2022-2023 Student and Faculty Handbook

Graduate Program in Neuroscience

University of Mississippi Medical Center
Jackson, MS 39216

TABLE OF CONTENTS

I.   INTRODUCTION

Welcome to the Graduate Program in Neuroscience

The Program in Neuroscience is an interdepartmental PhD degree program with collaborating faculty from both basic and clinical departments at the University of Mississippi Medical Center. The objectives for the Program in Neuroscience are to educate and train individuals to become independent research investigators, teachers, and mentors with a broad understanding of the neurosciences and focused training within a subset of the areas of study that comprise neuroscience.

The purpose of this handbook is to outline clearly the requirements that must be completed during the course of PhD studies. In addition, this handbook outlines the expectations and responsibilities of students, mentors, and committee members, and describes the curriculum and the program governance structure.

This handbook is a result of the collective effort of the Executive Committee of the Graduate Program in Neuroscience, and we thank the past and present members of that committee who were involved.

As always, please feel free to contact us if you have any questions.

Sincerely,

Eric Vallender, Ph.D.
Associate Professor
Department of Psychiatry and Human Behavior
Director, Graduate Program in Neuroscience

II.   DEGREE REQUIREMENTS

A. SUMMARY

The Program in Neuroscience (PIN) is a course of study leading to a PhD degree. It is an interdepartmental degree program with collaborating faculty from departments across the University of Mississippi Medical Center. The objectives for the Program in Neuroscience are to educate and train individuals to become independent research investigators, teachers, and mentors with a broad understanding of the neurosciences as well as to provide focused training on a specific area of study. These objectives apply whether the individual's ultimate career goal is to work in academic, government, industry, or administrative settings. To receive the doctoral degree, the student must demonstrate evidence of proficiency and distinctive attainment in the neurosciences and a recognized ability for independent investigation as presented in a dissertation based upon original research. The following minimal requirements must be fulfilled to achieve the PhD degree in Neuroscience.

Core Courses. During the first year of study, students are required to take: Foundations in Neuroscience (NSCI 701), an intensive overview of neuroscience coupled with analysis of relevant primary literature; Fundamental Biochemistry (CMB 704), a graduate-level general biochemistry course; Statistics (NSCI 710), a tutorial focusing on common statistical approaches used in neuroscience research; and Special Topics in Neuroscience (NSCI 708), a reading course focusing on current issues of interest in neuroscience. Students also engage in a series of up to six 4-5 week surveys of different research laboratories affiliated with the Program (NSCI 790). During the second year of study, students engage in intensive Senior Laboratory Rotations (NSCI 791) which are typically conducted in the student's planned dissertation laboratory. Throughout their years of study, students also engage in professional skills development with courses in Neuroscience Journal Club (NSCI 720; years 1 – 4), Scientific Writing (NSCI 721; year 2), Responsible Conduct in Research (ID 709; year 1), and Professional Skills (ID 714; year 3).

Requirements for Dissertation Candidacy. In addition to the Core Courses described above, students must successfully pass a Qualifying Examination consisting of developing and defending a research proposal selected from multiple topics submitted by PIN faculty. This is completed in the summer between the second and third years. Successful completion is required for admission to candidacy status.

Additional Graduation Requirements. Students are required to have the results of their research accepted for publication prior to awarding of the degree. This manuscript must meet the publication requirements of the Graduate School; that is, the student

must be listed as the sole first author on at least one publication reporting research findings (not a review article) in a national or international peer-reviewed journal.

B. SCHOLASTIC REQUIREMENTS, PROBATION AND DISMISSAL

Scholastic Requirements. In order to be in Good Academic Standing, a PhD student must maintain 1) a grade point average (GPA) of 3.0 or higher based on a four-point grading scale or 2) an 80% weighted numerical average. In addition, <u>Program students must have attained a 90% or above at the end of the Foundations in Neuroscience (NSCI 701) course (i.e. Spring semester).</u>

Under such a scale, a grade of "A" is assessed 4 points, a "B" 3 points, a "C" 2 points, and an "F" 0 points. Note the absence of the undergraduate "D" grade. A grade of "C" is (marginally) acceptable for graduate credit, but an overall GPA of ≥ 3.0 must be maintained. A grade of "F" is not acceptable for graduate credit but is included in the calculation of the student's GPA. If a student receives an "F" in a course, the course must be re-taken. A course may be repeated only if recommended by the Program Director and Course Director. When a course is repeated, the second grade will be used in determining the student's overall weighted average; however, the first grade will remain on the transcript. A course may be repeated only once.

Certain courses are Pass/Fail. A "P" indicates that a student has received graduate credit but has been assigned no point grade in the course. Courses that are graded in this way include special topics (NSCI 708), the statistics tutorial (NSCI 710), the journal club (NSCI 720), writing course (NSCI 721) and rotation survey course (NSCI 790). A grade of "F" requires retaking the course or other remediation at the discretion of the Program and Course Director.

Probation. If at any time during an academic year the progress of a student is considered unsatisfactory, the student may be placed on academic probation or dismissed from the program. A student whose GPA falls below 3.0 or an 80% weighted numerical average after the first year will be placed on academic probation and have 3 continuous semesters to raise their GPA to an acceptable level. Failure to do so will result in dismissal.

Dismissal. Students may be dismissed for unsatisfactory academic performance, failure to pass qualifying examinations, breaches of scientific integrity (e.g., plagiarism, falsification of data, etc.), or personnel issues (e.g., harassment). Dismissal of a student from the Program and the Graduate School is initiated by the Program Director and approved by the vote of the Program Executive Committee. A recommendation for dismissal is then submitted in writing to the Dean of the Graduate School (Dr. Joey Granger). Following his approval, Dr. Granger will notify the student in writing of the intention to dismiss. An appeals process is in place and available to the student.

III.   PROGRAM RESPONSIBILITIES

A. RESPONSIBILITIES OF STUDENTS AND MENTORS

Doctoral training is a significant investment of time and effort for both the student and the research mentor. A clear understanding of the respective responsibilities for the student and research mentor optimizes the working relationship over the course of the training period and helps provide structure for the training plan. The best training experience, for both the student and the research mentor, is one in which both parties understand and meet the key expectations for their roles. Below is a list of expectations. Obviously, the editors of this Handbook cannot foresee every instance in which guidance may be required. *Common sense should always prevail*, and where guidance is needed but not described below, seeking advice from colleagues and/or members of the PIN Executive Committee is the best place to begin.

Responsibilities of the Student:

➢ The student will be responsible for learning and adhering to the program requirements for the degree as outlined in this Handbook and to the requirements set by the School of Graduate Studies in Health Sciences (SGSHS) as outlined in the Annual Bulletin.

➢ The student is expected to devote a <u>minimum</u> of 40 hours per week to work towards the attainment of the degree for the duration of the training period.

➢ All work should be performed in the mentor's lab except in cases of formal collaborations set up by the mentor. While students should be encouraged to explore potential collaborative relationships with other labs, it is the purview exclusively of the mentor to formalize such interactions.

➢ Where animal work is involved, the student is expected to be intimately familiar with the mentor's IACUC protocol, including which procedures are cleared by the IACUC and which rooms procedures are expected to be carried out in the lab.

➢ The student will work closely with the research mentor and their Advisory Committee to develop a dissertation project.

➢ All third-year students and above are required to present abstracts at SGSHS Research Day.

➢ The student will exhibit scholarly initiative in the gathering and exhaustive review of scientific literature pertinent to dissertation research.

➢ The student will adhere to the expectations communicated by the mentor for laboratory work, including experimental protocols, data management, daily schedules, and time frames for the completion of work.

➢ The student will be prompt for all meetings and will respond to communications (email and other) in a timely manner.

➢ The student will alert the mentor and Education Coordinator of vacation requests well in advance and adhere to the Graduate School's regulations for extended leave-time requests.

