

# **PROGRAM HANDBOOK**

## **2021-2022**

## Northwestern University Interdepartmental Neuroscience Program Student Handbook 2021-22

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Please reach out to a NUIN contact if you have questions about the following:

- Student advising, curriculum, student groups, policies, admissions, and NUIN misc.: **Dr. Jena Pitman-Leung**
- Financial matters (stipends, tuition, funding sources, reimbursements): **Asta Stekovic**
- Program milestones and requirements: **Dr. Stephanie Valtierra**
- T32 and PREP administration: **Dr. Cassandra VanDunk**
- Website issues: **Program Assistant (TBD)**

Minor decisions regarding changes to NUIN policy are made by the Directorship, with input from the NUIN Administrative team. Major changes to NUIN policy are made after discussion with the NUIN Faculty Advisory Board, consisting of Committee Chairs and the Progress to Degree Advisory Committee, and by involving the entire student and faculty body as appropriate. Refer to the [NUIN website](#) for a complete listing of the NUIN Faculty and Student leadership.

## Section I: Program Requirements and Milestones

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### Overview of Major Milestones

The NUIN Student handbook outlines the requirements to successfully complete a PhD in NUIN according to both NUIN Program and TGS guidelines. Both TGS and NUIN require all students to complete 9 units of graded coursework, a Qualifying Exam, a Thesis Prospectus, and a Dissertation. NUIN students are expected to attend all curricular and research activities in person for all years of study unless otherwise notified by NUIN administration.

#### **Coursework:**

NUIN students complete 9 units of graded coursework. NUIN recommends that coursework be completed within 8 quarters except under special circumstances. TGS regulations require coursework to be completed within the first 12 quarters. NUIN requires students to take 5 courses (3 worth 1 unit each, 2 no-credit classes) and 1 Biostatistics elective.

#### **Qualifying Exam/Advancement to Candidacy:**

NUIN requires all students to have completed their Qualifying Exam/Advancement to Candidacy by the end of Summer Quarter of the 2<sup>nd</sup> year.

#### **Thesis Proposal/Prospectus:**

NUIN requires all students to have completed their PhD Proposal/Prospectus by end of Summer Quarter of the 3<sup>rd</sup> year.

#### **First author Publication:**

NUIN students must publish at least one first-author research article from their graduate work.

#### **Graduation:**

NUIN expects all students to complete their dissertation research in a timely manner and to complete a written dissertation, oral thesis defense, and public seminar prior to graduation.

### Timeline

#### **A. First Year:**

- NUIN 401-1, 401-2, 401-3 – Fundamentals of Neuroscience (Required; 3 quarters, 3 units)
- NUIN 407 – NUIN Graduate Foundations (Required, 0 Unit)
- Electives (typically 2 electives in the first year)
- NUIN 490 – Responsible Conduct of Neuroscience Research (0 Unit)
- NUIN 590 – 3 in person laboratory rotations (additional if necessary)
- Seminar Attendance Requirement (6 per quarter in Fall, Winter, Spring)
- Meet with Advising Committee 4 times during the year
- Identify a graduate Thesis Advisor and begin working in their laboratory
- Complete required safety training (online and in-person)

#### **B. Second Year**

- Complete all coursework, including a required approved Biostatistics course
- Complete Teaching Assistant requirements
- Register for NUIN 590 each quarter
- Meet with Advising Committee twice during the year
- Begin research in thesis laboratory
- Complete Qualifying Exam and achieve PhD Candidacy by August 31st
- Create and submit an IDP

#### **C. Third Year**

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- Register for TGS 500 – Advanced Doctoral Study
- Conduct thesis research
- Form and have initial meeting with Thesis Committee
- Present Thesis Proposal (also referred to as a Prospectus)
- Create and submit an IDP

### **D. Fourth Year and beyond**

- Conduct thesis research
- Register for TGS 500 – Advanced Doctoral Study
- Present PACT – Post-Advancement to Candidacy Talk
- Meet with Thesis Committee (annually)
- Create and submit an IDP (annually)
- Publish at least one first author article
- Write and defend dissertation

## **First Year of Study**

### **Coursework and Registration:**

Students take at minimum 2 courses per quarter in their first year (4 required classes, 2 elective classes), and complete 1 in-person laboratory rotation per quarter (requiring registration for NUIN 590). Students must enroll for 3 units per quarter to maintain full-time status. The number of units taken for NUIN 590 should be adjusted each quarter to ensure enrollment for 3 credits.

To count as an elective, a course must either be a 400-level (Graduate) class, or a 300-level class that has been approved by TGS as a graduate level class (it will say TGS under “Career”). TGS allows students to register for a total of two 300-level courses.

Students entering NUIN from the Northwestern University Neurobiology MS program may count up to 2 graded electives from their MS degree towards their 9-course PhD requirement. To count, the class must be a 400-level class that has already been approved as a NUIN elective. Previous electives will be discussed and approved during NUIN Advising. NUIN does not allow transfer credits for graduate level coursework completed at other institutions or from other MS programs at NU. In some cases, students may be exempt from certain NUIN coursework requirements if their graduate level transcripts show mastery of overlapping topics (e.g. biostatistics). These exemptions must be petitioned for and approved during quarterly Advising Meetings during the first year of study. Exempted courses do not count towards 9-unit requirement.

### **Fall Quarter:**

- NUIN 401-1 (1 unit): Neurogenetics/cell biology and neural development/signaling pathways
- NUIN 407 (0 unit): NUIN Graduate Foundations
- 2 units of NUIN 590, complete laboratory rotation and rotation requirement
- Complete seminar requirement

### **Winter Quarter:**

- NUIN 401-2 (1 unit): Cellular neurophysiology and sensory systems
- 1 elective (1 unit). Recommended elective NUIN 440 (1 unit): Neuroanatomy
- Register for 1 unit of NUIN 590, complete laboratory rotation and rotation requirement
- Complete seminar requirement

### **Spring Quarter:**

- NUIN 401-3 (1 unit): Motor systems and cognitive neuroscience

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- 1 elective (1 unit). Recommended elective is NUIN 408 (1 unit), Biostatistics
- Register for 1 unit of NUIN 590, complete laboratory rotation and rotation requirement
- Complete seminar requirement.

Summer Quarter:

- NUIN 490: Responsible Conduct of Research (0 Unit)
- NUIN 590

### **Laboratory Rotations Requirement (NUIN 590):**

Students are required to complete research rotations in a minimum of 3 different laboratories. These usually take place Fall, Winter, and Spring quarters of the first year. In some cases, previous research at NU will count towards the rotation requirement (see below). Arranging laboratory rotations is primarily the responsibility of the student. NUIN Advisors will provide guidance to students during each advising session.

#### *Campus Breadth Recommendation:*

Students are expected to do at least 1 rotation on each campus. Students who wish to complete all rotations on one campus must submit a petition to the NUIN Assistant Director outlining the scientific reason for their choices and indicating why there are no suitable options on the opposite campus.

