

GUIDE TO GRADUATE STUDY

Institute for Neuroscience

The University of Texas at Austin

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Welcome to the Graduate Program in Neuroscience!

This handbook has been designed as a supplement to the Graduate Catalog and is meant to answer questions you may have during your studies at The University of Texas at Austin in the Institute for Neuroscience (INS) graduate program. Please consult official UT web pages for more detailed information or contact the INS Graduate Coordinator and/or Graduate Advisor for further assistance.

Neuroscience Graduate Program Structure and Required Milestones

The Neuroscience Graduate Program is administered by The Institute for Neuroscience (INS), a campus-wide organization responsible for research and teaching activities related to the neurosciences. The Program is multidisciplinary with more than 80 participating neuroscientists from 14 departments and is designed to promote interdisciplinary training and interaction. Research in the INS is diverse, with investigators covering all major disciplines and techniques in neuroscience and representing a broad range of research interests, from molecular neuroscience and genetics through physiology, cellular and systems research, to cognition and behavior and the neurobiology of disease. Because of the outstanding and diverse composition of the INS faculty, our graduate students are provided with unparalleled opportunities for research and are trained to become critical thinkers capable of understanding the full breadth of conceptual and technical approaches to neuroscience.

Before fall semester classes start, students begin their graduate career by taking a two-week "Boot Camp". Boot Camp consists of several hours of hands-on laboratory training each day, and informal faculty research presentations in the evenings. There are typically four lab modules for Boot Camp: Psychophysics, Molecular and Behavioral Neuroscience, Cellular Neurophysiology, and Imaging. Students are also expected to coordinate their first research rotation and to make progress on secondary administrative matters (e.g., online training for research protocols).

During the Fall and Spring semesters of their first year, students take required and elective coursework and perform research rotations in two or three different labs of their choice. These requirements ensure that each student gains a strong foundation in basic concepts of neuroscience and experimental approaches. By the end of the Spring semester of the first year, students focus their research interest by selecting their graduate research advisor and lab and beginning to prepare for their Qualifying Exam.

During the Summer between their first and second years, students prepare for their qualifying exam by preparing a Qualifying Paper that focuses on an area of debate or uncertainty in their specific area of research, and studying general background material and literature that will constitute their Qualifying Exam. The exam is scheduled for late August or early Sept, just as the second year is beginning.

In the second year, students generally complete their elective course work and gain grant writing experience by preparing and submitting a pre-doctoral fellowship (NRSA or NSF). After passing the qualifying exam, students spend the next 2-3 years completing their dissertation research. Upper level students also gain teaching experience by participating as a teaching assistant.

The Institute for Neuroscience (INS) is designed to promote interdisciplinary training and interaction. As such, the program does not reside in any one department or college at The University. Rather, faculty members in several different departments that represent the breadth of modern neuroscience research and who are members of the Graduate Studies Committee (GSC) may supervise students. The graduate program is specifically aimed at students wishing to obtain a Ph.D. degree. The three major components of the Ph.D. program are as follows:

- **Course Requirements – didactic and laboratory courses.**
- **Qualifying exam – includes generating and defending a Qualifying Paper that focuses on an area of debate or uncertainty in their specific area of research, and demonstrating a general knowledge of neuroscience.**
- **Research – original laboratory-based studies that contribute significant new knowledge to the field of neuroscience. The findings should be publishable in high quality neuroscience journals and form the basis of a dissertation that can be successfully defended before the neuroscience community.**

Course Requirements

A minimum of 81 credit hours (graduate courses only) is required for the Ph.D. degree. Of this, 24 credits must come from the Major and Elective course requirements described below, with the remainder being research hours. The normal course load of 9 credit hours in fall and spring plus 3 in the summer will fulfill this requirement in about 4 years. The curriculum is designed to allow maximum flexibility in choosing a course of study that matches the student's major area of interest. In choosing electives, students are strongly encouraged to select courses outside of their major area of research and to acquire a diverse neuroscience background for the following reasons: 1) neuroscience is a broad, interdisciplinary science that requires knowledge of diverse subject areas and scientific methodology, 2) a diverse neuroscience background will help the student prepare a more intelligent dissertation proposal and 3) a diverse neuroscience background will position graduates to serve as scholarly teachers of neuroscience.

Major requirements: Four courses are required of all neuroscience students; 1) Principles of Neuroscience I, 2) Principles of Neuroscience II (taken in the first and second semesters during the first year of graduate studies), 3) an ethics of science course, and 4) a 3-hour statistics course. Students also attend the Neuroscience seminar series as well as to join lunch meetings with the speakers when relevant.

Elective requirements: Four elective courses are required of all students. Electives are offered in all areas of neuroscience and students are encouraged to choose electives in consultation with the Graduate Advisor, the Progressions Committee, and his/her faculty supervisor. The Graduate Advisor must approve all elective courses prior to registration. At least 3 of the 4 electives must be taken for a grade; 1 elective can be taken Credit / No Credit, pending approval by the Graduate Advisor.

