Master’s Program Handbook
From the Department of Neurobiology
# Table of Contents

**PROGRAM OVERVIEW** ........................................................................................................... 4
  - Neurobiology MS Program Personnel .............................................................................. 4
  - The Graduate School’s Policies and Procedures ................................................................. 4

**ADMISSIONS** .......................................................................................................................... 5

**GENERAL REQUIREMENTS FOR THE M.S. DEGREE** ......................................................... 6
  - TGS Master’s Degree Requirements .................................................................................. 6
    - Master’s Residency And Courses .................................................................................. 6
    - Master’s Timeline ............................................................................................................ 6
    - Master’s Degree Completion ......................................................................................... 7
    - Grades ............................................................................................................................. 7
  - MS Program Requirements ................................................................................................. 8
  - Quarterly Progress Meetings ............................................................................................. 8
  - Satisfactory Progress ......................................................................................................... 9

**RESEARCH ADVISORS** .......................................................................................................... 10
  - Choosing an Advisor ......................................................................................................... 10
  - Thesis Committee .............................................................................................................. 10
  - Changing Advisors ........................................................................................................... 11

**REQUIRED PROGRAM COURSES** ....................................................................................... 12
  - Neurobio 401 .................................................................................................................... 12
  - Neurobio 402 .................................................................................................................... 12
  - Neurobio 595 (Independent Lab Research) ....................................................................... 12
  - Spring Elective ................................................................................................................... 12
  - Course Registration ........................................................................................................... 13
  - Department of Neurobiology Seminar Series Attendance .............................................. 13
  - Time in the Lab .................................................................................................................. 13
  - Leave of Absence .............................................................................................................. 14

**ONBOARDING** ....................................................................................................................... 15
  - Housing ............................................................................................................................. 15
    - On-Campus Graduate Student Housing ....................................................................... 15
    - Off-Campus Housing Options ....................................................................................... 15
  - Tuition ............................................................................................................................... 15
    - Quarterly Billing and Payment Schedule ...................................................................... 15
  - Financial Support ............................................................................................................. 16
  - CAESAR – Student Help Resources ................................................................................ 16
  - Obtaining a Net-ID, Email, and Wildcard ....................................................................... 16
    - NetID .............................................................................................................................. 16
    - Email at Northwestern ................................................................................................. 17
    - Wildcard ......................................................................................................................... 17
  - Health Services ................................................................................................................. 17
  - Transportation & Parking .................................................................................................. 17
  - Mail ................................................................................................................................... 18
  - Research Safety ............................................................................................................... 18
  - Animal Care and Use Committee (ACUC) ........................................................................ 18
Campus Events and Norris Center
Checklist for When You Arrive and Depart
DEGREE COMPLETION AND GRADUATION
Thesis Proposal
Application For Degree
Thesis Defense
Master’s Completion Form (TGS)
Exit Surveys
CONFLICT RESOLUTION
Conflicts Not Involving Discrimination, Harassment, or Sexual Harassment
Conflicts Involving Discrimination and Harassment
Sexual Harassment
APPENDIX
Milestone Dates For Academic Year 2016-‘17
Dissertation Guidelines
List of Research Advisors*
Advisor/Student Agreement
Thesis Proposal Form
Approval Form
Thesis Defense Checklist
PROGRAM OVERVIEW

The Master's Program in Neurobiology features independent, hands-on research training combined with focused classroom instruction, preparing students for careers in medicine, industry, academic research, and teaching. The program is designed so students can earn an M.S. degree after one year of intensive study and research.

The program provides an unparalleled opportunity to learn and collaborate with highly renowned scholars in the field of Neurobiology. Graduates of the program go on to MD or PhD programs at top institutions around the country or choose to directly enter careers in academic or industrial research.

Neurobiology MS Program Personnel

<table>
<thead>
<tr>
<th>NAME</th>
<th>PHONE</th>
<th>OFFICE</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Mark A. Segraves (Director)</strong></td>
<td>+1 847 491-5072</td>
<td>Cook 2137</td>
</tr>
<tr>
<td>Professor, Neurobiology; Judd A. and Marjorie Weinberg College of Arts and Sciences</td>
<td></td>
<td></td>
</tr>
<tr>
<td><a href="mailto:m-segraves@northwestern.edu">m-segraves@northwestern.edu</a></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Valerie Kilman (Faculty Advisor)</strong></td>
<td>+1 847 491-7093</td>
<td>Pancoe 2117</td>
</tr>
<tr>
<td>Director of Undergraduate Studies, Neurobiology; Judd A. and Marjorie Weinberg College of Arts and Sciences</td>
<td></td>
<td></td>
</tr>
<tr>
<td><a href="mailto:v-kilman@northwestern.edu">v-kilman@northwestern.edu</a></td>
<td></td>
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</tr>
<tr>
<td><strong>Setong Mavong (Program Assistant)</strong></td>
<td>+1 847 491-5521</td>
<td>Hogan 2160</td>
</tr>
<tr>
<td>Program Assistant II, Neurobiology; Judd A. and Marjorie Weinberg College of Arts and Sciences</td>
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<tr>
<td><a href="mailto:setong@northwestern.edu">setong@northwestern.edu</a></td>
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</tr>
</tbody>
</table>

The Graduate School's Policies and Procedures

You can review all of TGS’ policies and procedures at:
http://www.tgs.northwestern.edu/about/policies/index.html

Many graduate programs, including the MS in Neurobiology Program, are administered through the Graduate School (TGS).
ADMISSIONS

Students must be admitted to TGS before they can be enrolled in the MS Program in Neurobiology. All applicants must apply online via the ApplyYourself website.

For information on admissions, see TGS’ admissions webpage. Their webpage also provides information on financial aid, tuition, and academic services.

The Departmental application deadline is March 31st. The Department’s admissions committee relies on the research experience, letters of recommendation, transcripts, and personal statement of purpose in making choices for admission.

GRE and/or MCAT scores are not required but are highly recommended for admission to the program.

The required statement of purpose that accompanies your application for graduate study at Northwestern is very important and is often a crucial factor in the decision to admit. A clear, well-focused statement reveals your potential for graduate work and may compensate for less than stellar grades and test scores.

In order to be considered for the graduate program, students whose first language is not English must take the TOEFL or IELTS examination.

• For the TOEFL exam, students must score 600 or higher on the paper-based test, 250 or higher on the computer-based test, or 100 or higher on the internet-based test.
• For the IELTS exam, students must score a 7.0 or higher.
• The test must be taken no more than two years before the intended quarter of entry.

Note: Departmental requirements supplement, but do not supersede, TGS regulations.
GENERAL REQUIREMENTS FOR THE M.S. DEGREE

Students commence their studies in the Fall Quarter. Students must complete a total of nine credit hours to receive their degree. Students must also meet deadlines set forth by both TGS and the MS Program.

TGS Master’s Degree Requirements

For all TGS Master Degree requirements and policies see:
http://www.tgs.northwestern.edu/about/policies/masters-degree-requirements.html

Briefly, TGS requires that all students in graduate level programs meet or exceed the following:

• Students must maintain a GPA of 3.0
• Students can not have more than two incompletes
• Students must meet all deadlines

All Northwestern University graduate students must also fulfill a set of requirements regarding:

• Residency
• Approved coursework
• Grades
• Filing for graduation

Master’s Residency And Courses

To be eligible for a Master’s degree, a student must successfully complete at least nine graded courses (non P/NP) authorized for graduate credit and meet the minimum residency requirement. Residency is calculated in terms of quarters of full-time study:

• Students must meet a residency requirement of the equivalent of three quarters of full-time registration in courses authorized by the Graduate Faculty for graduate credit.