- The student will adhere to the professional and ethical research guidelines set by the University and National and International agencies and as outlined in course ID 709.
- The student will acknowledge the contributions of co-workers when presenting research findings.
- The student will respect co-workers in the laboratory and make every effort to resolve conflicts while _maintaining professional working relationships._ *There is a zero-tolerance attitude toward verbal and/or physical abuse toward colleagues. Such incidents will immediately be referred to the SGSHS and could result in dismissal from the Program and SGSHS.*
- The student will take responsibility for promptly communicating concerns and needs to the mentor throughout the training period. Ideally, such communication should be in-person, but email is appropriate when concerns/needs are less urgent. Be aware that mentors are often times busy with numerous other issues as well as those of the student, so a courteous reminder email may be required.
- The student will maintain an Individual Development Plan (IDP) and discuss it with their mentor throughout the training period.
- The student will present abstracts at one or more national conferences in each post-candidacy year and will optimize the value of the time spent at the conference by attending talks, viewing posters, and pursuing networking opportunities.
- The student will write first-author papers in a timely manner upon the completion of studies. Manuscript development is expected to be a collaborative effort between student and mentor.
- All formal presentations, manuscripts, and documents related to their training and dissertation are expected to be made using the English language. If the primary language of the student is not English, or the student is not fully bilingual, the student, with the advice of the mentor and PIN as necessary, will ensure that they are proficient enough to produce clear, acceptable documents and presentations in English.
- The COVID-19 pandemic may require the student to be vigilant in keeping abreast of the fluid state of health safety requirements. Students are required to adhere to all policies enacted by UMMC, SGSHS, and PIN. Further, COVID-19 restrictions related to travel and group gatherings may limit one's ability to adhere to some of the above routine expectations. Where questions arise, one may contact the Graduate School and/or the Program Director for more guidance.

Responsibilities of the Mentor to the Student:

- The mentor will ensure that the student receives ample training for all laboratory tasks before allowing the student to work independently on those tasks.
- The mentor will clearly communicate expectations for laboratory work, including experimental protocols, data management, daily schedules, and time frames for the completion of work.
- The mentor will provide the scientific guidance and the resources needed to complete the student's dissertation research.

- ➢ The mentor will help the student form an advisory committee in a timely manner.
- ➢ The mentor will allot time for structured, regular meetings with the student to evaluate the student's progress and discuss topics related to the student's research and professional development.
- ➢ The mentor will discuss the student's IDP at any time the student requests, but at least once per year.
- ➢ The mentor will be responsible for stipend and research support for the student consistent with the policy described below (Stipend Support)
- ➢ The mentor will cover the costs of abstract submission, registration, and travel/housing accommodations for *at least* one national scientific conference for each year in the post-candidacy period. Institutional sources can be used to defray these costs.
- ➢ The mentor will create networking opportunities for the student (e.g., by facilitating interactions with research colleagues at scientific conferences).
- ➢ The mentor will train the student to write grants and scientific manuscripts.
- ➢ The mentor will provide opportunities for the student to submit multiple first-author manuscripts.
- ➢ At the outset of each project, the mentor will lead a discussion with the student and other participants in the study to explicitly outline the scientific roles of each participant and the order of authorship for the resulting publication(s). Changes in the arrangement over the course of the study period will be made through group discussion.
- ➢ The mentor will provide guidance in identifying and applying for post-graduate positions.
- ➢ The mentor will support the student's career advancement by serving as a professional reference after the completion of the doctoral degree.

Responsibilities of Mentors to the Program in Neuroscience:

Once a faculty member accepts a student in the laboratory, they **commit** to the following responsibilities:

- ➢ Provide for student's stipend starting summer of G3 and throughout the entire remaining period of dissertation research (even if it extends into G6).
- ➢ Be willing to teach at least 6 hours per year in courses of the Program in Neuroscience.
- ➢ Serve on committees of the Program in Neuroscience when requested.
- ➢ Serve as a role model for the Program in Neuroscience students. This includes attending the Neuroscience Seminar Series sponsored by the Neuro Institute and all Program in Neuroscience student seminars.

B. THE STUDENT ACADEMIC PROGRESS REPORT

Twice yearly, at the end of the Fall and Spring semesters, the student must meet with the Program Director. Prior to that meeting, the student will fill out/update an Academic Progress Report and send it to the Educational Coordinator. The form should be signed

by the student and the mentor *PRIOR* to the meeting. Any edits that are made during the progress report meeting will be conveyed back to the mentor prior to formal acceptance by PIN, but a mentor's signature prior to the meeting 1) indicates that the mentor has reviewed the material; and 2) expedites the processing of the form if no edits are required (typically the case). In the case of first-year students, the Program Director serves as additionally as "mentor" and will sign in that capacity as well. This form is designed in such a way that allows the student to simply continue adding relevant information as is necessary. Do not delete old information. This form is designed to become an historical document of a student's training from the first semester onward. Forms can be obtained from the Educational Coordinator. As new entries are made, please highlight these so that the Director can quickly ascertain what is new. Scheduling the meeting with the Program Director will be made with the help of the Educational Coordinator. First year students, who will not yet have a research mentor, will meet with the Program Director alone. Students in their second year and beyond are encouraged to also invite their mentor to the meeting (but this is not required). This process is time sensitive, so **timely responses** to initial requests for submission of reports and scheduling of meetings is **expected**.

C. STIPEND SUPPORT

The Program is committed to ensuring stipend support is available for all full-time graduate students during their training. The Graduate School provides stipend support for 2 years and 10 months for students, usually during the first three years of their training. For the remaining period (typically beginning in June of the third year), student support transitions over to being paid by research grant funds, training grants, or departmental funds. When a faculty member agrees to serve as advisor for a student, they are doing so with the explicit expectation and commitment of providing all stipend support for that student beyond the time of support offered by the Graduate School. If there is a gap or shortfall in the advisor's funding, the first line of backup is support from the Department of the faculty member's primary appointment. If the department cannot provide that support, then the Program will work with the Faculty member, their home Department, and the Graduate School to arrive at a means for paying the student stipend. Note that there is no guarantee of further funding from the Grad School. Thus, it is imperative that students choose advisors with sufficient funds available to ensure that they will be able to maintain stipend support, as well as have access to research resources, for the entire time of their training. It is equally imperative that Faculty mentors honestly evaluate their ability to carry a student's stipend for at least two or two and a half years following transition away from Grad School supported stipend.

IV. PROGRAM EXPECTATIONS

A. ADDITIONAL PROGRAM EXPECTATIONS

➢ Attend Seminar Series

- Guest speakers and Student seminars

- Read enough about the topic to follow the talk & formulate questions

- Explain any absences to the seminar organizer.

➢ Attend Research Days

- SGSHS (Fall)

- Neuroscience (Spring)

➢ Be an active participant in PIN:

- Luncheons with seminar speakers and faculty applicants (mandatory for G1 through G3; strongly encouraged for G4 and G5)

- Volunteer during PIN recruitment events

- Volunteer for Brain Awareness and SGSHS outreach events

- Be ready to serve as the student representative on the PIN Executive Committee

➢ Support your fellow students

- Attend all student presentations in NSCI 791 (each semester)