General Requirements: Beyond the first semester (or summer session) continued registration is dependent on these main factors: 1) maintenance of a 'B' grade point average (at least a 3.0 GPA) for all upper-division and graduate courses taken in a given semester, with at least a "B" in the required Principles of Neuroscience courses, 2) satisfactory completion of the qualifying exam taken at the end of summer of the first year, 3) satisfactory research progress, and 4) entry into doctoral candidacy by the beginning of the 3rd year in graduate school.

Research Requirements

A core part of the Ph.D. degree is extensive training in neuroscience research. The purpose of this is to enable the successful student to (1) recognize and identify critical research questions in neuroscience, (2) design and carry out experiments to collect data necessary to answer the questions, and (3) analyze the data, organize the findings, and present the results and conclusions in a manner that makes a significant contribution to the field. All pre-doctoral students in "good standing" (defined elsewhere in the handbook) will be engaged in supervised research during every semester that they are enrolled in the program. It is important for each student to understand that appropriate progress toward their Ph.D. degree and good standing in the program are contingent upon research progress.

Sequence of research training

First year: In addition to Boot Camp, described above, all entering students begin learning research methods by engaging in formal lab research rotations during the first year beginning in Fall semester. Students must participate in at least two different laboratory rotations during the first and second

semester, but normally no more than three. For each rotation, the specific research project and methods will generally be given to the student by their supervising professor. During research rotations it is not unusual for students to spend greater than 20 hours/week in the laboratory. It is expected that students complete their rotations by the end of the Spring semester of their first year. Students wishing to do 3 rotations may elect to perform rotations that are shorter than a full semester, pending approval by the GA and the mentors involved. At the start of the summer semester the student should enter their chosen faculty supervisor's lab to begin dissertation research and preparation for the Qualifying Exam. If, prior to the standard completion date during any of these research rotations, students wish to switch to another lab rotation, they may do so by first consulting the Graduate Advisor for advice and assistance. Students choose rotations from among full members of the INS who are accepting students. If a student is supported by the INS training grant, then he or she should only choose labs from among members of the training grant faculty. A list of these faculty members can be obtained from the Graduate Coordinator.

Second year: By this time, all students should have chosen their faculty supervisor and spent the summer preparing for their Qualifying Exam, which is scheduled in August or September. Students are expected to aggressively immerse themselves in the relevant literature for their specific research area, and to make sure that they have a solid mastery of basic concepts related to their research area. The exam is preceded by submission of a Qualifying Paper (see "The Doctoral Qualifying Exam" section below for details). These efforts should not preclude, of course, staying abreast of major new published findings in other neuroscience fields. Participation in the Graduate Seminar Series and journal clubs can enhance a student's understanding of the literature, however, students are expected to read the literature independent of courses and/or seminars. By the end of the second year, the student should have a good grasp of the literature and begin to formulate research questions independent of the faculty supervisor. Students are expected to submit a pre-doctoral fellowship application (NRSA, NSF or other applicable fellowships) preferably in their second year, and no later than the middle of their third year.

Third year and beyond: The student should have completed any remaining course requirements by the end of the Fall semester of this year. Also, after passing the Qualifying Exam, the student will apply for admission to candidacy; after which they engage full time in dissertation research under the guidance of their advisor and dissertation committee. In addition, students must gain teaching experience by performing at least one semester as a teaching assistant (TA) in an undergraduate or graduate course. Students may not TA for more than three semesters. The Graduate Studies Committee of the INS supports and encourages broad-based training and multidisciplinary research projects that may involve more than one laboratory.

The Progressions Committee

A committee of faculty advisors appointed by the INS Executive Committee (EC) will monitor student progress prior to admission to candidacy. During this time the committee meets with students twice a year, typically first in January of their first year and then individually in June. Once a student has assembled a dissertation committee, the Progressions Committee no longer meets with the student unless requested, although they can provide input to assist the Graduate Advisor and the relevant faculty supervisor. The Progressions Committee assesses whether specific course, grade and research requirements are being met and provides recommendations to the EC for the continuation of each student in the program.

Financial Support

All neuroscience graduate students who are in good standing are guaranteed stipend support at the current level for five years (contact Graduate Coordinator for current amount), plus student health insurance and tuition assistance, provided they abide by the policies of the INS and those of the Graduate School.

If eligible, students are required to submit a nationally competitive predoctoral fellowship application by no later than the end of their third year and to participate in a least one semester of teaching assistantship during their program. Support at the current level is guaranteed regardless of the student's TA status or whether the student has been awarded a predoctoral fellowship. However, the yearly stipend may be increased, funds for travel to scientific meetings may be granted, and/or funds for additional tuition

assistance and/or additional health insurance may be provided with the award of certain fellowships or teaching assistantships.