Master’s Timeline

Students must complete all the requirements for the master’s degree within five years of the date of their initial registration in The Graduate School, which falls on the last day of the 20th quarter.

Students who do not complete their degree within five years will not be considered in good academic standing and will be placed on academic probation.
Students in the MS Program in Neurobiology are expected to graduate by the summer of their first academic year. Extending degree completion to later quarters will require the approval of the DGS and their advisor.

*Master’s Degree Completion*

Each Master’s program administers a final comprehensive examination, which may be oral, written, or both. A minimum of two individuals must serve on the Master’s exam committee.

**At least two members of the committee, including the chair, must be members of the Northwestern University Graduate Faculty.**

In order to receive the master’s degree, the student must:

- Complete all required coursework and the program's requirements for the degree.
- File for degree by completing an Application for a Degree form via TGS Forms in CAESAR by the date specified in the Academic Calendar.
- Complete the Master’s Degree Completion form via TGS Forms in CAESAR and receive program approval of the form by the date specified in the Academic Calendar.
- Have at least a 3.0 cumulative GPA and no X, Y, or NR grades. All grades must be entered and Change of Grade forms submitted by the grade deadline specified on the Academic Calendar.

*Grades*

A minimum GPA of 3.0 is required for all work presented for a graduate degree. Grades given for completed, credit-bearing graduate courses not taken on a pass/no credit (P/N) basis are:

<table>
<thead>
<tr>
<th>Grade</th>
<th>Grade Points</th>
</tr>
</thead>
<tbody>
<tr>
<td>A</td>
<td>4.0</td>
</tr>
<tr>
<td>A-</td>
<td>3.7</td>
</tr>
<tr>
<td>B+</td>
<td>3.3</td>
</tr>
<tr>
<td>B</td>
<td>3.0</td>
</tr>
<tr>
<td>B-</td>
<td>2.7</td>
</tr>
<tr>
<td>C+</td>
<td>2.3</td>
</tr>
<tr>
<td>C</td>
<td>2.0</td>
</tr>
<tr>
<td>C-</td>
<td>1.7</td>
</tr>
<tr>
<td>F</td>
<td>0</td>
</tr>
<tr>
<td>X</td>
<td>Failed to earn credit: missed final examination 0</td>
</tr>
<tr>
<td>Y</td>
<td>Failed to earn credit: work incomplete 0</td>
</tr>
</tbody>
</table>

The following notations are ignored in computing the grade point average:
**P:** Pass with credit  
**N:** No grade, no credit  
**K:** In progress  
**S:** Satisfactory: noncredit course  
**U:** Unsatisfactory: noncredit course  
**W:** Withdrawn by permission  
**NR:** No grade reported by instructor  
**X, Y, NR, and F:** Do not count toward the accumulation of quarters of residency required for a degree.

**MS Program Requirements**

Separate from TGS, the department requires the following for successful program completion:

**Quarterly Progress Meetings**

Students meet each quarter with the DGS to evaluate their progress. This meeting should occur mid-way through each quarter. The meeting can be arranged with the Program Assistant in person, via email, or over the phone. Students will be notified via an official email or letter whether they are making satisfactory or unsatisfactory progress after the meeting. The DGS may block registration for a subsequent quarter for any student that has not met requirements.
Students will receive a minimum of one progress letter during the one-year program. If a student is making unsatisfactory progress, they will be monitored closely and may receive progress letters more frequently.

**Satisfactory Progress**

When evaluations, such as quarterly progress meetings, reveal a student's progress is not meeting program standards, the student will be given one quarter to improve laboratory skills and productivity before being reevaluated. Students will first be notified in writing that they have been placed on probation. This written communication will include a detailed description of the reason(s) for placing the student on probation and the goals that the student must accomplish in order to be taken off probation. This letter will be sent to TGS and to the student. Students will typically have one quarter to regain good standing in the program or they may be terminated.

When a student who is not on probation fails one of the major examinations (thesis proposal, Master’s defense), the student will be placed on probation and given a second opportunity to pass that examination. This second examination must be taken within one month of the first examination. Failure on the second examination may result in termination from the program. When a student who is already on probation fails one of the major examinations, they may or may not be given a second opportunity to pass that examination, at the discretion of the DGS.

In all cases, termination of a student requires a decision by the DGS and cannot be made by an individual faculty member or examination committee. Terminations are final.
RESEARCH ADVISORS

A list of participating advisors can be found in the Appendix section.

Choosing an Advisor

Choosing an advisor and lab are the first steps in the program. We ask that students begin thinking about which lab they are interested in during their application process. Available advisors and labs can be found in the List of Research Advisors section in the Appendix. Students will be notified after their acceptance into the program as to when to initiate contact with faculty members.

Selection of an advisor and the research lab where you will complete your thesis project is one of the most important activities that you will undertake when you begin your graduate career at Northwestern. The directors of the Neurobiology MS program have extensive experience in guiding students through the program. You must include them in the advisor selection process. They can provide initial guidance, help you narrow down a field of exciting possibilities, and they must be involved in the final decision of where your thesis will be completed. Do not finalize an arrangement to do your thesis in an advisor’s lab without first getting the approval of one of the program’s directors.

Upon choosing an advisor, students must notify the Program Assistant via email. You must also formally notify the program with the student advisor agreement form, provided in the Appendix section. This form must be filled out and returned by October 16th, but we expect students to choose their advisors well before then. If a student waits until the advisor agreement form is due, (s)he will lose valuable research time in the short one-year program.

Thesis Committee

Thesis committees should be formed before the thesis proposal deadline (January 22nd). To meet TGS requirements: 1) a minimum of two individuals must serve on the thesis committee. And 2) at least two members of the committee, including the chair, must be members of the Northwestern University Graduate Faculty. For the Neurobiology MS program, most committees have at least 3 members.

Students should seek the advice of their advisor in choosing committee members. They are also welcome to confer with the DGS for suggestions. Typically, the committees will include the advisor, one member from the MS Program (typically the DGS), and a third individual selected by the student in consultation with his/her advisor and the DGS. Ideally, this third committee member is someone who is well-suited to both guide the student in the development and execution of their thesis project, and to evaluate the completed thesis project and its defense. Final approval of the makeup of the committee must be obtained from the DGS.
Changing Advisors

Changing advisors is a rare occurrence. Changing advisors can result in a significant setback in both time and effort, and may require that a student extend their time in the MS program beyond the traditional one-year window. These cases are handled on an individual basis. If a student needs to change labs, they should start by contacting the DGS.
REQUIRED PROGRAM COURSES

Neurobio 401
2 credits

This Fall Quarter course is designed to provide students with the fundamentals of neurobiology, combining classroom lectures (as part of the BiolSci 302 course) on the organization and function of the nervous system, and a weekly pro-seminar where students read and discuss classic papers.

Neurobio 402
2 credits

This Winter Quarter course is designed to expose students to cutting-edge research in neurobiology, and emphasize reading and critical discussion of primary literature.

