs is to enable promising predoctoral students with potential to develop into a productive, independent research scientists and to obtain mentored research training while conducting dissertation research. https://researchtraining.nih.gov/programs/fellowships/f31

Individual Predoctoral to Postdoctoral Fellow Transition Award (NIH F99-K00)

The purpose of the Predoctoral to Postdoctoral Fellow Transition Award (F99/K00) is to encourage and retain outstanding graduate students who have demonstrated potential and interest in pursuing careers as independent researchers. The award will facilitate the transition of talented graduate students into successful research postdoctoral appointments. https://researchtraining.nih.gov/programs/fellowships/F99-K00

Additional Funding Opportunities

Information on available university-level funding is available through the UGA Graduate School at http://grad.uga.edu/index.php/current-students/financial-information/. This site also provides links to additional fellowship, scholarship, and financial aid opportunities.

A variety of fellowships funded by external organizations are also available (e.g., DOE, NSF, and SMART fellowships, private foundations, etc.). Information can be found at the websites of these organizations. Students should apply directly to the specific organization awarding a particular external fellowship.

A running list of supplemental funding opportunities for Neuroscience Graduate students can be found here: <u>https://neuroscience.uga.edu/student-resources/</u>.

DOCTORAL PROGRAM

The Interdisciplinary Neuroscience Graduate Program at the University of Georgia offers unique multidisciplinary opportunities and innovative research approaches in broad areas of neuroscience and model systems that extend from planaria to humans. Our training model provides rigorous theoretical and methodological training in neuroscience utilizing the latest in related technologies. Students work with faculty to become independent thinkers, researchers, and decision-makers.

Due to the inherent interdisciplinary of the discipline, our program is designed to be flexible to complement the student's background and emphasize their career objectives in neuroscience. Major emphasis is on course work related to dissertation research, but students are expected to develop a broad background in neuroscience. Therefore, many of the relevant coursework is offered through other departments (especially Psychology, Statistics, Cellular Biology, Biochemistry, Physiology & Pharmacology).

PH.D. PROGRAM OF STUDY REQUIREMENTS

Requirements for the Ph.D. in Neuroscience include a minimum of 64 credit hours in the student's program of study beyond the B.S. degree. Additional requirements include:

- A minimum of 20 semester hours of coursework at the 8000- and 9000-level, in addition to research, dissertation writing, and directed study
 - 3 hours of Graduate Seminar *
- A minimum of 27 Doctoral Research hours (NEUR 9000)**
- The Program of Study must include 3 hours of NEUR 9300 Doctoral Dissertation.

* Only 3 hours of Graduate Seminar may apply on the Ph.D. Program of Study. Students are strongly encouraged to continue regular attendance of speaker series presentations even if not formally registered in the seminar.

** A typical student's total research hours will exceed these minimums.

All coursework is selected in coordination with the student's Faculty Advisor and approved by the student's Advisory Committee on the Program of Study. Each student must pass a formal comprehensive written and oral examinations before being admitted to candidacy. Proposal and defense of a dissertation of original research showing independent thinking, scholarly ability, and technical mastery of a field of study is required.

Completion of the Ph.D. requirements for the Interdisciplinary Neuroscience Program fulfill all requirements of the University of Georgia Graduate School. No grade below C will be accepted in the program of study. To be eligible for graduation, a student must maintain a 3.0 (B) average on the graduate transcript and a 3.0 (B) average in the program of study.

DOCTORAL PROGRAM FRAMEWORK – MILESTONES & TIMELINE

The "Doctoral Program Framework – Milestones & Timeline" document is posted on the following pages. This document provides a list of our doctoral program milestones, the required timeline for

completion of each milestone, and the steps doctoral students must take to complete each milestone.

The Neuroscience Program Office sends Progress Reports via UGA email to each enrolled student as well as their Major Professor and Graduate Coordinator. These reports include a checklist of degree completion requirements and indicate which requirements remain unfulfilled. Students are encouraged to resolve any delinquent issues.