Timeline for Fellowship Applications

Unless extenuating circumstances prevail or the student in question is non-traditional (having prior graduate degrees, for instance), students are strongly advised to pass the qualifying examination prior to applying for any external funding that requires an extensive research proposal application.

The Doctoral Qualifying Examination

The overall goal of the qualifying exam is to ensure that the continuing pre-doctoral student possesses the following necessary skills:

- a strong, basic understanding of neuroscience;
- the ability to write a cogent paper;
- the ability to defend this proposal orally with special emphasis on demonstrating mastery of both the methodological and theoretical understanding of a debated topic in their chosen area.

These basic skills are expected of all INS Ph.D. candidates. The qualifying exam provides for evaluation of these basic skills by a faculty committee. The qualifying exam for eligible students will be scheduled in the time frame spanning the end of the summer and the beginning of the Fall semester. No exams will be given prior to August 15 or after October 1. At this time the student will undergo an oral examination that includes three parts: a questions-and-answer phase, covering general knowledge, presentation of their qualifying paper, and further discussion of the presentation (with the possibility of followups from the first part).

Qualifying Examination Committees, Chairs, and Faculty service

Each Qualifying Examination Committee (QEC) will consist of the Graduate Advisor, at least three INS faculty members, and the faculty advisor for that student. The faculty advisor is a non-voting member of the QEC: he/she is present during the exam but not during the discussion of exam outcome. All GSC faculty members are expected to serve on a QEC, if asked, and the composition of the QEC must be approved ahead of time by the Graduate Advisor and the Progressions Committee.

The Graduate Advisor will be charged with three tasks:

- a) organize and coordinate all assigned examinations;
- b) insure that all phases of the examination are consistently and fairly applied to all students;
- c) verify that each student demonstrates basic proficiency in neuroscience to the level of Principles of Neuroscience I/II. The examination will last approximately 3 hours. The first ~ half of the exam should include 1 hr of general questioning, followed by a brief presentation from the student, and then questions that are focused on the candidate's research area. If deficiencies in the student's basic understanding of neuroscience become evident, the examiners are expected to identify topic areas in which the student needs review, instruction, or remediation.

Outcomes

The outcome of the examination requires a majority vote of the QEC. Any member of the QEC not agreeing with the majority can write a dissenting opinion that will be placed in the student's record. Any specific remediation will also be decided by a majority vote of the QEC, and will be final.

At the conclusion of the oral examination, a standard outcomes form will be used, which will document the committee's judgment of the student's performance in as much detail as practical. Specific areas of excellence as well as deficiencies will be noted. This form will also serve to communicate the student's performance to their faculty supervisor. The written outcome will be discussed with the student at the end

of the oral examination, and the student will acknowledge the outcome by signing the official form. Copies will be placed in the student's file and retained by the GA.

- **The three potential outcomes of the qualifying exam are:**

- **Pass** (in general, answering 75% or greater correct)
- **Conditional pass** (generally 50-75% correct) – Any specific timetable and/or procedures for remediation will be set by the QEC. These most commonly (but not limited to) include:
 - i) a full or partial re-write of the paper and/or
 - ii) a re-interview on specific parts of the exam with one or all member of the QEC and/or
 - iii) the successful completion of an additional graduate-level course.
- **Fail (unacceptable)** (less than 50% correct) – If the student's performance during the oral examination or following specific remediation is viewed as unacceptable by the QEC, the student will either be recommended for dismissal from the program or given the opportunity of a second oral exam. A second opportunity requires approval by the Director based on consultation with the GA and the rest of the QEC.

If a second exam is offered, it should be scheduled within 8 weeks of the first exam date (unless agreed upon by student and QEC). At the discretion of the QEC, the re-examination may or may not require a full re-write of the proposal. The student may request that a single examination committee member (excluding the chair) be replaced for the oral re-examination. The replacement member will be chosen by the GA in consultation with the remaining QEC members. Outcomes from the second exam will again be by majority vote of the QEC and be either **Pass** or **Unacceptable (Dismissal)**. This decision will be final.

The Qualifying Exam Process has 3 components:

1) Proposal Abstract (specific due date announced each spring):

Students will submit a very brief abstract of their proposal including the following components

- The names of both the student and mentor,
- A 1 paragraph summary of the research area (500 words)
- A list of three INS faculty members that the student wishes to nominate for membership on the exam committee. The student is expected to obtain agreement from the faculty member of willingness to serve on the exam committee before submitting their names.

2) The Qualifying Paper

An electronic version (emailed as a PDF to neuroscience@mail.cim.utexas.edu) is to be submitted to the GA and GC two weeks prior to the exam for distribution to the committee.