Neurobio 595 (Independent Lab Research)
1 credit (Fall & Winter), 2 credits (Spring)

The specific objectives for the student are:

(1) To understand the research topics the laboratory investigates
(2) To understand the research methods the laboratory uses
(3) To develop critical thinking skills, the ability to meaningfully design scientific experiments, a work ethic consistent with those of a professional scientist, and appropriate time management skills

Spring Elective
1 credit

Elective: Each full-time student is required to take one elective during the Spring Quarter (examples of some classes taken in previous years are listed below). Note that some students will be restricted in their elective choice by their advisor.

Courses in Biological Sciences
- BIOL_SCI 304-0 - Developmental Neurobiology
- BIOL_SCI 322-0 - Systems and Computational Neuroscience for ISP
- BIOL_SCI 324-0 - Neurobiology of Biological Clocks
- BIOL_SCI 326-0 - Neurobiology of Learning and Memory

Courses in Communication Sciences and Disorders
- CSD 425-0 - Electrophysiology of the Human Auditory System

Courses in the Interdisciplinary Biological Sciences Graduate Program
- IBIS 401-0 – Molecular Biophysics
**Courses in the Integrated Graduate Program**

- IGP 495-0 - Science and Society
- IGP 435-0 - Receptors and signaling mechanisms

**Courses in the Interdepartmental Neuroscience Program**

- NUIN 417-0 - Proteinopathies
- NUIN 442-0 - Issues in Movement & Rehab Sci

**Course Registration**

The Program Assistant registers all Master’s students in Neurobiology for their classes. New student registration begins on September 16th and continues to September 25th. The Program Assistant will send a confirmation email indicating students are registered for the required classes for the quarter. Students can log in to CAESAR to verify.

If there are any questions, please contact the Program Assistant at: 847-491-5521 or setong@northwestern.edu

**Department of Neurobiology Seminar Series Attendance**

Most good scientists consider it important and valuable to regularly attend seminars and colloquia, even when the topic is not directly related to their own work. It is an easy way to stay in touch with fields that may not be familiar and, importantly, provides an opportunity to interact informally with colleagues.

To promote these habits and expose students to research beyond Northwestern University, students are required to attend a minimum of two department-hosted seminars each quarter, excluding the summer quarter. To document attendance, students are required to complete a brief statement indicating which seminars they attended (speaker name, institution, title, date) and a summary or critique of each seminar (no more than 1-2 paragraphs).

The **Online Seminar Attendance Form** is due on the last Friday of the exam week for each quarter.

**Time in the Lab**

The research course will be 1 credit for the fall and winter quarters and 2 credits for the spring quarter. The student will be spending on average at least **25-35** hours per week in the mentor’s laboratory (past evaluations suggest that it is typically more). The student is expected to design and perform experiments, attend any laboratory research meetings, attend any laboratory journal clubs, discuss ongoing projects with laboratory members, etc.
Leave of Absence

A student who needs to take a leave from the university (general leave, medical leave, family leave, or childbirth accommodation), must request an official leave of absence. Students should use the “Petition for Absence” form via TGS Forms in Caesar to apply for a leave of absence. The form is reviewed by both the MS program and TGS.
ONBOARDING

TGS provides orientation prior to the academic term. Below is some additional information you may find helpful in getting set up at the University.

Housing

On-Campus Graduate Student Housing

Engelhart Hall Apartments are open to all graduate students, their partners, and families. Recently renovated apartment units feature redesigned floor space and new kitchens with all new appliances. Staff is on-site.

For more information visit Graduate Housing at:
http://www.northwestern.edu/living/housing-options/graduate-housing/index.html

Off-Campus Housing Options

The Division of Student Affairs Off-Campus Housing Guide contains information and resources available to students living off-campus, from apartment hunting to being a good neighbor within the Chicago/Evanston and Northwestern communities.

Most students live in Evanston or the Chicago neighborhoods directly south of Evanston (Rogers Park, Edgewater, Ravenswood, Uptown). Free apartment finding resources include: Craigslist Chicago, Domu Chicago, The Apartment People, Chicago Apartment Finders, HotPads, and Chicago Padmapper.

Tuition

For detailed information about fees and tuition costs, visit the TGS tuition and fees page at:
http://www.northwestern.edu/sfs/tuition/t_grad_s_fees.html

Quarterly Billing and Payment Schedule

<table>
<thead>
<tr>
<th>Term</th>
<th>eBill available</th>
<th>Online Payment deadline</th>
</tr>
</thead>
<tbody>
<tr>
<td>Fall</td>
<td>October 10</td>
<td>November 1</td>
</tr>
<tr>
<td>Winter</td>
<td>December 10</td>
<td>January 1</td>
</tr>
<tr>
<td>Spring</td>
<td>March 10</td>
<td>April 1</td>
</tr>
<tr>
<td>Summer</td>
<td>June 10</td>
<td>July 1</td>
</tr>
</tbody>
</table>

• AY 2015-2016 Master’s Full-time Tuition: $16,208 per quarter
• TGS 512: $100 per quarter
• Activity Fee: $110
Financial Support

The master's program does not provide financial aid in the form of academic scholarships, assistantships, TA opportunities, or stipends.

Federal financial aid policies will not allow a student to borrow federal funds for more than 150% of the program length (i.e., the limit for federal financial aid is 18 months for a 12 month program). The NU Financial Aid office will contact student's that are registered for more than 18 months in the MS program and have federal financial aid.

CAESAR – Student Help Resources

- How to use CAESAR: [http://ses.northwestern.edu/student_help.htm](http://ses.northwestern.edu/student_help.htm)
- CAESAR how-to guides: [http://www.northwestern.edu/sfs/online_services/caesar_howto.html](http://www.northwestern.edu/sfs/online_services/caesar_howto.html)

Obtaining a Net-ID, Email, and Wildcard

**NetID**

- Net ID Overview: [http://www.it.northwestern.edu/netid/overview.html](http://www.it.northwestern.edu/netid/overview.html)

Your NetID is your electronic identity at Northwestern. The most common format of a NetID is a combination of three letters (often related to your name) and three numbers. Your NetID is different from your seven-digit student/employee number.

You will use your NetID to access important University systems including, but not limited to:

- University email
- NU online directory
- NU Library online resources
- Grades and transcripts (CAESAR)
- Campus wireless network
- Off-campus access to the NU Network (VPN)

Your Net-ID should have been provided to you via email by NUIT. Please contact the department if you have yet to receive any notification.
Email at Northwestern

For more information visit: http://www.it.northwestern.edu/accounts/email/

Northwestern University provides faculty and staff with a centrally hosted email service, available after activating a NetID. Most students are provided with an @u.northwestern.edu collaboration account upon NetID activation.

Wildcard

For more information visit http://www.northwestern.edu/uservices/wildcard/

All students, faculty, and staff are issued a campus WildCARD, the official Northwestern photo identification card. Other members of the Northwestern community are also eligible for NU ID Cards.

The Wild Card can be obtained at the basement of the Norris Center. You will need your NetID and a government issued photo ID such as a driver’s license.