#### *Switching Laboratory Rotations:*

In rare cases, a student or host faculty member may realize early in a rotation that the laboratory is not a good match for the student's interests and goals. In these cases the student may switch rotations. This must be done prior to the mid-point of the quarter and only following a discussion with the NUIN Advisors. The student will be required to adhere to the program expectations (e.g. talks, presentations, write-ups).

#### *Rotation Evaluations:*

The rotation advisor completes an online evaluation that the student will receive near the end of the rotation. Students and rotation advisors are encouraged to have an exit interview to go over the evaluation and discuss the rotation experience.

### **Laboratory Rotation Requirements by Quarter:**

Refer to *Appendix I: First Year Requirements* for more detailed information on the quarterly requirements.

#### *Previous research at Northwestern:*

NUIN will allow previous research experience conducted at Northwestern to count towards the rotation requirement under specific circumstances:

1. Student completed MS thesis work in the laboratory of a current NUIN faculty and wrote, defended, and submitted a MS Dissertation to NU.
2. Student was a scholar in the NU-PREP program in the laboratory of a current NUIN member and presented their work orally at the PREP Symposium.
3. Student was a research technician/assistant in the laboratory of a current NUIN faculty in the Summer Quarter prior to matriculation. To count as a rotation, they must follow the guidelines outlined below for a Summer Quarter (pre-matriculation) rotation.

#### *Summer Quarter (pre-matriculation):*

To count towards the rotation requirement, rotations completed during the summer prior to matriculation must be at least 6 weeks in length, and must be in the laboratory of a current NUIN faculty member. Rotations must be completed no later than the second week of September. Students must complete a rotation report and submit to NUIN and their advisors. Rotation advisors are required to fill out an evaluation. Technical work by employed research technicians does not count a rotation project.

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### *Fall Quarter:*

Students will prepare a scientific poster describing their research project at the end of the Fall Quarter. Instruction on creating scientific posters will be provided towards the end of the quarter. A rough draft of the poster in electronic form is due by 11:59 pm on the Friday of exam week for the quarter. Students will finalize and present their posters during one of the recruiting events in Winter Quarter.

### *Winter Quarter:*

Students will write a scholarly report, 6-8 pages in length, organized as described below, at the end of the Winter Quarter. Reports are to be submitted by 11:59 pm on the last day of final exams for the quarter. The advisor will communicate their assessment of the report as part of their evaluation of the rotation student.

### *Spring Quarter:*

Students will present a research talk to their peers and their Thesis Advisor at the end of the Spring Quarter. NUIN hosts a Rotation Talk event in June. Students in Evanston laboratories may present at the Neurobiology Data Talks in lieu of the NUIN hosted event. If the student completed their rotation requirements and has already joined a laboratory they will not be required to present a Scientific Research Talk in the Spring.

### *Additional Rotations (Summer and Fall, post-matriculation):*

Thesis Advisors typically are identified within 3 rotations, but in some cases additional rotations are required. Students may do a 4<sup>th</sup> rotation, and under special circumstances, a 5<sup>th</sup> rotation—in these cases, students must meet with their NUIN Advisors to seek further advice on rotation selection and timelines. There are no formal rotation requirements for students completing additional rotations, however all advisors must complete an evaluation.

Students who do not complete the laboratory rotation requirements will receive an Incomplete in NUIN 590. See

### **Seminar Requirement:**

First year students are required to attend a minimum of 6 live/synchronous science related seminars given by a non-NU researcher each quarter except Summer Quarter. Students are required to complete a Seminar Attendance form (See *Appendix I: First Year Requirements*, for more detail) indicating which seminars they attended (speaker name, institution, title, date) and a 2 to 3 sentence summary or critique of each seminar. The Seminar Attendance form is due the day prior to the last day of exams for the quarter.

Students will not be eligible for NUIN training-grant support or other privileges and they will not be admitted to candidacy until the seminar requirement is fulfilled.

### **Advising:**

Starting the summer prior to matriculation students meet quarterly with an Advisory Committee consisting of the NUIN Assistant Director and one member of the Faculty Advising and Progress to Degree Committee. This committee advises students regarding course selection, laboratory rotations, and helps to identify and address any potential problems. Students are encouraged to seek out any member of their committee as needed.

### **Selection of Thesis Laboratory:**

Thesis Advisors are selected based on research interests and mentorship, and, most importantly, a mutual fit between the advisor and laboratory environment and the student. Students can initiate discussions about joining a laboratory at any time, but are expected to either join a laboratory or begin another rotation a week before the end of the Spring Quarter of their first year. Students should send an email to NUIN stating the choice of thesis laboratory once a NUIN faculty member has agreed to act as their Thesis Advisor. NUIN will then send a Thesis Advisor Agreement letter to the Thesis Advisor outlining the funding structure and program requirements. This letter must be signed by the Thesis



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Advisor, Department Chair, student, and BSA representative (if the Thesis Advisor holds their primary appointment in a basic science department at FSM), and returned to the program.

### **Individual Development Plans (IDPs):**

Students must meet with their Thesis Advisors to discuss and generate an Individual Training Plan (See *Appendix II: Individual Development Plans* for more detail) by the end of the first year of study (as soon as the thesis laboratory has been selected). The IDP is designed to allow the Thesis Advisor and student to set annual goals towards research progress and career development. The first IDP should be created as soon as a student joins a thesis laboratory and must be completed annually thereafter. The IDPs must be submitted to NUIN or uploaded to GSTS no later than the beginning of each academic year.

### **Biostatistics Requirement:**

A biostatistics course is required to be taken by all students. At the discretion of NUIN Leadership and the students Advisors, this requirement may be waived in cases that a student has extensive prior knowledge that is more than sufficient for the anticipated thesis research.

NUIN recommends that students take NUIN 408 – Statistics and Data Analysis for Neuroscience to fill this requirement. Other courses that meet this requirement include:

- IGP 484-0 Quantitative Biology: Statistics and Data Analysis for Life Scientists
- PUB\_HLTH 302 – Introduction to Biostatistics
- PUB\_HLTH 421 – Intermediate Biostatistics
- Psych 380 – Advanced Statistics and Experimental Design
- Psych 450 – Fundamental Statistics

Contact NUIN to confirm if classes not listed here count towards the Biostatistics requirement.

## **Second Year of Study**

### **Selecting additional electives:**

In addition to Fundamentals, NGF, and Biostatistics, students take 4 additional electives/units, which are typically completed in the 2<sup>nd</sup> year. These may be chosen from among courses offered through NUIN, the department of the student's Thesis Advisor, DGP, IBiS, or other departments. Electives should be chosen in consultation with the Thesis Advisor and/or the Student Advising Committee.

NUIN recommends that all second-year students take NUIN 414: Finding Your Voice as a Scientist (Spring, 1 unit), a course focused on scientific communication.

### **Registration for In-person Research:**

Students must continue to register for NUIN 590 each quarter in their second year. The number of units must be adjusted to bring the total units taken to 3 (the criterion for full time student status).