The Paper must be written solely and in its entirety by the student and may not be a reproduction of any work completed prior to the Summer after the 1st year, or prepared with co-authors (violation of this statute will subject the student to disciplinary action that may include dismissal from the program). The Paper is expected to follow a format more closely related to a *Trends in Neurosciences* article than a generic "literature review". Specifically, the paper in general should aim to:

- Define an area of controversy or debate in the student's research area
- Situate this controversy or debate within the literature—this is a *focused* and goal-directed literature review, not a generic and broad summary of all relevant papers or papers the student has read for the general qualifying exam preparation
- Explain the area of controversy or debate by describing specific studies, relevant

- aspects of experimental design / analysis / interpretation
- Suggest future work, both empirical and conceptual, that may help resolve this issue and further understanding

The paper should be 7500-10,000 words total, not including the reference list. It should contain the following main sections:

Abstract (Max 250 words)

Topic. Definition of the controversy / debate / unresolved issue.

Historical background. Relevant background summary, covering classic work that provide the context for the more recent literature described in the "Key studies" section below.

Key studies. These studies are explained in detail with respect to methods, analyses, and what conclusions can and cannot be drawn. Particular emphasis should be paid on evaluating the quality of the evidence.

Synthesis. The student may support a particular side of the debate or stay neutral, pointing out each side's strengths and weaknesses.

Future directions. The student may suggest experiments or approaches to help resolve the controversy or at least move the debate forward.

The paper should also include 1-3 of the following modular secondary sections that can be separated from the main text (often seen as "boxes" in this sort of article):

- Advanced terminology
- Relevant mathematic expressions
- Fundamental techniques

Students are encouraged to discuss their Paper with anyone, including their faculty supervisor, and members of their QEC, in as much detail as they wish. However, at the Qualifying Exam, **the student must be prepared to orally defend all content in the paper without assistance.**

3) The Oral Qualifying Examination

The Oral Qualifying Exam is normally taken between Aug. 15 and Oct. 1 at the transition between year one and two of the student's progression. The first part involves a series of oral questions from the QEC in which the student is expected to demonstrate a general knowledge of the field of neuroscience, as relevant to their area of research (as defined by their Qualifying Paper). This constitutes the first hour of the two-three hour exam. During the second part, the student will orally deliver a brief (20-30 minute) slide presentation explaining their Qualifying Paper. In the third part, the student is expected to defend their proposal to the QEC by answering questions related to the Paper, and/or to revisit issues discussed in the first part.

The Doctoral Dissertation Proposal

Aim of the Proposal

Upon successful completion of the qualifying examination, the student prepares for admission into Ph.D. candidacy. While the qualifying exams assess the student's basic skills, the Dissertation Proposal formulates the basis and foundation of the doctoral student's dissertation research. The proposal and its oral defense is meant to assess whether the student has formulated a logical and rigorous research plan, has an in-depth knowledge of their chosen field of neuroscience, and has the ability to carry out their dissertation research project. For students who pass the qualifying examinations in the late summer/early

fall of their first/second year transition, this first review of the written proposal by the Dissertation Committee must occur by the end of the fall semester of the third year. Students are expected to advance to candidacy by the end of their second year. For students who pass their qualifying exams at another time, the meeting and proposal defense must occur within three months following successful completion of the oral qualifying exam. Petitions for extension of these deadlines must be made to the Graduate Advisor within two months of passing the qualifying examination.

Dissertation Committee

The student in consultation with their faculty supervisor and the Graduate Advisor must form a Dissertation Committee after passing the qualifying exam. The committee must consist of at least five members, three of whom must be INS GSC faculty, including the faculty supervisor, with at least one member of the committee from outside the student's major area of neuroscience. The Graduate Advisor and GSC Chair, prior to submission of the Dissertation Proposal, must approve the committee. As part of the Admission to Candidacy, the Dean of the Office of Graduate Studies officially appoints the committee to advise and guide the student in pursuit of their research program and writing of the final dissertation.

The Dissertation Proposal

The Dissertation Proposal must follow the format and guidelines set forth for the Specific Aims and Research Strategy (and Bibliography / Referenced Cited) sections of pre-doctoral National Research Service Awards from the National Institutes of Health. At the time of writing, the Specific Aims were 1 page, and the Research Strategy was 6 pages. Please see the links below for additional detail, and consult the Graduate Advisor for additional detail. Note that the GA typically hosts a workshop well in advance to provide current information and more detailed advice.

<https://grants.nih.gov/grants/how-to-apply-application-guide/forms-d/fellowship-forms-d.pdf>

<https://grants.nih.gov/grants/how-to-apply-application-guide/format-and-write/page-limits.html>

It is wholly expected and encouraged that the development of the Dissertation Proposal will overlap or synergize with other writing efforts, including the preparation of an external fellowship application and/or work on such documents during a grant-writing course.

The student is expected to consult closely with their faculty supervisor to design their research project and compose the written proposal. With the agreement of their faculty supervisor, a student may adapt any part of their qualifying examination proposal in their initial proposal submission to their committee. The proposal must be submitted to each member of the dissertation committee at least two weeks prior to the committee meeting.