- Take an active interest in others' work

➢ Professional behavior

- Respond timely to emails and other pertinent official communications

- Meet deadlines

Mentors should strongly encourage these expectations

B. COURSE OF STUDY OVERVIEW

Course Work and Rotations	Qualifying Exam	Advisory Committee	Dissertation Research Proposal	Research Progress Meetings	Completion and Defense of Dissertation
Years 1-2	End Year 2	Fall year 3	Fall year 3	Years 3-5	End Year 5
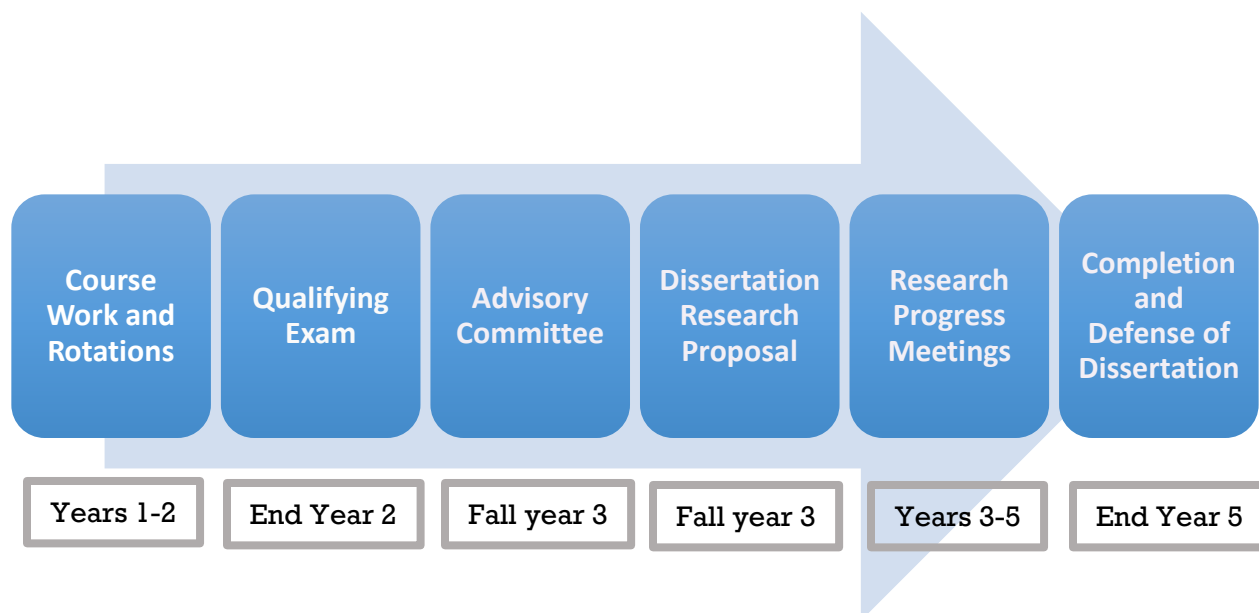
V. COURSEWORK AND ROTATIONS

A. COURSE DESCRIPTIONS

NSCI 701. Foundations in Neuroscience. This course provides a thorough overview of fundamental neuroscience over two semesters spanning ~90 two-hour lectures spanning both the Fall and Spring semesters. It systematically covers neuroscience in an integrated fashion covering the following main topics: 1) Neuroanatomy and Cellular Neurobiology; 2) Molecular/Structural Biology of Ion Channels, Electrophysiology, and Neural Potentials; 3) The Synapse; 4) Motor Systems; 5) Sensory Systems; 6) Developmental Neurobiology; 7) Regulatory Systems; 8) Neural Networks and Connectomics; 9) Neuropharmacology; and 10) Neurobiology of Brain Disorders. The course also presents ~10 "technical lectures" that cover techniques and procedures commonly used in neuroscience research, when and why they are used, the assumptions made in implementing the techniques, and final analyses made possible by the techniques. Finally, lab meetings include the dissection of the human brain. The course includes both didactic and primary literature-based content that is actively discussed during the lectures. It is the keystone required course in the Program in Neuroscience (Fall and Spring semesters).

NSCI 708. Special Topics in Neuroscience. A small group, faculty-led discussion course on selected topics in neuroscience offered by groups of faculty. Students discuss primary literature with the faculty (Summer semester).

NSCI 710. Tutorials in Neuroscience. Tutorials cover specialized topics in neuroscience in depth, in a small group setting. Courses consist of intensive, directed reading and discussion and is intended to provide students with the opportunity to study specialized topics in neuroscience with faculty experts in that area. The objective for this course in this academic year is to study experimental design, scientific rigor, and use of biostatistical methods in neuroscience (Spring semester).

NSCI 720. Neuroscience Journal Club. A review of significant issues in neuroscience including literature review and discussion of recent data and news. Individual students prepare, orally present, and lead discussions on chosen papers (Fall and Spring semesters).

NSCI 721a/b. Scientific Writing in Neuroscience. An introduction to scientific writing that includes: preparation of abstracts for scientific meetings, presentations at meetings, preparation of a scientific manuscript for publication (NSCI 721a); and preparing a grant proposal for extramural funding in the NIH style (NSCI 721b) (Fall and Spring semesters).

B. LABORATORY ROTATIONS

Students in the Program in Neuroscience are required to take two laboratory rotation courses. In their first year, students enroll in NSCI 790 – Neuroscience Laboratory Survey; while in their second year, they enroll in NSCI 791 – Senior Laboratory Rotations. Each course has specific objectives.

NSCI 790. Neuroscience Laboratory Survey. This course is comprised of 4-5 week rotations in up to six active research laboratories in the Program in Neuroscience. A minimum of 15 hours/week is expected to be spent in the chosen laboratory. The goal of these rotations is to expose the student to the breadth of research occurring in the Program in Neuroscience. Additionally, exposure to the approaches and culture of multiple laboratories should allow for the student to make an informed choice when selecting a dissertation mentor and advisory committee members (Fall and Spring semesters).

NSCI 791. Senior Laboratory Rotations. These are intensive laboratory rotations intended for students to begin research in their planned dissertation laboratories. Thus, all three rotations can be within the same laboratory. However, rotations may also be conducted in up to three different laboratories depending on the student's training needs and interests. 20-40 hours/week are expected to be spent in the chosen laboratory depending on the semester. A 20-minute seminar covering research performed under NSCI 791 is given to the combined PIN faculty and students at the end of each semester (Summer, Fall, and Spring semesters).

C. DISSERTATION RESEARCH

Following successful passing of the Qualifying exam (see below), students will spend up to 3 years on their dissertation research:

NSCI 798. Dissertation Research in Neuroscience. (Summer, Fall and Spring semesters). At the end of each Spring semester that a student is registered in NSCI 798, students will present a research talk to the PIN faculty and students. Third year students are expected to present a 20-25 minute research talk and have 5-10 minutes for Q&A. Fourth year students may elect to follow the same timeline as the third year students or may present a longer, 45-50 minute presentation and have 10 minutes for Q&A. Fifth year students (and above) must present a 45-50 minute talk and have 10 minutes (at a minimum) for Q&A.

D. CURRICULUM and RESEARCH TRAINING OVERVIEW- Ph.D. STUDENTS

YEAR 1					
		FALL		**SPRING**	
		Course	Credits	Course	Credits
		NSCI 701 Foundations in Neuroscience	7	NSCI 701 Foundations in Neuroscience	6
		CMB 704 Fundamental Biochemistry	7	ID 709 Responsible Conduct of Research	1
				NSCI 710 Statistics	1
		NSCI 720 Journal Club	1	NSCI 720 Journal Club	1
		NSCI 790 Laboratory Rotation Surveys	3	NSCI 790 Laboratory Rotation Surveys	3
		TOTAL	18	TOTAL	12

YEAR 2					
SUMMER		FALL		SPRING	
Course	Credits	Course	Credits	Course	Credits
NSCI 708 Special Topics in Neuroscience	3	NSCI 721A Scientific Writing in Neuroscience	3	NSCI 721B Scientific Writing in Neuroscience	3
		NSCI 720 Journal Club	1	NSCI 720 Journal Club	1
NSCI 791 Senior Laboratory Rotation	9	NSCI 791 Senior Laboratory Rotation	6	NSCI 791 Senior Laboratory Rotation	6
TOTAL	12	TOTAL	10	TOTAL	10

YEAR 3					
SUMMER		FALL		SPRING	
Course	Credits	Course	Credits	Course	Credits
Qualifying Exam	N/A			ID 714 Professional Skills	1
		NSCI 720 Journal Club	1	NSCI 720 Journal Club	1
NSCI 791 Senior Laboratory Rotation	9	NSCI 798 Dissertation Research	1	NSCI 798 Dissertation Research	1
TOTAL	9	TOTAL	2	TOTAL	3

YEAR 4					
SUMMER		FALL		SPRING	
Course	Credits	Course	Credits	Course	Credits
Elective: NSCI 708 Special Topics in Neuroscience	*3*	*Elective: ID 715 Teaching Skills (Recommended for Year 4; also possible Year 3)*	*3*	*Elective: ID 716 Teaching Skills (Recommended for Year 4; also possible Year 3)*	*3*
		NSCI 720 Journal Club	1	NSCI 720 Journal Club	1
NSCI 798 Dissertation Research	1	NSCI 798 Dissertation Research	1	NSCI 798 Dissertation Research	1
TOTAL	1*(4)*	TOTAL	2*(5)*	TOTAL	2*(5)*

YEAR 5					
SUMMER		FALL		SPRING	
Course	Credits	Course	Credits	Course	Credits
NSCI 798 Dissertation Research	1	NSCI 798 Dissertation Research	1	NSCI 798 Dissertation Research	1
TOTAL	1	TOTAL	1	TOTAL	1

E. CURRICULUM and RESEARCH TRAINING OVERVIEW- M.D./Ph.D STUDENTS.

MD/PhD training in PIN: The Program in Neuroscience (PIN) offers a unique training opportunity for MD/PhD students wishing to complete their dissertation research on issues related to nervous system function. The goal of concurrently training MD students in basic biomedical research is to provide modern research experiences to MD students as a means of producing high caliber clinician scientists. These individuals will be well positioned to drive future research endeavors and contribute fundamental and long-lasting scientific findings to the broad biomedical community.