### **Teaching Assistantship:**

Students serve as a Teaching Assistant (TA) for 2 quarters. TA assignments may include undergraduate or graduate level courses, including laboratory courses that may be equivalent to 2 assignments due to the additional time commitment required. This requirement is typically completed during the student's second year. Approval of delayed completion (to the third year) is at the discretion of the Assistant Director. All new TAs must attend a one-day TGS-sponsored workshop for new teaching assistants, offered in September every year. Students will not be approved for graduation until they have completed their TA requirement.

International students must fulfil TGS's spoken English proficiency requirement before being [appointed as teaching assistants](#).

### **Advising:**

Second-year students meet twice with their NUIN Advisors. The purpose of these meetings is to ensure that the transition into the thesis laboratory is going smoothly, to help in selection of remaining electives, to review deadlines for upcoming milestones, and to specifically address any questions or concerns related to the Qualifying Exam and Thesis Proposal.

### **Qualifying Exam/Advancement to Candidacy:**

*NOTE: Refer to Appendix III: NUIN Qualifying Exam Guide for more detailed information on this milestone.*

The objectives of the Qualifier Exam are to: 1) determine the student's progress on scientific and experimental reasoning as reflected by their knowledge of experimental strategies and methods, the ability to converse in real time about the rationale and experimental design of their project, and an ability to discuss potential pitfalls of those experimental strategies and methods; and 2) determine the student's understanding of the background knowledge needed to complete a PhD in Neuroscience in their field, appropriate to the level of a second year student in NUIN. This background knowledge includes factual information, theoretical concepts and methodological approaches relevant to their project and obtained through coursework and review of relevant literature.

The Qualifying Exams are oral and consist of a Research Chalk Talk (use of a whiteboard but not slides, presentation or other prepared visual aids). The student will be questioned on the Rationale, Approach, Results, Interpretation, and Significance of the project they discuss. No preliminary results are required, but students are expected to be conversant in potential experimental outcomes. Students also are expected to be knowledgeable about general principles related to the topic of their Research Chalk Talk. The purpose of the Qualifying Exam is to demonstrate the progress of the student's scientific and experimental reasoning to the Committee. Preliminary data are not required. In many cases, the project presented will develop into a thesis project, but this is not a requirement.

### *Key knowledge and skills include:*

1. Scientific and experimental reasoning appropriate for a second-year graduate student;
2. A familiarity with experimental strategies and methods pertinent to the research project described in the QE;
3. An ability to converse in real time about the rationale and experimental design of their project;
4. An ability to discuss potential pitfalls of those experimental strategies and methods;
5. A mastery of the factual information, theoretical concepts and methodological approaches relevant to the project presented in the QE.

### *Timing and Scheduling:*

The Qualifying Exam can be scheduled as early as Spring quarter and no later than the end of the Summer quarter of the second year. It is expected to last between 1-2hrs. It is the responsibility of the student to schedule the precise time, date, and location. Students may ask NUIN staff for help reserving a room if required. Students should not provide food or drink for committee meetings.

### *Examining Committee:*

Students should work closely with their Thesis Advisor to choose faculty members of a Qualifying Exam committee. The NUIN Assistant Director can also provide guidance. The Qualifying Exam committee will be composed of three or more faculty as well as the student's Thesis Advisor (as an observer). One member of the committee (not the Thesis Advisor) will act as Chair of the Qualifying Exam and will be asked to provide a Chair's Summary following the exam.

Qualifying Exam committee members should be able to 1) determine your progress on scientific and experimental reasoning 2) determine your understanding of the background knowledge relevant to your project that is needed to complete a PhD in Neuroscience. At the stage of the Qualifying Exam, almost any faculty member in the NUIN program

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will be qualified to assess points 1 and 2 above, so you should not feel obligated to select only faculty who are subject experts.

In many cases the faculty you select for the Qualifying Exam committee will overlap with your Thesis Committee, but the members may change prior to your Thesis Proposal – especially if the scope or direction of your project changes. Guidelines for how to select a Thesis Committee are provided in *Appendix III: NUIN Qualifying Exam Guide, “Choosing a Thesis Committee”*.

### *Assessment, Results and Feedback:*

The Qualifying Exam consists of a Research Chalk Talk presentation by the student and questions from the Committee members. Students will be asked to leave the room before the exam begins and again following the presentation and question period. See *Appendix III NUIN Qualifying Exam Guide “How to Give a Chalk Talk”*.

There is no Pass or Fail consequence for the Qualifying Exam. The committee members will each complete a form indicating the students’ current level of achievement (Exceeds Expectations, Meets Expectations, Below Expectations) on specific examination criteria (see *Appendix III NUIN Qualifying Exam Guide, “Qualifying Exam Assessment”*). The committee has the prerogative to recommend specific activities to remediate perceived deficits. Those recommendations could include a literature review, coursework, or another skill- or knowledge-building exercise. Any recommendations will be formulated in consultation with the student’s Thesis Advisor.

Written feedback will be synthesized and summarized by Chair of the Qualifying Exam committee as a “Chair’s Summary”, and will be provided to the student, their Thesis Advisor, and the NUIN Program along with the individual committee member feedback forms, within 1 week after the exam. Completion of the Qualifying Exam will advance the student to candidacy. The timing and fulfillment of recommended remediations should be discussed in detail between the student and their Thesis Advisor.

### *Request for Extension:*

A student may request an extension of the NUIN Qualifying Exam deadline (August 31<sup>st</sup> of third year) by sending a petition to the Assistant Director. The petition should explain the special circumstances warranting an extension, propose a plan and timeline for completion of the milestone, and be signed by the student and the Thesis Advisor.

### **Individual Development Plan:**

IDPs must be submitted to NUIN no later than the beginning of each academic year. See *Appendix II: Individual Development Plans*.

## **Third year of study**

### **Coursework and Registration:**

Beginning with the 9th quarter of study (Fall Quarter of the 3<sup>rd</sup> year), students register for TGS 500—Advanced Doctoral Study. TGS 500 has no unit value, but registering for TGS 500 each quarter maintains a student’s full-time status.

NUIN and TGS require all students to have 9 credit units of graded coursework. Thus, any remaining electives should be taken during the third year.

Students may take additional electives with consent of their Thesis Advisor.

### **Thesis Committee Selection:**

*NOTE: Refer to Appendix IV: Proposal and Committee Guide for more detailed information on this milestone.*

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Each student, in consultation with their Thesis Advisor, is expected to form a Thesis Committee in their third year, preferably in the Winter/Spring quarter well in advance of the Thesis Proposal. This is done in consultation with the Thesis Advisor. It is recommended that students provide their committee chair and committee members with the “*Guidelines for NUIN Thesis Committees*” (*Appendix IV*) and ask all members to sign indicating that they have read the guidelines. This does not need to be returned to the NUIN program.

In addition to meeting the [TGS requirements](#) for Thesis Committees, A NUIN Thesis Committee must satisfy the following criteria:

- The committee must be 4 or more members.
- The Advisor cannot be the Chair.
- At least 3 members including the Chair and Advisor must be full-time members of the Graduate Faculty (tenure line faculty are automatic members, research faculty or postdocs may be appointed using this form). The fourth may be from outside of NU.
- Both the Chair and Advisor must be NUIN members or preceptors.
- One of the 4 members must be of a different department than the Advisor (a non-NU member can satisfy this requirement).