Health Services

For more information visit:
- Enrollment: http://www.northwestern.edu/healthservice-evanston/insurance-patient-accounts/health-insurance/insurance-enrollment/index.html
- Policies: http://www.northwestern.edu/healthservice-evanston/insurance-patient-accounts/health-insurance/insurance-policies/index.html

All full-time Northwestern students are required to have health insurance coverage either through the Northwestern University/Aetna Student Health Insurance Plan or the student’s own health insurance carrier. Those who elect to waive the NU/Aetna Plan must ensure their health insurance meets the Northwestern University Standards.

Please refer to the sites above to learn more about obtaining student health insurance as well as the policies under the Aetna Student Health Insurance Plan.

Transportation & Parking

- Northwestern University operates several shuttles for students, faculty and staff on the Evanston and Chicago campuses. A valid WildCARD is required to ride the shuttles. For more information visit:
  - http://www.northwestern.edu/uservices/transportation/shuttles/
- For information on Evanston campus parking visit:
  - http://www.northwestern.edu/up/parking/
- In addition to driving to Northwestern, there are several transportation options available to commuters. For more information on commuting visit:
  - http://www.northwestern.edu/uservices/transportation/commuter/index.html
• U-Pass: The Graduate School and CTA provide the CTA University Pass (U-Pass) to graduate students enrolled full-time in The Graduate School. For more information visit:
  ○ [http://www.tgs.northwestern.edu/campus-life/housing-transportation/u-pass.html](http://www.tgs.northwestern.edu/campus-life/housing-transportation/u-pass.html)

**Mail**

Mail that comes for you to the Neurobiology office will be placed in your own personal mailbox outside of the office. Mail should be directed to the following address:

```
Your Name  
Department of Neurobiology  
Northwestern University  
2205 Tech Drive, Hogan 2-160  
Evanston, IL 60208
```

Please **do not** have any personal letters or bills sent to the department office. Your mailbox is strictly for materials you will receive from the University or for letters, articles, etc. pertaining to your research and graduate studies. Also, the University Shipping and Receiving office has policies against sending personal packages to your University address – if you have a personal package, it is best to have it sent to your residence instead.

Intercampus mail and USPS mailboxes are located across the hall from the Neurobiology office (Hogan 2-108). Intercampus mail must be in intercampus envelopes and include name, department, building, campus, and mail code.

**Research Safety**

Safety is an important component of conducting proper scientific research. After you choose a research advisor, it is important that you register as a lab worker in their lab and take the required training in the Northwestern Safety Information System (NSIS). Your lab’s safety designate should be able to assist you in getting an account for NSIS in their lab.

TGS also provides introductory safety courses, the dates for these courses can be found in the **Milestones** section in the **Appendix**.

**Animal Care and Use Committee (ACUC)**

If your research work will involve the use of vertebrate animal subjects or humans, it is important to get animal use approval as soon as possible. This can delay the start of your research if it is not done right away. Please stop by Hogan 2-160 to speak with Cathy Neuses, **c-neuses@northwestern.edu**, about filling out the necessary forms.

It is recommended that you review the **PROTOCOL REQUIREMENTS** for **PERSONNEL APPROVAL** page of the ACUC to ensure compliance.
The university holds many campus events that you as a student are entitled to attend. Most officially hosted events can be found on PlanIt Purple.

Norris University Center is another great resource for events and activities. They offer events such as cinema in the park or Norris at Night, rentals of bikes, hammocks and other outdoor equipment, mini courses, etc.

**Checklist for When You Arrive and Depart**

*When you arrive:*

- [ ] Obtain keys for your lab. You will need a PI Key Form and a Key Authorization Form (NB/Silverman); these are available via the office or online.
- [ ] Receive departmental coffee mug
- [ ] Check mailbox (ask the Program Assistant where this will be located)
- [ ] Request to be added to pertinent listservs
- [ ] Have your picture taken for the bulletin board
- [ ] Safety Training (TGS has required training, and your lab may require additional training depending on your research)

*When you leave:*

- [ ] Notify the Neurobiology main office
- [ ] Return your lab keys *(Do not leave them in lab or give them to another lab member)*

Office of Research Safety: [http://www.research.northwestern.edu/ors/](http://www.research.northwestern.edu/ors/)

ACUC: [http://www.research.northwestern.edu/oprs/acuc/](http://www.research.northwestern.edu/oprs/acuc/)

ACUC Protocols for approval: [http://www.research.northwestern.edu/oprs/acuc/trainingOHSP/](http://www.research.northwestern.edu/oprs/acuc/trainingOHSP/)

Northeastern’s Plan It Purple calendar: [http://planitpurple.northwestern.edu/](http://planitpurple.northwestern.edu/)

University Center Blog: [http://www.norris.northwestern.edu/about/blog/](http://www.norris.northwestern.edu/about/blog/)
DEGREE COMPLETION AND GRADUATION

Thesis Proposal

Student’s must successfully present and defend their thesis proposal. The thesis proposal is an oral presentation of relevant background, the scientific questions the student plans to address, and the experimental methods they plan to use. During the thesis proposal, the students:

1. Provide their committee a scientific “roadmap,” explaining why the question they wish to address is important and what experiments they intend to perform to address the issue.
2. Demonstrate to their committee how they will conduct their experiments, how the data will be analyzed, and how their results will fit into the existing knowledge of the field.
3. Provide their committee the opportunity to give suggestions and guidance to hopefully avoid any delays in their research.
4. Complete Master’s Thesis Proposal form. This form will be signed by members of the Thesis Committee at the end of a successful thesis proposal presentation, and should be submitted to the Dept. of Neurobiology Office.

Application For Degree

To participate in Graduation, graduate students must submit an Application for Degree to TGS. The form can be completed online through Caesar. This process is used to reserve the student’s spot in the graduation ceremony. The spring graduation deadline for the Application for Degree is April 15th.

Login to Caesar, click on "Main Menu"->"TGS Forms" and navigate to "Application for a Degree" form.

Students that do not complete all degree requirements before the TGS deadline for June graduation may still defend over the summer and can receive their degree after summer quarter.

TGS requires that students be registered as a student in the fall, winter, and spring quarters until they graduate. Students do not have to register over the summer but have the option of doing so, particularly if they are required to be a full-time student for loan or visa compliance. If a student has completed all the required MS program coursework and is only working on research and writing, they must register for TGS 512 during the non-summer quarters. Registration is $100 per quarter and must be paid by the student, per TGS rules.
Thesis Defense

To satisfactorily complete the program, all MS students must submit a written thesis and present an oral thesis defense to their committee. A style guide is provided for students to use for formatting the written thesis. Students will also be given a Thesis Defense Checklist to help them prepare for the defense.

The student must also complete the Defense Approval Form in writing and the Master's Completion form in CAESAR, and after their defense have each member of their committee sign the form. Both the written thesis and the form must be turned in before the Program Assistant can validate the MS Completion Form online. The thesis may be sent in PDF format.

Note: Arranging a thesis defense requires coordinating your thesis committee members’ schedules and reserving a conference room. With this in mind, remember to plan well in advance!

Master’s Completion Form (TGS)

The following TGS forms are available to students on Caesar:

- Application for Degree
- Master’s Degree Completion
- Petition for Absence

Once you submit a form on CAESAR, the information will be sent to the program for approval. Once approved, TGS will be notified and, barring any problems or holds, will also approve. You will receive emails notifying you of form submission and final approval.