Entry into PIN: MD/PhD students wishing to enter the Program in Neuroscience should notify the Program Director by the Spring prior to their starting the Program.

Mentor: All students should have identified a mentor willing to direct their research by the end of April before they start their PhD training.

Didactic Training, G1:

1) NSCI 708 Special Topics in Neuroscience (Summer)

2) NSCI 720 (Neuroscience Journal Club) (Fall and Spring)

3) NSCI 701 (Foundations of Neuroscience) (Fall and Spring)

4) ID709 (Responsible Conduct of Research) (Spring)

Research Training, G1:

During the first three semesters (Summer, Fall, Spring) of graduate training, the MD/PhD student should register for NSCI 791 (Senior Laboratory Rotation) for training in the mentor's laboratory.

Didactic Training, G2:

1) NSCI 720 (Neuroscience Journal Club) (Fall and Spring)

2) ID714 (Professional Skills) (Spring)

Research Training, G2 and G3:

For each subsequent semester after passing the Qualifying Examination, the student's training will be recorded as NSCI 798 (Neuroscience Dissertation Research). The student typically registers for 1 credit for NSCI 798 but is considered full time at this credit level once admitted to PhD candidacy.

Exemptions: The time spent in summer laboratory rotations between M1/M2, and M2/M3 years will be considered the equivalent of NSCI 790 (Neuroscience Laboratory Research Survey).

Research Activity: Students will begin collecting preliminary data in the summer of their G1 year and thereafter be in the lab nearly full time, with the exception of the courses outlined above.

Advisory Committee: Nominations of faculty to the student's Dissertation Advisory Committee will be finalized and submitted to PIN at the start of the Fall semester of G1. Because of the rapid pace of the dissertation research undertaken in the MD/PhD

program, students will meet at least three times a year with their committee. This will serve to ensure that research remains on track for a timely conclusion to the research phase of the MD/PhD degree.

Qualifying Exam, NIH Training Grant, and Thesis proposal

Training grant- During the Summer before G1 and Fall semester of G1, students will prepare an NIH F30 grant proposal under guidance of their advisory committee and MD/PhD program fellowship committee members. This grant proposal will be submitted to the NIH during G1 at the earliest possible submission date for the August, December or April cycle.

Qualifier Exam- This NIH F30 grant proposal will also serve as the written portion of the student's Qualifying Examination. The Qualifier Exam will be composed of the written document (F30) and an oral defense of the document. The exam will be conducted by the Chair of the PIN Qualifying Exam Committee at the end of the Fall semester of G1 (December) or beginning of the Spring semester of G1 (January/February). Qualifier exam procedures will otherwise be identical to those followed for the standard PhD student (see section VI, below).

Thesis Proposal- Upon successful completion of the Qualifying Examination, the student will be admitted to PhD candidacy. Note that appropriate Grad School forms must be filed. The F30 grant proposal will also serve as the thesis proposal and will be submitted for approval to the student's Thesis Advisory Committee by the end of the Fall semester of G1 (December) or beginning of the Spring semester of G1 (January/February).

Other Requirements

All other requirements of MD/PhD students and their mentors are the same as those enrolled in the PhD training track in the Program in Neuroscience, including presenting research seminars in the seminar series (G2 = 30 min; G3 = 60 min) and attending all seminars and Grad School and Neuroscience Research Days.

Graduate Year 1					
SUMMER		**FALL**		**SPRING**	
Course	Credits	Course	Credits	Course	Credits
NSCI 791 Senior Lab rotation	9	NSCI 701 Foundations in Neuroscience	7	NSCI 701 Foundations in Neuroscience	6
NSCI 708 Special Topics in Neuroscienc**e**	3	NSCI 720 Journal Club	1	ID 709 Responsible Conduct of Research	1
		NSCI 791 Senior Lab rotation	9	NSCI 720 Journal Club	1
				NSCI 791 Senior Lab rotation	9
				OR if QE passed prior to Spring semester, substitute **NSCI 798 Dissertation Research** in place of NSCI 791	1
TOTAL	12	TOTAL	17	TOTAL	17 (or 9)

Graduate Year 2					
SUMMER		**FALL**		**SPRING**	
Course	Credits	Course	Credits	Course	Credits
NSCI 798 Dissertation Research	1	NSCI 798 Dissertation Research	1	NSCI 798 Dissertation Research	1
		NSCI 720 Journal Club	1	NSCI 720 Journal Club	1
				ID714 Professional Skills	1
TOTAL	1	TOTAL	2	TOTAL	3

s

Graduate Year 3					
SUMMER		**FALL**		**SPRING**	
Course	Credits	Course	Credits	Course	Credits
NSCI 798 Dissertation Research	1	NSCI 798 Dissertation Research	1	NSCI 798 Dissertation Research	1
TOTAL	1	TOTAL	1	TOTAL	1

VI.   QUALIFYING EXAM

A. GENERAL SUMMARY

Goal of the Qualifying Examination: To determine whether the student is ready to be admitted to doctoral candidacy and undertake PhD dissertation research. Specific skills tested include the ability to:

➢ Identify and incorporate pertinent primary research literature into a plan for novel neuroscience research.
➢ Identify key questions/gaps in knowledge in the context of the chosen topic.
➢ Formulate hypotheses and develop experiments to test/support them.
➢ Design and describe positive and negative controls in a research plan, and the statistical evaluations necessary to interpret results from the proposed experiments.
➢ Describe the entire range of potential results, indicate how each type of result would be interpreted, identify key follow-up steps, and design alternative approaches should the first line of research falter.

General Procedure: The Qualifying Examination is intended to be an independent, individual examination of a student's readiness to begin the next phase of graduate study as a doctoral candidate developing, conducting and writing dissertation research. The sum of each student's experiences in classes, laboratories and independent reading will have contributed to the preparedness for the examination.

Given the importance of the Qualifying Examination to a student's progression, **students absolutely may not engage in any laboratory work during the time between when the question is selected and the time the oral examination is fully concluded (including any time required for remediation)**. Student advisors will be notified by the PIN of this expectation. If a student has an ongoing experiment that will require attention during that time, the advisor and the student are expected to work together to find another way of tending the experiment without the student.

Qualifying Examination Committee:

PhD candidates: QE committees consist of three members **plus** one or both Qualifying Exam Committee Chairs. One member is the faculty whose prompt is picked by the student, one member is faculty appointed by the Chair to bring expertise to numerous aspects of the topic covered by the question and/or relevant research design, and one member may be requested by the student. The student's mentor is ineligible as an examiner. The QE Chair does not participate by asking questions of the student. The QE Chair runs the discussion/assessment period of exam following the end of the student's presentation and oral exam and conveys to the student the final decision of the QE committee and announces the method of remediation if any is required.

MD/PhD candidates: The composition of the Examination Committee in this case follows that of the PhD candidates except that all three of the members are chosen by the Qualifying Exam Chairs (i.e., the MD/PhD student is submitting their F30/research proposal for review and not choosing a faculty-submitted question). The student's mentor or any other faculty collaborator on the grant application are ineligible as examiners.

Timeline for the Qualifying Exam:

PhD candidates: Beginning in mid-May (generally at the end of the Spring semester of year 2), students will receive a list of exam prompts. Students will have one week to decide on which question to answer. Students have four weeks to produce their response to the exam question. Final oral exam is anticipated during late June.