Committee members may change at any point up until the thesis defense, depending on the nature of the project and expertise and availability of the members.

If a core committee member or your Thesis Advisor leaves NU you should contact NUIN for instructions on how to adjust your committee composition. In the case of a Thesis Advisor leaving, depending on how far along the student is in their PhD, the new position of the Thesis Advisor, and the desires of both the student and the advisor, the student may either switch advisors, formally add a co-advisor, or keep the Thesis Advisor (if they maintain an adjunct faculty position with NU).

### **Thesis Proposal (Prospectus):**

*NOTE: Refer to Appendix IV: Proposal and Committee Guide for more detailed information on this milestone.*

The Thesis Proposal is an opportunity for formal feedback from the Thesis Committee. It is not an examination, and there is no Pass or Fail consequence, however the progress of the student will be assessed by the committee and will be evaluated based on the criteria of “not meeting expectations”, “meeting expectations”, or “exceeding expectations”. Students who are not meeting expectations will receive detailed feedback on how to remediate gaps in knowledge or training.

#### *Timing:*

Each student will complete a Thesis Proposal that includes a written document and an oral presentation of the proposed project to the Thesis Committee by the end of the Summer Quarter of the third year. Thesis proposal meetings should be scheduled no later than August 31<sup>st</sup>.

#### *Pre-Proposal Meeting:*

Students are required to meet with the Thesis Committee either individually or as a group at least once before the Thesis Proposal is presented to introduce themselves and their project in a less formal setting, and to discuss any specific items that the committee member would like the student to address in their written/oral proposal. These meetings do not need to be documented.

#### *Thesis Proposal Defense:*

The written proposal must be submitted to the members of the Thesis Committee at least 2 weeks before the presentation. Scheduling of the oral presentation is the responsibility of the student.

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The written thesis proposal document should follow the current guidelines required by the NIH for an NRSA submission. At minimum, it should include a Title, Abstract, Specific Aims, Background and Significance, Preliminary Data, Experimental Design and Methods, and Reference sections. The format and content of the written document should be discussed in advance with the Thesis Advisor and/or committee together or individually. See *Appendix IV: "Written Thesis Proposal Guideline"* for more detail.

The oral presentation of the thesis proposal should include a formal presentation of the Background and Significance of the project, relevant Preliminary Data, and the major elements of the Experimental Design and Methods. Students should prepare approximately 45 minutes worth of slides, but should expect to answer questions from the committee throughout the presentation, as well as participate in a discussion at the end. Often, this means the meetings last more than 1 hour, and this should be considered when scheduling. These procedures are designed to allow the Thesis Committee to critically review and offer suggestions to strengthen the proposal.

### *Submitting the Thesis Proposal/Committee Meeting Status Report:*

The thesis proposal milestone cannot be marked as complete until the student has filled out a Prospectus Form on GSTS, and has returned a both a pdf copy of the written proposal, and a signed *NUIN Thesis Proposal/Committee Meeting Status Report (Appendix IV)* to NUIN.

### **Advising:**

There are no formal meetings with the NUIN Advisors in the 3<sup>rd</sup> year. Progress towards milestones will continue to be tracked by the NUIN program. Students should contact the NUIN Assistant Director and/or their former NUIN Faculty advisor if they would like to meet to discuss any issues that may arise this year.

### **Individual Development Plan:**

IDPs must be submitted to NUIN no later than the beginning of each academic year. See *Appendix II: Individual Development Plans*.

## **Fourth Year of Study and Beyond**

### **Registration:**

Every quarter until the student graduates, the student must register for TGS 500—Advanced Doctoral Study (in person research, no unit value) to maintain their full-time student status. Students should have completed 9 units of graded coursework before beginning their 4<sup>th</sup> year.

### **Advising for Advanced Students:**

There are no formal meetings with the NUIN Advisors in the 4th year. Progress towards milestones will continue to be tracked by the NUIN program. Students should contact the NUIN Assistant Director and/or their former NUIN Faculty advisor if they would like to meet to discuss any issues that may arise this year.

Starting in the fifth year, students meet annually with the NUIN Advising and Progress to Degree committee. The advising sessions provide an additional resource to students to troubleshoot problems that may arise between the student and their Thesis Advisors/committee as they are approaching graduation. They also provide an opportunity to discuss graduation timelines and general career planning.

### **Post Advancement to Candidacy Talk (PACT):**

Sometime after the completion of the Qualifying Exam (post candidacy, year 3 and beyond), NUIN students are required to give a public seminar in order to gain practice and experience presenting their research to a larger audience. There are numerous forums on campus where this requirement can be fulfilled. Examples include: NUIN Small Talks, other departmental colloquia, topical campus seminar series, programs associated with NIH T32 Training Programs, and the annual NUIN Retreat. Research talks at national or international conferences are also acceptable. Research talks should

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be at least 15 minutes in length. Students should notify the Assistant Director and Program Manager as soon as the seminar is scheduled. NUIN strongly encourages students to take advantage of opportunities to present their work, many of which will be available prior to the fourth year of studies.

### **First Author Publication:**

It is a condition of graduation that each NUIN student have at least one first author, peer reviewed journal article published, in press, or accepted for publication. The publication must represent the research conducted in their thesis laboratory, thus, review articles, or first author publications that were a result of a rotation in another laboratory (or research conducted prior to attending NUIN) do not count towards this requirement. A co-first authored publication satisfies this requirement. If there is some ambiguity on whether a paper counts towards the first author requirement ask the NUIN program early in the process. Students should account for the time required for a manuscript to be reviewed, revised and resubmitted when planning the timing of their graduation. The Assistant Director and Senior Program Coordinator should be notified when first author manuscripts are accepted for publication. In exceptional circumstances, students may submit a petition to NUIN to waive the first author publication requirement. Students should contact the NUIN Assistant Director for more details.

### **Annual Thesis Committee Meetings:**

NUIN requires that each student meet with their Thesis Committee at least once a year (no more than 12 months should elapse between meetings). It is the student's responsibility to arrange these meetings in consultation with the Thesis Advisor and committee Chair.

### **Thesis Committee Meeting Status Report:**

In advance of each committee meeting, including the defense of the Thesis Proposal, the student should complete the first sections of the *NUIN Thesis Proposal/Committee Meeting Status Report (Appendix IV)*. Committee members should complete the remainder of the report at the conclusion of the meeting. The report is designed to assess the student's progress since the last meeting, establish clear goals and expectations for the period before the next meeting, and set a target date for the next meeting. All committee members and the student must sign off on the status report, which is returned to the NUIN office. This formal status report serves as a reminder to the student, the Thesis Advisor, and the Thesis Committee members that a requirement for continued enrollment in NUIN, including the NUIN guarantee of stipend and tuition support, is "adequate progress toward the degree." The annual committee meetings are an important yearly confirmation that progress is being made, and any concern otherwise should be conveyed to the student at this time. The Chair of the Thesis Committee should also notify NUIN if progress was insufficient, which can be reason for probation or dismissal from the program.