Exit Surveys

To help us monitor and improve the quality of our program, we ask our graduating students to complete TGS and Neurobiology exit surveys before leaving the University.

- Neurobiology Exit Survey: https://weinberg.co1.qualtrics.com/SE/?SID=SV_d456pGuDr9CV71z
CONFLICT RESOLUTION

TGS realizes that conflicts emerge occasionally, and they have devised the following guidelines for students for the chain of communication when dealing with different types of conflicts.

Conflicts Not Involving Discrimination, Harassment, or Sexual Harassment

When a conflict arises, whether with a student’s advisor, a fellow student, or someone else in the University, TGS recommends that students first talk to their DGS. One function of the DGS is to address student concerns and grievances and to be available when students are experiencing academic difficulty. If a student is unsure who his or her DGS is, please contact TGS.

If the DGS has a conflict of interest, the Chair of the student’s department is the next resource. In the case that a student cannot or does not want to speak with anyone in the program or department, the next resource is TGS. In TGS, the Associate Dean for Student Affairs, William J. Karpus (w-karpus@northwestern.edu), handles student conflict issues and works directly with the academic school Associate Deans and faculty, as needed.

DGSs, department chairs, TGS staff, and TGS Deans can treat students’ concerns confidentially unless the concerns involve sexual harassment, discrimination, or a safety issue, in which case they are obligated to report the issue to the appropriate University office.

Conflicts Involving Discrimination and Harassment

Harassment, whether verbal, physical, or visual, that is based on race, color, religion, national origin, sex, sexual orientation, gender identity, gender expression, parental status, marital status, age, disability, citizenship, or veteran status is a form of discrimination. Discrimination and harassment complaints should be referred to the Office of Equal Opportunity and Access.

Office Of Equal Opportunity and Access: http://www.northwestern.edu/hr/geo/

Sexual Harassment

It is the policy of Northwestern University that no member of the Northwestern community - students, faculty, administrators, staff, vendors, contractors, or third parties - may sexually harass any other member of the community. For information or assistance regarding a sexual harassment complaint, please see the University’s Sexual Harassment Policy.
## APPENDIX

### Milestone Dates For Academic Year 2016-'17

<table>
<thead>
<tr>
<th>Fall Quarter 2016</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>SEPTEMBER 2016</strong></td>
<td></td>
</tr>
<tr>
<td>Thursday Sep 1</td>
<td>Fall Tuition Due (For continuing students)</td>
</tr>
<tr>
<td>Friday Sep 16</td>
<td>New Graduate Student Fall registration begins</td>
</tr>
<tr>
<td>Thursday Sep 19</td>
<td>Department Program Orientation</td>
</tr>
<tr>
<td>Monday Sep 19</td>
<td>TGS Graduate Student Orientation</td>
</tr>
<tr>
<td>Monday Sep 26</td>
<td>Fall Classes begin 8 a.m.</td>
</tr>
<tr>
<td>Monday Sep 28</td>
<td>Change of registration (Drop/Add)/Late registration for returning students begins</td>
</tr>
<tr>
<td>Friday Sep 30</td>
<td>Last day for students in TGS to change grading status from grade to P-N or vice versa for Fall Quarter</td>
</tr>
<tr>
<td>Friday Sep 30</td>
<td>Last day to add a class or change a section for Fall</td>
</tr>
<tr>
<td>Friday Sep 30</td>
<td>No reductions are made to bills for dropped or swapped classes after this date. Last day for tuition refund.</td>
</tr>
<tr>
<td><strong>OCTOBER 2016</strong></td>
<td></td>
</tr>
<tr>
<td>Friday Oct 7</td>
<td>Fall Tuition Posted</td>
</tr>
<tr>
<td>Friday Oct 14</td>
<td>Advisor Agreement Form due</td>
</tr>
<tr>
<td>Mon-Fri Oct 24-28</td>
<td>Progress Meetings with DGS</td>
</tr>
<tr>
<td>Fri Oct 28</td>
<td>Last day to withdraw for Fall; Last day to drop a class for Fall. (No tuition adjustment after Sept. 29)</td>
</tr>
<tr>
<td><strong>NOVEMBER 2016</strong></td>
<td></td>
</tr>
<tr>
<td>Tuesday Nov 1</td>
<td>Fall Tuition due</td>
</tr>
<tr>
<td>Friday Nov 4</td>
<td>Application for a Degree due to TGS to receive a degree in Fall</td>
</tr>
<tr>
<td>Monday Nov 14</td>
<td>Registration for Winter Quarter begins</td>
</tr>
<tr>
<td>Wednesday Nov 23</td>
<td>Thanksgiving vacation begins 6 p.m.</td>
</tr>
<tr>
<td>Thursday Nov 24</td>
<td>Thanksgiving day</td>
</tr>
<tr>
<td>Monday Nov 28</td>
<td>Fall Classes resume 8 a.m.</td>
</tr>
<tr>
<td>Monday Nov 28</td>
<td>WCAS Reading Period begins</td>
</tr>
<tr>
<td><strong>DECEMBER 2016</strong></td>
<td></td>
</tr>
<tr>
<td>Friday Dec 2</td>
<td>Fall classes end</td>
</tr>
<tr>
<td>Monday Dec 5</td>
<td>WCAS Reading Period ends</td>
</tr>
<tr>
<td>Wednesday Dec 7</td>
<td>Fall examinations begin</td>
</tr>
<tr>
<td>Friday Dec 9</td>
<td>Master's Completion Form due for TGS Fall master's candidates</td>
</tr>
<tr>
<td>Friday Dec 9</td>
<td>Fall examinations end</td>
</tr>
<tr>
<td>Friday Dec 9</td>
<td>Winter Break begins 6 p.m.</td>
</tr>
<tr>
<td>Monday Dec 12</td>
<td>Fall grades due at 3 p.m.</td>
</tr>
<tr>
<td>Winter Quarter 2017</td>
<td></td>
</tr>
<tr>
<td>---------------------</td>
<td></td>
</tr>
<tr>
<td><strong>JANUARY 2017</strong></td>
<td></td>
</tr>
<tr>
<td>Monday Jan 2</td>
<td>Winter Tuition due</td>
</tr>
<tr>
<td>Monday Jan 2</td>
<td>Winter Break ends</td>
</tr>
<tr>
<td>Monday Jan 2</td>
<td>Winter Classes begin 8 a.m.</td>
</tr>
<tr>
<td>Monday Jan 2</td>
<td>Winter Change of registration (Drop/Add)/Late registration begins</td>
</tr>
<tr>
<td>Friday Jan 8</td>
<td>Last day for students in TGS to change grading status from grade to P-N or vice versa for Winter Quarter</td>
</tr>
<tr>
<td>Friday Jan 6</td>
<td>Last day to add a class or change a section for Winter</td>
</tr>
<tr>
<td>Friday Jan 6</td>
<td>Last day to change status to or from part time with tuition adjustment</td>
</tr>
<tr>
<td>Friday Jan 6</td>
<td>No reductions are made to bills for dropped or swapped classes after this date. Last day for a tuition refund</td>
</tr>
<tr>
<td>Monday Jan 16</td>
<td>Suspension of classes for observance of Martin Luther King Jr. Day</td>
</tr>
<tr>
<td>Friday Jan 23</td>
<td>Last day for undergrads to change grading status from grade to P-N or vice versa for Winter</td>
</tr>
<tr>
<td>Friday Jan 20</td>
<td>Thesis Committee/Proposal Form due</td>
</tr>
<tr>
<td><strong>FEBRUARY 2017</strong></td>
<td></td>
</tr>
<tr>
<td>Mon-Fri Feb 6-10</td>
<td>Progress Meetings with the DGS</td>
</tr>
<tr>
<td>Friday Feb 3</td>
<td>Application for a Degree due to TGS to receive a degree in Winter</td>
</tr>
<tr>
<td>Friday Feb 10</td>
<td>Last day to drop a class for Winter. (No tuition adjustment after Jan. 8); Last day to withdraw for Winter</td>
</tr>
<tr>
<td>Monday Feb 24</td>
<td>Registration for Spring Quarter begins</td>
</tr>
<tr>
<td><strong>MARCH 2017</strong></td>
<td></td>
</tr>
<tr>
<td>Friday Mar 3</td>
<td>Master's Completion form due for TGS Winter master's candidates</td>
</tr>
<tr>
<td>Tuesday Mar 7</td>
<td>WCAS Reading Period begins</td>
</tr>
<tr>
<td>Saturday Mar 11</td>
<td>Winter classes end</td>
</tr>
<tr>
<td>Sunday Mar 12</td>
<td>WCAS Reading Period ends</td>
</tr>
<tr>
<td>Monday Mar 13</td>
<td>Winter exams begin</td>
</tr>
<tr>
<td>Friday Mar 17</td>
<td>Winter exams end</td>
</tr>
<tr>
<td>Friday Mar 17</td>
<td>Spring Break begins at 6 p.m.</td>
</tr>
<tr>
<td>Monday Mar 20</td>
<td>Winter grades due at 3 p.m.</td>
</tr>
<tr>
<td>Friday Mar 24</td>
<td>Degrees conferred for Winter</td>
</tr>
<tr>
<td>Sunday Mar 26</td>
<td>Spring Break ends</td>
</tr>
</tbody>
</table>
# Spring Quarter 2017