MD/PhD candidates: Beginning in the summer prior to G1 and continuing in the Fall semester of G1, the candidate and research mentor will develop an F30 application to be submitted to NIH. This document also will serve as the candidate's dissertation proposal as well as the written portion of the Qualifying Exam. The normal timeline for MD/PhD candidates is accelerated and the F30 application is usually submitted for the August, December or April deadlines. The MD/PhD student's QE can be held in the Fall semester or, depending on when the proposal is submitted, can be delayed into the Spring semester, but cannot be delayed further. Exact timing of the exam depends wholly on when the proposal is submitted and when the QE faculty can be provided the proposal for review (minimum, 2 weeks of review time) followed as soon as possible by the oral defense of the proposal.

B. Written Qualifying Examination

A student may not choose a Qualifying Examination prompt that is submitted by their dissertation mentor or a question that is closely related to the student's dissertation research. The QE Chair will make this determination in consultation with the PIN Executive Committee if necessary. Once a Qualifying Examination prompt is chosen and the choice is submitted to the PIN Office and/or QE Chair, it is to be worked on by each student with no help from others, including other students, faculty, post-docs or outside contacts.

Format for the Written Qualifying Exam:

> **PhD candidates:** The Qualifying Examination response is written following a typical NIH small grant proposal style. It should be no more than 7 pages long (1 page Specific Aims + 6 pages Research Strategy). It should be single spaced, 11 point Arial, 0.5 inch margins. It should also include a Bibliography (any standard format is acceptable) that does not count towards the 7-page limit. The Research Strategy section should include sections on 1) Significance, 2) Innovation, and 3) Approach.

> **MD/PhD candidates:** The candidate will submit select sections of their F30 application [Specific Aims (1 page), Research Strategy (6 pages), Literature Cited], prepared according to NIH guidelines.

C. Oral Qualifying Examination

During the oral portion of the exam, the student briefly presents their written proposal and then fields questions from the QE Committee. Allowing another colleague (student, faculty, etc.) to read the written proposal or to rehearse the student for the oral exam is NOT PERMITTED. The QE Committee will be considering whether a student can reason through problems, is cognizant of potential problems that may arise, is well informed as to the methods employed in the research proposal and has a reasonable level of understanding of the neuroscience underlying the research.

Format for the Oral Qualifying Exam: Students deliver a 10-15 minute concise overview presentation of the research proposal presented as their Written QE. At the conclusion of the presentation, QE committee members ask questions about the experiments proposed and the fundamental neuroscience. Students should anticipate that such questions can include basic neuroscience knowledge upon which the proposal is based, statistical analysis, etc. It is expected that a typical oral exam will last 60-90 minutes.

D. Outcomes of the Qualifying Examination

Three outcomes are possible for the Qualifying Examination.

      a. **Pass**: No further steps are needed. Within a week of the oral exam, students will receive a short synopsis of strengths and weaknesses that the exam committee noted for your own information and for your official file.

      b. **Remediate**: Students may be asked to rewrite part or the entire proposal, or to take a second oral exam, or both. All additional steps needed to "pass" must be completed within 7 days of the initial oral exam. Students will receive a written summary of the requested changes from the QE Chair on the same day as your oral exam.

      c. **Fail**: If the exam committee does not believe that the student can remedy the problems identified during the oral exam within 7 days, the student will fail the Qualifying Examination. **It is important to note that students who are otherwise in good academic standing, will NOT be terminated from the Program for not passing the Qualifying Examination on the first try.** If a student does not pass the Qualifying Examination, the Program Director, in consultation with the Examination Committee and the Executive Committee, will determine what steps must be taken before the student will be permitted to take the Qualifying Examination again and will set the date of a second exam. Retaking the Qualifying Examination, however, must occur before the end of the third year in the Program.

VII. ADVISORY COMMITTEE

All students must form a Dissertation Advisory Committee (sometimes also referred to as a thesis advisory committee) within six weeks of passing the Qualifying Exam, i.e. the start of Candidacy. Members of the advisory committee will have the appropriate expertise to help students successfully navigate their dissertation research projects, provide professional development advice, and should be viewed as a valuable resource. Members can be consulted both informally, as well as during the formal advisory committee meetings.

A. COMPOSITION OF THE ADVISORY COMMITTEE

The committee consists of at least five faculty. These include the research mentor (Chair of the Advisory Committee), at least 3 faculty members of the Graduate Program in Neuroscience, and 1 (or more) graduate faculty from outside the Graduate Program in Neuroscience but within the SGSHS. Additional members of the committee drawn from outside UMMC are encouraged, but not required.

Committee members are selected together by the student and the mentor, subject to approval by the Program Director, who may seek further input from the Associate Director. Students and research mentors will submit the names and short descriptions

of the expertise of the proposed advisory committee member relevant to the dissertation research to the Education Coordinator of the Program in Neuroscience for approval by the Program. Upon Program approval and obtaining the PIN Director's signature, the student will submit the form to the Education Coordinator to be sent on to the Graduate School for final approval. If a proposed member is from outside of the SGSHS, a CV **must** be submitted with the proposal and the form.

Executive Committee Representative: In addition to the above-mentioned members, a member of the Executive Committee of the Graduate Program in Neuroscience may be assigned by the Program Director to serve on the Advisory Committee. This will most often occur with a mentor's first PIN graduate student. In addition to providing research and professional development advice, this member will help ensure that the Program's administrative processes are correctly followed, that timelines are adhered to, and will oversee the overall quality of the dissertation in relation to the Program's standards and requirements. The PIN EC representative will also be able to report to the Executive Committee on the student's progress. In the case of a mentor also sitting on the Executive Committee, the mentor may not serve as the Executive Committee representative on their student's advisory committee.

B. ADVISORY COMMITTEE MEETINGS

Advisory Committee meetings take place at least once every 6 months for PhD students. It is expected that the frequency of meetings for the MD/PhD student could vary depending on progress, but that on average, meetings will be held approximately quarterly three times per year given the expedited time to the PhD graduation and re-integration into the MD track. The first meeting takes place before the end of the fall term of the third year for PhD students and before the end of the fall term for the first year for MD/PhD students. Each meeting can be scheduled with the aid of the PIN Education Coordinator. Dates of the meetings must be recorded in the Student Progress form. Research Proposal or Progress Reports should be provided to the Advisory Committee members 5 business days prior to the scheduled meeting to allow for time to read the updates/progress.

C. RESPONSIBILITIES OF ADVISORY COMMITTEE MEMBERS

Research Mentor's Responsibility: The mentor is responsible for making initial contact with potential advisory committee members to ask if they are willing to serve on the student's committee. Normally this will be done shortly after the student has passed the Qualifying Exam, but changes in the advisory committee composition may occur at different times during the degree. Research mentors also are responsible for helping to ensure that advisory meetings occur on time.

Student's Responsibility: The student is responsible for scheduling the advisory committee meetings and ensuring they are completed on time as per Program and SGSHS guidelines. The student will work closely with the PIN Education Coordinator to schedule the meetings. Students also are responsible for distributing the Research

Proposal and Progress Reports to the committee members and the Education Coordinator in time for the meetings.

<u>Graduate Program in Neuroscience Executive Committee (EC) Representative Responsibility:</u> When an EC representative is assigned to an advisory committee, this person can act both as Program representative and scientific advisor if expertise is appropriate. At their discretion, an EC member can call for additional committee meetings should they believe more frequent and additional meetings are warranted. The EC member reports student progress during the monthly EC meetings. Finally, the EC member can answer any questions regarding the research proposal or progress report format, program or SGSHS guidelines, and serves as the student's advocate.

VIII. RESEARCH PROPOSAL AND PROGRESS REPORT

A. GENERAL SUMMARY

A <u>Research Proposal</u> (i.e., dissertation proposal) must be prepared by the student for the first advisory committee meeting which is to be scheduled before the end of the fall semester of the third year (or first year in the case of a MD/PhD student). When scheduling this first advisory committee meeting, please note that it is expected that the research/dissertation proposal will be approved by the committee before the start of the subsequent spring semester (i.e., committee-required revisions must be made and the Dissertation Approval form signed by start of the spring semester). Thereafter, the student will prepare a <u>Research Progress Report</u> (not to be confused with the general progress report described above) for each advisory committee meeting, to be held at least once every six months (or three months for MD/PhD students). Thus, the goal is to prepare the initial document (i.e. research proposal) for the first advisory committee meeting and then revise and update the document with changes and new information for subsequent advisory committee meetings (i.e. progress report). The progress report will therefore develop and grow as the student progresses through the program.