### **Permission to Write Meeting:**

A penultimate Thesis Committee meeting should be scheduled approximately 3 months prior to the intended thesis defense date, in which the committee grants "permission to write" and discusses an appropriate timeline for thesis completion. Alternatively, students may obtain formal permission to write from each of their Thesis Committee members following one-on-one meetings in which the timeline to completion is discussed. Documentation of Permission to Write either by indicating such in a *Thesis Committee Meeting Report*, or by email from each committee member must be sent to the NUIN program.

### **Individual Development Plan:**

IDPs must be submitted to NUIN no later than the beginning of each academic year. See *Appendix II: Individual Development Plans*.

### **Dissertation and Thesis Defense:**

The dissertation and thesis defense is the culmination of a student's work at Northwestern University.

#### *Dissertation:*

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Students are required to write a dissertation, which should conform to the [University Guidelines on content and formatting](#) and also include:

- A scholarly Introduction to the field and the background/rationale for the specific questions addressed by the thesis research
- A series of data chapters describing research conducted by the student
- A final Discussion chapter

NUIN allows text and figures from published papers to be included (original or modified) as part of a data chapter under the following conditions:

1. **First author papers** may be included in their original (or modified) form as long as the student wrote and contributed significantly to editing a large majority of the text in the published paper. It is expected that such chapters will have an Introduction and Discussion that are of length and detail expected for a dissertation. If the published paper is limited in length by journal policies, the student should include a supplemental Discussion and/or Introduction linking the chapter to the rest of the dissertation. The thesis should include a statement *signed by the student and Thesis Advisor* that the student is the primary author of the first author manuscripts that are included as chapters.
2. **Middle author papers** may be included in their original (or modified) form, however, the chapter must include an Introduction and Discussion written by the student that highlights and focuses on the details and interpretation of experiments conducted by the student.

At the end of the introductory chapter of the dissertation, the student must provide an overview of the data chapters, indicating whether the work is published or unpublished. For published work, the full citation should be included and it should be stated whether the chapter is the published or an edited version. The contributions of the student and other authors to the scientific (design, experiments, analysis) and written work must be clearly stated. If edits have been made, the nature of the modifications (e.g. incorporation of published supplemental figures into the body of the narrative, inclusion of additional relevant data acquired after publication, expansion of intro or discussion, etc.) should be stated. For unpublished work, the contributions of the student and any other individuals to the scientific work (design, experiments, analysis) must be stated.

The dissertation is expected to include details and scholarly discussions that go above and beyond what one might find in typical journal articles (e.g. related experiments that were beyond the scope of the paper, or additional experimental details that were omitted due to space constraints). *It is the responsibility of the student and the Thesis Committee to ensure that the dissertation meets NUIN standards and properly attributes authorship.*

### *Thesis Defense, PhD Final Exam Form:*

A draft of the dissertation should be submitted to the Thesis Advisor with sufficient time for the Thesis Advisor to evaluate it and approve distribution to the Thesis Committee. The dissertation document must be submitted to the Thesis Committee members at least 2 weeks before the private defense date. If any committee member has a serious and justifiable objection to the thesis as written, the committee member will make their concerns known to the Thesis Advisor, student, and NUIN, and the defense may be rescheduled.

All members of the committee must digitally approve the PhD Final Exam Form following a successful thesis defense. If major revisions are required, the committee can opt to have a revised dissertation reviewed by each member of the committee, a single member, or the Thesis Advisor, as they see best fit. The PhD Final Exam Form should only be signed after the revised document has been approved. In the rare circumstance that a consensus cannot be reached regarding necessary revisions, a student or Thesis Advisor may appeal a Thesis Committee's recommendations to NUIN.

### *Public Seminar:*

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Students present a public seminar after successful completion of the private thesis defense. Students should notify NUIN once the public seminar is scheduled so that it can be advertised to the NUIN community. The public seminar should not be advertised until the private defense has been passed.

### Degree completion requirements:

Students will be approved for graduation when the following criteria have been met:

1. The private thesis defense has been completed and all committee members have approved the PhD Final Exam Form (submitted via GSTS);
2. The public Thesis Seminar has been completed;
3. A copy of the Dissertation has been submitted to Proquest; and
4. The first author publication requirement is complete, or the student has an approved waiver.

## Section II: Medical Scientists Training Program (MSTP)

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### Overview:

MSTP students choose a thesis laboratory prior to officially matriculating in to the NUIN PhD program. MSTP students have a unique timeline within the program because they do not carry out laboratory rotations and have different course requirements. Unless otherwise noted, MSTP students are required to fulfill the requirements and regulations detailed in all sections of the NUIN Student Handbook.

### Timeline:

#### A. Summer Quarter between M2 and G1:

- Begin full-time research in thesis laboratory
- NUIN 490 – Responsible Conduct of Neuroscience Research (0 Unit)
- Meet with NUIN MSTP Advising Committee

#### B. First Year (G1):

- 3-4 Electives (typically 1 each quarter in the first year) Recommended: NUIN 401-1, 401-2, 401-3 – Fundamentals of Neuroscience (3 quarters, 3 units)
- Register for NUIN 590 each quarter
- Meet with NUIN MSTP Advising Committee Fall, Winter, and Spring Quarters
- Complete Teaching Assistant requirement
- Pass Qualifying Exam and achieve PhD Candidacy by August 31st
- Create and submit an IDP

#### C. Second Year (G2):

- Complete all coursework, including a required approved Biostatistics course
- Register for NUIN 590 each quarter, including Summer
- Meet with Advising Committee Fall and Spring
- Conduct Thesis research
- Form and have initial meeting with Thesis Committee
- Present Thesis Proposal (Prospectus) by August 31st
- Create and submit an IDP

#### D. Third Year (G3) and Beyond:

- Conduct Thesis research
- Register for TGS 500 – Advanced Doctoral Study
- Present PACT – Post-Advancement to Candidacy Talk
- Meet with Thesis Committee (every six months)
- Create and submit an IDP (annually)



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- Publish at least one first author article
- Write and defend dissertation

### **MSTP Specific Information:**

#### **Coursework and Registration:**

For the courses taken in the M1 and M2 years, NUIN will give credit for 5 of the required 9 units of graded coursework. That means MSTP students must take at least 4 graded courses or fewer if they took one or more during the M1-2 years.

One of the 4 courses must include a Biostatistics elective as described in Section I of the Handbook. The remaining courses will be electives in the NUIN curriculum or appropriate courses in other programs/departments. MSTP students are encouraged to take one or more quarters of NUIN Fundamentals of Neuroscience courses (NUIN 401-1,2,3) as electives. NUIN coursework should be completed by the end of G2.

MSTP students will register for NUIN 590 (In-person Research) during the first 8 quarters of your graduate work. The number of 590 units is selectable in CAESAR, chosen such that the TOTAL number of units registered in a quarter is at least 3. Students will register for TGS 500 after completing 8 quarters of NUIN 590 registration.

#### **Selection of Thesis Laboratory:**

MSTP students complete laboratory rotations in their M1 and M2 years and select a thesis laboratory prior to matriculation into the NUIN PhD program. Students will begin full-time research in their thesis laboratory in the Summer between M2 and G1.