<table>
<thead>
<tr>
<th>Date</th>
<th>Event Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Tuesday Mar 28</td>
<td>Spring Classes begin 8 a.m.</td>
</tr>
<tr>
<td>Tuesday Mar 28</td>
<td>Spring Change of registration (Drop/Add)/Late registration begins</td>
</tr>
<tr>
<td><strong>APRIL 2017</strong></td>
<td></td>
</tr>
<tr>
<td>Saturday Apr 1</td>
<td>Spring Tuition due</td>
</tr>
<tr>
<td>Friday Apr 3</td>
<td>Last day for students in TGS to change grading status from grade to P-N or vice versa for Spring Quarter</td>
</tr>
<tr>
<td>Monday Apr 3</td>
<td>Last day to add a class or change a section for Spring</td>
</tr>
<tr>
<td>Monday Apr 3</td>
<td>Last day to change status to or from part time with tuition adjustment</td>
</tr>
<tr>
<td>Monday Apr 3</td>
<td>No reductions are made to bills for dropped or swapped classes after this date. Last day for a tuition refund</td>
</tr>
<tr>
<td>Monday Apr 10</td>
<td>Registration for Summer Session 2016 begins</td>
</tr>
<tr>
<td>Friday Apr 14</td>
<td>Application for a Degree due to TGS to receive a degree in Spring</td>
</tr>
<tr>
<td>Friday Apr 14</td>
<td>Last day for undergrads to change grading status from grade to P-N or vice versa for Spring</td>
</tr>
<tr>
<td><strong>MAY 2017</strong></td>
<td></td>
</tr>
<tr>
<td>Mon-Fri May 8-12</td>
<td>Progress Meetings with DGS</td>
</tr>
<tr>
<td>Friday May 5</td>
<td>Last day to drop a class for Spring. (No tuition adjustment after April 4); Last day to withdraw for Spring</td>
</tr>
<tr>
<td>Monday May 8</td>
<td>Pre-Registration for Fall 2016 begins</td>
</tr>
<tr>
<td>Friday May 12</td>
<td>Master's Completion Form due for TGS Spring master's candidates</td>
</tr>
<tr>
<td>Monday May 15</td>
<td>Registration for Fall 2016 begins</td>
</tr>
<tr>
<td>Monday May 29</td>
<td>Memorial Day (no classes)</td>
</tr>
<tr>
<td><strong>JUNE 2017</strong></td>
<td></td>
</tr>
<tr>
<td>Thursday June 1</td>
<td>Summer Tuition due</td>
</tr>
<tr>
<td>Thursday June 1</td>
<td>WCAS Reading Period begins</td>
</tr>
<tr>
<td>Saturday June 3</td>
<td>Spring classes end</td>
</tr>
<tr>
<td>Sunday June 5</td>
<td>WCAS Reading Period ends</td>
</tr>
<tr>
<td>Monday June 5</td>
<td>Spring exams begin</td>
</tr>
<tr>
<td>Friday June 9</td>
<td>Spring exams end</td>
</tr>
<tr>
<td>Monday June 12</td>
<td>Spring Grades due at 3 p.m.</td>
</tr>
<tr>
<td>Thursday June 15</td>
<td>Baccalaureate</td>
</tr>
<tr>
<td>Friday June 16</td>
<td>Commencement</td>
</tr>
<tr>
<td>Friday June 16</td>
<td>Spring Degrees conferred</td>
</tr>
<tr>
<td>Summer Session 2017</td>
<td></td>
</tr>
<tr>
<td>---------------------------------------------------------</td>
<td></td>
</tr>
<tr>
<td>Monday June 19 Summer Classes begin</td>
<td></td>
</tr>
<tr>
<td>Monday June 19 Summer Change of registration (Drop/Add)/Late registration begins</td>
<td></td>
</tr>
<tr>
<td><strong>JULY 2017</strong></td>
<td></td>
</tr>
<tr>
<td>Tuesday July 4 Independence Day (no classes)</td>
<td></td>
</tr>
<tr>
<td>Saturday July 15 Application for a Degree due to TGS to receive a degree in Summer</td>
<td></td>
</tr>
<tr>
<td>Saturday July 29 Six-week Summer session ends</td>
<td></td>
</tr>
<tr>
<td><strong>AUGUST 2017</strong></td>
<td></td>
</tr>
<tr>
<td>Friday Aug 11 Master's Completion form due for TGS Summer master's candidates</td>
<td></td>
</tr>
<tr>
<td>Saturday Aug 12 Eight-week Summer session ends</td>
<td></td>
</tr>
<tr>
<td>Saturday Aug 26 Ten-week Summer session ends</td>
<td></td>
</tr>
<tr>
<td><strong>SEPTEMBER 2017</strong></td>
<td></td>
</tr>
<tr>
<td>Friday Sep 1 Degrees conferred for Summer</td>
<td></td>
</tr>
</tbody>
</table>

*This document version is preliminary & subject to change*
Dissertation Guidelines

ARRANGEMENT OF THE DISSERTATION:

Each dissertation must be arranged in the following order. Specific information about each section is on the following pages. Italicized pages are optional.