NEUROSCIENCE PH.D. PROGRAM OF STUDY

Minimum requirement – 64 credit hours (minimum of 19 credit hours Core Courses; minimum 6 credit hours of Research Skills; minimum of 9 credit hours of Electives; minimum of 30 credit hours research and dissertation)

Required Courses: Core (19 credit hours)

- VPHY 8400: Neurophysiology (3 credit hours)
- VPHY 8020: Neuroanatomy (3 credit hours) **OR** PSYC 8300: Neuroanatomy for Behavioral Scientists (3 credit hours)
- NEUR 8030: Current Literature in Neuroscience (4 semesters, 4 credit hours) *
- NEUR 8040: Laboratory Group Meeting (4 semesters, 4 credit hours) **
- NEUR 8900: Seminar in Neuroscience (4 semesters, 4 credit hours) ***
- GRSC 8550: Responsible Conduct of Research (1 credit hour)

* ** Only 4 hours of Current Literature in Neuroscience and Laboratory Group Meeting may apply on the Final Program of Study. Nevertheless, students are strongly encouraged to continue regular attendance of both these courses as they are instrumental to a student's research and skills development. *** Only 3 hours of Seminar in Neuroscience may apply on the Program of Study. Nevertheless, students are strongly encouraged to continue regular attendance of speaker series presentations even if not formally registered in the seminar.

Required Courses: Research Skills (6 credit hours)

- STAT 6315: Statistical Methods for Researchers (4 credit hours)
- STAT 6210: Statistical Methods I (3 credit hours) AND STAT 6220: Statistical Methods II (3 credit hours)
- PSYC 6430: Applied Regression Methods in Psychology (3 credit hours)
- PSYC 6440: Experimental Design in Psychology (3 credit hours)
- VPHY 6930: Research Methods (1-3 credit hours)
- PSYC 8330: Laboratory Apprenticeship in Biopsychology (3 credit hours)
- CBIO 8920L: Cellular Biology Research Techniques (1-2 credit hours)
- BIOL (CBIO) (VPAT) 7040: Electron Microscopy (3 credit hours)
- CBIO 8050-8050L: Techniques in Modern Microscopy (4 credit hours)

Content Area Requirements (9 credit hours)

A minimum of 9 additional credit hours of course work chosen with the approval of the student's Graduate Advisory Committee.

Cellular and Molecular Neurobiology

- BCMB 6000: General Biochemistry and Molecular Biology (3 credit hours)
- BCMB 6010 and BCMB 6020: Biochemistry and Molecular Biology I & II (4 credit hours)
- BCMB 8010 and BCMB 8020: Advanced Biochemistry and Molecular Biology I & II (4 credit hours)
- CBIO 8300: Advanced Developmental Biology (3 credit hours)
- CBIO 8400: Advanced Cell Biology (3 credit hours)
- GENE 8140: Functional Genomics (3 credit hours)
- BCMB(CBIO)(GENE) 8113: Advanced Genetics, Cell Biology, Biochemistry and Molecular Biology (1a) (2 credit hours)
- BCMB(CBIO)(GENE) 8114: Advanced Genetics, Cell Biology, Biochemistry and Molecular Biology (1b) (2 credit hours)

Physiology & Pharmacology

- VPHY 6090: Comparative Mammalian Physiology (3 credit hours)
- VPHY 8460: Molecular Pharmacology (3 credit hours)
- CBIO 6730: Endocrinology (3 credit hours)
- PHRM 6400: Human Physiology I (4 credit hours)

Research and Dissertation (30 credit hours)

- PHRM 6410 and PHRM 6420: Pharmacology I & II (4 credit hours)
- CBIO 6730: Endocrinology (3 credit hours)
- VPHY 8600: Current Topics in Synaptic Physiology (3 credit hours)

Behavioral/Systems Neuroscience

- PSYC 6130: Biological Foundations of Behavior (3 credit hours)
- PSYC 6160: Sensory Psychology (3 credit hours)
- PSYC 8900: Psychopharmacology Seminar (3 credit hours)
- CMSD 6800: Neural Bases of Speech, Language, and Hearing (3 credit hours)
- PSYC 8380: Behavioral Neuroendocrinology (3 credit hours)