#### **Responsible Conduct of Research (RCR):**

All NUIN students, including MSTP students, are required to take NUIN 490, the Responsible Conduct of Research. MSTP students should register for NUIN 490 in the Summer quarter between M2 and G1. Note that this is a 0 unit course and does not count towards the 9 units of required coursework.

#### **TA Requirement:**

MSTP students in NUIN are required to TA for 1 quarter during their G1-2 years. Teaching assignments are determined by the NUIN Assistant Director in conjunction with course directors. MSTP students may be assigned to teach undergraduate or graduate courses but may also be given the option to TA a medical school course (e.g. Neuroanatomy). An MSTP student desiring to TA in a medical school course must be granted approval to do so by the NUIN Assistant Director three months prior to the start of the Fall quarter of G1. This option is reserved for MSTP students only if the TA needs of the NUIN program have already been met.

#### **Qualifying Exam:**

MSTP students are required to take the Qualifying Exam by August 31<sup>st</sup> of their G1 year. Details about the Qualifying Exam are outlined in the Year 2 section above.

#### **Advising:**

MSTP students will meet with their NUIN Advisors once in the Summer between M2 and G1, each quarter of their G1 year, and twice during their G2 year, and then annually after G5 as needed. MSTP students are encouraged to reach out to their NUIN Advisors at any point in the years between G2 and G5.

#### **Thesis Proposal and Thesis Committee Meetings:**

MSTP students are required to form their Thesis Committees by the end of winter quarter of their G2 year and defend their Thesis Proposals by the end of their G2 year. MSTP students are required by the MSTP program to meet with their thesis committee every six months. In addition to the Thesis Committee Meeting Status Report that is required by NUIN, MSTP students must also submit the *MSTP Thesis Committee Meeting Report Form (Appendix VII)* to NUIN and to the

MSTP Assistant Director after each meeting.

### Section III: Academic Progress

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**Academic Progress** is assessed after each quarter. Students must make satisfactory academic progress and satisfy criteria established by The Graduate School (TGS) in order to remain in good standing. Students failing to make satisfactory academic progress will receive written notice from NUIN or TGS and will be placed on probation. A plan and timeline will be developed to reestablish good standing in conjunction with the student's Thesis Advisor, advising committee, and/or Thesis Committee, as appropriate. Failure to meet these conditions may result in dismissal from the program.

#### Overview of NUIN and TGS Criteria for Satisfactory Academic Progress

##### **Summary Criteria Required to Maintain Satisfactory Progress:**

- Maintain a GPA of at least 3.0
- Earn a grade of B– or higher in each of the NUIN required core courses
- Successfully complete 3 laboratory rotations and rotation requirements
- Join a thesis laboratory within 5 quarters
- Meet NUIN's milestone deadlines
- Make satisfactory progress on thesis research as determined by a student's Thesis Advisor and Thesis Committee
- Conduct behavior in a professional, safe, ethical, and respectful manner as determined by the NU code of conduct for students

##### **Criteria for maintaining satisfactory academic progress and Remediation from Probation:**

##### **Unsatisfactory GPA, NUIN Coursework:**

###### *GPA:*

Students are required by NUIN and TGS to maintain a GPA of 3.0 or higher. Students will be notified in writing and placed on academic probation by TGS if their cumulative GPA drops below 3.0. The student will have 2 quarters in which to reach the GPA criterion and return from probation. Students who do not successfully remediate their GPA within the allotted timeframe will be excluded from NUIN, unless a petition for probation extension is requested and approved.

NUIN requires that students maintain at least a 3.0 GPA in their NUIN coursework. A student will be placed on NUIN academic probation if their GPA drops below 3.0 in any individual academic quarter. The student will have 2 quarters in which to reach the GPA criterion and return from probation. Students who do not successfully remediate their GPA within the allotted timeframe will be excluded from NUIN, unless a petition for probation extension is requested and approved.

###### *Unsatisfactory grade in NUIN courses:*

Students must earn a grade of B– or higher in NUIN's required courses (e.g. the NUIN Graduate Foundations and Fundamentals series). Courses in which the grade earned was below B– will not count toward fulfilling NUIN's coursework requirement. Per TGS policy, however, grades in **all** courses contribute to the GPA calculation.

Students earning a grade below B– in a NUIN **core** course must retake the course and are formally considered to be on probation until the course is passed. Students who do not earn at least a B– in the second attempt will be excluded from NUIN at the end of the quarter.

If a grade below B– is earned in an **elective** course, the student may retake the course or replace it with another elective. A low grade in an elective will not necessarily result in probation but will factor into calculation of GPA by TGS.

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### *Incomplete Grades:*

Students who have 3 or more “Incompletes” including in non-credit classes (NUIN 407, NUIN 590, NUIN 490) will be placed on probation. For NUIN 590 this includes failing to submit Laboratory Rotation requirements by the deadline for each quarter. Although compliance will not be tied to a grade, students will not be eligible for NUIN training-grant support if they have not complied with the Seminar Attendance Requirements, and will not be admitted to candidacy until the seminar attendance requirement is fulfilled.

As per TGS policy, students have 1 year to complete any coursework/requirements resulting in an incomplete. Outstanding incomplete grades may lead to probation and/or may prevent graduation.

### **Unsatisfactory completion of laboratory rotations/Inability to secure a Thesis Advisor:**

Students are required to satisfactorily complete at least 3 laboratory research rotations - a process expected to culminate in the student joining a laboratory to conduct thesis research. Completing laboratory rotations and identifying a Thesis Advisor is the student’s responsibility. Students may be excluded from NUIN if they fail to find a laboratory after 5 quarters or receive 2 grades of “No Pass” in the NUIN 590 course.

Students considering leaving their laboratory should contact the NUIN Assistant Director, who will engage with the student, Thesis Advisor, NUIN faculty leadership, and other University supports as necessary to arbitrate and come to a satisfactory resolution. Students leaving a laboratory with the intention of finding a new graduate advisor will carry out one full quarter rotation or two half-quarter rotations. If the student is unable to find a new laboratory in that time frame they may appeal for an extension or may be excluded from NUIN. Under some circumstances the student may petition to leave the NUIN PhD program with a MS degree (see section below).

Students whose Thesis Advisors resign from their faculty affiliation with NU and TGS also must identify a new advisor within one quarter. Faculty who leave NU but maintain an adjunct affiliation are eligible to continue as graduate advisors. Students with adjunct graduate advisors should identify a local NUIN co-advisor to support them during their remaining time in NUIN.

### **Failure to meet NUIN’s major milestone deadlines:**

#### *NUIN Qualifying Exam:*

Students who do not complete their Qualifying Exam requirement by August 31<sup>st</sup> of the second year will be placed on probation unless a petition for extension is approved by the NUIN administration. The petition should explain the special circumstances warranting an extension, propose a plan and timeline for completion of the milestone, and be signed by the student and the Thesis Advisor. Students will have 2 quarters to remediate or risk being excluded from NUIN.