- Title Page
- Copyright Page (optional)
- Abstract
- Acknowledgment page (optional)
- Preface (optional)
- List of abbreviations (optional)
- Glossary (optional)
- Nomenclature (optional)
- Dedication (optional)
- Table of Contents
- Lists of Tables, Illustrations, Figures, or Graphs
- Introduction
- Text body (divided into chapters following a logical outline)
- Tables, Illustrations, Figures, Graphs: If not incorporated into the main body of the text, these items should immediately follow the text, not at the end of chapters.
- References
- Appendices (optional)
- Vita (optional)
FORMATTING AND LAYOUT REQUIREMENTS:

PAGE SIZE
• Page size should be 8.50 x 11.00, standard US Letter size.

MARGINS
• 1 inch on all sides, including page numbers.
• Page numbers should be at least 1" from the top and right-hand edges of the page.

SPACING
• The preliminary pages and text must be double spaced.
• Under certain conditions, quotations may be single spaced, if recommended by an approved style manual.
• Table of Contents and lists with lengthy entries may be single spaced with a double space between entries.
• References may be single spaced, with a double space between entries.

PAGINATION
• Every page in a dissertation is numbered, except the title page.
• Page numbering will begin on the second page with Arabic numeral 2 in the upper right-hand corner of the page.
• No empty pages
• On pages of the dissertation that are formatted with landscape orientation, the page number must appear in the upper right-hand corner if the page were rotated to portrait orientation.
FORMATTING AND LAYOUT REQUIREMENTS:

TITLE PAGE

NORTHWESTERN UNIVERSITY

{TITLE; e.g., Title of Dissertation in Title Case Goes Here}

A DISSERTATION

SUBMITTED TO THE DEPARTMENT IN PARTIAL FULFILLMENT OF THE REQUIREMENTS

for the degree

MASTER OF SCIENCE

Field of NEUROBIOLOGY

By

{Full Name}

EVANSTON, ILLINOIS

{Month and year of degree conferral – ask MS program if not sure}
DISSERTATION TITLE GUIDELINES: Dissertations are a valuable resource for other scholars only if they can be easily located. Modern retrieval systems generally use the words in the title to locate a document. It is essential that the title be an accurate and meaningful description of the content and that obscure references be avoided. Please use these guidelines when formulating a dissertation title:

CASE: The first and last words and all nouns, pronouns, adjectives, verbs, and adverbs (if, because, as, that, etc.) are capitalized. Articles (a, an, the), coordinating conjunctions (and, but, or, for, nor), and prepositions, regardless of length, are lowercased unless they are the first or last word of the title or subtitle. Only acronyms should be set in full capitals.

Examples:
- Power and Consumer Behavior
- Outpatient Treatment for Children: Organizational Practices as Predictors of Recovery
- A Comparison of the Methodologies for Determining Achievement in High School

HYPHENATION: Consult the dictionary as to whether a word is hyphenated. In general, do not hyphenate words beginning with the prefixes co, non, pre, post, or re unless there is a possibility of confusion (co-op, post-master's) or the root word begins with a capital letter (post-Renaissance). Hyphenate words beginning with the prefix self. Hyphenate compounds used as adjectives (decision-making) but not as nouns (decision maker). Part-time is always hyphenated. When more than one prefix is joined to a base word, hyphenate the prefixes standing alone (micro- and macroeconomics). Do not hyphenate fundraising, freelance, yearlong, health care, African American, Asian American.

Examples:
- Great Nonfiction Works of the Nineteenth Century (Instead of: Great Non-fiction Works of the 19th Century)

SPELLING AND GRAMMAR: Dissertation titles should be spell-checked and dictionary spelling of words should be used. Use “and” rather than “&,” and spell out names of centuries and other numbers usually spelled out in text.

Example: The Labour Party in Perspective and Twelve Years Later

SPECIAL CHARACTERS: No special characters should appear in the dissertation title (SES/CAESAR cannot accommodate special characters). Terms or phrases that include special characters should instead be written out.

Examples:
- Evaluation of DNA Hybridization and Cleavage Capabilities of Peptide Nucleic Acid-Titanium Dioxide (instead of: Evaluation of DNA Hybridization and Cleavage Capabilities of PNA-TiO2)
- The Role of TGF-beta Variants in Cancer (instead of: The Role of TGF-β Variants in Cancer)

ITALICIZATION: Italics should only be used in dissertation titles when referring to the title of a published work, foreign language words, gene names, scientific names as appropriate, or other
words that are usually italicized.
   Examples:
   Techniques in *Drosophila* Circadian Biology
   Mechanisms of Differentiated Cell Function *in vitro*

**APOSTROPHES:** Do not use to form plurals (it should be 1940s, not 1940's) unless it would be confusing without (thus A's and B's, not As and Bs; p's, not ps). Possessives of singular nouns ending in s are formed by adding 's (e.g., Russ's dog).
COPYRIGHT PAGE
If you choose to copyright your manuscript, a copyright notice must appear on a separate page following the title page. It should read as follows:

© Copyright by (your name) 20__
All Rights Reserved

ABSTRACT
• The abstract should be no more than 350 words.
• Inclusion of the abstract within the preliminary pages of the dissertation is required.
• The abstract should provide an accurate summary of the contents of the dissertation, including a statement of the problem, the procedures or methods used, the results, and the conclusions.
• Mathematical formulas, photographs, diagrams, and other illustrative materials are not recommended for inclusion in the abstract.

OPTIONAL PREFATORY PAGES
• Acknowledgment page
• Preface
• List of abbreviations
• Glossary
• Nomenclature
• Dedication

TABLE OF CONTENTS
• The format of the table of contents should conform to the guidelines in an approved style manual.
• It is important that the table of contents accurately reflect the outline and organization of the manuscript.

LISTS OF TABLES, ILLUSTRATIONS, FIGURES, OR GRAPHS
• These lists should reproduce the specific titles and page locations of all illustrative materials.

INTRODUCTION (optional)
• This optional section should provide an overview of the dissertation and the research problem that is being addressed. It should also indicate how the research and argument presented will contribute to scholarship in the field.

BODY OF THE TEXT
• Chapters should follow a logical outline, with a clear distinction between chapters, main heads within chapters, and subordinate heads within the main heads.
• The outline and organization of the main body of the text should be accurately reflected in the table of contents.
• All non-textual elements (e.g., tables, graphs, and images) must be described in the text.

TABLES, ILLUSTRATIONS, FIGURES, GRAPHS
• If not incorporated into the main body of the text, these items should immediately follow the text, not at the end of chapters.
• Margin requirements must be met on all pages that contain charts, graphs, tables, or illustrations. If the title, legend, or description of an illustration is too long to be placed on the same page with the illustration, it must be placed on a separate numbered page preceding the illustration.
• Must be numbered; they must include legends, and be easily legible. It is highly recommended that each figure and legend be printed on a separate page. Although tables and graphs do not need to be printed on separate pages, they must fit within margins and onto the page cleanly.
• All text and fonts on figures and legends must be the same and consistent throughout the entire thesis. Legends should be blocked and numbered independently. Below is an example of a table and a figure.