Cognitive/Clinical Neuroscience

- PSYC 7780: Animal Cognition (3 credit hours)
- PSYC 8550: Neuropsychological Assessment (3 credit hours)
- PSYC 6110: Basic Learning Processes (3 credit hours)
- EPSY 8610: Fundamentals of Behavioral Neuroscience (3 credit hours)
- A minimum of 27 hours of doctoral research (9000). Typically, students complete more than 27 credit hours with the approval of the Graduate Advisory Committee.
- 3 hours of Ph.D. Dissertation (9300) is required on the Plan of Study.

Coursework Substitutions and Additions

If your committee determines that a course other than those listed above would best suit your research training, a substitution can be petitioned. Please contact the Neuroscience Program Office and provide the course ID and a general description. Those can be found using the UGA Bulletin: https://bulletin.uga.edu

Additional Program Requirements

In addition to Graduate School and Interdisciplinary Neuroscience Ph.D. Program requirements, students must adhere to the following requirements:

- Ph.D. students should form their Graduate Advisory Committee comprised of 3 faculty members within 12 months of starting their Ph.D. program.
- A student must pass written qualifying and oral comprehensive exams before completing and orally defending a dissertation. The written qualifying exam will be administered by the school. The oral comprehensive exam will follow the Graduate School Requirements.
- Ph.D. students are expected to be admitted to candidacy within 24 months of starting their Ph.D. program.
- Student must make two presentations in the Current Literature in Neuroscience course.
- The student's dissertation research is expected to generate significant scholarship (such as publications, patents, conference presentations).

Program Milestones

Year One	Year Two	Year Three	Year Four	Year Five
 Rotations → 	Select Research	Continue with	Continue with	Apply for
Select Major	Project	dissertation	dissertation	graduation
Professor	Complete a Final	research	research	discontation
• Form	Program of Study	Neuro electives	Meet with	uissei taliuit
Dissertation	Comp Exams	Meet with	committee	Moot with
Committee	Admission to	committee		• INICCL WILLI
Neuro	Candidacy			• Defend
Coursework	 Course electives 			
 Complete a 				
Preliminary				
Program of Study				

PH.D. PROGRAM ENROLLMENT REQUIREMENTS & TIME LIMITS

Minimum Enrollment

All enrolled students pursuing a Neuroscience Ph.D. must register for a minimum of 18 hours of credit during the fall and spring semesters and 15 credit hours during the summer. This includes semesters in which they are completing comprehensive examinations and defending their thesis or dissertation.

Required Semesterly Coursework

Every term, students are required to register for the following courses:

- NEUR 8030: Current Literature in Neuroscience (1 credit hour)
- NEUR 8040: Laboratory Group Meeting (1 credit hour)
- NEUR 8900: Seminar in Neuroscience (1 credit hour)
- NEUR 9000: Dissertation Research (variable credit hours) OR NEUR 9300 (3 credit hours min)

Continuous Enrollment Policy

All enrolled graduate students must maintain continuous enrollment from matriculation until completion of all degree requirements. Continuous enrollment is defined as registering for a minimum of three (3) credits in at least two semesters per academic year (fall, spring, summer) until the degree is attained or status as a degree-seeking graduate student is terminated. Doctoral students must maintain enrollment during fall and spring semesters (breaking only for summer semesters) until the residency requirement has been met.

Residence Credit Requirement

The residency requirement for the Doctor of Philosophy degree is interpreted as 30 hours of consecutive graduate course work that is included on the approved program of study.

Leave of Absence

A leave of absence provides a mechanism for students experiencing unusual circumstance to be exempt temporarily from the continuous enrollment policy. A leave of absence requires approval of the Graduate Coordinator and the dean of Graduate School. A leave of absence will be granted only for good cause such as serious health-related issues, significant family issues; and other major personal circumstances that interfere with the ability to undertake graduate study. Contact the Graduate Program Administrator for additional information.