The Research Progress Report provides an update of the research and academic progress of the student and forms a starting point for discussion during the meeting. It typically should cover progress to date on all Aims, although the student may elect to concentrate any meeting discussion on one aspect of their progress. The Report is expected to also help the student focus his/her thoughts and present the projects clearly and concisely. Progress Reports should be prepared by the student with feedback from the research mentor. <u>The report must be provided to the members of the advisory committee and PIN Education Coordinator by email at least 3 business days prior to the meeting.</u>

What is included in the Research Proposal and Research Progress Report?
A typical dissertation consists of multiple aims/objectives that are related to a central theme, hypothesis, or overall goal. These aims typically result in multiple dissertation

s

chapters or publications (see dissertation format). Therefore, the aims may either be closely related and test a single hypothesis, or may only be loosely related, but center on an overall theme that can be very broad. Students will therefore include **all** of their research plans and progress during the PhD years in the research proposal and progress reports. With **discussion and acceptance** from the mentor, it is acceptable for a student to have "side-projects" in collaboration with other trainees or staff in the mentor's laboratory, and such projects may lead to co-authorships. Such side-projects are summarized during meetings with the advisory committee. All research progress and plans are included in the progress reports; however, the majority of the student's time should be spent on the dissertation research. It is critical that the student understand that the mentor will have a better grasp on timing and effort required for ongoing projects making up the student's major research focus. Thus, it is imperative that open discussion occur when a student wishes to embark on projects related to, but not included in, the formal research proposal.

Format:
The Research Proposal is similar in its content and outline to a F31 proposal. Thus, it will include a brief background, define the aims/objectives and hypotheses, and a brief description of the planned experiments with a summary of the methods (no details are required). This proposal is presented during the first Advisory Committee meeting for approval by the Committee.

The Research Progress Report is similar in its content and outline as the Research Proposal, but with updated results and plans.

There is no restriction to the length of the reports, but they typically consist of 4-6 concisely written pages. Figures are not required, but may be included. If included, figures should be in near publication quality and have legends. Drafts of manuscripts can be attached to the progress reports to provide detailed information of completed projects and solicit feedback on the manuscript. These manuscripts will form chapters in the dissertation (see Dissertation Format).

Overview of Student's Academic Activities:
In addition to the research progress, the student will also inform the advisory committee about academic activities, including courses, conference attendance, publications, and professional development activities. This information will allow the advisory committee members to provide career advice as well as monitor academic progress. An updated Student Progress Form will be used for this; this is the same form used for the twice-annual meetings with the Program Director. The student will clearly highlight the new entries since last advisory committee. Students are encouraged to discuss their IDP with the advisory committee, but this is not required.

Examples:
Contact the PIN Education Coordinator to view examples of Research Proposals and Progress Reports.

Timeline:

Meeting #1: Research Proposal [approved before the end of the fall semester of third year (PhD) or first year (MD/PhD)]

Background of Project - Provides a description of key findings leading to the creation of the hypothesis to be tested. Includes relevant references if applicable.

Specific Aims/Objectives - Define the objectives to be pursued, the rationale for the objectives selected.

Experimental Designs – For each Aim/objective briefly describe the experimental designs and methods that will be employed for each objective.

Dissertation Approval Form: Make sure the Dissertation approval form is signed by all committee members.

Meeting #2: Progress Report *(within 3-6 months after Meeting #1)*

The student will update the Research Proposal and add Progress for each of the Aims/Objectives, by providing results, and/or status of the analysis (in progress, planned etc.). It is expected that research plans will change over the course of the dissertation research. Therefore, the student will clearly indicate which research plans are new and provide the rationale for these new plans, as well as reasons as to why a plan or objective is jettisoned.

Results - Indicate progress on each of the objectives outlined in the research proposal with a brief description of the results obtained. Figures with figure legends for data generated may be included.

Discussion - State the conclusions that can be made from the work accomplished to date and briefly explain how the results contribute to the overall problem to be studied ('Big Picture').

Manuscripts in preparation or submitted and abstracts may be appended as separate documents for consideration by the committee.

All subsequent meetings:
Update the Progress Report and clearly explain all planned experiments. Add the general outline of the chapters to be included in the dissertation, indicating the structure of each of the research chapters.

s

IX. TIMELINE APPROACHING DISSERTATION SUBMISSION AND DEFENSE

A. GRADUATE SCHOOL TIMELINES FOR APPLICATION FOR DEGREE

The Graduate School requires that students approaching time to defend notify the School of their intent to defend. This is done via submission of an application for the degree to be conferred at a specific time of the year. Degrees are conferred 3 times a year, in August, December, and May. The last days for applying for a degree:
> Mid-April for an August degree
> Mid-August for a December degree
> Mid- January for a May degree

Exact dates will vary slightly due to the calendar and can be found on the Graduate School Academic Calendar online. Forms require the PIN Director's signature. Coordinate with the Educational Director and/or the Program Director for signatures and submission.

Deadlines for completion of ALL requirements for degree conferral are as follows:
> Mid-June for an August degree
> Mid-October for a December degree
> Mid-March for a May degree

Exact dates will vary slightly due to the calendar and can be found on the Graduate School Academic Calendar online.

Requirements include, in reverse order of event occurrence:
1) no later than two weeks following the defense, the student must turn in the final version of the dissertation, complete with all Thesis Advisory Committee member signatures, to the Graduate School

2) Public seminar and oral defense by the student's Dissertation Advisory Committee

3) _At least_ 2 weeks prior to the public talk/defense, the student must provide her/his Dissertation Advisory Committee with a firm if not final draft of the dissertation

4) Obtaining clearance from the Dissertation Advisory Committee that the student is ready to formally begin writing the dissertation. This is mandatory, and a Dissertation Advisory Committee meeting can be called as soon as the student, in consultation with their advisor, is ready to make their case for being ready to write.

X.   DISSERTATION FORMAT

A. OVERVIEW

The dissertation format will follow the guidelines set by the SGSHS [(https://www.umc.edu/graduateschool/GraduateSchool_Home.html); click on "Current Students", and then "Forms" under "Documents, Forms and Policies"] which allows for two formats.

1. Article-style thesis/dissertation format, which is intended for doctoral students whose final, completed dissertation will consist of a number of manuscripts or published articles. This may include articles already published in, submitted to, or to be submitted to peer-reviewed journals. In addition, it may include data from studies conducted during the candidacy that are part of the dissertation but not yet included in manuscripts either submitted or in preparation.

2. Traditional style dissertation, which is intended for students whose dissertation consists of a single set of studies, or a single monograph.

The Program in Neuroscience expects that students will have multiple studies and publications deriving from their PhD dissertation. Accordingly, the Article-style dissertation format is usually recommended. Previously published articles to be included in the dissertation should be formatted according to the standard outlined by the Graduate School (see below). Thus, formatting should be seamless and consistent between sections/chapters.

B. DISSERTATION OUTLINE

Dissertation Outline (Article-style format):

   I.   Title Page (see link above for examples)
   II.   Signature Page
   III.   Abstract
   IV.   Dedication (optional)
   V.   Acknowledgements (optional)
   VI.   Table of Contents
   VII.   List of Tables (see Note 1)
   VIII.   List of Figures (see Note 1)
   IX.   Introduction and Review of Literature (see Note 2)
           a. Literature cited in Introduction and Literature Review (see Note 3)
   X.   Research Chapters: Each chapter containing:
           a. Title page including authors contribution statement (see Note 4)
           b. Introduction (see Note 5)
           c. Materials and Methods (see Note 6)
           d. Results: (see Note 7)

      e. Discussion (see Note 8)
      f. Literature cited (see Note 3)
      g. Figure captions
      h. Tables and Figures
XI.   Overall Summary and Discussion (see Note 9)
      a. Literature cited in Discussion (see Note 3)

Notes:
1. Lists should be according to Chapter, using a 1.1,1.2…to n.1,n.2 format
2. This section will describe the overall hypothesis or question, the studies and sub-hypotheses or questions, and explain their significance. It will contain an extensive review of relevant background literature to describe the broader context and introduce main concepts and hypotheses or research questions.
3. All citations will be formatted identically throughout the dissertation, including Introduction and Literature Review, all chapters, and Summary and Discussion. Set your citations manager to use Journal of Neuroscience style for this section and throughout the dissertation.
4. Since manuscripts may contain multiple authors and include data not collected by the student, the contributions of each individual author will be stated on the title page of each research chapter.
5. The typical journal Introduction; usually a word limit set by the journal and not including a very broad literature review background.
6. Material and Methods: only for that particular chapter
7. Results: only for that particular chapter
8. Discussion: only for that particular chapter
9. In the overall Summary and Discussion, the student will describe how the studies fit together and test the overall hypothesis or address the overall question. Future directions may be identified.