<table>
<thead>
<tr>
<th>Treatment</th>
<th>Volume of Tissue Analyzed (µm³)</th>
<th>Number of Inhibitory Varicosities Reconstructed</th>
<th>Density of Inhibitory Varicosities (1/µm³)</th>
<th>Average Volume of Inhibitory Varicosities (µm³)</th>
<th>Proportion of Inhibitory Varicosities that Contain Mitochondria</th>
<th>Average Number of Synapses per Inhibitory Varicosity</th>
</tr>
</thead>
<tbody>
<tr>
<td>Oil (n = 4)</td>
<td>176 ± 12</td>
<td>27.5 ± 2.9</td>
<td>0.17 ± 0.01</td>
<td>0.28 ± 0.03</td>
<td>0.77 ± 0.05</td>
<td>1.26 ± 0.11</td>
</tr>
<tr>
<td></td>
<td>Mean ± SEM</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Range</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Estradiol (n = 4)</td>
<td>180 ± 11</td>
<td>27.3 ± 4.4</td>
<td>0.15 ± 0.02</td>
<td>0.34 ± 0.02</td>
<td>0.80 ± 0.05</td>
<td>1.20 ± 0.09</td>
</tr>
<tr>
<td></td>
<td>Mean ± SEM</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Range</td>
<td></td>
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</tr>
</tbody>
</table>

**Table 1.** Tissue analyzed in the pyramidal cell layer from oil and estradiol treated rats did not statistically differ. Between oil and estradiol groups, tissue did not differ on the basis of the volume of tissue analyzed, number of inhibitory varicosities reconstructed, density of inhibitory varicosities, average volume of inhibitory varicosities, proportion of inhibitory varicosities that contain mitochondria, or average number of synaptic contacts per inhibitory varicosity (all p values > 0.10).
Figure 4.  

**A**, Electron micrograph of a DCV in an inhibitory varicosity in the pyramidal cell layer. The image in panel A is the same as that shown in Fig. 1. **B**, Use of Reconstruct software to trace a subset of serial electron micrographs (1-15) from a total of 32 sections for an inhibitory varicosity that originates as an axon, develops into a bouton, and terminates as an axon (green), the mitochondrion (blue), synapses (red), and DCV (magenta) contained within the varicosity are additionally traced. **C**, Two views of three dimensional reconstructions for the traced varicosity and associated mitochondrion, synapses, and DCV.
REFERENCES

• Each dissertation must include references to document the text.
• These references may be included at the bottom of the page or at the end of the text, but cannot be placed at the end of each chapter.
• The format for references must conform to the guidelines in an approved style manual.
• There are two options for formatting references. You may select a standard formatting style that is used by a prominent journal within your field (consult with your advisor), or follow the examples below.

Journal Articles:
The authors' names, year, complete title, journal name (italicized), volume, and page numbers must be included.

Example:

Book Chapters:
The authors names, year, chapter title, book title (underlined), editors, publisher, city/state in which the work was published, and page numbers must be included.

Example:

APPENDICES (optional)
• The format for the appendices must conform to the guidelines in an approved style manual.

VITA (optional)
• It is recommended that each copy of the dissertation include a brief vita containing the author’s name, place of birth, education, relevant professional experience, and publications. The vita page is numbered.

BINDING AND FINAL THESIS SUBMISSION
• Convert your document to PDF and email to the Neurobiology Program Assistant. The department will print and bind three copies: one for you, one for your advisor, and one for the department. You will need to leave a mailing address with the department Program Assistant to receive your thesis.
COMMON DISSERTATION Formatting PITFALLS CHECKLIST:

There are several common formatting problems that require resubmission and re-review of the dissertation. Please check this list to ensure your dissertation is correctly formatted:

- Are your margins correctly sized (including page numbers) such that there is 1 inch on all sides?
- Are your pages numbered starting on the 2nd page with the number 2 (NOT roman numeral) in the upper right-hand corner of the page?
- Are your page numbers properly placed in the upper right-hand corner of the page, 1 inch from the top and 1 inch from the right edge of the page?
- Are all of your pages numbered, except for the title page?
- On pages with landscape formatting, does the page number appear in the upper right-hand corner if the page were rotated to portrait orientation?
- Is your page size 8.50 x 11.00 (regular US letter size)?
- Does your title page include the correct location – EVANSTON, ILLINOIS (not CHICAGO, ILLINOIS)?
- Does your title page include the correct date? The date should be the month and year you will receive the degree, for example: December 2009
- Are your pages ordered properly, with the title page first, followed by the copyright page (if you are including one), then the abstract page?
## List of Research Advisors*

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*This list may be subject to change
INDEPENDENT RESEARCH ADVISOR/STUDENT AGREEMENT

We agree to work together as Research Advisor and student on an independent research project for the academic year.

__________________________________________  __________________________
Faculty Name                                                                Date

__________________________________________  __________________________
Faculty Member’s Signature                                                      Date

__________________________________________
Student Name

__________________________________________  __________________________
Student’s Signature                                                               Date

Return to: Neurobiology Office, Northwestern University
2205 Tech Drive, Hogan 2-160, Evanston, Illinois 60208
COMMITTEE MEETING AND MASTER’S THESIS PROPOSAL

The Master’s Program in Neurobiology certifies that

____________________  ___________  ______________________________
First Name  Middle Initial  Last Name

has presented a satisfactory master’s thesis proposal to a Neurobiology MS faculty committee.

Thesis title:

________________________________________________________________________
________________________________________________________________________

Comments:

________________________________________________________________________
________________________________________________________________________

Typed Name  Signature  Department

____________________  ___________  ______________________________
Faculty Advisor

____________________  ___________  ______________________________
Graduate Faculty Committee Member

____________________  ___________  ______________________________
Graduate Program Representative

Date: __________________________  (month/date/year)

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MASTER’S OF SCIENCE DEFENSE APPROVAL

The Master’s Program in Neurobiology certifies that

______________________________________________
First Name                     Middle Initial        Last Name

has presented a satisfactory master’s thesis defense to a Neurobiology MS faculty committee.

Thesis title: __________________________________________

____________________________________________________

Typed Name       Signature       Department

____________________________________________________
Faculty Advisor

____________________________________________________
Graduate Faculty Committee Member

____________________________________________________
Graduate Program Representative

Date: __________________________
(month/date/year)

Return to: Neurobiology Office, Northwestern University
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Thesis Defense Checklist

1. Meet with the DGS or Program Assistant to get a copy of the Thesis Formatting Guide and other information on defending and graduating.

2. Make sure you have submitted your Application for Degree online through CAESAR by the required deadline (found online at The Graduate School (TGS) academic calendar). TGS uses this to reserve your slot in graduation (which occurs in June and December).

3. Schedule a date with your committee. Make sure you reserve a room using the online Life Sciences Scheduler, which can be done through the Program Assistant. If the room you are using does not have a built-in projector, be sure to reserve a projector too.

4. **PROVIDE A COPY OF YOUR THESIS TO YOUR COMMITTEE AT LEAST ONE WEEK BEFORE YOUR DEFENSE.**

5. Before your thesis defense date, go to the Neurobiology front office and get the MS Thesis Signature form. After your committee has approved your thesis and defense, have them sign the form. Fill out the rest of the information, and return the form to the MS Program Assistant.

6. Complete revisions/edits (if any) required by your committee, and submit your completed and properly formatted thesis via PDF to the MS Program Assistant (see Thesis Formatting Guide).

7. Complete the exit survey via Qualtrics.

8. If you plan to attend Commencement in June, confer with The Graduate School for details on location, date, tickets, etc.

9. **CONGRATULATIONS!**