The Oral Presentation

The format, length and detail of the oral presentation of the dissertation proposal will be at the discretion of the student's faculty supervisor and in consultation with the Dissertation Committee.

Ph.D. Candidacy

Admission to Candidacy

Admission to candidacy requires that the student has passed the qualifying examination, submitted and successfully defended his/her dissertation proposal to the Dissertation Committee, and submitted the electronic Application for Doctoral Candidacy to the Office of Graduate Studies. This application requires the official nomination of a dissertation committee and a one-page, written dissertation abstract sent to the Graduate Advisor, the faculty supervisor, the GSC Chair, and finally approved by the OGS. After doctoral candidacy admission, the student must be continuously enrolled in the appropriate dissertation courses: NEU X99R for the first semester, and subsequently NEU X99W until the date of graduation.

(note: the “X” signifies either 3, 6, or 9 credit hours, depending on the student’s registration requirements). It is strongly urged that students be admitted to candidacy within 2.5 years following initial matriculation.

The Doctoral Dissertation

When research is sufficiently advanced, the student begins writing the dissertation in conformity with the regulations of the Office of Graduate Studies (OGS) and in the format stipulated by the Institute for Neuroscience. Visit the OGS Electronic Dissertation website <http://www.utexas.edu/ogs/etd/index.html> for their policies regarding this requirement, and consult with the Graduate Advisor about the INS format. Students should discuss with their Dissertation Committees the implications for publication and intellectual property issues in light of the electronic dissertation version requirement.

The dissertation must result from independent investigation by the student and be an original contribution of scholarship and knowledge in the candidate's major area, approved by the Dissertation Committee. If disagreement occurs, the committee may request that the Dean of the OGS appoint a sub-committee to evaluate the dissertation. The student must submit an unbound copy of the dissertation in final form to the faculty supervisor and members of the Dissertation Committee at least two weeks before the date of the final dissertation defense.

Final Oral Examination (Dissertation Defense)

The student must submit to the Office of Graduate Studies the Request for Final Oral Examination at least two weeks prior to the scheduled date of the defense. The request must be signed by each member of the Dissertation Committee and be filed in the Graduate School along with the vita, abstract, and a copy of the Committee Certification signature and title pages for a format check at least two weeks in advance of the defense. The OGS then publishes the time and place for the defense.

At their dissertation defenses students present a one-hour seminar that is open to all members of the public and university community. During the seminar, students explain the background and hypotheses they proposed to test in their research, detail their experimental methodology and data analysis and discuss the results and conclusions they reached. After questioning from the general audience has concluded, the student meets privately with his or her committee during which time the student may be questioned on any aspect of the dissertation and general research area related to the dissertation. At the conclusion of the questioning the student and the faculty supervisor are asked to leave the room and the committee discusses the dissertation and performance of the student in the seminar and during the closed question and answer portion of the exam. The committee outcome can be a pass (indicating that both the defense and dissertation are acceptable); reconsideration (indicating that extensive revision of the dissertation, and/or additional experiments, are necessary, but that the committee is willing to re-evaluate the revised document without requiring another oral examination); not pass (indicating that the dissertation must be re-written, perhaps with additional experiments, and another oral defense scheduled) or fail (indicating that at least one member of the committee has decided that the dissertation is unsatisfactory and may not be rewritten). If the student passes the committee members sign their approval on the Committee Certification signature page and the student applies for graduation. The faculty supervisor may be asked to rejoin the committee to discuss the outcome of the defense prior to informing the student.

Expected Time to Obtain Ph.D. Degree

Generally, it takes 5 years from the first date enrolled to complete the doctoral degree, however this may vary depending on student motivation, research progress, mentoring, funding for the research project, state of equipment and research materials needed.

Submission and Publication of Dissertation

After successfully completing the dissertation defense and making any final revisions stipulated by the committee, the student is required to electronically submit the dissertation for publishing and archiving to PROQUEST/UMI Dissertation Services in Ann Arbor, MI. An unsigned copy of the Committee Certification form, with the members' names, must be included in the electronic dissertation. In addition, refer to the Checklist for Final Submission of Dissertation or Treatise for your graduating semester for additional paperwork that you are required to submit to the Graduate School for graduation.

Completion of Required Graduate School Forms

The student is responsible for completing all required forms and applications by their specified deadlines. For questions about these procedures, consult the Graduate Coordinator or the Graduate Adviser.

Duplicating and Binding

Students may order bound hardcopies of the final dissertation through PROQUEST/UMI at the time of electronic submission of the final dissertation. Additional copies may also be ordered after electronic submission is completed.

Commencement Exercises and Diploma

The doctorate is awarded at the Commencement exercises following the successful completion of all requirements of the degree. The diploma is sent within three to six months after graduation. Degrees are awarded at the end of the fall and spring semesters and the summer session. Formal Commencement exercises are held only at the end of the spring semester.