Time Limits

Doctoral students must complete all course work on their approved program of study and be admitted to candidacy within six-years of matriculation. The six-year limit begins with the semester the student matriculated into the program and ends with the last semester before the beginning of the sixth year.

For doctoral students, the time limit to complete the dissertation and qualify for graduation is five years following admission to candidacy. After this time, the student's candidacy will be considered expired, and the student must retake the comprehensive exams and be re-admitted to candidacy in order to defend the dissertation and qualify for graduation. If a doctoral student's candidacy expires after the first week of classes in the final semester of the fifth year, the student is granted the remainder of the semester to complete degree requirements without special permission of the Dean of the Graduate School.

Extension of Time

A special request for an extension of time on the six-year expiration of coursework or the five-year expiration of candidacy may be made to the Dean of the Graduate School. This request must include specific reasons that the student did not complete requirements in the time allotted by Graduate School policy. A petition of this type must include 1) a specific timeline for the completion of requirements, 2) an approved Advisory Committee form, if required for the degree, 3) an approved program of study and a letter of support from both the program graduate coordinator and the Major Professor.

Good Standing

Conditions for remaining in the Neuroscience Ph.D. Program are as follows:

- Demonstrate timely progress in respect to coursework and research
- Maintain a 3.0 GPA
- Successfully pass comprehensive exams and other programmatic benchmarks
- Abide by the University's Code of Conduct: <u>https://grad.uga.edu/index.php/current-students/policies-procedures/academics/probation-and-dismissal/</u>
- Retain a major professor

Students who fall short in meeting the above requirements risk dismissal from the program.

Academic Probation

Graduate students who do not maintain good standing may be placed on academic probation by the Graduate School and/or the Neuroscience Program. Students with a cumulative graduate course average below 3.0 for two consecutive terms are placed on academic probation by the Graduate School. They must attain a 3.0 or higher semester graduate grade average each succeeding semester that their overall cumulative graduate average is below 3.0. These students are no longer on probation when their cumulative graduate grade average is 3.0 or above. If a student makes below a 3.0 semester grade average while on probation, they are dismissed from the program by the Graduate School. **NOTE**: You must take a course with a letter grade (A-F) to improve your GPA. S/U grades do not count toward your GPA.

Academic Appeals

Students have the right to appeal decisions regarding academic matters. An appeal must be made within thirty days after receiving the written (or e-mail) ruling and students should ask the Neuroscience Graduate Coordinator what procedures are appropriate. Grades are appealed within in the department and college which they are earned, which may not be the student's major department or college. In general, appeals should begin at the level at which the decision was made.

Therefore, in the case of grades, a student would begin with the instructor. If a student is dissatisfied with the outcome of the initial appeal to the instructor the Head of Department should be contacted to seek resolution. After the Department, the graduate student's next line of appeal is to the Dean's office of the Graduate School. For appeals regarding departmental program decisions, the first level is to the Graduate Coordinator, then to the Director of the Neuroscience Program.

SELECTION OF MAJOR PROFESSOR

A student's major professor serves as their professional mentor and guide and is typically the student's source of assistantship support as the student proceeds through their graduate study. It is the student's responsibility to identify a graduate faculty member willing to serve as their major professor by the end of their first fall semester. Students who do not have a major professor may be dismissed from the program.

Initiating discussion with faculty regarding serving as Major Professor is the responsibility of the student. The decision regarding this selection is a mutual one between faculty and student and is based on common research interest. No faculty member is required to serve as the major professor for any student. For a Ph.D. student, the decision of Major Professor is often made during the recruitment process. After which, an offer of assistantship support from a faculty member is made in conjunction with an offer of admission to the university.

It is the Major Professor's responsibility to advise the student in program requirements, chair the Advisory Committee and facilitate the professional growth of the student through the student's program of study and the timely completion of the student's degree.

In rare cases, the need may arise for a student to change her or his Major Professor. This change is done by mutual agreement among all parties in coordination with the program's Graduate Coordinator.