All formatting including fonts, margins, etc., must be consistent throughout the dissertation and adhere to SGSHS guidelines. Complete guidelines and formatting tips can be found on the SGSHS website (see link above).

It is the student's and research mentor's responsibility to strictly adhere to the formatting guidelines.

XI.   DISSERTATION DEFENSE/EXAM FORMAT

A. PROCEDURE FOR DISSERTATION DEFENSE

The student will present their dissertation research in a public, seminar-style setting. After a short period of questions from the pubic audience, the public portion of the defense is concluded. The student will be asked by the examiners to leave the room for a brief period of time. During this time, the examiners, comprised of the members of the advisory committee (VII.A, above), will share their impressions and determine the order of questioning.

The student is then invited back into the room and the exam begins. The exam will typically last for 1.5-2 hours, and consist of one or two rounds of questions from the examiners.

The Chair of the Dissertation Defense will take notes throughout the exam and keep track of the time.

After completion of the questioning, the student is again asked to leave the room, while the examiners reach their decision and compile recommendations.

Finally, the student is invited back into the room and the Chair will convey the exam committee's decision to the student in the presence of all examiners.

The research mentor will oversee any revisions required by the examiners.

XII. PROGRAM GOVERNANCE AND COMMITTEES

A. OVERVIEW

The Graduate Program in Neuroscience is an interdepartmental research training program whose activities are dependent on the voluntary participation of faculty from participating departments in model of shared governance. The following is a list of current committees and administrative roles in Program:

B. PROGRAM STRUCTURE

UMMC Neuro Institute – Along with the SGSHS, the Operating Board of the Neuro Institute is the oversight body for the Program. The charge of this group includes budgetary approval and oversight, selection and review of the Program Director, and long-range programmatic planning, the latter in the context of the larger scale development of neuroscience research, education, and clinical services at UMMC.

Director – The Director is responsible for providing oversight for all aspects of the operation of the Graduate Program, the progress of students and all program activities. The Program Director reports to the Operating Board of the Neuro Institute and the Graduate School, chairs the Executive Committee, and works with the Associate Director and Executive Committee to develop the curriculum, oversee recruitment and admission of students, support the credentialing of faculty, and oversee other program events. The Director will serve as the primary program representative on the SGSHS Graduate Council and other committees as needed. The Director is appointed by the Operating Board of the Neuro Institute for a fixed term of 3 years.

Associate Director – The Associate Director has responsibility for all aspects of student recruitment and the annual admissions process, including the preparation of recruitment

materials, organization of on-site and off-site recruitment events, the interview and selection process, and communications with applicants and faculty related to admissions. As noted above, the Associate Director serves as a member of the Executive Committee, and as Chair of a Recruitment and Admissions Committee comprised of EC members and other PIN faculty. In addition, the Associate Director serves as an alternate representative for the Program on the SGSHS Graduate Council and other committees as needed. The Associate Director is appointed by the Operating Board of the Neuro Institute for a 3-year term.

Executive Committee – The Executive Committee (EC), chaired by the Director, will be responsible for operations of the program, including its curriculum, recruitment and admissions, student guidance, and mentoring and career development support. The EC is comprised of 3 elected faculty members plus the Director and Associate Director. EC members are elected by majority vote of the PIN faculty from a slate of candidates drawn from all current PIN faculty, which is reviewed and approved by the PIN EC prior to the election. Subcommittees may be developed to assist the EC in its duties. The 5 faculty members are voting members of the EC. The EC also includes one non-voting student member, who is elected by majority vote of the PIN graduate student body. The EC meets at least monthly; motions require a simple majority to carry, but changes in Program policies or training goals must also be approved by the Operating Board of the Neuro Institute. Faculty members serve a 3-year term; the student member serves a 1-year term.

Recruitment/Admissions Committee – The Recruitment/Admissions Committee is chaired by the Associate Director and is responsible for reviewing application materials from prospective students, interviewing prospective students, participating in recruitment events, and providing recommendations for admission offers to the Executive committee. Members are invited to join by the Director and Associate Director and serve a 2-year term.

Curriculum Committee – The Curriculum Committee is chaired by the Director and provides oversight of the program curriculum. The Committee is responsible for evaluation and modification of existing courses and developing new course offering/program activities to augment training in scientific knowledge, research skills, communication skills, professionalism and other core competencies. Members of the Curriculum Committee are invited to join by the Director, and typically consist of current course directors.

Program Education Coordinator – The Program Education Coordinator provides administrative support to students, Course Directors, Program Director, Associate Director, and Executive Committee, and assists in the preparation of periodic reports to the Operating Board of the Neuro Institute, SGSHS and other bodies.

XIII. TEACHING

A. TRAINING IN TEACHING

Teaching skills are an essential core competency to be acquired by all graduate students. Therefore, it is recommended that student's elect to participate in the opportunities listed below. In addition, it is recommended that a student partake in teaching courses and opportunities in the 3rd and 4th years in consultation with the research mentor and advisory committee.

ID 715 and ID 716: Teachers in Training
SGSHS has established a program for students to participate in a teaching practicum, in collaboration with the School of Health Related Professions as well as area community colleges and universities. The PhD student is mentored to provide lectures in the areas of self-identified expertise (i.e. neuroscience). The Teachers-in-Training Program allows participants to experience mentorship, observation, and teaching in an undergraduate classroom at neighboring institutions or universities. This opportunity offers selected participants the ability to gain an enhanced level of teaching experience, mentoring, and observation designed to increase professional development and preparation for a career in higher education. This is a chance for graduate students who are interested in teaching as a career to experience university teaching with a mentor-teacher.

The student will first register for ID 715, Teaching in Higher Education (3 hours credit) and meet once per week with a mentor to refine teaching technique and presentation materials. Participants receive instruction on the basics of learning styles, teaching philosophies, course development, and assessment in addition to teaching and learning techniques.

Students then register for ID 716, Teaching Practicum (1 hour credit). After the student receives his/her teaching assignment and teacher-mentor, the mentor will observe the student for one class period; provide feedback and guidance then do a formal evaluation culminating in a course grade.

XIV. LEAVE POLICIES

All vacation/sick time requests should be approved by the mentor and reported to the Education Coordinator prior to the student taking leave time. Extended leave time requests also must be approved by the Program Director and SGSHS. Stipend payments and insurance coverage will continue while the Graduate Assistant-Stipend student is on approved sick, vacation, or parental leave. Sick, vacation, and parental leave days do not accrue from year to year.

A. SICK LEAVE

A Graduate Assistant-Stipend student may be granted up to 15 days of sick leave per calendar year or prorated based on the stipend start date as listed below:

- ➤ January – March--15 days of sick leave.
- ➤ April – June--12 days of sick leave.
- ➤ July – September--8 days of sick leave.
- ➤ October – December--4 days of sick leave.

B. VACATION LEAVE AND HOLIDAYS

A Graduate Assistant-Stipend student will receive stipend payment for all UMMC approved holidays. In addition, they may be granted up to 15 days* of vacation per calendar year or prorated based on the stipend start date as listed below (*note "days" refers to business days):

- ➤ January – March--15 days of vacation leave.
- ➤ April – June--12 days of vacation leave.
- ➤ July – September--8 days of vacation leave.
- ➤ October – December--4 days of vacation leave.

Vacation days do not accumulate and amount of vacation days re-sets January 1. Missing more than 15 business days/year for vacation will result in loss of pay.

C. PARENTAL LEAVE

A Graduate Assistant-Stipend student may be granted up to 30 calendar days of parental leave per year for the adoption or birth of a child. Either parent is eligible for parental leave. They may request to use any residual sick or vacation time to extend the period of paid parental leave.