Copyright Regulations

If copyrighted material is used in the dissertation, the student must get the written permission of the copyright owner. Microfilming is the same as publication and the writer is responsible for any copyright material in the published thesis or dissertation. The student must sign a disclaimer against any harm to The University should a copyright holder sue when the student has used the copyrighted material of another person in the dissertation without appropriate permission. Thus, the graduate student should adhere to copyright laws. Copyright laws also apply to computer software, and students are expected to obtain legal copies of all software used in their work. (see dissertation NOTE above)

Definition of (and criteria for) “good standing” in the Ph.D. program

When the handbook, Graduate Advisor, or INS Director refer to “good standing” of a student in the program, they are referring to the following criteria. Students not in good standing will be referred to the Director for a discussion of their status and to develop a course of action.

- a) all years: satisfactory completion of coursework (maintenance of a 'B' grade point average— at least a 3.0 GPA— for all upper-division and graduate courses taken each semester, with at least a “B” in the required Principles of Neuroscience courses)
- b) Year 1: by end of summer, statement of commitment from a lab / PhD advisor, and passing of qualifying exam (or early Fall second year, see above for details).
- c) Year 2: Students are expected to advance to candidacy by the end of their second year.
- d) Year 3: submission of a significant extramural fellowship application by the end of the year

- e) Year 3: admission to candidacy by end of summer semester
- f) No findings of academic dishonesty (e.g., plagiarism)

Registration and courses

Registration each semester is the student's responsibility and is done electronically at <http://www.utexas.edu/student/registrar/registration/>. Graduate students must register for at least 9 hours in fall and spring semesters and at least 3 hours in the summer. Be sure and confirm your registration or it will be cancelled.

Adds, Drops, and Changing Grade Status

Once you have registered each semester, there is a time period in which you may change your courses. Specific dates and information are available in the Graduate Coordinator's office and in the official course schedule. In general, the Graduate School has put the following policies into effect:

- **Whether a course is to be taken as Credit/No Credit should be decided at the time of registration. Any request for changes after the 12th class day requires a special petition from the Graduate Advisor to the Graduate Dean.**
- **Adds/Drops can be initiated in the Graduate Coordinator's Office.**

Dropping a course at the end of the semester to prevent receiving a low grade will not be allowed. Assigning an X for the same reason will also not be allowed.

Graduate School Academic and Registration Policies and Resources
(http://www.utexas.edu/ogs/student_services/academic_policies/)

Grades

Course credit is given in the Graduate School for the grades 'A', 'B', and 'C' and for the symbol 'CR' (credit). Every semester hour of 'C', however, must be balanced by one of A, because the degree candidate is required to present an overall average of 'B' at the end of the program of study. Only upper-division and graduate level courses taken while in graduate status at The University of Texas at Austin, or courses reserved-for-graduate-credit taken at UT-Austin in the last semester prior to graduation, (except Thesis and Dissertation courses NEU 698AB and x99R & W), are counted in the average. Faculty are not required to use plus/minus grading, but many do.

In some courses the symbol 'CR' is given. Courses taken on a Credit/No Credit basis are not computed in the grade point average. No more than 20 percent of the credit hours submitted for any Ph.D. degree may be taken on a Credit/No Credit basis.

The symbol 'X' may be reported in cases where the student has not completed all the work assigned in a course before its conclusion. Upon completion of the required work, the instructor, with the approval of the Graduate Dean's Office may convert the 'X' into a letter grade, if such conversion is made within one long semester after the filing of the 'X'. If no such change is made within this time, the symbol 'X' will be converted to an 'I' and it will remain on the student's record as a permanent incomplete. The incompletes can include 'X's, 'I's or any combination.

Course Load

The maximum course load for a graduate student is 15 semester hours (9 semester hours in a summer session). Registration in excess of these maxima must have the recommendation of the Graduate Advisor and approval of the Graduate Dean, and will be permitted only under exceptional circumstances. If The University employs the student as a teaching assistant, research assistant, or academic assistant, the course load must be reduced correspondingly. The student should consult the supervising professor or Graduate Advisor about combined course and workloads. The University recognizes 9 hours as a minimum full-time load during the long semester and 3 hours during the summer session. A full-time program involves taking the full-time course load, of which a portion may consist of courses relating to the student's teaching or research duties.

Grievance Procedure for Graduate Students

The Graduate Guide Information Handbook of the University of Texas describes grievance procedures. Ordinarily, grievances between students and instructors are resolved informally. If such efforts fail, the Graduate Advisor and/or Chair of the Graduate Studies Committee in Neuroscience, will consider the matter. (Refer to the Graduate Guide, Information Handbook for details of the procedure. The Handbook is available in the Graduate School Office).

Outside Employment

Outside employment is prohibited by internal and external funding agencies.