SELECTION OF PH.D. ADVISORY COMMITTEE

Role/Responsibilities of the Advisory Committee

The Advisory Committee and Major Professor share responsibilities to monitor graduate student progress and guide the student toward timely degree completion. The advisory committee is charged with framing and approving programs of study, advising students on required research skills, directing, and approving the comprehensive examinations, guiding the design of dissertation research, reading and approving the final dissertation document, and approving the final oral examination (defense).

Advisory Committee Appointment

The Ph.D. Advisory Committee Form (<u>https://grad.uga.edu/index.php/current-students/forms/</u>) must be submitted by the end of the student's first spring semester in the Ph.D. program per program policy.

The doctoral committee must consist of a minimum of three (3), with a recommendation of five (5), faculty members, including the student's major professor, who will serve as chair of the committee. The committee must be approved by the Graduate Coordinator and include at least three members of the Neuroscience faculty. A minimum of three members of the Advisory Committee must be members of the Graduate Faculty of UGA; if there are more than three members, more than 50% must be members of the Graduate Faculty.

Additional voting members, with proper rank, may be appointed to the committee, including no more than one non-UGA faculty, who must hold the terminal degree in his/her field of study. Persons employed by UGA who hold one of the following ranks may serve on doctoral committees: professor, associate professor, assistant professor, academic professional, public service assistant, public service associate, senior public service associate, assistant research scientist, associate research scientist. Persons having the following ranks may not serve on doctoral committees: instructors and lecturers.

- For appointments concerning non-UGA faculty: a person having no official relationship with The University of Georgia may be appointed to serve as a voting member on the advisory committee of a graduate student on nomination by the graduate coordinator and approval of the dean of the Graduate School. When nominating a non-affiliated person, the graduate coordinator must submit the nominee's current resume with the appropriate forms and a letter addressed to the dean of the Graduate School explaining why the services of the non-affiliated person are requested. A person nominated must have distinguished credentials in the field of study. A non-affiliated person appointed to a graduate student's committee must attend meetings associated with the appointment. There can be no more than one non-UGA faculty on a committee.
- Visiting professors, part-time or temporary: these faculty members may not serve on a doctoral advisory committee unless that person is replacing a professor with sole expertise in a designated area on the student's program of study. The graduate coordinator must send a letter to the Graduate School explaining the need for this replacement. Replacements for original members of the advisory committee must be approved by the dean of the Graduate

School prior to their service in any capacity. A revised advisory committee form showing the reconstituted committee must be submitted to the Graduate School.

- **Co-major Professors**: Co-major professors, limited to two, may be appointed to an advisory committee provided both parties are appointed members of the Graduate Faculty. Both parties must sign all forms requiring the chair's signature. Co-major professors count as one member of the committee; therefore, an additional faculty member must be added to the advisory committee with a majority of Graduate Faculty members being maintained.
- Advising Members of Immediate Family: The nepotism policy defines members of the immediate family as the following: spouse, parents, siblings, children, and in-laws of the same. When a member of the immediate family is involved, a faculty member may not serve as Major Professor or as a member of any committee which plans a program of study or evaluates the educational progress of the student.
- **Committee Revisions:** Replacements for original members of the Advisory Committee must be approved well in advance of any program milestone. A revised Advisory Committee Form showing the reconstituted committee must be approved by the Graduate Coordinator and the Dean of the Graduate School prior to their service in any capacity.

PH.D. PROGRAM OF STUDY APPROVAL

Preliminary Program of Study Approval

The Preliminary Program of Study (PPS) form (<u>https://grad.uga.edu/index.php/current-</u><u>students/forms/</u>) outlines the planned classroom courses and research for Ph.D. students in accordance with the student's degree requirements. The form should be completed in coordination with the advisory committee and must be submitted to the Neuroscience Program Office by the end of the student's first year of the Ph.D. program.

Final Program of Study Approval

The Final Program of Study (PS) form (<u>https://grad.uga.edu/index.php/current-students/forms/</u>) designates the classroom courses and research for Ph.D. students in accordance with the student's degree requirements. The form should be completed in coordination with the advisory committee must be submitted to (and approved by) the Neuroscience Program Office and the Graduate School before scheduling the Written or Oral Comprehensive Exam.