The TGS deadline for the Qualifying Exam Milestone is the end of the 3<sup>rd</sup> year, but students are expected to complete the milestone by the deadline set by the NUIN program. Students will be placed on academic probation by TGS if the Qualifying Exam is not completed by the end of the 3<sup>rd</sup> year. Students will have 2 quarters to remediate or risk being excluded by TGS.

#### *Thesis Proposal/Prospectus:*

Students who do not form their Thesis Committee and complete the Thesis Proposal defense by the end of their 3<sup>rd</sup> year will be notified and immediately placed on probation unless a petition for extension is approved by NUIN administration. The petition should explain the special circumstances warranting an extension, propose a plan and timeline for completion of the milestone, and be signed by the student and the Thesis Advisor. Students will have 2 quarters to remediate or risk being excluded from NUIN.

The TGS deadline for the Thesis Proposal Milestone is the end of the 4<sup>th</sup> year, but students are expected to complete the milestone by the deadline set by the NUIN program. Students will be placed on academic probation by TGS if the Thesis

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Proposal is not complete by the end of the 4<sup>th</sup> year and will have 2 quarters to remediate or risk being excluded by TGS.

### *Program length:*

PhD students must complete all requirements for the PhD within 9 years of initial registration (last day of the 36<sup>th</sup> quarter). Students who do not complete all requirements by this time will be placed on academic probation by the Graduate School. Students may submit a petition for extension of this deadline with the support of their Thesis Advisor and the NUIN Director.

### **Unsatisfactory progress on thesis research:**

Students are required to meet with their Thesis Committee at least once every twelve months and more frequently if the committee requires. If a student is deemed to be making Unsatisfactory Progress, the student, Thesis Advisor or Thesis Committee Chair must notify the NUIN Assistant Director. A plan with well-defined expectations and deadlines will be developed for reestablishing good standing in conjunction with the student's Thesis Advisor, Thesis Committee, and appropriate NUIN Student Advisors. The student will receive written notice of the plan and be placed on probation. A failure to satisfy the conditions for reestablishing good standing within the specified period of probation is grounds for exclusion from the program.

Students must complete their dissertation in a timely manner. Consequently, it is especially important for the student, Thesis Advisor, and Thesis Committee to agree on a timeline for finishing as the project nears completion. The Thesis Advisor and Thesis Committee may recommend to NUIN that a student be placed on probation if deadlines and milestones that have been explicitly communicated to the student (in writing) are not met in a satisfactory manner. If the student does not reestablish good standing within the probationary quarter they may be excluded from the NUIN program or may leave the NUIN PhD program with a MS degree (see section below for MS eligibility criteria). NUIN guarantees all students funding as long as they remain in good academic standing.

### **Disruptive Behavior:**

NUIN students are expected to be professional, self-motivated, engaged and responsive to their Thesis Advisors and to NUIN administration. Furthermore, students are required to conduct research in accordance with health and safety regulations and ethical standards in research as outlined by [Northwestern University](#) and the Responsible Conduct of Research course (NUIN 490). NUIN students are also subject to the code of conduct detailed in the [Northwestern University Student Handbook](#).

Any behavior that disrupts the University community may be grounds for dismissal and will be referred to the appropriate University officials. Should a student be perceived to act in a manner that is disruptive to normal laboratory functions, the Thesis Advisor should request a meeting of the student, advisor and NUIN administration to formulate plans for remediation of the problem. Other University support staff (e.g. TGS Student Services) may be included as appropriate. If the behavior is not corrected in a timely manner (set during the meeting), the advisor will notify the NUIN Director in writing detailing the continued disruptive behavior and petitioning for permission to dismiss the student from the laboratory.

Disruptive behavior or unethical conduct will be reported to the Office of Equity or other appropriate university entities and may result in exclusion from NUIN.

### **NUIN Annual Status Reports and Notice of Probation:**

At the end of each academic year, each student will receive an Annual Status Report from NUIN administration. These reports will consider the criteria listed above, and serve to notify students of their current status in the program as:

- Satisfactory progress
- Unsatisfactory progress: Risk of probation, Probation, Risk of dismissal/exclusion

A student who is not making satisfactory academic progress will be notified in writing of the reason and may be placed on probation for a specified period of time, the length of which depends on the reason for probation. During the

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probation period, funding is continued. Students failing to return to good standing within the specified period of time may lose funding, or be dismissed from NUIN in a process formally known as “exclusion”.

Students who are making Unsatisfactory Progress will be expected to meet with both their Thesis Advisor and the NUIN Assistant Director to create a detailed plan of remediation.

### **Dismissal From NUIN/Exclusion:**

If a student is at risk of dismissal from the NUIN PhD program they will be informed in writing. The decision to exclude a student will be made by the NUIN leadership, after reviewing all relevant information from the student, their Thesis Advisor, and their Thesis Committee.

Exclusion decisions may be appealed to the Graduate School. Details for how to submit an appeal can be found [here](#).

### **Conflict Resolution:**

Students who experience a conflict with their Thesis Advisor and/or Thesis Committee should contact NUIN leadership. NUIN leadership will attempt to facilitate a satisfactory resolution by consulting with all involved parties and by involving University supports as needed. The student may also bring the matter to the Dean or Associate Dean for Graduate Student and Postdoctoral Affairs, [as per TGS policy](#), if an accord is not reached with the assistance of NUIN Administration.

Instructions for how to report [academic integrity issues](#), [discrimination](#), [harassment](#), and [sexual misconduct](#) are available online. Conflicts between students are handled by the [Office of Student Conduct](#).

## **Section IV: NUIN Master’s Policy**

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A NUIN student may decide to pursue a Master of Science instead of completing a PhD. The NUIN Advisory Board must approve the transition to the Master’s path. The following conditions must be met:

- The student must have spent at least 2 years in the NUIN program, completed 9 credits of approved coursework, and be in good academic standing;
- The student must have completed the NUIN Qualifying Exam; and
- The student must have completed a sufficient body of independent research to compose and defend a research-based Master’s thesis before a committee of faculty (details below).

### **Procedure for petition to pursue a NUIN Master of Science degree:**

If all of the criteria above have been met, the student and Thesis Advisor should compose a letter to the NUIN Advisory Board providing details of the student’s academic history at Northwestern including coursework and Qualifying Exam assessment and recommendations, a succinct description of the student’s independent research accomplishments on which the thesis will be based, and a detailed plan for completion of the Master’s degree. The plan for completion of a Master’s degree should include names of faculty who have agreed to serve on the student’s Master’s Thesis Committee, a timeline for completion of the thesis, and evidence of the Thesis Advisor’s commitment to mentor the student and assume responsibility for progress, successful completion, and defense of a written thesis. The source of financial support for the student during this period should be identified. If the student has already formed a Thesis Committee, written support from Thesis Committee members should also be provided. The Master’s Thesis Committee should be composed of at least 3 faculty members (in addition to the Thesis Advisor), including at least one from a department other than the Thesis Advisor’s home department. Both student and Thesis Advisor must sign the petition letter.