The 99 Hour Rule

The "99 hour rule" refers to the implementation of State law SB 961, passed by the 75th Legislature. This rule makes those students at UT Austin with over 99 doctoral hours subject to the payment of nonresident tuition.

For students entering Fall 1999 or later: Texas residents and nonresidents who normally would be entitled to pay resident tuition by virtue of work appointments or fellowships might wonder whether they would be affected by the 99-hour rule (i.e., whether they will reach the point at which the payment of nonresident tuition becomes mandatory). For most students, the answer is "no." An average student will be able to study at UT Austin full-time for seven complete academic years, and the six intervening summers, before being affected by the 99-hour rule. For students staying beyond seven years, in a number of cases there is still the possibility of a programmatic or individual exemption from the rule. Questions can be addressed to Associate Dean John Dollard, Office of Graduate Studies, G0400, University of Texas, Austin, TX, 78712. Phone: (512) 232-3604.

Additional Important Information

Training in Ethics and the Responsible Conduct of Research

Students are expected to participate in 3 steps of Ethics training: (1) attendance at the Bootcamp's "Ethics" module; (2) taking an approved Ethics course in the first or second year (preferably first); and (3) participating in an Ethics "refresher" in their fourth year in the program (typically, playing a senior role in the Bootcamp Ethics module, but other arrangements can be made to suit individual students).

Policies on the Use of Animals in Neuroscience Research

Each student should read the expanded form of this statement at:

<http://www.sfn.org/pubs/policy.html>

Responsibility for Humane Research

The Society for Neuroscience, as a professional society for basic and clinical researchers in neuroscience, endorses and supports the appropriate and responsible use of animals as experimental subjects. Knowledge generated by neuroscience research on animals has led to important advances in the understanding of diseases and disorders that affect the nervous system and in the development of better treatments that reduce suffering in humans and animals. This knowledge also makes a critical contribution to our understanding of ourselves, the complexities of our brains and what makes us human. Continued progress in understanding how the brain works and further advances in treating and curing disorders of the nervous system require investigation of complex functions at all levels in the living nervous system. Because no adequate alternatives exist, much of this research must be done on animal subjects. The Society takes the position that neuroscientists have an obligation to contribute to this progress through responsible and humane research on animals.

General Principles

The following principles, based largely on the PHS Policy on Humane Care and Use of Laboratory Animals, are a useful guide to designing and implementing experimental procedures involving laboratory animals.

Proper use of animals, including the avoidance or minimization of discomfort, distress and pain, is imperative. Procedures with animals that may cause more than momentary or slight pain or distress should be performed with appropriate sedation, analgesia or anesthesia. Surgical or other painful procedures should not be performed on anaesthetized animals paralyzed by chemical agents. Postoperative care of animals should minimize discomfort and pain and, in any case, should be equivalent to accepted practices in schools of veterinary medicine.

Animals that would otherwise suffer severe or chronic pain or distress that cannot be relieved should be painlessly killed at the end of the procedure or, if appropriate, during the procedure. If the study requires the death of the animal, the animal must be killed in a humane manner.

Living conditions should be appropriate for the species and contribute to the animals' well being. Normally, the housing, feeding and care of all animals used for biomedical purposes must be directed by a veterinarian or other scientist trained and experienced in the proper care, handling and use of the species being maintained or studied. In any case, appropriate veterinary care should be provided.

Exceptions to these principles require careful consideration and should only be made by an appropriate review group such as an institutional animal care and use committee.

Access to Building and Laboratories

Upon arrival, the Graduate Coordinator will issue students access cards and keys to the appropriate buildings. You should not let anyone into the buildings, or bring friends in with you. Unauthorized people who are in the building after building hours should be reported immediately to

the UT Police at 471-4441. Do not prop any doors open, because this may cause an alarm to activate and makes the buildings vulnerable to thieves.

Research Laboratories and Related Facilities

The neuroscience graduate student has access to the laboratory where the research work is to be done. With the approval of the faculty supervisor (and approval of other laboratory supervisors as applicable), the student may be able to use equipment in other research and teaching laboratories. It is necessary for the student to check with the faculty member in charge and familiarize themselves (or be taught) the proper use of any equipment to be used. Check with your supervising professor in advance of using any apparatus, if at all in doubt.

Safety

Safety is of paramount concern in laboratories. Students are required to receive all necessary training and certifications as necessary by the Environmental Health and Safety office. These courses include the following:

- **Hazard Communication (General) - 1 hour**
- **Laboratory Safety - 1.5 hours**
- **Fire Extinguisher Use - 1 hour**
- **Hazard Communication (Site-Specific) - to be given by lab supervisor**

Students working with radioactive or biohazardous materials should attend the appropriate classes offered by the Safety Office to become familiar with the regulations regarding their use at The University of Texas at Austin. No eating or drinking is allowed in laboratories that have been cleared for use of radioactivity or biohazardous materials. Proper professional conduct is required in the laboratory at all times.