COMPREHENSIVE EXAM & ADMISSION TO CANDIDACY

Before a student can become a Ph.D. candidate, they must pass a comprehensive qualifying exam, which is comprised of two parts: a written and oral exam. Both exams are designed and graded by the Advisory Committee of each student. These exams **must** be completed by the end of the student's second year. An extension may be requested in writing to the graduate coordinator.

 Oral Exam Format: the oral exam is a public exam. The Graduate School must be notified at least two weeks before the examination so that the Graduate School can publish notice of the exam and send the required paperwork to the program for Advisory Committee signatures. Notification of the exam date is communicated to the Graduate School by the Neuroscience Program Office.

The oral exam will last between one and three hours and will consist of questions covering both specific and general knowledge for the student to complete his or her proposed research. To start the discussion, the student should prepare a 15-20-minute presentation with a maximum of 20 or so slides that summarizes his or her proposed research. The slides are intended to serve as a framework for discussion. The chair of the oral exam committee will be a committee member in Neuroscience who scored the written proposal with a passing grade. The student's advisor will not participate in the discussion unless granted permission by the committee chair.

- Written Exam Format: The written portion of the qualifying exam can take several forms in accordance with the wishes of the Advisory Committee. Typical types of exams include: a research proposal in NIH or NSF format, a topical review suitable for publication, questions prepared by the committee, or a combination of these formats. The preferred format is a research proposal. Please consult your major professor and committee for guidance.
 - Research Proposal Exam: At the discretion of the committee, this proposal could be written as a NIH Individual Pre-doctoral NRSA (F30/F31) or NIH Research Project Grant (R21 or R01). The program recommends the F30/F31/R21 format, and students should adhere to NIH guidelines, except that page numbers should be included, and headers are encouraged.

The proposal should be a maximum of 7 single-spaced pages, including figures but excluding references. All margins must be at least 0.5" and the font in Times New Roman 12, Arial 11, or equivalent (Helvetica, Palatino Linotype, or Georgia). The proposal should consist of the following sections:

- Specific Aims: (1 page) This should include a summary of the project, hypothesis/statement of problem, and statement of specific aims/goals.
- Research Strategy or Plan: (6 Pages) This should include background/introduction to place the project in context, preliminary studies (if any), research approach, and anticipated results, potential pitfalls, and alternative approaches.

The proposal must be written in the student's own words and without substantial editing from the advisor. However, feedback on aspects such as experimental design of the project can be obtained from the advisor and/or committee members. Committee members will have two weeks to review the proposal and return a grade to the student and his/her advisor.

• **Literature Review:** This option permits the student to compose a review on the topic approved by the Advisory Committee. The review should be of a quality and format suitable for publication.

As with the research proposal, this article must be written in the student's own words and without substantial editing from the advisor. However, feedback on topics to be included in the review can be obtained from the advisor and/or committee members. Committee members will have two weeks to review the proposal and return a grade to the student and his/her advisor.

 Question Format: This written exam takes place over consecutive days, with one day allotted to questions from each committee member. The student may elect to have the exam in a single week (Monday-Friday), or 'break' over a weekend (i.e., Wednesday-Friday, then Monday-Tuesday). Each exam day will start at 8:00 AM and conclude with students sending their completed questions to the Neuroscience Program Office no later than 5:00 PM.

Focus areas for the written exams are chosen by the student's Advisory committee in consultation with the student. This can take place either at a committee meeting, or in individual meetings of the student and each committee member. Each committee member will take responsibility for a different focus area and must choose the topic at least five weeks prior to the examination. Topics are usually chosen base on relevance to the student's dissertation project, relevant areas of expertise of the faculty member, or other areas important for the student's overall education in the field. Exam questions are distributed to students by the Neuroscience Program Office at 8:00 AM the day of the exam.