### **Procedure for completing a NUIN Master’s degree:**

If permission to pursue a Master’s degree is granted by the NUIN Advisory Board, the student must complete and

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successfully defend a written Master's thesis within the timeframe specified in the letter to the Advisory Board. To ensure that the scope of the research to be included in the thesis is appropriate, the student must present a thesis proposal to their committee and obtain written approval of the proposal. The thesis proposal should be a 2-5 page document composed by the student outlining the scientific rationale for the project and the experiments to be included in the thesis. Once the proposal is approved by all Thesis Committee members, the student may proceed with any remaining work on the project and complete the thesis document. The thesis itself should include an Introduction chapter explaining the background/rationale for the specific questions addressed by the thesis research, at least one Data chapter describing research conducted by the student, and a final Discussion chapter. The thesis must be written by the student and provisionally approved by the Thesis Advisor before submission to the committee, at least 2 weeks in advance of the scheduled defense.

The thesis defense must be attended by the student, the Thesis Advisor, and all committee members and will consist of a presentation by the student of the background and experiments contained within the thesis and a rigorous discussion of the presented research. The student should bring to the defense a printed of the Master's Degree Completion form (from GSTS) for their committee members to sign. The student should submit final electronic versions of the signed Master's Degree Completion Form and their thesis to NUIN.

Note that permission to pursue a Master's degree will not be granted under the following conditions:

- For research that is not already substantially complete;
- For an extensive literature review;
- For premature departure from the program without independent research accomplishments; and
- For time spent in the NUIN program.

## Section V: Financial Support and Benefits

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NUIN students are fully supported (including tuition, stipend, and health insurance) for the duration of their graduate studies as long as they remain in good academic standing. The NUIN stipend for 2021-22 is \$34,176. Stipend is paid once a month at the end of the month.

### Standard NUIN Funding Structure:

NUIN student stipend, tuition, and health insurance is funded by Northwestern University Fellowship the first 4 quarters (first year) and by Teaching Assistantships the Fall and Winter of second year. Beginning Spring Quarter of their second year the Thesis Advisor assumes full responsibility for ensuring that NUIN students are financially supported until the completion of all PhD requirements. This information will be outlined in the "New Advisor" letter, which is sent to the student, Thesis Advisor, and department chair upon selection of the Thesis laboratory.

### Benefits:

Northwestern requires all full-time students to maintain health insurance coverage. Full-time students may either enroll in the NU Insurance Plan (NU-Ship) or use private health insurance. Northwestern also offers health insurance to spouses, children, and same sex domestic partners through the NU/Aetna plan. NUIN students who elect to use the optional Dental Insurance will be reimbursed up to the cost of the HMO.

### Taxes:

Graduate stipends are taxable income, but may change depending on the precise funding mechanism (University Fellow, Graduate Assistantship, Research Assistantship). For individual advice on filing **if you have questions you can contact payroll or review the TGS financial information page:**

*Reminder:* If you are coming from a state outside of Illinois, you will likely have to file taxes in 2 states as a first year student.

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For international students, please see tax information from the Northwestern [International Office](#).

### **Short-term absences/Vacation Time:**

Graduate students do not accrue vacation days as in a typical job, so all vacation time must be discussed and agreed upon with your Thesis Advisor. In your first year, it is typical for students to take a short break at the end of the Fall, Winter, and Spring Quarters, but the vacation time does not follow the academic calendar. Pay close attention to the laboratory rotation schedule and contact NUIN if you have questions.

Once you have joined a thesis laboratory, all vacation or absences should be cleared with the Thesis Advisor or other designated supervisor prior to the absence. The longer the intended absence, the further in advance you should receive approval.

Please refer to [TGS policies](#) on other types of leave, including Parental Leave, Family Leave, Personal (General) Leave, or Medical Leave.

## **Section VI: Appendix Documents**

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*Refer to the NUIN Website or contact the NUIN program for current supplemental documents.*

### **Guides:**

- Appendix I: First Year Requirements
- Appendix II: Individual Development Plans
- Appendix III: NUIN Qualifying Exam Guide
- Appendix IV: NUIN Proposal and Committee Guide

### **Individual forms:**

- Appendix V: NUIN Qualifying Exam Assessment (also in Appendix III)
- Appendix VI: NUIN Thesis Proposal/Committee Meeting Status Report (also in Appendix IV)
- Appendix VII: MSTP Thesis Committee Meeting Report Form
- Appendix VIII: Guidelines for NUIN Thesis Committees (also in Appendix VI)
- Appendix IX: IDP Form (also in Appendix II)

## **Section VII: Diversity and Nondiscrimination Statement**

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### **Diversity Statement:**

A diverse student population is a key element of the educational experience of students in The Graduate School (TGS). Diversity presents itself in many different forms such as: socioeconomic status, race or ethnicity, religion, gender, sexual orientation, nationality or place of origin, disability, unique work or life experience, etc. It is the goal of TGS to cultivate an environment that values diverse backgrounds, approaches, and perspectives—all essential ingredients for true academic excellence.

### **Nondiscrimination Statement:**

Northwestern University does not discriminate or permit discrimination by any member of its community against any individual on the basis of race, color, religion, national origin, sex, pregnancy, sexual orientation, gender identity, gender expression, parental status, marital status, age, disability, citizenship status, veteran status, genetic information, reproductive health decision making, or any other classification protected by law in matters of admissions, employment, housing, or services or in the educational programs or activities it operates. Harassment, whether verbal, physical, or visual, that is based on any of these characteristics is a form of discrimination. Further prohibited by law is

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discrimination against any employee and/or job applicant who chooses to inquire about, discuss, or disclose their own compensation or the compensation of another employee or applicant.

Northwestern University complies with federal and state laws that prohibit discrimination based on the protected categories listed above, including Title IX of the Education Amendments of 1972. Title IX requires educational institutions, such as Northwestern, to prohibit discrimination based on sex (including sexual harassment) in the University's educational programs and activities, including in matters of employment and admissions. In addition, Northwestern provides reasonable accommodations to qualified applicants, students, and employees with disabilities and to individuals who are pregnant.

Any alleged violations of this policy or questions with respect to nondiscrimination or reasonable accommodations should be directed to Northwestern's Office of Equity, 1800 Sherman Avenue, Suite 4-500, Evanston, Illinois 60208, 847-467- 6165, [equity@northwestern.edu](mailto:equity@northwestern.edu).

Questions specific to sex discrimination (including sexual misconduct and sexual harassment) should be directed to Northwestern's Title IX Coordinator in the Office of Equity, 1800 Sherman Avenue, Suite 4-500, Evanston, Illinois 60208, 847-467- 6165, [TitleIXCoordinator@northwestern.edu](mailto:TitleIXCoordinator@northwestern.edu).

A person may also file a complaint with the Department of Education's Office for Civil Rights regarding an alleged violation of Title IX by visiting [www2.ed.gov/about/offices/list/ocr/complaintintro.html](http://www2.ed.gov/about/offices/list/ocr/complaintintro.html) or calling 800-421-3481. Inquiries about the application of Title IX to Northwestern may be referred to Northwestern's Title IX Coordinator, the United States Department of Education's Assistant Secretary for Civil Rights, or both.

### **Northwestern Disclaimer:**

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