If a graduate student is injured while working in the research laboratory, the student should report to the Student Health Center for treatment. A written report should be made within 24 hours to both the supervising professor and the Dean's Office. This report should detail the time, date, place, and circumstances of the accident.

Laboratory coats can be obtained through your supervising professor and should be worn. Closed shoes are recommended. The UT Safety office does not approve sandals as appropriate footwear for the laboratory.

Visual aids and data presentation

The student should become familiar with specific recommendations made by the Graduate School, the editors of journals, and the faculty supervisor before preparation of graphs, tables, photographs, etc. A good working knowledge of word processing, graphic design, statistical, and presentation programs are necessary to produce professional looking publications and presentations.

Graduate Student Organizations

The Graduate Student Assembly represents all Graduate Students and each department has one student representative. If you wish to serve as the Neuroscience representative please contact the Graduate Coordinator. The web page for the GSA is:
<http://www.utexas.edu/students/gsa/>

The Neuroscience Graduate Students' Association (NGSA) is a student organization for those graduate students interested in Neuroscience. More information may be found on their web page: <http://www.utexas.edu/students/ngsa/index.html>

Frequently Asked Questions

For which classes should I register?

As part of the Orientation program there is a separate advising session. You will be advised on which general classes to take and also given a list of related courses. You should discuss with your mentor which courses would best fit with your individual area of study. Thereafter, the annual Progressions Committee meeting is an excellent time to discuss course choices with the Advisors.

May I take an undergraduate course?

Yes, but it will not count towards your GPA or your required number of Graduate hours.

How do I apply for a grant or fellowship?

Neuroscience graduate students are required to submit a predoctoral grant or fellowship application in their second or third year. The Office of Graduate Studies publishes a book on available funding sources; they also hold a workshop in the spring on Grant writing. In the fall of each year they have a Fellowship Fair and they include a seminar on how to apply for an NSF Fellowship. In addition there are small summer fellowships and professional development fellowships for which you may apply. An excellent web site to visit is: Grantsnet: <http://www.grantsnet.com/>. Each spring the Department is allowed to submit a limited number of nominations for University Continuing Fellowships. They are highly competitive and the Graduate Coordinator will notify you if the Executive Committee has chosen you as its nominee.

Are there benefits?

All Neuroscience graduate students who are in good standing receive student health insurance and tuition assistance as part of their guaranteed stipend. Students are required to submit a predoctoral fellowship application and to participate in a least one semester of teaching assistantship during their program and funds for additional tuition assistance and/or additional health insurance may be provided with the award of certain fellowships or teaching assistantships.

Am I allowed to change supervising professors or laboratories if I've already started working in a particular lab? If so, what is the process for carrying this out?

Students are encouraged to choose a lab as soon as possible in which they will carry out the bulk of their research while they are here. Usually this happens by the end of the first year. It is not uncommon for students to change labs or supervising professors after this point. There are many legitimate reasons for this including a change in research interest of the student or supervisor, personality conflicts that may arise between the student and supervisor, or loss of funding for a project. There is no penalty to the student for changing labs or supervisors. However, the student should realize that it is likely that the research project will change, and this will probably lead to a delay in research progress while new techniques required for the new project are acquired.

The Graduate Advisor and Graduate Coordinator are available to help with this type of transition. If a student wants to explore this option, it is the student's responsibility to talk with other potential laboratories or supervisors. It is possible that no other faculty mentor will accept a student, and in this case, the options are to stay with the original lab or to withdraw from the program. In any case, it is advisable to discuss the options with the current supervisor as soon as possible to insure a smooth transition.

Can I get a Master's degree?

The Ph.D. program only offers a terminal master's degree, and only in instances approved by the director. Approved master's degree candidates are required to have completed the first 2 years of coursework, and to produce a written thesis of at least 25 pages (single spaced, not including bibliography) under the advisement of an INS member, and with the INS Director and Graduate Advisor as additional readers.

Can I get a short-term loan?

Short-term loans for Tuition or Emergency Cash are available through TEX phone system to UT Austin students enrolled at least half time. Tuition loans are for up to the amount of tuition only. Repayment is due depending on the time you take out the loan in the semester. You may call TEX at 475-9950 and select option 33. You must go to the University Cashier's office within 24 hours and sign a promissory note. Questions? Call 475-6282. International students should call the International Office at 471-1211

How will I receive my grades?

Grades are no longer mailed to students automatically. To view your final grades or to request that a printed grade report be sent at the end the semester go to:
<http://www.utexas.edu/studetn/reistrar/grades/>.

How do I obtain a transcript?

Transcripts may be ordered at the Registrar's Office Main Building Room 1 or online at: www.utexas.edu/student/registrar/transcripts. A UTEID is required. The fee for transcripts is currently \$10.00.

When will I get paid?

Students receive their stipend paycheck at the beginning of each month.