D. LEAVE OF ABSENCE

A leave of absence is generally granted to students in good academic standing with the university and approved by the Program Director and Dean of the Graduate School. For students in good academic standing, a leave of absence is generally approved for no more than one academic semester for personal, financial or medical reasons. For students not in good academic standing, i.e., those whose GPA is less than 3.0 or whose research efforts/results are not satisfactory, leaves of absence will be given at the discretion of the Program Director and Dean of the Graduate School. Such students will be permitted the option of withdrawal. Stipend payment is suspended during a leave of absence. Thus, a leave of absence is designed for highly extenuating circumstances beyond what would normally be considered for short-term health or family issues, for example. Guidance as to whether a planned absence falls within the intent of a full

leave of absence should be sought from the Program Director and/or the Grad School administration.

A Graduate Assistant-Stipend student is required to be actively enrolled and covered by the student health insurance plan for a minimum of three months prior to the beginning of a leave of absence. If the Graduate Assistant-Stipend student is allowed to take a leave of absence, the school will continue to pay for health insurance for up to two months. If additional leave of absence is required after the two-month period, health insurance will be terminated unless the student applies for the continuation of coverage through the Office of Student Accounting. This continuation of coverage will be at the student's expense.

XV. HEALTH AND WELLNESS

A. EMERGENCY MEDICINE

If you have an accident or experience a medical emergency, first decide if you can make your way to the Emergency Room for medical care. If this is not possible or in your opinion not feasible, call:
<div align="center">

x4-1111
</div>

Otherwise, do not hesitate to make your way to the Emergency Room. Whenever possible, have another person accompany you to the Emergency Room.

To find the Emergency Room <u>from within the Main Hospital complex</u> of buildings (Research Wing, North Wing, etc.) *one* route is as follows:

1) from the N bank elevators (of the North Wing), proceed to the basement
2) exit right out of the elevators and take the immediate right.
3) head past the Post Office window and continue straight through the intersection (the shipping and receiving loading dock will be on your left for orientation)
4) continue straight down the hallway.
5) you will soon pick up a yellow and a red line in the floor. Follow the red line and start looking for the Emergency Room signs.
6) entrance to the Emergency Room will be on your right

To find the Emergency Room <u>from the TRC building</u>, *one* route is as follows:
Head left on Central Univ. Dr. (directly in front of the TRC). Passing Garage A on the left, head left at the next intersection on West Univ. Drive. Proceed past the Adult Hospital, heading slightly left and look for signs for the ER (just past the Critical Care Hospital).

Always be prepared. Scout out the location of the Emergency Room during a lunchtime walk, or any other time you need to just take a break.

Student and Employee Health serves as the primary resource for occupational-health services such as immunization, tuberculosis screening, and non-symptomatic COVID-19 screening, when needed for academic purposes, such as documentation required for clearance to participate in learning activities at other institutions. Student and Employee Health is also the preferred option for initial assessment of non-emergency occupational health-related injuries that occur on weekdays between the hours of 7:00 am to 4:30 pm. Student and Employee Health does not charge for provider or nurse actions in providing services to students, but charges may be incurred for laboratory or imaging services. **Student and Employee Health can be contacted for appointments or questions about services by calling (601) 984-1185**.

If there is a severe occupational injury or a situation, such as a blood or body fluid exposure, that requires urgent treatment at night or on a weekend, students should seek care at the **UMMC Emergency Department** and notify Student and Employee Health afterward. Students in Mississippi are not covered by Workers Compensation and so may incur costs related to workplace injuries. Normal healthcare procedures, such as billing insurance, will take place as appropriate.

Students may access primary care services through **UMMC's Quick Care clinic**, which is operated by the Department of Family Medicine in the Lakeland Medical Building at 764 Lakeland Drive. Quick Care is a full-service primary care practice in a private, confidential setting, and will provide students a large spectrum of services, including sick visits, preventive services, and care for chronic conditions. The physician and other providers at the Quick Care clinic do not teach, evaluate, or make recommendations for student advancement. Quick Care is available Monday through Friday from 7:40 am to 4:20 pm and offers both in person and telehealth visits. To schedule an appointment at Quick Care students may call **(601) 984-6800**.

B. STUDENT ASSISTANCE PROGRAM

Stress is a fact of life and there may be times that a student needs additional support and guidance to come up with answers and practical solutions. In recognition, UMMC has an outstanding Student and Employee Assistance Program; called LifeSynch. This service is available at any time on any day, and maintains strict confidentiality.

Further information can be found on this website:
https://www.umc.edu/Office%20of%20Academic%20Affairs/For-Students/Student%20Affairs/Student%20Assistance.html

Phone number: (866) 219-1232
Brochures can be found in the SGSHS entrance office.

General website for Student Support/Affairs contact:
https://www.umc.edu/Office%20of%20Academic%20Affairs/For-Students/Student%20Affairs/Student-Affairs-Home.html

C. STUDENT COUNSELING AND WELLNESS CENTER

UMMC has developed a free and anonymous Student Counseling and Wellness Center to help students manage the stress and difficulties of life. Licensed psychiatrists and psychologists are available to confidentially address issues including stress and anxiety, depression, and adjustment issues. Appointments are available during standard business hours.

Further information can be found on this website:
https://www.umc.edu/Office%20of%20Academic%20Affairs/For-Students/Student%20Affairs/Student%20Counseling%20and%20Wellness%20Center.html
Phone number: (601) 815-5588, email: scwc@umc.edu

Humana EAP and Work-Life Services is the UMMC student and employee assistance program, which offers short-term counseling and online resources that are **free** to UMMC students. Examples of available assistance include: Emotional issues, Relationship concerns, Coping with a serious illness, Weight control, Sleeping difficulties, Loss of a loved one, Workplace concerns, and Smoking cessation.
There are two ways to utilize the program:

- Call **1-866-219-1232** to speak to a counselor on the phone. Student Employee Assistance Program offers short-term counseling, up to three visits per issue per year, to help UMMC students and employees and members of their households manage everyday life issues.
- Login to https://www.eapwl.com/ with username **ummc** and password **ummc** to access a number of resources.

D. STUDENT FITNESS

The Fitness Center is a facility dedicated to the promotion of healthy attitudes and lifestyles among future health care professionals. It offers students and residents a wide variety of fitness resources, including controlled weight machines, free weights, treadmills, bikes, steppers, aerobic studio, basketball/volleyball court and jogging track.

In addition, the Fitness Center offers towel and locker service, showers, equipment checkout and supports the UMMC recreational sports programs.

E. STUDENT RECREATION

The Recreation Center is located on the first floor of the Norman C. Nelson Student Union. It features a ping pong table, foosball table, video games, 2 pocket billiard tables, 2 large screen TVs, kitchenette, locker service, and most importantly, a relaxed atmosphere. The Recreation Center is open to all UMMC students and residents seven days a week. Local neighborhood facilities (e.g., Fondren Fitness) also exist for daily/weekly/monthly/annual fees. Such centers can be found via internet searches.

XVI. PROGRAM-RELEVANT CONTACT INFORMATION

Graduate Program in Neuroscience

Director:
Dr. Eric Vallender
Office: TR421
Office phone: 601-984-5893
Email: evallender@umc.edu

Associate Director:
Dr. Paula Warrington
Office: TR419
Office phone: 601-815-8969
Email: jpwarrington@umc.edu

Education Coordinator:
TBD

School of Graduate Studies in Health Sciences

Main:
Office: 601-984-1195

Associate Dean for Student Affairs:
Dr. Hannah Broome
Office: 601-984-1204
Email: hjbroome@umc.edu

Associate Dean for Academic Affairs:
Dr. Sydney Murphy
Office: 601-984-1206
Email: smurphy@umc.edu

University of Mississippi Medical Center

Office of Student Affairs:

https://www.umc.edu/Office%20of%20Academic%20Affairs/For-Students/Student%20Affairs/Student-Affairs-Home.html

Associated Student Body:

https://www.umc.edu/Office%20of%20Academic%20Affairs/For-Students/Student%20Affairs/Associated-Student-Body/Overview.html

Chief Diversity & Inclusion Officer: Dr. Juanyce Taylor
Office: 601-984-1010
Email: jdtaylor@umc.edu