In general, each committee member will devise questions that are based on their focus area and are designed to be answered in a single 8-hour day. The graduate student should contact each Advisory Committee member to discuss preparation for the written exams, and the faculty member's preferred format for that portion of the exam. The exam may be in any written format and length as specified by the faculty member, and can include essays that answer specific, novel questions in the particular focus area, reviews, or critiques of a research area or of specific publications, or any other format the faculty member deems appropriate. The exam questions must be submitted to the student's major professor at least two weeks before the exam to ensure that they are consistent with the student's background and interests. In consultation with the examiner, the major professor may request a change in form or content.

• **Grading**: Each Advisory Committee member is responsible for grading their section of the written exam. Committee members will have two weeks to evaluate the student's work and return a grade to the student and their advisor.

- **Exam outcomes**: Regardless of the format, there are only two possible outcomes for the written exam—pass or fail. If the student receives a pass from all committee members, then the student will proceed with the oral exam as scheduled. Committee members may pass a student on the written, but still require edits or changes made to the written document. If a committee member does not provide a grade within two weeks, then it is assumed the grade is a pass. If the student fails, comments explaining this grade will be provided. If the student receives more than one failing grade, the oral exam will be cancelled, and the student must retake the written exam.
- **Rescheduling Exams**: If the oral exam is cancelled or postponed for any other reason the student must immediately notify the Neuroscience Program Office so that the Graduate School can be notified of the change.

General Guidelines for Candidacy

To advance to Ph.D. candidacy, the program expects that a student identify a problem and explain why it is interesting, grasp the relevant literature, design experiments to test a hypotheses, and then interpret data to determine whether the experiments worked and what it means if they did or did not. Substantial preliminary data are not necessary and students will not be graded based on the amount of preliminary data they present.

Therefore, continuation to doctoral candidacy requires no more than one "fail" grade on each portion of the exam. If one part of the exam results in more than one "fail" grade, that portion of the exam can be re-taken in the subsequent semester. A student may only re-take a portion of the exam once. A failure to continue to candidacy requires that the graduate committee evaluate options for removal from the Neuroscience graduate program, in concert with the graduate coordinator.

Time Limit on Candidacy

The dissertation must be completed within five years following admission to candidacy in order to qualify for graduation. If a doctoral student's candidacy expires after the first week of classes in the final semester of the fifth year, the student is granted the remainder of the semester to complete degree requirements without special permission of the dean of the Graduate School.

GRADUATION

Students intending on graduating must adhere to the guidelines and deadlines listed on the Graduate School's website. Notifying the Neuroscience Program Office is a critical step to ensure a timely graduation.

https://grad.uga.edu/index.php/current-students/important-dates-deadlines/

DISSERTATION DEFENSE

To graduate from the Ph.D. program, a student must be in residency for two semesters after Admission to Candidacy and successfully defend a dissertation.

Candidates for the doctorate must present a dissertation on some subject connected with their major field of study. The dissertation must represent original research, independent thinking, scholarly ability, and technical mastery of a field of study. Its conclusions must be logical, its literary form must be acceptable, and its contribution to knowledge should merit publication.

When the student's Major Professor has approved the dissertation, they will distribute copies of the dissertation to the members of the Dissertation Advisory Committee, and will schedule a final oral defense and notify the Neuroscience Program Office. Written approval of 75% of committee members will be required before a dissertation will be approved as ready for a final defense. If the Advisory Committee declines to approve the dissertation, the Major Professor will notify the student and the Graduate School. The dissertation, signed by the Major Professor, must be submitted to the Dean of the Graduate School for his/her approval no later than two weeks prior to graduation. Once the dissertation has been approved by the Advisory Committee and the final oral examination has been passed, the dissertation must be submitted to the Graduate School for final approval no later than the last day of classes of the following semester. Dissertations which are not submitted by this deadline must be defended again and approved by the Advisory Committee before they will be considered by the Graduate School for final approval. Students must register for a minimum of three semester hours of dissertation credit under the course BHSI 9300. Instructions for typing the dissertation may be obtained in the Graduate School.

Students must contact the Neuroscience Program Office with the Title, Date, Place and Time of the Dissertation Defense two weeks in advance to notify the Graduate School of the Defense.